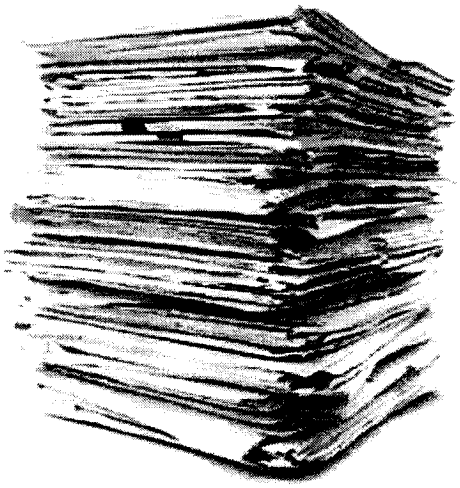

BULKY DOCUMENTS

(Exceeds 300 pages)

Proceeding/Serial No: 91184197

Filed: 08-21-2009

Title: Applicant's Notice of Reliance

Part 1 of 1

Processed by Duane Foster

MR2349-1569/OPP

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AUG 2 1 2009
PATENT & TRADEMARK OFFICE

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE TRADEMARK TRIAL AND APPEAL BOARD

United Parcel Service of America, Inc.,	:	
Opposer	:	Opposition No. 91184197
v.	:	
Powertech Industrial Co., Ltd.,	:	
Applicant		

TTAB

APPLICANT'S NOTICE OF RELIANCE

Applicant, Powertech Industrial Co., Ltd. pursuant to Trademark Rules of Practice 2.122(d)(2) and 2.122(e), hereby gives notice to Opposer, United Parcel Service of America, Inc., that it offers and intends to rely upon the following evidence at trial:

(1) A true and correct copy of Applicant's Answer to Notice of Opposition including Exhibits A-NN as attached to Applicant's Answer to Notice of Opposition;

(2) A true and correct copy of Applicant's Answer to Opposer's First Set of Interrogatories to Applicant;

(3) A true and correct copy of Applicant's Response to Opposer's First set of Admissions;

(4) A true and correct copy of Applicant's Answer to Opposer's First Request to Applicant for Production of Documents and Things including Exhibits Bates Nos. 000001-000144;

08-21-2009

(5) A true and correct copy of Bates No. Pages 000145-000147 of the Merriam-Webster's Collegiate Dictionary-11th Edition;

(6) A true and correct copy of Bates No. Pages 000148-000152 from the American National Standard IEEE Standard Dictionary of Electrical and Electronic Terms-3rd Edition;

(7) A true and correct copy of Bates No. Pages 000153-000154 taken from an internet website entitled www.upsforless.com;

(8) A true and correct copy of Bates No. Pages 000155-000156 taken from an internet website entitled www.falconups.com;

(9) A true and correct copy of Bates No. Pages 000157-000165 taken from an internet website entitled www.direction.com;

(10) A true and correct copy of Bates No. Pages 000166-000171 taken from an internet website entitled www.apc.com;

(11) A true and correct copy of Bates No. Pages 000172-000173 taken from an internet website entitled www.minutemanups.com;

(12) A true and correct copy of Bates No. Pages 000174-000190 taken from an internet website entitled www.jetcafe.org.

Respectfully submitted,

8/20/09
Dated

Morton J. Rosenberg

8/20/09
Dated

Samuel L. Gompers
Rosenberg, Klein & Lee
3458 Ellicott Center Drive, Suite 101
Ellicott City, MD 21043
Tel: 410-465-6678
Fax: 410-461-3067

Attorney for Applicant
POWERTECH INDUSTRIAL CO., LTD.

CERTIFICATE OF SERVICE

It is hereby certified that a true and correct copy of the foregoing "Applicant's Notice of Reliance" was served this day by first class postage prepaid upon counsel for Opposer, Stephen M. Schaetzel, Esquire, KING & SPALDING LLP, 1180 Peachtree Street, N.E., Atlanta, GA 30309-3521, sschaetzel@kslaw.com.

This 20th day of August, 2009.

Morton J. Rosenberg

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE TRADEMARK TRIAL AND APPEAL BOARD

UNITED PARCEL SERVICE OF AMERICA, INC.,	:
Opposer,	: Opposition No. 91184197
v.	: Serial No. 77/176,134
POWERTECH INDUSTRIAL CO., LTD.,	:
Applicant	:

APPLICANT'S ANSWER TO NOTICE OF OPPOSITION

Applicant, Powertech Industrial Co., Ltd., by the undersigned attorney, hereby answers each of the allegations in the Notice of Opposition made by Opposer.

(1) Applicant is without knowledge or information to form a belief as to the allegations of the Opposer in Paragraph 1 of the Notice of Opposition and therefore denies same.

(2) Applicant is without knowledge or information to form a belief as to the allegations of the Opposer in Paragraph 2 of the Notice of Opposition and therefore denies same.

(3) Applicant is without knowledge or information to form a belief as to the allegations of the Opposer in Paragraph 3 of the Notice of Opposition and therefore denies same.

(4) Applicant admits in part and denies in part the allegations made in Paragraph 4 of the Notice of Opposition. Applicant admits that a search of the

website of the U.S. Patent and Trademark Office lists Registration Nos. 514,285 (Exhibit A attached); 966,774 (Exhibit B attached); 1,277,400 (Exhibit C attached); 1,375,109 (Exhibit D attached); 1,460,348 (Exhibit E attached); 1,874,248 (Exhibit F attached); 1,876,943 (Exhibit G attached); 1,878,016 (Exhibit H attached); 1,878,918 (Exhibit I attached); 2,098,168 (Exhibit J attached); 2,128,739 (Exhibit K attached); 2,278,090 (Exhibit L attached); 2,582,489 (Exhibit M attached); 2,830,249 (Exhibit N attached); 2,483,193 (Exhibit O attached); 3,160,062 (Exhibit P attached); 2,520,558 (Exhibit Q attached); and 2,973,108 (Exhibit R attached) as being registered by United Parcel Service of America, Inc., however, Applicant is without knowledge or information as to the current state of ownership of these Registrations and therefore denies same. Additionally, Applicant is without knowledge or information to form a belief as to the present validity and status of these listed Trademark Registrations and therefore denies same.

(5) Applicant is without knowledge or information to form a belief as to the allegations of the Opposer in Paragraph 5 of the Notice of Opposition and therefore denies same.

(6) Applicant is without knowledge or information to form a belief as to the allegation of the Opposer in Paragraph 6 of the Notice of Opposition and therefore denies same.

(7) Applicant is without knowledge as to the "information and belief" of the Opposer with relation to other parties using the Federal Registered Marks

complained of that are the same or substantially similar to Opposer's marks for the same or substantially similar services and therefore denies the allegations made in Paragraph 7 of the Notice of Opposition and leaves the Opposer to its proofs.

(8) Applicant admits the allegations alleged in Paragraph 8 of the Notice of Opposition.

(9) Applicant has found no other mark in use for Applicant's goods directed to Applicant's mark "HYBRID GREEN UPS" and based upon the constructive use of the mark with respect to Applicant's filing date before the U.S. Patent and Trademark Office of 9 May 2007, denies the allegations in Paragraph 9 of the Notice of Opposition.

(10) Applicant is without knowledge or information to form a belief as the allegations of the Opposer in Paragraph 10 of the Notice of Opposition and therefore denies same.

(11) Applicant is without knowledge or information to form a belief as to the allegations of the Opposer in Paragraph 11 of the Notice of Opposition and therefore denies same.

(12) Applicant denies the allegations made by the Opposer in Paragraph 12 of the Notice of Opposition.

(13) Applicant denies the allegations made by the Opposer in Paragraph 13 of the Notice of Opposition.

(14) Applicant denies the allegations made by the Opposer in Paragraph 14 of the Notice of Opposition.

(15) Applicant is without knowledge or information to form a belief as to the allegations of the Opposer in Paragraph 15 of the Notice of Opposition with regard to Opposer's allegation that the UPS mark is "famous", and therefore denies same. Applicant denies the allegations made in Paragraph 15 of the Notice of Opposition with respect to Opposer's allegation that Applicant's goods would cause dilution of the quality of Opposer's UPS mark.

(16) Applicant is without knowledge or information to form a belief as to the allegations of the Opposer in Paragraph 16 of the Notice of Opposition and therefore denies same.

(17) Applicant admits in part and denies in part the allegations made in Paragraph 17 of the Notice of Opposition. Applicant admits that Applicant's application, Serial No. 77/176,134, was filed on 9 May 2007. Applicant is without knowledge or information to form a belief as to the allegations of the Opposer in Paragraph 17 of the Notice of Opposition relating to Opposer's statement that Applicant's application would be subject to the provisions of Section 13 and 43(c) of the Lanham Act, as amended, and therefore denies same.

(18) Applicant denies the allegations made in Paragraph 18 of the Notice of Opposition.

(19) Applicant admits in part and denies in part the allegations made in Paragraph 19 of the Notice of Opposition. Applicant admits that Applicant's registration of Applicant's mark would constitute *prima facie* evidence of Applicant's exclusive right to use Applicant's designation for and in connection

with Applicant's goods. Applicant denies Opposer's allegation that Opposer will be damaged by the registration sought by Applicant in Paragraph 19 of the Notice of Opposition. Applicant denies that Applicant's registration of Applicant's application would be inconsistent and detrimental to Opposer's alleged prior, established and superior rights in the UPS mark.

FURTHER DEFENSES

(20) Applicant, in the following paragraph provides the TTAB some defenses which respond to Opposer's allegations made in the Notice of Opposition. Applicant reserves the right to develop further defenses during the Discovery Phase of the Opposition.

(21) Applicant filed the subject trademark application, Serial No. 77/176,134 in the U.S. Patent and Trademark Office on 9 May 2007. The subject trademark application was filed in International Class 9 for "power supplies; mobile phone chargers; mobile phone charger stations; battery chargers; UPS power supplies; power saving adapters; power source storages; uninterruptible power supplies (UPS); AC/DC converters; power source stable adapters".

It was clear from the Identification of the Goods that the "UPS" referred to uninterruptible power supplies (also commonly referred to uninterruptible power supplies).

In an interview held with the Trademark Examining Attorney, the Trademark Examining Attorney indicated that Applicant is required to disclaim the "UPS" apart from the mark as shown which was agreed to by Applicant.

In the Official Action dated 23 August 2007, the Trademark Examining Attorney at the U.S. Patent and Trademark Office suggested the Identified of the Goods to read: "power supplies; mobile phone battery chargers; mobile phone battery charger stations; battery chargers; universal power supplies;

power saving adapters; electric storage batteries; uninterruptible power supplies; AC/DC converters; power source stable adapters."

Applicant agreed to the suggested wording by the Trademark Examining Attorney of the U.S. Patent and Trademark Office and the application was published.

The Trademark Examining Attorney indicated that after a search of the Office Records, that there was no similar registered or pending mark which would bar registration under Trademark Act Section 2(d). Thus, the subject trademark application, after having been searched by the Trademark Examining Attorney, was found to be suitable for registration and not confusingly similar to any registered or pending mark at that time.

(22) Opposer has apparently filed the Notice of Opposition based upon Registration No. 514,285 (Exhibit A); Registration No. 966,774 (Exhibit B); Registration No. 1,277,400 (Exhibit C); Registration No. 1,375,109 (Exhibit D); Registration No. 1,460,348 (Exhibit E); Registration No. 1,874,248 (Exhibit F); Registration No. 1,876,943 (Exhibit G); Registration No. 1,878,016 (Exhibit H); and Registration No. 1,878,918 (Exhibit I), all directed to marks using the letters "UPS" for various transportation and delivery services.

Additionally, the Opposition was apparently further brought based upon Registration No. 2,098,168 (Exhibit J); Registration No. 2,128,739 (Exhibit K); Registration No. 2,278,090 (Exhibit L); Registration No. 2,582,489 (Exhibit M); Registration No. 2,830,249 (Exhibit N); Registration No. 2,483,193 (Exhibit

O); Registration No. 3,160,062 (Exhibit P); Registration No. 2,520,558 (Exhibit Q); and Registration No. 2,973,108 (Exhibit R) which have been registered in at least International Class 9.

The goods associated with the Registrations in International Class 9 are generally directed to computer programs, software and hardware for the printing of shipping documents and invoices as well as tracking the shipped packaged and delivery of personal property.

(23) Applicant's mark is "HYBRID GREEN UPS" and is directed to the entire word mark. A basic and fundamental principle of trademark law is that marks must be compared in their entireties and not dissected. When articulating reasons for reaching a conclusion on the issue of confusion, there may be nothing improper in stating the more or less weight has been given to a particular feature of the mark, however, the ultimate conclusion must rest in the consideration of the marks in their entireties. See *In re National Data Corp.*, 753 Fed. 2d 1056 (Fed. Cir. 1985).

(24) When taken in its entirety, Applicant's mark creates an entirely different commercial and visual impression than Opposer's marks. When making a side-by-side comparison between the marks at issue, it is believed that the visual impression of Applicant's mark and Opposer's Registrations are completely different in appearance and thus, there would be no cause for confusion, or even a determination of similarity between the marks.

In none of the marks cited by the Opposer, is the terminology "GREEN HYBRID" noted or any similar combination of words are seen.

(25) Applicant's mark and Opposer's marks all include the letters "UPS" and Applicant submits that the common portion of the marks at issue, namely, "UPS", is a commonly used acronym standing for "uninterruptible power system" and "universal power supply". This commonly used acronym is used by many third party registrants and further, by numerous parties in the field of power supplies.

A brief check on the internet of "www.acronymfinder.com" (Exhibit S) clearly shows that the letters "UPS" is used descriptively for uninterrupted power sources and uninterrupted power supplies. This terminology of "UPS" has clearly become descriptive in the power supply channels of trade.

Numerous articles relating to power supply systems commonly use the letters "UPS" for such uninterruptible power supplies or universal power supplies as is clearly seen in an article in Wikipedia (Exhibit T). This article, one of many, relates to "UPS technologies" and shows that the letters "UPS" are commonly understood among those in the power supply channels of trade to represent universal power supply or uninterrupted power supply.

A further search on the internet provides for the definition of UPS to be a well known abbreviation for uninterruptible power supply as is evidenced by the Merriam-Webster on-line printout Exhibit U, Compact Oxford Dictionary addressable at askoxford.com as is provided in Exhibit B, encarta.man.com,

Exhibit W, foldoc.org, Exhibit X, webopedia.com, Exhibit Y, yourdictionary.com, Exhibit Z, as well as numerous other websites found on the internet.

(26) Applicant further submits that the common portion of the marks at issue, "UPS", are further inherently weak and that Applicant's use will not give rise to any likelihood of confusion (especially in the channels of trade of Applicant and Opposer). Where common elements of conflicting marks may be words or letters that are weak, this fact reduces the likelihood of confusion. See *Smith v. Tobacco Byproducts & Chemical Corp.*, 243, Fed 2d 188 (CCPA 1957).

(27) "UPS" is a well recognized abbreviation and acronym for "uninterruptible power supply" and "universal power supply." The letters "UPS" and variations thereof are commonly used by many other registrants and sellers in the marketplace. This is evidenced by a number of third party marks registered on the Principal Register which include the letters "UPS" and variations thereof. The undersigned attorney, after making a brief search of the Office Records of the U.S. Patent and Trademark Office, has found a number of marks for the letters "UPS" and variations thereof which have been registered by the USPTO for goods in International Class 009. A representative sampling of the marks found are as follows (copies enclosed):

Exhibit	Mark	Reg. No.	Goods/Services
AA	BACK-UPS	1,689,902	Uninterruptible power supplies
BB	SMART-UPS	1,689,903	Uninterruptible power supplies

CC	UPS PLUS	1,749,282	Electrical and electronic equipment; namely, power supplies, voltage regulators, frequency/voltage converters, uninterruptible power supplies and power supply modules for use with computer systems, industrial control devices, test instrumentation and microprocessor-based devices
DD	MEASURE-UPS	1,811,966	Electronic apparatus for use with uninterruptible power supplies for the purpose of detecting environmental and security anomalies in computer rooms
EE	BACK-UPS PRO	1,921,637	Uninterruptible power supplies (used as a backup power supply) for computers and other sensitive electronic equipment
FF	WINUPS	2,067,751	Computer software, namely software for use in the custom design and configuration of power systems
GG	TELE-UPS	2,703,362	Power protection devices, namely uninterruptible power supplies for use as a backup power supply for computers, telephone systems and other electronic equipment
HH	TACTICAL UPS	3,444,320	Automated process control system, namely, micro-processor based hardware and software, etc., including power supplies and renewable battery system to provide backup power
II	EXTREME UPS	3,444,309	Electrical power distribution units; etc.

JJ	LEV-UPS	2,991,164	Uninterruptible power supply for microprocessor based products
KK	UPS ENHANCER	2,682,042	Voltage sag protectors for use in maintaining operation of sensitive electrical equipment, etc.
LL	MATRIX UPS	2,168,971	Modular uninterruptible power supplies for computers, and other sensitive electronic equipment
MM	BACK-UPS OFFICE	2,106,783	Power protection devices, namely, uninterruptible power supplies for use with computers and other sensitive electronic devices
NN	ROBOT/UPS	1,978,481	Computer programs for automating the shutdown and power-up of computers in response to power failures

(28) The concurrent registration of marks consisting of the letters "UPS", in particularity in International Class 009 and variations thereof, establishes that the United States Patent and Trademark Office recognizes that such a term (especially in the field of power supply systems) is entitled to a relatively narrow scope of protection and that the person who purchases such goods can readily distinguish between the marks containing such letters without any confusion.

(29) A trademark is given protection against use of its mark on any product or services which would reasonably be thought by the buying public to come from the same source. However, there is absolutely no foundation for

suggesting that the buying public would confuse package transit and delivery equipment and uninterruptible power supply hardware.

(30) When making purchasing decisions regarding goods, the reasonably prudent person standard of trademark law is elevated to the standard of the "discriminating purchaser". See *L. J. Mueller Furnace Co. v. United Conditioning Corp.*, 222 Fed. 2d 755, 106 USPQ 112 (CCPA 1955).

(31) Uninterruptible power supplies/universal power supplies and associated goods are undeniably expensive goods and the purchasers of such electrical supplies would be considered "discriminating purchasers" having a high degree of sophistication in their purchasing. A sophisticated consumer would undoubtedly be able to distinguish between highly specialized electrical power supply systems and peripheral equipment with hand-held computers and associated software for package delivery and the uninterruptible power supplies and related hardware of Applicant's mark.

(32) The term "UPS" is well known in the computer and information technology fields as being an abbreviation for "uninterruptible power supply" and "universal power supply". Those who are in the channels of trade related to the goods of Applicant's mark would readily associate the term "UPS" with uninterruptible power supply and not with any hardware associated with the delivery related goods and services of Opposer.

WHEREFORE, having made full answer to the Notice of Opposition, Applicant prays that the Opposition be dismissed.

For: ROSENBERG, KLEIN & LEE

6/24/08
Dated

Morton J. Rosenberg, Esq.
Registration No. 26,049
Attorney for Applicant

3458 Ellicott Center Drive, Suite 101
Ellicott City, MD 21043
Tel: 410-465-6678

CERTIFICATE OF SERVICE

The undersigned attorney hereby certifies that a copy of the foregoing Applicant's Answer to Notice of Opposition was served on the Opposer by mailing a true copy thereof by first class postage, prepaid, to: Stephen M. Schaetzel, King & Spalding LLP, 1180 Peachtree Street, N.E., Atlanta, Georgia 30309-3521, on this 24TH day of June 2008.

Morton J. Rosenberg, Esq.

Registered Aug. 23, 1949

Registration No. 514,285

PRINCIPAL REGISTER
Service Mark

UNITED STATES PATENT OFFICE

United Parcel Service of America, Inc.,
Wilmington, Del.

Act of 1946

Application September 2, 1947, Serial No. 533,084

(Statement)

United Parcel Service of America, Inc., a corporation duly organized under the laws of the State of Delaware and located at 100 West 10th Street, Wilmington, Delaware, has adopted and of itself and through its subsidiaries, is using the service mark shown in the accompanying drawing, for MOTOR VEHICLE DELIVERY SERVICE FOR RETAIL STORES, in Class 55, Services, and presents herewith five specimens showing said service mark as actually used in connection with the sale of such services; said service mark being used by applying it to building fronts, motor vehicle bodies, literature, stationery, business forms and business cards; and requests that the same be registered in the United States Patent Office on the Principal Register in accordance with the act of July 5, 1946.

The service mark was first used in 1933, and first used in the sale or advertising of services and the services rendered in commerce among the several States which may lawfully be regulated by Congress in 1933.

All wording appearing in the drawing of the mark including the words "Since 1907," but excepting the letters "U P S," are disclaimed apart from the mark as shown.

(Declaration)

Paul Oberkotter, being duly sworn, deposes and says that he is the secretary of the corporation, the applicant named in the foregoing statement; that he believes the foregoing statement to be true; that he believes said corporation is the owner of the service mark sought to be registered and which is used in interstate commerce, and that no other person, firm, corporation or association other than its own subsidiaries, to the best of his knowledge and belief, has the right to use such mark in commerce which may lawfully be regulated by Congress either in the identical form thereof, or in such near resemblance thereto as might be calculated to deceive; that the drawing and description truly represent the service mark sought to be registered; and that the booklet entitled, "A Good Idea and How it Grew," copies of which are submitted herewith, show the service mark as actually used in connection with the sale of services.

UNITED PARCEL SERVICE
OF AMERICA, INC.,
By PAUL OBERKOTTER,
Secretary.

EXHIBIT A

Int. Cl.: 39

Prior U.S. Cl.: 105

United States Patent and Trademark Office

Renewal

Reg. No. 514,285
Registered Aug. 23, 1949
OG Date Oct. 17, 1989

SERVICE MARK
PRINCIPAL REGISTER

UNITED PARCEL SERVICE OF AMERICA, INC. (DELAWARE CORPORATION)
GREENWICH OFFICE PARK 5
51 WEAVER STREET
GREENWICH, CT 06836

ALL WORDING APPEARING IN THE DRAWING OF THE MARK INCLUDING THE WORDS "SINCE 1907," BUT EXCEPTING THE LETTERS "U P S," ARE DISCLAIMED APART FROM THE MARK AS SHOWN.

FOR: MOTOR VEHICLE DELIVERY SERVICE FOR RETAIL STORES, IN CLASS 105 (INT. CL. 39).

FIRST USE 0-0-1933; IN COMMERCE 0-0-1933.

SER. NO. 533,084, FILED 9-2-1947.

In testimony whereof I have hereunto set my hand and caused the seal of The Patent and Trademark Office to be affixed on Oct. 17, 1989.

COMMISSIONER OF PATENTS AND TRADEMARKS

EXHIBIT A

United States Patent Office

966,774
Registered Aug. 21, 1973

PRINCIPAL REGISTER
Service Mark

Ser. No. 431,799, filed Aug. 4, 1972

UPS

United Parcel Service of America, Inc. (Delaware corporation)
643 W. 43rd St.
New York, N.Y. 10036

For: TRANSPORTATION OF PERSONAL PROPERTY FOR HIRE BY DIVERSE MODES OF TRANSPORTATION, in CLASS 105 (INT. CL. 39).
First use 1933; in commerce 1933.
Owner of Reg. Nos. 514,285 and 735,064.

EXHIBIT B

Int. Cl.: 39

Prior U.S. Cl.: 105

United States Patent and Trademark Office

10 Year Renewal

Reg. No. 966,774

Registered Aug. 21, 1973

Renewal Term Begins Aug. 21, 1993

SERVICE MARK
PRINCIPAL REGISTER

UPS

UNITED PARCEL SERVICE OF AMERICA, INC. (DELAWARE CORPORATION)
400 PERIMETER CENTER-TERRACE NORTH
ATLANTA, GA 30346

OWNER OF U.S. REG. NOS. 514,285 AND 735,064.

FOR: TRANSPORTATION OF PERSONAL PROPERTY FOR HIRE BY DIVERSE MODES OF TRANSPORTATION, IN CLASS 105 (INT. CL. 39).

FIRST USE 0-0-1933; IN COMMERCE 0-0-1933.

SER. NO. 72-431,799, FILED 8-4-1972.

In testimony whereof I have hereunto set my hand and caused the seal of The Patent and Trademark Office to be affixed on Aug. 24, 1993.

COMMISSIONER OF PATENTS AND TRADEMARKS

EXHIBIT B

Int. Cl.: 39

Prior U.S. Cl.: 105

United States Patent and Trademark Office

Reg. No. 1,277,400
Registered May 8, 1984

SERVICE MARK
Principal Register

United Parcel Service of America, Inc. (Delaware corporation)
Greenwich Office Park 5
51 Weaver St.
Greenwich, Conn. 06830

For: MOTOR VEHICLE AND AIR TRANSPORTATION OF PERSONAL PROPERTY, in CLASS 39 (U.S. Cl. 105).

First use Sep. 20, 1982; in commerce Sep. 20, 1982.

Owner of U.S. Reg. Nos. 735,064, 1,121,927 and others.

No claim is made to the exclusive right to use the words "2nd Day Air", apart from the mark as shown.

Ser. No. 402,340, filed Nov. 12, 1982.

H. M. FISHER, Examining Attorney

EXHIBIT C

Int. Cl.: 39

Prior U.S. Cl.: 105

Reg. No. 1,375,109

United States Patent and Trademark Office

Registered Dec. 10, 1985

SERVICE MARK
PRINCIPAL REGISTER

UNITED PARCEL SERVICE OF AMERICA, INC. (DELAWARE CORPORATION)
51 WEAVER ST.
GREENWICH OFFICE PARK 5
GREENWICH, CT 06830

FOR: MOTOR VEHICLE AND AIR TRANSPORTATION OF PERSONAL PROPERTY, IN CLASS 39 (U.S. CL. 105).
FIRST USE 9-20-1982; IN COMMERCE 9-20-1982.

OWNER OF U.S. REG. NOS. 735,064 AND 1,121,927.

NO CLAIM IS MADE TO THE EXCLUSIVE RIGHT TO USE "NEXT DAY AIR", APART FROM THE MARK AS SHOWN.

SER. NO. 402,341, FILED 11-12-1982.

H. M. FISHER, EXAMINING ATTORNEY

EXHIBIT D

Int. Cl.: 39

Prior U.S. Cl.: 105

United States Patent and Trademark Office

Reg. No. 1,460,348
Registered Oct. 6, 1987

SERVICE MARK
PRINCIPAL REGISTER

UPS AIR CARGO SERVICE

UNITED PARCEL SERVICE OF AMERICA, INC. (DELAWARE CORPORATION), DBA UNITED PARCEL SERVICE CO.
GREENWICH OFFICE PARK 5
51 WEAVER STREET
GREENWICH, CT 06830

FOR: MOTOR VEHICLE AND AIR TRANSPORTATION OF PERSONAL PROPERTY, IN CLASS 39 (U.S. CL. 105).

FIRST USE 10-21-1985; IN COMMERCE 10-21-1985.

OWNER OF U.S. REG. NO. 1,375,109 AND OTHERS.

NO CLAIM IS MADE TO THE EXCLUSIVE RIGHT TO USE "AIR CARGO SERVICE", APART FROM THE MARK AS SHOWN.

SER. NO. 643,511, FILED 2-9-1987.

IRA J. GOODSAID, EXAMINING ATTORNEY

EXHIBIT E

Int. Cl.: 39

Prior U.S. Cl.: 105

United States Patent and Trademark Office

Reg. No. 1,874,248
Registered Jan. 17, 1995

SERVICE MARK
PRINCIPAL REGISTER

UPS PREFERRED

UNITED PARCEL SERVICE OF AMERICA, INC. (DELAWARE CORPORATION)
400 PERIMETER CENTER-TERRACES NORTH
ATLANTA, GA 30346

FOR: TRANSPORTATION BY AIR, RAIL, BOAT, AND MOTOR VEHICLE OF PACKAGES AND FREIGHT, IN CLASS 39 (U.S. CL. 105).

FIRST USE 3-15-1994; IN COMMERCE 3-15-1994.

OWNER OF U.S. REG. NOS. 966,774, 1,751,581 AND OTHERS.

SER. NO. 74-498,079, FILED 3-7-1994.

DAVID C. REIHNER, EXAMINING ATTORNEY

EXHIBIT F

Int. Cl.: 39

Prior U.S. Cl.: 105

United States Patent and Trademark Office

Reg. No. 1,876,943
Registered Jan. 31, 1995

SERVICE MARK
PRINCIPAL REGISTER

Preferred

UNITED PARCEL SERVICE OF AMERICA, INC. (DELAWARE CORPORATION)
400 PERIMETER CENTER-TERRACES NORTH
ATLANTA, GA 30346

FOR: TRANSPORTATION BY AIR, RAIL, BOAT, AND MOTOR VEHICLE OF PACKAGES AND FREIGHT, IN CLASS 39 (U.S. CL. 105).

FIRST USE 3-15-1994; IN COMMERCE 3-15-1994.

OWNER OF U.S. REG. NOS. 735,064, 1,376,321 AND OTHERS.

SER. NO. 74-499,043, FILED 3-10-1994.

DAVID C. REIHNER, EXAMINING ATTORNEY

EXHIBIT G

Int. Cl.: 39

Prior U.S. Cl.: 105

United States Patent and Trademark Office

Reg. No. 1,878,016
Registered Feb. 7, 1995

SERVICE MARK
PRINCIPAL REGISTER

UPS NEXT DAY AIR

UNITED PARCEL SERVICE OF AMERICA, INC. (DELAWARE CORPORATION)
55 GLENLAKE PARKWAY, NE
ATLANTA, GA 30328

FOR: MOTOR VEHICLE AND AIR TRANSPORTATION OF PERSONAL PROPERTY, IN CLASS 39 (U.S. CL. 105).

FIRST USE 12-0-1984; IN COMMERCE 12-0-1984.

OWNER OF U.S. REG. NOS. 1,375,109, 1,376,321 AND OTHERS.

NO CLAIM IS MADE TO THE EXCLUSIVE RIGHT TO USE "NEXT DAY AIR", APART FROM THE MARK AS SHOWN.

SER. NO. 74-504,436, FILED 3-24-1994.

LYNN A. LUTHEY, EXAMINING ATTORNEY

EXHIBIT H

Int. Cl.: 39

Prior U.S. Cl.: 105

United States Patent and Trademark Office

Reg. No. 1,878,918
Registered Feb. 14, 1995

SERVICE MARK
PRINCIPAL REGISTER

UPS 2ND DAY AIR

UNITED PARCEL SERVICE OF AMERICA, INC. (DELAWARE CORPORATION)
55 GLENLAKE PARKWAY, NE
ATLANTA, GA 30328

FOR: MOTOR VEHICLE AND AIR TRANSPORTATION OF PERSONAL PROPERTY, IN CLASS 39 (U.S. CL. 105).

FIRST USE 12-0-1984; IN COMMERCE 12-0-1984.

OWNER OF U.S. REG. NOS. 1,277,400, 1,376,321 AND OTHERS.

NO CLAIM IS MADE TO THE EXCLUSIVE RIGHT TO USE "2ND DAY AIR", APART FROM THE MARK AS SHOWN.

SER. NO. 74-504,442, FILED 3-24-1994.

LYNN A. LUTHEY, EXAMINING ATTORNEY

EXHIBIT I

Int. Cl.: 9

Prior U.S. Cls.: 21, 23, 26, 36, and 38

Reg. No. 2,098,168

United States Patent and Trademark Office

Registered Sep. 16, 1997

TRADEMARK
PRINCIPAL REGISTER

UPS TRACKPAD

UNITED PARCEL SERVICE OF AMERICA, INC. (DELAWARE CORPORATION)
55 GLENLAKE PARKWAY, NE
ATLANTA, GA 30328

FOR: COMPUTER PROGRAMS AND HAND-HELD COMPUTERS USED FOR COLLECTION OF PACKAGE TRANSIT AND DELIVERY INFORMATION, IN CLASS 9 (U.S. CLS. 21, 23, 26, 36 AND 38).

FIRST USE 10-0-1995; IN COMMERCE 10-0-1995.

SN 75-026,612, FILED 12-1-1995.

JOHN TANG, EXAMINING ATTORNEY

EXHIBIT J

Int. Cl.: 9

Prior U.S. Cls.: 21, 23, 26, 36 and 38

Reg. No. 2,128,739

United States Patent and Trademark Office

Registered Jan. 13, 1998

TRADEMARK
PRINCIPAL REGISTER

UPS ONLINE

UNITED PARCEL SERVICE OF AMERICA, INC. (DELAWARE CORPORATION)
55 GLENLAKE PARKWAY, NE
ATLANTA, GA 30328

FOR: SOFTWARE FOR USE IN PREPARING AND PRINTING SHIPPING DOCUMENTS AND INVOICES AND TRACKING THE SHIPPED PACKAGES, IN CLASS 9 (U.S. CLS. 21, 23, 26, 36 AND 38).

FIRST USE 7-1-1996; IN COMMERCE 7-1-1996.

NO CLAIM IS MADE TO THE EXCLUSIVE RIGHT TO USE "ONLINE", APART FROM THE MARK AS SHOWN.

SER. NO. 75-215,162, FILED 12-18-1996.

MIDGE BUTLER, EXAMINING ATTORNEY

EXHIBIT K

Int. Cl.: 9

Prior U.S. Cls.: 21, 23, 26, 36 and 38

Reg. No. 2,278,090

United States Patent and Trademark Office

Registered Sep. 14, 1999

TRADEMARK
PRINCIPAL REGISTER

UNITED PARCEL SERVICE OF AMERICA, INC. (DELAWARE CORPORATION)
55 GLENLAKE PARKWAY, NE
ATLANTA, GA 30328

FOR: SOFTWARE FOR USE IN PREPARING AND PRINTING SHIPPING DOCUMENTS AND INVOICES AND TRACKING THE SHIPPED PACKAGES, IN CLASS 9 (U.S. CLS. 21, 23, 26, 36 AND 38).

FIRST USE 7-1-1996; IN COMMERCE 7-1-1996.

OWNER OF U.S. REG. NOS. 2,115,201, 2,128,739 AND OTHERS.

SER. NO. 75-536,053, FILED 8-13-1998.

CAROLYN PENDLETON, EXAMINING ATTORNEY

EXHIBIT L

Int. Cls.: 9, 38, and 39

Prior U.S. Cls.: 21, 23, 26, 36, 38, 100, 101, 104, and 105

Reg. No. 2,582,489

United States Patent and Trademark Office

Registered June 18, 2002

TRADEMARK
SERVICE MARK
PRINCIPAL REGISTER

UPS ONLINE ENVOY

UNITED PARCEL SERVICE OF AMERICA, INC.
(DELAWARE CORPORATION)
55 GLENLAKE PARKWAY, NE
ATLANTA, GA 30328

FOR: SOFTWARE FOR USE IN PREPARING AND PRINTING SHIPPING DOCUMENTS AND INVOICES, AND TRACKING OF THE SHIPPED PACKAGES, IN CLASS 9 (U.S. CLS. 21, 23, 26, 36 AND 38).

FIRST USE 9-0-1998; IN COMMERCE 9-0-1998.

FOR: TELECOMMUNICATION SERVICES, NAMELY, PROVIDING INFORMATION ON INTERNATIONAL TRANSPORTATION AND DELIVERY SERVICES AND PACKAGE TRACKING USING A GLOBAL COMPUTER NETWORK, IN CLASS 38 (U.S. CLS. 100, 101 AND 104).

FIRST USE 9-0-1998; IN COMMERCE 9-0-1998.

FOR: DELIVERY OF PERSONAL PROPERTY BY AIR, RAIL, BOAT AND MOTOR VEHICLE, IN CLASS 39 (U.S. CLS. 100 AND 105).

FIRST USE 9-0-1998; IN COMMERCE 9-0-1998.

NO CLAIM IS MADE TO THE EXCLUSIVE RIGHT TO USE "ONLINE", APART FROM THE MARK AS SHOWN.

SN 75-237,645, FILED 2-6-1997.

MIDGE BUTLER, EXAMINING ATTORNEY

EXHIBIT M

Int. Cls.: 9 and 39

Prior U.S. Cls.: 21, 23, 26, 36, 38, 100, and 105

Reg. No. 2,830,249

Registered Apr. 6, 2004

United States Patent and Trademark Office

TRADEMARK
SERVICE MARK
PRINCIPAL REGISTER

UPS INTERNET TOOLS

UNITED PARCEL SERVICE OF AMERICA, INC.
(DELAWARE CORPORATION)
55 GLENLAKE PARKWAY, NE
ATLANTA, GA 30328

FOR: SOFTWARE FOR USE IN PREPARING AND PRINTING SHIPPING FORMS, DOCUMENTS AND INVOICES, AND TRACKING OF THE SHIPPED PACKAGES, IN CLASS 9 (U.S. CLS. 21, 23, 26, 36 AND 38).

FIRST USE 10-7-1997; IN COMMERCE 10-7-1997.

FOR: DELIVERY OF PERSONAL PROPERTY BY AIR, RAIL, BOAT AND MOTOR VEHICLE; PROVIDING COMPUTERIZED INFORMATION ON DOMESTIC AND INTERNATIONAL TRANSPORTATION AND DELIVERY SERVICES AND PACKAGE TRACKING, IN CLASS 39 (U.S. CLS. 100 AND 105).

FIRST USE 10-7-1997; IN COMMERCE 10-7-1997.

OWNER OF U.S. REG. NOS. 735,064, 1,121,927, AND OTHERS.

NO CLAIM IS MADE TO THE EXCLUSIVE RIGHT TO USE "INTERNET TOOLS", APART FROM THE MARK AS SHOWN.

SN 75-424,380, FILED 1-27-1998.

JENNIFER KRISP, EXAMINING ATTORNEY

EXHIBIT N

Int. Cl.: 9

Prior U.S. Cls.: 21, 23, 26, 36, and 38

United States Patent and Trademark Office

Reg. No. 2,483,193
Registered Aug. 28, 2001

TRADEMARK
PRINCIPAL REGISTER

UPS.COM

UNITED PARCEL SERVICE OF AMERICA, INC.
(DELAWARE CORPORATION)
55 GLENLAKE PARKWAY, NE
ATLANTA, GA 30328

FOR: COMPUTER SOFTWARE FOR USE IN CONNECTION WITH WORLDWIDE PICK UP, TRACING, AND DELIVERY OF PERSONAL PROPERTY BY AIR, RAIL, BOAT, AND MOTOR VEHICLES , IN CLASS 9 (U.S. CLS. 21, 23, 26, 36 AND 38).

FIRST USE 12-0-1994; IN COMMERCE 12-0-1994.

OWNER OF U.S. REG. NO. 966,774.

SN 75-693,710, FILED 4-29-1999.

JENNIFER KRISP, EXAMINING ATTORNEY

EXHIBIT O

Int. Cls.: 9, 35, and 39

Prior U.S. Cls.: 21, 23, 26, 36, 38, 100, 101, 102, and 105

Reg. No. 3,160,062

Registered Oct. 17, 2006

United States Patent and Trademark Office

TRADEMARK
SERVICE MARK
PRINCIPAL REGISTER

UPS WORLDSHIP

UNITED PARCEL SERVICE OF AMERICA, INC.
(DELAWARE CORPORATION)
55 GLENLAKE PARKWAY, NE
ATLANTA, GA 30328

FOR: COMPUTER HARDWARE, OPERATING SOFTWARE AND PERIPHERALS, MODEMS, LASER AND THERMAL PRINTERS, SCANNERS, NETWORK INTERFACE CARDS, ELECTRICAL AND FIBER OPTIC CABLES, SCALES AND DISPLAY SCREENS, FOR PACKAGE SHIPPING RATE CALCULATORS, SHIPPING RECORD KEEPING AND SOFTWARE FOR USE IN PREPARING AND PRINTING SHIPPING DOCUMENTS AND INVOICES, AND TRACKING OF SHIPPED PACKAGES, IN CLASS 9 (U.S. CLS. 21, 23, 26, 36 AND 38).

FIRST USE 12-12-1994; IN COMMERCE 12-12-1994.

FOR: COMPUTERIZED TRACKING AND TRACING OF PACKAGES IN TRANSIT, NAMELY, PROVIDING COMPUTERIZED INFORMATION ON DOMESTIC AND INTERNATIONAL TRANSPORTATION AND DELIVERY SERVICES, IN CLASS 35 (U.S. CLS. 100, 101 AND 102).

FIRST USE 12-12-1994; IN COMMERCE 12-12-1994.

FOR: TRANSPORTATION AND DELIVERY OF PERSONAL PROPERTY BY AIR, RAIL, BOAT AND MOTOR VEHICLE, IN CLASS 39 (U.S. CLS. 100 AND 105).

FIRST USE 12-12-1994; IN COMMERCE 12-12-1994.

THE MARK CONSISTS OF STANDARD CHARACTERS WITHOUT CLAIM TO ANY PARTICULAR FONT, STYLE, SIZE, OR COLOR.

OWNER OF U.S. REG. NOS. 2,151,185 AND 2,485,673.

SN 78-444,912, FILED 7-1-2004.

ANNE MADDEN, EXAMINING ATTORNEY

EXHIBIT P

Int. Cl.: 9

Prior U.S. Cls.: 21, 23, 26, 36, and 38

United States Patent and Trademark Office

Reg. No. 2,520,558
Registered Dec. 18, 2001

TRADEMARK
PRINCIPAL REGISTER

UPS

UNITED PARCEL SERVICE OF AMERICA, INC.
(DELAWARE CORPORATION)
55 GLENLAKE PARKWAY, NE
ATLANTA, GA 30328

FOR: SOFTWARE FOR USE IN PREPARING AND PRINTING SHIPPING DOCUMENTS AND INVOICES AND TRACKING THE SHIPPED PACKAGES, IN CLASS 9 (U.S. CLS. 21, 23, 26, 36 AND 38).

FIRST USE 10-0-1998; IN COMMERCE 10-0-1998.

OWNER OF U.S. REG. NOS. 2,098,168, 2,115,201, AND 2,128,739.

SN 75-546,196, FILED 8-31-1998.

DEIRDRE GILLIS, EXAMINING ATTORNEY

EXHIBIT Q

Int. Cls.: 9, 16, 25, 35, 38, and 42

Prior U.S. Cls.: 2, 5, 21, 22, 23, 26, 29, 36, 37, 38, 39, 50, 100, 101, 102, and 104

United States Patent and Trademark Office

Reg. No. 2,973,108

Registered July 19, 2005

TRADEMARK
SERVICE MARK
PRINCIPAL REGISTER

UNITED PARCEL SERVICE OF AMERICA, INC. (DELAWARE CORPORATION)
55 GLENLAKE PARKWAY, NE
ATLANTA, GA 30325

FOR: COMPUTER HARDWARE AND COMPUTER SOFTWARE IN THE FIELD OF TRANSPORTATION AND DELIVERY AND IN CONNECTION WITH WORLDWIDE PICK-UP, TRACING AND DELIVERY; BATTERIES; ALTERNATIVE POWER SUPPLY APPLIANCES, NAMELY, VOLTAGE SURGE PROTECTORS; MAGNETIC DISCS AND TAPES; COMPUTER PRINTERS, SCALES AND SCANNERS; COMPUTER SOFTWARE FOR PROVIDING AUTOMATED DOWNLOAD OF FILES, FOR PREPARING AND PRINTING OF SHIPPING LABELS, DOCUMENTS AND INVOICES, FOR PROVIDING ELECTRONIC SHIPPING LABELS, SHIPPING DOCUMENTS AND INVOICES, FOR PROVIDING INFORMATION ON AVAILABLE TRANSPORTATION AND DELIVERY SERVICES, AND FOR PROVIDING PROOF OF DELIVERY DOCUMENTATION, INCLUDING DIGITIZED SIGNATURE OF THE RECIPIENT OF THE PACKAGE AND THE RECEIPT, TRANSMISSION AND PROCESSING OF CUSTOMER IDENTIFYING SHIPPING ACCOUNT INFORMATION, IN CLASS 9 (U.S. CLS. 21, 23, 26, 36 AND 38).

FIRST USE 3-29-2003; IN COMMERCE 3-29-2003.

FOR: PRINTED MATERIALS PERTAINING TO INFORMATION TRANSPORTATION AND DELIVERY, NAMELY, PRESS RELEASES, PAMPHLETS, BROCHURES, NEWSLETTERS, BOOKS, POSTERS, PERIODICALS, CALENDARS, MAGAZINES, PRINTED INSTRUCTIONAL, EDUCATIONAL AND TEACHING MATERIAL, PAPER BANNERS, ENVELOPES, CARDBOARD BOXES AND PACKAGES, SHIPPING AND ADDRESS LABELS, STATIONERY, DESK SETS, PEN AND PENCIL SETS, PEN, PAPER CLIP DISPENSERS, PEN AND HOLDER DESK SETS, NOTE HOLDERS, FOUNTAIN PENS, DESK FOLDERS, STATIONERY-TYPE PORTFOLIOS, BUSINESS CARD FILES, RING BINDERS, LETTER OPENERS, DESK CADDIES, PACKING PAPER, PAPER BAGS, CARDBOARD, CARDBOARD ENVELOPES AND CARTONS; PLASTIC BAGS AND ENVELOPES AND POUCHES FOR PACKAGING, PLASTIC BUBBLE PACKS FOR WRAPPING OR PACKAGING, IN CLASS 16 (U.S. CLS. 2, 5, 22, 23, 29, 37, 38 AND 50).

FIRST USE 3-29-2003; IN COMMERCE 3-29-2003.

FOR: CLOTHING, NAMELY, HATS, SHORTS, SWEATERS, JACKETS, SOCKS, COATS, T-SHIRTS, PANTS, SHIRTS, VESTS, SWEATSHIRTS, RAINWEAR, FOOTWEAR AND GLOVES, IN CLASS 25 (U.S. CLS. 22 AND 39).

FIRST USE 3-29-2003; IN COMMERCE 3-29-2003.

FOR: ADVERTISING SERVICES; LOGISTICS MANAGEMENT IN THE FIELD OF TRANSPORTATION AND DELIVERY; BUSINESS MANAGEMENT SERVICES; BUSINESS CONSULTING SERVICES; BUSINESS ADMINISTRATION SERVICES; PROVIDING FACILITIES FOR THE USE OF OFFICE EQUIPMENT AND MACHINERY; MANAGEMENT ASSISTANCE SERVICES IN THE FIELD OF TRANS-

EXHIBIT R

PORTATION AND DELIVERY; MANAGEMENT CONSULTING SERVICES; PROVIDING COMPUTERIZED TRACKING AND TRACING OF PACKAGES IN TRANSIT; DISTRIBUTION OF ADVERTISING SAMPLES FOR OTHERS; MAIL SORTING HANDLING AND RECEIVING SERVICES; RETAIL STORE SERVICES FEATURING STAMPS AND OFFICE SUPPLIES; DATA PROCESSING SERVICES; PHOTOCOPYING SERVICES; DOCUMENT REPRODUCTION SERVICES; FRANCHISING, NAMELY, OFFERING TECHNICAL ASSISTANCE IN THE ESTABLISHMENT AND/OR OPERATION OF RETAIL MAILING, SHIPPING, PACKAGING, FAXING AND ELECTRONIC COMMUNICATION OUTLETS; PROVIDING AUTOMATED REGISTRATION FOR CUSTOMER IDENTIFYING SHIPPING ACCOUNT INFORMATION OVER THE GLOBAL COMPUTER NETWORK; LICENSING OF COMPUTER SOFTWARE; TRANSPORTATION NETWORK MANAGEMENT SOLUTION SERVICES; ARRANGING EXPEDITED PICK-UP, STORAGE, TRANSPORTATION AND DELIVERY SERVICES; CUSTOMS CLEARANCE SERVICES, IN CLASS 35 (U.S. CLS. 100, 101 AND 102).

FIRST USE 3-29-2003; IN COMMERCE 3-29-2003.

FOR: COMMUNICATIONS SERVICES AND TELECOMMUNICATIONS SERVICES, NAMELY, ELECTRONIC TRANSMISSION OF MESSAGES, DATA AND VOICE DATA; FACSIMILE AND ELECTRONIC MESSAGE SERVICES, MESSAGE DELIVERY AND SENDING SERVICES, TELEPHONE SERVICES AND WIRE SERVICES; SERVICES OF TRANSPORTATION OF LETTERS, DOCUMENTS AND OTHER TEXTS BY TELEX, BY TELEPHONE, BY ELECTRONIC MEANS; ONLINE DOCUMENT DELIVERY VIA A GLOBAL COMPUTER NETWORK, IN CLASS 38 (U.S. CLS. 100, 101 AND 104).

FIRST USE 3-29-2003; IN COMMERCE 3-29-2003.

FOR: LEGAL SERVICES; SCIENTIFIC RESEARCH SERVICES; DESIGN AND DEVELOPMENT OF COMPUTER HARDWARE AND SOFTWARE; CONSULTING SERVICES IN THE FIELD OF DESIGN, SELECTION, IMPLEMENTATION AND USE OF COMPUTER HARDWARE AND SOFTWARE SYSTEMS FOR OTHERS, IN CLASS 42 (U.S. CLS. 100 AND 101).

FIRST USE 3-29-2003; IN COMMERCE 3-29-2003.

OWNER OF U.S. REG. NOS. 1,461,044, 2,278,090, AND OTHERS.

SN 78-229,056, FILED 3-24-2003.

RAUL CORDOVA, EXAMINING ATTORNEY

EXHIBIT R

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A F Acronym Finder

abbreviation to define

UPS

find

abbreviation word in meaning

Examples: NFL, HEV, NASA, PSP, HIPAA, random
Word(s) in meaning: chat "global warming"
Postal codes: USA: 81657, Canada: T5A 0A7

What does **UPS** stand for?

Your abbreviation search returned 32 meanings

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sort results: alphabetical | **rank** ?

Rank	Abbr.	Meaning
******	UPS	United Parcel Service
******	UPS	Uninterruptible Power Supply
******	UPS	University of Puget Sound
*****	UPS	Uninterruptible Power System
*****	UPS	Universal Press Syndicate
*****	UPS	Universal Power Supply
****	UPS	Ultraviolet Photoelectron Spectroscopy
****	UPS	Universal Polar Stereographic
****	UPS	Uninterrupted Power Source
***	UPS	Underground Press Syndicate
***	UPS	Units Per Second
***	UPS	Under Provisions of Section
***	UPS	Unfolded Protein Response
***	UPS	Underwater Photographic Society
***	UPS	Uniform Particle Size
***	UPS	Unix Print Services
***	UPS	User Planning System
**	UPS	Unity Primary School (Singapore)
**	UPS	Uniform Procurement System
**	UPS	United Publicity Services plc (UK)

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UPRH	UPRR	UPS VA	UPSC
UPRM	UPRS	UPSA	UPSD
UPRN	UPRSD	UPSAC	UPSEB
UPRONA	UPRT	UPSAMS	UPSI
UPROSE	UPRTC	UPSB	UPSID

EXHIBIT S

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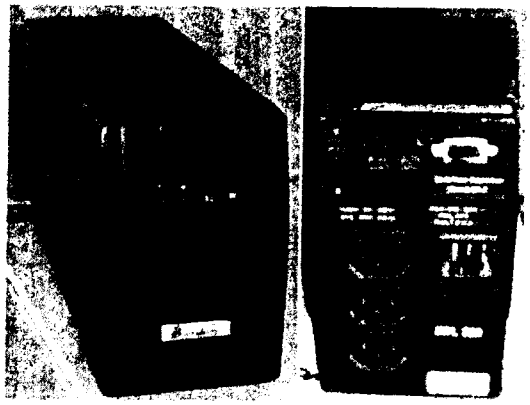
Uninterruptible power supply

From Wikipedia, the free encyclopedia



A small free-standing UPS

An **uninterruptible power supply (UPS)**, also known as a **continuous power supply (CPS)** or a **battery backup** is a device which maintains a continuous supply of electric power to connected equipment by supplying power from a separate source when utility power is not available. It differs from an auxiliary power supply or standby generator, which does not provide instant protection from a momentary power interruption. Integrated systems that have UPS and standby generator components are often referred to as emergency power systems.

There are three distinct types of UPS: off-line, line-interactive and double conversion (also called on-line). An off-line UPS remains idle until a power failure occurs, and then switches from utility power to its own power source, almost instantaneously. An on-line UPS continuously powers the protected load from its reserves (usually lead-acid batteries or stored kinetic energy), while simultaneously replenishing the reserves from the AC power. It also provides protection against all common power problems, and for this reason it is also known as a power conditioner and a line conditioner.

While not limited to safeguarding any particular type of equipment, a UPS is typically used to protect computers, telecommunication equipment or other electrical equipment where an unexpected power disruption could cause injuries, fatalities, serious business disruption or data loss. UPS units come in sizes ranging from units which will back up a single computer without monitor (around 200 VA) to units which will power entire data centers or buildings (several megawatts).

Historically, UPSs were expensive and were most likely to be used on expensive computer systems and in areas where the power supply is interrupted frequently. As prices have fallen, UPS units have become an essential piece of equipment for data centers and business computers, and are also used for personal computers, entertainment systems and more.

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Common power problems

EXHIBIT T

ere are various common power problems that UPS units are used to correct. They are as follows (with a typical example of damage that ight be caused):

1. Power failure — Total loss of utility power: Causes electrical equipment to stop working.
2. Voltage sag — Transient (short term) under-voltage: Causes flickering of lights.
3. Voltage spike — Transient (short term) over-voltage i.e. spike or peak: Causes wear or acute damage to electronic equipment.
4. Under-voltage (brownout) — Low line voltage for an extended period of time: Causes overheating in motors.
5. Over-voltage — Increased voltage for an extended period of time: Causes light bulbs to fail.
6. Line noise — Distortions superimposed on the power waveform: Causes electro magnetic interference.
7. Frequency variation — Deviation from the nominal frequency (50 or 60 Hz): Causes motors to increase or decrease speed and line-driven clocks and timing devices to gain or lose time.
8. Switching transient — Instantaneous undervoltage (notch) in the range of milliseconds to seconds: May cause erratic behavior in some equipment, memory loss, data error, data loss and component stress.
9. Harmonic distortion — Multiples of power frequency superimposed on the power waveform: Causes excess heating in wiring and fuses.

UPS units are divided into categories based on which of the above problems they address. Some manufacturers categorize their supplies as a level 3, 5, or 9, if they address the first 3, 5, or 9 power problem respectively.

UPS Technologies

The general categories of modern UPS systems are *on-line*, *line-interactive*, and *standby*. An on-line UPS uses a "double conversion" method of accepting AC input, rectifying to DC for passing through the battery (or battery strings), then inverting back to AC for powering the protected equipment. A line-interactive UPS maintains the inverter in line and redirecting the battery's DC current path from the normal charging mode to supplying current when power is lost. In a standby ("off-line") system the load is powered directly by the input power and the backup power circuitry is only invoked when the utility power fails. Most UPS below 1 kVA are of the line-interactive or standby variety which are usually less expensive.

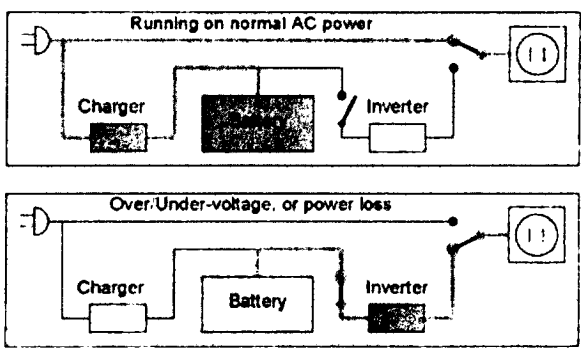
For large power units, Dynamic Uninterruptible Power Supply are sometimes used. A synchronous motor/alternator is connected on the mains via a choke. Energy is stored in a flywheel. When the mains power fails, an Eddy-current regulation maintains the power on the load. DUPS are sometimes combined or integrated with a diesel-genset.

Fuel cell UPS have been developed in recent years using hydrogen and a fuel cell as a power source, potentially providing long run times in a small space. A fuel cell replaces the batteries used in other UPS designs.

Offline / Standby

The Offline / Standby UPS offers only the most basic features, providing surge protection and battery backup. Usually the Standby UPS offers no battery capacity monitoring or self-test capability, making it the least reliable type of UPS since it could fail at any moment without warning. These are also the least expensive, selling for as little as US$75. The Standby UPS may be worse than using nothing at all, because it gives the user a false sense of security of being assurred protection that may not work when needed the most.

Offline / Standby UPS



Typical protection time: 0 - 20 minutes

Capacity expansion: Usually not available

With this type of UPS, a user's equipment is normally connected directly to incoming utility power with the same voltage transient clamping devices used in a common surge protected plug strip connected across the power line. When the incoming utility voltage falls below a predetermined level the UPS turns on its internal DC-AC inverter circuitry, which is powered from an internal storage battery. The SBS then mechanically switches the connected equipment on to its DC-AC inverter output. The switch over time is stated by most manufacturers as being less than 4 milliseconds, but typically can be as long as 25 milliseconds depending on the amount of time it takes the Standby UPS to detect the lost utility voltage.

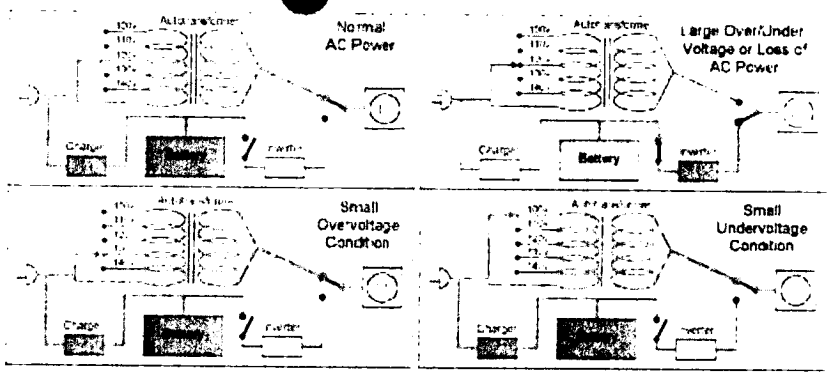
Line-interactive

The Line-Interactive UPS is similar in operation to a Standby UPS, but with the addition of a multi-tap variable-voltage autotransformer. This is a special type of electrical transformer that can add or subtract powered coils of wire, thereby

Line-Interactive UPS

EXHIBIT T

increasing or decreasing the magnetic field and the output voltage of the transformer.



This type of UPS is able to tolerate continuous undervoltage brownouts and overvoltage surges without consuming the limited reserve battery power. It instead compensates by auto-selecting different power taps on the autotransformer. Changing the autotransformer tap can cause a very brief output power disruption, so the UPS may *chirp* for a moment, as it briefly switches to battery before changing the selected power tap.

Typical protection time: 5 - 30 minutes
Capacity expansion: Yes, several hours

Autotransformers can be engineered to cover a wide range of varying input voltages, but this also increases the number of taps and the size, weight, complexity, and expense of the UPS. It is common for the autotransformer to only cover a range from about 90v to 140v for 120v power, and then switch to battery if the voltage goes much higher or lower than that range.

In low-voltage conditions the UPS will use more amperage than normal so it may need a higher amperage circuit than a normal device. For example to power a 1000 watt device at 120 volts, the UPS will draw 8.32 amps. If a brownout occurs and the voltage drops to 100 volts, the UPS will draw 10 amps to compensate. This also works in reverse, so that in an overvoltage condition, the UPS will need fewer amps of current.

Double-Conversion / Online

The Online UPS is ideal for environments where electrical isolation is necessary or for equipment that is very sensitive to power fluctuations. Although once previously reserved for very large installations of 10kW or more, advances in technology have permitted it to now be available as a common consumer device, supplying 500 watts or less. The Online UPS is generally more expensive but may be necessary when the power environment is "noisy" such as in industrial settings, for larger equipment loads like data centers, or when operation from an extended-run backup generator is necessary.

Typical protection time:
5 - 30 minutes
Capacity expansion:
Yes, several hours

The basic technology of the Online UPS is the same as in a Standby or Line-Interactive UPS. However it typically costs much more, due to it having a much greater amperage AC-to-DC battery-charger/rectifier, and with the rectifier and inverter designed to run continuously with improved cooling systems. It is called a *Double-Conversion* UPS due to the rectifier directly driving the inverter, even when powered from normal AC current.

In an Online UPS, the batteries are always connected to the inverter, so that no power transfer switches are necessary. When power loss occurs, the rectifier simply drops out of the circuit and the batteries keep the power steady and unchanged. When power is restored, the rectifier resumes carrying most of the load and begins charging the batteries, though the charging current may be limited to prevent the high-power rectifier from overheating the batteries and boiling off the electrolyte.

The main advantage to the on-line UPS is its ability to provide an electrical firewall between the incoming utility power and sensitive electronic equipment. While the Standby and Line-Interactive UPS merely filters the input utility power, the Double-Conversion UPS provides a layer of insulation from power quality problems. It allows control of output voltage and frequency regardless of input voltage and frequency.

Ferro-resonant

Ferro-resonant units operate in the same way as a standby UPS unit with the exception that a ferro-resonant transformer is used to filter the output. This transformer is designed to hold energy long enough to cover the time between switching from line power to battery power and effectively eliminates the transfer time. Many ferro-resonant UPSs are 90-93% efficient and offer excellent isolation.

Typical protection time:
0.016 seconds
Capacity expansion:
No

While this used to be the dominant type of UPS, they are no longer used for common applications. Power factor correcting equipment found in newer computer systems interacts with static ferro-resonant transformers, causing potentially damaging oscillations, and the transformer itself can create distortions which yield power less acceptable than poor quality line AC. These units are still used in some industrial settings, but have mostly disappeared from use with general computer equipment. Many ferro-resonant UPSs utilizing controlled ferro technology may not interact with power-factor-correcting equipment.

DC-Power Supply

A UPS designed for powering DC equipment is very similar to an online UPS, except that it does not need an

Typical

EXHIBIT T

tput inverter, and often the powered device does not need a power supply. Rather than converting AC to DC to large batteries, then DC to AC to power the external device, and then back to DC inside the powered device, some equipment accepts DC power directly and allows one or more conversion steps to be eliminated.

Several hours

Capacity expansion:

Yes

Many systems used in telecommunications use 48 volt DC power, because it is not considered a *high-voltage* by most electrical codes and is exempt from many safety regulations, such as being installed in conduit and junction boxes. DC has typically been the dominant power source for telecommunications, and AC has typically been the dominant source for computers and servers.

There has been much experimentation with 48v DC power for computer servers, in the hope of reducing the likelihood of failure and the cost of equipment. However, to supply the same amount of power, the amperage must be greater than an equivalent 120v or 240v circuit, and greater amperage requires larger conductors and/or more energy to be lost as heat.

High voltage DC (380 volts) is finding use in some data center applications, and allows for small power conductors, but is subject to the more complex electrical code rules for safe containment of high voltages.[1]

Rotary UPS

A Rotary UPS uses the inertia of a high-mass spinning flywheel to provide short-term *ride-through* in the event of power loss. The flywheel also acts as a buffer against power spikes and sags, since such short-term power events are not able to appreciably affect the rotational speed of the high-mass flywheel. It is also one of the oldest designs, predating vacuum tubes and integrated circuits.

Typical protection time:

20 - 60 seconds

Capacity expansion:

Yes, several seconds

It can be considered to be *online* since it spins continuously under normal conditions. However, unlike an electronic double-conversion UPS, it is only capable of providing reserve power for a few seconds before the flywheel has slowed and the protection fails. It is traditionally used in conjunction with standby diesel generators, providing backup power only for the brief period of time the engine needs to start running and stabilize its output.

The Rotary UPS is generally reserved for applications needing more than 10,000 watts of protection, to justify the expense of an extremely large and heavy power system that can only be transported by forklift or crane. A larger flywheel or multiple flywheels operating in parallel will increase the reserve running time, but at greatly increasing cost due to the size and weight of the precision-balanced flywheels.

Because the flywheels are a mechanical power source, it is not necessary to use an electric motor or generator as an intermediary between it and a diesel engine designed to provide emergency power. By using a transmission gearbox, the rotational inertia of the flywheel can be used to directly start up a diesel engine, and once running, the diesel engine can be used to directly spin the flywheel. Multiple flywheels can likewise be connected in parallel through mechanical countershafts, without the need for separate motors and generators for each flywheel.

They are normally designed to provide very high amperage output compared to a purely electronic UPS, and are better able to provide inrush current for inductive loads such as motor startup or compressor loads, as well as medical MRI and cath lab equipment. It is also able to tolerate short-circuit conditions up 17 times larger than an electronic UPS, permitting one device to blow a fuse and fail while other devices still continue to be powered from the Rotary UPS.

Its life cycle is usually far greater than a purely electronic UPS, up to 30 years or more. But they do require periodic downtime for mechanical maintenance (ball bearing replacement), while solid-state designs, using batteries, do not require downtime if the batteries can be hot-swapped, which is usually the case for larger units.

Typically, the high-mass flywheel is used in conjunction with a motor-generator system. These units can be configured as:[2]

- 1. A motor driving a mechanically connected generator,
- 2. A combined synchronous motor and generator wound in alternating slots of a single rotor and stator,
- 3. A Hybrid Rotary UPS, designed similar to an Online UPS, except that it uses the flywheel in place of batteries. The rectifier drives a motor to spin the flywheel, while a generator uses the flywheel to power the inverter.

In case #3 the motor generator can be synchronous/synchronous or induction/synchronous. The motor side of the unit in case #2 and #3 can be driven directly by an AC power source (typically when in inverter bypass), a 6-step double-conversion motor drive, or a 6 pulse inverter. Case #1 uses an integrated flywheel as a short-term energy source instead of batteries to allow time for external, electrically coupled gensets to start and be brought online. Case #2 and #3 can use batteries or a free-standing electrically coupled flywheel as the short-term energy source.

UPS Applications

The basic technology of UPS hardware can have many forms when applied for different purposes. Any of the technologies may be recombined as redundant systems or designed for special needs.

EXHIBIT T

+1 UPS

ıge business environments where reliability is of great importance, a single huge UPS can also be a single point of failure that can disrupt ıany other systems. To provide greater reliability, multiple smaller UPS modules and batteries can be integrated together to provide redundant power protection equivalent to one very large UPS.

It is not normally possible to take the AC output of two separate UPS units and combine their output voltage, because the output waveform of one **UPS** inverter can be leading or lagging the other inverter, causing severe power fluctuations that can damage both the UPS units and the powered devices.

In an N+1 UPS, a special synchronization signal is shared amongst the inverter modules to assure that all are producing a sinewave output that is in synchrony, without leading or lagging waveforms. Additional monitoring circuits assure all inverters and batteries are operating correctly within tolerances.

Generally an N+1 UPS is designed to supply more power than is actually required by the load, so that in the event of a fault, at least one of the inverters or battery modules can be disabled and removed from powering the load. An internal crossbar bus can permit any battery module to be connected to any different inverter module, to bypass potential failures.

An N+1 UPS can permit easy, centralized expansion of enterprise load capacity. In contrast, by purchasing small separate UPS units, eventually the server room fills with a collection of many different UPS models with many different batteries all aging at different rates and needing lots of care and monitoring. Buying a single huge UPS means wasted capacity until it is full, and then another huge UPS must be added which again has wasted capacity. With the N+1 UPS, as capacity grows, expansion just requires purchasing additional inverter modules and battery modules, and adding them to the N+1 chassis.

Multiple, Redundant UPS

Many computer servers offer the option of redundant power supplies, so that in the event of one power supply failing, one or more other power supplies are able to power the load.

While it is common to plug each of these individual power supplies into one single UPS, redundant protection can be extended further yet by connecting each power supply to its own UPS. This provides double protection from both a power supply failure and a UPS failure, so that continued operation is assured.

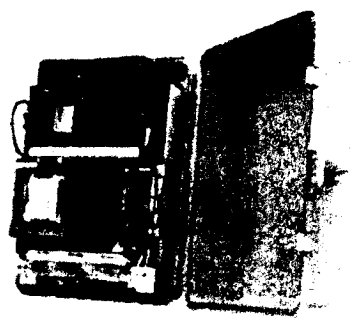
These additional layers of protection also add complexity and cost to the design of an enterprise server room environment. It also requires handling only by experienced professionals, since the multiple redundant cabling can appear confusing and unnecessary to an untrained person.

Outdoor UPS

When a UPS system is placed outdoors, it should have some specific features that guarantee that it can tolerate weather with a 'minimal to none' effect on performance. Factors such as temperature, humidity, rain, and snow among others should have been considered by the manufacturer when designing an outdoor UPS system. Operating temperature ranges for outdoor UPS systems could be around -40°C to +55° C.

An outdoor UPS system is normally made of several components designed for this particular task:

- Outdoor enclosure: provides protection against the elements to all the components placed within. Quality outdoor enclosures are powder coat finished for corrosion resistance and long life. Outdoor enclosures are normally NEMA 3R compliant
- Power Module: is the UPS itself. The boards of this power module should be conformal coated to avoid humidity damage. This UPS unit is normally based on Line Interactive or Double Conversion topology. Some manufacturers prefer Line Interactive because it provides a better Mean Time Between Failures (MTBF), and that is a critical part of an outdoor UPS system.
- Batteries: The batteries used in outdoor UPS systems must operate in a wide temperature range, usually from -40°C to +60°C. Batteries normally used in outdoor UPS systems are Gel Cell Batteries. The outdoor UPS's Power Module should provide a temperature compensated battery charging mechanism to optimize the life of the batteries.



A small outdoor UPS system.

A proper outdoor UPS system requires that all its components are designed for this environment. As seen from the features of the components above, an outdoor UPS system is not an indoor UPS inside an outdoor enclosure.

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tdoor UPS systems can be pole, ground (pedestal), or host mounted. Outdoor environment could mean extreme cold, in which case the tdoor UPS system should include a battery heater mat, or extreme heat, in which case the outdoor UPS system should include a fan system or air conditioning system.

Outdoor UPS systems are ideal for protection of WiFi/GSM/CDMA/satellite base stations, wireless communications/perimeter surveillance and security/gate control systems, LED traffic light/roadway display systems and remote terminal units (RTUs).

Internal-PC UPS

Internal UPS are a group of uninterruptible power supplies (UPS) designed to be placed inside computer chassis. There are two types of Internal UPS. First type is miniaturized regular UPS that are made small enough to fit into a 5.25" CD-ROM slot bay of a regular computer chassis. The other type is re-engineered switching power supplies that utilize dual power sources of AC and/or DC as power inputs and have an AC/DC built-in switching management control units.

The first type often requires extra connection wires between the internal UPS and computer's power supply. Some internal UPS of this group output high voltage (110 V - 220 V) direct current (DC) and some output nine-step table wave AC. Neither design is safe or energy efficient. As of 2006, there are only a couple of companies still selling this type of internal UPS in Australia, Asia and some part of Europe

The second group of internal UPS replaces the regular switching power supplies. There are three main design mechanisms:

1. Optic-coupling that imitates AC during AC outages. This mechanism was first introduced by American Advanced Power of USA and Magnum Power of UK in 1997, as well as Apollo Power of Taiwan in 1998. This design provides a low-cost solution but its efficiency is low and it has a very low overall wattage limit (<300 W).
2. An analog-circuitry-controlled AC/DC switching mechanism. This design also provides a low-cost solution. However, because of the bulky component circuit board, little space is available for increasing wattage output. Plus, the final products are very sensitive to factors such as local heat and causing frequent operational errors. Nevertheless, because of its low cost, it is still popular in China. Most Asian internal UPS manufacturers belong to this category.
3. A CPU controlled AC/DC switching mechanism. This design was first introduced by American Advanced Power Inc. of USA and Amsdell of Canada. It provides error-free switching control and a complicated communication protocol between the power supply and computer.

Disposing of UPS batteries

Many UPS units contain sealed lead-acid batteries and electronics which can be detrimental to the environment. In the United States, it is illegal to dispose of lead-acid batteries in a landfill, and they must be properly recycled. Sealed lead-acid batteries are recycled in the same manner as car batteries, so any auto shop that accepts used car batteries for recycling will also accept sealed lead acid batteries.

UPS Limitations

Using a generator with a UPS

Some types of UPS cannot function reliably with emergency power generators and the UPS will fail to work correctly with the generator power. Only a UPS that is specifically rated to work with a generator can be trusted to function properly.

Due to the limited output capacity of an emergency generator, it is common for the generator to produce temporary surges and dropouts as devices are turned on and off. These surges and dropouts become larger as the capacity of the emergency generator decreases compared to the total load it must supply.

For example, if a small business were powered by a 25 kilowatt standby generator, the engine would only run fast enough to provide a stable 50/60 Hz output sinewave for the currently operating loads. If a 5,000 watt water heater suddenly turns on, there is a temporary sag in voltage and a drop in frequency because the generator power draw is suddenly much higher than the engine output. The engine control detects the drop and opens the engine throttle to compensate, increasing engine RPM and bringing the voltage and frequency back up to normal. This stabilization may take a few seconds to occur if the sudden power draw is large, or the device is a motor and normally draws much more power for a few moments when starting as compared to stable running.

Similarly if a large load such as a water heater turns off, the load on the generator is suddenly much lower, and the voltage and frequency rises as the generator RPM quickly increases. The engine control again detects this increase and backs off the engine throttle to bring the generator back down to normal voltage and frequency.

A simple Standby UPS cannot deal with these surges and dropouts, and will constantly transfer to battery, which will quickly discharge and

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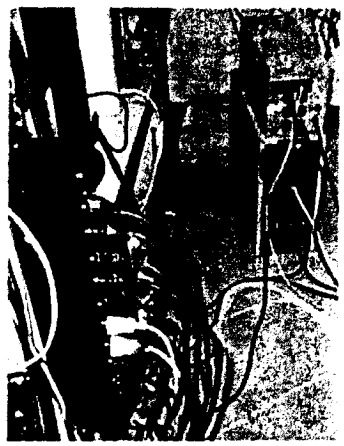
cannot recharge quickly enough to compensate. A Line-Interactive UPS will have fewer problems but may still run down the battery due to the dropouts. An Online or Double-Conversion UPS is potentially capable of handling these variations, but only if the power supply is designed to tolerate the wide ranging frequency and voltage variations.

Note that these frequency and voltage variations occur normally as a part of standard powerline generation. However the overall size of the distributed electrical grid and the huge capacity of generation stations help to buffer these surges and dropouts so the effects are not as severe as for a system running on emergency generators.

Power strip surge-protection hazard

For the basic Standby and Line-Interactive UPS, there is an often-unmentioned difficulty with adding additional power connections. Many UPS models only include a few closely-spaced outlets that cannot accommodate large power bricks or a large number of low-wattage devices all with separate power cables.



An American Power Conversion 10-outlet rackmount PDU without built-in surge protection, connected to an APC Smart UPS 2200 (bottom unit on right)

While a generic power strip *without surge protection* can be used to add additional room to the surge-protected outlets, a power strip with surge protection can interact badly with the UPS cutover switch and cause severe damage to the UPS. When the UPS switches from line power to battery and then back to line power, the cutover occurs so quickly that it can appear to be a power surge to a power strip plugged into the UPS. Most surge protection is sacrificial, in that the protection devices will create a temporary direct-short to create an alternate path for the surge to follow, and over time the protection eventually fails from stress.

How false surge triggering occurs

False triggering can occur because the inverter is usually not synchronized with the line current, and it is possible for a switchover to occur where the inverter has just reached the bottom of a negative voltage sine curve and the line current is reaching the exact top of a positive voltage sine curve (or vice-versa).

120v AC is an averaged Root Mean Square number, and has an actual peak near 170 volts. During the bypass switch cutover in this worst-case scenario, the voltage suddenly swings from -170v to +170v in 4 millisconds, which appears to the surge protection to be a sudden 340-volt swing and has all the appearance of being a voltage spike that should be suppressed. For a 240v UPS, this worst case switchover results in a sudden 650v voltage swing.

If the surge protection false-triggers, the surge protection suddenly overloads the UPS by several magnitudes beyond its design limits, and can result in the UPS electronics quickly overheating and burning up in seconds. Surge protection is generally only rated to handle brief spikes, but this sudden sustained high current absorption may result in the melting of the plastic power strip casing.

PDU: Commercial expansion options

When a UPS is used in a commercial environment such as powering rack-mount servers, it is not possible for the UPS to provide all the sockets necessary to support the protected loads. In this case the manufacturer will specifically provide an outlet-expansion option known as the Power Distribution Unit, or *PDU*. This is typically nothing more than common electrical receptacles and a long power cord in a steel case, with no surge protection at all, but with a high cost due to its special design for rackmount infrastructure. Surge protection is unnecessary in the PDU, since the UPS itself is already designed to provide surge protection.

For large installations with over 30 amperes of output, the UPS may have the option to be wired directly to standard electrical conduit and receptacles, using flex conduit to attach the UPS to the permanent conduit, again avoiding potential surge interaction problems.

Equipment damage policy limitations

For UPS models with equipment damage insurance policies, the policy is typically valid only if all protected devices were connected directly to the UPS, or if the customer purchases a company-brand PDU or company-brand power strip, as specified in the warranty policy.

Battery Monitoring Limitations

It is typically difficult to determine the charge capacity of an aging battery, using only simple voltage tests. Capacity declines as a battery ages and the lead plates begin to sulfate and decompose, but if a weak battery is sufficiently charged it will still be able to supply sufficient voltage to appear normal.

Only when the battery has been put under load for an extended period of time, and the battery amperage and voltage measured during the test, is it possible to find the true charge capacity. A weak battery will run properly for a few minutes or seconds and fail suddenly.

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Run-Time Calibration is a special test that is rarely performed, and involves running down a fully-charged battery until it fails. The measured ime and voltage/amperage results to create an estimated profile of projected battery life. This profile is how the estimated run-time is calculated ased on current UPS wattage load.

However, the profile is rarely updated and becomes incorrect as the battery continues to age. More load testing is needed to verify capacity and update the run-time estimation, which is why some UPS models run a self test every few weeks, to do a quick battery capacity estimation.

Some UPS manufacturers suggest doing a Run-Time Calibration only once a year, because the deep discharging is harmful to the lead plates and accelerates their eventual failure. For longest life the charge should stay near 100% continuously, though without the occasional testing it is not possible to know the battery state at all.

For UPS models that rarely or never run self-tests, the battery life may have declined so severely from the profile that the UPS may fail within seconds of being activated. The UPS may appear to be perfectly normal until the critical moment it is needed, but in that moment as the protected devices suddenly turn off does the truth arise that the battery lost all its capacity weeks or months ago, and the UPS did not report any problems.

Nonstandard Sinewave Output

The Standby, Line-Interactive, and Online UPS products all contain an electronic inverter to generate alternating current from direct current. Since it is not a mechanical spinning rotor, they can only approximate a true sinousoidal wave. The less-expensive UPS models tend to generate a less-accurate approximation. The lowest cost UPS models tend to produce a very rough square-wave, mid-range UPS models produce a stepped-sine wave, while the highest quality models offer true sinewave output.

In many cases the protected equipment may appear to operate normally on the nonstandard waveforms, but over time may be damaged due to the harmonics of non-sinewave power causing excessive heating of transformers, AC motor windings, and power supply circuitry, for which the protected device was not designed to tolerate.

Run-Time Capacity Expansion

The least expensive UPS models, and the UPS models built for a specific purpose, are usually not capable of accepting additional battery packs or larger battery packs for extended power protection. To keep the manufacturing costs down, they frequently have no cooling fan, little or no venting for air circulation, and do not provide any form of battery or inverter temperature monitoring. Instead, to prevent overheating, their inverters are designed to only operate as long as the internal battery capacity allows and then shut down before the UPS overheating becomes excessive.

See also

- Emergency power system
- Power conditioner
- Surge protector

Notes

1. ^ Microsoft Word - DCDemoFinalReportFinalJan17-07.doc
2. ^ Hybrid Rotary UPS white paper

References

- *Part of this article was originally taken from a public-domain entry in Federal Standard 1037C.*
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External links

- How a UPS works
- The Do-It-Yourself-UPS

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ups

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Function: *abbreviation*

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UPS

- **abbreviation** Computing uninterruptible power supply.

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Dictionary

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- uprising
- upriver
- uproar
- uproarious
- uproot
- uprose
- uprush
- **UPS**
- upsadaisy
- upscale
- upset
- upset price
- upsetting
- upshift
- upshot
- upside

UPS

UPS

abbr

Definition:

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UPS

1. uninterruptible power supply.

2. A source level C debugger that runs under X11 or SunView by Mark Russell <*mtr@ukc.ac.uk*>. Ups includes a C interpreter which allows you to add fragments of code simply by editing them into the source window. Version 2.1.

Ported to Sun, DECstation, VAX Ultrix, HLH Clipper.

ftp://export.lcs.mit.edu/contrib/. Mailing list: ups-users-request@ukc.ac.uk.

Unofficial enhancements by Rod Armstrong <*rod@sj.ate.slb.com*>
ftp://sj.ate.slb.com/misc/Unix/ups/contrib/rob.

(1991-05-20)

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UPS

Last modified: Thursday, April 01, 2004

Short for ***uninterruptible power supply***, a power supply that includes a battery to maintain power in the event of a power outage. Typically, a UPS keeps a computer running for several minutes after a power outage, enabling you to save data that is in RAM and shut down the computer gracefully. Many UPSs now offer a software component that enables you to automate backup and shut down procedures in case there's a power failure while you're away from the computer.

There are two basic types of UPS systems: *standby power systems (SPSs)* and *on-line* UPS systems. An SPS monitors the power line and switches to battery power as soon as it detects a problem. The switch to battery, however, can require several milliseconds, during which time the computer is not receiving any power. Standby Power Systems are sometimes called *Line-interactive UPSes.*

An on-line UPS avoids these momentary power lapses by constantly providing power from its own inverter, even when the power line is functioning properly. In general, on-line UPSs are much more expensive than SPSs.

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EXHIBIT Y

UPS

Telecom Definition

UPS definition

UPS

noun

SERVICE MARK FOR United Parcel Service

UPS (Uninterruptible Power Supply) telecom definition

A device or system that provides electrical power without interruption in the event that commercial power drops to an unacceptable voltage level. A UPS comprises circuitry and batteries that may provide power just long enough to shut down a computer or other system gracefully, without loss of data, or perhaps for many hours of normal operation in the event of a catastrophic commercial power failure. A typical UPS system operates in a hot standby, or offline, mode, continuously charging its batteries from a commercial power source and constantly prepared to assume responsibility within a few milliseconds for powering the client system. A more expensive online UPS actively filters commercial power, running it through the battery packs and an inverter, smoothing out the electrical waveforms and correcting for any power spikes and dips. See also inverter and waveform.

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‹ uproot
‹ uproarious
‹ uproar
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‹ uprising
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Serial Number	74090528
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Published for Opposition	September 10, 1991
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Registration Date	June 2, 1992
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Type of Mark	TRADEMARK
Register	PRINCIPAL
Affidavit Text	SECT 15. SECT 8 (6-YR). SECTION 8(10-YR) 20010907.
Renewal	1ST RENEWAL 20010907
Live/Dead Indicator	LIVE

EXHIBIT AA

United States Patent and Trademark Office

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Start | List At: OR Jump | to record: **Record 148 out of 165**

TARR Status | ASSIGN Status | TDR | TTAB Status *(Use the "Back" button of the Internet Browser to return to TESS)*

Smart-UPS

Word Mark	SMART-UPS
Goods and Services	IC 009. US 021. G & S: uninterruptible power supplies (used as a backup power supply for computers and other sensitive electronic equipment. FIRST USE: 19900400. FIRST USE IN COMMERCE: 19900500
Mark Drawing Code	(5) WORDS, LETTERS, AND/OR NUMBERS IN STYLIZED FORM
Serial Number	74090549
Filing Date	August 23, 1990
Current Filing Basis	1A
Original Filing Basis	1A
Published for Opposition	September 10, 1991
Registration Number	1689903
Registration Date	June 2, 1992
Owner	(REGISTRANT) American Power Conversion Corp. CORPORATION RHODE ISLAND 132 Fairgrounds Road West Kingston RHODE ISLAND 02892
Attorney of Record	STEPHEN J HOLMES
Type of Mark	TRADEMARK
Register	PRINCIPAL
Affidavit Text	SECT 15. SECT 8 (6-YR). SECTION 8(10-YR) 20010907.
Renewal	1ST RENEWAL 20010907
Live/Dead	LIVE

EXHIBIT BB

United States Patent and Trademark Office

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Start | List At: OR Jump | to record: **Record 144 out of 165**

Typed Drawing

Word Mark	UPS PLUS
Goods and Services	IC 009. US 021. G & S: electrical and electronic equipment; namely, power supplies, voltage regulators, frequency/voltage converters, uninterruptible power supplies and power supply modules for use with computer systems, industrial control devices, test instrumentation and microprocessor-based devices. FIRST USE: 19910816. FIRST USE IN COMMERCE: 19910816
Mark Drawing Code	(1) TYPED DRAWING
Serial Number	74157388
Filing Date	April 15, 1991
Current Filing Basis	1A
Original Filing Basis	1B
Published for Opposition	April 14, 1992
Registration Number	1749282
Registration Date	January 26, 1993
Owner	(REGISTRANT) Yutaka Electric International, Inc. CORPORATION DELAWARE 320 W. Clary Avenue San Gabriel CALIFORNIA 91776 (LAST LISTED OWNER) FALCON ELECTRIC, INC. CORPORATION BY ASSIGNMENT DELAWARE 5106 AZUSA CANYON ROAD IRWINDALE CALIFORNIA 91706
Assignment Recorded	ASSIGNMENT RECORDED
Attorney of Record	PATCHEN M. HAGGERTY
Disclaimer	NO CLAIM IS MADE TO THE EXCLUSIVE RIGHT TO USE "UPS" APART FROM THE MARK AS SHOWN
Type of Mark	TRADEMARK
Register	PRINCIPAL

EXHIBIT CC

United States Patent and Trademark Office

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Start | List At: OR Jump | to record: **Record 134 out of 165**

Typed Drawing

Word Mark	MEASURE-UPS
Goods and Services	IC 009. US 026. G & S: electronic apparatus for use with uninterruptible power supplies for the purpose of detecting environmental and security anomalies in computer rooms. FIRST USE: 19930301. FIRST USE IN COMMERCE: 19930301
Mark Drawing Code	(1) TYPED DRAWING
Serial Number	74371542
Filing Date	March 24, 1993
Current Filing Basis	1A
Original Filing Basis	1A
Published for Opposition	September 28, 1993
Registration Number	1811966
Registration Date	December 21, 1993
Owner	(REGISTRANT) American Power Conversion Corp. CORPORATION RHODE ISLAND 132 Fairgrounds Road West Kingston RHODE ISLAND 02892 (LAST LISTED OWNER) AMERICAN POWER CONVERSION CORP. CORPORATION BY ASSIGNMENT MASSACHUSETTS 132 FAIRGROUNDS RD. WEST KINGSTON RHODE ISLAND 02892
Assignment Recorded	ASSIGNMENT RECORDED
Attorney of Record	Stephen J. Holmes
Prior Registrations	1689902;1689903
Type of Mark	TRADEMARK
Register	PRINCIPAL
Affidavit Text	SECT 15. SECT 8 (6-YR). SECTION 8(10-YR) 20030516.

EXHIBIT DD

United States Patent and Trademark Office

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Start | List At: OR Jump | to record: **Record 123 out of 165**

Typed Drawing

Word Mark	BACK-UPS PRO
Goods and Services	IC 009. US 021. G & S: uninterruptible power supplies (used as a backup power supply) for computers and other sensitive electronic equipment. FIRST USE: 19940500. FIRST USE IN COMMERCE: 19940500
Mark Drawing Code	(1) TYPED DRAWING
Serial Number	74525958
Filing Date	May 17, 1994
Current Filing Basis	1A
Original Filing Basis	1A
Published for Opposition	July 4, 1995
Registration Number	1921637
Registration Date	September 26, 1995
Owner	(REGISTRANT) American Power Conversion Corporation CORPORATION MASSACHUSETTS 132 Fairgrounds Road West Kingston RHODE ISLAND 02892
Attorney of Record	STEPHEN J. HOLMES
Prior Registrations	1689902
Type of Mark	TRADEMARK
Register	PRINCIPAL
Affidavit Text	SECT 15. SECT 8 (6-YR). SECTION 8(10-YR) 20050203.
Renewal	1ST RENEWAL 20050203
Live/Dead Indicator	LIVE

EXHIBIT EE

United States Patent and Trademark Office

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Start | List At: OR Jump | to record: **Record 120 out of 165**

Typed Drawing

Word Mark	WINUPS
Goods and Services	IC 009. US 021 023 026 036 038. G & S: computer software, namely software for use in the custom design and configuration of power systems. FIRST USE: 19960103. FIRST USE IN COMMERCE: 19960103
Mark Drawing Code	(1) TYPED DRAWING
Serial Number	74695292
Filing Date	June 29, 1995
Current Filing Basis	1A
Original Filing Basis	1B
Published for Opposition	March 26, 1996
Registration Number	2067751
Registration Date	June 3, 1997
Owner	(REGISTRANT) SOLIDSTATE CONTROLS, INC. CORPORATION DELAWARE 875 DEARBORN DRIVE COLUMBUS OHIO 43085
Attorney of Record	THOMAS W. RYAN
Type of Mark	TRADEMARK
Register	PRINCIPAL
Affidavit Text	SECT 15. SECT 8 (6-YR). SECTION 8(10-YR) 20070817.
Renewal	1ST RENEWAL 20070817
Live/Dead Indicator	LIVE

EXHIBIT FF

United States Patent and Trademark Office

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Start | List At: OR Jump | to record: **Record 87 out of 165**

Typed Drawing

Word Mark	TELE-UPS
Goods and Services	IC 009. US 021 023 026 036 038. G & S: Power protection devices, namely uninterruptable electrical power supplies for use as a backup power supply for computers, telephone systems and other electronic equipment. FIRST USE: 19960615. FIRST USE IN COMMERCE: 19970228
Mark Drawing Code	(1) TYPED DRAWING
Serial Number	75520198
Filing Date	July 16, 1998
Current Filing Basis	1A
Original Filing Basis	1A
Published for Opposition	January 14, 2003
Registration Number	2703362
Registration Date	April 8, 2003
Owner	(REGISTRANT) Fenton Technologies CORPORATION TAIWAN 13F-3, 75 Hsin Tai Wu Rd., Sec. 1 Hsi-Chih Taipei Hsien 221 TAIWAN
Type of Mark	TRADEMARK
Register	PRINCIPAL
Live/Dead Indicator	LIVE

EXHIBIT GG

6/22/2008

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Record 1 out of 1

Tactical UPS

Word Mark	TACTICAL UPS
Goods and Services	IC 009. US 021 023 026 036 038. G & S: Automated process control system, namely, micro-processor based hardware and software used to monitor the status of industrial processes, namely, power generation, electrical distribution and oil and gas processing; Electrical distribution systems, namely, power distribution panels; Electrical power distribution units; Electrical switchgear, namely, voltage boosting devices for electric power lines; Electronic controllers for use with power converters; High-frequency switching power supplies; Power controllers; Power line conditioners; Power supplies; Renewable battery system to provide backup power; Voltage regulators for electric power; Voltage stabilizing power supply. FIRST USE: 20050101. FIRST USE IN COMMERCE: 20050101
Standard Characters Claimed	
Mark Drawing Code	(4) STANDARD CHARACTER MARK
Serial Number	77265497
Filing Date	August 27, 2007
Current Filing Basis	1A
Original Filing Basis	1A
Published for Opposition	February 19, 2008
Registration Number	**3444320**
Registration Date	June 10, 2008
Owner	(REGISTRANT) Madden, Paul Daniel INDIVIDUAL UNITED STATES 219 Park Avenue East Mansfield OHIO 449021845
Disclaimer	NO CLAIM IS MADE TO THE EXCLUSIVE RIGHT TO USE "UPS" APART FROM THE MARK AS SHOWN
Type of Mark	TRADEMARK

EXHIBIT HH

United States Patent and Trademark Office

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Record 1 out of 1

TARR Status | ASSIGN Status | TDR | TTAB Status *(Use the "Back" button of the Internet Browser to return to TESS)*

Extreme UPS

Word Mark	EXTREME UPS
Goods and Services	IC 009. US 021 023 026 036 038. G & S: Electrical power distribution units; Electronic controllers for use with power converters; High-frequency switching power supplies; Power supplies; Renewable battery system to provide backup power; Integrated battery backup systems comprising a battery, an electronic measurement apparatus for use in the measurement of battery health and performance, and a remote computer software program that uses the foregoing data to trend, predict, and store data related to the health of the battery. FIRST USE: 20031217. FIRST USE IN COMMERCE: 20031217
Standard Characters Claimed	
Mark Drawing Code	(4) STANDARD CHARACTER MARK
Trademark Search Facility Classification Code	LETTER-3-OR-MORE UPS Combination of three or more letters as part of the mark
Serial Number	77264401
Filing Date	August 25, 2007
Current Filing Basis	1A
Original Filing Basis	1A
Published for Opposition	February 19, 2008
Registration Number	**3444309**
Registration Date	June 10, 2008
Owner	(REGISTRANT) Madden, Paul Daniel INDIVIDUAL UNITED STATES 219 Park Avenue East Mansfield OHIO 449021845
Disclaimer	NO CLAIM IS MADE TO THE EXCLUSIVE RIGHT TO USE "UPS" APART FROM THE MARK

EXHIBIT II

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Record 1 out of 1

LEV-UPS

Word Mark	LEV-UPS
Goods and Services	IC 009. US 021 023 026 036 038. G & S: UNINTERRUPTABLE POWER SUPPLY FOR MICROPROCESSOR BASED PRODUCTS. FIRST USE: 20000600. FIRST USE IN COMMERCE: 20001000
Standard Characters Claimed	
Mark Drawing Code	(4) STANDARD CHARACTER MARK
Serial Number	76566094
Filing Date	December 10, 2003
Current Filing Basis	1A
Original Filing Basis	1A
Published for Opposition	June 14, 2005
Registration Number	**2991164**
Registration Date	September 6, 2005
Owner	(REGISTRANT) Leviton Manufacturing Co., Inc. CORPORATION DELAWARE 59-25 Little Neck Parkway Little Neck NEW YORK 11362
Attorney of Record	Paul J. Sutton
Type of Mark	TRADEMARK
Register	PRINCIPAL
Live/Dead Indicator	LIVE

EXHIBIT JJ

United States Patent and Trademark Office

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Record 1 out of 1

Typed Drawing

Word Mark	UPS ENHANCER
Goods and Services	IC 009. US 021 023 026 036 038. G & S: VOLTAGE SAG PROTECTORS FOR USE IN MAINTAINING OPERATION OF SENSITIVE ELECTRICAL EQUIPMENT DURING VOLTAGE SAGS, SPIKES, AND MOMENTARY LOSSES OF ELECTRICAL POWER. FIRST USE: 20010831. FIRST USE IN COMMERCE: 20010831
Mark Drawing Code	(1) TYPED DRAWING
Serial Number	76360664
Filing Date	January 21, 2002
Current Filing Basis	1A
Original Filing Basis	1A
Supplemental Register Date	October 25, 2002
Registration Number	**2682042**
Registration Date	January 28, 2003
Owner	(REGISTRANT) Soft Switching Technologies Corporation CORPORATION WISCONSIN 8155 Forsythia Street Middleton WISCONSIN 53562
Attorney of Record	Charles L. Leeck
Type of Mark	TRADEMARK
Register	SUPPLEMENTAL
Live/Dead Indicator	LIVE

EXHIBIT KK

United States Patent and Trademark Office

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Record 1 out of 1

Typed Drawing

Word Mark	MATRIX UPS
Goods and Services	IC 009. US 021 023 026 036 038. G & S: modular uninterruptible power supplies for computers, and other sensitive electronic equipment. FIRST USE: 19930316. FIRST USE IN COMMERCE: 19930316
Mark Drawing Code	(1) TYPED DRAWING
Serial Number	75184003
Filing Date	October 21, 1996
Current Filing Basis	1A
Original Filing Basis	1A
Published for Opposition	April 7, 1998
Registration Number	**2168971**
Registration Date	June 30, 1998
Owner	(REGISTRANT) American Power Conversion Corporation CORPORATION MASSACHUSETTS 132 Fairgrounds Road West Kingston RHODE ISLAND 02892
Attorney of Record	STEPHEN J. HOLMES
Disclaimer	NO CLAIM IS MADE TO THE EXCLUSIVE RIGHT TO USE "UPS" APART FROM THE MARK AS SHOWN
Type of Mark	TRADEMARK
Register	PRINCIPAL
Affidavit Text	SECT 15. SECT 8 (6-YR).
Live/Dead Indicator	LIVE

EXHIBIT LL

United States Patent and Trademark Office

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Start | List At: OR Jump | to record: **Record 2 out of 2**

Back-UPS Office

Word Mark	BACK-UPS OFFICE
Goods and Services	IC 009. US 021 023 026 036 038. G & S: power protection devices, namely, uninterruptible power supplies, for use with computers and other sensitive electronic devices. FIRST USE: 19960601. FIRST USE IN COMMERCE: 19960601
Mark Drawing Code	(3) DESIGN PLUS WORDS, LETTERS, AND/OR NUMBERS
Design Search Code	26.11.21 - Rectangles that are completely or partially shaded
Serial Number	75148943
Filing Date	August 12, 1996
Current Filing Basis	1A
Original Filing Basis	1A
Published for Opposition	July 29, 1997
Registration Number	**2106783**
Registration Date	October 21, 1997
Owner	(REGISTRANT) American Power Conversion Corporation CORPORATION MASSACHUSETTS 132 Fairgrounds Road West Kingston RHODE ISLAND 02892
Attorney of Record	STEVEN J. HOLMES
Prior Registrations	1689902;1921637
Type of Mark	TRADEMARK

EXHIBIT MM

United States Patent and Trademark Office

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TARR Status | ASSIGN Status | TDR | TTAB Status ***(Use the "Back" button of the Internet Browser to return to TESS)***

Typed Drawing

Word Mark	ROBOT/UPS
Goods and Services	IC 009. US 021 023 026 036 038. G & S: computer programs for automating the shutdown and power-up of computers in response to power failures. FIRST USE: 19910227. FIRST USE IN COMMERCE: 19910227
Mark Drawing Code	(1) TYPED DRAWING
Serial Number	74703388
Filing Date	July 19, 1995
Current Filing Basis	1A
Original Filing Basis	1A
Published for Opposition	March 12, 1996
Registration Number	**1978481**
Registration Date	June 4, 1996
Owner	(REGISTRANT) Help/Systems Incorporated CORPORATION MINNESOTA 210 Baker Technology Plaza 6101 Baker Road Minnetonka MINNESOTA 55345 (LAST LISTED OWNER) HELP/SYSTEMS, LLC LTD LIAB CO DELAWARE 6533 FLYING CLOUD DRIVE, SUITE 200 C/O HELP/SYSTEMS HOLDINGS, INC. EDAN PRAIRIE MINNESOTA 55344
Assignment Recorded	ASSIGNMENT RECORDED
Attorney of Record	RENEE S. KRAFT
Prior Registrations	1628993;1639348;1642436;1711417;1715358;AND OTHERS
Type of Mark	TRADEMARK
Register	PRINCIPAL
Affidavit Text	SECT 15. SECT 8 (6-YR). SECTION 8(10-YR) 20070208.
Renewal	1ST RENEWAL 20070208

EXHIBIT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE TRADEMARK TRIAL AND APPEAL BOARD

United Parcel Service of America, Inc.,	:	
Opposer,	:	Opposition No. 91184197
v.	:	
Powertech Industrial Co., Ltd.,	:	
Applicant.	:	

APPLICANT'S ANSWER TO OPPOSER'S FIRST SET OF INTERROGATORIES TO APPLICANT

Applicant, Powertech Industrial Co., Ltd. ("Powertech") by its undersigned attorney for its Answers to Opposer's First Set of Interrogatories respectfully states as follows:

General Objections

Powertech sets forth the following general objections, which are made to each and every interrogatory, whether specifically stated in response thereto. Each is incorporated by reference within the specific objection for each interrogatory as if set forth separately therein.

(1) Powertech objects to these interrogatories to the extent that they impose any requirements in excess of those imposed by the Federal Rules of Civil Procedure.

(2) Powertech objects to these interrogatories to the extent that these requests are not reasonably calculated to lead to the discovery of admissible evidence.

(3) Powertech objects to these interrogatories to the extent that these requests require the disclosure of information or documents that are subject to the attorney-client privilege or protected from disclosure by the Work Product Doctrine or other applicable privileges.

(4) Powertech objects to these interrogatories to the extent that these requests seek documents equally available to Opposer or are already in Opposer's possession.

(5) Powertech objects to these interrogatories to the extent that they are overly broad and unduly burdensome.

(6) Powertech objects to these interrogatories to the extent that the information sought is confidential or proprietary.

(7) Powertech objects to these interrogatories to the extent that they call for release of a third parties confidential or proprietary information or identification of a third party's documents that are in Powertech's possession and are the subject of a non-disclosure agreement or other confidentiality requirement.

Interrogatory No. 1:

Describe in detail all products and services that Applicant has offered and provided, or intends to offer or provide, under the Proposed Mark.

Answer to Interrogatory No. 1:

Objection to Interrogatory No. 1: See General Objections. Applicant further objects to this interrogatory to the extent that it is requiring speculative information to be provided which Applicant is not aware at the present time.

Subject to and without waiving its previously stated objections, Applicant answers Interrogatory No. 1 as follows:

Applicant has not offered and provided any products and services under the proposed mark "HYBRID GREEN UPS".

Applicant intends to offer or provide the goods as indicated in the examined trademark application, Serial No. 77/176,134, namely, power supplies; mobile phone battery chargers; mobile phone battery charger stations: battery chargers; universal power supply; power saving adapters; electric storage batteries; uninterruptible power supplies; AC/DC converters; power source stable adapters.

Interrogatory No. 2:

For each product or service identified in response to Interrogatory No. 1, state whether Applicant has provided or sold such product or service in interstate commerce and, if so, state the date on which such Applicant first provided such

product or service to a customer, and identify the geographic areas of the United States in which Applicant has used the Proposed Mark on or in connection with such products and services since the date of first use.

Answer to Interrogatory No. 2:

Objection to Interrogatory No. 2: See General Objections. Further, Applicant objects to the speculative nature of the interrogatory in relation to Applicant's intent to offer or provide products in the future since Applicant is not aware of what further products may be offered or provided under the proposed mark.

Subject to and without waiving the previously stated objections, Applicant answers Interrogatory No. 2 as follows:

None.

Interrogatory No. 3:

Describe in detail all facts and circumstances surrounding Applicant's decision to select, adopt, and use or intent to use the Proposed Mark, and identify all persons who first suggested use of the Proposed Mark.

Answer to Interrogatory No. 3:

Objection to Interrogatory No. 3: See General Objections.

The person who first suggested use of the proposed mark is Mr. Sheng-Hsien Liao, having an address at No. 2, Alley 20, Lane 199, Sanjyun Street, Shulin City, Taipei County, Taiwan, R.O.C.

The term "HYBRID" was simply chosen for use as a convenient word which could apply to the various goods as listed in the allowed application, Serial No. 77/176,134. The word "GREEN" was believed to be a word which shows some type of environmental friendliness. The letters "UPS" are directed to uninterruptible power supplies which is one of the main products to be offered by Applicant.

Interrogatory No. 4:

State whether Applicant conducted or caused to be conducted a search or any other investigation to determine whether the Proposed Mark was available in connection with its adoption of said mark. If so, describe the results or conclusions of said investigation, identify each and every person having knowledge of the results of such investigations, and identify all documents embodying or relating to such search or investigation.

Answer to Interrogatory No. 4:

Objection to Interrogatory No. 4: See General Objections.

Subject to and without waiving its previously stated objections, Applicant answers Interrogatory No. 4 as follows:

Applicant searched the term "HYBRID" in Class 9 on the TESS and no similar mark was found. The additional wording "GREEN" was added to the word "HYBRID" to provide some environmentally friendly connotation. The term "UPS" was simply added as an abbreviation of Applicant's "uninterruptible

power supplies" wherein the use of "UPS" is a standard abbreviation for uninterruptible power supplies.

The person who has knowledge of the results of such investigation is Mr. Sheng-Hsien Liao, who is the President of Polymax Precision Industry Co., Ltd. and Yu-Lung Lee, Assistant General Manager of Applicant.

With regard to existing documents embodying or relating to this search or investigation, Applicant has found no documents associated with the search or investigation, however, Applicant will continue to search its records to see if any documents exist.

Interrogatory No. 5:

State when Applicant first became aware of any of Opposer's Marks as used by Opposer.

Answer to Interrogatory No. 5:

Applicant first became aware of Opposer's marks as used by Opposer at the time that Applicant's U.S. attorney informed Applicant of the subject Opposition No. 91184197.

Interrogatory No. 6:

Identify all communications, whether written or oral, relating to Applicant's knowledge of the use by Opposer of Opposer's Marks, including all communications and contact with Opposer relating to Applicant's Goods.

Answer to Interrogatory No. 6:

Objection to Interrogatory No. 6: See General Objections. Applicant further objects to this interrogatory to the extent that it is overly broad and burdensome in that all employees of Applicant may have some knowledge of United Parcel Service or "UPS".

Subject to and without waiving its previously stated objections, Applicant answers Interrogatory No. 6 as follows:

Applicant has included communications and contact with the Opposer through Applicant's attorney relating to Applicant's goods in relation to the subject Opposition 91184197. Additionally, Applicant is aware of communications and contact with Opposer relating to Applicant's goods with regard to Taiwan Opposition No. 09780677120 brought by the Opposer.

Interrogatory No. 7:

Identify all communications, whether written or oral, between Applicant and any other person relating to Opposer or Opposer's Marks.

Answer to Interrogatory No. 7:

Objection to Interrogatory No. 7: See General Objections. Applicant further objects to this interrogatory to the extent that it requires information which is protected by the attorney/client privilege.

Subject to and without waiving previously stated objections, Applicant answers Interrogatory No. 7 as follows:

Applicant has not communicated, whether written or oral, with any other person relating to Opposer or Opposer's marks with the exception of Applicant's attorneys in relation to the subject opposition before the U.S. Trademark Trial and Appeal Board and Taiwan Opposition No. 09780677120.

Interrogatory No. 8:

Identify all persons whom Applicant intends to call during the testimony period of this opposition and summarize the subject matter on which each such person will testify.

Answer to Interrogatory No. 8:

Objection to Interrogatory No. 8: See General Objections. Applicant further objects to this interrogatory to the extent that it is speculative in nature.

Subject to and without waiving it previously stated objections, Applicant answers Interrogatory No. 8 as follows:

None.

Interrogatory No. 9:

State whether Applicant, or any person(s) acting on Applicant's behalf, has conducted or authorized any other person to conduct a survey, investigation, study, or market test (hereinafter "Survey") relating to either the Proposed Mark or the product(s) sold under said mark, and if so, identify:

(a) each person that was or is in charge of conducting each Survey;

(b) each report or summary of the results thereof, and, if oral, state the contents thereof, identify the persons making and receiving such report or summary, and each person having knowledge thereof.

Answer to Interrogatory No. 9:

Objections to Interrogatory No. 9: See General Objections.

Subject to and without waiving its previously stated objections, Applicant's answers Interrogatory No. 9 as follows:

None.

Interrogatory No. 10:

Other than the instant proceeding, describe in detail all disputes, disagreements, or controversies between Applicant and any party concerning the adoption or use of any trademark concerning the mark "UPS."

Answer to Interrogatory No. 10:

Other than the instant proceeding, the only other disputes, disagreements or controversies between Applicant and any party concerning the adoption or use of any trademark concerning the mark "UPS", are with Opposer who has brought an opposition in Taiwan with regard to the mark "UPS".

Interrogatory No. 11:

State all facts upon which Applicant bases its denials of Paragraphs 12, 13, 14, and 18 of Opposer's May 19, 2008 Notice of Opposition, as set forth in Paragraphs 12, 13, 14, and 18 of Applicant's June 24, 2008 Answer.

Answer to Interrogatory No. 11:

Objection to Interrogatory No. 11: See General Objections.

Subject to and without waiving it previously stated objections, Applicant answers Interrogatory No. 11 as follows:

With regard to the Notice of Opposition as set forth in paragraph 12: Applicant believes that Applicant's mark "HYBRID GREEN UPS" includes the dominant portion of the mark "HYBRID GREEN" and that the "UPS" is a standard abbreviation for uninterruptible power supplies, which is one of the main products envisioned by Applicant for sale with the letters "UPS" being descriptive of the goods.

With regard to paragraph 13: the dominant portion of Applicant's mark is "HYBRID GREEN" with the letters "UPS" being an abbreviation of uninterruptible power supplies and potential purchasers of Applicant's goods would not believe the opposer is the source of such goods either authorized, sponsored, approved of, or in some other manner being associated with the goods of Opposer.

With regard to paragraph 14 of the Notice of Opposition, the words "HYBRID GREEN" are the dominant portion of Applicant's mark and the "UPS"

is a standard abbreviation for uninterruptible power supplies and thus, does not suggest a connection or affiliation between Opposer and Applicant.

With regard to paragraph 18, Applicant has never been aware of Opposer using the word "HYBRID GREEN" and since "UPS" is descriptive of Applicant's proposed goods, such is not believed to lessen the capacity of Opposer's UPS mark for distinguishability of Opposer's goods and services from those of others.

Interrogatory No. 12:

Identify all documents and things evidencing Applicant's bona fide intention to use the Proposed Mark in commerce, as of the filing date of the application, for each product listed in the Application.

Answer to Interrogatory No. 12:

Objection to Interrogatory No. 12: See General Objections.

Subject to and without waiving its previously stated objections, Applicant answers Interrogatory No. 12 as follows:

None.

Interrogatory No. 13:

State the dates of Applicant's actual or intended first use and actual or intended first use in commerce for the Proposed Mark.

Answer to Interrogatory No. 13:

Objection to Interrogatory No. 13: See General Objections. Applicant further objects to this interrogatory to the extent that it requires information which is speculative in nature.

Subject to and without waiving its previously stated objections, Applicant answers Interrogatory No. 13 as follows:

Applicant has not had any actual first use and no actual first use in commerce of the proposed mark. Applicant has not set a date for its planned first use or first use in commerce.

Interrogatory No. 14:

For each product and/or service identified in answer to Interrogatory No. 1, identify each advertisement for such product and/or service that has been, or is intended to be, published, broadcast, or displayed on behalf of Applicant and that included the Proposed Mark, and for each such advertisement:

(a) state the date on which it was or will be published, broadcast, displayed or distributed;

(b) if a print media advertisement, identify the publication in which such advertisement appeared or will appear by name, date, and page number; and

(c) if a broadcast advertisement, identify the radio or television station or network over which such advertisement was or will be broadcast and state the length of the commercial and the date and time of broadcast.

Answer to Interrogatory No. 14:

Objection to Interrogatory No. 14: See General Objections.

Subject to and without waiving its previously stated objections, Applicant answers Interrogatory No. 14 as follows:

None.

Interrogatory No. 15:

Identify all press releases, catalogs, leaflets, brochures, signs, and other sales or promotional materials that have been, are, or are intended to be distributed or displayed in the United States by or on behalf of Applicant and that included the Proposed Mark, and for each such item:

(a) state each date on which, or the inclusive dates during which, said item was or is to be distributed and the manner in which said item was or is to be distributed; and

(b) state the geographic area (by city, county or state) where said item or copies thereof were or will be distributed or displayed.

Answer to Interrogatory No. 15:

Objection to Interrogatory No. 15: See General Objections. Applicant further objects to this interrogatory to the extent that it requires information which is speculative.

Subject to and without waiving its previously stated objections, Applicant answers Interrogatory No. 15 as follows:

No press releases, catalogs, leaflets, brochures, signs and other sales or promotional materials have been distributed or displayed in the United States by or on behalf of Applicant that included the proposed mark. Applicant does not know what types of press releases, catalogs, leaflets, brochures, signs and other sales or promotional materials will be distributed or displayed in the United States in the future.

Interrogatory No. 16:

For each product and/or service identified in answer to Interrogatory No. 1, state whether you have promoted such product and/or service at any conventions, trade shows, or exhibitions, or have any plans to do so, and if so, state the title, date, and location of each such convention, trade show, or exhibition.

Answer to Interrogatory No. 16:

None.

Interrogatory No. 17:

Identify each expert witness whose testimony Applicant may or will rely upon in connection with any issue in this Opposition proceeding and with respect to each such witness state:

(a) the subject matter on which he or she is expected to testify, and;

(b) state the substance of the facts and opinions on which the expert is expected to testify, and summarize the ground for each opinion.

Answer to Interrogatory No. 17:

Applicant has no plans at the present time to provide expert witness testimony in this proceeding.

Interrogatory No. 18:

Identify each person who (a) provided information used in or (b) prepared or participated in preparing the following:

(i) the Application;

(ii) the Answer; and

(iii) any answer to any Interrogatory above.

Answer to Interrogatory No. 18:

(i) With respect to the application, information used in preparing or participating in the preparation of the application was:

Morton J. Rosenberg, Esq.
Rosenberg, Klein & Lee
3458 Ellicott Center Drive, Suite 101
Ellicott City, Maryland 21043
Attorney for Applicant

Yu-Lung Lee, Assistant General Manager
Powertech Industrial Co., Ltd.
10F., No. 407, Sec. 2, Chunshan Rd., Chungho City
Taipei Hsien, Taiwan, R.O.C.

Yu-Ching Li
Li & Cai Intellectual Property Co., Ltd.
P.O. Box 26-757
Taipei, Taiwan, R.O.C. 106

(ii) The person with respect to the Answer:

Morton J. Rosenberg, Esq. (responsive to answers provide by Yu-Lung Lee)
Rosenberg, Klein & Lee
3458 Ellicott Center Drive, Suite 101
Ellicott City, Maryland 21043
Attorney for Applicant

Yu-Lung Lee, Assistant General Manager
Powertech Industrial Co., Ltd.
10F., No. 407, Sec. 2, Chunshan Rd., Chungho City
Taipei Hsien, Taiwan, R.O.C.

(iii) With respect to the Answers to Interrogatories No. 1-18:

Yu-Lung Lee, Assistant General Manager
Powertech Industrial Co., Ltd.
10F., No. 407, Sec. 2, Chunshan Rd., Chungho City
Taipei Hsien, Taiwan, R.O.C.

Answers have further been submitted to Applicant's attorney:

Morton J. Rosenberg, Esq.
Rosenberg, Klein & Lee
3458 Ellicott Center Drive, Suite 101
Ellicott City, Maryland 21043
Attorney for Applicant

Respectfully submitted,
FOR: POWERTECH INDUSTRIAL CO., LTD.

Apr. 13 2009
Date

Yu-Lung Lee
Yu-Lung Lee, Assistant General Manager

For: ROSENBERG, KLEIN & LEE

Morton J. Rosenberg
Morton J. Rosenberg
3458 Ellicott Center Drive, Suite 101
Ellicott City, MD 21043
(Attorney for Applicant)

CERTIFICATE OF SERVICE

It is hereby certified that a true and correct copy of the foregoing ANSWER TO OPPOSER'S FIRST INTERROGATORIES TO APPLICANT was served this day via first class mail, postage prepaid to: Steven M. Schaetzel, Esq., King and Spalding, LLP, 1180 Peachtree Street, N.E., Atlanta, Georgia 30309-3521.

4/16/09
Dated

Morton J. Rosenberg

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE TRADEMARK TRIAL AND APPEAL BOARD

UNITED PARCEL SERVICE OF AMERICA, INC. :

Opposer, :

v. : Opposition No. 91184197

POWERTECH INDUSTRIAL CO., LTD. :

Applicant :

APPLICANT'S RESPONSE TO OPPOSER'S
FIRST REQUEST FOR ADMISSIONS

Applicant, Powertech Industrial Co., Ltd., by counsel, for its Responses to Opposer's First Request for Admissions, respectfully states the following:

Request for Admission No. 1:

On or before May 9, 2007, Applicant was aware of UPS's use of the mark identified in U.S. Reg. No. 514,285.

Answer to Request for Admission No. 1:

Applicant was aware of the use of the letters "UPS" prior to 9 May 2007 but was not aware of any ownership of the letters "UPS" and was not aware of Registration No. 514,285 and thus must deny.

Request for Admission No. 2:

On or before May 9, 2007, Applicant was aware of UPS's use of the mark identified in U.S. Reg. No. 966,774

Answer to Request for Admission No. 2:

Applicant was aware of the use of the letters "UPS" prior to 9 May 2007 but was not aware of any ownership of the letters "UPS" and was not aware of Registration No. 966,774 and thus must deny.

Request for Admission No. 3:

On or before May 9, 2007, Applicant was aware of UPS's use of the mark identified in U.S. Reg. No. 1,277,400.

Answer to Request for Admission No. 3:

Applicant was aware of the use of the letters "UPS" prior to 9 May 2007 but was not aware of any ownership of the letters "UPS" and was not aware of Registration No. 1,277,400 and thus must deny.

Request for Admission No. 4:

On or before May 9, 2007, Applicant was aware of UPS's use of the mark identified in U.S. Reg. No. 1,375,109.

Answer to Request for Admission No. 4:

Applicant was aware of the use of the letters "UPS" prior to 9 May 2007 but was not aware of any ownership of the letters "UPS" and was not aware of Registration No. 1,375,109 and thus must deny.

Request for Admission No. 5:

On or before May 9, 2007, Applicant was aware of UPS's use of the mark identified in U.S. Reg. No. 1,874,248.

Answer to Request for Admission No. 5:

Applicant was aware of the use of the letters "UPS" prior to 9 May 2007 but was not aware of any ownership of the letters "UPS" and was not aware of Registration No. 1,874,248 and thus must deny.

Request for Admission No. 6:

On or before May 9, 2007, Applicant was aware of UPS's use of the mark identified in U.S. Reg. No. 1,876,943.

Answer to Request for Admission No. 6:

Applicant was aware of the use of the letters "UPS" prior to 9 May 2007 but was not aware of any ownership of the letters "UPS" and was not aware of Registration No. 1,876,943 and thus must deny.

Request for Admission No. 7:

On or before May 9, 2007, Applicant was aware of UPS's use of the mark identified in U.S. Reg. No. 1,878,016.

Answer to Request for Admission No. 7:

Applicant was aware of the use of the letters "UPS" prior to 9 May 2007 but was not aware of any ownership of the letters "UPS" and was not aware of Registration No. 1,878,016 and thus must deny.

Request for Admission No. 8:

On or before May 9, 2007, Applicant was aware of UPS's use of the mark identified in U.S. Reg. No. 1,878,918.

Answer to Request for Admission No. 8:

Applicant was aware of the use of the letters "UPS" prior to 9 May 2007 but was not aware of any ownership of the letters "UPS" and was not aware of Registration No. 1,878,918 and thus must deny.

Request for Admission No. 9:

On or before May 9, 2007, Applicant was aware of UPS's use of the mark identified in U.S. Reg. No. 2,098,168.

Answer to Request for Admission No. 9:

Applicant was aware of the use of the letters "UPS" prior to 9 May 2007 but was not aware of any ownership of the letters "UPS" and was not aware of Registration No. 2,098,168 and thus must deny.

Request for Admission No. 10:

On or before May 9, 2007, Applicant was aware of UPS's use of the mark identified in U.S. Reg. No. 2,128,739.

Answer to Request for Admission No. 10:

Applicant was aware of the use of the letters "UPS" prior to 9 May 2007 but was not aware of any ownership of the letters "UPS" and was not aware of Registration No. 2,128,739 and thus must deny.

Request for Admission No. 11:

On or before May 9, 2007, Applicant was aware of UPS's use of the mark identified in U.S. Reg. No. 2,278,090.

Answer to Request for Admission No. 11:

Applicant was aware of the use of the letters "UPS" prior to 9 May 2007 but was not aware of any ownership of the letters "UPS" and was not aware of Registration No. 2,278,090 and thus must deny.

Request for Admission No. 12:

On or before May 9, 2007, Applicant was aware of UPS's use of the mark identified in U.S. Reg. No. 2,582,489.

Answer to Request for Admission No. 12:

Applicant was aware of the use of the letters "UPS" prior to 9 May 2007 but was not aware of any ownership of the letters "UPS" and was not aware of Registration No. 2,582,489 and thus must deny.

Request for Admission No. 13:

On or before May 9, 2007, Applicant was aware of UPS's use of the mark identified in U.S. Reg. No. 2,830,249.

Answer to Request for Admission No. 13:

Applicant was aware of the use of the letters "UPS" prior to 9 May 2007 but was not aware of any ownership of the letters "UPS" and was not aware of Registration No. 2,830,249 and thus must deny.

Request for Admission No. 14:

On or before May 9, 2007, Applicant was aware of UPS's use of the mark identified in U.S. Reg. No. 2,483,193.

Answer to Request for Admission No. 14:

Applicant was aware of the use of the letters "UPS" prior to 9 May 2007 but was not aware of any ownership of the letters "UPS" and was not aware of Registration No. 2,483,193 and thus must deny.

Request for Admission No. 15:

On or before May 9, 2007, Applicant was aware of UPS's use of the mark identified in U.S. Reg. No. 3,160,062.

Answer to Request for Admission No. 15:

Applicant was aware of the use of the letters "UPS" prior to 9 May 2007 but was not aware of any ownership of the letters "UPS" and was not aware of Registration No. 3,160,062 and thus must deny.

Request for Admission No. 16:

On or before May 9, 2007, Applicant was aware of UPS's use of the mark identified in U.S. Reg. No. 2,520,558.

Answer to Request for Admission No. 16:

Applicant was aware of the use of the letters "UPS" prior to 9 May 2007 but was not aware of any ownership of the letters "UPS" and was not aware of Registration No. 2,520,558 and thus must deny.

Request for Admission No. 17:

On or before May 9, 2007, Applicant was aware of UPS's use of the mark identified in U.S. Reg. No. 2,973,108.

Answer to Request for Admission No. 17:

Applicant was aware of the use of the letters "UPS" prior to 9 May 2007 but was not aware of any ownership of the letters "UPS" and was not aware of Registration No. 2,973,108 and thus must deny.

Request for Admission No. 18:

UPS is the owner of U.S. Reg. No. 514,285 for the mark UPS THE DELIVERY SYSTEM FOR STORES OF QUALITY SINCE 1907 & Design.

Answer to Request for Admission No. 18:

Applicant admits that the USPTO website shows Registration No. 514,285 being registered by the Opposer; however, Applicant does not know the ownership of the mark of the Registration at the present time and therefore must deny same.

Request for Admission No. 19:

UPS is the owner of U.S. Reg. No. 966,774 for the mark UPS.

Answer to Request for Admission No. 19:

Applicant admits that the USPTO website shows Registration No. 966,774 being registered by the Opposer; however, Applicant does not know the ownership of the mark of the Registration at the present time and therefore must deny same.

Request for Admission No. 20:

UPS is the owner of U.S. Reg. No. 1,277,400 for the mark UPS 2ND DAY AIR & Design.

Answer to Request for Admission No. 20:

Applicant admits that the USPTO website shows Registration No. 1,277,400 being registered by the Opposer; however, Applicant does not know the ownership of the mark of the Registration at the present time and therefore must deny same.

Request for Admission No. 21:

UPS is the owner of U.S. Reg. No. 1,375,109 for the mark UPS NEXT DAY AIR & Design.

Answer to Request for Admission No. 21:

Applicant admits that the USPTO website shows Registration No. 1,375,109 being registered by the Opposer; however, Applicant does not know the

ownership of the mark of the Registration at the present time and therefore must deny same.

Request for Admission No. 22:

UPS is the owner of U.S. Reg. No. 1,874,248 for the mark UPS PREFERRED.

Answer to Request for Admission No. 22:

Applicant admits that the USPTO website shows Registration No. 1,874,248 being registered by the Opposer; however, Applicant does not know the ownership of the mark of the Registration at the present time and therefore must deny same.

Request for Admission No. 23:

UPS is the owner of U.S. Reg. No. 1,876,943 for the mark UPS PREFERRED and Design.

Answer to Request for Admission No. 23:

Applicant admits that the USPTO website shows Registration No. 1,876,943 being registered by the Opposer; however, Applicant does not know the ownership of the mark of the Registration at the present time and therefore must deny same.

Request for Admission No. 24:

UPS is the owner of U.S. Reg. No. 1,878,016 for the mark UPS NEXT DAY AIR.

Answer to Request for Admission No. 24:

Applicant admits that the USPTO website shows Registration No. 1,878,016 being registered by the Opposer; however, Applicant does not know the ownership of the mark of the Registration at the present time and therefore must deny same.

Request for Admission No. 25:

UPS is the owner of U.S. Reg. No. 1,878,918 for the mark UPS 2ND DAY AIR.

Answer to Request for Admission No. 25:

Applicant admits that the USPTO website shows Registration No. 1,878,918 being registered by the Opposer; however, Applicant does not know the ownership of the mark of the Registration at the present time and therefore must deny same.

Request for Admission No. 26:

UPS is the owner of U.S. Reg. No. 2,098,168 for the mark UPS TRACKPAD.

Answer to Request for Admission No. 26:

Applicant admits that the USPTO website shows Registration No. 2,098,168 being registered by the Opposer; however, Applicant does not know the ownership of the mark of the Registration at the present time and therefore must deny same.

Request for Admission No. 27:

UPS is the owner of U.S. Reg. No. 2,128,739 for the mark UPS ONLINE.

Answer to Request for Admission No. 27:

Applicant admits that the USPTO website shows Registration No. 2,128,739 being registered by the Opposer; however, Applicant does not know the ownership of the mark of the Registration at the present time and therefore must deny same.

Request for Admission No. 28:

UPS is the owner of U.S. Reg. No. 2,278,090 for the mark UPS & Design.

Answer to Request for Admission No. 28:

Applicant admits that the USPTO website shows Registration No. 2,278,090 being registered by the Opposer; however, Applicant does not know the ownership of the mark of the Registration at the present time and therefore must deny same.

Request for Admission No. 29:

UPS is the owner of U.S. Reg. No. 2,582,489 for the mark UPS ONLINE ENVOY.

Answer to Request for Admission No. 29:

Applicant admits that the USPTO website shows Registration No. 2,582,489 being registered by the Opposer; however, Applicant does not know the ownership of the mark of the Registration at the present time and therefore must deny same.

Request for Admission No. 30:

UPS is the owner of U.S. Reg. No. 2,830,249 for the mark UPS INTERNET TOOLS.

Answer to Request for Admission No. 30:

Applicant admits that the USPTO website shows Registration No. 2,830,249 being registered by the Opposer; however, Applicant does not know of the ownership of the mark of the Registration at the present time and therefore must deny same.

Request for Admission No. 31:

UPS is the owner of U.S. Reg. No. 2,483,193 for the mark UPS.COM.

Answer to Request for Admission No. 31:

Applicant admits that the USPTO website shows Registration No. 2,483,193 being registered by the Opposer; however, Applicant does not know the ownership of the mark of the Registration at the present time and therefore must deny same.

Request for Admission No. 32:

UPS is the owner of U.S. Reg. No. 3,160,062 for the mark UPS WORLDSHIP.

Answer to Request for Admission No. 32:

Applicant admits that the USPTO website shows Registration No. 3,160,062 being registered by the Opposer; however, Applicant does not know the

ownership of the mark of the Registration at the present time and therefore must deny same.

Request for Admission No. 33:

UPS is the owner of U.S. Reg. No. 2.520.558 for the mark UPS.

Answer to Request for Admission No. 33:

Applicant admits that the USPTO website shows Registration No. 2.520.558 being registered by the Opposer; however. Applicant does not know the ownership of the mark of the Registration at the present time and therefore must deny same.

Request for Admission No. 34:

UPS is the owner of U.S. Reg. No. 2.973.108 for the mark UPS & Design.

Answer to Request for Admission No. 34:

Applicant admits that the USPTO website shows Registration No. 2.973.108 being registered by the Opposer; however. Applicant does not know the ownership of the mark of the Registration at the present time and therefore must deny same.

Request for Admission No. 35:

Prior to May 9. 2007. Applicant had not yet used the Proposed Mark.

Answer to Request for Admission No. 35:

Admitted.

Request for Admission No. 36:

Prior to May 9. 2007. Applicant had not yet used the Proposed Mark in commerce.

Answer to Request for Admission No. 36:

Admitted.

Request for Admission No. 37:

Prior to May 9. 2007. Applicant did not have a bona fide intention to use the Proposed Mark in commerce.

Answer to Request for Admission No. 37:

Applicant did have and does have a bona fide intention to use the Proposed Mark in commerce prior to May 9. 2007 and at the present time and thus denies.

Request for Admission No. 38:

Applicant has not yet used the Proposed Mark.

Answer to Request for Admission No. 38:

Admitted.

Request for Admission No. 39:

Applicant has not yet used the Proposed Mark in commerce.

Answer to Request for Admission No. 49:

Admitted.

Request for Admission No. 40:

Applicant Goods and Services include: power supplies; mobile phone battery chargers; mobile phone battery charger stations; battery chargers; universal power supplies; power saving adapters; electric storage batteries; uninterruptible power supplies; AC/DC converters; power source stable adapters.

Answer to Request for Admission No. 40:

Admitted.

Request for Admission No. 41:

Applicant does not have a bona fide intention to use the Proposed Mark in connection with power supplies.

Answer to Request for Admission No. 41:

Applicant does have a bona fide intention to use the Proposed Mark in connection with power supplies and therefore must deny.

Request for Admission No. 42:

Applicant does not have a bona fide intention to use the Proposed Mark in connection with mobile phone battery chargers.

Answer to Request for Admission No. 42:

Applicant does have a bona fide intention to use the Proposed Mark in connection with mobile phone battery chargers and therefore must deny.

Request for Admission No. 43:

Applicant does not have a bona fide intention to use the Proposed Mark in connection with mobile phone battery charger stations.

Answer to Request for Admission No. 43:

Applicant does have a bona fide intention to use the Proposed Mark in connection with mobile phone battery charger stations and therefore must deny.

Request for Admission No. 44:

Applicant does not have a bona fide intention to use the Proposed Mark in connection with battery chargers.

Answer to Request for Admission No. 44:

Applicant does have a bona fide intention to use the Proposed Mark in connection with battery chargers and therefore must deny.

Request for Admission No. 45:

Applicant does not have a bona fide intention to use the Proposed Mark in connection with universal power supplies.

Answer to Request for Admission No. 45:

Applicant does have a bona fide intention to use the Proposed Mark in connection with universal power supplies and therefore must deny.

Request for Admission No. 46:

Applicant does not have a bona fide intention to use the Proposed Mark in connection with power saving adapters.

Answer to Request for Admission No. 46:

Applicant does have a bona fide intention to use the Proposed Mark in connection with power saving adapters and therefore must deny.

Request for Admission No. 47:

Applicant does not have a bona fide intention to use the Proposed Mark in connection with electric storage batteries.

Answer to Request for Admission No. 47:

Applicant does have a bona fide intention to use the Proposed Mark in connection with electric storage batteries and therefore must deny.

Request for Admission No. 48:

Applicant does not have a bona fide intention to use the Proposed Mark in connection with uninterruptible power supplies.

Answer to Request for Admission No. 48:

Applicant does have a bona fide intention to use the Proposed Mark in connection with uninterruptible power supplies and therefore must deny.

Request for Admission No. 49:

Applicant does not have a bona fide intention to use the Proposed Mark in connection with AC/DC converters.

Answer to Request for Admission No. 49:

Applicant does have a bona fide intention to use the Proposed Mark in connection with AC/DC converters and therefore must deny.

Request for Admission No. 50:

Applicant does not have a bona fide intention to use the Proposed Mark in connection with power source stable adapters.

Answer to Request for Admission No. 50:

Applicant does have a bona fide intention to use the Proposed Mark in connection with power source stable adapters and therefore must deny.

Request for Admission No. 51:

Applicant does not have any documents or things evidencing its bona fide intention to use the Proposed Mark in commerce.

Answer to Request for Admission No. 51:

Applicant did provide a Declaration with the filing of the Proposed Mark Trademark Application and therefore must deny.

Request for Admission No. 52:

Applicant's Goods to be offered under the Proposed Mark are intended to be energy efficient.

Answer to Request for Admission No. 52:

It is always hoped by Applicant that the goods that it produces are "energy efficient" and therefore must admit.

Request for Admission No. 53:

Applicant's Goods to be offered under the Proposed Mark are intended to use less energy than otherwise comparable goods.

Answer to Request for Admission No. 53:

Applicant has not made a specific investigation as to the use of less energy than otherwise comparable goods and although Applicant hopes that it uses less energy than otherwise comparable goods, Applicant to that extent admits.

Request for Admission No. 54:

Applicant's Goods to be offered under the Proposed Mark are intended to be beneficial to the environment.

Answer to Request for Admission No. 54:

Applicant certainly hopes that the goods offered under the Proposed Mark will be beneficial to the environment and therefore to that extent admits.

Request for Admission No. 55:

Applicant's Goods to be offered under the Proposed Mark are intended to appear to be beneficial to the environment.

Answer to Request for Admission No. 55:

It is intended that Applicant's goods to be offered under the Proposed Mark would appear to be beneficial to the environment and to this extent admits.

Request for Admission No. 56:

Applicant's Goods to be offered under the Proposed Mark are for use with more then one type of power output.

Answer to Request for Admission No. 56:

Admit.

Request for Admission No. 57:

Applicant's Goods may be offered through the same channels of trade as Opposer's Goods and Services.

Answer to Request for Admission No. 57:

Applicant is without knowledge as to the channels of trade of Opposer's goods and services and further has not developed any channels of trade since this is an Intent To Use mark and no channels of trade have been established and therefore must deny same.

Request for Admission No. 58:

Applicant's Goods are targeted to the same consumers as Opposer's Goods and Services.

Answer to Request for Admission No. 58:

Applicant does not know the Opposer's goods and services consumers and thus denies same.

Request for Admission No. 59:

Applicant's Goods may be encountered by the same or similar class of purchasers as those who are familiar with, or interested in, Opposer's Goods and Services.

Answer to Request for Admission No. 59:

Applicant does not know the class of purchasers who are familiar with or interested in Opposer's Goods and Services and thus denies same.

Request for Admission No. 60:

Consumers encountering Applicant's Goods are likely to believe that Opposer is the source of such goods and services.

Answer to Request for Admission No. 60:

Denied. Applicant's goods are directed to electrical components and the dominant portion of Applicant's mark is "HYBRID GREEN" with "UPS" being a standard abbreviation for "uninterruptable power supplies" which is one of Applicant's proposed goods, and does not believe that consumers encountering Applicant's goods are likely to believe that Opposer is the source of such goods and services, and therefore denies same.

Request for Admission No. 61:

Consumers encountering Applicant's Goods are likely to believe that Opposer has authorized such goods and services.

Answer to Request for Admission No. 61:

Denied. Applicant's goods are directed to electrical components and the dominant portion of Applicant's mark is "HYBRID GREEN" with "UPS" being a standard abbreviation for "uninterruptable power supplies" which is one of Applicant's proposed goods, and does not believe that consumers encountering Applicant's goods are likely to believe that Opposer has authored such goods and services and therefore denies same.

Request for Admission No. 62:

Applicant's use of the Proposed Mark in connection with Applicant's Goods will create a likelihood of mistake, deception, or confusion with Opposer's Marks for Opposer's Goods and Services.

Answer to Request for Admission No. 62:

Denied. Applicant's goods are directed to electrical components and the dominant portion of Applicant's mark is "HYBRID GREEN" with "UPS" being a standard abbreviation for "uninterruptible power supplies" which is one of Applicant's proposed goods and thus does not believe there would be a likelihood of mistake, deception or confusion with Opposer's marks for Opposer's goods and services. and therefore denies same.

Request for Admission No. 63:

Applicant selected the Proposed Mark with the intent to cause a likelihood of mistake, deception, or confusion with Opposer's Marks for Opposer's Goods and Services.

Answer to Request for Admission No. 63:

Denied. Applicant selected the proposed mark with the dominant portion being "HYBRID GREEN" and the letters "UPS" being a somewhat descriptive term for the well known abbreviation "uninterruptible power supplies" which is one of Applicant's proposed goods and therefore denies same.

Request for Admission No. 64:

Opposer advertises its products extensively using Opposer's Marks.

Answer to Request for Admission No. 64:

Denied. Applicant is not aware of any extensive advertising of Opposer's "products" and therefore must deny same.

Request for Admission No. 65:

Opposer has used the mark UPS nationwide since 1907.

Answer to Request for Admission No. 65:

Denied. Applicant has no knowledge of the date at which Opposer has initiated its use of the letters "UPS" as a trademark or service mark and therefore denies same.

Request for Admission No. 66:

Opposer's Marks are strong marks, as that term has been used in cases construing the Lanham Act.

Answer to Request for Admission No. 66:

Denied. Applicant does not understand the terminology "strong marks". Applicant admits that there are a number of Registrations owned by Opposer that use the letters "UPS", however, it is not believed that such are in any way related to Applicant's proposed electrical component goods and therefore denies same.

Request for Admission No. 67:

Opposer's Marks are famous marks, within the meaning of Section 43(c) of the Lanham Act.

Answer to Request for Admission No. 67:

Denied. Applicant does not know how "famous" Opposer's marks are and must leave Opposer to provide evidence of such and therefore denies same.

Request for Admission No. 68:

Applicant's use of the Proposed Mark for Applicant's Goods will lessen the capacity of Opposer's Marks to distinguish Opposer's Goods and Services from those of others.

Answer to Request for Admission No. 68:

Denied. Applicant found numerous Registered marks using the letters "UPS" which are in effect and being used by third parties and thus does not believe that Applicant's use of the proposed marks will lessen the capacity of Opposer's marks to distinguish Opposer's goods and services from those of others to the extent that the letters "UPS" are a well known abbreviation of "uninterruptible power sources" and therefore denies same.

Request for Admission No. 69:

Applicant's use of the Proposed Mark for Applicant's Goods will suggest a connection or affiliation between Opposer and Applicant.

Answer to Request for Admission No. 69:

Denied. Applicant does not believe that Opposer uses the letters "UPS" on any of Applicant's proposed goods with the dominant portion of Applicant's mark being "HYBRID GREEN". Applicant does not believe that there would be any

suggestion or connection or affiliation between Opposer and Applicant which can be suggested and therefore denies same.

Request for Admission No. 70:

Applicant disclaimed the "UPS" portion of its mark as descriptive.

Answer to Request for Admission No. 70:

Admitted.

Request for Admission No. 71:

Applicant is not affiliated with Opposer.

Answer to Request for Admission No. 71:

Admitted.

Request for Admission No. 72:

Applicant is not sponsored by Opposer.

Answer to Request for Admission No. 72:

Admitted.

Request for Admission No. 73:

Applicant has no contractual relationship with Opposer that bears on the Proposed Mark or Opposer's Marks.

Answer to Request for Admission No. 73:

Admitted.

Request for Admission No. 74:

Applicant has not sought authorization from Opposer to use or register the Proposed Mark.

Answer to Request for Admission No. 74:

Admitted.

Request for Admission No. 75:

Applicant has not obtained authorization from Opposer to use or Register the proposed mark.

Answer to Request for Admission No. 75:

Admitted.

Request for Admission No. 76:

The Proposed Mark is similar to Opposer's Marks.

Answer to Request for Admission No. 76:

Denied. Applicant's proposed mark is "HYBRID GREEN UPS" with the dominant portion of the mark being "HYBRID GREEN" and the letters "UPS" only designating a standard abbreviation for the words "uninterruptible power supplies" and thus denies same.

Request for Admission No. 77:

The Proposed mark is confusingly similar to Opposer's Marks.

Answer to Request for Admission No. 77:

Denied. The proposed mark has the dominant portion "HYBRID GREEN" for dissimilar goods when taken with respect to any goods or services of the Opposer and thus is not believed to be confusingly similar.

Request for Admission No. 78:

The Proposed Mark ends in the term "UPS".

Answer to Request for Admission No. 78:

Admitted.

Request for Admission No. 79:

Each of Opposer's Marks includes the term "UPS."

Answer to Request for Admission No. 79:

Admitted.

Request for Admission No. 80:

Registration of the Proposed mark would damage Opposer.

Answer to Request for Admission No. 80:

Denied. Applicant's goods are directed to electrical components which are not believed to be incorporated with any of the products of Opposer as provided in the Registrations submitted by Opposer.

Respectfully submitted,
For: POWERTECH INDUSTRIAL CO., LTD.

Apr. 13, 2009
Date
APR. 13. 2009

Yu-Lung Lee
Yu Lung Lee
Assistant General Manager

For: ROSENBERG, KLEIN & LEE

4/16/09
Date

Morton J. Rosenberg

Attorneys for Applicant
POWERTECH INDUSTRIAL CO., LTD.

CERTIFICATE OF SERVICE

It is hereby certified that a true and correct copy of the foregoing Applicant's Answer to Opposer's first Requests to Applicant for the Production of Documents and Things was served this 16th day of April 2009 via first class mail, postage prepaid, addressed to:

Stephen M. Schaetzel, Esquire
John P. Sheesley, Esquire
Elizabeth M. Fox, Esquire
1180 Peachtree Street, N.E.
Atlanta, GA 30309-3521

Morton J. Rosenberg
Suite 101
3458 Ellicott Center Drive
Ellicott City, MD 21043
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MR2349-1569/OPP

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE TRADEMARK TRIAL AND APPEAL BOARD

UNITED PARCEL SERVICE OF AMERICA, INC.	:
Opposer,	:
v.	: Opposition No. 91184197
POWERTECH INDUSTRIAL CO., LTD.	:
Applicant	:

APPLICANT'S ANSWER TO OPPOSER'S FIRST REQUESTS TO APPLICANT FOR THE PRODUCTION OF DOCUMENTS AND THINGS

Applicant, Powertech Industrial Co., Ltd., by counsel, for its Responses to Opposer's First Request for Production of Documents, respectfully states the following:

GENERAL OBJECTIONS

Applicant sets forth the following general objections, which are made to each and every request whether or not specifically stated in response thereto. Where a specific objection is set forth, these general objections are incorporated by reference within the specific objection for each Request for Production of Documents and Things as if set forth separately therein:

1. Applicant objects to Opposer's First Request for Production of Documents and Things numbering 1-41 inclusive thereof to the extent that they seek to impose discovery obligations beyond those required by the Federal Rules of Civil Procedure or the Trademark Rules of Practice.

2. Applicant objects to Opposer's First Request for Production of Documents and Things numbering 1-41 inclusive thereof to the extent that they are ambiguous, overly broad, unduly burdensome to respond to, or are not reasonably calculated to lead to the discovery of admissible evidence.

3. Applicant objects to Opposer's First Request for Production of Documents and Things numbering 1-41 inclusive thereof to the extent that they require the disclosure of information or documents subject to the attorney-client privilege and/or are protected from discovery by the Work Product Doctrine or any other applicable privileges.

Production or disclosure of any privileged or otherwise protected information by Applicant in the course of this Opposition is inadvertent and shall not constitute a waiver of such privilege(s) and/or protection(s) or other grounds for objection to discovery with respect to such information.

4. Applicant objects to Opposer's First Request for Production of Documents and Things numbering 1-41 inclusive thereof to the extent that they seek information or documents which are already in the public domain, readily available to Opposer, or are already possessed by, within the control or otherwise known to Opposer.

5. Applicant objects to Opposer's First Request for Production of Documents and Things numbering 1-41 inclusive thereof to the extent that the information sought is confidential or proprietary.

6. Applicant objects to Opposer's First Request for Production of Documents and Things numbering 1-41 inclusive thereof to the extent that they call for the release of a third party's confidential or proprietary information or

identification of a third parties documents that are in Applicant's possession and are the subject of a non-disclosure agreement or other confidentiality requirement.

7. Applicant objects to Opposer's First Request for Production of Documents and Things numbering 1-41 inclusive thereof and the definitions and instructions thereto to the extent that they are unreasonably cumulative or duplicative. repetitive. redundant, or otherwise excessive, or oppressive.

8. Applicant objects to Opposer's First Request for Production of Documents and Things numbering 1-41 inclusive thereof to the extent that Opposer seeks to require Applicant to provide the information beyond that which is available to Applicant after conducting a reasonable search of its own files, or after making reasonable inquiries.

9. Applicant objects to Opposer's First Request for Production of Documents and Things numbering 1-41 inclusive thereof to the extent that they call for production of Applicant's confidential or proprietary information. trade secrets, and future marketing and business plans.

10. Applicant objects to Opposer's First Request for Production of Documents and Things numbering 1-41 inclusive thereof to the extent that they seek information that if produced would result in the violation of a contractual obligation to a third party.

11. Nothing in these objections shall be construed as waiving any rights or objections which otherwise may be available to Applicant, nor are any of Applicant's objections and admission of the relevance, materiality, or admissibility of evidence in either the interrogatories or document requests or responses thereto.

12. To the extent that specific objections are cited in a specific response, the specific objections are provided because they are believed to be particularly applicable to the specific request and are not to be construed as a waiver of any general objection applicable to information falling within the scope of the interrogatories or request for production of documents and things.

13. Applicant explicitly reserves its rights to present additional facts and/or contentions and to raise any applicable rejections based on information and/or documents subsequently obtained and/or evaluated in light of the developments in the law, developments in the underlying Opposition, or any other relevant information that Applicant may subsequently obtain.

Document Request No. 1:

All documents concerning Applicant's selection and adoption of the Proposed Mark, including without limitations, any documentation of meetings or discussions held concerning the adoption of said mark, and any documents concerning the reasons for selecting, adopting, using or intending to use the Proposed Mark.

Answer to Document Request No. 1:

Objection to Document Request No. 1: see General Objections.

Applicant further objects to this Request for Documents and Things to the extent that it is overly broad and unduly burdensome.

Subject to and without waving its previously stated objections. and to the extent Request No. 1 is understood. the following documents are provided:

No documents concerning Applicant's selection and adoption of the proposed mark have been found by the Applicant. however. Applicant will make further searches and determine if any documents exist.

Document Request No. 2:

Documents sufficient to identify each specific type of Applicant's product or service offered or to be offered under the Proposed Mark.

Answer to Document Request No. 2:

Objection to Document Request No. 2: see General Objections.

Applicant further objects to this Request for Documents and Things to the extent that Applicant's mark is directed to an intent to use mark and it is speculative as to what further products may be offered under the proposed mark.

Subject to and without waiving its previously stated objections, and to the extent that Request No. 2 is understood. the following documents are provided:

Document I.D. Nos. 000001-000033 which are representative documents identifying products sold by others which may in the future be provided by Applicant.

Document Request No. 3:

Documents establishing or concerning Applicant's dates of actual or intended first use and actual or intended first use in commerce of the Proposed Mark on or in connection with Applicant's products or services, and all documents concerning or otherwise evidencing the circumstances under which such first use and first use in commerce occurred or will occur, and the geographical areas of such actual or intended first use and any third persons involved.

Answer to Document Request No. 3:

Objection to Document Request No. 3: see General Objections.

Applicant further objects to this Request with regard to "geographical areas" external to the United States since the jurisdiction of this Opposition proceeding only applies to first use and first use in commerce within the United States.

Subject to and without waiving its previously stated objections, and to the extent that Request No. 3 is understood, the following documents are provided:

NONE.

Document Request No. 4:

All documents concerning any searches, studies, investigations, opinions, or any other inquiries, whether formal or informal, conducted by or on behalf of

Applicant referring to the availability of the Proposed Mark for adoption and use by Applicant on or in connection with Applicant's products or services.

Answer to Document Request No. 4:

Objection to Document Request No. 4: see General Objections.

Additionally, Applicant further objects to this Request for Production of Documents and Things to the extent that it requests documents subject to the Attorney-Client privilege and/or are protected from discovery by the Work Product Doctrine.

Subject to and without waiving its previously stated objections, Applicant has initiated a search of its records for any studies, investigations and/or opinions or other inquiries referring to the availability of the proposed mark but has found no such documents at the present time. The Applicant will continue further searching of its records and will supply such documents to the Opposer if found.

Document Request No. 5:

Documents identifying when Applicant first became aware of (a) Opposer and (b) Opposer's marks.

Answer to Document Request No. 5:

Objections to Document Request No. 5: see General Objections.

Applicant further objects to this Request for Documents and Things to the extent that it is overly broad and unduly burdensome since the letters "UPS" may have been seen by numerous employees of Applicant through advertising and/or other types of media not in connection with the subject proceeding.

Subject to and without waiving its previously stated objections, and to the extent that Request No. 5 is understood. Applicant responds to the Request as follows:

Document I.D. Nos. 000034-000035: Notification from U.S. Attorney to the Applicant's Taiwan Attorney dated 23 May 2008 indicating that the subject Opposition has been initiated.

Applicant is involved in a Taiwan R.O.C. Opposition with Opposer relating to the proposed mark and all documents are in the possession of the Opposer.

Document Request No. 6:

Documents evidencing any instance or incident of any alleged mistake or confusion between Applicant, the Proposed Mark, and any product(s) and/or service(s) offered under said mark on the one hand, and Opposer, Opposer's marks, and products and services offered under Opposer's Marks on the other hand.

Answer to Document Request No. 6:

To the extent that Document Request No. 6 is understood, there are no documents evidencing any instance or incident of any alleged mistake or

confusion between Applicant, the Proposed Mark, and any product offered under the mark with respect to Opposer or Opposer's marks.

Document Request No. 7:

Documents concerning any trademark applications and registrations (whether state or federal) for the Proposed Mark or any similar mark and the file history and/or file wrapper thereof and specimens submitted therewith and all correspondence related thereto.

Answer to Document Request No. 7:

Objections to Document Request No. 7: see General Objections.

Applicant further objects to this Request for Documents and Things to the extent that the file history and/or file wrapper of the proposed mark is open to the public and can be obtained by the Opposer from the USPTO website.

Subject to and without waiving its previously stated objections, and to the extent that Request No. 7 is understood, the following documents are provided:

Document I.D. Nos. 000036-000068: file history of Serial No. 77/176,134 directed to the proposed mark.

Document Request No. 8:

Documents concerning any assistance Applicant received from any consultant, advertising agency, marketing firm or any other party, to assist in

advertising, promoting, marketing, offering, or providing the products or services offered or to be offered under the Proposed mark.

Answer to Document Request No. 8:

Objection to Document Request No. 8: see General Objections.

Subject to and without waiving its previously stated objections, and to the extent that Request No. 8 is understood, there are no documents associated with any consultant, advertising agency, marketing firm or any other party to assist in advertising, promoting, marketing, offering or providing the products offered or to be offered under the proposed mark.

Document Request No. 9:

All documents concerning consumer studies, surveys and market research reports relating to the marketing, strategic planning, advertising and promotion of the products or services offered or to be offered under the Proposed Mark.

Answer to Document Request No. 9:

Objection to Document Request No. 9: see General Objections.

Subject to and without waiving its previously stated objections, and to the extent that Request No. 9 is understood, Applicant answers as follows:

NONE.

Document Request No. 10:

Sample specimens of advertisements, brochures, promotional pieces, press releases, and materials used or to be used in connection with the Applicant's products or services offered or to be offered under the Proposed Mark.

Answer to Document Request No. 10:

Objection to Document Request No. 10: see General Objections.

Subject to and without waiving its previously stated objections, and to the extent that Request No. 10 is understood, Applicant answers as follows:

NONE.

Document Request No. 11:

Sample specimens of all labels, tags, cartons, decals, stickers, packaging, containers, ad slicks, price lists, displays, and point-of-purchase promotional materials which are, have ever been, or will be used in connection with the offering and provision by Applicant of products or services under the Proposed Mark.

Answer to Document Request No. 11:

Objection to Document Request No. 11: see General Objections.

Subject to and without waiving its previously stated objections, and to the extent that Request No. 11 is understood, Applicant answers as follows:

NONE.

Document Request No. 12:

All documents relating or referring to media coverage of Applicant's products or services offered or to be offered under the Proposed mark. including without limitation. articles and features in press releases. newspapers. newsletters, magazines, television programs, radio programs. or Internet web sites.

Answer to Document Request No. 12:

Objection to Document Request No. 12: see General Objections.

Subject to and without waiving its previously stated objections. and to the extent that Request No. 12 is understood. Applicant answers as follows:

NONE.

Document Request No. 13:

Documents sufficient to show the types of stores or other outlets and representative specific stores or other outlets offering, or which Applicant expects to offer, products or services under the Proposed Mark.

Answer to Document Request No. 13:

Objection to Document Request No. 13: see General Objections.

Subject to and without waiving its previously stated objections, and to the extent that Request No. 13 is understood, Applicant answers as follows:

NONE.

Document Request No. 14:

All documents concerning the target customers and/or target markets for Applicant's products or services on or in connection with which the Proposed Mark is or is intended to be used, including without limitation, documentation sufficient to show the characteristics of such customers by age, gender, geographic location or area of residence, income, or other demographic criteria or characteristics.

Answer to Document Request No. 14:

Objection to Document Request No. 14: see General Objections.

Subject to and without waiving its previously stated objections, and to the extent that Request No. 14 is understood, Applicant answers as follows:

NONE.

Document Request No. 15:

Documents sufficient to show Applicant's total dollar volume of sales of products or services in the United States under the Proposed Mark, on a monthly and annual basis, from the first date of such sales to the present.

Answer to Document Request No. 15:

Objection to Document Request No. 15: see General Objections.

Subject to and without waiving its previously stated objections, and to the extent that Request No. 15 is understood, there are no documents associated with the proposed mark since the goods have not been sold under the proposed mark at the present time.

Document Request No. 16:

Documents sufficient to show Applicant's total dollar volume of advertising and promotional expenditures and the nature of such expenditures in the United states in connection with Applicant's promotion of the Proposed Mark and the products or services offered or to be offered under the Proposed Mark, on a monthly and annual basis, from the first date of such expenditures to the present.

Answer to Document Request No. 16:

Objection to Document Request No. 16: see General Objections.

Subject to and without waiving its previously stated objections, and to the extent that Request No. 16 is understood, Applicant answers as follows:

NONE.

Document Request No. 17:

Documents which any expert retained by Applicant in connection with the Opposition proceeding has seen, may use, or may rely upon in the course of arriving at any opinions or conclusions at trial in this proceeding. This Request includes, without limitation, all consumer studies and survey materials.

Answer to Document Request No. 17:

Applicant has not hired any expert in connection with the Opposition proceeding and thus there are no documents associated with this Request.

Document Request No. 18:

All documents concerning the opinions, or conclusions for such opinions, by any expert retained by Applicant in connection with the Opposition proceeding.

Answer to Document Request No. 18:

Objection to Document Request No. 18: see General Objections.

Subject to and without waiving its previously stated objections, and to the extent that Request No. 18 is understood, Applicant answers as follows:

NONE.

Document Request No. 19:

All grants, licenses, assignments, and other agreements concerning the Proposed Mark.

Answer to Document Request No. 19:

Objection to Document Request No. 19: see General Objections.

Subject to and without waiving its previously stated objections, and to the extent that Request No. 19 is understood, there are no documents associated with any grants, licenses, assignments or other agreements concerning the Proposed Mark.

Document Request No. 20:

All marketing agreements which Applicant has entered into that concern or relate to the Proposed Mark.

Answer to Document Request No. 20:

Objection to Document Request No. 20: see General Objections.

Subject to and without waiving its previously stated objections, and to the extent that Request No. 20 is understood, Applicant answers as follows:

NONE.

Document Request No. 21:

All documents regarding Applicant's distribution and sale of products and services offered or to be offered under the Proposed Mark.

Answer to Document Request No. 21:

Objection to Document Request No. 21: see General Objections.

Subject to and without waiving its previously stated objections, and to the extent that Request No. 21 is understood. Applicant answers as follows:

NONE.

Document Request No. 22:

Any documents referring or relating to Applicant's trademark policing and enforcement efforts against third parties concerning the Proposed Mark, including without limitation, lawsuits, oppositions, cancellations, cease and desist letters, and the like, as well as any documents concerning the result thereof, including without limitation, orders, judgments, consents, settlement agreements, written understandings, and the like.

Answer to Document Request No. 22:

Objection to Document Request No. 22: see General Objections.

Subject to and without waiving its previously stated objections, and to the extent that Request No. 22 is understood, Applicant answers as follows:

NONE.

Document Request No. 23:

Documents concerning Applicant's policies regarding retention, storage, filing, and destruction of documents.

Answer to Document Request No. 23:

Objection to Document Request No. 23: see General Objections.

Subject to and without waiving its previously stated objections, and to the extent that Request No. 23 is understood, Applicant has no set policies regarding retention, storage, filing and destruction of documents and thus there are no documents associated therewith.

Document Request No. 24:

All documents that Applicant intends to offer into evidence or otherwise use, including as exhibits or demonstrative exhibits, in this Opposition proceeding.

Answer to Document Request No. 24:

Applicant further objects to this Request for Document and Things to the extent that documents associated with Applicant's Answer to the Notice of Opposition are in the possession of the Opposer.

Subject to and without waiving its previously stated objections, and to the extent that Request No. 24 is understood, the following documents are provided:

Document I.D. Nos. 000001-000068:

Document I.D. Nos. 000069-000071: Merriam-Webster Collegiate Dictionary showing that the letters "UPS" is an abbreviation for uninterruptible power supply".

Document I.D. Nos. 000072-000139 which is the Applicant's Answer to the Notice of Opposition including all Exhibits thereto.

Document I.D. Nos. 000140-000144 showing use of "UPS" in the marketplace.

Document Request No. 25:

All documents concerning the testimony or possible testimony of any fact witness that Applicant may call as a witness in this Opposition proceeding.

Answer to Document Request No. 25:

Objection to Document Request No. 25: see General Objections.

Subject to and without waiving its previously stated objections, and to the extent that Request No. 25 is understood, Applicant has no documents concerning the testimony or possible testimony of any fact witness who may be called as a witness in this Opposition proceeding.

Document Request No. 26:

All documents relied upon or consulted in preparing, or supporting, Applicant's June 24, 2008 Answer, including but not limited to all articles, websites, and other documents referenced therein.

Answer to Document Request No. 26:

Objection to Document Request No. 26: see General Objections.

Applicant further objects to this Request for Documents and Things to the extent that it requires documents which are in the possession of the Opposer.

Subject to and without waiving its previously stated objections, and to the extent that Request No. 26 is understood, Applicant answers Request No. 26 as follows:

Documents associated with Applicant's June 24, 2008 Answer were obtained from Opposer's Notice of Opposition which is in the possession of the Opposer.

Documents relied upon in Applicant's June 24, 2008 Answer relating to Exhibits were obtained from the USPTO website and further were obtained from Internet searching relating to the descriptive term "UPS".

Document Request No. 27:

All documents identified in, relied upon, or consulted in responding to Opposer's first Interrogatories to Applicant.

Answer to Document Request No. 27:

Objection to Document Request No. 27: see General Objections.

Applicant further objects to this Request for Documents and Things to the extent that it requests documents which are protected by the Attorney-Client privilege.

Subject to and without waiving its previously stated objections. and to the extent that Request No. 27 is understood, Applicant, with the exception of documents provided to its Attorney has no further documents.

Document Request No. 28:

All documents and things that reference Opposer and/or display or bear any trademark(s) owned by Opposer. including but not limited to Opposer's Mark.

Answer to Document Request No. 28:

Objection to Document Request No. 28: see General Objections.

Applicant further objects to the Request for Documents and Things to the extent that all documents are in the possession of Opposer.

Subject to and without waiving its previously stated objections, and to the extent that Request No. 28 is understood, Applicant provides the following documents:

Document I.D. Nos. 000089-000109 which are Exhibits in Applicant's Answer to the Notice of Opposition.

Document Request No. 29:

All documents supporting or concerning Applicant's allegation, as set forth in Paragraph 25 of Applicant's June 24, 2008 Answer, that UPS "is a commonly used acronym standing for 'uninterruptible power supply' and 'universal power supply'."

Answer to Document Request No. 29:

Objection to Document Request No. 29: see General Objections.

Subject to and without waiving its previously stated objections, and to the extent that Request No. 29 is understood, the following documents are provided:

Document I.D. Nos. 000110-000125;

Document I.D. Nos. 000069-000071;

Document I.D. Nos. 000139-000144.

Document Request No. 30:

All documents supporting or concerning Applicant's allegation, as set forth in Paragraph 25 of Applicant's June 24, 2008 Answer, that the "terminology of 'UPS' has clearly become descriptive in the power supply channels of trade."

Answer to Document Request No. 30:

Objection to Document Request No. 30: see General Objections.

Subject to and without waiving its previously stated objections, and to the extent that Request No. 30 is understood, the following documents are provided:

Document I.D. Nos. 000110-000126.

Document Request No. 31:

All documents supporting or concerning Applicant's allegation, as set forth in Paragraph 25 of Applicant's June 24, 2008 Answer, that the "letters 'UPS' are commonly understood among those in the power supply channels of trade to represent universal power supply or uninterrupted power supply."

Answer to Document Request No. 31:

Objection to Document Request No. 31: see General Objections.

Subject to and without waiving its previously stated objections, and to the extent that Request No. 31 is understood, the following documents are provided:

Document I.D. Nos. 000110-000144.

Document Request No. 32:

All document supporting or concerning Applicant's allegation, as set forth in Paragraph 25 of Applicant's June 24, 2008 Answer, that the "letters 'UPS' are commonly understood among those in the power supply channels of trade to represent universal power supply or uninterrupted power supply."

Answer to Document Request No. 32:

Objection to Document Request No. 32: see General Objections.

Applicant objects to Document Request No. 32 since it appears that Document Request No. 32 is an exact duplicate of Document Request No. 31.

Subject to and without waiving its previously stated objections, and to the extent that Request No. 32 is understood, Applicant responds to Document Request No. 32 as follows:

Documents: see documents in response to Document Request No. 31.

Document Request No. 33:

All documents supporting or concerning Applicant's allegation, as set forth in Paragraph 26 of Applicant's June 24, 2008 Answer, "that the common portion of the mark at issue, 'UPS', is further inherently weak and that Applicant's use will not give rise to any likelihood of confusion."

Answer to Document Request No. 33:

Objection to Document Request No. 33: see General Objections.

Applicant further objects to this Request for Documents and Things since the documents are in the possession of Opposer.

Subject to and without waiving its previously stated objections, and to the extent that Request No. 33 is understood, the following documents are provided:

Document I.D. Nos. 000126-000144.

Document Request No. 34:

All documents supporting or concerning Applicant's allegations, as set forth in Paragraph 27 of Applicant's June 24, 2008 Answer, that "UPS is a well recognized abbreviation and acronym for 'uninterruptible power supply' and 'universal power supply'."

Answer to Document Request No. 34:

Objection to Document Request No. 34: see General Objections.

Subject to and without waiving its previously stated objections, and to the extent that Request No. 34 is understood, the following documents are provided:

Document I.D. No. 000069-000071;

Document I.D. No. 000110-000125.

Document Request No. 35:

All documents supporting or concerning Applicant's allegation, as set forth in Paragraph 27 of Applicant's June 24, 2008 Answer, that "[t]he letters 'UPS' and variations thereof are commonly used by many other registrants and sellers in the marketplace."

Answer to Document Request No. 35:

Objection to Document Request No. 35: see General Objections.

Subject to and without waiving its previously stated objections. and to the extent that Request No. 35 is understood. the following documents are provided with regard to registrants in the marketplace:

Document I.D. Nos. 000126-000139.

With regard to sellers in the marketplace representative advertisements from the internet are provided in:

Document I.D. Nos. 000001-000002, 000005, 000008, 000140-000144 obtained from sellers on the internet.

Document Request No. 36:

All documents supporting or concerning Applicant's allegation, as set forth in Paragraph 28 of Applicant's June 24. 2008 Answer, that "the United States Patent and Trademark Office recognizes that [the term 'UPS] (especially in the field of power supply systems) is entitled to a relatively narrow scope of protection and that the person who purchases such goods can readily distinguish between the marks containing such letters without any confusion."

Answer to Document Request No. 36:

Objection to Document Request No. 36: see General Objections.

Subject to and without waiving its previously stated objections. and to the extent that Request No. 36 is understood. the following documents are provided:

Document I.D. Nos. 000126-000139.

Document Request No. 37:

All documents supporting or concerning Applicant's allegation. as set forth in Paragraph 31 of Applicant's June 24, 2008 Answer, that "[u]ninterruptible power supplies/universal power supplies and associated goods are undeniably expensive goods and the purchasers of such electrical supplies would be considered 'discriminating purchasers' having a high degree of sophistication in their purchasing."

Answer to Document Request No. 37:

Objection to Document Request No. 37: see General Objections.

Subject to and without waiving its previously stated objections, and to the extent that Request No. 37 is understood, the following documents are provided:

Document I.D. Nos. 000001-000033 showing pricing of various systems.

Document Request No. 38:

All documents supporting or concerning Applicant's allegation. as set forth in Paragraph 31 of Applicant's June 24, 2008 Answer, that "[a] sophisticated consumer would undoubtedly be able to distinguish between highly specialized electrical power supply systems and peripheral equipment with hand-held computers and associated software for package delivery and the uninterruptible power supplies and related hardware of Applicant's mark."

Answer to Document Request No. 38:

Objection to Document Request No. 38: see General Objections.

Subject to and without waiving its previously stated objections, and to the extent that Request No. 38 is understood, Applicant answers as follows:

NONE.

Document Request No. 39:

All documents supporting or concerning Applicant's allegation, as set forth in Paragraph 32 of Applicant's June 24, 2008 Answer, that "[t]he term 'UPS' is well known in the computer and information technology fields as being an abbreviation for 'uninterruptible power supply' and 'universal power supply'."

Answer to Document Request No. 39:

Objection to Document Request No. 39: see General Objections.

Subject to and without waiving its previously stated objections, and to the extent that Request No. 39 is understood, the following documents are provided:

Document I.D. Nos. 000001-000033;

Document I.D. Nos. 000140-000144.

Document Request No. 40:

All documents supporting or concerning Applicant's allegation, as set forth in Paragraph 32 of Applicant's June 24, 2008 Answer, that "[t]hose who are in the

channels of trade related to the goods of Applicant's mark would readily associate the term 'UPS' with uninterruptible power supply and not with any hardware associated with the delivery related goods and services of Opposer."

Answer to Document Request No. 40:

Objection to Document Request No. 40: see General Objections.

Subject to and without waiving its previously stated objections, and to the extent that Request No. 40 is understood, the following documents are provided:

Document I.D. Nos. 000001-000033;

Document I.D. Nos. 000140-000144.

Document Request No. 41:

All documents evidencing Applicant's bona fide intention to use the Proposed Mark in commerce, as of the filing date of the Application, for each product listed in the Application.

Answer to Document Request No. 41:

Objection to Document Request No. 41: see General Objections.

Subject to and without waiving its previously stated objections, and to the extent that Request No. 41 is understood, the following documents are provided:

Document I.D. Nos. 000062-000068 which is Applicant's Application for Trademark Application.

Respectfully submitted.
For: POWERTECH INDUSTRIAL CO., LTD.

APR 14 2009
Date

Yu-Lung Lee
Yu Lung Lee
Assistant General Manager

For: ROSENBERG, KLEIN & LEE

4/16/09
Date

Morton J. Rosenberg
Morton J. Rosenberg

Attorneys for Applicant
POWERTECH INDUSTRIAL CO., LTD.

CERTIFICATE OF SERVICE

It is hereby certified that a true and correct copy of the foregoing Applicant's Answer to Opposer's first Requests to Applicant for the Production of Documents and Things was served this 16th day of April 2009 via first class mail, postage prepaid, addressed to:

Stephen M. Schaetzel, Esquire
John P. Sheesley, Esquire
Elizabeth M. Fox, Esquire
1180 Peachtree Street, N.E.
Atlanta, GA 30309-3521

Morton J. Rosenberg
Morton J. Rosenberg
Suite 101
3458 Ellicott Center Drive
Ellicott City, MD 21043
Telephone: (410) 465-6678
Facsimile: (410) 461-3067

For pricing or to discuss your power needs call us at: 800.842.6940

On-line UPS Systems

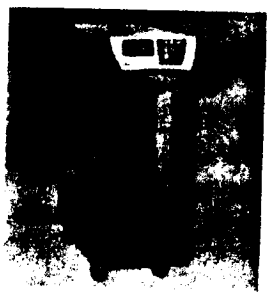
(view selection guide)

SSG Series™ Industrial-Grade UPS (1.5kVA to 3kVA)

UL Listed for High Temperature Operation

Designed to handle harsh industrial and IT power environments, the SSG Series is an ultra-reliable on line Uninterruptible Power Supply (UPS). It can withstand temperatures up to 55° (131° F). Features include: slide out hot-swappable, user-replaceable batteries, Load Segment Control, and LCD with advanced monitoring functions. Falcon's UPS acts as an electronic firewall between the incoming dirty utility power and your equipment. (view brochure and specs)

FN Series™ Parallelable, N+1 Redundant UPS (3kVA to 40kVA)



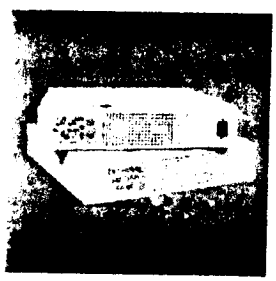
These stand-alone on-line Uninterruptible Power Supplies offer scalability and reliability at an economical cost. Rather than purchasing an expensive cabinet to house modules, a user can configure a UPS system using individual 3, 4, 5, 6, 8 or 10kVA models, providing up to 30kVA with N+1 redundancy. If N+1 is not required, these units can be configured to 40kVA. The FN Series also features advanced Digital Signal Processing (DSP) microprocessor technology. (view brochure and specs)

SG Series™ On-line UPS (800VA to 6kVA)

Highly reliable online, sinewave UPS for servers, networks, lab, industrial, telecom and other critical applications. Extended battery module options are available, providing UPS backup of up to four hours. Models may be factory configured as UPS/Frequency Converters upon request. (view brochure and specs)

SG 1-3kVA Tower Reference Guide
SG 5-6kVA Tower Reference Guide

SG Series™ Rackmount On-line UPS (1kVA to 3kVA)



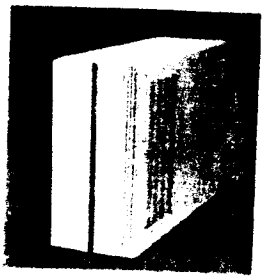
Highly reliable online, sinewave UPS power supplies for servers, networks, lab, industrial, telecom and other critical applications. Modules are a 19", 2U rackmount form factor. Rackmount extended battery module options are available providing extended UPS backup. Models may be factory configured as UPS/Frequency Converters upon request. (view brochure and specs)

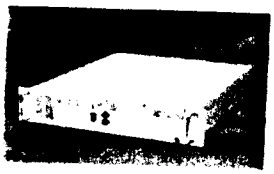
SG 1-3kVA Rackmount Reference Guide

ED -1 Series™ On-line UPS (1kVA to 5kVA)

Ultra-high performance Uninterruptible Power Supplies (UPS) for industrial and military COTS applications requiring a rugged UPS. Designed to protect sensitive equipment used in harsh power environments. Supports high inrush loads and high temperature environments. Other ED Series models are available offering operation as Voltage and Frequency Converters and precision AC voltage regulators. The 3-5kVA models are some of the smallest and most lightweight units of their kind. (view brochure and specs)

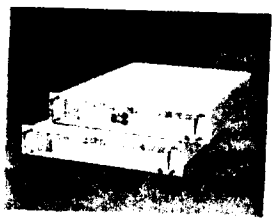
000001





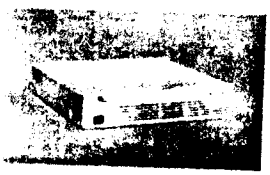
ED Series™ Rackmount On-line UPS (1kVA to 2.4kVA)

Flexible platform may be factory configured as an on-line UPS, AC voltage regulator, frequency converter or phase converter. Designed for use in industrial or military COTS applications. The small and lightweight design provides a wide input range with tight output voltage regulation. Models supporting single and three-phase inputs with single-phase outputs are offered. Optional high temperature batteries available. Units may be factory configured for 50, 60 or 400Hz frequency converter operation. (view brochure and specs)



ED Series™ Rackmount On-line UPS (3kVA to 5kVA)

Small and lightweight units that can function as an on-line UPS, AC voltage regulator or frequency converter. Accepts a 50, 60 or 400Hz input with a 50 or 60Hz output. They provide a tight output voltage regulation of +3%, as well as extended brownout protection. Ruggedized models are available. This Series utilizes a field-proven high performance online design and is ideal for military COTS, aviation and industrial applications. (view brochure and specs)



Isolated SSG Series™ On-line UPS (500VA)

Superior on-line UPS power protection in a small, lightweight package. Incorporates internal high frequency galvanic isolation to eliminate common noise problems. Ideal for use in wired LAN or WAN networks, telecom or video applications. Used extensively in harsh off-shore gas and oil drilling rig applications. (view brochure and specs)

| Home | Online UPS | Voltage & Frequency Converters | GSA Products |
| Product Selection Guides | Corporate Profile | Awards & Highlights | Contact Us |

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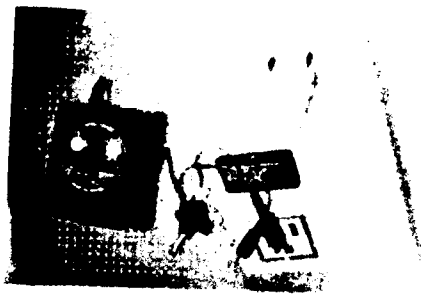

Heavy Duty AC to DC Converter

Also known as voltage adapter, ac dc power adapter, foreign voltage adapters, travel adapters plugs, electrical converter, foreign power adapter, universal voltage adapter, adaptor for uk, adaptor for asia, foreign power converter, travel electrical adaptor, adaptor plugs, ac adapter, dc adapter, power adapter, variable voltage adapter, 110v 220v voltage adapter, 220v 110v voltage adapter.

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- Deluxe Step Up / Down Transformer
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- Voltage Regulator/Stabilizer
- Deluxe Voltage Stabilizer
- Plug Adapters
- Universal Plug Adapters
- Laptop Power Supplies
- Light Duty Voltage Converter
- AC to DC Converters - (24V,18V,12V, 9V, 3V/3.3V/5V/6V/6.5V/7 V or 8.4V, DC)
- Universal Power Strip
- Japanese Up/Down Transformer
- Heavy Duty AC to DC Converter
- Surge Protectors
- Power Inverters
- Travel Converters
- Foreign Phone Jacks
- UPS Power Supply

Heavy Duty AC to DC Converter

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Price : US $ 109.99

DF 1730

This product is a universal AC to DC Converter.

- Input Voltage: 110/120V AC
- Output Voltage: 0~30V DC
- Output Wattage: 0~5A
- PLEASE MATCH THE INPUT AND OUTPUT OF YOUR EQUIPMET CAREFULLY WITH THIS TRANSFORMER.
- WE DO NOT TAKE BACK THESE TRANSFORMERS ONCE THE UNIT IS OPENED AND INSTALLED.

Weight:	13 lbs
Dimensions(LxBxH):	11

back to top

DF 1763 AC TO DC CONVERTER

000003

Hair Dryers Dual Voltage 110V-240V

DVD Player

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- Philips DVD Player
- Toshiba DVD Player
- Samsung DVD Player
- Sharp DVD Player
- Hitachi DVD Player
- Daewoo DVD Player
- Conia DVD Player
- Akai DVD Player

VCR

- Toshiba VCR
- Sharp VCR
- Samsung VCR
- Panasonic VCR
- JVC VCR
- Hitachi VCR

Television

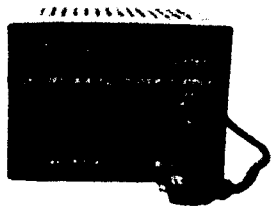
Video Games

- Video Game Consoles
  - Sony
  - Pokemon
- Video Game Accessories
- Video Games
  - Playstation 2 Games
  - Nintendo 64 Games

Radio

Radio Cassette Recorders

Mini Component System



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Price : US $ 39.99

This unit converts from AC to 13.8V DC Power. Ideal for household transceiver, automobile/mobile equipment, and portable equipment.

- Input Voltage: 110V AC or 220V AC
- 10% Load Regulation
- Output Current: 10A
- Applies Current Limit Short Circuit protection for DC output.
- 5% Voltage Regulation
- Current Limit Protector for AC Input
- One Hour Continuous Working Time
- PLEASE MATCH THE INPUT AND OUTPUT OF YOUR EQUIPMET CAREFULLY WITH THIS TRANSFORMER.
- WE DO NOT TAKE BACK THESE TRANSFORMERS ONCE THE UNIT IS OPENED AND INSTALLED.

Weight:	10 lbs
Dimensions(LxBxH):	9

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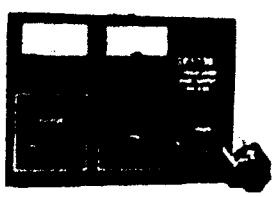

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Price : US $ 99.99

DF 1736

AC to DC Converter

- Input: 110V AC to 220V AC
- Output: Multi-position DC Voltages (0~40V DC)
- Amps: 0~6A
- Large Range of Regulating Voltages and Low Ripple Voltages
- Applies a short circuit protection, overheat protection, and overload protection.
- PLEASE MATCH THE INPUT AND OUTPUT OF YOUR EQUIPMET CAREFULLY WITH THIS TRANSFORMER.
- WE DO NOT TAKE BACK THESE TRANSFORMERS ONCE THE UNIT IS OPENED AND INSTALLED.

Weight:	18 lbs

000004

Dimensions(LxBxH): 11

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- » Universal Power Strip
- » Japanese Up/Down Transformer
- » Heavy Duty AC to DC Converter
- » Surge Protectors
- » Power Inverters
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- » UPS Power Supply

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Spare Mvix AC Power Adapter (ZZZ-MVIX-ADAPTER)

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Product Code: ZZZ MVIX ADAPTER
Brand: MVIX

TechDigital

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Description

Spare Mvix AC Power Adapter (ZZZ MVIX-ADAPTER)

The Mvix Power Adapter is a accessory (spare) AC power adapter for use with Mvix MV 4000U and MV-5000U Multimedia Centers. This AC adapter is the recommended option for providing a more stable power source to the Mvix Multimedia Player (than any generic adapters). We strongly encourage you to NOT experiment with power source for your Mvix player and use the appropriate AC adapter. Please note: This is a spare power adapter and comes complete with 2 pin power cord.

Product Features

- Slim and Compact design
- Weighs only about one third the weight of generic adapters
- Worldwide voltage capable means you only need 1 adapter for use at home and abroad
- Large current capacity
- Input: 100 to 240V, 50 / 60Hz AC
- Power Plug: 2 Pin

Manufacturer's Website Specifications: http://www.mvixusa.com/

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Search Digi-Key for IC, Power Other Adapters. Same Day Shipping.
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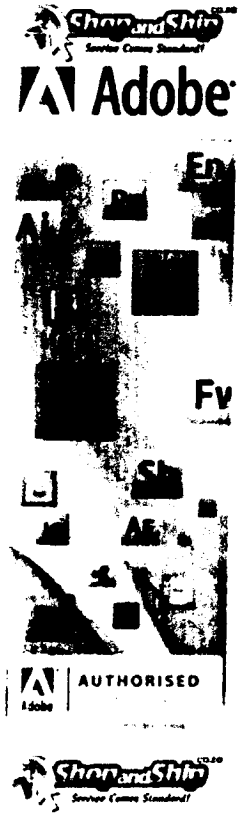


000007

Uninterruptible Power Systems (UPS)

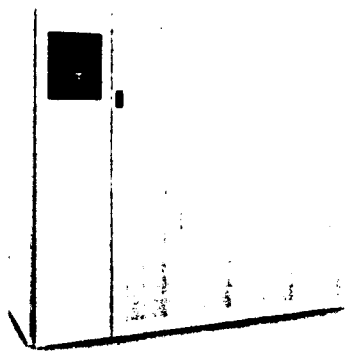
Single Phase & Three Phase Systems

Storage Battery Systems, Inc. (SBS) is one of the nations leading authorities on AC and DC power quality concerns and solutions. Transient surge supressors (TVSS), power line conditioners, harmonic mitigation devices, power distribution units (PDU's) and battery/data center monitoring systems are only a few of the power qulity devies and apparatuses offered by SBS.

SBS also provides quality surveys and audits to insure power reliability and continuity.

SBS provides on-site and depot repair service, as well as maintenance agreements (PM) to keep your UPS systems in proper working order.

Additionally, IEEE capacity testing, system proof & facility rollover commissioning is a crucial part of our offering.



SBS can provision UPS systems from Eaton Powerware, Emerson Liebert, MGE, APC, Mitsubishi, Toshiba & General Electric to name a few. SBS can work with major UPS manufacturers to produce a system custom tailored to your specific application requirements. We can also make modifications to 'off-the-shelf' standard designs to 'fine tune' a feature set that meets your specific needs.

- Single phase UPS are available from 0.5 to 18kVA.
- Three phase units are available from 10 to 750kVA
- Multi-module parallel configuration in **both**
- Turnkey installations & design-build
- Extended warranties regardless of brand
- Single phase depot repair
- Three phase repair & maintenance
- Total power surety systems integration

Maintenance Bypass Panels

- Full maintenance external for 3 phase isolation
- 2 device, 3 device & custom configurations

000008

- 480v & 208v
- KirkKey® circuit breaker interlocks
- Solenoid key release unit (SKRU)
- 150A to 1200A units in stock
- Suited for Powerware, Liebert, MGE & other brands
- UL
- Allows for complete power isolation of the UPS for maintenance or replacement

SBS will design, specify, apply, procure, install, maintain & service a complete critical power system that offers 24/7 uptime, availability & reliability suitable for the small server room to the Tier IV data center & everything in between.

Storage Battery Systems Inc.® Copyright 2006 | International (011-1-262-703-5800) | 800-554-2243 | FAX 262-703-3073 | sbs@sbsbattery.com

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Free shipping
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Notebook/**Mobile** Devices/Wireless Communication Devices/Smart/Cell **Phone Chargers**.
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$75.45 with tax and shipping
CDW
413 seller ratings

BlackBerry 8100 Power **Station** + Extra **Battery Charger**
An extra **battery** fits into the mini Extra **Battery Charger** at the rear of the BlackBerry Power **Station**. And when you're on the go, you can easily remove the ....
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Free shipping
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Blackberry Desktop Power **Station** + Extra **Battery Charger** for 8800
An extra **battery** fits into the mini Extra **Battery Charger** at the rear of the BlackBerry Power **Station**. And when you're on the go, you can easily remove the ....
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BlackBerry Blackberry Desktop Power **Station** Bundle With **Battery** ...
All-in-one unit charges your smartphone, Bluetooth® headset and an extra **battery** (smartphone and headset sold separately)2-amp power supply to rapidly ....
Add to Shopping List

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eDigital Electronics
★★★★ 33 seller ratings

Mobile Power **Battery Charger Station** For Iphone 3g/ipod
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eBay

Phone Holder - Black by Kikkerland
Easy to use, the holder hangs between your **battery charger** and the wall socket. ... for your **mobile phone** and convenient storage for your **charging** cord. ....
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Organize.com
9 seller ratings

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Easy to use, the holder hangs between your **battery charger** and the wall socket. ... for your **mobile phone** and convenient storage for your **charging** cord. ....
Add to Shopping List

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Blackberry Desktop Power **Station** Bundle With **Battery** For ...
All-in-one unit charges your smartphone, Bluetooth headset and an extra **battery** (smartphone and headset sold separately)2-amp power supply to rapidly charge ....
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Battery Geek PPS-130 130Wh Portable Power **Station**
Includes **mobile** cell tips to recharge and power most cell phones and PDAs ... PDA, Cell **Phone**, Digital Camera, CPAP device, Laptop, etc. PPS-130 **Battery** Geek.
Add to Shopping List

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BlackBerry Blackberry Desktop Power **Station** For Blackberry 8300 ...
All-in-one unit charges your smartphone, Bluetooth® headset and an extra **battery** (sold separately)2-amp power supply to rapidly charge multiple productsSync ....
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UltraLast ULINOV3 Energy **Station**, 5 Hour AA/AAA **CHARGER**
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... **Battery Charger** For AA and AAA Ni-MH or Ni-CD Batteries / Cell **Phone** ... The ULINOV3 energy **station charger** kit from UltraLast comes with four AA ....
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$26.95
MDBattery.com - eBay Stor...

UltraLast ULINOV3 **Charger** Fits AA/AAA Batteries Cell Phones
... **Battery Charger** For AA and AAA Ni-MH or Ni-CD Batteries / Cell **Phone** ... The ULINOV3 energy **station charger** kit from UltraLast comes with four AA ....
Add to Shopping List

$26.95
$37 65 with tax and shipping
BatteriesInAFlash.com, In...
1 seller rating

Mini 1000 mAh **Battery** Extender and **Mobile** Power **Station** for iPod; ...
Use this product when your iPhone runs out of **battery**. ... You can either continue to use the **phone** (100% extra energy load) or wait 2.5 hours to have your ....
Add to Shopping List

$24.99
accessoryseek
4 seller ratings

Blackberry Desktop Power **Station** For Blackberry 8300
All-in-one unit charges your smartphone, Bluetooth headset and an extra **battery** (sold separately)2-amp power supply to rapidly charge multiple productsSync ....
Add to Shopping List

$72.86
Car Mobile T.H.E. Auto

Hewlett Packard xb4 Media Docking **Station** - KG461AA [KG461AA]
... connection passes all connectivity signals - power for **battery charging**, USB, ... **phone** support during warranty period [Item Includes]:Docking **station**; ....
2 reviews - Add to Shopping List

$165.00
$165.00 with tax and free shipping
BuyDig.com
★★★★½ 10,896 seller ratings

Power Monkey Portable **Charger**
... and most versatile reserve **charger** for your cell **phone** and small electronics. It's ten times more powerful than a conventional **battery** and gives you up ....
Add to Shopping List

$69.95
SkyMall
★★ 30 seller ratings

USB **Charger** Sync Dock **Station** Cradle for MOTOROLA Q
Features:**CHARGER** & HOTSYNC DOCKING **STATION** ALL IN ONEDesigned specifically ... The USB Docking Cradle holds your Q **phone** at a comfortable reading angle and ....
Add to Shopping List

$20.79
Alice Shop

000012

M60 AC
... CSx H Dell Latitude C-Series Docking **Stations** Dell Latitude Dock C Dell ... Dell Precision M20 Dell Precision M20 **Mobile** Workstation Dell Precision M40 ....
Add to Shopping List

$24.99
$30.98 with tax and shipping
Diamondback Battery & Ele...
★★★★★ 84 seller ratings

M60 Adapter
... CSx H Dell Latitude C-Series Docking **Stations** Dell Latitude Dock C Dell ... Dell Precision M20 Dell Precision M20 **Mobile** Workstation Dell Precision M40 ....
Add to Shopping List

$24.99
$30.98 with tax and shipping
Diamondback Battery & Ele...
★★★★★ 84 seller ratings

M40 Adapter
... CSx H Dell Latitude C-Series Docking **Stations** Dell Latitude Dock C Dell ... Dell Precision M20 Dell Precision M20 **Mobile** Workstation Dell Precision M40 ....
Add to Shopping List

$24.99
$30.98 with tax and shipping
Diamondback Battery & Ele...
★★★★★ 84 seller ratings

M40 AC
... CSx H Dell Latitude C-Series Docking **Stations** Dell Latitude Dock C Dell ... Dell Precision M20 Dell Precision M20 **Mobile** Workstation Dell Precision M40 ....
Add to Shopping List

$24.99
$30.98 with tax and shipping
Diamondback Battery & Ele...
★★★★★ 84 seller ratings

Chargers/Car Kits for iPod
... for apple ipods & **mobile** phonesxterasys ps-6600 power **station** for ipod / ipod ... pda and **mobile phone**. ds-dhtricod ipod travel **charger** chgr-usbtrvl ....
Add to Shopping List

$42.98
WickedPC

BLACK AND DECKER VECWDR5B AM/FM Weather Alert Radio (SKU# WDR5B)
... flashlight & cel;built-in nimh rechargeable **battery**;headphone jack;telescoping antenna ... universal cellular **phone charging** adapterSKU# WDR5B, VECWDR5B.
Add to Shopping List

$29.31
Digitlook
★★★★½ 33 seller ratings

Blackberry Accessories - RIM OEM Bluetooth Headset HS-655
... charged in the BlackBerry Power **Station** or with any BlackBerry Travel **Charger**, ... **Charger** BlackBerry USB Datasync & **Charging** Cable Lithium Ion **battery** ....
Add to Shopping List

$79.95
BlackberryDen.com

: N95 Smartphone w/ Brown Back ,Works with AT&Tand T **Mobile** service o
Includes Nokia N95 **phone**, Video Connectivity Cable CA-75U, Connectivity Cable DKE-2, Stereo Headset HS-45, AD-43, **Battery** BL-5F, Travel **Charger** AC-5. ....
Add to Shopping List

$612.40
$625.90 with tax and shipping
eCRATER - teleport
2 seller ratings

Motorola W375 Black Triband GSM World **Phone** (unlocked)

$109.23
GiftSuperWarehouse

000013

... and rock to your favorite radio **station** via the built-in FM radio. ... supports **Mobile Phone** Tools version 5.0 Stereo support via 2.5mm headset jack, ...
Add to Shopping List

Value Pack for HTC Touch Dual (Multi Function Cradle / Li-Ion ...
Signal (distance between the **phone** and the base **station**) . ... Note: this desktop **charger** may not fit for a device with . extended **battery** which is much ....
Add to Shopping List

$24.99
$27 97 with tax and shipping
Buy.com
★★★★ 61,050 seller ratings

Garmin nuvi 765T Free Ground Shipping
Just pair it with your compatible Bluetooth **phone** and talk hands-free ... GA 27 SERIES ANTENNAGARMIN SUCTION CUP MOUNT FOR **MOBILE** 20GARMIN GA-27C LOW PRO ....
5 reviews - Add to Shopping List

$499.99
$506 94 with tax and shipping
Radames Aguayo

Dock-N-Talk for Motorola V500 V501 V505 V525 V540 V545 V547 V550 ...
... weekends and **mobile** to **mobile** calling plans to their fullest while fully ... is also a desktop **battery charger**: Talk-N-Dock cell **phone** docking **station** ....
Add to Shopping List

$199.00
Cell-Phone-Accessories.co...
★★★ 20 seller ratings

Yamaha TSX-120 White Desktop Audio System TSX120WH
... remote control while at the same time **charging** the **battery** on your iPod. ... or your **mobile phone**, so you can pick it up together with your iPod when ....
Add to Shopping List

$223.95
Bizbooz com
3 seller ratings

Nokia N81 8GB Cocoa Brown Quad Band GSM Cell **Phone**
... control AD-54 Nokia Connectivity Cable CA-101 Nokia **Battery** BP-6MT Nokia Compact Travel **Charger** AC-5 Unlocked Nokia N81 8GB Cocoa Brown QuadBand GSM **Phone**.
Add to Shopping List

$394.99
$403 70 with tax and shipping
www eStoreOffer.com
1 seller rating

AT&T E580-2 Extra Handset for AT&T E5860-E5965C / Color LCD

... use with AT&T's E5860, E5865, E5900B and E5965C expandable **phone** systems. ... E580-2 Features: Connects To Most Standard **Mobile** / Cordless / Cellular ....
Add to Shopping List

$340.08
$340.08 with tax and free shipping
iSave com

Unlocked GSM Samsung U900 Soul
... to listen to your music from the **phone** to a compatible wireless headset. ... Handset 1 Samsung Li-ion **Battery** 1 Travel **Charger** 1 Wired Stereo Headset 1 ....
Add to Shopping List

$330.00
$345.00 with tax and shipping
eCRATER - acescellshop

Nokia E90 Unlocked GSM **Phone**

$654.74

000014

- Red
The Nokia E90 comes with a Nokia **battery**, travel **charger**, wired headset, ... The user can enjoy a 3G video call with other 3G capable **mobile phone** users ....
Add to Shopping List

MyCellz4less.com

Garmin Nuvi 660 Pocket Vehicle GPS Navigator with maps for North Amer
... a mic and speaker lets you make hands-free **mobile phone** calls * Measures ... Tune your car's radio to the appropriate **station** and you'll hear all the ....
Add to Shopping List

$672.99
$697.99 with tax and shipping
eCRATER - chrystallmall

3.5 inch Lonya 2GB GSM Tri Band 900/1800/1900 **Mobile Phone** with ...
... 3.5 inch Lonya 2GB GSM Tri Band 900/1800/1900 **Mobile Phone** x 1 **Battery** x 1 ... 1 USB cable x 1 **Charger** x 1 Power **Station** x 1 User Manual x 1 **Phone** Case ....
Add to Shopping List

$230.00
Eric Lam
1 seller rating

"LOGITECH COMBO BLUETOOTH MX 5000 CORDELSS DESKTOP KEYBOARD & MOU"
... for Bluetooth USB Bluetooth Mini-Receiver Rapid **charging** base **station** with ... address book with your **mobile phone** or PDA Turn Your PC into a Bluetooth ....
Add to Shopping List

$120.00
VLP COM
2 seller ratings

MOTOROLA V3xx RAZR DARK GREY GSM UNLOCKED
The **phone** can also be used with Motorola's **Mobile Phone** Tools PC ... Motorola V3XX * Motorola Wall **Charger** * Motorola Li Ion **Battery** * Motorola **Battery** Door ....
Add to Shopping List

$103.99
eCRATER - familywishbook
3 seller ratings

simrad wr20 wireless remote
... Connects via Bluetooth to many **mobile** phones allowing the **phone** to be kept ... The WR20 is easily integrated into SimNet simply plug the base **station** in ....
Add to Shopping List

$786.95
Canyon River Marine

Nokia N95 Quad Band GSM 5MP Camera Bluetooth GPS **Phone**
... Movie director for automated video production **Mobile** Video Video resolutions: up ... BL-5F Nokia Travel **Charger** AC-5 Unlocked Nokia N95 QuadBand GSM **Phone**.
Add to Shopping List

$449.99
$458.70 with tax and shipping
www.eStoreOffer.com
1 seller rating

Motorola W375 Silver Triband GSM World **Phone** (unlocked)
... and rock to your favorite radio **station** via the built-in FM radio. ... supports **Mobile Phone** Tools version 5.0 Stereo support via 2.5mm headset jack, ...

$157.99
eROLJ.com

Add to Shopping List

Motorola W375 Orange Triband GSM World **Phone** (unlocked)
... and rock to your favorite radio **station** via the built-in FM radio. ... supports **Mobile Phone** Tools version 5.0 Stereo support via 2.5mm headset jack, ...
53 reviews - Add to Shopping List

$79.35
eDigital Electronics
★★★★ 33 seller ratings

Hand Cranking Lantern/Radio
... sensitive FM radio function with reset and scan buttons to search **stations**, ... with an adjustable volume **Charger** for MP3/MP4/**Mobile Phone** (USB **charging** ....
Add to Shopping List

$29.95
greengoodstechnology.com

Nokia E90
The Nokia E90 comes with a Nokia **battery**, travel **charger**, wired headset, ... The user can enjoy a 3G video call with other 3G capable **mobile phone users** ....
Add to Shopping List

$622.99
Wiredia
1 seller rating

SGT728 AT&T TV Tmobile cell phones QuadBand Dual simcards
... get the latest sport results or just tune in to your favourite **station**. ... All Europe and Asia Package included 1 x Anycool T728 **mobile phone** 1 x ....
Add to Shopping List

$139.99
Foxtor USA

Dock-N-Talk for Nextel (M3) with cable
... first truly universal cell **phone** docking **station** and **charger** for cellular phones. ... Charges your **phone**, ensuring you of a fully charged **battery**. ....
Add to Shopping List

$138.15
rpstore.com
★★★★ 32 seller ratings

Sony Ericsson W890i (2 GB) black Unlocked Sim Free
Music intelligence Tune in the W890i FM radio to your favorite **station**. ... (2GB) **phone** 1 Handset 1 USB Cable 1 **Battery** 1 Travel **Charger** Screen 240x320 ....
Add to Shopping List

$220.99
$220.99 with tax and free shipping
ELECTRONIC MEGASTORE CO.U
1 seller rating

Dock-N-Talk for Motorola V66 V65p V66i V66ig V70 V80 V150 phones - ...
... weekends and **mobile** to **mobile** calling plans to their fullest while fully ... is also a desktop **battery charger**: Talk-N-Dock cell **phone** docking **station** ....
Add to Shopping List

$199.00
Cell-Phone-Accessories.co.
★★½ 20 seller ratings

G9i Quad Band **Phone** Watch w/ bluetooth, camera - gold trim
... get the latest sport results or just tune into your favourite **station**. ... Contains: * 1 x **mobile phone** * 1 x earphone * 1 x cable * 1 x **charger** * 1 x ....
Add to Shopping List

$309.00
$323.95 with tax and shipping
eCRATER - bestnovelties

Dock-N-Talk for specified Nextel **$199.00**

Falcon Series phones - Use any ...
... cell **phone** dock, use the free unlimited nights, weekends and **mobile** to **mobile** ... also a desktop **battery charger**: Talk-N-Dock cell **phone** docking **station** ....
Add to Shopping List

Cell-Phone-Accessories.co...
★★★ . . 20 seller ratings

Nokia 6280 Tri-Band GSM/CDMA Camera Bluetooth **Phone**
... Contents Nokia 6280 **phone** Nokia Stereo Headset HS-23 Nokia **Battery** BP-6M 64 ... card Nokia Connectivity Cable CA-53 Nokia Travel **Charger** AC-4 User guide ....
Add to Shopping List

$239.99
$248.70 with tax and shipping
www.eStoreOffer.com
1 seller rating

Dock-N-Talk for Sony Ericsson T300 T300c T306 T310 T316 T600 T608 ...
... cell **phone** dock, use the free unlimited nights, weekends and **mobile** to **mobile** ... also a desktop **battery charger**: Talk-N-Dock cell **phone** docking **station** ....
Add to Shopping List

$199.00
Cell-Phone-Accessories.co...
★★★ . . 20 seller ratings

Nokia N73 Unlocked (Plum/Silver)

The **phone** will also offer picture uploading on the Flikr photo-sharing internet ... Nokia N73 Nokia **Battery** BP-6M (1100mAH) Nokia **Charger** AC-4 Nokia **Charger** ....
Add to Shopping List

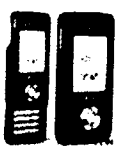
$325.50
Negri Electronics
1 seller rating

Motorola MOTOROKR T505 Bluetooth In-Car Speakerphone w/ Digital FM ...
StationFinder™ technology searches the FM dial for you, to find the best **station**. ... players Car **charger** includedLong **battery** lifeREQUIREMENTS:**Mobile phone** ....
Add to Shopping List

$99.95
shop.treonauts.com

simrad wr20 wireless remote
... Connects via Bluetooth to many **mobile** phones allowing the **phone** to be kept ... The WR20 is easily integrated into SimNet simply plug the base **station** in ....
Add to Shopping List

$793.95
Epirb Store



AT&T SONY ERICSSON W580 W580i BLACK QUAD BAND GSM **PHONE**
Brand new AT&T Cingular Sony Ericsson W580 W580i cell **phone**. ... W580i Black Sony Ericsson **Battery** & Door Sony Ericsson Home **Charger** Sony Ericsson Handsfree ....
Add to Shopping List

$169.99
$184.98 with tax and shipping
eCRATER - nole4ever
★★★★★ 530 seller ratings

Garmin Nuvi 660 Pocket Vehicle GPS Navigator with maps for North Amer
... a mic and speaker lets you make hands-free **mobile phone** calls * Measures ... Tune your car's radio to the

$499.99
$499.99 with tax and free shipping
eCRATER - attruckin

appropriate **station** and you'll hear all the ....
Add to Shopping List

HTC Excalibur S620 / T-**Mobile** Dash Value Pack – Cradle + **Battery**
... 1 x Lithium Ion **Battery** Compatible with:HTC Excalibur S620 / T-**Mobile** Dash ... the **phone** and the base **station**) Network parameters defined by the operator.
Add to Shopping List

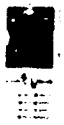
$15.99
$21.98 with tax and shipping
eForCity.com
★★★★ 3,937 seller ratings

NEC DSX Systems 730095 (NEC-730095) CORDLESS DECT6.0 Cordless Phon
NEC DSX DECT 6.0 cordless **phone** The next generation mobility solution for the ... Nickel Metal Hydride **battery** (2.4V-910 mAh) AC Adapter Handset **charging** ....
Add to Shopping List

$414.89
Ambient Weather
★★★★½ 13 seller ratings

Samsung F480 Tocco
... display and advanced TouchWizinterface let you access **phone** functions with ease. ... **Battery**- 2 x **Battery** Covers- Mains **charger**- User guide- Software CD.
Add to Shopping List

$349.99
eXpansys Inc
★★★ 57 seller ratings



Sony Ericsson R300i Radio
... by Gracenote **Mobile** MusicID) returns the song name, artist andalbum to your **phone** ... R300i- User guide- **Battery**- Mains **Charger**- Stereo Portable Handsfree.
Add to Shopping List

$85.99
eXpansys Inc
★★★ 57 seller ratings

Charge2Go Power **Station** for Palm Blackberry
Talk as long as you want and enjoy your **mobile phone** features guilt-free. ... Charge2Go Power **Station** for Palm & Blackberry A reusable **battery** powered power ....
Add to Shopping List

$64.95
Jewish Software Supersite

Mobile Phone Watch - 1.4 Inch Touchscreen + Keypad
This sharp new **mobilephone** watch has a high quality touchscreen LCD ... 50/60Hz) Bluetooth Earpiece USB **charging** cable for earpiece **Phone** to USB cable ....
Add to Shopping List

$153.00
$153.00 with tax and free shipping
eCRATER - woosh
1 seller rating

Bluetooth Headset by Plantronics (HS-655), Distributed by ...
... **Battery charger** Headset **battery**: Rechargeable - lithium ion **Battery** Run ... S620 / Smart **phone** Fuze/ Touch Pro GSM Google G1 T-**Mobile** Mogul/ XV6800/ ....
Add to Shopping List

$19.95
Cell-Phone-Accessories.co...
★★★ 20 seller ratings

MOTOROLA W375 SILVER TRIBAND GSM WORLD **PHONE** (UNLOCKED)
... and rock to your favorite radio **station**

$299.99
eCRATER - dannys-collecta...
6 seller ratings

via the built-in FM radio. ... supports **Mobile Phone** Tools version 5.0 Stereo support via 2.5mm headset jack, ...
Add to Shopping List

Dock-N-Talk for Sony Ericsson R270, R280d, R300d, R300Lx, R300z, ...
... cell **phone** dock, use the free unlimited nights, weekends and **mobile** to **mobile** ... also a desktop **battery charger**: Talk-N-Dock cell **phone** docking **station** ....
Add to Shopping List

$199.00
Cell-Phone-Accessories.co...
20 seller ratings

Garmin nvi 275T 3.5-Inch Bluetooth Portable GPS Navigator
... n??vi to any Bluetooth-capable **phone** to make hands-free **mobile phone** calls. ... Traffic and Content with the optional GDB 55 antenna and **charger** (Learn ....
Add to Shopping List

$306.20
standardshopper com

Motorola W375 Orange
... and rock to your favorite radio **station** via the built-in FM radio. ... supports **Mobile Phone** Tools version 5.0 Stereo support via 2.5mm headset jack, ...
Add to Shopping List

$109.99
eCRATER - servicesbygohan
2 seller ratings

HTC T-**Mobile** G1/Google **Phone** Cradle **Charger** w/Data Cable
... G1/Google **Phone** and syncronize your data while **charging** your **battery**. ... sync your HTC T-**Mobile** G1/Google **Phone** via USBAC **charging station** can be used ....
Add to Shopping List

$26.95
$26.95 with tax and free shipping
CellphoneAccents.com
21 seller ratings

Q09 Black Watch Cell **Phone** watch **phone** Camera Bluetooth ATT
If the cell **phone** can39;t work with your local frequency65292;you should pay for ... get the latest sport results or just tune in to your favourite **station**. ....
Add to Shopping List

$159.00
UiMobile USA

Simrad Simrad Remote Commander Vhf & Instrument Wireless Control
... Connects via Bluetooth to many **mobile** phones allowing the **phone** to be kept ... integrated into SimNet, simply plug the base **station** in and immediately, ...
Add to Shopping List

$928.00
CosmeticMall.com
170 seller ratings

N95 8GB Smartphone N95-4 (Unlocked)
... FEATURES- N95 8GB Smartphone Works with AT&T and T **Mobile** service only! ... Includes Nokia N95 **phone**; **Battery** BL-6F, 1200 mAh; Travel **Charger** AC-5; ....
Add to Shopping List

$569.43
bve1 com

GE General Electric 28101EE1

Cordless **Phone** DECT 6.0
... Handset / **Charger** -Frequency Dedicated for Cordless Phones by the FCC -30% **Battery** Life Increase Over 5.8GHz -Cell Fusion: **Mobile**/Home **Phone** Integration ....
Add to Shopping List

$37.95
$46.45 with tax and shipping
U Got A Deal.com
★★★★ . 21 seller ratings

Dock-N-Talk for Siemens CF62T CF75 CT56 CT66 CX65 CX75 M55 M65 M75 ...
... cell **phone** dock, use the free unlimited nights, weekends and **mobile** to **mobile** ... also a desktop **battery charger**: Talk-N-Dock cell **phone** docking **station** ....
Add to Shopping List

$199.00
Cell-Phone-Accessories.co...
★★★ . 20 seller ratings

Unlocked Nokia N95 **Phone** Camera Zeiss Optics MP3
... with express mail shipping to singapore PC MAGAZINE EDITOR'S CHOICE MOST POWERFUL MULTIMEDIA **PHONE**. ... AD-43 Nokia **Battery** BL-5F Nokia Travel **Charger** AC-5.
Add to Shopping List

$495.00
GoodBuyGail.com
1 seller rating

NEW SAMSUNG A707 SYNC RED
... New Samsung SYNC A707 RED ~ AT&T **Phone**, Usb Cable, **Battery**, **Charger**, Manual. ... And with Cingulars exclusive partnership with HBO **Mobile** and HBO Family ....
Add to Shopping List

$118.77
cellphonedad.com

VIEWPAD 1000 10.4" Tablet PC, 800MHz Celeron, Win 2000 with Keyboard
Equipped with a **mobile** Intel Celeron processor 800MHz and the Microsoft Windows ... **Battery Charger**, Camera, Microphone, Modem, Speakers, Status Display, ...
Add to Shopping List

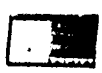
$745.99
eCRATER - clpproducts

PALM TREO ALLTEL 755p PDA GPS SMART CELL **PHONE** 755 p-NICE USED
... Original Lithium Ion **Battery**.; Original Back Cover Door.; Original AC Wall **Charger**.; ... This **phone** was reconditioned by certified technicians. ....
Add to Shopping List

$239.99
$249.94 with tax and shipping
OnSaleCell.com
6 seller ratings

GE/RCA 28101EE1 DECT 6.0 Extra Handset
... 1.9GHz Extra Handset / **Charger**, Dedicated for Cordless Phones by the FCC, - 30 **Battery** Life Increase Over 5.8GHz, Cell Fusion: **Mobile**/Home **Phone** ....
Add to Shopping List

$43.95
$43.95 with tax and free shipping
iSave.com



CLARION NR1UW MIND **MOBILE** INTERNET NAVIGATION DEVICE
ass=listText> The ClarionMiND is a **mobile** terminal that is equipped with ... disk Car **charger** Home power adapter

$594.99
$594.99 with tax and free shipping
TheDealSpot

Stylus pen Rechargeable small **battery** pack ....
Add to Shopping List

Unlocked GSM Nokia 7500 Prism Black
The **phone** call capabilities are always important to the **mobile phone** user, ... 1 Nokia **Battery** 1 Nokia Standard **Charger** 1 Nokia Headset 1 Pouch 1 User Guide.
Add to Shopping List

$200.00
$215.00 with tax and shipping
eCRATER - acescellshop

NEC DSX Systems CORDLESS DECT6.0 Cordless **Phone** (NEC-730095)
- NEC DSX DECT 6.0 cordless **phone**- The next generation mobility solution for the busy ... **charging** cradle with a slot to charge a spare **battery**- BlackNEC730095.
Add to Shopping List

$407.18
$415.68 with tax and shipping
TechLoops
1 seller rating

Sony Ericsson T250i (Unlocked)
... **mobile phone** which allows the user to enjoy their favorite radio **station** straight ... and the **phone** comes with a connection to the **mobile phone charger**. ....
Add to Shopping List

$298.50
Negri Electronics
1 seller rating

OEM SAMSUNG DUAL DESKTOP **CHARGER** ? Original Samsung DCH235ASEB/STD ...
... desktop **charger** for Samsung A670 **mobile** phones to replace lost, broken, ... stand **battery charger** charges two of your Samsung SCH-A670 cell-**phone** ....
Add to Shopping List

$28.95
Cell-Phone-Accessories.co...
★★★ 20 seller ratings

CORDLESS DECT6.0 Cordless Phon
- NEC DSX DECT 6.0 cordless **phone**- The next generation mobility solution for the busy ... **charging** cradle with a slot to charge a spare **battery**- BlackNEC730095.
Add to Shopping List

$392.87
Tupelo Super Store

Motorola W375 Black
For design-crazy consumers who want a cost-friendly **phone** but arent prepared ... W375 Handset 1 Home **Charger** 1 Motorola Lithium Ion **Battery** 1 **Battery** Door 1 ....
Add to Shopping List

$68.86
MyCellz4less.com

Nokia 5610 Gsm Unlocked 3.2MP XPRESSMUSIC (white)
... 2GB SD Card **Battery** Stereo Hands-Free Headset **Charger** Top **Phone** Features ... T-**Mobile** Address Book Lets you store your **phone** book on T-Mobile's network ....
Add to Shopping List

$260.99
CELL2GET
★★★½ 60 seller ratings

Dopod P800W (Unlocked)
1st Windows **Mobile** PDA **Phone** With Photo Navigation. Purchase additional GPS Map software for your ... Cell **Phone** - **Battery** - AC **Charger** -

$683.95
i-Mobile Cell Phones Stor...

Headset - Manual.
Add to Shopping List

Dock-N-Talk for Motorola A388 A630 A660 A760 A780 A830 A840 A920 ...
... weekends and **mobile** to **mobile** calling plans to their fullest while fully ... is also a desktop **battery charger**: Talk-N-Dock cell **phone** docking **station** ....
Add to Shopping List

$199.00
Cell-Phone-Accessories.co...
★★★ 20 seller ratings

Garmin nuvi 775T Free Ground Shipping
Just pair it with your compatible Bluetooth **phone** and talk hands-free ... SERIES 76 SERIES IQUEGARMIN SUCTION CUP MOUNT FOR **MOBILE** 20GARMIN GA-27C LOW PRO ....
Add to Shopping List

$699.99
$706.94 with tax and shipping
Radames Aguayo

SGT728 TV Recording Tmobile cell phones QuadBand Dual sims
... get the latest sport results or just tune in to your favourite **station**. ... All Europe and Asia Package included 1 x Anycool T728 **mobile phone** 1 x ....
Add to Shopping List

$139.99
SurprisingGift.com USA
★★★★ 23 seller ratings

Philips ID9371 DECT 6.0 Enhanced High Def Digital System ID9 w/...
Simplifying the cross-over between **mobile** phones and a landline **phone**, ... paging key - Base **station** memory card reader (SIM) - **Battery charging** indication ....
Add to Shopping List

$139.95
smithgear.com

Nokia N81-1 8GB Unlocked GSM Cell **Phone** WiFi Camera
... Closer Look IN THE BOX: 1 Nokia N81 8GB **Phone** (With Warranty) open box 1 Li-ion **Battery** BP-6MT 1 USB Cable 1 User Manual 1 CD Rom 1 Wall **Charger** 1 head ....
Add to Shopping List

$349.99
Vendio

SIMRAD REMOTE COMMANDER VHF & INSTRUMENT WIRELESS CONTROL
... docking cradle for trouble free stowing and **charging** Operates up to 100m range ... Connects via Bluetooth to many **mobile** phones allowing the **phone** to be ....
Add to Shopping List

$941.92
Boaters Marine Supply

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Universal Power Supplies from Integrated Power Design

Universal power supplies that meet wide variety applications are offered by Integrated Power Design. What are universal power supplies? Typically, universal power supplies, either AC-DC & DC-DC supplies are designed to meet a wide range of applications. They provide a common input/output connection configuration either in the form of a standard pin-out or with screw terminal blocks. Universal input voltage ranges from 85-264VAC are provide to meet most world requirements, with available universal DC outputs of 3.3V, 24V, 48V, +5V, -5V, +12V, -12V, +15 and -15V.

Our #1 objective in developing universal power supplies is to improve product efficiency. A great deal of our effort goes into making sure that the premium components we select go into topologies that result in low heat dissipation. This allows us to provide compact universal power supplies with high power densities and features that are required by most demanding applications.

Our universal power supplies are designed for a global market place, which include industrial and medical applications. Our safety agency approvals reflect this with most of our products having both EN60950 ITE certification and EN60601-1 medical certification. Other domestic and international certification includes UL, TUV and CE.

If you have a requirement which do not exactly match up with one of our universal power supplies listed on our website, please contact us. The universal flexibility of our power supply designs allows our technical staff to make modifications that can meet your needs.

IPD is the manufacturer of AC-DC & DC-DC Power Supplies. Our products are sold to general industries, including Medical, Automotive, Telecommunications and Test Instruments. Presently, our products are shipped throughout the world with global approvals.

IPD was founded April of 1985. At that time the company was located in Milltown, NJ, where it began manufacturing DC-to-DC Power Supplies. Then in March of 1986, the company relocated to larger facilities in Lawrenceville, NJ. Over the next 6 years, the product line was expanded and sales increased. The need for a larger production area was essential to the growth of IPD. On March 1, 1992, IPD opened its doors for production at our new Wilkes-Barre, PA, location. By 1996, the Company outgrew its present building and in 1997, added 45,000 sq. ft. to the existing building.

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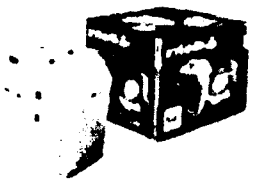

Save energy and money in one simple step. IntelliPlug switches power on or off computer peripherals automatically, depending on the status of your computer.

In Stock **Only £16.95** Add to basket

Product code: 8216

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Main Features

- Save energy, save the environment and save money
- Surge protection feature
- Reaction time 5 seconds
- Full range auto calibration - this unit automatically determines the on and off power level of any desktop computer
- Recommended by the Energy Saving Trust
- The InteliPlug will pay for itself after a year
- Simple to set up
- No wires, compact and unobtrusive
- Minimise the fire risk presented by a system left on standby, which invalidates a manufacturer's warranty
- Help extend the life of computer peripherals

PCPlus Editor's Choice

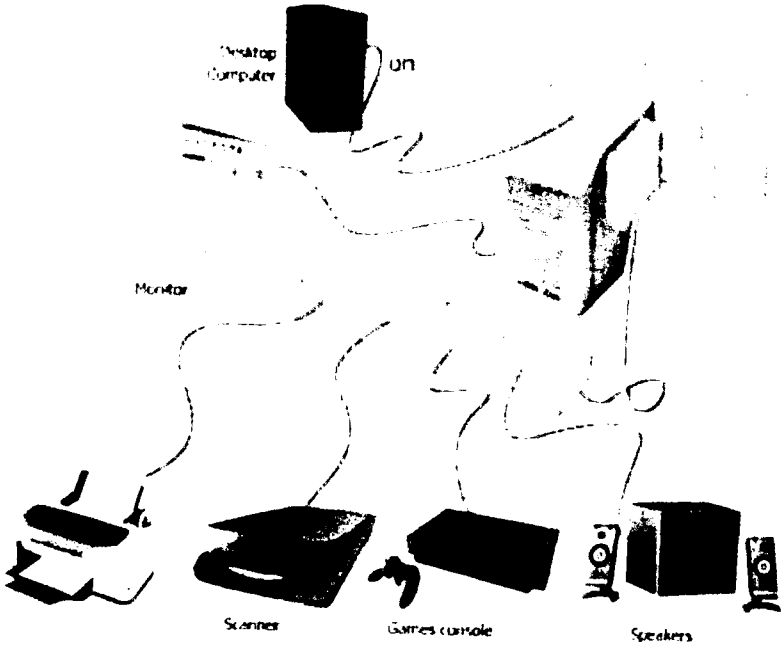
Customer Reviews

"have had one for 2 years now and wouldn't be without it, certainly saves messing about with switches as well as saving energy"

Mr Harry Brown, Brandon

See more customer reviews

"The really important point with standby is that if it's on 24-seven, times 25 million households, you've got a couple of power stations, all wasted."
Dr. Brenda Boardman, BBC Money Programme



Saving Energy and Saving Money has Never been Easier

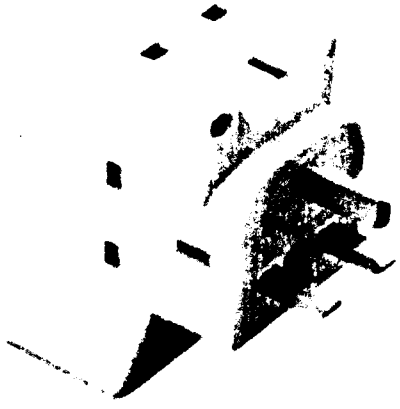
Do you leave your monitor, printer or scanner on after you've turned your computer off? Would you like to save electricity and money in one quick, easy step without having to bend down and unplug everything? With this latest, eco-friendly gadget you can go green with next to no effort. And the best bit? This nifty product pays for itself after the first year!

Recommended by the Energy Saving Trust

The IntelliPlug is one of several leading energy saving products to hit our radar, has received excellent reviews and comes fully recommended by the **Energy Saving Trust**. The Energy Saving Trust ran a survey and found that more than £740m worth of energy was wasted by equipment left ticking over and that the average household has up to 12 gadgets left on standby or charging at any one time.

The InteliPlug looks and works much like an adapter, plugging directly into your mains socket while your computer and its peripherals plug into the adapter. But there is one major difference.

Plug your PC into the master socket of the IntelliPlug and peripherals such as your printer, monitor, scanner or amplifier, into the surrounding sockets (you can use an extension lead if required) - when you switch off your PC or put it in standby mode, power to the peripherals is shut down also. Turn the computer back on and power is sent to the peripherals again.



IntelliPlug even looks for patterns in power usage rather than simply cutting off power when it drops below a set threshold and includes an excellent power surge protection feature.

Daily savings equal 0.2kwh and annually 84kwh, with no extra effort on your part after the initial and very simple plug and play setup. Order yours today and start saving energy and money. Every household should have one!

N.B. Not suitable for laptops or mini computers

Buy IntelliPlug - Energy Saving Adapter for Only £16.95

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Customer reviews

Add a review!

"I am looking to save energy, where I can."

Mr Malcolm Lake, Omagh

"have had one for 2 years now and wouldn't be without it, certainly saves messing about with switches as well as saving energy"

Mr Harry Brown, Brandon

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David, Boonville NY

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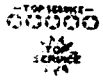

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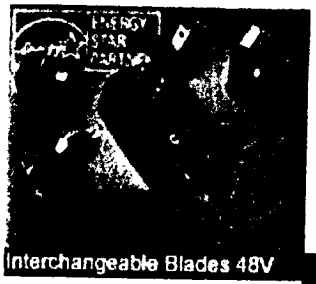
Product News



Interchangeable Blades 48V

48V Interchangeable Blade Power Adapter
GlobTek has added 48VDC output models to it's series of 15W interchangeable blade power adapters. GT-41052-1548 Wall-Plug-In with optional North > **more**

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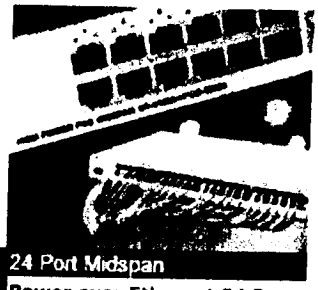
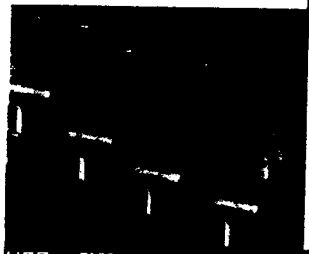


24 Port Midspan

Power over Ethernet 24 Port Midspan
GlobTek's GT-91093-HPOE Power over Ethernet Midspan family offers cost effective and reliable solution for remote powering of Wireless LAN Access > **more**

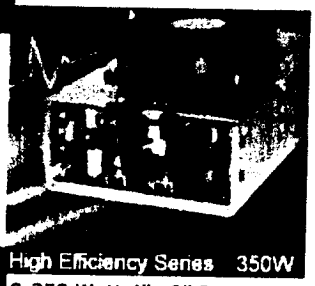
50 W Power Supply

50 W Power Supply has 2nd Variable Output 10-100Vdc Meets Medical / ITE Applications
GlobTek's GS-1549 design delivers to 50W of Continuous Output > **more**



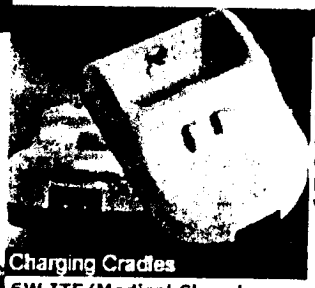
USB 5W

Low Cost USB Power Supply meets RoHS, Energy Star & California Energy Commission (CEC) Standards
GlobTek's GT-81082 series of fix blade Wall Plug-In North America/Japan, Europe, U.K., Korea > **more**



High Efficiency Series 350W

0-350 Watt 4"x 8" Power Supplies Meet Medical / ITE Applications
GlobTek's GT(M)200P350 series delivers up to 350W of Continuous Output Power Design has Regulated Output Voltages > **more**



Charging Cradles

6W ITE/Medical Charging Cradles meet RoHS, Energy Star & California Energy Commission (CEC) Standards
GlobTek's GTM91094 series of Desktop Charging Cradles meet International Class II, Double-Enforced Insulation Mechanical Configurations > **more**

5-Year Warranty All Products

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Products & Services

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DC-DC Converters:
PCB mount, external mobile, up to 40W > **more**

Power Cordsets:
N. American, Euro and International plug configs, stock, modified, custom > **more**

Batteries:
Ni-CAD, NiMH, Lead Acid, Li-On, Li-Polymers > **more**

IEC Inlets:
IEC 320, C6/C8 /C14, fused, power switch > **more**

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GlobTek UL Files Link

Questions?
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PATENT, TRADEMARK & COPYRIGHT MATTERS

VIA FEDERAL EXPRESS AND E-MAIL TRANSMISSION

May 23, 2008

MR2349-1569/OPP

Ms. Yu-Ching Li
Li & Cai Intellectual Property Corporation
P.O. Box 26-757
Taipei, Taiwan, R.O.C. 106

Re: Trademark Application Prosecution/Notice of Opposition
Country: United States of America
Serial Number: 77/176,134 (Opposition Number 91184197)
Mark: HYBRID GREEN UPS
Your Reference: 4435-TM-21752/OPP

Dear Ms. Li:

We have now received a Notice of Opposition directed to the above-referenced Trademark Application. During the publication period an Opposition was filed by United Parcel Services of America, Inc. against our mark. The Notice of Opposition was filed on 19 May 2008 and we have forty (40) days to respond through and including 28 June 2008.

Undoubtedly the opposer is opposing us due to our use of the letters "UPS". UPS is a famous mark in the United States and throughout the world. However, in this case, our UPS stands for either "universal power supply" or "uninterrupted power supply".

Be that as it may, we must answer the Notice of Opposition by 28 June 2008 and I will need your input to us by at least 15 June 2008 due to the fact that the answer is quite complicated and we provide further defenses within our answer.

If you wish us to respond to this Notice of Opposition, we estimate our legal services to approximate $950.00 (USD).

Still further, if you wish us to respond, please provide us with your authorization by 15 June 2008.

Further, we are enclosing a copy of the Notice of Opposition sent to us by the Trademark Trial and Appeal Board of the U.S. Patent and Trademark Office.

I am e-mailing you this letter and the Notice of Opposition and we are sending it by your usual package sent out each Friday.

We await your response.

Best regards,
For: ROSENBERG, KLEIN & LEE

Morton J. Rosenberg

Morton J. Rosenberg

MJR/tea

enclosures

Side - 1

NOTICE OF PUBLICATION UNDER §12(a)

MAILING DATE: Feb 27, 2008

PUBLICATION DATE: Mar 18, 2008

The mark identified below will be published in the Official Gazette on Mar 18, 2008. Any party who believes they will be damaged by registration of the mark may oppose its registration by filing an opposition to registration or a request to extend the time to oppose within thirty (30) days from the publication date on this notice. If no opposition is filed within the time specified by law, the USPTO may issue a Notice of Allowance.To view the Official Gazette online or to order a paper copy, visit the USPTO website at http://www.uspto.gov/web/trademarks/tmog/ any time within the five-week period after the date of publication. You may also order a printed version from the U.S. Government Printing Office (GPO) at http://bookstore.gpo.gov or 202-512-1800. To check the status of your application, go to http://tarr.uspto.gov/.

SERIAL NUMBER: **77176134**

MARK: **HYBRID GREEN UPS**

OWNER: **POWERTECH INDUSTRIAL CO., LTD.**

Side - 2

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Trademark Snap Shot Publication & Issue Review Stylesheet

(Table presents the data on Publication & Issue Review Complete)

OVERVIEW

SERIAL NUMBER	77176134	FILING DATE	05/09/2007
REG NUMBER	0000000	REG DATE	N/A
REGISTER	PRINCIPAL	MARK TYPE	TRADEMARK
INTL REG #	N/A	INTL REG DATE	N/A
TM ATTORNEY	FOSDICK, GEOFFREY A	L.O. ASSIGNED	111

PUB INFORMATION

RUN DATE	02/13/2008		
PUB DATE	03/18/2008		
STATUS	681-PUBLICATION/ISSUE REVIEW COMPLETE		
STATUS DATE	02/12/2008		
LITERAL MARK ELEMENT	HYBRID GREEN UPS		
DATE ABANDONED	N/A	DATE CANCELLED	N/A
SECTION 2F	NO	SECTION 2F IN PART	NO
SECTION 8	NO	SECTION 8 IN PART	NO
SECTION 15	NO	REPUB 12C	N/A
RENEWAL FILED	NO	RENEWAL DATE	N/A
DATE AMEND REG	N/A		

FILING BASIS

FILED BASIS		CURRENT BASIS		AMENDED BASIS	
1 (a)	NO	1 (a)	NO	1 (a)	NO
1 (b)	YES	1 (b)	YES	1 (b)	NO
44D	NO	44D	NO	44D	NO
44E	NO	44E	NO	44E	NO
66A	NO	66A	NO		
NO BASIS	NO	NO BASIS	NO		

MARK DATA

STANDARD CHARACTER MARK	YES

LITERAL MARK ELEMENT	HYBRID GREEN UPS
MARK DRAWING CODE	4-STANDARD CHARACTER MARK
COLOR DRAWING FLAG	NO

CURRENT OWNER INFORMATION

PARTY TYPE	10-ORIGINAL APPLICANT
NAME	POWERTECH INDUSTRIAL CO., LTD.
ADDRESS	10F., NO. 407, SEC. 2 CHUNG SHAN RD., CHUNG HO CITY TAIPEI HSIEN,
ENTITY	03-CORPORATION
CITIZENSHIP	Taiwan, Province of China

GOODS AND SERVICES

INTERNATIONAL CLASS	009
DESCRIPTION TEXT	POWER SUPPLIES; MOBILE PHONE BATTERY CHARGERS; MOBILE PHONE BATTERY CHARGER STATIONS; BATTERY CHARGERS; UNIVERSAL POWER SUPPLIES; POWER SAVING ADAPTERS; ELECTRIC STORAGE BATTERIES; UNINTERRUPTIBLE POWER SUPPLIES; AC/DC CONVERTERS; POWER SOURCE STABLE ADAPTERS

GOODS AND SERVICES CLASSIFICATION

INTERNATIONAL CLASS	009	FIRST USE DATE	NONE	FIRST USE IN COMMERCE DATE	NONE	CLASS STATUS	6-ACTIVE

MISCELLANEOUS INFORMATION/STATEMENTS

CHANGE IN REGISTRATION	NO
DISCLAIMER W/PREDETER TXT	"UPS"

PROSECUTION HISTORY

DATE	ENT CD	ENT TYPE	DESCRIPTION	ENT NUM
02/12/2008	PREV	O	LAW OFFICE PUBLICATION REVIEW COMPLETED	013
02/11/2008	CNSA	P	APPROVED FOR PUB - PRINCIPAL REGISTER	012
02/08/2008	ACEC	I	AMENDMENT FROM APPLICANT ENTERED	011
02/08/2008	CRFA	I	CORRESPONDENCE RECEIVED IN LAW OFFICE	010

02/07/2008	ALIE	A	ASSIGNED TO LIE	009
10/25/2007	MAIL	I	PAPER RECEIVED	008
08/27/2007	CEPE	I	COMBINED EXAMINER'S AMENDMENT/PRIORITY ACTION ENTERED	007
08/27/2007	ALIE	A	ASSIGNED TO LIE	006
08/23/2007	GEAN	O	NOTIFICATION OF EXAMINER'S AMENDMENT/PRIORITY ACTION E-MAILED	005
08/23/2007	GEAP	F	EXAMINER'S AMENDMENT/PRIORITY ACTION E-MAILED	004
08/23/2007	CPEA	R	EXAMINERS AMENDMENT AND/OR PRIORITY ACTION - COMPLETED	003
08/22/2007	DOCK	D	ASSIGNED TO EXAMINER	002
05/14/2007	NWAP	I	NEW APPLICATION ENTERED IN TRAM	001

CURRENT CORRESPONDENCE INFORMATION

ATTORNEY	MORTON J. ROSENBERG
CORRESPONDENCE ADDRESS	MORTON J. ROSENBERG ROSENBERG, KLEIN AND LEE 3458 ELLICOTT CENTER DR STE 101 ELLICOTT CITY, MD 21043-4178
DOMESTIC REPRESENTATIVE	ROSENBERG, KLEIN AND LEE

HYBRID GREEN UPS

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(Table presents the data on Publication Approval)

OVERVIEW

SERIAL NUMBER	77176134	FILING DATE	05/09/2007
REG NUMBER	0000000	REG DATE	N/A
REGISTER	PRINCIPAL	MARK TYPE	TRADEMARK
INTL REG #	N/A	INTL REG DATE	N/A
TM ATTORNEY	FOSDICK, GEOFFREY A	L.O. ASSIGNED	111

PUB INFORMATION

RUN DATE	02/12/2008		
PUB DATE	N/A		
STATUS	680-APPROVED FOR PUBLICATON		
STATUS DATE	02/11/2008		
LITERAL MARK ELEMENT	HYBRID GREEN UPS		
DATE ABANDONED	N/A	DATE CANCELLED	N/A
SECTION 2F	NO	SECTION 2F IN PART	NO
SECTION 8	NO	SECTION 8 IN PART	NO
SECTION 15	NO	REPUB 12C	N/A
RENEWAL FILED	NO	RENEWAL DATE	N/A
DATE AMEND REG	N/A		

FILING BASIS

FILED BASIS		CURRENT BASIS		AMENDED BASIS	
1 (a)	NO	1 (a)	NO	1 (a)	NO
1 (b)	YES	1 (b)	YES	1 (b)	NO
44D	NO	44D	NO	44D	NO
44E	NO	44E	NO	44E	NO
66A	NO	66A	NO		
NO BASIS	NO	NO BASIS	NO		

MARK DATA

STANDARD CHARACTER MARK	YES

LITERAL MARK ELEMENT	HYBRID GREEN UPS
MARK DRAWING CODE	4-STANDARD CHARACTER MARK
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NAME	POWERTECH INDUSTRIAL CO., LTD.
ADDRESS	10F., NO. 407, SEC. 2 CHUNG SHAN RD., CHUNG HO CITY TAIPEI HSIEN,
ENTITY	03-CORPORATION
CITIZENSHIP	Taiwan, Province of China

GOODS AND SERVICES

INTERNATIONAL CLASS	009
DESCRIPTION TEXT	POWER SUPPLIES; MOBILE PHONE BATTERY CHARGERS; MOBILE PHONE BATTERY CHARGER STATIONS; BATTERY CHARGERS; UNIVERSAL POWER SUPPLIES; POWER SAVING ADAPTERS; ELECTRIC STORAGE BATTERIES; UNINTERRUPTIBLE POWER SUPPLIES; AC/DC CONVERTERS; POWER SOURCE STABLE ADAPTERS

GOODS AND SERVICES CLASSIFICATION

INTERNATIONAL CLASS	009	FIRST USE DATE	NONE	FIRST USE IN COMMERCE DATE	NONE	CLASS STATUS	6-ACTIVE

MISCELLANEOUS INFORMATION/STATEMENTS

CHANGE IN REGISTRATION	NO
DISCLAIMER W/PREDETER TXT	"UPS"

PROSECUTION HISTORY

DATE	ENT CD	ENT TYPE	DESCRIPTION	ENT NUM
02/11/2008	CNSA	P	APPROVED FOR PUB - PRINCIPAL REGISTER	012
02/08/2008	ACEC	I	AMENDMENT FROM APPLICANT ENTERED	011
02/08/2008	CRFA	I	CORRESPONDENCE RECEIVED IN LAW OFFICE	010
02/07/2008	ALIE	A	ASSIGNED TO LIE	009

10/25/2007	MAIL	I	PAPER RECEIVED	008
08/27/2007	CEPE	I	COMBINED EXAMINER'S AMENDMENT/PRIORITY ACTION ENTERED	007
08/27/2007	ALIE	A	ASSIGNED TO LIE	006
08/23/2007	GEAN	O	NOTIFICATION OF EXAMINER'S AMENDMENT/PRIORITY ACTION E-MAILED	005
08/23/2007	GEAP	F	EXAMINER'S AMENDMENT/PRIORITY ACTION E-MAILED	004
08/23/2007	CPEA	R	EXAMINERS AMENDMENT AND/OR PRIORITY ACTION - COMPLETED	003
08/22/2007	DOCK	D	ASSIGNED TO EXAMINER	002
05/14/2007	NWAP	I	NEW APPLICATION ENTERED IN TRAM	001

CURRENT CORRESPONDENCE INFORMATION

ATTORNEY	MORTON J. ROSENBERG
CORRESPONDENCE ADDRESS	MORTON J. ROSENBERG ROSENBERG, KLEIN AND LEE 3458 ELLICOTT CENTER DR STE 101 ELLICOTT CITY, MD 21043-4178
DOMESTIC REPRESENTATIVE	ROSENBERG, KLEIN AND LEE

HYBRID GREEN UPS

Trademark Snap Shot Amendment & Mail Processing Stylesheet

(Table presents the data on Amendment & Mail Processing Complete)

OVERVIEW

SERIAL NUMBER	77176134	FILING DATE	05/09/2007
REG NUMBER	0000000	REG DATE	N/A
REGISTER	PRINCIPAL	MARK TYPE	TRADEMARK
INTL REG #	N/A	INTL REG DATE	N/A
TM ATTORNEY	FOSDICK, GEOFFREY A	L.O. ASSIGNED	111

PUB INFORMATION

RUN DATE	02/09/2008		
PUB DATE	N/A		
STATUS	661-RESPONSE AFTER NON-FINAL-ACTION-ENTERED		
STATUS DATE	02/08/2008		
LITERAL MARK ELEMENT	HYBRID GREEN UPS		
DATE ABANDONED	N/A	DATE CANCELLED	N/A
SECTION 2F	NO	SECTION 2F IN PART	NO
SECTION 8	NO	SECTION 8 IN PART	NO
SECTION 15	NO	REPUB 12C	N/A
RENEWAL FILED	NO	RENEWAL DATE	N/A
DATE AMEND REG	N/A		

FILING BASIS

FILED BASIS		CURRENT BASIS		AMENDED BASIS	
1 (a)	NO	1 (a)	NO	1 (a)	NO
1 (b)	YES	1 (b)	YES	1 (b)	NO
44D	NO	44D	NO	44D	NO
44E	NO	44E	NO	44E	NO
66A	NO	66A	NO		
NO BASIS	NO	NO BASIS	NO		

MARK DATA

STANDARD CHARACTER MARK	YES

LITERAL MARK ELEMENT	HYBRID GREEN UPS
MARK DRAWING CODE	4-STANDARD CHARACTER MARK
COLOR DRAWING FLAG	NO

CURRENT OWNER INFORMATION

PARTY TYPE	10-ORIGINAL APPLICANT
NAME	POWERTECH INDUSTRIAL CO., LTD.
ADDRESS	10F., NO. 407, SEC. 2 CHUNG SHAN RD., CHUNG HO CITY TAIPEI HSIEN,
ENTITY	03-CORPORATION
CITIZENSHIP	Taiwan, Province of China

GOODS AND SERVICES

INTERNATIONAL CLASS	009
DESCRIPTION TEXT	POWER SUPPLIES; MOBILE PHONE BATTERY CHARGERS; MOBILE PHONE BATTERY CHARGER STATIONS; BATTERY CHARGERS; UNIVERSAL POWER SUPPLIES; POWER SAVING ADAPTERS; ELECTRIC STORAGE BATTERIES; UNINTERRUPTIBLE POWER SUPPLIES; AC/DC CONVERTERS; POWER SOURCE STABLE ADAPTERS

GOODS AND SERVICES CLASSIFICATION

INTERNATIONAL CLASS	009	FIRST USE DATE	NONE	FIRST USE IN COMMERCE DATE	NONE	CLASS STATUS	6-ACTIVE

MISCELLANEOUS INFORMATION/STATEMENTS

CHANGE IN REGISTRATION	NO
DISCLAIMER W/PREDETER TXT	"UPS"

PROSECUTION HISTORY

DATE	ENT CD	ENT TYPE	DESCRIPTION	ENT NUM
02/08/2008	ACEC	I	AMENDMENT FROM APPLICANT ENTERED	011
02/08/2008	CRFA	I	CORRESPONDENCE RECEIVED IN LAW OFFICE	010
02/07/2008	ALIE	A	ASSIGNED TO LIE	009
10/25/2007	MAIL	I	PAPER RECEIVED	008

08/27/2007	CEPE	I	COMBINED EXAMINER'S AMENDMENT/PRIORITY ACTION ENTERED	007
08/27/2007	ALIE	A	ASSIGNED TO LIE	006
08/23/2007	GEAN	O	NOTIFICATION OF EXAMINER'S AMENDMENT/PRIORITY ACTION E-MAILED	005
08/23/2007	GEAP	F	EXAMINER'S AMENDMENT/PRIORITY ACTION E-MAILED	004
08/23/2007	CPEA	R	EXAMINERS AMENDMENT AND/OR PRIORITY ACTION - COMPLETED	003
08/22/2007	DOCK	D	ASSIGNED TO EXAMINER	002
05/14/2007	NWAP	I	NEW APPLICATION ENTERED IN TRAM	001

CURRENT CORRESPONDENCE INFORMATION

ATTORNEY	MORTON J. ROSENBERG
CORRESPONDENCE ADDRESS	MORTON J. ROSENBERG ROSENBERG, KLEIN AND LEE 3458 ELLICOTT CENTER DR STE 101 ELLICOTT CITY, MD 21043-4178
DOMESTIC REPRESENTATIVE	ROSENBERG, KLEIN AND LEE

HYBRID GREEN UPS

MR2349-1569

OIPE IAP38
OCT 25 2007
PATENT & TRADEMARK OFFICE

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant	: Powertech Industrial Co., Ltd.	:
Serial No.	: 77/176,134	: Law Office #111
Filed	: 9 May 2007	: Trademark Examining Attorney:
Mark	: HYBRID GREEN UPS	: G. Foxdisk

TRADEMARK AMENDMENT

Mail Stop RESPONSES
Honorable Commissioner for Trademarks
P.O. Box 1451
Alexandria, VA 22313-1451

Sir:

Applicant, by the undersigned attorney hereby responds to the outstanding Official Action dated 23 August 2007. Please amend the above-referenced trademark application as follows:

IN THE IDENTIFICATION OF THE GOODS:

Please delete the goods as filed and insert therefor the following --POWER SUPPLIES; MOBILE PHONE BATTERY CHARGERS; MOBILE PHONE BATTERY CHARGER STATIONS; BATTERY CHARGERS; UNIVERSAL POWER SUPPLIES; POWER SAVING ADAPTERS; ELECTRIC STORAGE BATTERIES; UNINTERRUPTIBLE POWER SUPPLIES; AC/DC CONVERTERS; POWER SOURCE STABLE ADAPTERS-- in International Class 9.

000043
10-25-2007
U.S. Patent & TMOfc/TM Mail Rcpt Dt #72

It is further believed that the subject trademark application has been placed in condition for publication and such action is respectfully requested.

Respectfully submitted,
FOR: ROSENBERG, KLEIN & LEE

Morton J. Rosenberg
Registration No. 26,049

Dated: 24 Oct 2007

Suite 101
3458 Ellicott Center Drive
Ellicott City, MD 21043
Tel: 410-465-6678

Customer No.
04586

000050

Remarks

This case has been carefully reviewed and analyzed in view of the Official Action dated 23 August 2007. The undersigned attorney is pleased to learn that a search of the Office Records has found no similar registered or pending mark which would bar registration under Trademark Act Section 2(d).

Acknowledgement is made of the Examiner's Amendment: "No claim is made to the exclusive right to use "UPS" apart from the mark as shown."

Further, the Examiner has objected to the Identification of the Goods as being indefinite. By this Amendment, Applicant has adopted the Examiner's suggestion and the goods as amended now read: "power supplies; mobile phone battery chargers; mobile phone battery charger stations; battery chargers; universal power supplies; power saving adapters; electric storage batteries; uninterruptible power supplies; ac/dc converters; power source stable adapters" which are classified in International Class 9 and believed to be in accordance with U.S. Patent and Trademark Office Rules and Regulations.

It is now believed that all objections made by the Examiner have been addressed by this Amendment.

Trademark Snap Shot Amendment & Mail Processing Stylesheet

(Table presents the data on Amendment & Mail Processing Complete)

OVERVIEW

SERIAL NUMBER	77176134	FILING DATE	05/09/2007
REG NUMBER	0000000	REG DATE	N/A
REGISTER	PRINCIPAL	MARK TYPE	TRADEMARK
INTL REG #	N/A	INTL REG DATE	N/A
TM ATTORNEY	FOSDICK, GEOFFREY A	L.O. ASSIGNED	111

PUB INFORMATION

RUN DATE	08/28/2007		
PUB DATE	N/A		
STATUS	656-EXAMINER'S AMENDMENT/PRIORITY ACTION MAILED		
STATUS DATE	08/23/2007		
LITERAL MARK ELEMENT	HYBRID GREEN UPS		
DATE ABANDONED	N/A	DATE CANCELLED	N/A
SECTION 2F	NO	SECTION 2F IN PART	NO
SECTION 8	NO	SECTION 8 IN PART	NO
SECTION 15	NO	REPUB 12C	N/A
RENEWAL FILED	NO	RENEWAL DATE	N/A
DATE AMEND REG	N/A		

FILING BASIS

FILED BASIS		CURRENT BASIS		AMENDED BASIS	
1 (a)	NO	1 (a)	NO	1 (a)	NO
1 (b)	YES	1 (b)	YES	1 (b)	NO
44D	NO	44D	NO	44D	NO
44E	NO	44E	NO	44E	NO
66A	NO	66A	NO		
NO BASIS	NO	NO BASIS	NO		

MARK DATA

STANDARD CHARACTER MARK YES

LITERAL MARK ELEMENT	HYBRID GREEN UPS
MARK DRAWING CODE	4-STANDARD CHARACTER MARK
COLOR DRAWING FLAG	NO

CURRENT OWNER INFORMATION

PARTY TYPE	10-ORIGINAL APPLICANT
NAME	POWERTECH INDUSTRIAL CO., LTD.
ADDRESS	10F., NO. 407, SEC. 2 CHUNG SHAN RD., CHUNG HO CITY TAIPEI HSIEN,
ENTITY	03-CORPORATION
CITIZENSHIP	Taiwan, Province of China

GOODS AND SERVICES

INTERNATIONAL CLASS	009
DESCRIPTION TEXT	POWER SUPPLIES; MOBILE PHONE CHARGERS; MOBILE PHONE CHARGER STATIONS; BATTERY CHARGERS; UPS POWER SUPPLIES; POWER SAVING ADAPTERS; POWER SOURCE STORAGES; UNINTERRUPTIBLE POWER SUPPLIES (UPS); AC/DC CONVERTERS; POWER SOURCE STABLE ADAPTERS

GOODS AND SERVICES CLASSIFICATION

INTERNATIONAL CLASS	009	FIRST USE DATE	NONE	FIRST USE IN COMMERCE DATE	NONE	CLASS STATUS	6-ACTIVE

MISCELLANEOUS INFORMATION/STATEMENTS

CHANGE IN REGISTRATION	NO
DISCLAIMER W/PREDETER TXT	"UPS"

PROSECUTION HISTORY

DATE	ENT CD	ENT TYPE	DESCRIPTION	ENT NUM
08/27/2007	CEPE	I	COMBINED EXAMINER'S AMENDMENT/PRIORITY ACTION ENTERED	007
08/27/2007	ALIE	A	ASSIGNED TO LIE	006
08/23/2007	GEAN	O	NOTIFICATION OF EXAMINER'S AMENDMENT/PRIORITY ACTION E-MAILED	005
08/23/2007	GEAP	F	EXAMINER'S AMENDMENT/PRIORITY ACTION E-MAILED	004

08/23/2007	CPEA	R	EXAMINERS AMENDMENT AND/OR PRIORITY ACTION - COMPLETED	003
08/22/2007	DOCK	D	ASSIGNED TO EXAMINER	002
05/14/2007	NWAP	I	NEW APPLICATION ENTERED IN TRAM	001

CURRENT CORRESPONDENCE INFORMATION

ATTORNEY	MORTON J. ROSENBERG
CORRESPONDENCE ADDRESS	MORTON J. ROSENBERG ROSENBERG, KLEIN AND LEE 3458 ELLICOTT CENTER DR STE 101 ELLICOTT CITY, MD 21043-4178
DOMESTIC REPRESENTATIVE	ROSENBERG, KLEIN AND LEE

HYBRID GREEN UPS

To: POWERTECH INDUSTRIAL CO., LTD. (RKL@RKLPATLAW.COM)

Subject: TRADEMARK APPLICATION NO. 77176134 - HYBRID GREEN UPS - MR2349-1569

Sent: 8/23/2007 2:46:11 PM

Sent As: ECOM111@USPTO.GOV

Attachments:

UNITED STATES PATENT AND TRADEMARK OFFICE

SERIAL NO: 77/176134

MARK: HYBRID GREEN UPS

77176134

CORRESPONDENT ADDRESS:
MORTON J. ROSENBERG
ROSENBERG, KLEIN AND LEE
3458 ELLICOTT CENTER DR STE 101
ELLICOTT CITY, MD 21043-4178

RESPOND TO THIS ACTION:
http://www.uspto.gov/teas/eTEASpageD.htm

GENERAL TRADEMARK INFORMATION:
http://www.uspto.gov/main/trademarks.htm

APPLICANT: POWERTECH INDUSTRIAL CO., LTD.

CORRESPONDENT'S REFERENCE/DOCKET NO:
MR2349-1569

CORRESPONDENT E-MAIL ADDRESS:
RKL@RKLPATLAW.COM

EXAMINER'S AMENDMENT/PRIORITY ACTION

TO AVOID ABANDONMENT, THE OFFICE MUST RECEIVE A PROPER RESPONSE TO THIS OFFICE ACTION WITHIN 6 MONTHS OF THE ISSUE/MAILING DATE.

ISSUE/MAILING DATE: 8/23/2007

EXAMINER'S AMENDMENT

OFFICE SEARCH: The examining attorney has searched the Office records and has found no similar

registered or pending mark which would bar registration under Trademark Act Section 2(d), 15 U.S.C. Section 1052(d). TMEP section 704.02.

AMENDMENT: In accordance with the authorization granted by Morton Rosenberg on August 23, 2007, the application has been AMENDED as indicated below. Please advise the undersigned immediately if there is an objection to the amendment.

No claim is made to the exclusive right to use "UPS" apart from the mark as shown.

PRIORITY ACTION

The application will be given priority as an amended application if a response to the requirements stated below is received within two months of the issue/mailing date.

The wording of the identification of goods is unacceptable as indefinite. The applicant may amend this wording to the following, if accurate. TMEP §1402.01.

> **Power supplies; mobile phone battery chargers; mobile phone battery charger stations; battery chargers; universal power supplies; power saving adapters; electric storage batteries; uninterruptible power supplies; ac/dc converters; power source stable adapters in International Class 9.**

The applicant should note that the above suggested identification of goods is acceptable as written. Any alteration may render it unacceptable. Accordingly, if the applicant wishes to amend the goods differently, or if the applicant has any questions or needs assistance in responding to this Office action, please telephone the assigned examining attorney.

Please further note that, while an application may be amended to clarify or limit the identification, additions to the identification are not permitted. 37 C.F.R. Section 2.71(a); TMEP § 1402.06. Therefore, the applicant may not amend to include any goods that are not within the scope of goods set forth in the original identification.

/Geoffrey Fosdick/
Geoffrey Fosdick
Trademark Attorney
Trademark Office 111
(571) 272-9161

RESPOND TO THIS ACTION: If there are any questions about the Office action, please contact the assigned examining attorney. A response to this Office Action should be filed using the Office's Response to Office action form available at http://www.uspto.gov/teas/eTEASpageD.htm. If notification of this Office action was received via e-mail, no response using this form may be filed for 72 hours after receipt of the notification. **Do not attempt to respond by e-mail as the USPTO does**

not accept e-mailed responses.

If responding by paper mail, please include the following information: the application serial number, the mark, the filing date and the name, title/position, telephone number and e-mail address of the person signing the response. Please use the following address: Commissioner for Trademarks, P.O. Box 1451, Alexandria, VA 22313-1451.

STATUS CHECK: Check the status of the application at least once every six months from the initial filing date using the USPTO Trademark Applications and Registrations Retrieval (TARR) online system at http://tarr.uspto.gov. When conducting an online status check, print and maintain a copy of the complete TARR screen. If the status of your application has not changed for more than six months, please contact the assigned examining attorney.

To: POWERTECH INDUSTRIAL CO., LTD. (RKL@RKLPATLAW.COM)

Subject: TRADEMARK APPLICATION NO. 77176134 - HYBRID GREEN UPS - MR2349-1569

Sent: 8/23/2007 2:46:12 PM

Sent As: ECOM111@USPTO.GOV

Attachments:

IMPORTANT NOTICE
USPTO OFFICE ACTION HAS ISSUED ON 8/23/2007 FOR APPLICATION SERIAL NO. 77176134

Please follow the instructions below to continue the prosecution of your application:

VIEW OFFICE ACTION: Click on this link http://portal.uspto.gov/external/portal/tow?DDA=Y&serial_number=77176134&doc_type=EAP&m: (or copy and paste this URL into the address field of your browser), or visit http://portal.uspto.gov/external/portal/tow and enter the application serial number to access the Office action.

PLEASE NOTE: The Office action may not be immediately available but will be viewable within 24 hours of this notification.

RESPONSE MAY BE REQUIRED: You should carefully review the Office action to determine (1) if a response is required; (2) how to respond; and (3) the applicable response time period. Your response deadline will be calculated from 8/23/2007.

Do NOT hit "Reply"to this e-mail notification, or otherwise attempt to e-mail your response, as the USPTO does NOT accept e-mailed responses. Instead, the USPTO recommends that you respond online using the Trademark Electronic Application System response form at http://www.uspto.gov/teas/eTEASpageD.htm.

HELP: For *technical* assistance in accessing the Office action, please e-mail TDR@uspto.gov. Please contact the assigned examining attorney with questions about the Office action.

WARNING

1. The USPTO will NOT send a separate e-mail with the Office action attached.

2. Failure to file any required response by the applicable deadline will result in

the ABANDONMENT of your application.

*** User:gfosdick ***

#	Total Marks	Dead Marks	Live Viewed Docs	Live Viewed Images	Status/ Search Duration	Search
01	1	0	1	0	0:01	77176134[SN]
02	4	1	3	0	0:01	"HYBRID GREEN"[BI,TI]
03	658	N/A	0	0	0:02	*H{"IY"}BR{"IY"}D*[BI,TI]
04	27592	N/A	0	0	0:02	*GR{V:2}N*[BI,TI]
05	6	1	5	5	0:01	3 AND 4
06	7	3	4	0	0:02	"GREEN SYSTEM"[BI,TI]
07	2	1	1	0	0:01	"GREEN UPS"[BI,TI]
08	63	31	32	0	0:01	"GREEN POWER"[BI,TI]

Session started 8/23/2007 1:27:09 PM

Session finished 8/23/2007 1:47:56 PM

Total search duration 0 minutes 11 seconds

Session duration 20 minutes 47 seconds

Defaut NEAR limit=1ADJ limit=1

Sent to TICRS as Serial Number: 77176134

Trademark/Service Mark Application, Principal Register

Serial Number: 77176134
Filing Date: 05/09/2007

The table below presents the data as entered.

Input Field	Entered
SERIAL NUMBER	77176134
MARK INFORMATION	
*MARK	HYBRID GREEN UPS
STANDARD CHARACTERS	YES
USPTO-GENERATED IMAGE	YES
LITERAL ELEMENT	HYBRID GREEN UPS
MARK STATEMENT	The mark consists of standard characters, without claim to any particular font, style, size, or color.
APPLICANT INFORMATION	
*OWNER OF MARK	POWERTECH INDUSTRIAL CO., LTD.
*STREET	CHUNG SHAN RD., CHUNG HO CITY
INTERNAL ADDRESS	10F., NO. 407, SEC. 2
*CITY	TAIPEI HSIEN
*COUNTRY	Taiwan
LEGAL ENTITY INFORMATION	
*TYPE	CORPORATION
*STATE/COUNTRY OF INCORPORATION	Taiwan
GOODS AND/OR SERVICES SECTION	
INTERNATIONAL CLASS	009
	POWER SUPPLIES; MOBILE PHONE CHARGERS; MOBILE PHONE CHARGER STATIONS; BATTERY CHARGERS; UPS POWER SUPPLIES; POWER SAVING

DESCRIPTION	ADAPTERS; POWER SOURCE STORAGES; UNINTERRUPTIBLE POWER SUPPLIES (UPS); AC/DC CONVERTERS; POWER SOURCE STABLE ADAPTERS
FILING BASIS	SECTION 1(b)

ATTORNEY INFORMATION

NAME	MORTON J. ROSENBERG
ATTORNEY DOCKET NUMBER	MR2349-1569
FIRM NAME	ROSENBERG, KLEIN AND LEE
STREET	3458 ELLICOTT CENTER DRIVE-SUITE 101
CITY	ELLICOTT CITY
STATE	Maryland
COUNTRY	United States
ZIP/POSTAL CODE	21043
PHONE	410-465-6678
FAX	410-461-3067
EMAIL ADDRESS	RKL@RKLPATLAW.COM
AUTHORIZED TO COMMUNICATE VIA EMAIL	Yes
OTHER APPOINTED ATTORNEY	DAVID I. KLEIN; JUN Y. LEE; RAJIV S. SHAH

DOMESTIC REPRESENTATIVE INFORMATION

NAME	ROSENBERG, KLEIN AND LEE
FIRM NAME	ROSENBERG, KLEIN AND LEE
STREET	3458 ELLICOTT CENTER DRIVE-SUITE 101
CITY	ELLICOTT CITY
STATE	Maryland
COUNTRY	United States
ZIP CODE	21043
PHONE	410-465-6678

FAX	410-461-3067
EMAIL ADDRESS	RKL@RKLPATLAW.COM

CORRESPONDENCE INFORMATION

NAME	MORTON J. ROSENBERG
FIRM NAME	ROSENBERG, KLEIN AND LEE
STREET	3458 ELLICOTT CENTER DRIVE-SUITE 101
CITY	ELLICOTT CITY
STATE	Maryland
COUNTRY	United States
ZIP/POSTAL CODE	21043
PHONE	410-465-6678
FAX	410-461-3067
EMAIL ADDRESS	RKL@RKLPATLAW.COM
AUTHORIZED TO COMMUNICATE VIA EMAIL	Yes

FEE INFORMATION

NUMBER OF CLASSES	1
FEE PER CLASS	325
TOTAL FEE DUE	325

SIGNATURE INFORMATION

SIGNATURE	/YU-LUNG LEE/
SIGNATORY'S NAME	YU-LUNG LEE
SIGNATORY'S POSITION	ASSISTANT GENERAL MANAGER
DATE SIGNED	05/09/2007

FILING INFORMATION SECTION

SUBMIT DATE	Wed May 09 10:14:13 EDT 2007
TEAS STAMP	USPTO/BAS-66.166.166.250-20070509101413128987-77176134-37052b99b2d71c1339afb6a2299416da5-CC-1170-200

70509100416935244

Trademark/Service Mark Application, Principal Register

Serial Number: 77176134
Filing Date: 05/09/2007

To the Commissioner for Trademarks:

MARK: HYBRID GREEN UPS (Standard Characters, see mark)
The literal element of the mark consists of HYBRID GREEN UPS. The mark consists of standard characters, without claim to any particular font, style, size, or color.

The applicant, POWERTECH INDUSTRIAL CO., LTD., a corporation of Taiwan, having an address of 10F., NO. 407, SEC. 2, CHUNG SHAN RD., CHUNG HO CITY, TAIPEI HSIEN, Taiwan, requests registration of the trademark/service mark identified above in the United States Patent and Trademark Office on the Principal Register established by the Act of July 5, 1946 (15 U.S.C. Section 1051 et seq.), as amended.

International Class 009: POWER SUPPLIES; MOBILE PHONE CHARGERS; MOBILE PHONE CHARGER STATIONS; BATTERY CHARGERS; UPS POWER SUPPLIES; POWER SAVING ADAPTERS; POWER SOURCE STORAGES; UNINTERRUPTIBLE POWER SUPPLIES (UPS); AC/DC CONVERTERS; POWER SOURCE STABLE ADAPTERS
Intent to Use: The applicant has a bona fide intention to use or use through the applicant's related company or licensee the mark in commerce on or in connection with the identified goods and/or services. (15 U.S.C. Section 1051(b)).

The applicant hereby appoints MORTON J. ROSENBERG and DAVID I. KLEIN; JUN Y. LEE; RAJIV S. SHAH of ROSENBERG, KLEIN AND LEE, 3458 ELLICOTT CENTER DRIVE-SUITE 101, ELLICOTT CITY, Maryland, United States, 21043 to submit this application on behalf of the applicant. The attorney docket/reference number is MR2349-1569.

The applicant hereby appoints ROSENBERG, KLEIN AND LEE of ROSENBERG, KLEIN AND LEE, 3458 ELLICOTT CENTER DRIVE-SUITE 101, ELLICOTT CITY, Maryland, United States, 21043 as applicant's representative upon whom notice or process in the proceedings affecting the mark may be served.

Correspondence Information: MORTON J. ROSENBERG
3458 ELLICOTT CENTER DRIVE-SUITE 101
ELLICOTT CITY, Maryland 21043

410-465-6678(phone)
410-461-3067(fax)
RKL@RKLPATLAW.COM (authorized)

A fee payment in the amount of $325 will be submitted with the application, representing payment for 1 class(es).

Declaration

The undersigned, being hereby warned that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. Section 1001, and that such willful false statements, and the like, may jeopardize the validity of the application or any resulting registration, declares that he/she is properly authorized to execute this application on behalf of the applicant; he/she believes the applicant to be the owner of the trademark/service mark sought to be registered, or, if the application is being filed under 15 U.S.C. Section 1051(b), he/she believes applicant to be entitled to use such mark in commerce; to the best of his/her knowledge and belief no other person, firm, corporation, or association has the right to use the mark in commerce, either in the identical form thereof or in such near resemblance thereto as to be likely, when used on or in connection with the goods/services of such other person, to cause confusion, or to cause mistake, or to deceive; and that all statements made of his/her own knowledge are true; and that all statements made on information and belief are believed to be true.

Signature: /YU-LUNG LEE/ Date Signed: 05/09/2007
Signatory's Name: YU-LUNG LEE
Signatory's Position: ASSISTANT GENERAL MANAGER

RAM Sale Number: 1170
RAM Accounting Date: 05/09/2007

Serial Number: 77176134
Internet Transmission Date: Wed May 09 10:14:13 EDT 2007
TEAS Stamp: USPTO/BAS-66.166.166.250-20070509101413128987-77176134-37052b99b2d71c1339afb6a2299416da5-CC-1170-20070509100416935244

HYBRID GREEN UPS

HYBRID GREEN UPS

AMERICA'S BEST-SELLING DICTIONARY

Merriam-Webster's Collegiate® Dictionary

Eleventh Edition

New Ways to Find the Words You Need Today

AN ENCYCLOPÆDIA BRITANNICA COMPANY

000069

A GENUINE MERRIAM-WEBSTER

The name *Webster* alone is no guarantee of excellence. It is used by a number of publishers and may serve mainly to mislead an unwary buyer.

Merriam-Webster™ is the name you should look for when you consider the purchase of dictionaries or other fine reference books. It carries the reputation of a company that has been publishing since 1831 and is your assurance of quality and authority.

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Library of Congress Cataloging in Publication Data

Merriam-Webster's collegiate dictionary. — Eleventh ed.
p. cm.
Includes index.
ISBN 978-0-87779-807-1 (Laminated unindexed : alk. paper)
ISBN 978-0-87779-808-8 (Jacketed hardcover unindexed : alk. paper)
ISBN 978-0-87779-809-5 (Jacketed hardcover with CD-ROM : alk. paper)
ISBN 978-0-87779-810-1 (Leatherlook with CD-ROM : alk. paper)
ISBN 978-0-87779-813-2 (Canadian)
ISBN 978-0-87779-814-9 (International)
1. English language—Dictionaries. I. Title: Collegiate dictionary. II. Merriam-Webster, Inc.
PE1628.M36 2003
423—dc21 2003003674
CIP

Merriam-Webster's Collegiate® Dictionary, Eleventh Edition, principal copyright 2003

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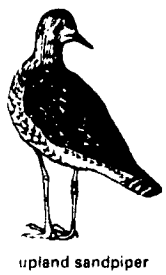
upchuck \'əp-ˌchək\ *vb* (1929) : VOMIT
upclose *adv or adj* (1653) : at close range
upcoast \'əp-ˈkōst\ *adv* (1909) : up the coast
upcoming \'əp-ˌkə-miŋ\ *adj* (1943) : FORTHCOMING, APPROACHING
upcountry \'əp-ˌkən-trē\ *adj* (1910) : of, relating to, or characteristic of an inland, upland, or outlying region ⟨an ~ farm⟩ — **up-country** *adv* — **up-country** \'əp-ˈ\ *adv*
update \ˌəp-ˈdāt\ *vt* (1941) : to bring up to date
update \'əp-ˌdāt\ *n* (1965) **1** : an act or instance of updating **2** : current information for updating something **3** : an up-to-date version, account, or report
updo \'əp-ˌdü\ *n, pl* **updos** [*up*swept hair*do*] (1938) : an upswept hairdo
updraft \'əp-ˌdraft, -ˌdräft\ *n* (ca. 1887) : an upward movement of gas or air
upend \ˌəp-ˈend\ *vt* (1823) **1** : to set or stand on end; *also* : OVERTURN **2 a** : to affect to the point of being upset or flurried ⟨a . . . literary slacker, designed to ~ the credulous matrons —Wolcott Gibbs⟩ **b** : DEFEAT, BEAT ~ *vi* : to rise on an end
upfield \'əp-ˈfēld\ *adv or adj* (ca. 1934) : in or into the part of the field toward which the offensive team is headed
upfront \ˌəp-ˈfrənt, ˈəp-ˌ\ *adj* (1945) : being or coming in or at the front; as **a** (1) : being in a conspicuous or leading position (2) : FRANK, FORTHRIGHT **b** : playing in a front line (as in football) **c** : paid or payable in advance
upfront *adv* (1937) **1** : in or at the front **2** : in advance **3** : in an upfront manner : FRANKLY, FORTHRIGHTLY
upgrade \'əp-ˌgrād\ *n* (1873) **1** : an upward grade or slope **2** : INCREASE, RISE **3** : IMPROVEMENT 2b
upgrade \'əp-ˌgrād, ˌəp-ˈ\ *vt* (1901) : to raise or improve the grade of: **a** : to improve (livestock) by use of purebred sires **b** : to advance in a job requiring a higher level of skill esp. as part of a training program **c** : to raise the quality of **d** : to raise the classification and usu. the price of without improving the quality **e** : to extend the usefulness of (as a device) **f** : to assign a less serious status to ⟨*upgraded* the patient's condition to good⟩ ~ *vi* : to improve or replace esp. software or a device for increased usefulness — **up·grad·abil·i·ty** *or* **up·grade·abil·i·ty** \ˌəp-ˌgrā-də-ˈbi-lə-tē\ *n* — **up·grad·able** *or* **up·grade·able** \'əp-ˈgrā-də-bəl\ *adj*
upgrowth \'əp-ˌgrōth\ *n* (1844) : the process of growing upward : DEVELOPMENT; *also* : a product or result of this
upheaval \ˌəp-ˈhē-vəl, (ˌ)ə-ˈpē-\ *n* (1838) **1** : the action or an instance of upheaving esp. of part of the earth's crust **2** : extreme agitation or disorder : radical change; *also* : an instance of this
upheave \ˌəp-ˈhēv, (ˌ)ə-ˈpēv\ *vt* (13c) : to heave up : LIFT ~ *vi* : to move upward esp. with power — **up·heav·er** *n*
uphill \'əp-ˈhil\ *adv* (1535) **1** : upward on a hill or incline **2** : against difficulties ⟨seemed to be talking ~ —Willa Cather⟩
uphill \-ˌhil\ *n* (1548) : rising ground : ASCENT
uphill \-ˌhil\ *adj* (1613) **1** : situated on elevated ground **2 a** : going up : ASCENDING **b** : being the higher one or part esp. of a set; *specif* : being nearer the top of an incline **3** : DIFFICULT, LABORIOUS
uphold \(ˌ)əp-ˈhōld\ *vt* **-held** \-ˈheld\; **-hold·ing** (13c) **1 a** : to give support to **b** : to support against an opponent **2 a** : to keep elevated : to lift up *syn* see SUPPORT — **up·hold·er** *n*
upholster \(ˌ)əp-ˈhōl-stər, (ˌ)ə-ˈpōl-\ *vt* **-stered; -ster·ing** \-st(ə-)riŋ\ [back-formation fr. *upholstery*] (1849) : to furnish with or as if with upholstery — **up·hol·ster·er** \-stər-ər\ *n*
upholstery \-st(ə-)rē\ *n, pl* **-ster·ies** [ME *upholdester* upholsterer, fr. *upholden* to uphold, fr. *up* + *holden* to hold] (1597) : materials (as fabric, padding, and springs) used to make a soft covering esp. for a seat
UPI *abbr* United Press International
upkeep \'əp-ˌkēp\ *n* (1884) **1** : the act of maintaining in good condition **2** : the state of being maintained in good condition **3** : the cost of maintaining in good condition
upland \'əp-lənd, -ˌland\ *n* (1566) **1** : high land esp. at some distance from the sea : PLATEAU **2** : ground elevated above the lowlands along rivers or between hills — **upland** *adj* — **up·land·er** \-lən-dər, -ˌlan-\ *n*
upland cotton *n* (1819) : a widely cultivated American cotton plant (*Gossypium hirsutum*) having short- to medium-staple fibers
upland sandpiper *n* (ca. 1890) : a large short-billed American sandpiper (*Bartramia longicauda*) that frequents fields and prairies — called also *upland plover*


upland sandpiper

uplift \(ˌ)əp-ˈlift\ *vt* (14c) **1** : to lift up : ELEVATE; *esp* : to cause (a portion of the earth's surface) to rise above adjacent areas **2** : to improve the spiritual, social, or intellectual condition of ~ *vi* : RISE — **up·lift·er** *n*
uplift \'əp-ˌlift\ *n* (ca. 1845) **1** : an act, process, result, or cause of uplifting; as **a** (1) : the upraising of a part of the earth's surface (2) : an uplifted mass of land **b** : a bettering of a condition esp. spiritually, socially, or intellectually **c** : influences intended to uplift (2) : a social movement to improve esp. morally or culturally **d** : a brassiere designed to hold the breasts up
uplink \'əp-ˌliŋk\ *n* (1968) **1** : a communication channel for transmissions to a spacecraft or satellite; *also* : the transmissions themselves **2** : a facility on earth for transmitting to a spacecraft or satellite — **uplink** *vb*
upload \(ˌ)əp-ˈlōd, ˈəp-ˌ\ *vt* (1983) : to transfer (as data or files) from a computer to the memory of another device (as a larger or remote computer)
upman·ship \'əp-mən-ˌship\ *n* (1959) : ONE-UPMANSHIP
upmar·ket \'əp-ˈmär-kət\ *adj* (1972) : UPSCALE — **upmarket** *adv*
upmost \'əp-ˌmōst\ *adj* (14c) : UPPERMOST
upon \ə-ˈpon, -ˈpän\ *prep* (12c) : ON
upon \ə-ˈpon, -ˈpän\ *adv* (13c) **1** *obs* : on the surface : on it **2** *obs* : THEREAFTER, THEREON
upper \'ə-pər\ *adj* [ME, compar. of ¹*up*] (14c) **1 a** : higher in physical position, rank, or order ⟨the ~ lip⟩ ⟨~ management⟩ **b** : farther inland ⟨the ~ Mississippi⟩ **2** : constituting the branch of a bicameral structure that is usu. smaller and more restricted in membership and possesses greater traditional prestige than the lower house **3 a** : constituting a stratum relatively near the earth's surface **b** *cap* : being a later epoch or series of the period or system named ⟨*Upper* Cretaceous⟩ ⟨*Upper* Paleolithic⟩ **4** : NORTHERN ⟨~ Manhattan⟩
²**upper** *n* (1789) : one that is upper: as **a** : the parts of a shoe or boot above the sole **b** : an upper tooth or denture **c** : an upper berth — **on one's uppers** : in straitened circumstances : DESTITUTE
³**upper** *n* [*up* + ²*-er*] (ca. 1968) **1** : a stimulant drug; *esp* : AMPHETAMINE **2** : something that induces a state of good feeling or exhilaration
¹**up·per·case** \ˌə-pər-ˈkās\ *adj* [fr. the compositor's practice of keeping capital letters in the upper of a pair of type cases] (1738) : CAPITAL 1
²**uppercase** *n* (ca. 1916) : capital letters
³**uppercase** *vt* **-cased; -cas·ing** (1949) : to print or set in capital letters
upper case *n* (1683) : a type case containing capitals and usu. small capitals, fractions, symbols, and accents
upper-class *adj* (1837) : of, relating to, or characteristic of the upper class
upper class *n* (1814) : a social class occupying a position above the middle class and having the highest status in a society
up·per·class·man \ˌə-pər-ˈklas-mən\ *n* (1871) : a member of the junior or senior class in a school or college
upper crust *n* (1836) : the highest social class or group; *esp* : the highest circle of the upper class — **upper-crust** *adj*
up·per·cut \'ə-pər-ˌkət\ *n* (1842) : a swinging blow (as in boxing) directed upward with a bent arm — **uppercut** *vb*
upper hand *n* (15c) : MASTERY, ADVANTAGE, CONTROL ⟨was determined not to let the opposition get the *upper hand*⟩
up·per·most \'ə-pər-ˌmōst\ *adv* (15c) : in or into the highest or most prominent position ⟨the ~ layer⟩ ⟨safety was ~ in their minds⟩ — **uppermost** *adj*
up·per·part \-ˌpärt\ *n* (1526) : a part lying on the upper side (as of a bird)
upper respiratory *adj* (1950) : of, affecting, or being the part of the respiratory system that includes the nose, nasal passages, and nasopharynx ⟨*upper respiratory* tract⟩ ⟨*upper respiratory* infection⟩
up·pish \'ə-pish\ *adj* (1677) : UPPITY — **up·pish·ly** *adv* — **up·pish·ness** *n*
up·pi·ty \'ə-pə-tē\ *adj* [prob. fr. *up* + *-ity* (as in *persnickity*, var. of *persnickety*)] (1880) : putting on or marked by airs of superiority : ARROGANT, PRESUMPTUOUS ⟨~ technicians⟩ ⟨a small ~ country⟩ — **up·pi·ti·ness** *also* **up·pi·ty·ness** *n*
uprais·e \(ˌ)əp-ˈrāz\ *vt* (14c) : to raise or lift up : ELEVATE
uprate \'əp-ˌrāt\ *vt* (1965) : UPGRADE; *specif* : to improve the power output of (as an engine)
uprear \-ˈrir\ *vt* (14c) **1** : to lift up **2** : ERECT ~ *vi* : RISE
¹**up·right** \'əp-ˌrīt\ *adj* (bef. 12c) **1 a** : PERPENDICULAR, VERTICAL **b** : erect in carriage or posture **c** : having the main axis or a main part perpendicular ⟨~ freezer⟩ **2** : marked by strong moral rectitude ⟨an ~ citizen⟩ — **up·right·ly** *adv* — **up·right·ness** *n*
syn UPRIGHT, HONEST, JUST, CONSCIENTIOUS, SCRUPULOUS, HONORABLE mean having or showing a strict regard for what is morally right. UPRIGHT implies a strict adherence to moral principles ⟨a stern and *upright* minister⟩. HONEST stresses adherence to such virtues as truthfulness, candor, fairness ⟨known for being *honest* in business dealings⟩. JUST stresses conscious choice and regular practice of what is right or equitable ⟨workers given *just* compensation⟩. CONSCIENTIOUS and SCRUPULOUS imply an active moral sense governing all one's actions and painstaking efforts to follow one's conscience ⟨*conscientious* in the completion of her assignments⟩ ⟨*scrupulous* in carrying out the terms of the will⟩. HONORABLE suggests a firm holding to codes of right behavior and the guidance of a high sense of honor and duty ⟨a difficult but *honorable* decision⟩.
²**upright** *adv* (12c) : vertically upward : in an upright position
³**upright** *n* (1683) **1** : the state of being upright : PERPENDICULAR ⟨a pillar out of ~⟩ **2** : something that stands upright; *esp* : a football goalpost — usu. used in pl. **3** : UPRIGHT PIANO
upright piano *n* (1857) : a piano with vertical frame and strings — compare GRAND PIANO
¹**up·rise** \ˌəp-ˈrīz\ *vi* **up·rose** \-ˈrōz\; **up·ris·en** \-ˈri-zᵊn\; **up·ris·ing** \-ˈrī-ziŋ\ (14c) **1 a** : to rise to a higher position **b** (1) : STAND UP (2) : to get out of bed **c** : to come into view esp. from below the horizon **2** : to rise up in sound — **up·ris·er** \ˌəp-ˈrī-zər, ˈəp-ˌ\ *n*
²**up·rise** \'əp-ˌrīz\ *n* (14c) **1** : an act or instance of uprising **2** : an upward slope
up·ris·ing \'əp-ˌrī-ziŋ\ *n* (13c) : an act or instance of rising up; *esp* : a usu. localized act of popular violence in defiance usu. of an established government *syn* see REBELLION
up·riv·er \'əp-ˈri-vər\ *adv or adj* (1774) : toward or at a point nearer the source of a river
up·roar \'əp-ˌrȯr\ *n* [by folk etymology fr. D *oproer*, fr. MD, fr. *op* up (akin to OE *up*) + *roer* motion; akin to OE *hrēran* to stir] (1526) : a state of commotion, excitement, or violent disturbance
up·roar·i·ous \ˌəp-ˈrȯr-ē-əs\ *adj* (1800) **1** : marked by uproar **2** : very noisy and full **3** : extremely funny ⟨an ~ comedy⟩ — **up·roar·i·ous·ly** *adv* — **up·roar·i·ous·ness** *n*
up·root \(ˌ)əp-ˈrüt, -ˈrůt\ *vt* (ca. 1620) **1** : to remove as if by pulling up **2** : to pull up by the roots **3** : to displace from a country or traditional habitat *syn* see EXTERMINATE — **up·root·ed·ness** *n* — **up·root·er** *n*
up·rush \'əp-ˌrəsh\ *n* (1871) **1** : an upward rush (as of gas or liquid) **2** : a sudden increase ⟨an ~ of energy⟩ ⟨an ~ of emotion⟩
UPS *abbr* uninterruptible power supply
ups and downs *n pl* (1659) : alternating rise and fall esp. in fortune
up·scale \'əp-ˈskāl\ *adj* (1966) : relating to, being, or appealing to affluent consumers; *also* : of a superior quality — **upscale** *adv or vt*
¹**up·set** \(ˌ)əp-ˈset\ *vb* **-set; -set·ting** *vt* (1677) **1** : to thicken and shorten (as a heated bar of iron) by hammering on the end : SWAGE **2** : to

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BEFORE THE TRADEMARK TRIAL AND APPEAL BOARD

Proceeding	91184197
Party	Defendant POWERTECH INDUSTRIAL CO., LTD.
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Filer's e-mail	RKL@RKLPATLAW.COM
Signature	/MORTON J. ROSENBERG/
Date	06/24/2008
Attachments	2349-1569-OPP-ANSWERTOOPPOSITION-JUN24-2008.pdf (65 pages)(3461630 bytes)

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE THE TRADEMARK TRIAL AND APPEAL BOARD

Proceeding: 91184197
Party: Defendant
POWERTECH INDUSTRIAL CO., LTD.

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Date: 06/24/2008

Attachments: 2349-1569-OPP-ANSWERTOOPPOSITION-JUN24-2008.pdf (65 pages)

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE TRADEMARK TRIAL AND APPEAL BOARD

UNITED PARCEL SERVICE OF AMERICA, INC.,	:
Opposer,	: Opposition No. 91184197
v.	: Serial No. 77/176,134
POWERTECH INDUSTRIAL CO., LTD.,	:
Applicant	:

APPLICANT'S ANSWER TO NOTICE OF OPPOSITION

Applicant, Powertech Industrial Co., Ltd., by the undersigned attorney, hereby answers each of the allegations in the Notice of Opposition made by Opposer.

(1) Applicant is without knowledge or information to form a belief as to the allegations of the Opposer in Paragraph 1 of the Notice of Opposition and therefore denies same.

(2) Applicant is without knowledge or information to form a belief as to the allegations of the Opposer in Paragraph 2 of the Notice of Opposition and therefore denies same.

(3) Applicant is without knowledge or information to form a belief as to the allegations of the Opposer in Paragraph 3 of the Notice of Opposition and therefore denies same.

(4) Applicant admits in part and denies in part the allegations made in Paragraph 4 of the Notice of Opposition. Applicant admits that a search of the

website of the U.S. Patent and Trademark Office lists Registration Nos. 514,285 (Exhibit A attached); 966,774 (Exhibit B attached); 1,277,400 (Exhibit C attached); 1,375,109 (Exhibit D attached); 1,460,348 (Exhibit E attached); 1,874,248 (Exhibit F attached); 1,876,943 (Exhibit G attached); 1,878,016 (Exhibit H attached); 1,878,918 (Exhibit I attached); 2,098,168 (Exhibit J attached); 2,128,739 (Exhibit K attached); 2,278,090 (Exhibit L attached); 2,582,489 (Exhibit M attached); 2,830,249 (Exhibit N attached); 2,483,193 (Exhibit O attached); 3,160,062 (Exhibit P attached); 2,520,558 (Exhibit Q attached); and 2,973,108 (Exhibit R attached) as being registered by United Parcel Service of America, Inc., however, Applicant is without knowledge or information as to the current state of ownership of these Registrations and therefore denies same. Additionally, Applicant is without knowledge or information to form a belief as to the present validity and status of these listed Trademark Registrations and therefore denies same.

(5) Applicant is without knowledge or information to form a belief as to the allegations of the Opposer in Paragraph 5 of the Notice of Opposition and therefore denies same.

(6) Applicant is without knowledge or information to form a belief as to the allegation of the Opposer in Paragraph 6 of the Notice of Opposition and therefore denies same.

(7) Applicant is without knowledge as to the "information and belief" of the Opposer with relation to other parties using the Federal Registered Marks

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complained of that are the same or substantially similar to Opposer's marks for the same or substantially similar services and therefore denies the allegations made in Paragraph 7 of the Notice of Opposition and leaves the Opposer to its proofs.

(8) Applicant admits the allegations alleged in Paragraph 8 of the Notice of Opposition.

(9) Applicant has found no other mark in use for Applicant's goods directed to Applicant's mark "HYBRID GREEN UPS" and based upon the constructive use of the mark with respect to Applicant's filing date before the U.S. Patent and Trademark Office of 9 May 2007, denies the allegations in Paragraph 9 of the Notice of Opposition.

(10) Applicant is without knowledge or information to form a belief as the allegations of the Opposer in Paragraph 10 of the Notice of Opposition and therefore denies same.

(11) Applicant is without knowledge or information to form a belief as to the allegations of the Opposer in Paragraph 11 of the Notice of Opposition and therefore denies same.

(12) Applicant denies the allegations made by the Opposer in Paragraph 12 of the Notice of Opposition.

(13) Applicant denies the allegations made by the Opposer in Paragraph 13 of the Notice of Opposition.

(14) Applicant denies the allegations made by the Opposer in Paragraph 14 of the Notice of Opposition.

(15) Applicant is without knowledge or information to form a belief as to the allegations of the Opposer in Paragraph 15 of the Notice of Opposition with regard to Opposer's allegation that the UPS mark is "famous", and therefore denies same. Applicant denies the allegations made in Paragraph 15 of the Notice of Opposition with respect to Opposer's allegation that Applicant's goods would cause dilution of the quality of Opposer's UPS mark.

(16) Applicant is without knowledge or information to form a belief as to the allegations of the Opposer in Paragraph 16 of the Notice of Opposition and therefore denies same.

(17) Applicant admits in part and denies in part the allegations made in Paragraph 17 of the Notice of Opposition. Applicant admits that Applicant's application, Serial No. 77/176,134, was filed on 9 May 2007. Applicant is without knowledge or information to form a belief as to the allegations of the Opposer in Paragraph 17 of the Notice of Opposition relating to Opposer's statement that Applicant's application would be subject to the provisions of Section 13 and 43(c) of the Lanham Act, as amended, and therefore denies same.

(18) Applicant denies the allegations made in Paragraph 18 of the Notice of Opposition.

(19) Applicant admits in part and denies in part the allegations made in Paragraph 19 of the Notice of Opposition. Applicant admits that Applicant's registration of Applicant's mark would constitute *prima facie* evidence of Applicant's exclusive right to use Applicant's designation for and in connection

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with Applicant's goods. Applicant denies Opposer's allegation that Opposer will be damaged by the registration sought by Applicant in Paragraph 19 of the Notice of Opposition. Applicant denies that Applicant's registration of Applicant's application would be inconsistent and detrimental to Opposer's alleged prior, established and superior rights in the UPS mark.

FURTHER DEFENSES

(20) Applicant, in the following paragraph provides the TTAB some defenses which respond to Opposer's allegations made in the Notice of Opposition. Applicant reserves the right to develop further defenses during the Discovery Phase of the Opposition.

(21) Applicant filed the subject trademark application, Serial No. 77/176,134 in the U.S. Patent and Trademark Office on 9 May 2007. The subject trademark application was filed in International Class 9 for "power supplies; mobile phone chargers; mobile phone charger stations; battery chargers; UPS power supplies; power saving adapters; power source storages; uninterruptible power supplies (UPS); AC/DC converters; power source stable adapters".

It was clear from the Identification of the Goods that the "UPS" referred to uninterruptible power supplies (also commonly referred to uninterruptible power supplies).

In an interview held with the Trademark Examining Attorney, the Trademark Examining Attorney indicated that Applicant is required to disclaim the "UPS" apart from the mark as shown which was agreed to by Applicant.

In the Official Action dated 23 August 2007, the Trademark Examining Attorney at the U.S. Patent and Trademark Office suggested the Identified of the Goods to read: "power supplies; mobile phone battery chargers; mobile phone battery charger stations; battery chargers; universal power supplies;

power saving adapters; electric storage batteries; uninterruptible power supplies; AC/DC converters; power source stable adapters."

Applicant agreed to the suggested wording by the Trademark Examining Attorney of the U.S. Patent and Trademark Office and the application was published.

The Trademark Examining Attorney indicated that after a search of the Office Records, that there was no similar registered or pending mark which would bar registration under Trademark Act Section 2(d). Thus, the subject trademark application, after having been searched by the Trademark Examining Attorney, was found to be suitable for registration and not confusingly similar to any registered or pending mark at that time.

(22) Opposer has apparently filed the Notice of Opposition based upon Registration No. 514,285 (Exhibit A); Registration No. 966,774 (Exhibit B); Registration No. 1,277,400 (Exhibit C); Registration No. 1,375,109 (Exhibit D); Registration No. 1,460,348 (Exhibit E); Registration No. 1,874,248 (Exhibit F); Registration No. 1,876,943 (Exhibit G); Registration No. 1,878,016 (Exhibit H); and Registration No. 1,878,918 (Exhibit I), all directed to marks using the letters "UPS" for various transportation and delivery services.

Additionally, the Opposition was apparently further brought based upon Registration No. 2,098,168 (Exhibit J); Registration No. 2,128,739 (Exhibit K); Registration No. 2,278,090 (Exhibit L); Registration No. 2,582,489 (Exhibit M); Registration No. 2,830,249 (Exhibit N); Registration No. 2,483,193 (Exhibit

000081

O); Registration No. 3,160,062 (Exhibit P); Registration No. 2,520,558 (Exhibit Q); and Registration No. 2,973,108 (Exhibit R) which have been registered in at least International Class 9.

The goods associated with the Registrations in International Class 9 are generally directed to computer programs, software and hardware for the printing of shipping documents and invoices as well as tracking the shipped packaged and delivery of personal property.

(23) Applicant's mark is "HYBRID GREEN UPS" and is directed to the entire word mark. A basic and fundamental principle of trademark law is that marks must be compared in their entireties and not dissected. When articulating reasons for reaching a conclusion on the issue of confusion, there may be nothing improper in stating the more or less weight has been given to a particular feature of the mark, however, the ultimate conclusion must rest in the consideration of the marks in their entireties. See *In re National Data Corp.*, 753 Fed. 2d 1056 (Fed. Cir. 1985).

(24) When taken in its entirety, Applicant's mark creates an entirely different commercial and visual impression than Opposer's marks. When making a side-by-side comparison between the marks at issue, it is believed that the visual impression of Applicant's mark and Opposer's Registrations are completely different in appearance and thus, there would be no cause for confusion, or even a determination of similarity between the marks.

In none of the marks cited by the Opposer, is the terminology "GREEN HYBRID" noted or any similar combination of words are seen.

(25) Applicant's mark and Opposer's marks all include the letters "UPS" and Applicant submits that the common portion of the marks at issue, namely, "UPS", is a commonly used acronym standing for "uninterruptible power system" and "universal power supply". This commonly used acronym is used by many third party registrants and further, by numerous parties in the field of power supplies.

A brief check on the internet of "www.acronymfinder.com" (Exhibit S) clearly shows that the letters "UPS" is used descriptively for uninterrupted power sources and uninterrupted power supplies. This terminology of "UPS" has clearly become descriptive in the power supply channels of trade.

Numerous articles relating to power supply systems commonly use the letters "UPS" for such uninterruptible power supplies or universal power supplies as is clearly seen in an article in Wikipedia (Exhibit T). This article, one of many, relates to "UPS technologies" and shows that the letters "UPS" are commonly understood among those in the power supply channels of trade to represent universal power supply or uninterrupted power supply.

A further search on the internet provides for the definition of UPS to be a well known abbreviation for uninterruptible power supply as is evidenced by the Merriam-Webster on-line printout Exhibit U, Compact Oxford Dictionary addressable at askoxford.com as is provided in Exhibit B, encarta.man.com,

Exhibit W, foldoc.org, Exhibit X, webopedia.com, Exhibit Y, yourdictionary.com, Exhibit Z, as well as numerous other websites found on the internet.

(26) Applicant further submits that the common portion of the marks at issue, "UPS", are further inherently weak and that Applicant's use will not give rise to any likelihood of confusion (especially in the channels of trade of Applicant and Opposer). Where common elements of conflicting marks may be words or letters that are weak, this fact reduces the likelihood of confusion. See *Smith v. Tobacco Byproducts & Chemical Corp.*, 243, Fed 2d 188 (CCPA 1957).

(27) "UPS" is a well recognized abbreviation and acronym for "uninterruptible power supply" and "universal power supply." The letters "UPS" and variations thereof are commonly used by many other registrants and sellers in the marketplace. This is evidenced by a number of third party marks registered on the Principal Register which include the letters "UPS" and variations thereof. The undersigned attorney, after making a brief search of the Office Records of the U.S. Patent and Trademark Office, has found a number of marks for the letters "UPS" and variations thereof which have been registered by the USPTO for goods in International Class 009. A representative sampling of the marks found are as follows (copies enclosed):

Exhibit	Mark	Reg. No.	Goods/Services
AA	BACK-UPS	1,689,902	Uninterruptible power supplies
BB	SMART-UPS	1,689,903	Uninterruptible power supplies

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CC	UPS PLUS	1,749,282	Electrical and electronic equipment; namely, power supplies, voltage regulators, frequency/voltage converters, uninterruptible power supplies and power supply modules for use with computer systems, industrial control devices, test instrumentation and microprocessor-based devices
DD	MEASURE-UPS	1,811,966	Electronic apparatus for use with uninterruptible power supplies for the purpose of detecting environmental and security anomalies in computer rooms
EE	BACK-UPS PRO	1,921,637	Uninterruptible power supplies (used as a backup power supply) for computers and other sensitive electronic equipment
FF	WINUPS	2,067,751	Computer software, namely software for use in the custom design and configuration of power systems
GG	TELE-UPS	2,703,362	Power protection devices, namely uninterruptible power supplies for use as a backup power supply for computers, telephone systems and other electronic equipment
HH	TACTICAL UPS	3,444,320	Automated process control system, namely, micro-processor based hardware and software, etc., including power supplies and renewable battery system to provide backup power
II	EXTREME UPS	3,444,309	Electrical power distribution units; etc.

JJ	LEV-UPS	2,991,164	Uninterruptible power supply for microprocessor based products
KK	UPS ENHANCER	2,682,042	Voltage sag protectors for use in maintaining operation of sensitive electrical equipment, etc.
LL	MATRIX UPS	2,168,971	Modular uninterruptible power supplies for computers, and other sensitive electronic equipment
MM	BACK-UPS OFFICE	2,106,783	Power protection devices, namely, uninterruptible power supplies for use with computers and other sensitive electronic devices
NN	ROBOT/UPS	1,978,481	Computer programs for automating the shutdown and power-up of computers in response to power failures

(28) The concurrent registration of marks consisting of the letters "UPS", in particularity in International Class 009 and variations thereof, establishes that the United States Patent and Trademark Office recognizes that such a term (especially in the field of power supply systems) is entitled to a relatively narrow scope of protection and that the person who purchases such goods can readily distinguish between the marks containing such letters without any confusion.

(29) A trademark is given protection against use of its mark on any product or services which would reasonably be thought by the buying public to come from the same source. However, there is absolutely no foundation for

suggesting that the buying public would confuse package transit and delivery equipment and uninterruptible power supply hardware.

(30) When making purchasing decisions regarding goods, the reasonably prudent person standard of trademark law is elevated to the standard of the "discriminating purchaser". See *L. J. Mueller Furnace Co. v. United Conditioning Corp.*, 222 Fed. 2d 755, 106 USPQ 112 (CCPA 1955).

(31) Uninterruptible power supplies/universal power supplies and associated goods are undeniably expensive goods and the purchasers of such electrical supplies would be considered "discriminating purchasers" having a high degree of sophistication in their purchasing. A sophisticated consumer would undoubtedly be able to distinguish between highly specialized electrical power supply systems and peripheral equipment with hand-held computers and associated software for package delivery and the uninterruptible power supplies and related hardware of Applicant's mark.

(32) The term "UPS" is well known in the computer and information technology fields as being an abbreviation for "uninterruptible power supply" and "universal power supply". Those who are in the channels of trade related to the goods of Applicant's mark would readily associate the term "UPS" with uninterruptible power supply and not with any hardware associated with the delivery related goods and services of Opposer.

WHEREFORE, having made full answer to the Notice of Opposition, Applicant prays that the Opposition be dismissed.

For: ROSENBERG, KLEIN & LEE

6/24/08
Dated

Morton J. Rosenberg, Esq.
Registration No. 26,049
Attorney for Applicant

3458 Ellicott Center Drive, Suite 101
Ellicott City, MD 21043
Tel: 410-465-6678

CERTIFICATE OF SERVICE

The undersigned attorney hereby certifies that a copy of the foregoing Applicant's Answer to Notice of Opposition was served on the Opposer by mailing a true copy thereof by first class postage, prepaid, to: Stephen M. Schaetzel, King & Spalding LLP, 1180 Peachtree Street, N.E., Atlanta, Georgia 30309-3521, on this 24TH day of June 2008.

Morton J. Rosenberg, Esq.

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Registered Aug. 23, 1949

Registration No. 514,285

PRINCIPAL REGISTER
Service Mark

UNITED STATES PATENT OFFICE

United Parcel Service of America, Inc., Wilmington, Del.

Act of 1946

Application September 2, 1947, Serial No. 533,084

(Statement)

United Parcel Service of America, Inc., a corporation duly organized under the laws of the State of Delaware and located at 100 West 10th Street, Wilmington, Delaware, has adopted and of itself and through its subsidiaries, is using the service mark shown in the accompanying drawing, for MOTOR VEHICLE DELIVERY SERVICE FOR RETAIL STORES, in Class 55, Services, and presents herewith five specimens showing said service mark as actually used in connection with the sale of such services; said service mark being used by applying it to building fronts, motor vehicle bodies, literature, stationery, business forms and business cards; and requests that the same be rezistered in the United States Patent Office on the Principal Register in accordance with the act of July 5, 1946.

The service mark was first used in 1933, and first used in the sale or advertising of services and the services rendered in commerce among the several States which may lawfully be regulated by Congress in 1933.

All wording appearing in the drawing of the mark including the words "Since 1907," but excepting the letters "U P S," are disclaimed apart from the mark as shown.

(Declaration)

Paul Oberkotter, being duly sworn, deposes and says that he is the secretary of the corporation, the applicant named in the foregoing statement; that he believes the foregoing statement to be true; that he believes said corporation is the owner of the service mark sought to be registered and which is used in interstate commerce, and that no other person, firm, corporation or association other than its own subsidiaries, to the best of his knowledge and belief, has the right to use such mark in commerce which may lawfully be regulated by Congress either in the identical form thereof, or in such near resemblance thereto as might be calculated to deceive; that the drawing and description truly represent the service mark sought to be registered; and that the booklet entitled, "A Good Idea and How it Grew," copies of which are submitted herewith, show the service mark as actually used in connection with the sale of services.

UNITED PARCEL SERVICE
OF AMERICA, INC.,
By PAUL OBERKOTTER,
Secretary.

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EXHIBIT A

Int. Cl.: 39

Prior U.S. Cl.: 105

United States Patent and Trademark Office

Renewal

Reg. No. 514,285
Registered Aug. 23, 1949
OG Date Oct. 17, 1989

SERVICE MARK
PRINCIPAL REGISTER

UNITED PARCEL SERVICE OF AMERICA, INC. (DELAWARE CORPORATION)
GREENWICH OFFICE PARK 5
51 WEAVER STREET
GREENWICH, CT 06836

ALL WORDING APPEARING IN THE DRAWING OF THE MARK INCLUDING THE WORDS "SINCE 1907," BUT EXCEPTING THE LETTERS "U P S," ARE DISCLAIMED APART FROM THE MARK AS SHOWN.

FOR: MOTOR VEHICLE DELIVERY SERVICE FOR RETAIL STORES, IN CLASS 105 (INT. CL. 39).

FIRST USE 0-0-1933; IN COMMERCE 0-0-1933.

SER. NO. 533,084, FILED 9-2-1947.

In testimony whereof I have hereunto set my hand and caused the seal of The Patent and Trademark Office to be affixed on Oct. 17, 1989.

COMMISSIONER OF PATENTS AND TRADEMARKS

000030

EXHIBIT A

United States Patent Office

966,774
Registered Aug. 21, 1973

PRINCIPAL REGISTER
Service Mark

Ser. No. 431,799, filed Aug. 4, 1972

UPS

United Parcel Service of America, Inc. (Delaware corporation)
643 W. 43rd St.
New York, N.Y. 10036

For: TRANSPORTATION OF PERSONAL PROPERTY FOR HIRE BY DIVERSE MODES OF TRANSPORTATION, in CLASS 105 (INT. CL. 39).
First use 1933; in commerce 1933.
Owner of Reg. Nos. 514,285 and 735,064.

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EXHIBIT B

Int. Cl.: 39

Prior U.S. Cl.: 105

United States Patent and Trademark Office

10 Year Renewal

Reg. No. 966,774

Registered Aug. 21, 1973

Renewal Term Begins Aug. 21, 1993

SERVICE MARK
PRINCIPAL REGISTER

UPS

UNITED PARCEL SERVICE OF AMERICA, INC. (DELAWARE CORPORATION)
400 PERIMETER CENTER-TERRACE NORTH
ATLANTA, GA 30346

OWNER OF U.S. REG. NOS. 514,285 AND 735,064.

FOR: TRANSPORTATION OF PERSONAL PROPERTY FOR HIRE BY DIVERSE MODES OF TRANSPORTATION, IN CLASS 105 (INT. CL. 39).

FIRST USE 0-0-1933; IN COMMERCE 0-0-1933.

SER. NO. 72-431,799, FILED 8-4-1972.

In testimony whereof I have hereunto set my hand and caused the seal of The Patent and Trademark Office to be affixed on Aug. 24, 1993.

COMMISSIONER OF PATENTS AND TRADEMARKS

000092

EXHIBIT B

Int. Cl.: 39

Prior U.S. Cl.: 105

United States Patent and Trademark Office

Reg. No. 1,277,400
Registered May 8, 1984

SERVICE MARK
Principal Register

United Parcel Service of America, Inc. (Delaware corporation)
Greenwich Office Park 5
51 Weaver St.
Greenwich, Conn. 06830

For: MOTOR VEHICLE AND AIR TRANSPORTATION OF PERSONAL PROPERTY, in CLASS 39 (U.S. Cl. 105).

First use Sep. 20, 1982; in commerce Sep. 20, 1982.

Owner of U.S. Reg. Nos. 735,064, 1,121,927 and others.

No claim is made to the exclusive right to use the words "2nd Day Air", apart from the mark as shown.

Ser. No. 402,340, filed Nov. 12, 1982.

H. M. FISHER, Examining Attorney

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EXHIBIT C

Int. Cl.: 39

Prior U.S. Cl.: 105

United States Patent and Trademark Office

Reg. No. 1,375,109
Registered Dec. 10, 1985

SERVICE MARK
PRINCIPAL REGISTER

UNITED PARCEL SERVICE OF AMERICA, INC. (DELAWARE CORPORATION)
51 WEAVER ST.
GREENWICH OFFICE PARK 5
GREENWICH, CT 06830

FOR: MOTOR VEHICLE AND AIR TRANSPORTATION OF PERSONAL PROPERTY, IN CLASS 39 (U.S. CL. 105).
FIRST USE 9-20-1982; IN COMMERCE 9-20-1982.

OWNER OF U.S. REG. NOS. 735,064 AND 1,121,927.

NO CLAIM IS MADE TO THE EXCLUSIVE RIGHT TO USE "NEXT DAY AIR", APART FROM THE MARK AS SHOWN.

SER. NO. 402,341, FILED 11-12-1982.

H. M. FISHER, EXAMINING ATTORNEY

000094

EXHIBIT D

Int. Cl.: 39

Prior U.S. Cl.: 105

United States Patent and Trademark Office

Reg. No. 1,460,348
Registered Oct. 6, 1987

SERVICE MARK
PRINCIPAL REGISTER

UPS AIR CARGO SERVICE

UNITED PARCEL SERVICE OF AMERICA, INC. (DELAWARE CORPORATION), DBA UNITED PARCEL SERVICE CO.
GREENWICH OFFICE PARK 5
51 WEAVER STREET
GREENWICH, CT 06830

FOR: MOTOR VEHICLE AND AIR TRANSPORTATION OF PERSONAL PROPERTY, IN CLASS 39 (U.S. CL. 105).

FIRST USE 10-21-1985; IN COMMERCE 10-21-1985.

OWNER OF U.S. REG. NO. 1,375,109 AND OTHERS.

NO CLAIM IS MADE TO THE EXCLUSIVE RIGHT TO USE "AIR CARGO SERVICE", APART FROM THE MARK AS SHOWN.

SER. NO. 643,511, FILED 2-9-1987.

IRA J. GOODSAID, EXAMINING ATTORNEY

EXHIBIT E

Int. Cl.: 39

Prior U.S. Cl.: 105

United States Patent and Trademark Office

Reg. No. 1,874,248
Registered Jan. 17, 1995

SERVICE MARK
PRINCIPAL REGISTER

UPS PREFERRED

UNITED PARCEL SERVICE OF AMERICA, INC. (DELAWARE CORPORATION)
400 PERIMETER CENTER-TERRACES NORTH
ATLANTA, GA 30346

FOR: TRANSPORTATION BY AIR, RAIL, BOAT, AND MOTOR VEHICLE OF PACKAGES AND FREIGHT, IN CLASS 39 (U.S. CL. 105).

FIRST USE 3-15-1994; IN COMMERCE 3-15-1994.

OWNER OF U.S. REG. NOS. 966,774, 1,751,581 AND OTHERS.

SER. NO. 74-498,079, FILED 3-7-1994.

DAVID C. REIHNER, EXAMINING ATTORNEY

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EXHIBIT F

Int. Cl.: 39

Prior U.S. Cl.: 105

United States Patent and Trademark Office

Reg. No. 1,876,943
Registered Jan. 31, 1995

SERVICE MARK
PRINCIPAL REGISTER

Preferred

UNITED PARCEL SERVICE OF AMERICA, INC. (DELAWARE CORPORATION)
400 PERIMETER CENTER-TERRACES NORTH
ATLANTA, GA 30346

FOR: TRANSPORTATION BY AIR, RAIL, BOAT, AND MOTOR VEHICLE OF PACKAGES AND FREIGHT, IN CLASS 39 (U.S. CL. 105).

FIRST USE 3-15-1994; IN COMMERCE 3-15-1994.

OWNER OF U.S. REG. NOS. 735,064, 1,376,321 AND OTHERS.

SER. NO. 74-499,043, FILED 3-10-1994.

DAVID C. REIHNER, EXAMINING ATTORNEY

EXHIBIT G

Int. Cl.: 39

Prior U.S. Cl.: 105

United States Patent and Trademark Office

Reg. No. 1,878,016
Registered Feb. 7, 1995

SERVICE MARK
PRINCIPAL REGISTER

UPS NEXT DAY AIR

UNITED PARCEL SERVICE OF AMERICA, INC. (DELAWARE CORPORATION)
55 GLENLAKE PARKWAY, NE
ATLANTA, GA 30328

FOR: MOTOR VEHICLE AND AIR TRANSPORTATION OF PERSONAL PROPERTY, IN CLASS 39 (U.S. CL. 105).

FIRST USE 12-0-1984; IN COMMERCE 12-0-1984.

OWNER OF U.S. REG. NOS. 1,375,109, 1,376,321 AND OTHERS.

NO CLAIM IS MADE TO THE EXCLUSIVE RIGHT TO USE "NEXT DAY AIR", APART FROM THE MARK AS SHOWN.

SER. NO. 74-504,436, FILED 3-24-1994.

LYNN A. LUTHEY, EXAMINING ATTORNEY

EXHIBIT H

Int. Cl.: 39

Prior U.S. Cl.: 105

United States Patent and Trademark Office

Reg. No. 1,878,918
Registered Feb. 14, 1995

SERVICE MARK
PRINCIPAL REGISTER

UPS 2ND DAY AIR

UNITED PARCEL SERVICE OF AMERICA, INC. (DELAWARE CORPORATION)
55 GLENLAKE PARKWAY, NE
ATLANTA, GA 30328

FOR: MOTOR VEHICLE AND AIR TRANSPORTATION OF PERSONAL PROPERTY, IN CLASS 39 (U.S. CL. 105).

FIRST USE 12-0-1984; IN COMMERCE 12-0-1984.

OWNER OF U.S. REG. NOS. 1,277,400, 1,376,321 AND OTHERS.

NO CLAIM IS MADE TO THE EXCLUSIVE RIGHT TO USE "2ND DAY AIR", APART FROM THE MARK AS SHOWN.

SER. NO. 74-504,442, FILED 3-24-1994.

LYNN A. LUTHEY, EXAMINING ATTORNEY

EXHIBIT I

Int. Cl.: 9

Prior U.S. Cls.: 21, 23, 26, 36, and 38

United States Patent and Trademark Office

Reg. No. 2,098,168

Registered Sep. 16, 1997

TRADEMARK
PRINCIPAL REGISTER

UPS TRACKPAD

UNITED PARCEL SERVICE OF AMERICA, INC. (DELAWARE CORPORATION)
55 GLENLAKE PARKWAY, NE
ATLANTA, GA 30328

FOR: COMPUTER PROGRAMS AND HAND-HELD COMPUTERS USED FOR COLLECTION OF PACKAGE TRANSIT AND DELIVERY INFORMATION, IN CLASS 9 (U.S. CLS. 21, 23, 26, 36 AND 38).

FIRST USE 10-0-1995; IN COMMERCE 10-0-1995.

SN 75-026,612, FILED 12-1-1995.

JOHN TANG, EXAMINING ATTORNEY

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EXHIBIT J

Int. Cl.: 9

Prior U.S. Cls.: 21, 23, 26, 36 and 38

Reg. No. 2,128,739

United States Patent and Trademark Office

Registered Jan. 13, 1998

TRADEMARK
PRINCIPAL REGISTER

UPS ONLINE

UNITED PARCEL SERVICE OF AMERICA, INC. (DELAWARE CORPORATION)
55 GLENLAKE PARKWAY, NE
ATLANTA, GA 30328

FOR: SOFTWARE FOR USE IN PREPARING AND PRINTING SHIPPING DOCUMENTS AND INVOICES AND TRACKING THE SHIPPED PACKAGES, IN CLASS 9 (U.S. CLS. 21, 23, 26, 36 AND 38).

FIRST USE 7-1-1996; IN COMMERCE 7-1-1996.

NO CLAIM IS MADE TO THE EXCLUSIVE RIGHT TO USE "ONLINE", APART FROM THE MARK AS SHOWN.

SER. NO. 75-215,162, FILED 12-18-1996.

MIDGE BUTLER, EXAMINING ATTORNEY

EXHIBIT K

Int. Cl.: 9

Prior U.S. Cls.: 21, 23, 26, 36 and 38

United States Patent and Trademark Office

Reg. No. 2,278,090

Registered Sep. 14, 1999

TRADEMARK
PRINCIPAL REGISTER

UNITED PARCEL SERVICE OF AMERICA, INC. (DELAWARE CORPORATION)
55 GLENLAKE PARKWAY, NE
ATLANTA, GA 30328

FOR: SOFTWARE FOR USE IN PREPARING AND PRINTING SHIPPING DOCUMENTS AND INVOICES AND TRACKING THE SHIPPED PACKAGES, IN CLASS 9 (U.S. CLS. 21, 23, 26, 36 AND 38).

FIRST USE 7-1-1996; IN COMMERCE 7-1-1996.

OWNER OF U.S. REG. NOS. 2,115,201, 2,128,739 AND OTHERS.

SER. NO. 75-536,053, FILED 8-13-1998.

CAROLYN PENDLETON, EXAMINING ATTORNEY

EXHIBIT L

Int. Cls.: 9, 38, and 39

Prior U.S. Cls.: 21, 23, 26, 36, 38, 100, 101, 104, and 105

United States Patent and Trademark Office

Reg. No. 2,582,489
Registered June 18, 2002

TRADEMARK
SERVICE MARK
PRINCIPAL REGISTER

UPS ONLINE ENVOY

UNITED PARCEL SERVICE OF AMERICA, INC.
(DELAWARE CORPORATION)
55 GLENLAKE PARKWAY, NE
ATLANTA, GA 30328

FOR: SOFTWARE FOR USE IN PREPARING AND PRINTING SHIPPING DOCUMENTS AND INVOICES, AND TRACKING OF THE SHIPPED PACKAGES, IN CLASS 9 (U.S. CLS. 21, 23, 26, 36 AND 38).

FIRST USE 9-0-1998; IN COMMERCE 9-0-1998.

FOR: TELECOMMUNICATION SERVICES, NAMELY, PROVIDING INFORMATION ON INTERNATIONAL TRANSPORTATION AND DELIVERY SERVICES AND PACKAGE TRACKING USING A GLOBAL COMPUTER NETWORK, IN CLASS 38 (U.S. CLS. 100, 101 AND 104).

FIRST USE 9-0-1998; IN COMMERCE 9-0-1998.

FOR: DELIVERY OF PERSONAL PROPERTY BY AIR, RAIL, BOAT AND MOTOR VEHICLE, IN CLASS 39 (U.S. CLS. 100 AND 105).

FIRST USE 9-0-1998; IN COMMERCE 9-0-1998.

NO CLAIM IS MADE TO THE EXCLUSIVE RIGHT TO USE "ONLINE", APART FROM THE MARK AS SHOWN.

SN 75-237,645, FILED 2-6-1997.

MIDGE BUTLER, EXAMINING ATTORNEY

EXHIBIT M

Int. Cls.: 9 and 39

Prior U.S. Cls.: 21, 23, 26, 36, 38, 100, and 105

United States Patent and Trademark Office

Reg. No. 2,830,249

Registered Apr. 6, 2004

TRADEMARK
SERVICE MARK
PRINCIPAL REGISTER

UPS INTERNET TOOLS

UNITED PARCEL SERVICE OF AMERICA, INC.
(DELAWARE CORPORATION)
55 GLENLAKE PARKWAY, NE
ATLANTA, GA 30328

FOR: SOFTWARE FOR USE IN PREPARING AND PRINTING SHIPPING FORMS, DOCUMENTS AND INVOICES, AND TRACKING OF THE SHIPPED PACKAGES, IN CLASS 9 (U.S. CLS. 21, 23, 26, 36 AND 38).

FIRST USE 10-7-1997; IN COMMERCE 10-7-1997.

FOR: DELIVERY OF PERSONAL PROPERTY BY AIR, RAIL, BOAT AND MOTOR VEHICLE; PROVIDING COMPUTERIZED INFORMATION ON DOMESTIC AND INTERNATIONAL TRANSPORTATION AND DELIVERY SERVICES AND PACKAGE TRACKING, IN CLASS 39 (U.S. CLS. 100 AND 105).

FIRST USE 10-7-1997; IN COMMERCE 10-7-1997.

OWNER OF U.S. REG. NOS. 735,064, 1,121,927, AND OTHERS.

NO CLAIM IS MADE TO THE EXCLUSIVE RIGHT TO USE "INTERNET TOOLS", APART FROM THE MARK AS SHOWN.

SN 75-424,380, FILED 1-27-1998.

JENNIFER KRISP, EXAMINING ATTORNEY

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EXHIBIT N

Int. Cl.: 9

Prior U.S. Cls.: 21, 23, 26, 36, and 38

United States Patent and Trademark Office

Reg. No. 2,483,193
Registered Aug. 28, 2001

TRADEMARK
PRINCIPAL REGISTER

UPS.COM

UNITED PARCEL SERVICE OF AMERICA, INC.
(DELAWARE CORPORATION)
55 GLENLAKE PARKWAY, NE
ATLANTA, GA 30328

FOR: COMPUTER SOFTWARE FOR USE IN CONNECTION WITH WORLDWIDE PICK UP, TRACING, AND DELIVERY OF PERSONAL PROPERTY BY AIR, RAIL, BOAT, AND MOTOR VEHICLES , IN CLASS 9 (U.S. CLS. 21, 23, 26, 36 AND 38).

FIRST USE 12-0-1994; IN COMMERCE 12-0-1994.

OWNER OF U.S. REG. NO. 966,774.

SN 75-693,710, FILED 4-29-1999.

JENNIFER KRISP, EXAMINING ATTORNEY

EXHIBIT O

Int. Cls.: 9, 35, and 39

Prior U.S. Cls.: 21, 23, 26, 36, 38, 100, 101, 102, and 105

Reg. No. 3,160,062
Registered Oct. 17, 2006

United States Patent and Trademark Office

TRADEMARK
SERVICE MARK
PRINCIPAL REGISTER

UPS WORLDSHIP

UNITED PARCEL SERVICE OF AMERICA, INC.
(DELAWARE CORPORATION)
55 GLENLAKE PARKWAY, NE
ATLANTA, GA 30328

FOR: COMPUTER HARDWARE, OPERATING SOFTWARE AND PERIPHERALS, MODEMS, LASER AND THERMAL PRINTERS, SCANNERS, NETWORK INTERFACE CARDS, ELECTRICAL AND FIBER OPTIC CABLES, SCALES AND DISPLAY SCREENS, FOR PACKAGE SHIPPING RATE CALCULATORS, SHIPPING RECORD KEEPING AND SOFTWARE FOR USE IN PREPARING AND PRINTING SHIPPING DOCUMENTS AND INVOICES, AND TRACKING OF SHIPPED PACKAGES, IN CLASS 9 (U.S. CLS. 21, 23, 26, 36 AND 38).

FIRST USE 12-12-1994; IN COMMERCE 12-12-1994.

FOR: COMPUTERIZED TRACKING AND TRACING OF PACKAGES IN TRANSIT, NAMELY, PROVIDING COMPUTERIZED INFORMATION ON DOMESTIC AND INTERNATIONAL TRANSPORTATION AND DELIVERY SERVICES, IN CLASS 35 (U.S. CLS. 100, 101 AND 102).

FIRST USE 12-12-1994; IN COMMERCE 12-12-1994.

FOR: TRANSPORTATION AND DELIVERY OF PERSONAL PROPERTY BY AIR, RAIL, BOAT AND MOTOR VEHICLE, IN CLASS 39 (U.S. CLS. 100 AND 105).

FIRST USE 12-12-1994; IN COMMERCE 12-12-1994.

THE MARK CONSISTS OF STANDARD CHARACTERS WITHOUT CLAIM TO ANY PARTICULAR FONT, STYLE, SIZE, OR COLOR.

OWNER OF U.S. REG. NOS. 2,151,185 AND 2,485,673.

SN 78-444,912, FILED 7-1-2004.

ANNE MADDEN, EXAMINING ATTORNEY

EXHIBIT P

Int. Cl.: 9

Prior U.S. Cls.: 21, 23, 26, 36, and 38

United States Patent and Trademark Office

Reg. No. 2,520,558
Registered Dec. 18, 2001

TRADEMARK
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UPS

UNITED PARCEL SERVICE OF AMERICA, INC.
(DELAWARE CORPORATION)
55 GLENLAKE PARKWAY, NE
ATLANTA, GA 30328

FOR: SOFTWARE FOR USE IN PREPARING AND PRINTING SHIPPING DOCUMENTS AND INVOICES AND TRACKING THE SHIPPED PACKAGES, IN CLASS 9 (U.S. CLS. 21, 23, 26, 36 AND 38).

FIRST USE 10-0-1998; IN COMMERCE 10-0-1998.

OWNER OF U.S. REG. NOS. 2,098,168, 2,115,201, AND 2,128,739.

SN 75-546,196, FILED 8-31-1998.

DEIRDRE GILLIS, EXAMINING ATTORNEY

• 000107

EXHIBIT Q

Int. Cls.: 9, 16, 25, 35, 38, and 42

Prior U.S. Cls.: 2, 5, 21, 22, 23, 26, 29, 36, 37, 38, 39, 50, 100, 101, 102, and 104

United States Patent and Trademark Office

Reg. No. 2,973,108
Registered July 19, 2005

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UNITED PARCEL SERVICE OF AMERICA, INC.
(DELAWARE CORPORATION)
55 GLENLAKE PARKWAY, NE
ATLANTA, GA 30325

FOR: COMPUTER HARDWARE AND COMPUTER SOFTWARE IN THE FIELD OF TRANSPORTATION AND DELIVERY AND IN CONNECTION WITH WORLDWIDE PICK-UP, TRACING AND DELIVERY; BATTERIES; ALTERNATIVE POWER SUPPLY APPLIANCES, NAMELY, VOLTAGE SURGE PROTECTORS; MAGNETIC DISCS AND TAPES; COMPUTER PRINTERS, SCALES AND SCANNERS; COMPUTER SOFTWARE FOR PROVIDING AUTOMATED DOWNLOAD OF FILES, FOR PREPARING AND PRINTING OF SHIPPING LABELS, DOCUMENTS AND INVOICES, FOR PROVIDING ELECTRONIC SHIPPING LABELS, SHIPPING DOCUMENTS AND INVOICES, FOR PROVIDING INFORMATION ON AVAILABLE TRANSPORTATION AND DELIVERY SERVICES, AND FOR PROVIDING PROOF OF DELIVERY DOCUMENTATION, INCLUDING DIGITIZED SIGNATURE OF THE RECIPIENT OF THE PACKAGE AND THE RECEIPT, TRANSMISSION AND PROCESSING OF CUSTOMER IDENTIFYING SHIPPING ACCOUNT INFORMATION, IN CLASS 9 (U.S. CLS. 21, 23, 26, 36 AND 38).

FIRST USE 3-29-2003; IN COMMERCE 3-29-2003.

FOR: PRINTED MATERIALS PERTAINING TO INFORMATION TRANSPORTATION AND DELIVERY, NAMELY, PRESS RELEASES, PAMPHLETS, BROCHURES, NEWSLETTERS, BOOKS, POSTERS, PERIODICALS, CALENDARS, MAGAZINES, PRINTED INSTRUCTIONAL, EDUCATIONAL AND TEACHING MATERIAL, PAPER BANNERS, ENVELOPES, CARDBOARD BOXES AND PACKAGES, SHIPPING AND ADDRESS LABELS, STATIONERY, DESK SETS, PEN AND PENCIL SETS, PEN, PAPER CLIP DISPENSERS, PEN AND HOLDER DESK SETS, NOTE HOLDERS, FOUNTAIN PENS, DESK FOLDERS, STATIONERY-TYPE PORTFOLIOS, BUSINESS CARD FILES, RING BINDERS, LETTER OPENERS, DESK CADDIES, PACKING PAPER, PAPER BAGS, CARDBOARD, CARDBOARD ENVELOPES AND CARTONS; PLASTIC BAGS AND ENVELOPES AND POUCHES FOR PACKAGING, PLASTIC BUBBLE PACKS FOR WRAPPING OR PACKAGING, IN CLASS 16 (U.S. CLS. 2, 5, 22, 23, 29, 37, 38 AND 50).

FIRST USE 3-29-2003; IN COMMERCE 3-29-2003.

FOR: CLOTHING, NAMELY, HATS, SHORTS, SWEATERS, JACKETS, SOCKS, COATS, T-SHIRTS, PANTS, SHIRTS, VESTS, SWEATSHIRTS, RAINWEAR, FOOTWEAR AND GLOVES, IN CLASS 25 (U.S. CLS. 22 AND 39).

FIRST USE 3-29-2003; IN COMMERCE 3-29-2003.

FOR: ADVERTISING SERVICES; LOGISTICS MANAGEMENT IN THE FIELD OF TRANSPORTATION AND DELIVERY; BUSINESS MANAGEMENT SERVICES; BUSINESS CONSULTING SERVICES; BUSINESS ADMINISTRATION SERVICES; PROVIDING FACILITIES FOR THE USE OF OFFICE EQUIPMENT AND MACHINERY; MANAGEMENT ASSISTANCE SERVICES IN THE FIELD OF TRANS-

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PORTATION AND DELIVERY; MANAGEMENT CONSULTING SERVICES; PROVIDING COMPUTERIZED TRACKING AND TRACING OF PACKAGES IN TRANSIT; DISTRIBUTION OF ADVERTISING SAMPLES FOR OTHERS; MAIL SORTING HANDLING AND RECEIVING SERVICES; RETAIL STORE SERVICES FEATURING STAMPS AND OFFICE SUPPLIES; DATA PROCESSING SERVICES; PHOTOCOPYING SERVICES; DOCUMENT REPRODUCTION SERVICES; FRANCHISING, NAMELY, OFFERING TECHNICAL ASSISTANCE IN THE ESTABLISHMENT AND/OR OPERATION OF RETAIL MAILING, SHIPPING, PACKAGING, FAXING AND ELECTRONIC COMMUNICATION OUTLETS; PROVIDING AUTOMATED REGISTRATION FOR CUSTOMER IDENTIFYING SHIPPING ACCOUNT INFORMATION OVER THE GLOBAL COMPUTER NETWORK; LICENSING OF COMPUTER SOFTWARE; TRANSPORTATION NETWORK MANAGEMENT SOLUTION SERVICES; ARRANGING EXPEDITED PICK-UP, STORAGE, TRANSPORTATION AND DELIVERY SERVICES; CUSTOMS CLEARANCE SERVICES, IN CLASS 35 (U.S. CLS. 100, 101 AND 102).

FIRST USE 3-29-2003; IN COMMERCE 3-29-2003.

FOR: COMMUNICATIONS SERVICES AND TELECOMMUNICATIONS SERVICES, NAMELY, ELECTRONIC TRANSMISSION OF MESSAGES, DATA AND VOICE DATA; FACSIMILE AND ELECTRONIC MESSAGE SERVICES, MESSAGE DELIVERY AND SENDING SERVICES, TELEPHONE SERVICES AND WIRE SERVICES; SERVICES OF TRANSPORTATION OF LETTERS, DOCUMENTS AND OTHER TEXTS BY TELEX, BY TELEPHONE, BY ELECTRONIC MEANS; ONLINE DOCUMENT DELIVERY VIA A GLOBAL COMPUTER NETWORK, IN CLASS 38 (U.S. CLS. 100, 101 AND 104).

FIRST USE 3-29-2003; IN COMMERCE 3-29-2003.

FOR: LEGAL SERVICES; SCIENTIFIC RESEARCH SERVICES; DESIGN AND DEVELOPMENT OF COMPUTER HARDWARE AND SOFTWARE; CONSULTING SERVICES IN THE FIELD OF DESIGN, SELECTION, IMPLEMENTATION AND USE OF COMPUTER HARDWARE AND SOFTWARE SYSTEMS FOR OTHERS, IN CLASS 42 (U.S. CLS. 100 AND 101).

FIRST USE 3-29-2003; IN COMMERCE 3-29-2003.

OWNER OF U.S. REG. NOS. 1,461,044, 2,278,090, AND OTHERS.

SN 78-229,056, FILED 3-24-2003.

RAUL CORDOVA, EXAMINING ATTORNEY

EXHIBIT R

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abbreviation to define

AF Acronym Finder

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abbreviation word in meaning

Examples: NFL, HEV, NASA, PSP, HIPAA, random
Word(s) in meaning: chat "global warming"
Postal codes. USA: 81657, Canada: T5A 0A7

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Rank	Abbr.	Meaning
******	UPS	United Parcel Service
******	UPS	Uninterruptible Power Supply
******	UPS	University of Puget Sound
*****	UPS	Uninterruptible Power System
*****	UPS	Universal Press Syndicate
*****	UPS	Universal Power Supply
****	UPS	Ultraviolet Photoelectron Spectroscopy
****	UPS	Universal Polar Stereographic
****	UPS	Uninterrupted Power Source
***	UPS	Underground Press Syndicate
***	UPS	Units Per Second
***	UPS	Under Provisions of Section
***	UPS	Unfolded Protein Response
***	UPS	Underwater Photographic Society
***	UPS	Uniform Particle Size
***	UPS	Unix Print Services
***	UPS	User Planning System
**	UPS	Unity Primary School (Singapore)
**	UPS	Uniform Procurement System
**	UPS	United Publicity Services plc (UK)

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EXHIBIT S

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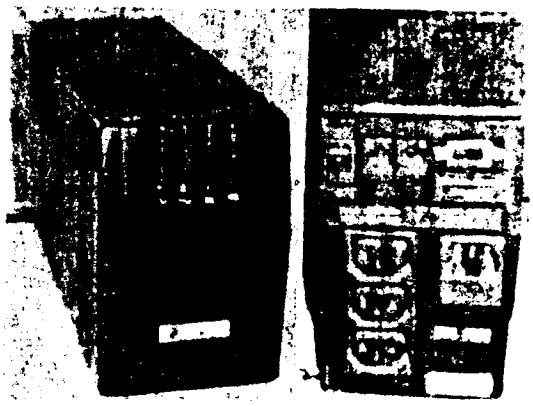
Uninterruptible power supply

From Wikipedia, the free encyclopedia



A small free-standing UPS

An **uninterruptible power supply** (**UPS**), also known as a **continuous power supply** (**CPS**) or a **battery backup** is a device which maintains a continuous supply of electric power to connected equipment by supplying power from a separate source when utility power is not available. It differs from an auxiliary power supply or standby generator, which does not provide instant protection from a momentary power interruption. Integrated systems that have UPS and standby generator components are often referred to as emergency power systems.

There are three distinct types of UPS: off-line, line-interactive and double conversion (also called on-line). An off-line UPS remains idle until a power failure occurs, and then switches from utility power to its own power source, almost instantaneously. An on-line UPS continuously powers the protected load from its reserves (usually lead-acid batteries or stored kinetic energy), while simultaneously replenishing the reserves from the AC power. It also provides protection against all common power problems, and for this reason it is also known as a power conditioner and a line conditioner.

While not limited to safeguarding any particular type of equipment, a UPS is typically used to protect computers, telecommunication equipment or other electrical equipment where an unexpected power disruption could cause injuries, fatalities, serious business disruption or data loss. UPS units come in sizes ranging from units which will back up a single computer without monitor (around 200 VA) to units which will power entire data centers or buildings (several megawatts).

Historically, UPSs were expensive and were most likely to be used on expensive computer systems and in areas where the power supply is interrupted frequently. As prices have fallen, UPS units have become an essential piece of equipment for data centers and business computers, and are also used for personal computers, entertainment systems and more.

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Common power problems

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There are various common power problems that UPS units are used to correct. They are as follows (with a typical example of damage that might be caused):

1. Power failure -- Total loss of utility power: Causes electrical equipment to stop working.
2. Voltage sag -- Transient (short term) under-voltage: Causes flickering of lights.
3. Voltage spike -- Transient (short term) over-voltage i.e. spike or peak: Causes wear or acute damage to electronic equipment.
4. Under-voltage (brownout) -- Low line voltage for an extended period of time: Causes overheating in motors.
5. Over-voltage -- Increased voltage for an extended period of time: Causes light bulbs to fail.
6. Line noise -- Distortions superimposed on the power waveform: Causes electro magnetic interference.
7. Frequency variation -- Deviation from the nominal frequency (50 or 60 Hz): Causes motors to increase or decrease speed and line-driven clocks and timing devices to gain or lose time.
8. Switching transient -- Instantaneous undervoltage (notch) in the range of milliseconds to seconds: May cause erratic behavior in some equipment, memory loss, data error, data loss and component stress.
9. Harmonic distortion -- Multiples of power frequency superimposed on the power waveform: Causes excess heating in wiring and fuses.

UPS units are divided into categories based on which of the above problems they address. Some manufacturers categorize their supplies as a level 3, 5, or 9, if they address the first 3, 5, or 9 power problem respectively.

UPS Technologies

The general categories of modern UPS systems are *on-line*, *line-interactive*, and *standby*. An on-line UPS uses a "double conversion" method of accepting AC input, rectifying to DC for passing through the battery (or battery strings), then inverting back to AC for powering the protected equipment. A line-interactive UPS maintains the inverter in line and redirecting the battery's DC current path from the normal charging mode to supplying current when power is lost. In a standby ("off-line") system the load is powered directly by the input power and the backup power circuitry is only invoked when the utility power fails. Most UPS below 1 kVA are of the line-interactive or standby variety which are usually less expensive.

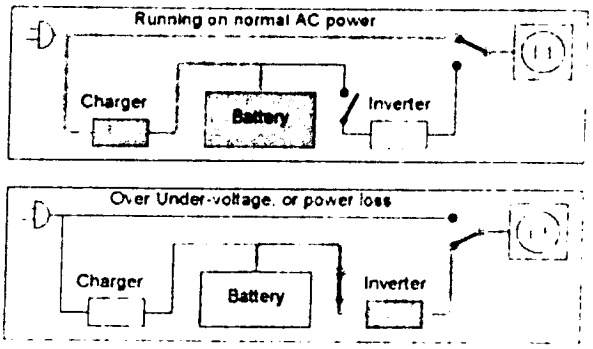
For large power units, Dynamic Uninterruptible Power Supply are sometimes used. A synchronous motor/alternator is connected on the mains via a choke. Energy is stored in a flywheel. When the mains power fails, an Eddy-current regulation maintains the power on the load. DUPS are sometimes combined or integrated with a diesel-genset.

Fuel cell UPS have been developed in recent years using hydrogen and a fuel cell as a power source, potentially providing long run times in a small space. A fuel cell replaces the batteries used in other UPS designs.

Offline / Standby

The Offline / Standby UPS offers only the most basic features, providing surge protection and battery backup. Usually the Standby UPS offers no battery capacity monitoring or self-test capability, making it the least reliable type of UPS since it could fail at any moment without warning. These are also the least expensive, selling for as little as US$75. The Standby UPS may be worse than using nothing at all, because it gives the user a false sense of security of being assurred protection that may not work when needed the most.

Offline / Standby UPS



Typical protection time: 0 - 20 minutes

Capacity expansion: Usually not available

With this type of UPS, a user's equipment is normally connected directly to incoming utility power with the same voltage transient clamping devices used in a common surge protected plug strip connected across the power line. When the incoming utility voltage falls below a predetermined level the UPS turns on its internal DC-AC inverter circuitry, which is powered from an internal storage battery. The SBS then mechanically switches the connected equipment on to its DC-AC inverter output. The switch over time is stated by most manufacturers as being less than 4 milliseconds, but typically can be as long as 25 milliseconds depending on the amount of time it takes the Standby UPS to detect the lost utility voltage.

Line-interactive

The Line-Interactive UPS is similar in operation to a Standby UPS, but with the addition of a multi-tap variable-voltage autotransformer. This is a special type of electrical transformer that can add or subtract powered coils of wire, thereby

Line-Interactive UPS

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increasing or decreasing the magnetic field and the output voltage of the transformer.

Typical protection time: 5 - 30 minutes

Capacity expansion: Yes, several hours

This type of UPS is able to tolerate continuous undervoltage brownouts and overvoltage surges without consuming the limited reserve battery power. It instead compensates by auto-selecting different power taps on the autotransformer. Changing the autotransformer tap can cause a very brief output power disruption, so the UPS may *chirp* for a moment, as it briefly switches to battery before changing the selected power tap.

Autotransformers can be engineered to cover a wide range of varying input voltages, but this also increases the number of taps and the size, weight, complexity, and expense of the UPS. It is common for the autotransformer to only cover a range from about 90v to 140v for 120v power, and then switch to battery if the voltage goes much higher or lower than that range.

In low-voltage conditions the UPS will use more amperage than normal so it may need a higher amperage circuit than a normal device. For example to power a 1000 watt device at 120 volts, the UPS will draw 8.32 amps. If a brownout occurs and the voltage drops to 100 volts, the UPS will draw 10 amps to compensate. This also works in reverse, so that in an overvoltage condition, the UPS will need fewer amps of current.

Double-Conversion / Online

Typical protection time:

5 - 30 minutes

Capacity expansion:

Yes, several hours

The Online UPS is ideal for environments where electrical isolation is necessary or for equipment that is very sensitive to power fluctuations. Although once previously reserved for very large installations of 10kW or more, advances in technology have permitted it to now be available as a common consumer device, supplying 500 watts or less. The Online UPS is generally more expensive but may be necessary when the power environment is "noisy" such as in industrial settings, for larger equipment loads like data centers, or when operation from an extended-run backup generator is necessary.

The basic technology of the Online UPS is the same as in a Standby or Line-Interactive UPS. However it typically costs much more, due to it having a much greater amperage AC-to-DC battery-charger/rectifier, and with the rectifier and inverter designed to run continuously with improved cooling systems. It is called a *Double-Conversion* UPS due to the rectifier directly driving the inverter, even when powered from normal AC current.

In an Online UPS, the batteries are always connected to the inverter, so that no power transfer switches are necessary. When power loss occurs, the rectifier simply drops out of the circuit and the batteries keep the power steady and unchanged. When power is restored, the rectifier resumes carrying most of the load and begins charging the batteries, though the charging current may be limited to prevent the high-power rectifier from overheating the batteries and boiling off the electrolyte.

The main advantage to the on-line UPS is its ability to provide an electrical firewall between the incoming utility power and sensitive electronic equipment. While the Standby and Line-Interactive UPS merely filters the input utility power, the Double-Conversion UPS provides a layer of insulation from power quality problems. It allows control of output voltage and frequency regardless of input voltage and frequency.

Ferro-resonant

Typical protection time:

0.016 seconds

Capacity expansion:

No

Ferro-resonant units operate in the same way as a standby UPS unit with the exception that a ferro-resonant transformer is used to filter the output. This transformer is designed to hold energy long enough to cover the time between switching from line power to battery power and effectively eliminates the transfer time. Many ferro-resonant UPSs are 90-93% efficient and offer excellent isolation.

While this used to be the dominant type of UPS, they are no longer used for common applications. Power factor correcting equipment found in newer computer systems interacts with static ferro-resonant transformers, causing potentially damaging oscillations, and the transformer itself can create distortions which yield power less acceptable than poor quality line AC. These units are still used in some industrial settings, but have mostly disappeared from use with general computer equipment. Many ferro-resonant UPSs utilizing controlled ferro technology may not interact with power-factor-correcting equipment.

DC-Power Supply

A UPS designed for powering DC equipment is very similar to an online UPS, except that it does not need an

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output inverter, and often the powered device does not need a power supply. Rather than converting AC to DC to charge batteries, then DC to AC to power the external device, and then back to DC inside the powered device, some equipment accepts DC power directly and allows one or more conversion steps to be eliminated.

Several hours

Capacity expansion:

Yes

Many systems used in telecommunications use 48 volt DC power, because it is not considered a *high-voltage* by most electrical codes and is exempt from many safety regulations, such as being installed in conduit and junction boxes. DC has typically been the dominant power source for telecommunications, and AC has typically been the dominant source for computers and servers.

There has been much experimentation with 48v DC power for computer servers, in the hope of reducing the likelihood of failure and the cost of equipment. However, to supply the same amount of power, the amperage must be greater than an equivalent 120v or 240v circuit, and greater amperage requires larger conductors and/or more energy to be lost as heat.

High voltage DC (380 volts) is finding use in some data center applications, and allows for small power conductors, but is subject to the more complex electrical code rules for safe containment of high voltages.[1]

Rotary UPS

A Rotary UPS uses the inertia of a high-mass spinning flywheel to provide short-term *ride-through* in the event of power loss. The flywheel also acts as a buffer against power spikes and sags, since such short-term power events are not able to appreciably affect the rotational speed of the high-mass flywheel. It is also one of the oldest designs, predating vacuum tubes and integrated circuits.

Typical protection time:

20 - 60 seconds

Capacity expansion:

Yes, several seconds

It can be considered to be *online* since it spins continuously under normal conditions. However, unlike an electronic double-conversion UPS, it is only capable of providing reserve power for a few seconds before the flywheel has slowed and the protection fails. It is traditionally used in conjunction with standby diesel generators, providing backup power only for the brief period of time the engine needs to start running and stabilize its output.

The Rotary UPS is generally reserved for applications needing more than 10,000 watts of protection, to justify the expense of an extremely large and heavy power system that can only be transported by forklift or crane. A larger flywheel or multiple flywheels operating in parallel will increase the reserve running time, but at greatly increasing cost due to the size and weight of the precision-balanced flywheels.

Because the flywheels are a mechanical power source, it is not necessary to use an electric motor or generator as an intermediary between it and a diesel engine designed to provide emergency power. By using a transmission gearbox, the rotational inertia of the flywheel can be used to directly start up a diesel engine, and once running, the diesel engine can be used to directly spin the flywheel. Multiple flywheels can likewise be connected in parallel through mechanical countershafts, without the need for separate motors and generators for each flywheel.

They are normally designed to provide very high amperage output compared to a purely electronic UPS, and are better able to provide inrush current for inductive loads such as motor startup or compressor loads, as well as medical MRI and cath lab equipment. It is also able to tolerate short-circuit conditions up 17 times larger than an electronic UPS, permitting one device to blow a fuse and fail while other devices still continue to be powered from the Rotary UPS.

Its life cycle is usually far greater than a purely electronic UPS, up to 30 years or more. But they do require periodic downtime for mechanical maintenance (ball bearing replacement), while solid-state designs, using batteries, do not require downtime if the batteries can be hot-swapped, which is usually the case for larger units.

Typically, the high-mass flywheel is used in conjunction with a motor-generator system. These units can be configured as:[2]

- 1. A motor driving a mechanically connected generator,
- 2. A combined synchronous motor and generator wound in alternating slots of a single rotor and stator,
- 3. A Hybrid Rotary UPS, designed similar to an Online UPS, except that it uses the flywheel in place of batteries. The rectifier drives a motor to spin the flywheel, while a generator uses the flywheel to power the inverter.

In case #3 the motor generator can be synchronous/synchronous or induction/synchronous. The motor side of the unit in case #2 and #3 can be driven directly by an AC power source (typically when in inverter bypass), a 6-step double-conversion motor drive, or a 6 pulse inverter. Case #1 uses an integrated flywheel as a short-term energy source instead of batteries to allow time for external, electrically coupled gensets to start and be brought online. Case #2 and #3 can use batteries or a free-standing electrically coupled flywheel as the short-term energy source.

UPS Applications

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The basic technology of UPS hardware can have many forms when applied for different purposes. Any of the technologies may be recombined as redundant systems or designed for special needs.

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N+1 UPS

In large business environments where reliability is of great importance, a single huge UPS can also be a single point of failure that can disrupt many other systems. To provide greater reliability, multiple smaller UPS modules and batteries can be integrated together to provide redundant power protection equivalent to one very large UPS.

It is not normally possible to take the AC output of two separate UPS units and combine their output voltage, because the output waveform of one UPS inverter can be leading or lagging the other inverter, causing severe power fluctuations that can damage both the UPS units and the powered devices.

In an N+1 UPS, a special synchronization signal is shared amongst the inverter modules to assure that all are producing a sinewave output that is in synchrony, without leading or lagging waveforms. Additional monitoring circuits assure all inverters and batteries are operating correctly within tolerances.

Generally an N+1 UPS is designed to supply more power than is actually required by the load, so that in the event of a fault, at least one of the inverters or battery modules can be disabled and removed from powering the load. An internal crossbar bus can permit any battery module to be connected to any different inverter module, to bypass potential failures.

An N+1 UPS can permit easy, centralized expansion of enterprise load capacity. In contrast, by purchasing small separate UPS units, eventually the server room fills with a collection of many different UPS models with many different batteries all aging at different rates and needing lots of care and monitoring. Buying a single huge UPS means wasted capacity until it is full, and then another huge UPS must be added which again has wasted capacity. With the N+1 UPS, as capacity grows, expansion just requires purchasing additional inverter modules and battery modules, and adding them to the N+1 chassis.

Multiple, Redundant UPS

Many computer servers offer the option of redundant power supplies, so that in the event of one power supply failing, one or more other power supplies are able to power the load.

While it is common to plug each of these individual power supplies into one single UPS, redundant protection can be extended further yet by connecting each power supply to its own UPS. This provides double protection from both a power supply failure and a UPS failure, so that continued operation is assured.

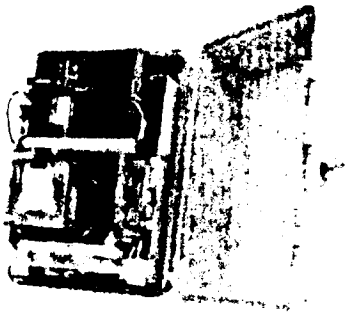
These additional layers of protection also add complexity and cost to the design of an enterprise server room environment. It also requires handling only by experienced professionals, since the multiple redundant cabling can appear confusing and unnecessary to an untrained person.

Outdoor UPS

When a UPS system is placed outdoors, it should have some specific features that guarantee that it can tolerate weather with a 'minimal to none' effect on performance. Factors such as temperature, humidity, rain, and snow among others should have been considered by the manufacturer when designing an outdoor UPS system. Operating temperature ranges for outdoor UPS systems could be around -40°C to +55° C.

An outdoor UPS system is normally made of several components designed for this particular task:

- Outdoor enclosure: provides protection against the elements to all the components placed within. Quality outdoor enclosures are powder coat finished for corrosion resistance and long life. Outdoor enclosures are normally NEMA 3R compliant
- Power Module: is the UPS itself. The boards of this power module should be conformal coated to avoid humidity damage. This UPS unit is normally based on Line Interactive or Double Conversion topology. Some manufacturers prefer Line Interactive because it provides a better Mean Time Between Failures (MTBF), and that is a critical part of an outdoor UPS system.
- Batteries: The batteries used in outdoor UPS systems must operate in a wide temperature range, usually from -40°C to +60°C. Batteries normally used in outdoor UPS systems are Gel Cell Batteries. The outdoor UPS's Power Module should provide a temperature compensated battery charging mechanism to optimize the life of the batteries.



A small outdoor UPS system.

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A proper outdoor UPS system requires that all its components are designed for this environment. As seen from the features of the components above, an outdoor UPS system is not an indoor UPS inside an outdoor enclosure.

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Outdoor UPS systems can be pole, ground (pedestal), or host mounted. Outdoor environment could mean extreme cold, in which case the outdoor UPS system should include a battery heater mat, or extreme heat, in which case the outdoor UPS system should include a fan system or an air conditioning system.

Outdoor UPS systems are ideal for protection of WiFi/GSM/CDMA/satellite base stations, wireless communications/perimeter surveillance and security/gate control systems, LED traffic light/roadway display systems and remote terminal units (RTUs).

Internal-PC UPS

Internal UPS are a group of uninterruptible power supplies (UPS) designed to be placed inside computer chassis. There are two types of Internal UPS. First type is miniaturized regular UPS that are made small enough to fit into a 5.25" CD-ROM slot bay of a regular computer chassis. The other type is re-engineered switching power supplies that utilize dual power sources of AC and/or DC as power inputs and have an AC/DC built-in switching management control units.

The first type often requires extra connection wires between the internal UPS and computer's power supply. Some internal UPS of this group output high voltage (110 V - 220 V) direct current (DC) and some output nine-step table wave AC. Neither design is safe or energy efficient. As of 2006, there are only a couple of companies still selling this type of internal UPS in Australia, Asia and some part of Europe

The second group of internal UPS replaces the regular switching power supplies. There are three main design mechanisms:

1. Optic-coupling that imitates AC during AC outages. This mechanism was first introduced by American Advanced Power of USA and Magnum Power of UK in 1997, as well as Apollo Power of Taiwan in 1998. This design provides a low-cost solution but its efficiency is low and it has a very low overall wattage limit (<300 W).
2. An analog-circuitry-controlled AC/DC switching mechanism. This design also provides a low-cost solution. However, because of the bulky component circuit board, little space is available for increasing wattage output. Plus, the final products are very sensitive to factors such as local heat and causing frequent operational errors. Nevertheless, because of its low cost, it is still popular in China. Most Asian internal UPS manufacturers belong to this category.
3. A CPU controlled AC/DC switching mechanism. This design was first introduced by American Advanced Power Inc. of USA and Amsdell of Canada. It provides error-free switching control and a complicated communication protocol between the power supply and computer.

Disposing of UPS batteries

Many UPS units contain sealed lead-acid batteries and electronics which can be detrimental to the environment. In the United States, it is illegal to dispose of lead-acid batteries in a landfill, and they must be properly recycled. Sealed lead-acid batteries are recycled in the same manner as car batteries, so any auto shop that accepts used car batteries for recycling will also accept sealed lead acid batteries.

UPS Limitations

Using a generator with a UPS

Some types of UPS cannot function reliably with emergency power generators and the UPS will fail to work correctly with the generator power. Only a UPS that is specifically rated to work with a generator can be trusted to function properly.

Due to the limited output capacity of an emergency generator, it is common for the generator to produce temporary surges and dropouts as devices are turned on and off. These surges and dropouts become larger as the capacity of the emergency generator decreases compared to the total load it must supply.

For example, if a small business were powered by a 25 kilowatt standby generator, the engine would only run fast enough to provide a stable 50/60 Hz output sinewave for the currently operating loads. If a 5,000 watt water heater suddenly turns on, there is a temporary sag in voltage and a drop in frequency because the generator power draw is suddenly much higher than the engine output. The engine control detects the drop and opens the engine throttle to compensate, increasing engine RPM and bringing the voltage and frequency back up to normal. This stabilization may take a few seconds to occur if the sudden power draw is large, or the device is a motor and normally draws much more power for a few moments when starting as compared to stable running.

Similarly if a large load such as a water heater turns off, the load on the generator is suddenly much lower, and the voltage and frequency rises as the generator RPM quickly increases. The engine control again detects this increase and backs off the engine throttle to bring the generator back down to normal voltage and frequency.

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A simple Standby UPS cannot deal with these surges and dropouts, and will constantly transfer to battery, which will quickly discharge and

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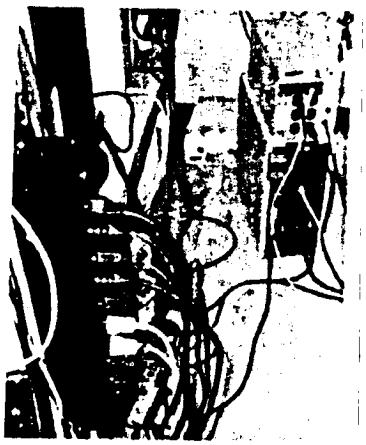
cannot recharge quickly enough to compensate. A Line-Interactive UPS will have fewer problems but may still run down the battery due to the droupots. An Online or Double-Conversion UPS is potentially capable of handling these variations, but only if the power supply is designed to tolerate the wide ranging frequency and voltage variations.

Note that these frequency and voltage variations occur normally as a part of standard powerline generation. However the overall size of the distributed electrical grid and the huge capacity of generation stations help to buffer these surges and dropouts so the effects are not as severe as for a system running on emergency generators.

Power strip surge-protection hazard

For the basic Standby and Line-Interactive UPS, there is an often-unmentioned difficulty with adding additional power connections. Many UPS models only include a few closely-spaced outlets that cannot accommodate large power bricks or a large number of low-wattage devices all with separate power cables.



An American Power Conversion 10-outlet rackmount PDU without built-in surge protection, connected to an APC Smart UPS 2200 (bottom unit on right)

While a generic power strip *without surge protection* can be used to add additional room to the surge-protected outlets, a power strip with surge protection can interact badly with the UPS cutover switch and cause severe damage to the UPS. When the UPS switches from line power to battery and then back to line power, the cutover occurs so quickly that it can appear to be a power surge to a power strip plugged into the UPS. Most surge protection is sacrificial, in that the protection devices will create a temporary direct-short to create an alternate path for the surge to follow, and over time the protection eventually fails from stress.

How false surge triggering occurs

False triggering can occur because the inverter is usually not synchronized with the line current, and it is possible for a switchover to occur where the inverter has just reached the bottom of a negative voltage sine curve and the line current is reaching the exact top of a positive voltage sine curve (or vice-versa).

120v AC is an averaged Root Mean Square number, and has an actual peak near 170 volts. During the bypass switch cutover in this worst-case scenario, the voltage suddenly swings from -170v to +170v in 4 millisconds, which appears to the surge protection to be a sudden 340-volt swing and has all the appearance of being a voltage spike that should be suppressed. For a 240v UPS, this worst case switchover results in a sudden 650v voltage swing.

If the surge protection false-triggers, the surge protection suddenly overloads the UPS by several magnitudes beyond its design limits, and can result in the UPS electronics quickly overheating and burning up in seconds. Surge protection is generally only rated to handle brief spikes, but this sudden sustained high current absorption may result in the melting of the plastic power strip casing.

PDU: Commercial expansion options

When a UPS is used in a commercial environment such as powering rack-mount servers, it is not possible for the UPS to provide all the sockets necessary to support the protected loads. In this case the manufacturer will specifically provide an outlet-expansion option known as the Power Distribution Unit, or *PDU*. This is typically nothing more than common electrical receptacles and a long power cord in a steel case, with no surge protection at all, but with a high cost due to its special design for rackmount infrastructure. Surge protection is unnecessary in the PDU, since the UPS itself is already designed to provide surge protection.

For large installations with over 30 amperes of output, the UPS may have the option to be wired directly to standard electrical conduit and receptacles, using flex conduit to attach the UPS to the permanent conduit, again avoiding potential surge interaction problems.

Equipment damage policy limitations

For UPS models with equipment damage insurance policies, the policy is typically valid only if all protected devices were connected directly to the UPS, or if the customer purchases a company-brand PDU or company-brand power strip, as specified in the warranty policy.

Battery Monitoring Limitations

t is typically difficult to determine the charge capacity of an aging battery, using only simple voltage tests. Capacity declines as a battery ages ind the lead plates begin to sulfate and decompose, but if a weak battery is sufficiently charged it will still be able to supply sufficient voltage to ppear normal.

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Only when the battery has been put under load for an extended period of time, and the battery amperage and voltage measured during the test, is possible to find the true charge capacity. A weak battery will run properly for a few minutes or seconds and fail suddenly.

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A *Run-Time Calibration* is a special test that is rarely performed, and involves running down a fully-charged battery until it fails. The measured time and voltage/amperage results to create an estimated profile of projected battery life. This profile is how the estimated run-time is calculated based on current UPS wattage load.

However, the profile is rarely updated and becomes incorrect as the battery continues to age. More load testing is needed to verify capacity and update the run-time estimation, which is why some UPS models run a self test every few weeks, to do a quick battery capacity estimation.

Some UPS manufacturers suggest doing a Run-Time Calibration only once a year, because the deep discharging is harmful to the lead plates and accelerates their eventual failure. For longest life the charge should stay near 100% continuously, though without the occasional testing it is not possible to know the battery state at all.

For UPS models that rarely or never run self-tests, the battery life may have declined so severely from the profile that the UPS may fail within seconds of being activated. The UPS may appear to be perfectly normal until the critical moment it is needed, but in that moment as the protected devices suddenly turn off does the truth arise that the battery lost all its capacity weeks or months ago, and the UPS did not report any problems.

Nonstandard Sinewave Output

The Standby, Line-Interactive, and Online UPS products all contain an electronic inverter to generate alternating current from direct current. Since it is not a mechanical spinning rotor, they can only approximate a true sinousoidal wave. The less-expensive UPS models tend to generate a less-accurate approximation. The lowest cost UPS models tend to produce a very rough square-wave, mid-range UPS models produce a stepped-sine wave, while the highest quality models offer true sinewave output.

In many cases the protected equipment may appear to operate normally on the nonstandard waveforms, but over time may be damaged due to the harmonics of non-sinewave power causing excessive heating of transformers, AC motor windings, and power supply circuitry, for which the protected device was not designed to tolerate.

Run-Time Capacity Expansion

The least expensive UPS models, and the UPS models built for a specific purpose, are usually not capable of accepting additional battery packs or larger battery packs for extended power protection. To keep the manufacturing costs down, they frequently have no cooling fan, little or no venting for air circulation, and do not provide any form of battery or inverter temperature monitoring. Instead, to prevent overheating, their inverters are designed to only operate as long as the internal battery capacity allows and then shut down before the UPS overheating becomes excessive.

See also

- Emergency power system
- Power conditioner
- Surge protector

Notes

1. ^ Microsoft Word - DCDemoFinalReportFinalJan17-07.doc
2. ^ Hybrid Rotary UPS white paper

References

- *Part of this article was originally taken from a public-domain entry in Federal Standard 1037C.*
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External links

- How a UPS works
- The Do-It-Yourself-UPS

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- **abbreviation** Computing uninterruptible power supply.

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UPS

1. uninterruptible power supply.

2. A source level C debugger that runs under X11 or SunView by Mark Russell <*mtr@ukc.ac.uk*>. Ups includes a C interpreter which allows you to add fragments of code simply by editing them into the source window. Version 2.1.

Ported to Sun, DECstation, VAX Ultrix, HLH Clipper.

ftp://export.lcs.mit.edu/contrib/. Mailing list: ups-users-request@ukc.ac.uk.

Unofficial enhancements by Rod Armstrong <*rod@sj.ate.slb.com*>
ftp://sj.ate.slb.com/misc/Unix/ups/contrib/rob.

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UPS

Last modified: Thursday, April 01, 2004

Short for ***uninterruptible power supply***, a power supply that includes a battery to maintain power in the event of a power outage. Typically, a UPS keeps a computer running for several minutes after a power outage, enabling you to save data that is in RAM and shut down the computer gracefully. Many UPSs now offer a software component that enables you to automate backup and shut down procedures in case there's a power failure while you're away from the computer.

There are two basic types of UPS systems: *standby power systems (SPSs)* and *on-line* UPS systems. An SPS monitors the power line and switches to battery power as soon as it detects a problem. The switch to battery, however, can require several milliseconds, during which time the computer is not receiving any power. Standby Power Systems are sometimes called *Line-interactive UPSes.*

An on-line UPS avoids these momentary power lapses by constantly providing power from its own inverter, even when the power line is functioning properly. In general, on-line UPSs are much more expensive than SPSs.

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UPS (Uninterruptible Power Supply) telecom definition

A device or system that provides electrical power without interruption in the event that commercial power drops to an unacceptable voltage level. A UPS comprises circuitry and batteries that may provide power just long enough to shut down a computer or other system gracefully, without loss of data, or perhaps for many hours of normal operation in the event of a catastrophic commercial power failure. A typical UPS system operates in a hot standby, or offline, mode, continuously charging its batteries from a commercial power source and constantly prepared to assume responsibility within a few milliseconds for powering the client system. A more expensive online UPS actively filters commercial power, running it through the battery packs and an inverter, smoothing out the electrical waveforms and correcting for any power spikes and dips. See also inverter and waveform.

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Goods and Services	IC 009. US 021. G & S: uninterruptible power supplies (used as a backup power supply for computers and other sensitive electronic equipment). FIRST USE: 19900400. FIRST USE IN COMMERCE: 19900500
Mark Drawing Code	(1) TYPED DRAWING
Serial Number	74090528
Filing Date	August 23, 1990
Current Filing Basis	1A
Original Filing Basis	1A
Published for Opposition	September 10, 1991
Registration Number	1689902
Registration Date	June 2, 1992
Owner	(REGISTRANT) American Power Conversion Corp. CORPORATION RHODE ISLAND 132 Fairgrounds Road West Kingston RHODE ISLAND 02892
Assignment Recorded	ASSIGNMENT RECORDED
Attorney of Record	STEPHEN J HOLMES
Type of Mark	TRADEMARK
Register	PRINCIPAL
Affidavit Text	SECT 15. SECT 8 (6-YR). SECTION 8(10-YR) 20010907.
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Serial Number	74090549
Filing Date	August 23, 1990
Current Filing Basis	1A
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Published for Opposition	September 10, 1991
Registration Number	1689903
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Mark Drawing Code	(1) TYPED DRAWING
Serial Number	74157388
Filing Date	April 15, 1991
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Original Filing Basis	1B
Published for Opposition	April 14, 1992
Registration Number	1749282
Registration Date	January 26, 1993
Owner	(REGISTRANT) Yutaka Electric International, Inc. CORPORATION DELAWARE 320 W. Clary Avenue San Gabriel CALIFORNIA 91776 (LAST LISTED OWNER) FALCON ELECTRIC, INC. CORPORATION BY ASSIGNMENT DELAWARE 5106 AZUSA CANYON ROAD IRWINDALE CALIFORNIA 91706
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Goods and Services	IC 009. US 026. G & S: electronic apparatus for use with uninterruptible power supplies for the purpose of detecting environmental and security anomalies in computer rooms. FIRST USE: 19930301. FIRST USE IN COMMERCE: 19930301
Mark Drawing Code	(1) TYPED DRAWING
Serial Number	74371542
Filing Date	March 24, 1993
Current Filing Basis	1A
Original Filing Basis	1A
Published for Opposition	September 28, 1993
Registration Number	1811966
Registration Date	December 21, 1993
Owner	(REGISTRANT) American Power Conversion Corp. CORPORATION RHODE ISLAND 132 Fairgrounds Road West Kingston RHODE ISLAND 02892 (LAST LISTED OWNER) AMERICAN POWER CONVERSION CORP. CORPORATION BY ASSIGNMENT MASSACHUSETTS 132 FAIRGROUNDS RD. WEST KINGSTON RHODE ISLAND 02892
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Attorney of Record	Stephen J. Holmes
Prior Registrations	1689902;1689903
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Serial Number	74525958
Filing Date	May 17, 1994
Current Filing Basis	1A
Original Filing Basis	1A
Published for Opposition	July 4, 1995
Registration Number	1921637
Registration Date	September 26, 1995
Owner	(REGISTRANT) American Power Conversion Corporation CORPORATION MASSACHUSETTS 132 Fairgrounds Road West Kingston RHODE ISLAND 02892
Attorney of Record	STEPHEN J. HOLMES
Prior Registrations	1689902
Type of Mark	TRADEMARK
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Affidavit Text	SECT 15. SECT 8 (6-YR). SECTION 8(10-YR) 20050203.
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Mark Drawing Code	(1) TYPED DRAWING
Serial Number	74695292
Filing Date	June 29, 1995
Current Filing Basis	1A
Original Filing Basis	1B
Published for Opposition	March 26, 1996
Registration Number	2067751
Registration Date	June 3, 1997
Owner	(REGISTRANT) SOLIDSTATE CONTROLS, INC. CORPORATION DELAWARE 875 DEARBORN DRIVE COLUMBUS OHIO 43085
Attorney of Record	THOMAS W. RYAN
Type of Mark	TRADEMARK
Register	PRINCIPAL
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Mark Drawing Code	(1) TYPED DRAWING
Serial Number	75520198
Filing Date	July 16, 1998
Current Filing Basis	1A
Original Filing Basis	1A
Published for Opposition	January 14, 2003
Registration Number	2703362
Registration Date	April 8, 2003
Owner	(REGISTRANT) Fenton Technologies CORPORATION TAIWAN 13F-3, 75 Hsin Tai Wu Rd., Sec. 1 Hsi-Chih Taipei Hsien 221 TAIWAN
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Tactical UPS

Word Mark	TACTICAL UPS
Goods and Services	IC 009. US 021 023 026 036 038. G & S: Automated process control system, namely, micro-processor based hardware and software used to monitor the status of industrial processes, namely, power generation, electrical distribution and oil and gas processing; Electrical distribution systems, namely, power distribution panels; Electrical power distribution units; Electrical switchgear, namely, voltage boosting devices for electric power lines; Electronic controllers for use with power converters; High-frequency switching power supplies; Power controllers; Power line conditioners; Power supplies; Renewable battery system to provide backup power; Voltage regulators for electric power; Voltage stabilizing power supply. FIRST USE: 20050101. FIRST USE IN COMMERCE: 20050101
Standard Characters Claimed	
Mark Drawing Code	(4) STANDARD CHARACTER MARK
Serial Number	77265497
Filing Date	August 27, 2007
Current Filing Basis	1A
Original Filing Basis	1A
Published for Opposition	February 19, 2008
Registration Number	**3444320**
Registration Date	June 10, 2008
Owner	(REGISTRANT) Madden, Paul Daniel INDIVIDUAL UNITED STATES 219 Park Avenue East Mansfield OHIO 449021845
Disclaimer	NO CLAIM IS MADE TO THE EXCLUSIVE RIGHT TO USE "UPS" APART FROM THE MARK AS SHOWN
Type of Mark	TRADEMARK

000133

EXHIBIT HH

United States Patent and Trademark Office

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Record 1 out of 1

Extreme UPS

Word Mark	EXTREME UPS
Goods and Services	IC 009. US 021 023 026 036 038. G & S: Electrical power distribution units; Electronic controllers for use with power converters; High-frequency switching power supplies; Power supplies; Renewable battery system to provide backup power; Integrated battery backup systems comprising a battery, an electronic measurement apparatus for use in the measurement of battery health and performance, and a remote computer software program that uses the foregoing data to trend, predict, and store data related to the health of the battery. FIRST USE: 20031217. FIRST USE IN COMMERCE: 20031217
Standard Characters Claimed	
Mark Drawing Code	(4) STANDARD CHARACTER MARK
Trademark Search Facility Classification Code	LETTER-3-OR-MORE UPS Combination of three or more letters as part of the mark
Serial Number	77264401
Filing Date	August 25, 2007
Current Filing Basis	1A
Original Filing Basis	1A
Published for Opposition	February 19, 2008
Registration Number	**3444309**
Registration Date	June 10, 2008
Owner	(REGISTRANT) Madden, Paul Daniel INDIVIDUAL UNITED STATES 219 Park Avenue East Mansfield OHIO 449021845
Disclaimer	NO CLAIM IS MADE TO THE EXCLUSIVE RIGHT TO USE "UPS" APART FROM THE MARK

000134

EXHIBIT II

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Record 1 out of 1

 (Use the "Back" button of the Internet Browser to return to TESS)

LEV-UPS

Word Mark	LEV-UPS
Goods and Services	IC 009. US 021 023 026 036 038. G & S: UNINTERRUPTABLE POWER SUPPLY FOR MICROPROCESSOR BASED PRODUCTS. FIRST USE: 20000600. FIRST USE IN COMMERCE: 20001000
Standard Characters Claimed	
Mark Drawing Code	(4) STANDARD CHARACTER MARK
Serial Number	76566094
Filing Date	December 10, 2003
Current Filing Basis	1A
Original Filing Basis	1A
Published for Opposition	June 14, 2005
Registration Number	**2991164**
Registration Date	September 6, 2005
Owner	(REGISTRANT) Leviton Manufacturing Co., Inc. CORPORATION DELAWARE 59-25 Little Neck Parkway Little Neck NEW YORK 11362
Attorney of Record	Paul J. Sutton
Type of Mark	TRADEMARK
Register	PRINCIPAL
Live/Dead Indicator	LIVE

000135

EXHIBIT JJ

United States Patent and Trademark Office

Trademarks > Trademark Electronic Search System (TESS)

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Record 1 out of 1

Typed Drawing

Word Mark	UPS ENHANCER
Goods and Services	IC 009. US 021 023 026 036 038. G & S: VOLTAGE SAG PROTECTORS FOR USE IN MAINTAINING OPERATION OF SENSITIVE ELECTRICAL EQUIPMENT DURING VOLTAGE SAGS, SPIKES, AND MOMENTARY LOSSES OF ELECTRICAL POWER. FIRST USE: 20010831. FIRST USE IN COMMERCE: 20010831
Mark Drawing Code	(1) TYPED DRAWING
Serial Number	76360664
Filing Date	January 21, 2002
Current Filing Basis	1A
Original Filing Basis	1A
Supplemental Register Date	October 25, 2002
Registration Number	**2682042**
Registration Date	January 28, 2003
Owner	(REGISTRANT) Soft Switching Technologies Corporation CORPORATION WISCONSIN 8155 Forsythia Street Middleton WISCONSIN 53562
Attorney of Record	Charles L. Leeck
Type of Mark	TRADEMARK
Register	SUPPLEMENTAL
Live/Dead Indicator	LIVE

··000136

EXHIBIT KK

United States Patent and Trademark Office

Trademarks > Trademark Electronic Search System (TESS)

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Logout | Please logout when you are done to release system resources allocated for you.

Record 1 out of 1

 (Use the "Back" button of the Internet Browser to return to TESS)

Typed Drawing

Word Mark	MATRIX UPS
Goods and Services	IC 009. US 021 023 026 036 038. G & S: modular uninterruptible power supplies for computers, and other sensitive electronic equipment. FIRST USE: 19930316. FIRST USE IN COMMERCE: 19930316
Mark Drawing Code	(1) TYPED DRAWING
Serial Number	75184003
Filing Date	October 21, 1996
Current Filing Basis	1A
Original Filing Basis	1A
Published for Opposition	April 7, 1998
Registration Number	**2168971**
Registration Date	June 30, 1998
Owner	(REGISTRANT) American Power Conversion Corporation CORPORATION MASSACHUSETTS 132 Fairgrounds Road West Kingston RHODE ISLAND 02892
Attorney of Record	STEPHEN J. HOLMES
Disclaimer	NO CLAIM IS MADE TO THE EXCLUSIVE RIGHT TO USE "UPS" APART FROM THE MARK AS SHOWN
Type of Mark	TRADEMARK
Register	PRINCIPAL
Affidavit Text	SECT 15. SECT 8 (6-YR).
Live/Dead Indicator	LIVE

000137

EXHIBIT LL

United States Patent and Trademark Office

Trademarks > Trademark Electronic Search System (TESS)

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Logout | Please logout when you are done to release system resources allocated for you.

Start | List At: OR Jump | to record: **Record 2 out of 2**

Back-UPS Office

Word Mark	BACK-UPS OFFICE
Goods and Services	IC 009. US 021 023 026 036 038. G & S: power protection devices, namely, uninterruptible power supplies, for use with computers and other sensitive electronic devices. FIRST USE: 19960601. FIRST USE IN COMMERCE: 19960601
Mark Drawing Code	(3) DESIGN PLUS WORDS, LETTERS, AND/OR NUMBERS
Design Search Code	26.11.21 - Rectangles that are completely or partially shaded
Serial Number	75148943
Filing Date	August 12, 1996
Current Filing Basis	1A
Original Filing Basis	1A
Published for Opposition	July 29, 1997
Registration Number	**2106783**
Registration Date	October 21, 1997
Owner	(REGISTRANT) American Power Conversion Corporation CORPORATION MASSACHUSETTS 132 Fairgrounds Road West Kingston RHODE ISLAND 02892
Attorney of Record	STEVEN J. HOLMES
Prior Registrations	1689902;1921637
Type of Mark	TRADEMARK

000138

EXHIBIT MM

United States Patent and Trademark Office

Trademarks > Trademark Electronic Search System (TESS)

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Logout | Please logout when you are done to release system resources allocated for you.

Start | List At: OR Jump | to record: **Record 9 out of 9**

Typed Drawing

Word Mark	ROBOT/UPS
Goods and Services	IC 009. US 021 023 026 036 038. G & S: computer programs for automating the shutdown and power-up of computers in response to power failures. FIRST USE: 19910227. FIRST USE IN COMMERCE: 19910227
Mark Drawing Code	(1) TYPED DRAWING
Serial Number	74703388
Filing Date	July 19, 1995
Current Filing Basis	1A
Original Filing Basis	1A
Published for Opposition	March 12, 1996
Registration Number	**1978481**
Registration Date	June 4, 1996
Owner	(REGISTRANT) Help/Systems Incorporated CORPORATION MINNESOTA 210 Baker Technology Plaza 6101 Baker Road Minnetonka MINNESOTA 55345 (LAST LISTED OWNER) HELP/SYSTEMS, LLC LTD LIAB CO DELAWARE 6533 FLYING CLOUD DRIVE, SUITE 200 C/O HELP/SYSTEMS HOLDINGS, INC. EDAN PRAIRIE MINNESOTA 55344
Assignment Recorded	ASSIGNMENT RECORDED
Attorney of Record	RENEE S. KRAFT
Prior Registrations	1628993;1639348;1642436;1711417;1715358;AND OTHERS
Type of Mark	TRADEMARK
Register	PRINCIPAL
Affidavit Text	SECT 15. SECT 8 (6-YR). SECTION 8(10-YR) 20070208.
Renewal	1ST RENEWAL 20070208

000139

EXHIBIT NN

APC - SUA750XL - Uninterruptible Power Supply

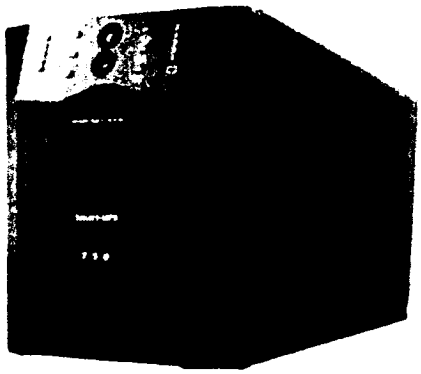

Image is for illustrative purposes only. Please refer to product description

Legendary Reliability

Manufacturer: APC

Newark Part Number: 61H3391

Manufacturer Part No: SUA750XL

RoHS Compliance :

Description

- Uninterruptible Power Supply (UPS)
- Power Supply Type:Uninterruptible Power Supply (UPS)
- Output Type:Fixed
- No. of Outputs:1
- Output Voltage:120V
- Output Current:750A
- Power Rating:600W
- Supply Voltage:120V
- Approval Bodies:UL, CSA RoHS Compliant: NA

Availability

Availability: 3

Price For: 1 Each

Minimum Order Quantity: 1

Order Multiple Quantity: 1

Price: $588.20

Qty 1

Price

Qty	Price
1	$588.20
2	$560.52
3+	$543.22

PRODUCT INFORMATION

Product Range

Catalog Page 1459

Catalog Page:

1459 / 126
1342 / 125
1555 / 124

Datasheet

000149

TRIPP LITE (POWER PROTECTION) - ECO350UPS - Uninterruptible Power Supply New

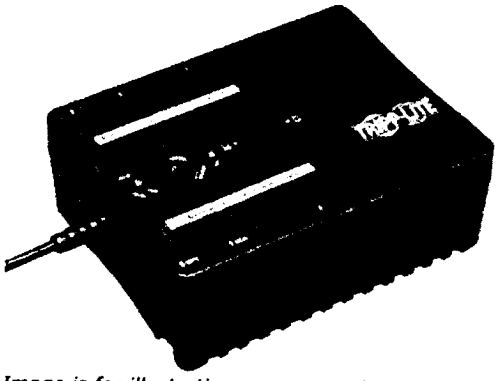

Image is for illustrative purposes only. Please refer to product description

Manufacturer: TRIPP LITE (POWER PROTECTION)

Newark Part Number: 74P0141

Manufacturer Part No: ECO350UPS

RoHS Compliance :

Description

- Uninterruptible Power Supply (UPS)
- Power Supply Type:Uninterruptible Power Supply (UPS)
- Output Type:Variable
- No. of Outputs:6
- Output Voltage:120VAC
- Power Rating:180W
- Supply Voltage:120VAC
- Approval Bodies:cULus

Availability

Availability: 0

Lead Time 7 days

Price For: 1 Each

Minimum Order Quantity: 6

Order Multiple Quantity: 6

Price: $63.00

Qty 6

Price

Qty	Price
6	$63.00
12 - 24	$60.06
30 - 48	$56.70
54+	$53.76

PRODUCT INFORMATION

Datasheet

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000141

EATON POWERWARE/MGE OFFICE PROTECTION - PULSML2200-XL2U - Uninterruptible Power Supply New

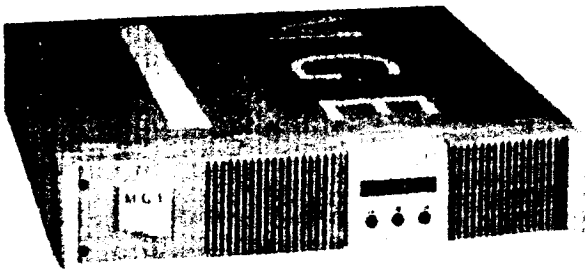

Image is for illustrative purposes only. Please refer to product description

M G E

An Eaton Brand

Manufacturer: EATON POWERWARE/MGE OFFICE PROTECTION

Newark Part Number: 58P0391

Manufacturer Part No: PULSML2200-XL2U

RoHS Compliance :

Description

- Uninterruptible Power Supply (UPS)
- Power Supply Type:Uninterruptible Power Supply (UPS)
- Output Type:Selectable
- No. of Outputs:7
- Output Voltage:120VAC
- Output Current:18A
- Power Rating:1650W
- Supply Voltage:120VAC

Availability

Availability: Coming Soon

Price For: 1 Each

Minimum Order Quantity: 1

Order Multiple Quantity: 1

Price: $1,498.23

Qty 1

Add

Notify Me when in Stock

Price

Qty	Price
1	$1,498.23
2	$1,453.64
3	$1,355.54
4+	$1,302.03

PRODUCT INFORMATION

Product Range

Datasheet

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  - Customer Testimonials

Uninterruptible Power Supply (UPS)

000143

Computer & Peripheral

(350VA - 1500VA)
Battery backup and surge protection for computer systems, home networking, external storage, gaming, home servers and other electronics

UPS Selector

Need battery back up power for anything from a single PC to an entire data center? Specify the equipment you need to protect or your entire power requirement and the UPS Selector will recommend the right product for you.

Help me choose ···→

Network & Server UPS

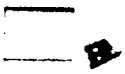
(.4-20kVA)
Power availability and management for entry-level to high-performance servers, storage and business networking systems

Data Center & Facility UPS

(10-1600kVA)
Centralized 3 phase power availability for data centers, high density zones or critical applications

Battery Backup Solutions

Product Manager Patrick Donovan talks about the need for battery backups and APC's solutions



UPS Management

Software, network management cards, and peripherals for UPS management and safe system shutdown

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000144

Merriam-Webster's Collegiate® Dictionary

ELEVENTH EDITION

Merriam-Webster, Incorporated
Springfield, Massachusetts, U.S.A.

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A GENUINE MERRIAM-WEBSTER

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Library of Congress Cataloging in Publication Data

Merriam-Webster's collegiate dictionary. — Eleventh ed.
p. cm.
Includes index.
ISBN 978-0-87779-807-1 (Laminated unindexed : alk. paper)
ISBN 978-0-87779-808-8 (Jacketed hardcover unindexed : alk. paper)
ISBN 978-0-87779-809-5 (Jacketed hardcover with CD-ROM : alk. paper)
ISBN 978-0-87779-810-1 (Leatherlook with CD-ROM : alk. paper)
ISBN 978-0-87779-813-2 (Canadian)
ISBN 978-0-87779-814-9 (International)
1. English language—Dictionaries. I. Title: Collegiate dictionary. II. Merriam-Webster, Inc.
PE1628.M36 2003
423—dc21 2003003674
CIP

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1213TT:QWV0908

000146

\'əp-ˌchək\ *vb* (1929) : VOMIT
adv or adj (1653) : at close range
\'əp-ˈkōst\ *adv* (1909) : up the coast
ng \'əp-ˌkə-miŋ\ *adj* (1943) : FORTHCOMING, APPROACHING
-try \'əp-ˌkən-trē\ *adj* (1910) : of, relating to, or characteristic
nd, upland, or outlying region ⟨an ~ farm⟩ — **up-country**
country \'əp-\ *adv*
əp-ˈdāt\ *vt* (1941) : to bring up to date
ˈəp-ˌdāt\ *n* (1965) **1** : an act or instance of updating **2** : cur-
mation for updating something **3** : an up-to-date version,
or report
p-ˌklü\ *n, pl* **updos** [*up*swept hair*do*] (1938) : an upswept
ˈəp-ˌdraft, -ˌdräft\ *n* (ca. 1887) : an upward movement of gas
əp-ˈend\ *vt* (1823) **1** : to set or stand on end; *also* : OVERTURN
o affect to the point of being upset or flurried ⟨a . . . literary
designed to ~ the credulous matrons —Wolcott Gibbs⟩ **b**
BEAT ~ *vi* : to rise on an end
əp-ˈfēld\ *adv or adj* (ca. 1934) : in or into the part of the field
ich the offensive team is headed
ˌəp-ˈfrənt, ˈəp-ˌ\ *adj* (1945) : being or coming in or at the
a (1) : being in a conspicuous or leading position (2)
FORTHRIGHT **b** : playing in a front line (as in football) **c**
a)able in advance
dv (1937) **1** : in or at the front **2** : in advance **3** : in an up-
ner : FRANKLY, FORTHRIGHTLY
\'əp-ˌgrād\ *n* (1873) **1** : an upward grade or slope **2** : IN-
ASE **3** : IMPROVEMENT 2b
\'əp-ˌgrād, ˌəp-ˈ\ *vt* (1901) : to raise or improve the grade of:
improve (livestock) by use of purebred sires **b** : to advance
quiring a higher level of skill esp. as part of a training pro-
to raise the quality of **d** : to raise the classification and usu.
of without improving the quality **e** : to extend the usefulness
vice) **f** : to assign a less serious status to ⟨*upgraded* the pa-
dition to good⟩ ~ *vi* : to improve or replace esp. software or
or increased usefulness — **up·grad·abil·i·ty** *or* **up·grade-**
ˌəp-ˌgrā-də-ˈbi-lə-tē\ *n* — **up·grad·able** *or* **up·grade·able**
ə-bəl\ *adj*
\'əp-ˌgrōth\ *n* (1844) : the process of growing upward : DE-
T; *also* : a product or result of this
ˈ\ˌəp-ˈhē-vəl, (ˌ)ə-ˈpē-\ *n* (1838) **1** : the action or an instance
ng esp. of part of the earth's crust **2** : extreme agitation or
radical change; *also* : an instance of this
\ˌəp-ˈhēv, (ˌ)ə-ˈpēv\ *vt* (13c) : to heave up : LIFT ~ *vi* : to
ard esp. with power — **up·heav·er** *n*
-ˈhil\ *adv* (1535) **1** : upward on a hill or incline **2** : against
⟨seemed to be talking ~ —Willa Cather⟩
l\ *n* (1548) : rising ground : ASCENT
l\ *adj* (1613) **1** : situated on elevated ground **2 a** : going
DING **b** : being the higher one or part esp. of a set; *specif*
rer the top of an incline **3** : DIFFICULT, LABORIOUS
əp-ˈhōld\ *vt* **-held** \-ˈheld\; **-hold·ing** (13c) **1 a** : to give
b : to support against an opponent **2 a** : to keep elevated
p *syn* see SUPPORT — **up·hold·er** *n*
\(ˌ)əp-ˈhōl-stər, (ˌ)ə-ˈpōl-\ *vt* **-stered; -ster·ing** \-st(ə-)riŋ\
ation fr. *upholstery*] (1849) : to furnish with or as if with up-
up·hol·ster·er \-stər-ər\ *n*
y \-st(ə-)rē\ *n, pl* **-ster·ies** [ME *upholdester* upholsterer, fr.
uphold, fr. *up + holden* to hold] (1597) : materials (as fab-
, and springs) used to make a soft covering esp. for a seat
ited Press International
ə-ˌkēp\ *n* (1884) **1** : the act of maintaining in good condi-
ate of being maintained in good condition **2** : the cost of
in good condition
-land, -ˌland\ *n* (1566) **1** : high land esp. at some distance
: PLATEAU **2** : ground elevated above the lowlands along
ween hills — **upland** *adj* — **up·land·er** \-lən-dər, -ˌlan-\ *n*
on *n* (1819) : a widely cultivated American cotton plant
hirsutum) having short- to medium-staple fibers
dpiper *n* (ca. 1890) : a large short-
ican sandpiper (*Bartramia longi-*
frequents fields and prairies —
pland plover

upland sandpiper

ˈlift\ *vt* (14c) **1** : to lift up : ELE-
) cause (a portion of the earth's sur-
above adjacent areas **2** : to im-
intual, social, or intellectual condi-
: RISE — **up·lift·er** *n*
ft\ *n* (ca. 1845) **1** : an act, process,
se of uplifting: as **a** (1) : the up-
art of the earth's surface (2) : an
of land **b** : a bettering of a condi-
tually, socially, or intellectually **c**
es intended to uplift (2) : a social
improve esp. morally or culturally
: designed to hold the breasts up
ˈnk\ *n* (1968) **1** : a communica-
for transmissions to a spacecraft or satellite; *also* : the
themselves **2** : a facility on earth for transmitting to a
satellite — **uplink** *vb*
-ˈlōd, ˈəp-ˌ\ *vt* (1983) : to transfer (as data or files) from a
he memory of another device (as a larger or remote com-
ˈəp-man-ˌship\ *n* (1959) : ONE-UPMANSHIP
p-ˈmär-kət\ *adj* (1972) : UPSCALE — **upmarket** *adv*
mōst\ *adj* (14c) : UPPERMOST
ˈpän\ *prep* (12c) : ON
-ˈpän\ *adv* (13c) **1** *obs* : on the surface : on it **2** *obs*
, THEREON
adj [ME, compar. of ˈ*up*] (14c) **1 a** : higher in physical
or order ⟨the ~ lip⟩ ⟨~ management⟩ **b** : farther in-
dissippi⟩ **2** : constituting the branch of a bicameral
is usu. smaller and more restricted in membership and possesses greater traditional prestige than the lower house **3 a** : constituting a stratum relatively near the earth's surface **b** *cap* : being a later epoch or series of the period or system named ⟨*Upper* Cretaceous⟩ ⟨*Upper* Paleolithic⟩ **4** : NORTHERN ⟨~ Manhattan⟩

²**upper** *n* (1789) : one that is upper: as **a** : the parts of a shoe or boot above the sole **b** : an upper tooth or denture **c** : an upper berth — **on one's uppers** : in straitened circumstances : DESTITUTE

³**upper** *n* [*up* + ¹*-er*] (ca. 1968) **1** : a stimulant drug; *esp* : AMPHETAMINE **2** : something that induces a state of good feeling or exhilaration

¹**up·per·case** \ˌə-pər-ˈkās\ *adj* [fr. the compositor's practice of keeping capital letters in the upper of a pair of type cases] (1738) : CAPITAL 1

²**uppercase** *n* (ca. 1916) : capital letters

³**uppercase** *vt* **-cased; -cas·ing** (1949) : to print or set in capital letters

upper case *n* (1683) : a type case containing capitals and usu. small capitals, fractions, symbols, and accents

upper-class *adj* (1837) : of, relating to, or characteristic of the upper class

upper class *n* (1814) : a social class occupying a position above the middle class and having the highest status in a society

up·per·class·man \ˌə-pər-ˈklas-mən\ *n* (1871) : a member of the junior or senior class in a school or college

upper crust *n* (1836) : the highest social class or group; *esp* : the highest circle of the upper class — **upper-crust** *adj*

up·per·cut \ˈə-pər-ˌkət\ *n* (1842) : a swinging blow (as in boxing) directed upward with a bent arm — **uppercut** *vb*

upper hand *n* (15c) : MASTERY, ADVANTAGE, CONTROL ⟨was determined not to let the opposition get the *upper hand*⟩

up·per·most \ˈə-pər-ˌmōst\ *adv* (15c) : in or into the highest or most prominent position ⟨the ~ layer⟩ ⟨safety was ~ in their minds⟩ — **uppermost** *adj*

up·per·part \-ˌpärt\ *n* (1526) : a part lying on the upper side (as of a bird)

upper respiratory *adj* (1950) : of, affecting, or being the part of the respiratory system that includes the nose, nasal passages, and nasopharynx ⟨*upper respiratory* tract⟩ ⟨*upper respiratory* infection⟩

up·pish \ˈə-pish\ *adj* (1677) : UPPITY — **up·pish·ly** *adv* — **up·pish·ness** *n*

up·pi·ty \ˈə-pə-tē\ *adj* [prob. fr. *up* + *-ity* (as in *persnickity*, var. of *persnickety*)] (1880) : putting on or marked by airs of superiority : ARROGANT, PRESUMPTUOUS ⟨~ technicians⟩ ⟨a small ~ country⟩ — **up·pi·ti·ness** *also* **up·pi·ty·ness** *n*

up·raise \(ˌ)əp-ˈrāz\ *vt* (14c) : to raise or lift up : ELEVATE

up·rate \ˈəp-ˌrāt\ *vt* (1965) : UPGRADE; *specif* : to improve the power output of (as an engine)

up·rear \-ˈrir\ *vt* (14c) **1** : to lift up **2** : ERECT ~ *vi* : RISE

¹**up·right** \ˈəp-ˌrīt\ *adj* (bef. 12c) **1 a** : PERPENDICULAR, VERTICAL **b** : erect in carriage or posture **c** : having the main axis or a main part perpendicular ⟨~ freezer⟩ **2** : marked by strong moral rectitude ⟨an ~ citizen⟩ — **up·right·ly** *adv* — **up·right·ness** *n*
syn UPRIGHT, HONEST, JUST, CONSCIENTIOUS, SCRUPULOUS, HONORABLE mean having or showing a strict regard for what is morally right. UPRIGHT implies a strict adherence to moral principles ⟨a stern and *upright* minister⟩. HONEST stresses adherence to such virtues as truthfulness, candor, fairness ⟨known for being *honest* in business dealings⟩. JUST stresses conscious choice and regular practice of what is right or equitable ⟨workers given *just* compensation⟩. CONSCIENTIOUS and SCRUPULOUS imply an active moral sense governing all one's actions and painstaking efforts to follow one's conscience ⟨*conscientious* in the completion of her assignments⟩ ⟨*scrupulous* in carrying out the terms of the will⟩. HONORABLE suggests a firm holding to codes of right behavior and the guidance of a high sense of honor and duty ⟨a difficult but *honorable* decision⟩.

²**upright** *adv* (12c) : vertically upward : in an upright position

³**upright** *n* (1683) **1** : the state of being upright : PERPENDICULAR ⟨a pillar out of ~⟩ **2** : something that stands upright: *esp* : a football goalpost — usu. used in pl. **3** : UPRIGHT PIANO

upright piano *n* (1857) : a piano with vertical frame and strings — compare GRAND PIANO

¹**up·rise** \ˌəp-ˈrīz\ *vi* **up·rose** \-ˈrōz\; **up·ris·en** \-ˈri-zᵊn\; **up·ris·ing** \-ˈrī-ziŋ\ (14c) **1 a** : to rise to a higher position **b** (1) : STAND UP (2) : to get out of bed **c** : to come into view esp. from below the horizon **2** : to rise up in sound — **up·ris·er** \ˌəp-ˈrī-zər, ˈəp-ˌ\ *n*

²**up·rise** \ˈəp-ˌrīz\ *n* (14c) **1** : an act or instance of uprising **2** : an upward slope

up·ris·ing \ˈəp-ˌrī-ziŋ\ *n* (13c) : an act or instance of rising up; *esp* : a usu. localized act of popular violence in defiance usu. of an established government *syn* see REBELLION

up·riv·er \ˈəp-ˈri-vər\ *adv or adj* (1774) : toward or at a point nearer the source of a river

up·roar \ˈəp-ˌrȯr\ *n* [by folk etymology fr. D *oproer*, fr. MD, fr. *op* up (akin to OE *up*) + *roer* motion; akin to OE *hrēran* to stir] (1526) : a state of commotion, excitement, or violent disturbance

up·roar·i·ous \ˌəp-ˈrȯr-ē-əs\ *adj* (1800) **1** : marked by uproar **2** : very noisy and full **3** : extremely funny ⟨an ~ comedy⟩ — **up·roar·i·ous·ly** *adv* — **up·roar·i·ous·ness** *n*

up·root \(ˌ)əp-ˈrüt, -ˈru̇t\ *vt* (ca. 1620) **1** : to remove as if by pulling up **2** : to pull up by the roots **3** : to displace from a country or traditional habitat *syn* see EXTERMINATE — **up·root·ed·ness** *n* — **up·root·er** *n*

up·rush \ˈəp-ˌrəsh\ *n* (1871) **1** : an upward rush (as of gas or liquid) **2** : a sudden increase ⟨an ~ of energy⟩ ⟨an ~ of emotion⟩

UPS *abbr* uninterruptible power supply

ups and downs *n pl* (1659) : alternating rise and fall esp. in fortune

up·scale \ˈəp-ˈskāl\ *adj* (1966) : relating to, being, or appealing to affluent consumers; *also* : of a superior quality — **upscale** *adv or vt*

¹**up·set** \(ˌ)əp-ˈset\ *vb* **-set; -set·ting** *vt* (1677) **1** : to thicken and shorten (as a heated bar of iron) by hammering on the end : SWAGE **2** : to

An American National Standard

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Published by
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New York, NY

Distributed in cooperation with
Wiley-Interscience, a division of John Wiley & Sons, Inc.

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Library of Congress Catalog Number 84-081283

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August 10, 1984

SH09332

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The conductors, including the grounding conductors, insulated from one another, the connectors, attachment plug caps, and all other fittings, grommets, or devices installed for the purpose of delivering energy from the source of electrical supply to the distribution panel within the recreational vehicle. 256

power supply circuit (relay system). An input circuit to a relay system which supplies auxiliary power for the proper functioning of the relay system. 90

power supply, direct-current (power-system communication) (1) (direct-current) (general). A device for converting available electric service energy into direct-current energy at a voltage suitable for electronic components. *See:* **power pack; power supply, direct-current regulated (power-system communication).** 59

(2) (alternating-current to direct-current). Generally, a device consisting of a transformer, rectifier, and filter for converting alternating current to a prescribed direct voltage or current. 228, 186

power supply, direct-current regulated. A direct-current power supply whose output voltage is automatically controlled to remain within specified limits for specified variations in supply voltage and load current. *See:* **power supply, direct-current (power-system communication).** 59

power supply, uninterruptible (UPS). A system designed to provide power, without delay or transients, during any period when the normal power supply is incapable of performing acceptably. 89

power-supply voltage range (transmitter performance). The range of voltages over which there is not significant degradation in the transmitter or receiver performance. *See:* **audio-frequency distortion.** 181

power switchboard (power switchgear). A type of switchboard including primary power-circuit switching and interrupting devices together with their interconnections. *Note:* Knife switches, fuses, and air circuit breakers are the commonly used switching and interrupting devices. 103

power system (1) (generating stations electric power system). The electric power sources, conductors, and equipment required to supply electric power. 381

(2) (electric). A group of one or more generating sources and.or connecting transmission lines operated under common management or supervision to supply load. 94, 200

power system, emergency. An independent reserve source of electric energy which, upon failure or outage of the normal source, automatically provides reliable electric power within a specified time to critical devices and equipment whose failure to operate satisfactorily would jeopardize the health and safety of personnel or result in damage to property. 89

power system, standby. An independent reserve source of electric energy which, upon failure or outage of the normal source, provides electric power of acceptable quality and quantity so that the user's facilities may continue in satisfactory operation. 89

power-temperature coefficient. The change in power required to hold the bolometer element at the desired operating resistance per unit change in ambient temperature. *Note:* This quantity is expressed in microwatts per degree Celsius. 115

power transfer relay. A relay so connected to the normal power supply that the failure of such power supply causes the load to be transferred to another power supply. 328

power transformer (power and distribution transformer). A transformer which transfers electric energy in any part of the circuit between the generator and the distribution primary circuits. 53

power transmittance of a radome (antennas). In a given direction, the ratio of the power flux density emerging from a radome with an internal source to the power flux density that would be obtained if the radome were removed. 111

power type relay. A term for a relay designed to have heavy-duty contacts usually rated 15 amperes or higher. Sometimes called a **contactor.** 341

power, utility. *See:* **power, commercial.**

power, vector (polyphase circuit). At the terminals of entry of a polyphase circuit, a vector of which the three rectangular components are, respectively, the active power, the reactive power, and the distortion power at the same terminals of entry. In determining the components, the reference terminals for voltage measurement shall be taken as the neutral terminal of entry, if one exists, otherwise as the true neutral point. The vector power is also the (vector) sum of the vector powers for the individual terminals of entry. The vector power for each terminal of entry is determined by considering each phase conductor and the common reference point as a single-phase circuit, as described for distortion power. The sign given to the distortion power in determining the vector power for each single-phase circuit shall be the same as that of the total active power. The magnitude of the vector power is the apparent power. If the voltages have the same waveform as the corresponding currents, the magnitude of the vector power is equal to the amplitude of the phasor power. Vector power is expressed in volt-amperes when the voltages are in volts and the currents in amperes. *See:* **network analysis.** 210

power vector (single-phase two-wire circuit). At the two terminals of entry of a single-phase two-wire circuit into a delimited region, a vector whose magnitude is equal to the apparent power, and the three rectangular components of which are, respectively, the active power, the reactive power, and the distortion power at the same two terminals of entry. Mathematically the vector power **U** is given by

$$\mathbf{U} = \mathbf{i}P + \mathbf{j}Q + \mathbf{k}D$$

where **i**, **j**, and **k** are unit vectors along the three perpendicular axes, respectively. P, Q, and D are the active power, reactive power, and distortion power, respectively. The direction cosines of the angles between the vector power U and the three rectangular axes are

ULTRA-X: universal language for typographic reproduction applications
ULYSSE: 100 kw(th) Argonaut-type research reactor, Saclay, France
UMA: universal measuring amplifier
UMASS: unlimited machine access from scattered sites
UMNE-1: University of Maryland teaching reactor, College Park, Maryland, 10 KW(th)
UMRR: University of Missouri Research Reactor, Columbia, Missouri, 10 Mw(th)
UMTA: Urban Mass Transportation Administration
UNADS: Univac automated documentation system
UNAMACE: universal automatic map compilation equipment
UNCAST: United Nations Conference on the Applications of Science and Technology
UNCOL: universal computer-oriented language
UNCTAD: UN Conference on Trade and Development (CNUCED)
UND: Unit Derating
UNDH: Unit Derated Hours
UNDP: United Nations Development Program
UNESCO: United Nations Educational, Scientific, and Cultural Organization
UNH: Uranyl nitrate hexahydrate
UNICOM: universal integrated communications
UNICOMP: universal compiler
UNICON: unidensity coherent light recording
UNIDO: United Nations Industrial Development Organization
UNIPEDE: *Union Internationale des Producteurs et Distributeurs d'Energie Electrique* (International Union of Producers and distributors of Electric Power)
UNIPOL: universal procedures oriented language
UNISAP: Univac share assembly program
UNISIST/ICSU: International Council of Scientific Unions
unit: generating unit
UNIT: National Union of Engineers in Tunisia
UNITAR: United Nations Institute for Training and Research
UNITRAC: universal trajector compiler
UNIVAC: universal automatic computer
UNPS: universal power supply
UNSCEAR: United Nations Scientific Committee on the Effects of Atomic Radiation
UOC: ultimate operating capability
UOF: Unplanned Outage Factor
UOH: Unplanned Outage Hours
UOR: Unplanned Outage Rate
UORS: Unusual occurence report
UP: utility path
UPADI: Pan American Federation of Engineering Societies
UPADI: *Union Panamericana de Associationes de Ingenieros* (Pan American Federation of Engineering Societies)
UPC: Universal Product Code
UPDATE: unlimited potential data through automation technolgy in education
UPL: universal programming language
UPL: user programming language
UPM: Universal permissive modules
UPOS: utility program operating system
UPR: ultrasonic parametric resonance
UPR: Uranium production reactor
UPS: microprocessor power supply (dual and triple)
UPS: Uninterruptible ac electric power system
UPS: uninterruptible power system
UPTS: undergraduate pilot training system
U/R: underrange
U/R: up range
URA: Universities Research Association
URAEP: University of Rochester Atomic Energy Project
URBM: ultimate range ballistic missile
URD: Underground residential distribution
URIPS: undersea radioisotope power supply
URIR: unified radioactive isodromic regualtor
URISA: Urban and Regional Information Systems Association
URPA: University of Rochester, Department of Physics and Astronomy
URRI: Urban Regional Research Institute (Michigan State University)
URS: unate ringe sum (logic expression)
URS: United Research Service
URS: universal regulating system
URSI: International Radio Scientific Union
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USAAVLABS: U.S. Army Aviation Material Laboratories
USAAVNTA: U.S. Army Aviation Test Activity
USAB: United States Activities Board (IEEE)
USABAAR: U.S. Army Board for Aviation Accident Research
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USABRL: U.S. Army Ballistics Research Laboratories
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USACSC: U.S. Army Computer Systems Command
USACSSC: U.S. Army Computer Systems Support and Evaluation Command
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USAEPG: U.S. Army Electronics Proving Ground
USAERDL: U.S. Army Engineer Research and Development Laboratories
USAFETAC: U.S.A.F. Environmental Technical Applications Center
USAM: Unified Space Applications Mission (NASA)
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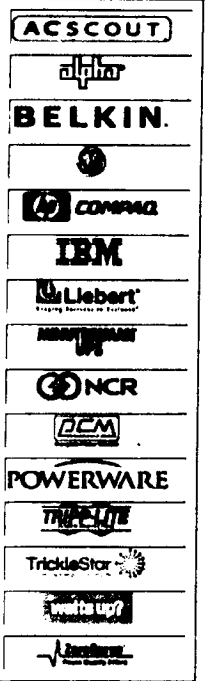

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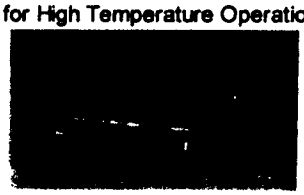

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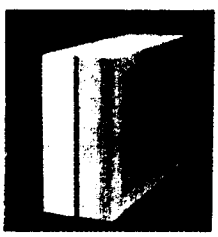

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$45.99

APC BACK-UPS RS, 1300VA LCD 120V, Input 120V/Output 120V, 780 Watts, USB Port, Model: BR1300LCD, Retail Box
Regular price:$189.99
On Sale: $179.99

Black Vision Pro Blue Uninterruptible Power Supply, 750VA / 450W, w/ Intelligent LCD Display, Model: Pro-Blue-750VA
$69.99

APC BK350 Back-UPS 350VA/210W UPS, Retail box, ds-sv
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OPTI-UPS Clever Series CS530B, 530VA Standby UPS, w/ Short Circuit and Overload Protection, ds
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Tripolite AVR550U AVR Series Line-Interactive UPS System, 550VA / 300W, 8 Outlets, USB Port, ds-dh
$61.98

Tripp Lite OmniSmart Line-Interactive Digital UPS OMNI900LCD, 900VA/475W, USB Port, w/ LCD Display,
$114.98

CyberPower AVR Series Tower UPS System, 900VA / 560W, RoHS, Model: CP900AVR, ds-dh
$107.98

$20 Mail-In Rebate Powercom King RM KIN-1500APRM 2U/19-inch Rackmount UPS, 1500VA/900 Watts, 6 Outlets (4 UPS+2 Surge)
Original Price: $201.99
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After Rebate: $181.99

OPTI-UPS Durable Series UPS, 3000VA / 2100W, w/ LCD Front Panel, Model: DS3000B-RM, ds
$1,199.00

OPTI-UPS Power Series UPS, 800VA / 560W, 6 Outlets, Lightning & Surge Protection, Model: PS800B, ds
$209.99

OPTI-UPS Power Series UPS, 2200VA /1760W, 8 Outlets, w/ LCD Screen & Surge Protection, Model: PS2200B, ds
Regular price:$565.00
On Sale: $549.99

CyberPower CP Series 850VA/510W UPS, w/ LCD Status Panel, Office Software, Auto Shutdown and Automatic Voltage Regulation, Model:

CyberPower Systems CP1000AVRLCD UPS, 1000VA/600W, w/ LCD Status Panel,
Regular price:$124.99
On Sale: $112.99

TripoLite Internet Office UPS System, 6 Widely-Spaced Outlets, Model: INTERNET350U
Regular price:$41.98
On Sale: $37.99

Black APC Smart-UPS 670W/1000VA UPS SUA1000RM2U, Rackmount 2U, DB-9 RS-232 / SmartSlot / USB Ports, ds-dh
$527.98

Black APC Smart-UPS XL 2200VA Tower/Rack Convertible UPS SUA2200XL, DB-9 RS-232 / SmartSlot / USB Ports, ds-dh
$1,110.00

$25 Mail-In Rebate Powercom King RM KIN-2200APRM 3U/19in Rackmount UPS, 2200VA/1320 Watts, 6 Outlets (4 UPS+2 Surge),
Original Price: $289.99
Mail-In Rebate: $25.00
After Rebate: $264.99

OPTI-UPS Power Series UPS, 500VA / 350W, 6 Outlets, Lightning & Surge Protection, Model: PS500B, ds
$165.99

OPTI-UPS Power Series UPS, 1500VA /1050W, 8 Outlets, w/ LCD Screen & Surge Protection, Model: PS1500B, ds
$372.99

APC Smart-UPS SC 1000VA 2U Rackmount/Tower UPS System, 120V, 6 Outlets, Model: SC1000, ds-dh
$268.98

CyberPower AVR Series UPS CPS1500AVR, 1500VA/950W, Rack-mount or Stand-up Usage, w/ PowerPanel Plus Software, ds-dh

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CP850AVRLCD.
Regular price:$102.98
On Sale: $86.99

Ultra Universal Power Supply ULT33046, 2000VA/1200W, Backup, w/ AVR, Digital Display, ds-dh
$194.98

OPTI-UPS Enhanced Series 1400VA/980W UPS, 8 Outlets, w/ AVR and; Surge Protection, Model: ES1500C, Retail Box
Regular price:$174.99
On Sale: $159.99

OPTI-UPS Value Series, 575VA/345W UPS, w/ Surge Protection, Model: VS575C, ds
$55.99

Tripp Lite SmartPro 2U Rack/Tower UPS System SMART2200RMXL2U, 2200VA/1600W, 8 Outlets, ds-dh
$791.98

APC Back-UPS ES Series 390 Watts/650VA UPS, 8 Outlet, Model: BE650G, ds-dh
$80.98

TrippLite Internet Office 350VA/180W UPS System,Model: INTERNET350SER, ds-dh
$40.98

Tripp Lite SmartOnline Expandable 2U Rack/Tower UPS System SU1500RTXL2UA, 1500VA, 120V, ds-dh
$613.98

APC Back-UPS LS 700VA UPS System, Input 120V/Output 120V, USB Port, Model: BP700UC, ds-dh
$135.98

APC Smart-UPS SC620, 620VA/390W, 120V, Interface Port DB-9 RS-232, ds-dh
$145.98

$296.98

Tripp Lite Omni VS UPS System, 940W/1500VA, 120V AC, Model: OMNIVS1500XL, ds-dh
$201.98

APC BACK-UPS RS 1500VA UPS System, 120V, with LCD Display, Model: BR1500LCD,
$199.99

OPTI-UPS Enhanced Series, 550VA/330W UPS, w/ Surge Protection, Model: ES550C, ds
Regular price:$74.99
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Tripp Lite SmartPro 2U Rack/Tower UPS System SMART1500RM2U, 1500VA/1000W, 8 Outlets, ds-dh
$526.98

CyberPower Smart App Intelligent LCD Rackmount UPS OR700LCDRM1U, 700VA / 400W, ROHS, ds-dh
$203.98

OPTI-UPS Power Series UPS, 1500VA / 900W, w/ LCD LCD Display Panel, Model: PS1500B-RM, ds
$452.99

TrippLite UPS, 12 Widely-Spaced Outlets, Includes USB Port, Model: INTERNET750U,
$78.98

$15 Mail-In Rebate Powercom Black Knight Pro BNT-1500AP UPS, 1500VA/900 Watts, 5 Outlets (4 UPS+1 Surge),
Original Price: $125.99
Mail-In Rebate: $15.00
After Rebate: $110.99

Tripp Lite SmartPro Digital UPS SMART1500LCD, 1500VA, 120V, 8 Outlets, ds-dh
$221.98

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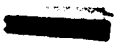
so: Black APC Smart-UPS 2200 UPS Battery SUA2200, 1980 Watts / 2200 VA, w/ DB-9 RS-232, SmartSlot, USB Ports, ds-dh
Regular price:$799.99
On Sale: $739.99

CyberPower AVR Series 1200VA/720W UPS, USB Ports, w/ LED Indicators, Model: CP1200AVR, ds-dh
$136.98



so: Black APC Smart-UPS 2200 RM2U UPS Battery SUA2200RM2U, 1980 Watts / 2200 VA, w/ DB-9 RS-232, SmartSlot, USB Ports, ds-dh
$984.99

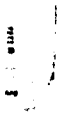
Tripp Lite Omni VS UPS System OMNIVS1500, 1500VA/940W, 120V AC, ds-dh
$175.98

Tripplite BC350 350VA/180W BC Personal UPS System, 3 UPS Outlets and 3 Surge Suppression-Only Outlets.
Regular price:$39.98
On Sale: $36.99

CyberPower Intelligent LCD Series 685VA / 390W UPS, 8 Outlets, ROHS Compliant, Model: CP685AVRLCD,
$81.98

CyberPower Smart App Sinewave LCD UPS, 2170VA / 1600W, ROHS, Model: PR2200LCDRT2U, ds-dh
$629.98

so: Black APC Smart-UPS 2700 Watts / 3000 VA USB and: Serial 120V UPS, Model: SUA3000, ds-dh
$1,035.99



APC BACK-UPS RS, 900 VA, Input 120V/Output 120V, 540 Watts, USB Interface, Model: BR900, ds-dh
$130.98

Grey TrippLite SmartPro 1050NET Tower 120v UPS, 6 Outlets, 6ft Cord, USB, 5 LEDand:lsquo;s,
$282.98

so: Black APC Smart-UPS 2700W/3000VA UPS SUA3000RM2U, Rackmount 2U, DB-9 RS-232 / SmartSlot / USB Ports, ds-dh
$1,160.98

CyberPower Intelligent LCD Series CP825AVRLCD UPS CP825AVRLCD, 825 VA / 450 Watts, ROHS, w/ LCD Status Panel, ds-dh
$90.98

CyberPower 685VA / 390W UPS, USB and: Serial Connectivity, 8 Outlets, w/ AVR, Model: CP685AVR / BF685, ds-dh
$71.98

CyberPower AVR Series UPS CP800AVR / BF800, 800VA/450W, w/ PowerPanel Personal Edition, ds-dh
$84.98

CyberPower Smart App Sinewave LCD UPS Series 1000VA/750W UPS, 6 Outlets, ROHS Compliant, Model: PR1000LCDRM1U, ds-dh
$393.98

$5 Mail-In Rebate Powercom Black Knight Pro BNT-600AP UPS, 600VA/360 Watts, 4 Outlets (3 UPS+1 Surge),
Original Price: $42.99
Mail-In Rebate: $5.00
After Rebate: $37.99

OPTI-UPS Thunder Shield 900W UPS, Lightning & Surge Protection, Model: TS1700B,ds
Regular price:$142.99
On Sale: $139.99

TrippLite Internet Office 550VA/300W UPS System,Model: INTERNET550SER, ds-dh
$52.98

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PC Power and Cooling Pro-Source 1500 UPS PPCUPSPS1500, 1500VA / 900W, USB Port, w/ Management Software, ds
$329.99

TrippLite Ultra-high Efficiency ECO Series UPS, 350VA/180W, 6 Outlets, RoHS, Model: ECO350UPS, ds-dh
$43.98

TrippLite Ultra-high Efficiency ECO Series UPS, 550VA / 300W, 8 Outlets, RoHS, Model: ECO550UPS, ds-dh
$57.98

OPTI-UPS Power Series UPS, 1000VA /700W, 8 Outlets, w/ LCD Screen & Surge Protection, Model: PS1000B, ds
$268.99

Beige APC Back-UPS RS, 1500VA/ 865W, Input 120V, Output 120V, USB Port, Rack Height 2U, Model: BR1500, ds-dh
$212.98

Black APC APC Back-UPS RS UPS BR800BLK, 540 Watts / 800 VA, USB Ports,
$129.98

Tripplite BCPRO600 BC Pro UPS System, 600VA/345W, 6 Outlets (3 Surge Only), 6 ft Cord, ds-dh
$107.98

Gray TrippLite SmartPro VS 2200 Line-int UPS, 9 Outlets, 8ft. Cord, Has 2 USB, 2 DB9, ds-dh
$585.98

Tripplite SMART2200NET SmartPro 2200 Net UPS System, 2200VA Intelligent Network, 6 Outlets, 8 ft. Cable, ds-dh
$663.98

Tripp Lite SmartOnline Expandable 2U Rack/Tower UPS System, 750VA, 120V, Model: SU750RTXL2U, ds-dh
$423.98

Beige APC Back-UPS HS, 300 Watts/500 VA, Input 120V/Output 120V, Model: BH500NET, ds-dh
$107.98

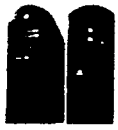
Beige APC Back-UPS RS 6 Outlet 500VA/120V UPS BR500, 300 Watts / 500 VA, USB Port, ds-dh
$112.98

TrippLite Omni VS 1000VA Line Interactive UPS, 8 Outlets (6 UPS / 2 Surge-only), USB Port, Model: OMNIVS1000, ds-dh
$121.98

APC Back-UPS LS, 315W/500VA, 4 x NEMA 5-15R, 3 x NEMA 5-15R, USB Interface, Model: BP500UC, ds-dh
$120.98

Tripp Lite SmartPro 1U Rack/Tower UPS System SMART500RT1U, 500VA/300W, 120V AC, ds-dh
$153.98

Tripp Lite SmartPro Tower UPS System, 900W/1500VA, 120V, 8 Outlets, Model: SMART1500SLT, ds-dh
$380.98



CyberPower Intelligent LCD Series UPS System, 1350VA / 810W, RoHS, Model: CP1350AVRLCD, ds-dh
$131.98

CyberPower UPS CP600LCD, 600VA/340W, USB, w/ LCD and PowerPanel Personal Edition Software, ds-dh
$58.98

CyberPower Smart App Sinewave LCD UPS, 1000VA / 700W, ROHS, Model: PR1000LCDRT2U, ds-dh
$365.98

CyberPower Smart App Intelligent LCD Rackmount GreenPower UPS OR1500LCDRM2U, 1500VA / 900W, 8 x 5-15R Battery/Surge Protected, ds-dh
$317.98

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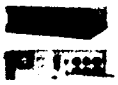
TripoLite Ultra-high Efficiency ECO Series UPS, 750VA / 450W, 12 Outlets, RoHS, Model: ECO750UPS, ds-dh
$80.98

CyberPower Professional Rackmount 1500VA/950W UPS PR1500SWRM2U, 6 Outlets, Serial Ports, w/ LED Indicators, ds-dh
$406.98



Black APC Smart-UPS XL, 1050W/1400VA, 6 x NEMA 5-15R, Rack Height 3U, Model: SU1400RMXLB3U, ds-dh
$693.98

Tripplite Internet Office UPS System, for PC, Model: INTERNET550U
Regular price:$58.98
On Sale: $53.99

Black APC Smart-UPS 750VA/500W USB and: Serial 120V UPS, Model: SUA750, ds-dh
$280.98

Black APC Back-UPS CS, 300 Watts/500VA, Input 120V/Output 120V, Interface Port USB, Model: BK500BLK, ds-dh
$110.98

CyberPower Smart App Sinewave LCD UPS, 1500VA / 1000W, ROHS, Model: PR1500LCDRT2U, ds-dh
$445.98

so: Monster Home Theater UPS 500 109152, 650VA/340W, for DLP, Rear Projection, Projection TVs and DVRs/PVRs, ds-dh
$202.98

APC Back-UPS RS, 1200VA/780W, Input 120V/Output 120V, Interface Port USB, Rack Height 2 U, Model: BR1200, ds-dh
$151.98

CyberPower Home and Office Series UPS, 425VA/230W, Model: CPS425SL,
Regular price:$41.98

CyberPower Smart App Intelligent LCD Rackmount GreenPower UPS OR1000LCDRM1U, 1000VA / 600W, ds-dh
$308.98

so: CyberPower Professional Tower 800VA/230W UPS PP800SW, 4 Outlets, USB and Serial Ports, w/ LED Indicators, ds-dh
$210.98

CyberPower UPS CP1500AVRLCD, 1500VA/900W, USB & Serial, w/ LCD & PowerPanel Personal Edition Software, ds-dh
$164.98

APC Smart-UPS XL, 600Watts/750VA, USB, Serial 120V, Model: SUA750XL, ds-dh
$404.98

APC Back-UPS ES Series 257Watts/450VA UPS, 8 Outlet, Model: BE450G, ds-dh
$49.98

Black CyberPower PR2200 1500W Professional Rack Mount UPS, w/ AVR, 6 Outlets, 2U Rack Mountable, ds-dh
$475.98

APC Smart-UPS 480 Watts/750 VA, 120V, USB and Serial Ports, 2U Rack, Model: SUA750RM2U, ds-dh
$394.98

CyberPower Office Rackmount LCD Series UPS, 500 VA/300 Watts, Model: OR500LCDRM1U, ds-dh
$142.98

Tripplite SMART550USB Smart USB UPS System, 550VA/300W, 6 Outlets (3 Surge), 6ft Cord, USB, RJ11, ds-dh
$98.98

Tripplite OMNI650LCD OmniSmart Line-Interactive Digital UPS, 650VA/350W, 8 Outlets (4 Surge Only),

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On Sale: $39.99

Tripplite SMART3000NET SmartPro UPS System, ds-dh,
$860.98

GE Digital Energy IT UPS0600ITSIT Tower UPS System, 600VA/360W, 120V AC Output, ds-dh
$212.98

GE Digital Energy IT UPS1500ITSIT Tower UPS System, 1500VA/900W, 120V AC Output, ds-dh
$400.98

GE Digital Energy IT UPS0600ITSIR Rack-Mountable UPS System, 600VA/360W, 120V AC Output, ds-dh
$303.98

GE Digital Energy IT UPS1500ITSIR Rack-Mountable UPS System, 1500VA/900W, 120V AC Output, ds-dh
$454.98

GE Digital Energy GT1000T Tower UPS System, 1000VA/800W, Model: UPS16164, ds-dh
$461.98

Tripp Lite SmartPro Digital UPS, Black Tower, 1000VA/500W, 8 Outlets, USB Port, w/ LCD Display, Model: SMART1000LCD, ds-dh
$149.98

CyberPower Home and; Office Series UPS CP825LCD, 825VA/450W, USB, w/ LCD and; PowerPanel Personal Edition Software, ds-dh
$72.98

so: APC Smart-UPS SUA1500 1500VA USB 120V Uninterruptible (Universal) Power Supply (surge suppressor, system backup protection), ds-dh
$494.98

w/ LCD Display, ds-dh
$102.98

so: CyberPower Remote Management Adapter, Model: RMCARD100, ds-dh
$100.98

GE Digital Energy IT UPS1000ITSIT Tower UPS System, 1000VA/600W, 120V AC Output, ds-dh
$272.98

GE Digital Energy IT UPS2000ITSIT Tower UPS System, 2000VA/1200W, 120V AC Output, ds-dh
$510.98

GE Digital Energy IT UPS1000ITSIR Rack-Mountable UPS System, 1000VA/600W, 120V AC Output, ds-dh
$352.98

GE Digital Energy IT UPS2000ITSIR Rack-Mountable UPS System, 2000VA/1200W, 120V AC Output, ds-dh
$622.98

Tripp Lite SmartPro 2U Rack/Tower UPS System SMART1000RM2U, 1000VA/700W, 8 Outlets, ds-dh
$401.98

CyberPower AVR Series Tower UPS Systems, 1500 VA/900 Watts, Model: CP1500AVRT, ds-dh
On Sale: Too Low To Show!
$164.98

Powercom Black Knight Pro BNT-2000AP UPS, 2000VA/1200 Watts, 5 Outlets (4 UPS+1 Surge), ds
Regular price:$219.99
On Sale: $193.99

CyberPower Office Series UPS - OP850, 850VA/510W, 8 Outlets, w/ AVR and; Power Management Software, ds-dh
$136.98

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CyberPower UPS Utility Series UP425, 425VA/230W, w/ PowerPanel Software, ds-dh
$56.98

CyberPower Utility Tower UPS, 825VA/450W, with Run Time Up to 49 Minutes, Model: UP825, ds-dh
$100.98

OPTI-UPS Gaming Series UPS, 1100VA/ 550W, w/ USB Port, Surge Protection, Model: GS1100B, ds
$103.99

Gray APC Smart-UPS SC, 1500VA 120V, 2U Rackmount/Tower, Model: SC1500, ds-dh
$332.98

Black APC Smart-UPS XL 800W/1000VA 120V UPS SUA1000XL, 8 NEMA 5-15R, DB-9 RS-232 / SmartSlot / USB Ports, ds-dh
$505.98

dis: APC Back-UPS ES USB 750VA UPS/Surge Protector, w/ TEL and COAX 120V, Model: BE750BB,
Regular price:$99.99
On Sale: $86.99

Black APC Smart-UPS 1500VA 2U Rack Mount UPS SUA1500RM2U, DB-9 RS-232 / SmartSlot / USB, 980W/1440VA, ds-dh
$636.98

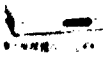
APC Smart-UPS 750VA/120V UPS SUA750US, 500 Watts / 750 VA, USB and Serial 120V NAFTA, ds-dh
$310.98

so: CyberPower OP Series Office Tower UPS OP1250, 1250VA/750W, 8 Outlets, Run Time Up to 105 Minutes, ds-dh
$159.98

so: CyberPower Utility Tower UPS UP1200, 1200VA/670W, 8 Outlets, Run Time Up to 70 Minutes, ds-dh
$149.98

so: Black APC Smart-UPS 1000VA/670W USB and Serial 120V UPS, Model: SUA1000, ds-dh
$397.99

so: APC Back-UPS 500VA (BK500) Uninterruptible (Universal) Power Supply (surge suppressor, system backup protection), ds-dh
Regular price:$114.00
On Sale: $111.99



TrippLite Internet Office UPS System TM500, 500VA/300W, 6 Outlets, 480 Joules, ds-td
$166.98

dis: CyberPower AVR Series Slimline UPS BH1500, 1500VA/900W, w/ Office Software, 7 Battery/Surge, 3 Surge Outlets, ds-dh
$184.98

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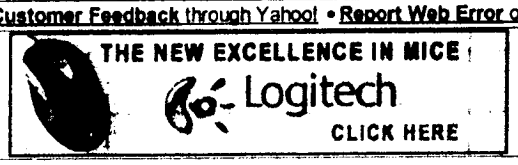

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Uninterruptible Power Supply (UPS)

UPS Selector

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Back-UPS

Reliable power protection for office and home office computers

Choose by part number

Back-UPS ES

Best Value Battery Backup & Protection for Home Computers

Choose by part number

991000

Back-UPS CS

Best Value Battery Backup & Protection for Business Computers
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Back-UPS LS

High Performance Battery Backup & Protection for Home Computers
Choose by part number

Back-UPS RS

High Performance Battery Backup & Protection for Business Computers
Choose by part number

APC ES

Best Value Battery Backup & Protection for Home Computers
Choose by part number

APC CS

Best value battery backup & protection for business computers.
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Back-UPS HS

Superior power management and protection for dataline panel box and home networking equipment.
Choose by part number

APC RS

High Performance Battery Backup & Protection for Business Computers
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Home UPS

Back-UPS BI

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High performance backup power for business appliance and lighting applications.
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Flexible 3 phase power protection designed to meet a

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wide range of requirements from data centers to industrial and facilities applications.
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Performance 3 phase power protection with high adaptability to meet the unique requirements of medium to large data centers, buildings and mission critical environments
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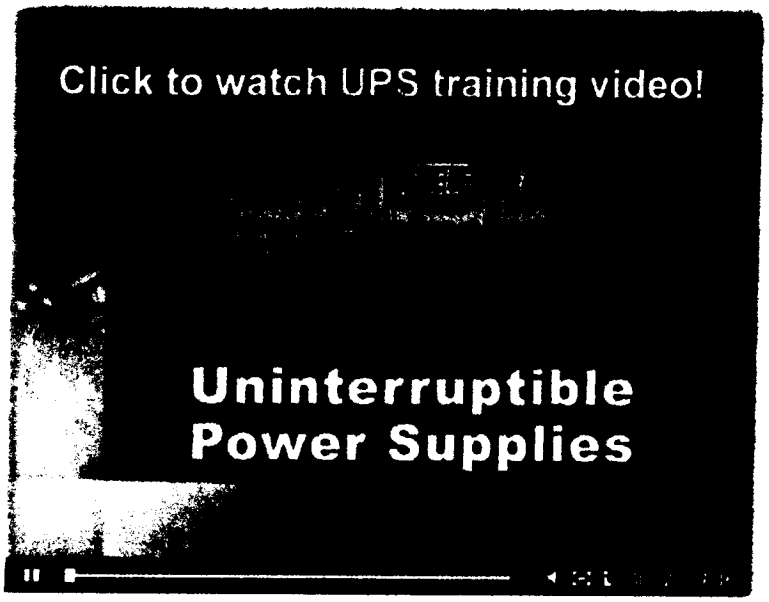

Para Systems, Inc. is a leading provider of power protection and management products including the Minuteman® Uninterruptible Power Supplies (UPS) for computers, servers, peripherals, voice and data communication systems, security systems and other mission-critical equipment. Our Minuteman UPS products are available from 400VA to 24KVA, providing you with the most efficiently engineered solutions for each technology or runtime requirement. Para Systems also provides the longest warranty plus excellent telephone reseller sales and configuration tools.

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- Extended runtime solutions
- Remote Power Management tools
- Power Distribution Unit (PDU) systems
- Keyboard-Video-Mouse (KVM) systems
- Surge Suppressors

We sell our products exclusively through our authorized resellers and distributors in the United States and our international distributors and resellers.

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"Your technical assistance is among the best I have ever experienced. Jeff, the technician who assisted me with an installation issue was knowledgeable, fast, efficient, and friendly." - P. Mata - Miramar, FL"

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- EnSpire Standby UPS (PDF)
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Uninterruptible Power Supply (UPS) FAQ

VERSION 2.3, March 6, 2005

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01:
TOPIC: What is this document all about?

01.01

Q: What is this document?

A: This is a FAQ document on Uninterruptible Power Supplies. It is intended to provide a starting point for those people that want to find out what they are, what they do, and what's available.

Note that most of this document is very US-centric. The power numbers, companies and services all emphasize US consumer needs. Sorry, but that's what I have to work with. All the principles discussed here should be applicable just about everywhere.

01.02

Q: How is this document made available?

A: Currently, this document is available on the World Wide Web. It is referenced with most major search engines. Many sites link to this document or reference it.

This document itself is available via the World Wide Web at: `http://www.jetcafe.org/~npc/doc/ups-faq.html`.

01.03

Q: Who maintains this?

A: Right now, this document is maintained by Nick Christenson. My preferred email address is `npc AT jetcafe.org`, and I would like it very much if questions regarding this document could have the word "UPS" or "UPS FAQ" or some such in the Subject line. Note: I am maintaining this on my own time, so please don't be upset if it takes a while for me to respond to your queries. Also none of the information in here represents the views or has the blessing of any organization whatsoever. This represents one person's opinions, although many have contributed useful material to this document and my understanding.

01.04

Q: Where did this information come from?

A: Thankfully, many people have rallied to my cry to fill in the many gaps in my original draft. This is now a group work, although I claim full responsibility for misstatements and inaccuracies.

01.05

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Q: How can I contribute?

A: You should mail new information, corrections, suggestions, etc. to the current maintainer of this FAQ. If you provide a suggestion, make sure you reference where the information is located in the document. I guarantee that suggestions of the form "Change the word 'always' to 'almost always' in the part about surge suppression." will be ignored.

01.06

Q: Are there any restrictions on distribution of this document?

A: This document is copyright by the author. You are encouraged to distribute this document for any non-commercial purpose as long as the contents remain unaltered, the original document and author are properly cited, and a pointer to an up-to-date version is included. If you would like to excerpt this document, that's okay too, as long as proper attribution is given and a pointer to the complete FAQ is included.

01.07

Q: Got anything else you'd like to add?

A: Yes, now that you mention it. The people who contribute to this document can speak only about equipment they have experience with. This may reflect a bias toward or against certain brands, features, functions, etc.. Please keep in mind that the suggestions, brand names and functions here are by no means exhaustive, or even necessarily applicable to your situation. Also, if you have information that is not in this document, please submit it to the maintainer listed above. If you submit information, please say whether you'd like it to be attributed to you or not. I am more than glad to give credit to the fine people who helped with this document, but I want to respect the anonymity of those people who would prefer it.

01.08

Q: Glossary

A: This was contributed almost entirely by some kind soul. I just cleaned it up a bit.

Blackout
: Complete loss of power. Some literature considers a voltage drop below about 80V to be a blackout as well since most equipment will not operate below these levels.

Sag or Brownout
: Decrease in voltage levels which can last for periods ranging from fractions of a second to hours. Can be caused by heavy equipment coming on line such as shop tools, elevators, compressors etc. Also occurs when utility companies deliberately do this to cope with peak load times.

Spike
: An tremendous increase in voltage over a very short period of time often caused by a direct lightning strike on a power line or when power returns after a blackout.

Surge
: An substantial increase in voltage lasting a small fraction of a second, often caused when high powered appliances such as air conditioners are switched off.

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EMI/RFI Noise
: ElectroMagnetic Interference and Radio Frequency Interference. Caused by, inter alia, lightning, generators, radio transmitters, industrial equipment.

MOV
: Metal Oxide Varistors are added to circuits in order to control spikes. These are common in Power Strips. If you see more than two, you likely have a fairly decent Power Strip. They look like largish disk capacitors.

Inverter
: Circuitry that converts DC battery power to AC power required by most computer equipment.

Surge Protector
: Circuitry consisting of MOVs, capacitors, rod-core inductors etc. for suppressing surges and spikes usually embedded in a power strip.

Line Conditioner
: A transformer that attempts to smooth out fluctuations in input voltage to provide near uniform output voltage or voltage waveform.

02:
TOPIC: What is a UPS and how does is work?

02.01

Q: What is a UPS?

A: An Uninterruptible Power Supply is a device that sits between a power supply (e.g. a wall outlet) and a device (e.g. a computer) to prevent undesired features of the power source (outages, sags, surges, bad harmonics, etc.) from the supply from adversely affecting the performance of the device.

02.02

Q: How do you pronounce "UPS"?

A: Many pronounce it "ups", but most of the literature seems to favor "you pee ess", since they use "a UPS" instead of "an UPS". This document will try to follow the literature. Neither pronunciation will get you laughed at by those who are experienced in the field.

02.03

Q: Vendor X says that (fill in description) is a UPS, but it's different than what you describe above. Who's right?

A: There really is no standard definition of what a UPS is. Anything ranging from a 9 volt battery backup in a clock radio to a building/compound wide backup generator has been called a UPS by someone. The majority of this document refers to objects larger than a beer can that help devices remain temporarily operational when changes to the power they receive would otherwise interrupt their function.

Maintaining power to a minicomputer (like a VAX 11) is beyond the scope of this document. This FAQ deals with UPS equipment that can be installed by a computer owner/administrator. If you have

requirements that large, you need to talk to a qualified electrician. Basically, the focus of this document is on power protection devices that operate in the 3000 Volt-Amp (VA) range or lower. These are smaller machines that can be installed and managed without the assistance of licensed electricians.

02.04

Q: Can you give me some more information on the UPS industry?

A: (Kindly provided by Don Deal, `Don.Deal_AT_oit.gatech.edu`, my additions are in [square brackets].)

The UPS industry is made up of many manufacturers, and there is a lack of standard terms within the industry. I think this sometimes borders on deliberate misdirection. (It's a jungle out there!) [Note, in recent years the whole industry seems to have gotten better, at least mostly agreeing on what the terms listed here mean. This is not true everywhere, but things are getting better.]

There are basically three different types of devices, all of which are occasionally passed off as UPSes.

1. Standby power supply (SPS). In this type of supply, power is usually derived directly from the power line, until power fails. After power failure, a battery powered inverter turns on to continue supplying power. Batteries are charged, as necessary, when line power is available. This type of supply is sometimes called an "offline" UPS.

   The quality and effectiveness of this class of devices varies considerably; however, they are generally quite a bit cheaper than "true" UPSes. The time required for the inverter to come on line, typically called the switchover time, varies by unit. While some computers may be able to tolerate long switchover times, your mileage may vary. [Some articles in the trade press have claimed that their testing shows that modern PCs can withstand transfer times of 100ms or more. Most UPS units claim a transfer time to battery of about 4ms. Note that even if a computer can stay up for 100ms, it doesn't mean that 100ms switchover is okay. Damage can still be done to a computer or data on it even if it stays up.]

   Other features to look for in this class of supplies is line filtering and/or other line conditioners. Since appliances connected to the supply are basically connected directly from the power line, SPSes provide relatively poor protection from line noise, frequency variations, line spikes, and brownouts.

   [Some SPSes claim to have surge/spike suppression circuitry as well as transformers to "boost" voltage without switching to the battery if a modest voltage drop occurs. Often, as a "standby" UPS becomes more featureful it is called a "line interactive" UPS.

2. Hybrid [or ferroresonant] UPS systems. I only know one vendor who sells them - Best Power, Inc. [Now called Eaton Powerware. Note that Powerware also sells line interactive and online UPSes.] The theory behind these devices is fairly simple. When normal operating line power is present, the supply conditions power using a ferroresonant transformer. This transformer maintains a constant output voltage even with a varying input voltage and provides good protection against line noise. The transformer also maintains output on its secondary briefly when a total outage occurs. Best claims that their inverter then goes on line so quickly that it is operating without any interruption in power. Other UPS vendors maintain that the transition is less than seamless, but then again it's not in their best interest to promote Best's products.

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[Note: According to some sources, ferroresonant transformers in an UPS system can interact with ferroresonant transformers in your equipment's power supply and produce unexpected results. On the other hand, ferroresonant UPS systems don't kick off a lot of heat, which is important in some environments. The Moral: Test equipment to make sure it meets your needs before you buy. -npc]

3. What I call "true" UPS systems, those supplies that continuously operate from an inverter. Obviously, there is no switchover time, and these supplies generally provide the best isolation from power line problems. The disadvantages to these devices are increased cost, increased power consumption, and increased heat generation. Despite the fact that the inverter in a "true" UPS is always on, the reliability of such units does not seem to be affected. In fact, we have seen more failures in cheaper SPS units. [Note, though, that given the same quality inverter, you'd expect the one that runs least to last longest. These devices are often called "online" UPSes.]

02.05

Q: How can it help me?

A: A UPS has internal batteries to guarantee that continuous power is provided to the equipment even if the power source stops providing power. Of course the UPS can only provide power for a while, typically a few minutes, but that is often enough to ride out power company glitches or short outages. Even if the outage is longer than the battery lifetime of the UPS, this provides the opportunity to execute an orderly shutdown of the equipment. Advantages:

1. Computer jobs don't stop because the power fails.
2. Users not inconvenienced by computer shutting down.
3. Equipment does not incur the stress of another (hard) power cycle.
4. Data isn't lost because a machine shut down without doing a "sync" or equivalent to flush cached or real time data.

02.06

Q: What sort of stuff does a UPS do?

A: A UPS traditionally can perform the following functions:

1. Absorb relatively small power surges.
2. Smooth out noisy power sources.
3. Continue to provide power to equipment during line sags.
4. Provide power for some time after a blackout has occurred.

In addition, some UPS or UPS/software combinations provide the following functions:

1. Automatic shutdown of equipment during long power outages.
2. Monitoring and logging of the status of the power supply.
3. Display the Voltage/Current draw of the equipment.
4. Restart equipment after a long power outage.
5. Display the voltage currently on the line.
6. Provide alarms on certain error conditions.
7. Provide short circuit protection.

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02.07

Q: How long can equipment on a UPS keep running after the power goes?

A: That depends on how big a UPS do you have and what kind of equipment it protects. For most typical computer workstations, one might have a UPS that was rated to keep the machine alive through a 15 minute power loss. If it is important for a machine to survive hours without power, one should probably look at a more robust power backup solution that includes a generator and other components. Even if a UPS powers a very small load, it must still operate its DC (battery) to AC converter (the inverter), which costs power. A rough extrapolation from APC's documentation, leads me to guess that its 2000 VA UPS can operate its own inverter (with no extra load) for just over 8 hours. A 1250 VA UPS could run its converter for about 5. These are *very* rough guesses based on information provided by one vendor for one vendor.

02.08

Q: Given the same vendor claims, how can I tell a "good" quality UPS from a "poor" quality UPS?

A: Testing, testing, testing. I can't emphasize this enough. There are many good and bad units out there that call themselves UPSes. There are many good units that are wrong for your situation. Caveat Emptor.

Some properties you might look for include:

1. Sinusoidal power output. In general, the closer the AC output of the UPS is to a sine wave, the better it is for your equipment. Many UPS units, especially the cheaper ones, deviate a great deal from a sinusoidal output. Some of them generate square waves. Waveform effects are dealt with in section 2.12 of this document.
2. Does the UPS have a manual bypass switch? If the UPS is broken or is being serviced, can you pass power through it to your equipment? The last thing you want is for a broken UPS to be the cause of extra downtime.
3. The more information about a UPSes operation you can get from watching the unit itself, the better. How much power (or percentage load) the equipment is drawing, how much battery life is left and indications of the input power quality are all very useful.
4. Some newer UPSes can communicate with their monitoring software via a network connection and SNMP. This is wonderful *if* your network is on a UPS. Also, beware, I have heard of dealers advertising "Network UPS" monitoring where the network is the normal serial connection.
5. Does the UPS vendor offer support/maintenance contracts? If they aren't offered, I would suspect the quality of the equipment.

If you do have a UPS that does not output a sinusoidal waveform, some manufacturers *strongly* urge you to not put a surge protector between the UPS and the computer. The surge protector might mistake the non-sine waveform as a power surge and try to send it to ground. This could be bad for your UPS, not to mention your equipment. I don't know if this has happened or not, but I wouldn't chance it.

02.09

Q: Should I make sure I have a support/maintenance contract for my UPS systems?

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A: Some people strongly recommend this, some don't. It depends on the situation. There are things that can go wrong with UPSes, and they require periodic maintenance. As with all support contracts, you're generally spending a little extra money to reduce risk. Whether this is worthwhile is up to you.

While the electronics in a UPS are likely to last for quite a while, the batteries will periodically need to be replaced. This will happen more frequently the more (and deeper) the batteries are cycled. Replacing the batteries every three years is a pretty typical vendor recommendation (but read the product details for authoritative information). Any UPS battery that has been in continuous service for five years probably should be considered suspect until proven otherwise.

Like any other electronic device, a UPS can fail. You need to have a plan for this. If you don't want to risk having to replace a failed unit at an inconvenient time, you might want to look into a support contract.

02.10

Q: What sort of maintenance can I perform myself?

A: One good thing you might want to do is periodically test the UPSes and their failure modes. A good time to do this might be right after after a periodic level 0 backup. Nobody is logged in and you've got full backups of the machines. Throw the circuit breaker with the UPS on it to simulate and outage and see how the transition goes. Note that in general testing an UPS by pulling the plug from the wall is *not* a good idea. Electronics like to always have a good ground reference. If you unplug a UPS, it's still powered but now has what electricians call a "floating ground". Not only can this be bad for electronics, but it can be quite dangerous as well. It is likely that unplugging just about any UPS for a short amount of time isn't likely to result in disaster (don't take my word for it, though!), but in all cases, throwing a circuit breaker would be a better thing to do.

It might be useful to install a GFI (Ground Fault Interrupter) on your UPS-covered outlets to facilitate this testing without having to throw a breaker, especially if you don't have your UPS protected machines on an isolated circuit (which you probably should). These are the sockets found in most modern kitchens and bathrooms with a red and a black button. You push the latter to cut power and the former to restore power.

Almost all UPSes use lead-acid batteries, like most car batteries. Unlike, say, NiCad (Nickel-Cadmium) batteries, lead-acid batteries do not have "battery memory". Each "deep cycle" (running the batteries to very low or even drained levels) will decrease a lead-acid battery's effectiveness, so this should be avoided. Of course, handling these situations is the reason you've bought a UPS, but one should not run a UPS down when doing so isn't necessary.

As a UPS gets older, its battery life will become shorter. Of course there's no way to reliably test how long it is without running the battery down and you don't want to do that because they have lead acid batteries. <sigh> All of these are very good reasons to get a support contract for them that includes periodic battery replacement. At the very least, you can figure that under a normal workload the batteries will usually still be reasonably good at the end of the UPS warranty figure, so that's a good place to start guesswork.

02.11

Q: Isn't a UPS just a glorified power strip/surge protector with some batteries and a little power

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conditioning thrown in?

A: Basically. It's also got a power inverter and some other circuitry. It may also have a timer, thermometer or other gadgets.

02.12

Q: How important is the UPS output waveform?

A: That's a good question, and one is worthy of some debate. One school of thought holds that one should always run equipment on the best approximation of sinusoidal input that one can, and that deviations produce harmonics which may either be interpreted as signal if they get through a power supply, or may actually damage the equipment. Another school holds that since almost all computers use switching-type power supplies, which only draw power at or near the peaks of the waveforms, the shape of the input power waveform is not important. Who's right? I don't know. My *opinion* is that sinusoidal output is worth the extra money, especially for on-line UPS systems that continually provide their waveform to the computer. Also, if you don't *know* that your equipment has a switching-type power supply, you might want to think twice before buying a low quality UPS. [Some of this information from a great article in the October 1994 issue of LAN Magazine, check it out. -npc]

02.13

Q: Can I really count on a UPS protecting my equipment?

A: This is a tough question. While most UPS systems that you're likely to buy in a store or computer catalog are likely to help your uptime more than hurt it, these are *not* intended for safety or life-critical equipment.

Basically, these devices should be considered to be pieces of consumer electronics. The number one basis on which most of these devices compete with each other is on price, not quality. I have had UPSes arrive dead from the factory. I have had them fail (taking equipment down with them) within weeks of first installation. I can't prove it, but I'm willing to bet that when an old (beyond warranty) line-interactive UPS from a major manufacturer died on me it fried a machine motherboard, memory, network card, and monitor. In the < 2000 VA range, cost-effectiveness is more important to UPS vendors (because it appears to be more important to their customers) than ultimate reliability. If your life depends on computer uptime, you need a special purpose, online, big, redundant, expensive system. These systems are beyond the scope of this document. When you buy a UPS at your local computer store, you are *not* buying this sort of system.

This is not to say that these things are bad or a waste of money, it's just that they're not a panacea. In most locations I have worked with most decent UPSes my equipment statistically has suffered less downtime and lower hardware failure rates when it's protected by a UPS than when it's not. But these devices are *not* infallible. When you add one to the mix, technically it's one more thing that can and sometimes will go wrong. These devices age and occasionally break. A bad one occasionally slips through quality control. Consider it two steps forward and one step back. That's still progress.

There are some things you can do to decrease the likelihood that a UPS will trip you up. Here are some suggestions. This is not an exhaustive list:

- Perform regular maintenance on your UPS. This includes changing the batteries periodically.

Don't ever run on bad batteries. Unless your UPS has a bypass feature which allows you to change batteries without disconnecting the UPS, this means shutting your important server down on occasion.
- Don't deep cycle the batteries any more than is necessary.
- Make sure the UPS keeps in contact with its electrical ground at all times.
- Don't subject the UPS to temperature or humidity extremes, water, excessive dust, or excessive static electricity. Keep the area around the UPS clean and dry.
- Don't overload the UPS.
- If the UPS shows signs of misbehavior or malfunction, remove it from service at the earliest possible opportunity. Don't put it back into service until it has been examined and recertified by qualified support personnel.

02.14

Q: I think I'd like to build/refurbish/upgrade my own UPS myself. Is this a good idea?

A: My short answer: No, it's not a good idea. Basically, if you're soliciting information from this document on whether or how to do this, you're not qualified to do this, so don't.

Just as with any other electronics project, it's possible to build one yourself if you know what you're doing. In the case of a UPS, though, the tolerances are very tight, and the consequences of building it wrong can be severe. You're working with energies sufficient to kill a person or start a major fire, the batteries contain hazardous materials, and the serious possibility exists that something can be hooked up wrong with disastrous results. If the wrong types of batteries are installed in a UPS very bad things will happen. Unless you really know what you're doing, you're much better off sticking with equipment that others have certified rather than trying to save just a few bucks by doing it yourself. Of course, if you do really know what you're doing, then you don't need (or want) my advice. Definitely leave this project for the professionals.

03:
TOPIC: UPS monitoring/shutdown software.

03.01

Q: If the power is out for a long time, I would like to have my computer automatically shut itself down gracefully before the UPS batteries die. Can I do this?

A: Yes. Most UPS manufacturers support software that will do this for some UPSes on at least some platforms. Ask your UPS vendor for details.

Q: Okay, how about restarting the system for me once power returns?

A: Not all UPS software products do this, but many do. Again, ask your vendor. I do not know of any freely distributable products that will do this. It doesn't mean that they can't be built, but vendor software is cheap enough (usually) that it's probably not worth building.

03.02

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Q: How does this software work? I'm a starving (fill in the blank) who can't afford software or I have a UPS protecting a computer running an operating system that nobody supports.

A: Usually, there is a serial port on the back of a UPS that can be used to connect it to just about any computer. Sometimes these connections are null-modem, sometimes they're not. The UPS sends information along the serial line as it goes. If you can decode which pins contain which information, how the information is formatted and figure out what it wants to hear from the computer side, you're all set.

Here is a skeleton script that outlines a very simple UPS interface provided by Joe Moss, `joe_AT_morton.rain.com`. Definitely check this out as a starting point, but don't expect it to do anything meaningful without some work.

```
#! /bin/sh

# Shut down system in case of extended power failure

# This should be the serial port to which the UPS is connected
# This port must be set to block on open until the DCD line
# is asserted - many UNIX systems have this determined by
# the minor device number, if not, see if there is some way
# to enable this behavior on your system
PORT=/dev/ttya

# Ok, this should block until there is a power failure

: > $PORT

# If we reach this point, we've lost power
wall << EOF
The sky is falling!! The sky is falling!!
EOF

# call shutdown (or init or whatever)
exec shutdown
```

03.03

Q: Hmmm... that sounds kinda complicated. Has someone already done this?

A: Any solution would almost certainly be vendor specific. However, some brave souls have provided partial functionality for certain vendors' UPSes. The `upsd` and `upsmon` packages are Open Source software that supports APC UPSes. They are available at: ftp://ftp.rge.com/pub/admin/upsd/ and ftp://newcorridor.com/pub/upsmon/.

Note: Different UPSes produce different sorts of signals. Some software that works with one brand or model of UPSes may or may not work with others.

03.04

Q: I can't find monitoring software that will work on my configuration. What should I do?

A: Well, it seems you have a few choices:

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1. Build your own. See item 03.02.
2. Use something freely distributable. See item 03.03.
3. Lean on your UPS vendor to port to your platform.
4. Try a different vendor that supports your platform. See item 05.01.

03.05

Q: What other software is out there?

A: Software packages for UPS machines are getting more sophisticated. Most provide some level of power and status monitoring, but lately there are more GUI's, more interactive packages, SNMP support, and even call-out paging. See the software section 05.03 for more info.

04:
TOPIC: How big a UPS do I need?

04.01

Q: How are the "sizes" of UPSes determined?

A: Typically, a UPS has a VA rating. The VA rating is the maximum number of Volts * Amps it can deliver. The VA rating is not the same as the power drain (in Watts) of the equipment. (This would be true if the load were only resistive or the circuit were DC, not AC). Computers are notoriously non-resistive. A typical PF (power factor: Watts/VA) for some computers may be as low as 0.6, which means that if you record a drain of 100 Watts, you need a power source with a VA rating of 167. Some literature suggests that 0.7 may be a good conversion factor, but this will depend heavily on the specific equipment. Moreover, there's really no way to determine these numbers besides measuring them.

Note: Some UPSes can continue to deliver power if the VA rating is exceeded, they merely can't provide above their VA rating if the power goes. Some can't provide power above their VA rating at all. Some may do something really nasty if you try. In any case, I *strongly* recommend not doing this under *any* circumstances. Generally, the rule of thumb seems to be never drawing more VA from an UPS than about 75% of its rating.

04.02

Q: How can I tell what VA rating I need for my equipment?

A: First, when possible, get VA rather than wattage ratings. See Q04.01 above. There are a couple of ways to evaluate your electrical load:

1. Direct measurement. You can get equipment to measure the current draw of your equipment directly. You may or may not have access to this. If you are part of an organization that has its own facilities/electrical type people, they're likely to be able to do this. They might help you out if you ask nice. If you're on a budget and don't want to shell out for a high-quality ammeter, you might want to dry a device called the "Kill A Watt" electric usage monitor made by P3 International.
2. Compare notes. If you know someone with the same setup you're using, ask them what they use

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and how close they are to the maximum VA rating.

3. Use a chart. Most vendors can help you out for common equipment. If you have an unusual setup, or mix equipment a lot, this may be more difficult.
4. Use the equipment rating. Most pieces of computer equipment have a power rating on some back panel near where power cord enters the chassis. This number is usually very conservative, as it is necessary for the manufacturer to play it safe or they'll get sued. Also, these numbers generally represent a conservative estimate of total draw of the equipment when it is in its most power-hungry configuration. Typical device configurations may be less demanding.

Note: Method 1 is by far the best, method 2 and 3 are secondary, method 4 is usually overkill, but pretty safe. In a pinch, obtaining a UPS whose VA rating is equal or greater than the sum of all listed electrical load ratings is pretty safe. Don't forget to include headroom for expansion!

04.03

Q: Hmmm... seems like this can be a tough thing to determine.

A: Yeah, it can be. It's also very important. Remember, if you get a UPS that's too big, then you've overpaid, but your equipment can survive a longer outage. If you get a UPS that's too small, your equipment might not be protected. Therefore, I recommend that you be conservative in buying these things. Unfortunately, this costs money.

04.04

Q: What else should I consider?

A: It would be nice to know how long your site's typical power outages are. In some places, with nice weather and a flaky power grid, the power is almost never out for more than 5 minutes, but this could happen quite frequently. In this case, you may as well use a UPS with a VA rating close to your equipment rating with no extra batteries. If your area has longer outages, in the half hour or hour range, as is often the case in thunderstorm country, you can either buy UPSes with multiples of the VA rating of the equipment, since oversizing a VA rating for a UPS has the effect of lengthening the amount of time your equipment can stay up in case of a power outage, or you can buy additional battery units for a smaller UPS. You can probably get away with doing simple math to determine how much longer a larger UPS will keep your equipment running, but I recommend running a few tests before committing to a large purchase order. Also, your UPS vendor will almost certainly be glad to help you size the equipment you need. If all else fails and you guess wrong, or move equipment to a location with different power status, you may be really, really glad if you bought a UPS that can be expanded with additional battery units.

04.05

Q: How about I use one of these UPS thingies for a laser printer?

A: Generally, this is not a good idea. If you ever measured the current draw of a laser printer during startup (and during printing) you'd likely be stunned at what it pulls. UPS manufacturers generally recommend that you not do this. Some UPSes are available that are specifically inteded for use with laser printers, but most don't. At the very least, don't do this unless you have carefully sized your equipment and your UPS vendor has committed to supporting this particular configuration.

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04.06

Q: So, what sorts of UPS sizes do you use on your equipment?

A: BIG DISCLAIMER. I disclaim everything about these figures. At best, they are very, very rough. Heck, I may be lying. Don't trust them. Here they are anyway.

Most PC ATX power supplies these days seem to be running in the 300 W range. A typical CRT monitor tends to draw about 1 Amp (~120 W), an LCD monitor of the same size a bit less. Peripherals like speakers and small networking equipment tend to draw little power. Figuring on 450 VA for a typical desktop computer setup is pretty conservative. For a single machine plus small associated networking equipment (for example, a DSL/Cable modem/router, wireless access point, etc.), buying a 600 VA UPS is often pretty reasonable. Buying a bigger UPS will allow you to protect more equipment going forward.

Another word of warning, don't assume that power requirements scale with compute power and number of peripherals, ESPECIALLY if they are different architectures. Sometimes older equipment is less efficient and draws more power than more recent gear. This is espeically true with things like monitors, disks, etc.. On the other hand, as compute power increases, often power consumption does too. The current crop of Pentium 4s draws much more power than, say, an old 386 did. This can be seen in the fact that contemporary PC power supplies are usually more powerful than the same devices were a few years ago. The big lesson to learn is that there's no replacement for direct measurement.

05:
TOPIC: Specific manufacturer's information.

05.01

Q: What vendors are there and what do they produce?

A: Here is a very incomplete list, based only on what I know. Please give me information to expand it. I make no claims as to the accuracy of this information. It is mostly based on personal recommendations and vendor propaganda.

05.02 UPS Hardware (and software) manufacturers:

In earlier versions of this document, I gave contact information and a brief (usually a bit out of date) product listing of all the major UPS vendors I could find. Now, with nearly all of this information on line, it makes more sense just to provide a link to the web pages of the companies and list what sort of general market they're in. I think this is actually more useful and is certainly less likely to drift out of date. Note, I'm including information only on manufacturers, not retailers.

American Power Conversion	APC is the largest manufacturer of small UPSes (<2000 VA) and has a whole line of UPS systems (mostly line interactive), software, and power system accessories which can be purchased directly from them or via many retail outlets around the United States and overseas.
Belkin	Belkin makes a lot of computer connectivity products, including UPSes.

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Clary Corporation	Clary sells UPS products and specializes in emergency, military, and life support systems. They also sell management software and accessories.
Controlled Power Company	Controlled Power produces UPS systems, power conditioners, voltage regulators and transformers. Equipment can be ordered direct.
Eaton Powerware	Eaton Powerware includes the product line that was formerly Best Power, Inc.. They produce many types of UPS systems. more advanced line interactive systems, and ferroresonant line interactive systems as well as software, PDUs, and power system accessories.
Emerson Electronics	Emerson is a big electronics conglomerate. It's claim to fame in the UPS world is that it's the parent company to Liebert.
Energy Technologies, Inc.	Energy Technologies provides power devices (including UPSes) for physically demanding customers, including military and vehicle uses. Most if their UPS systems seem to fall in the 600 to 6000 VA range.
Exide Electronics	One of the bigger players in the data center sized UPS system industry, Exide also makes more modest sized on-line and line interactive systems. Exide products can be purchased direct or from their distributors.
Gamatronic Electronic Industris, Ltd.	I'm told these guys are the largest UPS manufacturer in Israel and the Middle East. Their product line runs the gammut from 1000 VA to 150 kVA systems.
General Electric Industrial Systems	Yup, GE makes UPSes from 300 VA up to MVA systems.
IntelliPower, Inc.	Intellipower sells on-line UPS systems and management software.
Liebert	A subsidiary of Emerson Electronics (see above), Liebert is probably the largest manufacturer of large (10 kVA +) UPS systems. Also well known for their other data center products including power distribution units and HVAC products. They also make smaller UPS systems (300 VA on up), but these are not nearly as popular.
MGE UPS Systems	MGE UPS Systems sells UPS systems from 300 VA to the very large and additional power equipment.
Mitsubishi Electric Automation	Mitsubishi Electric Automation seems to specialize in larger (> 5 kVA) UPSes, but they make them as small as 1 kVA.
Oneac	Oneac sells line interactive and online UPS systems with software in the US and UK. They were acquired by the Chloride Group (see Chloride Power, below) in 1998.
OPTI-UPS	OPTI-UPS makes standby, line-interactive, and online UPS systems ranging from 375 VA to 8000 VA.
Philtek	Philtek makes inverters and other similar power system components.
SL Waber	SL Waber sells mostly UPS systems including the Tripp Lite brand name as well as a wide assortment of surge suppression and other power accessories.
Toshiba	Toshiba sells a lot of things, including UPSes. They sell online UPSes from 1400 VA to the 300 kVA range. One of Toshiba's product lines are UPSes specially designed to automatically configure themselves to

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	work with both US (60 Hz) and European (50 Hz) power.
P3 International	P3 International makes a number of cool consumer electronics devices, but as far as this document is concerned, the most interesting is an easy-to-use and relatively inexpensive power monitoring device called "Kill A Watt". When you can't or don't want to use a good break-out cable and ammeter, this device is a good choice for measuring power consumption.
Power Innovations International, Inc.	Power Innovations sells online UPS systems ranging from 500 VA to 400 kVA.
Chloride Power	Chloride Power is a relative newcomer to the U.S. market but has much more experience and is better known in Europe. For the US market Chloride produces online UPS from the 700 VA to 3000 kVA range, and what look like they might be standby systems from 300 VA to 650 VA.

There are a lot of companies in this space, and there's no way that I can list all of them. I try to include most of the best known companies along with a few niche players that might be of interest to the readers of this document. Let me know if there are important companies that I haven't included.

06:
TOPIC: Bibliography

There are many good references and review articles on UPS information. Some of the best sources can be found in vendor information. There is great reference material woven into their propaganda. Some other good sources are:

- "The Dranetz Field Handbook for Power Quality Analysis",
  1991, Dranetz Technologies, 1000 New Durham Rd., Edison, NJ 08818, 1-908-287-3680.
- "National Electrical Code Handbook",
  1993, National Fire Protection Association, One Batterymarch Park, P.O. Box 9101, Quincy, MA 02269, 1-617-770-3000.
- "Grounding and Shielding in Facilities",
  1990, by Ralph Morrison and Warren H. Lewis, John Wiley & Sons, New York, ISBN 0-471-83807-1.
- "Battling Power Problems",
  by Alan Frank, LAN Magazine, October 1994, pp 65-72, Miller Freeman, Inc..
- "UPS Chart",
  by the LAN staff, LAN Magazine, October 1994, pp 74-84, Miller Freeman, Inc..
- Hewlett-Packard has a White Paper on selecting a UPS. You may be able to get them to send it to you. A shortened version appeared as an article in the January 9, 1995 issue of Electronic Engineering Times.

One critical source of information on power protection is the IEEE "color book" series, especially the following:

- The Emerald Book, *IEEE Recommeded Practice for Powering and Grounding Electronic Equipment*, Std. 1100-1999, 1999.

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- The Gold Book, *IEEE Recommended Practice for the Design of Reliable Industrial and Commercial Power Systems*, Std. 493-1997, 1997.
- The Green Book, *IEEE Recommended Practice for Grounding of Industrial and Commercial Power Systems*, Std. 241-1990, 1990.

07:
TOPIC: Acknowledgments

I would like to thank Charles Rhoades (`Charles.W.Rhoades_AT_jpl.nasa.gov`) for his sage remarks on an early draft of this document. Thanks also to Don Deal (`Don.Deal_AT_oit.gatech.edu`) for a great many valuable suggestions and that great section on the types of UPS units.

The following people have all made valuable contributions to this document:

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