BELKIN®

FOR MODELS
F6C350-SER-SB
F6C500-SER-SB
F6C650-SER-SB

USER MANUAL

INTRODUCTION

Have you ever noticed your lights dim or flicker when you turn on your dishwasher or air conditioner? This common occurrence is attributed to an under-voltage of power, also know as a brownout.

A brownout is a period of insufficient power-line voltage. It is the most common power problem, accounting for 80% of all power disturbances.

Effects: A brownout can deprive a computer of the power it needs to function, causing unwanted damage to your computer–such as frozen keyboards and hard drive crashes. Such problems will cause you to incur computer repairs, lost data, and downtime.

Solution: A Belkin Uninterruptible Power Supply (UPS) unit protects against surges, spikes, swells, line-noise, brownouts, and blackouts! A surge protector can only protect your computer from over-voltages due to irregular power!

IMPORTANT SAFETY INSTRUCTIONS

Thank you for purchasing the Belkin Uninterruptible Power Supply (UPS). It will provide you with the best protection for your connected equipment.

Please Save This Manual!
It includes important instructions for the safe use of this UPS and for obtaining factory service should the proper operation of the UPS come into question.

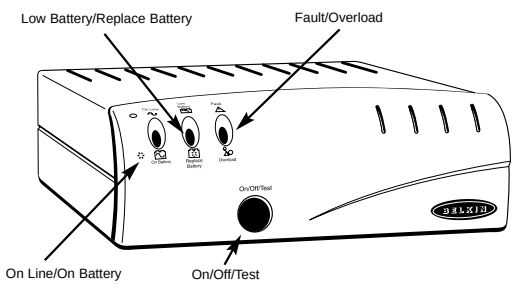
Please Save or Recycle the Packaging Materials!

The UPS shipping materials were designed with great care to provide protection from transportation-related damage. These materials are invaluable if you ever have to return the UPS for service. Damage sustained during transit is not covered under the warranty.

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.

FRONT PANEL

Press the button longer than three seconds to turn the UPS on or off. Press the button less than three seconds to activate the UPS self-testing or to silence the backup alarm.



OPERATION

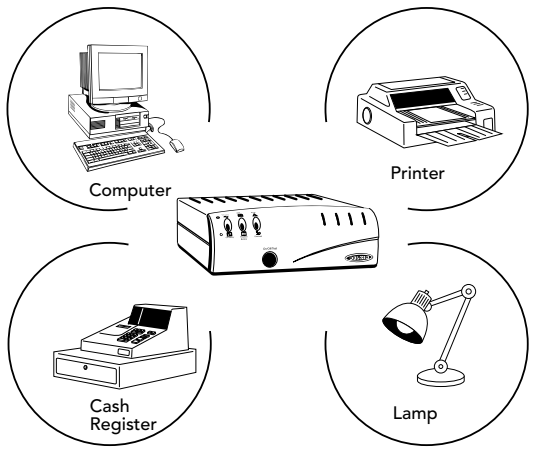
Switch On
With the UPS plugged in, press and hold the on/off/test button for more than three seconds until the "ON LINE" LED lights up to switch the UPS on. The UPS will perform self-testing each time it is switched on. Note: The UPS maintains the battery charge when in the off position.

Switch Off
Press and hold the on/off/test button for more than three seconds until the "ON LINE" or "ON BATTERY" LED goes off.

Self-Test
Use the self-test to verify both the operation of the UPS and the condition of the battery. In normal utility power, push the on/off/test button less than two seconds and the UPS performs a self-test function. During the self-test, the UPS operates in "BACKUP" mode.

Note
During the self-test, the UPS briefly operates "ON BATTERY" mode (the "REPLACE BATTERY" LED comes on). If the UPS passes the self-test, it returns to "ON LINE" operation. The "REPLACE BATTERY" LED goes off and the "ON LINE" LED goes on steady. If the UPS fails the self-test it immediately returns to on-line operation and flashes 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 will need to be replaced; go to belkin.com.

Silence
In " BACKUP" mode, push the on/off/test button less than three seconds to silence the audible alarm. (The function is void when under condition of "LOW BATTERY".)



PRESENTATION

LED	STEADY LIGHT ● BLINKING ☼	MEANING
ON LINE/ ON BATTERY	GREEN ●	Utility is normal.
	☼	Utility is abnormal, supplies power to outlets from battery source.
LOW BATTERY/ REPLACE BATTERY	YELLOW ●	Battery capacity is low. The UPS will start shutdown. The unit sounds an audible alarm.
	☼	1. The LED flashes eight seconds. It means the UPS is in the self-checking mode. 2. The LED flashes more than 10 seconds. It means the battery is bad or the charger is at fault.
FAULT/ OVERLOAD	RED ●	There is a problem with the UPS. The LED will be lit continuosly and the unit will sound an audible alarm for 10 seconds.
	☼	Battery ouput is drawing more power than the UPS can provide.
SITE WIRING FAULT (IN REAR PANEL)	RED ●	There is either no ground circuit or a reversed polarity in the building wiring.

ALARM

Backup (Slow Alarm)
When in "BACKUP" mode, the GREEN LED illuminates and the UPS sounds an audible alarm. The alarm stops when the UPS returns to LINE NORMAL operation.

Low Battery (Rapid Alarm)
In "BACKUP" mode, when the battery energy runs low, the UPS beeps rapidly until the UPS shuts down from a depleted battery or returns to LINE NORMAL operation.

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

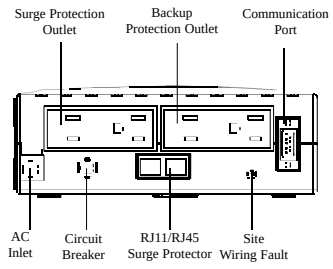
Fault (10 Seconds Continuously)
When the output is shorted, the UPS emits a 10-second alarm. Disconnect the equipment from the UPS prior to checking the equipment.

REAR PANEL

Interface Port
Provides RS232 to relay the signal to support DOS, Windows, and other operating systems.

Phone/Fax/Modem/DSL or Network Protection
Telephone/fax/modem lines are surge protected and provide complete safety for Internet connection. One input and one output allow two devices to be protected (i.e. modem and fax).

REAR PANEL (continued)



Site Wiring Fault Indicator
The Site Wiring Fault LED will illuminate when one of the following conditions exists:
1. Open or high-resistance ground
2. Hot and neutral polarity reversal
3. Overloaded neutral circuit

AC-Input Power Cord
Connect to the AC utility.

AC Input Breaker (Circuit Breaker)
The circuit breaker button will stick out if an overload condition forces the UPS to disconnect itself from utility power. If the button sticks out, disconnect nonessential equipment.

Battery Backup Outlets
Data-sensitive equipment such as a computer, monitor, and external drive should be powered by these outlets. Battery power is automatically provided in case of a power outage. Power (utility or battery) is not supplied to these outlets when the UPS is switched off. (Do not plug surge protectors, power strips, or laser printers into the battery backup outlets.)

Surge-Only Protected Outlets
Equipment such as a printer, fax machine, scanner, or a desk lamp should be powered by these outlets. These outlets do not provide power during a power outage. These outlets are always on (when utility power is available) and are not controlled by the front panel switch.

CONNECTING EQUIPMENT

Connect the Loads
Plug the loads into the output connectors on the rear of the UPS. To use the UPS 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 of a UPS with other computer equipment. A laser printer or scanner periodically draws significantly more power when in use than when idle. This may overload the UPS.

CONNECTING THE TELEPHONE/FAX/MODEM/DSL LINES

Connect a single telephone/fax/modem/DSL line into the surge-protected sockets on the back of the UPS. The RJ11 modular sockets accept standard single-line telephone connections. This connection will require another length of telephone cable (supplied).

Note! This connection is optional but highly suggested as phone/fax/modem/DSL lines often carry dangerous surges and spikes. The UPS works properly without a phone/fax/modem /DSL connection.

Caution! The telephone/fax/modem/DSL protection feature could be rendered inoperable if improperly installed.

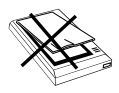
Make sure that the telephone line from the wall is plugged into the connector marked "IN", and the device to be protected (telephone/fax/modem) is plugged into the connector marked "OUT".

INSTALLATION

Note
Before the installation, please inspect the UPS upon receipt. Make sure that everything inside the package is not damaged.

Connect to Utility
Connect the AC inlet to utility power via the power cord. Check if the "Site Wiring Fault" indicator is lit or not. If lit, please check the utility wiring. A "Site Wiring Fault" will void your Belkin warranty.

Charge the Battery
For best results, charge the battery for six hours prior to initial use. The UPS charges its battery whenever it is connected to the utility power.



COMMUNICATION INTERFACE

Belkin Sentry Bulldog Shutdown Management Software and RS232 cable can be used with this UPS. If used, connect the interface cable to the computer interface port on the rear panel of the UPS, and then connect to the serial port on your PC.

The communication port provides the following features:

1) Monitors charger status
2) Monitors UPS status
3) Monitors battery status and condition
4) Monitors the utility status
5) Provides power-switch function for power saving

SOFTWARE OPTIONS

Belkin Sentry Bulldog Shutdown Management Software
Belkin Sentry Bulldog Shutdown Management Software receives communication through the RS232 interface port to perform monitoring functions, and also provide an orderly shutdown of the computer in the event of a power failure. Moreover, Belkin Sentry Bulldog Shutdown Management Software displays all of the diagnostic symptoms on screen, such as voltage level, frequency, battery level, etc. The software is available for Windows® 95, Windows® 98, Windows NT® V4 or higher, Windows® 2000, Windows® Me, Unix®, and Novell® 3.X and above.

Interface Kits
Each interface kit includes a special interface cable which is required to convert status signals from the UPS into signals that the individual operation system can recognize. The interface cable must be connected to the (RS232) serial port on the UPS. The other side of the interface cable can be connected to the DB9 serial port on your PC. For other installation instructions and features, please refer to the READ.ME file.

Caution: Use only factory supplied or UPS monitoring cable!

TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION
UPS cannot turn on. (No alarm, No LED lights)	UPS does not turn on properly.	Press switch and hold longer than three seconds.
	Battery inside the UPS is bad.	Replace with the same type of battery from belkin.com.
	UPS fault.	Call for service if the above actions do not solve your problems.
UPS always at battery mode.	Power cord is loose.	Replace the power cord.
	AC breaker is burned out or tripped.	Replace or reset the breaker.
	AC utility voltage is too high, too low, or blacked out.	Normal condition.
Backup time too short.	Battery inside the UPS is not fully charged.	Recharge the battery for at least six hours.
	UPS is overloaded.	Remove some un-critical loads.
	The battery is weak.	Replace battery at belkin.com.
	Charger fault or other reason.	Contact service personnel.
Low Battery. LED blinks more than 10 seconds.	Battery fault.	Contact Belkin.
Low Battery. LED blinks more than 10 seconds with buzzer beeps.	Charger fault.	Contact Belkin.

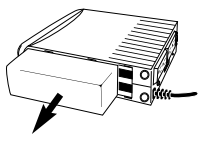
BATTERY REPLACEMENT

EcoPower Service Program
In the event that the UPS needs a battery replacement, Belkin offers its **EcoPower Service Program.** This program offers a battery replacement on your UPS to ensure it is working properly in protecting your connected devices. It also ensures that the battery in the UPS is discarded of properly in an effort to keep our environment clean. All participants in the program will receive a two-year extended product warranty. Please call Belkin Components for detailed information regarding the cost of the program and shipping procedures.

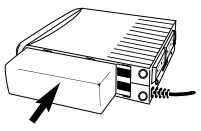
The Old Battery Must Be Recycled
Deliver the battery to an appropriate recycling facility or return it to Belkin in the packing carton that came with your new battery. Additional recycling information is provided with your new battery.

REFER SERVICING TO QUALIFIED SERVICE PERSONNEL OR CONTACT BELKIN COMPONENTS.

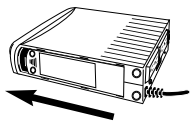
1. Lay down the UPS. Use your thumb to open the battery cover on the bottom of the unit.



2. Grasp the tab attached to the battery and slide the battery out.



3. Insert the replacement gently into the UPS. Make sure the battery is well connected!



4. Put the battery cover back and slide it into position.

MAINTENANCE

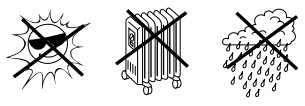
- Normally, the life of a battery is 3-5 years. But extreme operating conditions and environment may shorten its life span.
- When the UPS has been unused for some time, the battery inside will discharge slightly. It is recommended to plug the UPS into a wall outlet to let the battery begin charging automatically.
- When cleaning the plastic case or front panel, use only a soft, dry cloth. If the case or front panel is very dirty, use a neutral, non-abrasive detergent.
- Do not use alcohol or ammonia-based solutions.
- When moving the UPS, always handle it with care.

STORAGE

Storage Conditions
Store the UPS covered and upright in a cool, dry location, with its battery fully charged. Before storing, charge the UPS for at least four 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 UPS battery every six months.

During extended storage in environments where the ambient temperature is +86˚ F to +113˚ F, charge the UPS battery every three months. Note:



TECHNICAL SPECIFICATIONS

MODEL		F6C350-SER-SB	F6C500-SER-SB	F6C650-SER-SB
INPUT	RATED CAPACITY	350VA/ 190W	500VA/ 300W	650VA/ 360W
	RATED VOLTAGE	202-236VAC		
	PHASE FREQUENCY	Single Phase 50Hz		
OUTPUT	VOLTAGE	Simulated Sine Wave		
	FREQUENCY	50Hz		
BATTERY	BACKUP TIME	F6C350 Up to 15min	F6C500 Up to 20min	F6C650 Up to 25min
	RECHARGE TIME	4 Hours to 90%		
ENVIRONMENT	TEMPERATURE	0~40°C		
	HUMIDITY	10 ~ 90%		
SAFETY REGULATION	SAFETY	UL 1778/C-UL		
	EMI	FCC CLASS B		
	EMS	IEEE C62.41 CATEGORY A		
APPEARANCE	DIMENSION	7.1"W x 8.7"D x 2.4"H		
	NET WEIGHT	2.9 KGS/ 6.4 LBS	3.2 KGS/ 7 LBS	3.2 KGS/ 7 LBS

All specifications are subject to change without prior notice.

SAFETY

CAUTION

- Internal battery voltage is 12V DC. Used CSB HC1217W (for 350VA), HC 1221W (for 500, 650VA).
- UPS with user-replaceable batteries shall contain detailed instruction for battery removal and installation.
- The unit is intended for installation in a controlled environment (temperature controlled, indoor area free of conductive contaminants).

Sealed lead battery. Battery must be recycled.

For Recycling Information
Inside the USA Call:
(800) Re-Use-Pb (738-7372)
Outside the USA Call:
1 (800) 244-4415

Pb
NONSPILLABLE

Pb

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