

UPS 500

Dear Customer,

Congratulations for being one of the proud owners of **avi** Digital UPS.

This manual is an essential part of your machine and should be kept with the machine at all times. Please read this manual carefully and review it from time to time. It contains important information on operation and maintenance.

1 INTRODUCTION

avi Digital UPS 500 is a sophisticated Electronic equipment which delivers power during absence of Mains supply.

It is solid state, fully automatic, noiseless and pollution free which can be easily installed indoors. When mains supply (utility supply) is available, the load connected to the Digital UPS operates on mains supply and batteries are getting charged and as the power fails, it instantaneously switches over to battery (inverting) mode.

2 FEATURES

- Switch selectable Fast / Normal charging current*
- Reverse Battery Protection*
- Auto-cut on Battery Low Condition
- Auto-cut on OverLoad Condition
- Separate fuse for 'AC Mains' and 'Battery' Connection*
- Digital Mosfet technology
- High efficiency and low waste of energy
- Five LED status display
- Intelligent CCCV Charger for battery
- Portable, Compact and Light weight
- Manufactured by 'ISO 9001' certified company
- Experience of more than 16 years in power electronics

User's Manual



* Feature available in select models only

3 FRONT PANEL

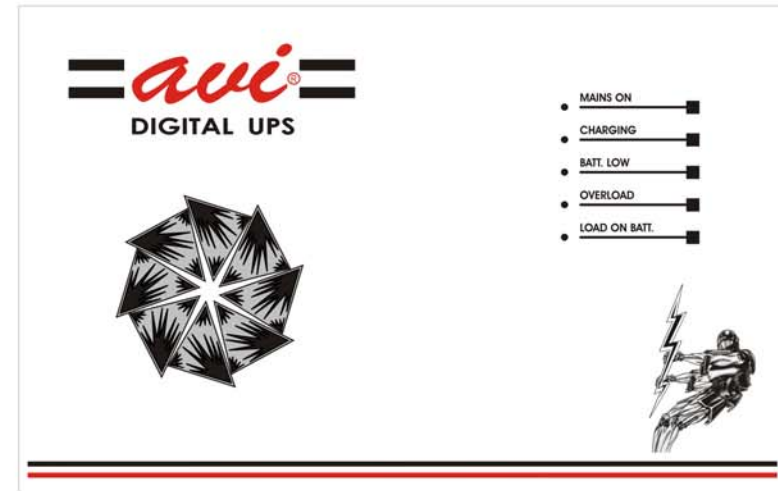


Fig.-1

- 1. Mains on LED:** This LED glows when the mains power is available within acceptable limit. Whenever mains supply voltage falls below acceptable limits, MAINS ON Led will be OFF and Battery Back-up power will be available at output sockets only if BACKUP switch (SW-B) is in ON position.
- 2. Charging LED:** The UPS charges the battery automatically whenever MAINS supply is available within acceptable limit. The LED glows during charging period and when fully charged, the UPS will charge the battery in Float mode. The Charging LED will be OFF during Float mode.
- 3. Battery Low LED:** In case of power failure/ low voltage, UPS will supply power at o/p sockets from battery. When the battery gets drained below acceptable limit (10 +/- 0.5 Vdc) this Led will glow and inverter will shut-off automatically. The Batteries will get charged automatically when the mains power is reinstated.
- 4. Overload LED:** During Battery Backup (inverting) mode, if the connected load exceeds the specified capacity of UPS, this LED glows and UPS will shutdown. The UPS will try to restart automatically until the connected load is reduced to acceptable level. Reduce the load to the specified level, so that the UPS can start again.
- 5. Load on Battery LED:** In case of mains failure/ low voltage, UPS will supply power at output socket from Battery. This LED glows during Battery Backup (Inverting) mode.

* Feature available in select models only

4 BACK PANEL

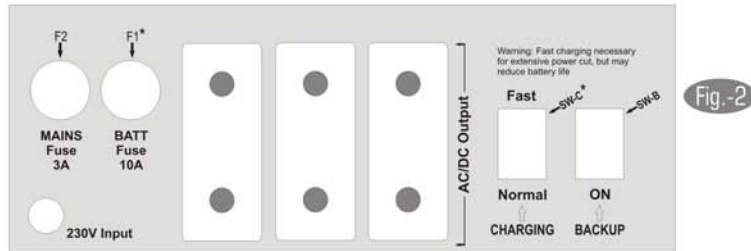


Fig.-2

- A.C. Output Socket:** AC/DC Power is supplied to load from this outlet.
- A.C. Input Mains Cord:** It is for A.C. Input supply to the UPS.
- MAINS Fuse(F1):** This fuse is provided to protect UPS during mains supply mode. If it blows off, the UPS will start automatically and will shutdown after battery gets drained.
- BATTERY Fuse(F2,):** This fuse is provided to protect the battery and control circuit in case of reverse connection of battery.

CAUTION: Always replace the fuse of correct type and rating.

- BACKUP Switch(SW-B):** In case of power failure/ low voltage, UPS will switch on to battery backup(Inverting) mode, only if this switch(SW-B) is ON. Please switch OFF this switch when going out of home for longer period to prevent battery from draining during power failure.
- CHARGING Switch(SW-C):** A switch(SW-C) is provided on the side panel for selection of Battery charging current*in two steps: Fast and Normal. Fast charging is necessary for extensive power cut but may affect battery life.

5 Installation Instruction

Installation instruction will help using the UPS 500 for the first time. It is obvious that new machine is prone to malfunction due to improper installation. Following the installation instruction will prolong the machine life and trouble-free operation.

- Power On of the UPS:** Please ensure that fuses(F1 And F2*) of correct ratings are installed in both the fuse holders. Connect MAINS power cable into wall socket and turn ON power switch of the wall socket. The AVI UPS 500 charges battery whenever it is connected to MAINS power. As soon as MAINS power is supplied, 'MAINS ON' Led will glow and charging of battery will start. If battery is not fully charged, 'CHARGER ON' Led will also glow.
- Connecting Load to the UPS :** Side Panel of the UPS has three conventional type battery back-up outlets. On mains these outlets provide direct MAINS power to the load. On mains failure, if BACKUP switch(SW-B) is ON, battery power is automatically available from the outlets. If BACKUP switch is OFF, power will not be available from these outlets on mains failure.

6 TROUBLESHOOTING

Problems	Causes	Solutions
UPS not working (on MAINS)	+ MAINS fuse blown + Loose connection at wall socket + Very low Input voltage	+ Replace MAINS fuse + Repair Loose connection + Get MAINS supply checked
UPS not working (on Battery)	+ BACKUP switch(SW-B) OFF + BATTERY Fuse blown + Battery voltage low + Loose connection at BATTERY + Control circuit problem	+ Switch ON BACKUP switch + Replace BATTERY fuse + Charge the Battery + Repair loose connection + Replace Control circuit
UPS does not provide expected Battery Backup	+ UPS BATTERY is low due to previous power failure + Battery is weak due to defect + Battery life cycle is over	+ Charge the Battery + Replace the Battery + Replace the Battery
CHARGING ON indication is OFF on MAINS	+ Battery fuse blown + Battery connection Loose + Control circuit problem + Battery is fully charged	+ Replace Battery fuse + Repair loose connection + Check charging voltage + Normal behaviour

avi Family



UPS LB



OFFLINE UPS



TUBULAR BATTERIES



ONLINE UPS



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