Installing the Sparton Dedicated Replacement Card

Description

System Studies' new Sparton Dedicated Replacement card (SPDR) streamlines the process of cutting over from a Sparton automatic cable pressurization monitor to a 289H LSS monitor. The SPDR (P/N 9800-6116) simplifies changing out the monitoring unit because there's no time-consuming rewiring, and no need for lengthy data changes. The SPDR relay card connects directly to the existing Sparton dedicated block's A, B and C cables, and the on-card dipswitch is set for A, B or C configuration (as appropriate) to translate the Sparton cable's pinout for 289H monitoring. The SPDR can be read and diagnosed with PressureMAP Version 23; the automatic data conversion utility for the SPDR is available effective with Version 24. (Detailed information on using the 289H Data Conversion utility is provided in the Special Data Entry section of the MAP Data Entry Manual.)

Controller Card Compatibility

Please note that for the SPDR, the EPROM on the 289H monitor's Controller Card must be one of the following versions, or higher: Rev. C07, D04, E04, F03 or G03. For instructions on how to upgrade the EPROM chip, please refer to "Firmware EPROM Replacement Procedures" (103123.*HD), available on our website and in hard copy.

All incoming transducer pairs must be protected by central office primary voltage and current protection blocks.

Relay Card Installation Procedures

Card Placement Order

Please note that SPDR cards must be placed in the 289H chassis in front of other relay card types, and that they must be ordered (configured) as A, B, C, A, B, C, etc. Although the SPDR is compatible with the Universal Addressable Monitoring Card (UAMC), which can monitor Sparton addressable devices, it should not be installed in the same chassis as the older AMC.

1) Make sure that power to the 289H LSS is turned OFF before you install the relay cards. The power switch is located in the lower left corner of the Utility Card (see Figure 1).
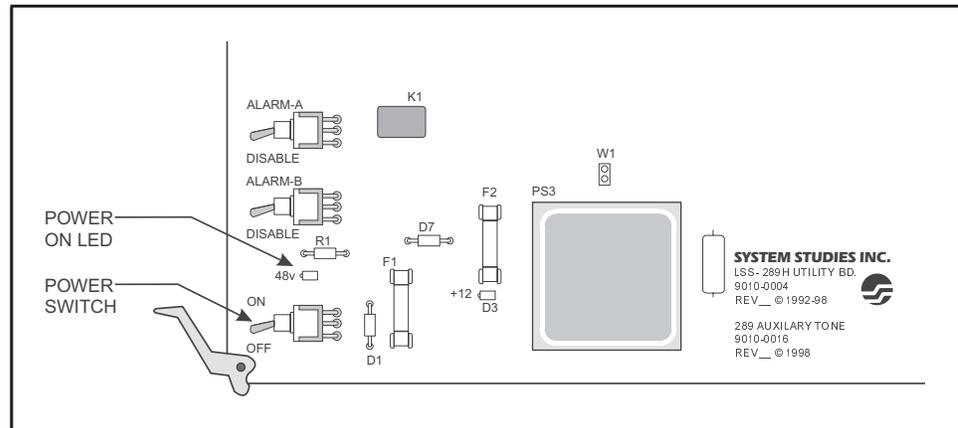
Figure 1 - Power Switch on Utility Card

Card Installation

2) Slide the first SPDR card into the CARD 1 slot of the chassis using the 289H's top and bottom guide rails. To prevent you from installing a card improperly, all relay cards are keyed so that they cannot be inserted upside down.

   Note: Card slots are numbered on the inside of the 289H faceplate near the hinge. Please note that the first four slots are specified as CTRL, AUX1, AUX2, AUX3, respectively. Even though AUX2 and AUX3 may be empty, do not place relay cards in these slots.

   Again, SPDR relay cards must be placed in the chassis in front of other relay card types. Instructions for configuring the SPDR are provided in the section that follows.

3) Pull the card's ejector clips straight out. (These plastic clips are located on the top and bottom front edge of the card.) If they are positioned inward, the card cannot be inserted into the chassis.

4) Each succeeding card should be placed in the next available slot to the right of the CARD 1 slot. The maximum number of relay cards that a single 289H chassis will accommodate is 16.

5) As you insert each card, check to see that the card's edge connector is in line with the connector on the unit's backplane. You may have to reach in and slightly adjust the edge connector to the right or left before the card will slide into the backplane connector.

6) Secure the card in place by pressing the ejector clips toward the center of the card. Each clip fits into a hole in the 289H's steel chassis to provide leverage for locking the card into position.

Setting Up the SPDR Relay Card

The SPDR contains relays for up to 36 dedicated Sparton pairs and connects directly to the Sparton block's A, B or C cable—inputs 1-36, 37-72 and 73-108 respectively. Please note that SPDR cards must be installed in the 289H and configured as A, B, C, A, B, C, etc.

The following steps describe how to connect the System Studies 289H LSS to the Sparton block's cables and set the relay cards' configuration.

Sparton Block to
SPDR Cabling

1) Locate the cable between the Sparton monitor and Sparton connector block that represents the first 36 inputs on the block. Remove the (male) end that connects to the Sparton's J1 module connector and attach it to the female connector on the first SPDR relay card, located in the fifth slot of 289H LSS chassis. This slot should be labeled CARD 1.

2) Repeat this procedure if there are additional Sparton cables to be connected. Remember that the Sparton block's cables must be transferred in the pre-scribed order. Cable A is moved from J1 to relay card #1, Cable B from J2 to relay card #2, and Cable C from J3 to relay card #3. This sequence begins again for SPDR card #4, if there are additional Sparton devices in the office.

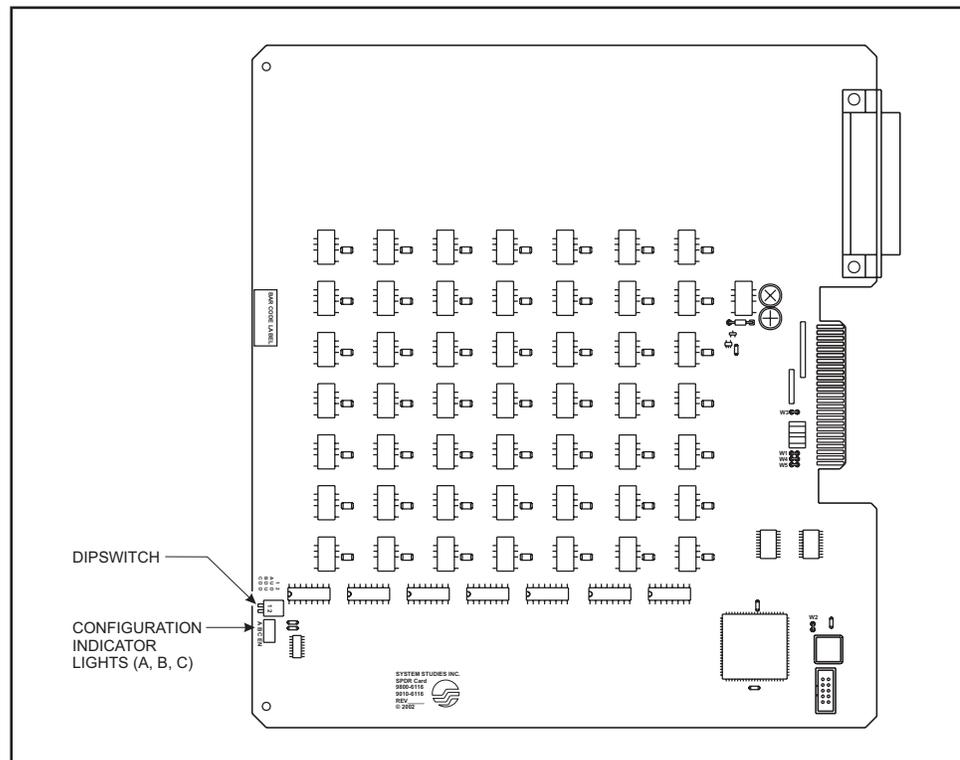3) Identify the configuration dipswitch module located in the lower left corner of the SPDR card (see Figure 2).

Figure 2 - Configuration Dipswitch on SPDR Card

Switch 1 is the upper switch (away from the edge of the card), and Switch 2 is the lower switch (closer to the lower edge of the card). Set each card's dipswitches for the appropriate Sparton cable pinout (see Figure 3).

Dip Switch Setting

- Card A:
  1 = up (OFF), away from card surface
  2 = down (ON), toward card surface

- Card B:
  1 = down (ON), toward card surface
  2 = up (OFF), away from card surface

- Card C:
  1 = down (ON), toward card surface
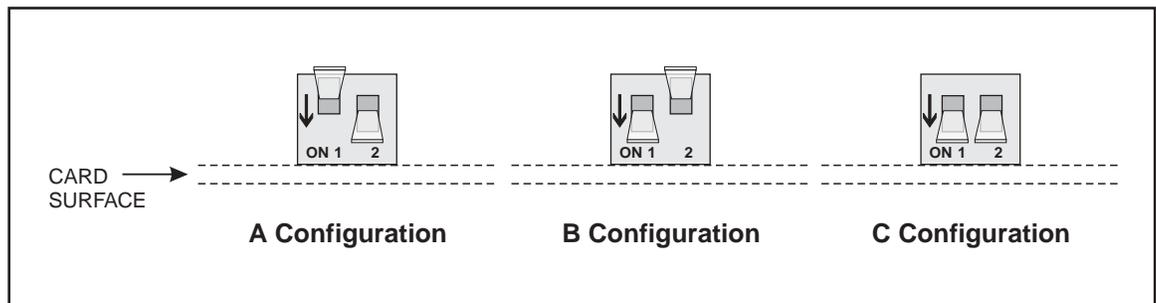 2 = down (ON), toward card surface

Figure 3 - Configuration Dipswitch Settings for SPDR

4) Once the SPDR cards have been connected and configured, turn the main power switch on the Utility Card to the ON position (see Figure 1). A "power on" LED, located above the power switch, indicates whether power is being supplied.

5) Check the configuration indicator lights on each SPDR (see Figure 2) to verify that the card has been set for the correct configuration.

   Note: If the SPDR card's configuration needs to be changed after the card has been installed, turn off the power switch on the Utility Card first. After making the changes needed, power the card back on. This ensures that the new configuration is initialized in the 289H's memory.

6) You are now ready to perform the data conversion for the office. Please refer to the Special Data Entry section of the MAP Data Entry Manual for instructions.

For additional information, please call System Studies at (800) 247-8255 or (831) 475-5777, or e-mail your questions to Technical Support at *support@airtalk.com*.