PSU2
Power Supply Unit

Power Supply Unit for SeaCom 1000, 2100 and SeaCom 19''.

Specifications and use

The PSU is a circuit board used in SeaCom 1000, SeaCom 2100 and SeaCom 19'' systems. It takes 24V DC and convert this voltage into all system voltages used.
These voltages are supplied via the backplane to circuit boards for operating.

The PSU2 has a fixed location in the board magazine at the rightmost position.

Technical data

- Dual input with diode switchover
- Input voltage 18 to 32V DC
- Output 5VD 5A
- Output 5VA 750mA
- Output -5VA 750mA
- Output -48V 4A
- Output 80V AC 50Hz 250mA
- N.O. alarm relay contact
- Watchdog
- Temperature supervision
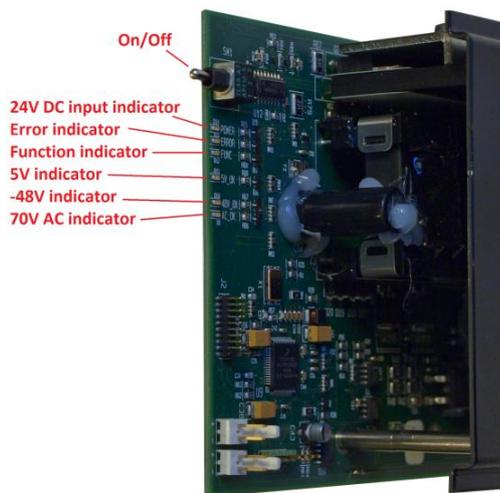
ON/OFF switch

The ON/OFF has 3 positions:

Mid position is OFF

Down position is ON

Up is used for fast turn off.

Switching from OFF to ON starts a power up sequence where the power supply turns powers on and tests if these are OK.

Switching from ON to OFF starts the power down sequence, which takes 10 seconds.

When in ON and the Up position is used for a short time, the power supply will skip the power down sequence and turn of immediately.

Indicators

The PSU has 6 indicators:

Indicator	Use
Input power	Green - On when input is OK
Function	Yellow - Flashing when power on or power of process is running. Occulting when on battery operation
Error indicator	Red - On when fatal error Flashing when temperature high
5V indicator	Green - On when 5V is OK
-48V indicator	Green - On when -48V is OK
70V AC	Green - On when 70V AC is turned on (Only the case when any telephone is active)

Alarm relay

The power supply has a N.C. alarm relay contact. This relay is driving the alarm relay of the PIM module, so it is normally not accessed directly by the installer.

The alarm relay is normally closed, but will open on temperature errors or power supply internal errors.

Fan drive

An open collector output is used to drive a fan relay located on the PIM module. The fan relay is activated based on temperature measurements.

Input power supervision

If the source supply voltage is below 18V the power supply will switch off and stay as such until the input voltage exceeds 20V. During power low, the power indicator will flash.

Temperature protection

The power supply has a temperature protection mechanism. The scheme below shows its actions:

Temperature	Action
< 35°C	Fan off Alarm relay closed
> 45°C	Fan on Alarm relay closed
> 70°C	Error indicator on Alarm relay open
> 85°C	Shut down Alarm relay open

Note that when the alarm is set, the alarm cannot be reset unless the system is turned off and back on. The on/off switch will not do this.

Whatcdog

The CP card of the SeaCom telephone system is communicating to the PSU card. On of the things the CP can do, is to kick a system watchdog. When enabled in the system configuration, this will happen approximately 2 minutes after startup. If the CP card, for some reason, fails to kick the watchdog, then the PSU will automatically repower the full system.

Order information

10-110-1020

Layout