BELKIN Battery Backup with Surge Protection

User Manual

Note

F6C550-AVR, F6C750-AVR, F6B750-AVR, F6C900-UNV, F6C1100-UNV, F6C1200-UNV

Introduction

Thank you for purchasing Battery Backup with Multi-Computer Connections (the Unit). Each year, frequent natural and man-made power disturbances disrupt the power supplied to your home or office electronics. These power problems place your hardware, software, and data at risk. Belkin Battery Backups provide an uninterruptible power supply (UPS) with advanced features as the industry-leading solution.

Package Contents

You should have received the following:

- 1 Battery Backup unit
- 1 Installation CD containing Belkin Automatic Power Management Software (the Belkin APM Software) for Windows
- 1 USB Cable
- 1 Serial Cable(F6C900-UNV, F6C1100-UNV, F6C1200-UNV)
- 1 Phone-Line Cable
- 1 Coaxial-Cable(only F6B750-AVR)

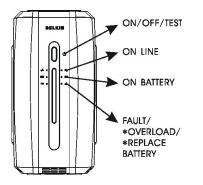
System Requirements

The Unit can be used without the software and can be used with any computer using a monitor or a flat-panel screen. Also, you do not have to have the software installed to utilize the battery-backup outlets.

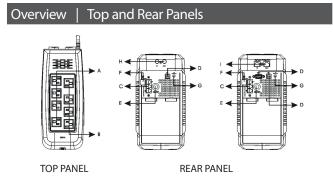
To fully utilize the Battery Backup and its software, your computer must be able to run one of the following operating systems: Windows XP / 2003 / 2000 / ME / 98 / NT 4.0 (SP6) or Linux, and it must have a serial or USB port.

Overview | Features and Functions

Your Battery Backup features three LED indicators that monitor certain functions on the Unit. Please review the front-panel diagram and refer to this chart. This will assist you in the use of your Battery Backup.



Indicator Condition Meaning AC power is on. ON LINE Solid Green (Green LED) * Flashing Green AVR is active. ON BATTERY This condition for the "ON BATTERY" LED can * Flashing Yellow (Yellow LED) LED with Audible indicate 1 of 2 problems Alarm (Beeping) 1. The Unit is in backup mode and an intermittent audible alarm is on. The Unit will begin shutdown procedure. . Battery is low. The Unit will start shutdown procedure. The buzzer sounds an audible alarm. The "FAULT/OVERLOAD" LED can indicate Solid Red FAULT OVERLOAD 1 of 2 problems. Replace Battery (Red LED) I. There is a problem with the Unit. The LED will be lit continuously, and the Unit will sound an audible alarm for 10 seconds. 2. Battery is weak or bad; the battery needs to be replaced * Flashing Red Battery output is drawing more power than the Unit can provide There is either no ground circuit or a reversed Solid Red SITE WIRING FALLET polarity in the building wiring (On Rear Panel)



A. Surge-Protected-Only Outlets

Equipment such as a printer, fax machine, scanner, or a desk lamp can be plugged into these outlets. These outlets do not provide battery power during a outage. They are always on (when AC power is available) and are not controlled by the front-panel switch.

B. Battery-Backup Outlets

Only data-sensitive equipment such as a computer, monitor, and external drive should be plugged into these outlets. Battery power is automatically provided in case of a power outage. Power (AC or battery) is not supplied to these outlets when the Unit is switched off. (Do not plug surge protectors or power strips into the battery-backup outlets.)

Note! During the AVR Mode, the total load that you will be placing on the battery-backup outlets should not exceed 85% of the Unit's capacity.

C. Phone/Fax/Modem Protection

The phone/fax/modem lines are surge-protected and provide complete safety for line connection.

D. Interface Ports (USB & RS232)

The Unit provides a USB port for use with your computer. For the F6C900-UNV, F6C1100-UNV, F6C1200-UNV model, the unit provides both a USB and RS232 port. NOTE: Choose one port only.

F. AC Input Breaker (Circuit Breaker)

The circuit breaker button will be triggered if an overload condition forces the Unit to disconnect itself from utility power. If the button sticks out, disconnect nonessential equipment and depress breaker

F. AC Input Power Cord

G. Site Wiring Fault Indicator

The "SITE WIRING FAULT" LED will illuminate when one of the following conditions exist:

- 1. Open or high-resistance ground
- 2. Hot and neutral polarity reversal
- 3. Overloaded neutral circuit

H. Audio Video Surge-Protection Port (Only F6B750-AVR)

I. Network Protection (F6C900-UNV/F6C1100-UNV/F6C1200-UNV)

This connector is used for protecting the transmission line of an Ethernet card from surges, noise, and spikes.

Model		F6C550 -AVR	F6C750 -AVR	F6B750 -AVR	F6C900 -UNV	F6C1100 -UNV	F6C1200 -UNV
Input	Capacity	550VA/ 330W			900VA/ 540W	1100VA/ 660W	1200VA/ 670W
	Voltage Range	89–145VAC					
	Frequency	60Hz (±5Hz)					
Output	Voltage	Simulated sine wave, 120VAC ±15%					
	Frequency (On Battery)	60Hz (±1Hz)					
Battery	Backup Time Half-Load	8 min.	5 n	nin.	6 min.	4 min.	
	Typical Recharge Time	16 hours recover to 90% capacity					
Environment	Ambient Operation	0~90% humidity non-condensing, 0~40° C					
Conformance	Safety	UL / c-UL, FCC Class B					
		1					



It contains important operating instructions and warranty information pertaining to your Battery Backup

Please save or recycle the packaging materials!

The Unit's packaging was designed with great care to provide protection during shipment and delivery. These materials are invaluable if you ever have to return the Unit for service. Damage sustained during transit is not covered under the warranty.

Installation

Note!

Before installation, please inspect the Unit. Make sure that nothing inside the package is damaged

Connect to AC Utility Power

Plug in the AC cord to a wall outlet. Please make sure there are no devices plugged into the Unit. Check to see whether the "SITE WIRING FAULT" indicator is lit. If it is lit, have the utility wiring inspected by an electrician

Charging the Battery

For best results, charge the battery for eight hours prior to initial use. The Unit charges its battery whenever it is connected to the utility power

Plug in Power Devices

Plug your devices into the AC outlets on the top of the Unit. To use the Unit as a master on/off switch, make sure all of the loads are switched on.

Caution: Never connect a laser printer or scanner to the backup outlets along with other computer equipment. A laser printer or scanner draws significantly more power when in use than when idle. This may overload the Battery Backup.



Turning on the Unit

Turn on your Battery Backup by pressing and holding the "ON/OFF/TEST" button for approximately two seconds until the "ON LINE" green light comes on.

Turning off the Unit

Turn off the Unit by pressing and holding the "ON/OFF/TEST" button for more than two seconds until the "ON LINE" or "ON BATTERY" LED goes off.

To Conduct a Self-Test

Use the self-test to verify both the operation of the Unit and the condition of the battery. In normal utility power, push the "ON/OFF/TEST" button less than 1.5 seconds and the Unit performs a self-test function. During the self-test, the Unit operates in backup mode.

Note: During the self-test, the Unit briefly operates on battery-backup power (the "ON BATTERY" LED comes on). If the Unit passes the self-test, it returns to online operation. If the Unit fails the self-test, it immediately returns to online operation and lights the "Replace Battery" LED. The loads are not affected. Recharge the battery overnight and perform the self-test again. If the "Replace Battery" LED is still on, the battery needs to be replaced.

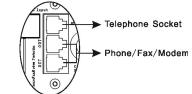
To Silence Audible Alarm

While the Unit is in battery-backup mode, push the "ON/OFF/TEST" button for less than 1.5 seconds to silence the audible alarm. (This does not work if the Unit is in a OVERLOAD condition.)

All equipment must be powered off prior to plugging into the Unit (installation).

Connect the Phone/Fax/Modem Lines

Connect a single phone/fax/modem line into the surge-protected outlets on the back of the Unit. The RJ11 modular outlet accepts standard single-line telephone connections. The connection will require another length of telephone cable (included)



NOTE: This connection is optional but highly recommended as phone/ fax/modem lines often carry dangerous surges and spikes. The Unit works properly without a phone/fax/modem connection



Overview | Alarms

Battery Backup (Slow Alarm)

When the Unit is in "backup" mode (running on battery), the YELLOW LED illuminates and the Unit emits an audible alarm. The alarm stops when the Unit returns to normal online operation.

Low Battery (Rapid Alarm)

In "backup" mode, when the battery energy runs low, the Unit beeps rapidly until it either shuts down from a depleted battery or returns to normal online operation.

Overload (Continuous Alarm)

When the Unit is overloaded (the connected loads exceed the maximum rated capacity), it emits a continuous alarm to warn of an overload condition. Disconnect nonessential equipment from the Unit to eliminate the overload.

Fault (10 Seconds Continuously)

When the Unit fails, it emits an audible alarm continuously for 10 seconds to warn of a fault condition. Disconnect the equipment prior to checking it.

	Surge	IEEE C62.41 Category A standard		
nysical	Dimensions (W x H x D)	294.5 X 125 X 242.5 mm.		
	Net Weight	5.9kg.	6.25kg.	9.25kg .

All specifications are subject to change without prior notice

Overview Storage

Storage Conditions

Store the Unit covered and upright in a cool, dry location with its battery fully charged. Before storing, charge the Unit for at least four (4) hours. Disconnect any cables connected to the computer interface port to avoid unnecessary drainage of the battery.

Extended Storage

During extended storage in environments where the ambient temperature is +5° F to +86° F, charge the Unit's battery every six (6) months. During extended storage in environments where the ambient temperature is +86° F to +113° F, charge the Unit's battery every three (3) months.

Caution! The phone/fax/modem protection feature could be rendered inoperable if improperly installed. Make sure that the telephone line from the wall is plugged into the connector marked "IN", and the device to be protected is plugged into the connector marked "OUT".

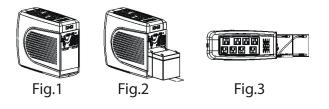
Battery Replacement Procedure

Replacement requires removing the battery cover plate on the back or bottom of the Unit. No tools are needed. To replace the batteries:

- Press fastener to remove the battery cover plate on the back of the 1. Unit (Fig. 1).
- Disconnect the insulated connectors from the battery terminals (Fig. 2). 2.
- 3. Remove the battery, insert a new battery pack, and push the connectors onto the battery terminals (black-to-black and red-to-red) (Fig. 3).

NOTE: There may be a small spark at the battery terminals when reconnecting the connectors. This is normal and will not harm you or the Unit.

Close the battery cover (Fig. 1). 4.



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Serial or USB Communication Port

Installation Optional

To fully utilize the Belkin Automatic Power Management Software, you will need to connect the Unit to your computer

The communication port will provide the following features:

- 1. Monitoring charger status
- 2. Monitoring Unit status
- 3. Monitoring battery status and condition
- 4. Monitoring the utility status 5. Use the "ON/OFF/TEST" power switch function to schedule the Unit for power-saving

You may connect the Unit to your computer by choosing either the serial or USB ports. NOTE: Choose one port only. Do not connect your computer through both ports

Install Belkin APM Software

- a) System requirements
- 128 MB RAM of memory at least (256MB is recommended)
- 256 colors and 800 * 600 resolution or above display is recommended
- 160 MB of disk space or above
- An available communication port (RS-232 Serial Port or USB port) is needed . while connecting to UPS with a special connecting cable
- For Mac OS X, Linux or Unix operating system, the user must have the access authority as the super user
- TCP/IP protocol must be installed to support network management
- The user needs to have the access authority as the administrator
- b) Platforms supported by Belkin APM Software

The following operating system (OS) is arranged by the alphabetical order:

AIX 4.3.3, 5.1, 5.2

- Compag Tru64 Alpha
- FreeBSD x86
- HP-UX 11 x 11i x
- Linux
- Mac PPC OSX
- SCO UnixWare 7.1.1, 7.1.3, SCO Unix 8.0, and SCO OpenServer 5.0.6, 5.0.7
- . SGI Irix 6.5.x
- Solaris / Sparc 2.6, 7, 8, 9, and Solaris / Intel 2.6, 7, 8, 9
- Windows XP / 2003 / 2000 / MF / 98 / NT 4.0 (SP6)
- c) Belkin Automatic Power Management Software Installation Steps.

For Windows platform

- Run setup.exe in the $\Mindows\Disk1\InstData\VM\ directory of your CD to$ start the installation program.
- Read the information provided, then click Next.
- . Review the installation options that you have selected. If the options are correct, then click "Install" to begin the installation.
- When the installation program is completed, click Done.

For Mac OS X platform

- Run setup.app in the \MacOXS\Disk1\InstData\ directory of your CD to start the installation program.
- Read the information provided, then click Next.
- Review the installation options that you have selected. If the options are correct, then click "Install" to begin the installation.
- When the installation program is completed, click Done.

For Other Platforms

- This CD provides two installation modes: GUI mode and Console mode. Enter the directory according the system and run setup.bin or setup_console. bin to start the installation program. Note: For UnixWare, Irix and Tru64 platform, make sure JRE1.3.1 has been install in your system, then enter the /GenericUnix directory and run setup.bin or setup_console.bin to start the setup
- Read the information provided, then click Next.
- Review the installation options that you have selected. If the options are correct, then click Install to begin the installation
- When the installation program is completed, click Done.

Reboot the system.

set the Belkin Power Manag nt Software Runnin Environment Variables in /etc/profile, reboot the system to make it valid.

Linux and UnixWare system

Open the Terminal, enter the /opt/upspilot in the address bar and execute command: ./Uninstall

Troublesho			
PROBLEM	POSSIBLE CAUSE	SOLUTION	
Unit not on, LED not lit	"ON/OFF/TEST" button not pushed or pushed less than 2 seconds	Press the "ON/OFF/TEST" button for more than 2 seconds	
	Battery voltage is too low	Recharge the Unit at least 8 hours	
	UPS fault	Contact service personnel	
Unit always on battery mode	Power cord loose	Re-plug the power cord	
	AC breaker is burned out or tripped	Replace or reset the breaker	
	AC utility voltage is too high or too low, or there is a blackout	Normal condition	
Backup time too short	Battery not fully charged	Recharge the Unit at least 8 hours	
	The Unit is overloaded	Remove some unnecessary loads	
	Charger fault or other reason	Replace battery; contact www.belkin.com	
The Unit continuously beeps	Overload	Remove the non-critical loads	
Red LED lit	Battery failure	Replace battery; contact www.belkin.com	

Information

Federal Communications Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. To assure continued compliance, use only shielded interface cables when connecting to computer or peripheral devices. Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

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Safety Information

Caution

Internal battery voltage is 12V DC.

The Unit is intended for installation in a controlled environment (temperature controlled, indoor area free of conductive contaminants).

All batteries used are sealed lead batteries. Batteries must be recycled.

Recycling

Your Unit contains a non-spillable sealed lead battery. On the battery, you will find the battery name. Please reference the chart below for recycling information.

Battery Name	Recycling Inside the USA	Outside the USA Recycling
	necycling inside the 05A	
BB Battery	(800) 278-8599	N/A
CSB Battery	(800) 738-7372	1 (817) 244-4415
VISION Battery	(604) 730-2877	N/A
Best Battery	(888) 841-5179	N/A

Uninstall Belkin APM Software

Note: Before uninstall Belkin PMS, all Belkin PMS program must be stopped first. Otherwise the uninstalling cannot be run completely.

Windows operating system

- 1. There are two ways of uninstalling Belkin PMS:
- Click directly on the Uninstall Belkin Automatic Power Management Software (a) from the Start menu >Programs > Belkin Automatic Power Management Software
- Use the Add / Remove Program under Control, and select Change or Remove (b) Programs from the left. Select Belkin Automatic Power Management Software, and click the Change / remove button.
- The Uninstall Program will pop up a prompt, and click Uninstall to start the 2. uninstalling.

To exit the uninstallation, click Cancel.

Mac OS X system

open the Terminal from Application > Utilities> Terminal, enter the installation directory (/opt/upspilot by default) and ececute the command: sudo ./Uninatall

Enter the system account password when it prompts. The installation will be carried out with administrator privilege and can completely uninstall all the files.

If you just execute the ./Uninstall command , the installation may not has the permission to uninstall all the files.

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Contact Belkin

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www.belkin.com

Belkin Tech Support US: 800-223-5546, ext. 2263 310-898-1100, ext. 2263 Europe: 00 800 223 55 460 Australia: 1800 235 546 New Zealand: 0800 235 546

Belkin Corporation 501 West Walnut Stree Compton, CA 90220-5221, USA 310-898-1100 310-898-1111 fax

Belkin Ltd.

Express Business Park, Shipton Way Rushden, NN10 6GL, United Kingdom +44 (0) 1933 35 2000 +44 (0) 1933 31 2000 fax

Belkin B.V. Boeing Avenue 333 1119 PH Schiphol-Rijk, The Netherlands +31 (0) 20 654 7300 +31 (0) 20 654 7349 fax

Belkin Ltd. 7 Bowen Crescent, West Gosford NSW 2250, Australia +61 (0) 2 4372 8600 +61 (0) 2 4372 8603 fax

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