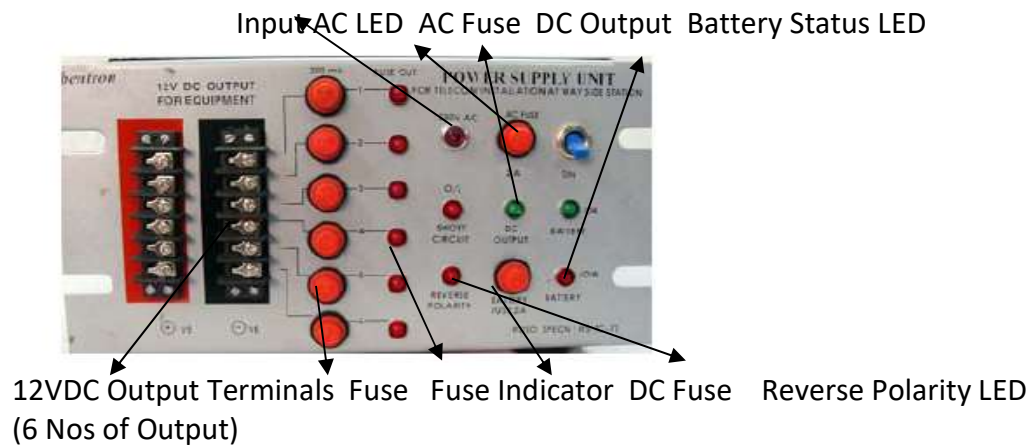


## 12VDC Power Supply Unit



1.	<b>Mains On</b>	One SPST Switch is provided on the Front Panel for Switch ON & Switch OFF the AC Mains.
2.	<b>Ac Input Protection</b>	AC Fuse is provided on the front panel of the Power Supply Unit. The rate of fuse is 2 Ampere.
3.	<b>D.C Out Put</b>	Two numbers of 6 way Terminal Strips are provided on the Front Panel for connecting six way Station Equipments
4.	<b>Output D.C. Fuses</b>	Output is provided on the Front Panel by 6 Way Terminal Strips through 0.2 Amps. Fuses.
5.	<b>Fuse Fail Indications</b>	RED LEDS are provided across the Load output fuses. If any one of the fuse may fail the particular LED will glow. It indicates that fuse is fail.
6.	<b>Over Load/Short Circuit Protection</b>	The Power Supply unit is electrically protected against overload. As soon as the output current increases beyond rated current a OL /SC RED LED becomes 'ON' to indicate over load condition, and the power supply is protected against short circuit by suitable design of the circuit. The output current is limited to approx 16 mA and is also indicated by OL / SC RED LED.
7.	<b>Reverse Polarity</b>	When the battery is in reverse polarity (Both when the unit is ON or OFF) the DC Fuse rated 2 Amps on the front panel will blow and RP RED LED will glow.

8.	<b>Battery Ok Indication</b>	The power supply unit senses the battery Voltage continuously indicated by green led if the battery voltage is above 11.5 Volts
9.	<b>Battery Low Indication</b>	When the battery voltages falls less then 11.5 volts The RED LED will indicate "LOW" battery voltage Condition.

### Internal View of 12VDC Power Supply Unit



### Break Down Maintenance

*In most of cases there is failure of fuses, MOVs, rectifier circuit due to high line voltage encountered by the power supply. Failure of fuse and rectifiers can be detected by continuity test. **MOV normally burst out on failure.** Take out the PCB and see for any burnt or damaged components. Replace them by proper value. When you are sure that you have replaced the damaged component, place the PCB. To test the PCB connect a series test lamp of 100 watt in series with the power supply AC mains line. And if available give the main supply through a variac by varying the voltage slowly. If the lamp glows bright, it indicates short circuit. **Check bridge rectifier Diodes D1 to D 4 and top switch U-1 on the component may be short-circuited replace with new.***

### Preventive Maintenance

- ☐ If the PSU is not in use, charge the battery at least twice a week, by connecting the PSU to main line and switching it ON for at least an hour or more.
- ☐ Check PSU voltage, it should be  $13.6 \pm 0.1$  volts if not adjust it by the trim pot P7.
- ☐ Check Battery Voltage i.e. switch off AC Mains and check voltage, put little load on it. Voltage should not be less than 12 volts, if so, charge the battery.
- ☐ If the battery is over discharged i.e. its voltage is less than 10 volts remove the battery and charge externally..
- ☐ Ensure proper earthing of the equipment which is essential for suppressing RFI. If power hum in control telephone, connect earth and negative terminal output