



## INSTALLATION AND OPERATING INSTRUCTIONS SR-1500

### DESCRIPTION

The SR-1500, made of custom Aluminum extrusions and components, is an 11"L x 5 1/4"H x 7 1/4"D desk mount chassis that accommodates all Meridian Technologies' transmitter, receiver, and transceiver slide in card units.

The SR-1500 accommodates seven (7) card slots and up to two 80W, 110/220V auto detect, slide in switcher power supply.

The rear panel may be removed when there may be a problem relating to the power distribution mother board, i.e. broken edge card/power connector. The mother board plate assembly can be detached by removal of eight (8) allen screws located on the rear panel of the SR-1500. Once the screws are removed, the assembly must be pushed out from the edge card connector side. A new mother board plate assembly P/N MA-1500 may then be installed.

### INSTALLATION

The SR-1500 may be installed on a vertical surface, usually under the desk. The mounting ears of the SR-1500 accommodates screws up to 1/4-20 dimension. A total of four screws are required to mount the SR-1500, two per side.

Before installing, be sure the unit is right side up - the top of the unit features a perforated grill. Additionally, please note the (4) power supply guides on left side of unit are wider apart than the (7) card guides which are on the right side of unit.

Air flow must be adequate to keep card units and power supply below 55 degrees centigrade. At this temperature a minor alarm condition will be generated in units that feature SpectraSmart diagnostics.

In order to maintain adequate air flow through unit please allow a minimum of six (6) inches of space on top and twelve (12) inches on bottom of SR-1500.

### INSTALLATION AND OPERATING INSTRUCTIONS PS-150

### DESCRIPTION

The PS-150 is an 80W switching power supply and slides into the left side of the SR-1500 desk chassis.

### SYSTEM COMPATIBILITY

The PS-150 features universal input voltage of 85-270 VAC, 50/60Hz (without switch) and is 80% efficient. The PS-150 provides four output voltages, two of which are utilized only when the desk chassis and card units offer the SpectraSmart diagnostics as follows:

- 1- +9V to supply cards
- 2- -9V to supply cards

- 3- +5V to supply analog diagnostics of cards
- 4- +5V to supply digital computer

The PS-150 provides a lighted computer reset button for reactivating the +5V supply to the (optional) SI-1500 Status Interface or CI-1500 diagnostics cards' microprocessor system should it lock up. When the reset LED lamp is on, it indicates that all outputs are functioning; when it is off, unit has one or more output voltages malfunctioning and the PS-150 must be shipped back for repair.

The PS-150 power supply slides into the left side of the SR-1500 desk chassis. Should the SR-1500 be installed upside down, the slot for the power supply will appear to be on the right side and the Meridian Logo on mother board will read upside down as well.

The correct orientation of the PS-150 is as follows:

a) the face of the power supply is the longer heat sink; it features the power cord plug, on/off switch, power on LED/reset button and handle. The latter is on the left side of the on/off switch when top to bottom orientation is correct.

b) the shorter heat sink features only the power connector which connects to the Mother Board. For top to bottom orientation, be sure that the circular pin is oriented to the bottom of the power connector.

Slide power supply along card guides in the proper slot and push hard to make good connection to mother board. Please note that power supply guides will fit on either side of a raised and perforated protrusion (bent up sheet metal with holes) of the supply. Install with flat screwdriver (clockwise) the four knurled screws (provided) on the top and bottom of unit (do not over tighten) as follows:

- first top left
- then bottom right
- then top right
- then bottom left

**PLEASE INSTALL POWER SUPPLY WITH SWITCH IN THE (down) OFF POSITION.**

A detachable 8 foot power cord is supplied with unit. Connect one end into the power supply plug connector and other end into outlet. The PS-150 has 110/220V auto detect circuitry and does not require a separate switch for choosing the input voltage. When the power switch is turned to the up position an LED on the power supply will light indicating power is on (see additional information in PS-150 manual).

Install cards in any of slots. There is a GLOBE (part of Meridian's logo) on the top of card front panels which indicates proper top to bottom orientation. Slide top and bottom card extrusions along (mirror image) guides (not in spaces between guides) and push hard for good connection to mother board - loud snap indicates card is installed properly. Top and bottom knurled screws (provided) must be locked by hand in a clockwise manner.

**A FULLY OPERATIONAL SR-1500/S WILL FEATURE A LIGHTED LED ON POWER SUPPLY AND ON EACH CARD UNIT.**

**TROUBLE SHOOTING HINTS - SR-1500/S Desk Chassis, 7 Slots, (up to) 2 PS**

Item - Power Supply LED on; Card in slot 3 has LED off; Card in slot 4 has LED on;

a) try card from slot #3 (with LED off) in slot #4 that had card with LED on; if card in new slot #4 still has LED off - card must be replaced,

b) try card from slot #4 (that had LED on) in slot #3 to determine if there is a problem in mother board; if card from slot #4 has LED on, slot is OK, if card has LED off, chassis mother board assembly must be replaced.

Item - Power supply LED off; all cards have LEDs on - indicates one of the other outputs of the power supply is malfunctioning.

Although transmission may not be affected and there's no apparent problem, power supply should be replaced as soon as practical.

Item - Power supply # 1 LED off in chassis # 1; all card LEDs off;

a) try different outlet, look for change in condition;

b) try different line cord, same outlet, look for change in condition;

c) try different line cord, different outlet, look for change in condition;

d) remove power supply # 1 from chassis # 1 and, using a flat screw driver, gently lift open fuse compartment (located next to Line cord plug), inspect and/or replace fuse, look for change in condition;

e) re install power supply # 1 in chassis # 1 to see if connection was incorrect, look for change in condition

f) repeat steps a, b and c

g) remove power supply # 1 from chassis # 1 and install in chassis # 2 that has working power supply # 2 and cards; if supply # 1 LED is on and cards LEDs are on, then supply # 1 is OK, if supply # 1 LED still not on, supply must be replaced.

h) now install power supply # 2 (with LED on) from chassis # 2 into chassis # 1 to check for potential problem in mother board; if supply # 2 LED is on and card LEDs are on, chassis mother board is OK, if supply LED or card LEDs are not on then chassis mother board assembly should be replaced.

i) re install power supply # 2 in chassis # 2 to make sure it has not been damaged by potential problem that existed in chassis # 1.

Item - Power supply # 1 shuts off and is replaced by power supply # 2 in a particular chassis. 3 hours later power supply # 2 also shuts off. If the ambient temperature reaches a critical point the supply will shut down automatically and re start when the temperature is back to below critical.

**CHECK THAT THERE IS ENOUGH SPACE ON TOP AND BOTTOM OF CHASSIS; POWER SUPPLY HAS AUTO SHUT DOWN CAPABILITY.**