



Subject: New PowerVar UPS Firmware

Update A: Correct incorrect part number (was listed as 11002385 should be 11002358).

Overview

A new version of firmware is being released into the PowerVar 600 UPS that is currently used in the U-Scan system.

Units Affected

The following units will have the new firmware applied in future production and upon return for repair.

11002358	UPS, 115VAC, PowerVar VM600, Side Mount (NA)	54060-93R
11002359	UPS, 220VAC, PowerVar VM600, Side Mount (Eur)	55060-60R

The following unit is not longer purchased, however will have the firmware applied upon return for repair.

11001394	UPS, 115VAC, PowerVar VM600 (NA)	54060-70R
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These UPS models are used in the Genesis U-Scan, and some late production Next Gen U-Scan systems. They may also have been installed into earlier U-Scan models as field replacements.

Impact

This firmware update is a feature/performance enhancement initiated by PowerVar. There is no planned field upgrade program.

- Production
 - No impact to Fujitsu production.
 - PowerVar will cut this change into all units built on/after July 07, 2009.
 - Cut in Serial Number for 11002358 5406093R-0930001
 - Cut in Serial Number for 11002359 5506060R-0930001
- Installed Units No Impact.
- Repair Center
 - All above units returned for repair (to PowerVar) will be updated.
 - Updated units will have a label added for identification.
- Service Spares No Impact.

INQUIRIES TO:		DATE
Fujitsu Frontech North America	_____	_____
Exchange: Sustaining Engineering	Sustaining Engineering	_____
Mail: Fujitsu USA04, Sustaining Engineering	_____	_____
FAX: 858-731-4781 (7888-4781)	Product Manager	_____
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Original signature copies maintained by Sustaining Engineering.		

Changes

The new firmware is version PV58V11FB (for reference only). The major updates being incorporated are:

1. Battery Jumper Plug-In Sequence

- Currently the Battery Jumper Plug at the rear of the unit must be plugged in before AC power is applied. If this is not done in the correct sequence, the UPS may not power up.
- With this new firmware, the sequence of applying AC power and installing the Battery Jumper does not matter.
 - If AC is applied then the Jumper is installed – All Battery Charge LED's will Flash until the Jumper is installed. Once installed the unit is in Normal Operation.
 - If Jumper installed then AC applied – Normal Operation.

2. Over Temperature Shutdown

- Currently if the battery temperature of the UPS is greater than 45°C, the UPS will power down to protect the internal batteries from damage.
- With the new firmware:
 - The battery safety temperature has been raised to 50°C.
 - If the 50°C temperature is reached, the battery charger is turned off. The UPS will continue to provide AC power to its load devices but the batteries are not being charged. When the temperature drops below 47°C, the battery charger will automatically be re-enabled.
 - When in this Battery Charger Off condition, the Battery Charge Level LED's on the front of the UPS will Flash to indicate the charger is turned off.
 - If this temperature has been exceeded and the Charge is turned off, Battery Backup ability is still available, however the batteries will not recharge until AC power is applied AND the temperature is below 47°C.

NOTE: For reference, there is approximately 5°C difference between the temperature measured at the battery and the ambient temperature outside the UPS.

3. Self-Diagnostics

If any of the following conditions occur, the Battery Charge LED's will flash:

- Battery jumper is not installed with AC power applied
- Battery charger is turned OFF due to battery temperature exceeding 50°C
- Battery charger failure