# UPS

# THIS MANUAL CONTAINS IMPORTANT SAFETY INSTRUCTIONS. KEEP THIS MANUAL HANDY FOR FUTURE REFERENCE.

# INSTALLATION AND OPERATION

Before installation, please read and understand the following instructions:

Inspect the following items inside box

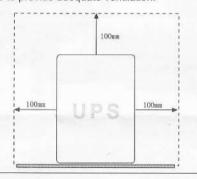
- \*User's Manual
- **\*UPS**
- **\*Mains Cord**

#### **UNPACKING AND INSPECTION**

Examine the packing carton for damage. Notify your dealer immediately if damage is observed. Store the packing in a safe place for possible future trans-shipment of the UPS.

### PLACE THE UPS

Position the UPS on a sturdy, dry surface in a wellventilated area away from direct sources of heat. Leave at least 100 mm clearance all around the UPS to provide adequate ventilation.



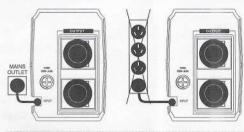
The UPS is intended for indoor use only. Although your UPS is very rugged, its internal components are not sealed from the environment. Kindly note the following.

- ※Avoid direct sunlight.
- ※Avoid excessive heat.
- \*\*Avoid excessive humidity or liquids.
- ※Avoid excessive dust.



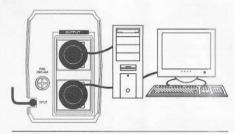
#### CONNECT UPS TO POWER

Connect the Power Cord, to a verified grounded 3-wire receptacle. Do not power the UPS using a surge suppressor or power strip. Switch the utility power ON.

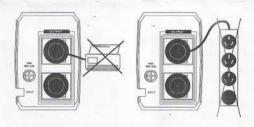


#### CONNECT EQUIPMENT TO UPS

Now connect your load to be protected (computer, monitor etc.) to the AC Output receptacles at the rear of the UPS.



- \*Do not connect a Laser Printer or any non-computer peripherals to UPS outlets.
- \*Do not connect a surge suppressor, power strip, or extension cord to the UPS outlet.



Enable the UPS by turning on the Power ON/OFF switch, which is situated on the front panel.

The UPS is now ready to use. Switch on your equipment and you are ready to function.

## \*Safety Notice\*

The product contains voltages, which are potentially hazardous. Qualified service personnel should perform all repairs.

Do not try to open the cover and to service the system yourself, no user serviceable parts inside. Refer servicing to qualified service personnel only. The product has its own internal energy source (battery). The output receptacles may be live even when the product is not connected to an AC supply.

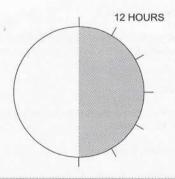
#### \*Warning\*

In case of fire risky, please change the fuse with the same kind and same rate or reset the breaker. The product is intended for indoor use only. Kindly note to avoid excessive heat, dust, humidity or liquids.

# BATTERY MAINTENANCE / BATTERY CHARGING

AFTER SHIPMENT FROM THE FACTORY THE BATTERY NEEDS RECHARGING. IF NOT USED FOR A LONG PERIOD OF TIME, THE BATTERY WILL START SELF-DISCHARGING, WHICH MAY RESULT IN A SHORT SERVICE LIFE OF THE BATTERY OR MAY EVEN CAUSE DAMAGE TO IT DURING WARRANTY PERIOD. CARE SHOULD ALSO BE TAKEN TO AVOID EXCESSIVE TEMPERATURE AROUND THE UPS, WHICH COULD ALSO RESULT IN REDUCING SERVICE LIFE OF THE BATTERY. TO ACHIEVE MAXIMUM SERVICE LIFE FROM THE BATTERY THE ABOVE INSTRUCTIONS SHOULD BE FOLLOWED.

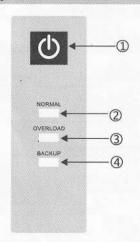
The UPS battery charges whenever the UPS is connected to utility power & is switched ON. It typically requires more than 12 hours to charge fully. Operating runtime is reduced until the battery is fully charged.



# PRODUCT INTRODUCTION

# ① ON/OFF switch

- ② AC Normal indicator (The UPS is supplying conditioned utility power to its outlets)
- Overload indicator (UPS is overloaded,please move some load)
- Backup indicator
   (The battery is powering the UPS outlets. The buzzer beeps every 8 seconds.)



# **SPECIFICATIONS**

| SERIES NO.                 | V-600   |
|----------------------------|---|
| MODEL NO.                  | IT-F650VA   |
| INPUT                      |   |
| Input voltage              | 220/230/240VAC                                    |
| Input voltage range        | 145~290VAC  |
| Frequency range            | 45~65Hz   |
| OUTPUT                     |   |
| Output voltage             | 220/230/240VAC                                    |
| Output voltage range       | 200~255VAC  |
| Output frequency           | 60±0.5Hz or 50±0.5Hz(Auto sensing)                |
| Output wave form           | PWM (Batt.mode)                                   |
| Transfer time              | Typical 2-6ms,10ms max                            |
| BATTERY                    |   |
| Charging period            | 4-6 hours recover to 90% capacity                 |
| PROTECTION                 |   |
| Full protection            | Low voltage & overload & short circuit protection |
| ENVIRONMENT                |   |
| Environment of performance | Temperature 0°C~40°C , Humidity 20%~90%           |
| Noise level                | Less than 40dB                                    |

### **TEST THE UPS**

To test the UPS on battery mode, cut off the utility and UPS observes" backup indicator" lights, then your PC can continue working normally.

#### 1. Self-testing while switching on

Push the switch for 3 seconds, the red/green led bright(the LCD display input & output voltage). then the UPS will be ready for operation.

# 2. Silence Function

In Battery Mode, shortly press the switch will enable or disable the buzzer. But when UPS is low battery or overloaded, the buzzer can not be silenced.

### 3. Autorun

In DC mode,UPS discharges till battery run out and cut off,UPS autorun when AC recover.

# 4. Overload protection

When UPS is overloaded on operation, it will cut off the output automatically if it is not solved by the user in time.

#### 5. Low battery shut off

When the battery is about to be exhausted, UPS will shut down automatically to protect battery's life.

# 6. Switching off

# 1) AC Normal

UPS will cut off the output and goes to AC standby mode by pressing the switch for 3 seconds.

# 2) Backup

Press the switch for 3 seconds, the UPS will be turned off after a long beep.

# TROUBLE SHOOTING

The trouble shooting chart covers most of the difficulties that you may encounter under normal working conditions. If the UPS fails to operate properly, please review the following steps before calling the service center.

- 1. Is the UPS plugged into a correct working outlet?
- 2. Is the line voltage within the rating specified?
- 3. Is the fuse or breaker / circuit protector on back panel open?
  Please submit the following information when you call for service.
- 1. Model No. & Serial No.
- 2. Date of problem.
- 3. Full description of problem.

| TROUBLE SHOOTING CHART           |   |   |
|----------------------------------|---|---|
| SYMPTOMS                         | POSSIBLE CAUSES   | ACTIONS TO TAKE   |
| JPS can not be turned<br>DN      | UPS is not connecting to AC and overloaded                                | Please connect to AC and reduce the load  |
|                                  | The input fuse is burnt or breaker is off                                 | Replace the fuse or reset<br>the breaker, remove some<br>load and check if the load<br>is short-circuit or faulty |
|                                  | AC Input voltage is too low   | Please check the AC Input voltage   |
| *                                | The UPS is failure  | Please send to the agency to repair   |
| The buzzer beeps every 8 seconds | UPS suddenly turns to<br>battery mode in spite of<br>utility line present | Save the data promptly and shut down the operating system   |
| The buzzer beeps every 1 second  | Back-up time less than 1 minute   | Close the system and recharge again   |
| specified                        | Overloaded  | Please reduce the load  |
|                                  | Battery is not fully charged  | Recharge the battery for at-<br>least 12 hours and retest<br>the backup time                                      |
|                                  | Charging unit fault   | Please send to the agency to repair   |

| GUARANTEE CERTIFICATE |                     | Serial No.:     |  |
|-----------------------|---------------------|-----------------|--|
| Customer's Name:      |                     | Contact Person: |  |
| Address: Telepho      |                     | Telephone No.:  |  |
| Product/Model:        | Post Code:          | Fax No.:        |  |
| Date of purchase:     |                     | Expire Date:    |  |
| Dealer Signature:     | Customer Signature: |                 |  |