

DIGITAL CLOCK DISTRIBUTOR

SCIU ALARM AND MONITOR (SAM) CARD

DESCRIPTION, SPECIFICATIONS, INSTALLATION, AND OPERATION

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1. GENERAL

1.01 This practice provides information on the Telecom Solutions' SCIU Alarm and Monitor (SAM) card (p/n 090-40015-10). This practice contains includes wiring information for the DCD-CIM shelf (p/n 990-40000-25) which is specifically equipped for the SAM card (Figure 1).

1.02 This practice has been reissued to incorporate editorial changes only; therefore, change bars have not been used.

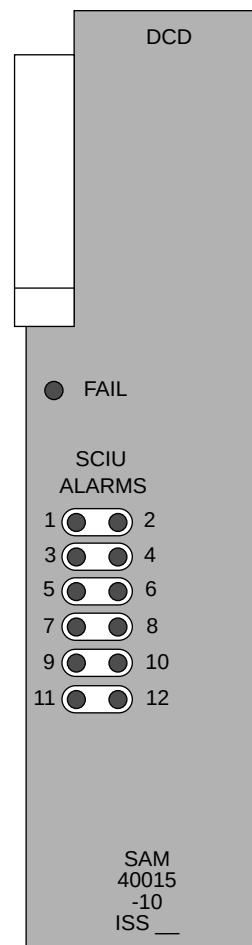


Figure 1. Front Panel

1.03 Significant features and benefits of the SAM are listed below:

- The SAM card assists in the trouble isolation of customer-initiated synchronization complaints.
- The SAM card provides visual and office alarms if an in-service SCIU card is removed from a DCD-CIM system.

2. APPLICATIONS

2.01 The Telecom Solutions SAM is a common equipment plug-in module that provides an alarm function for missing SCIU modules in a DCD-CIM shelf.

Caution: The SAM card can only be installed in a DCD-CIM shelf equipped to accept it (part number 990-40000-25).

2.02 The SAM functions as part of the DCD system common equipment. One SAM card works in conjunction with the shelf Fuse and Alarm (FA) card to provide the alarm and monitor function.

3. INSTALLATION

A. Shelf Installation

3.01 All shelf wiring is the same as the regular (without SAM) DCD-CIM shelf, except connections from the shelf to the wire-wrap panel. Refer to drawings in this section for all shelf connections other than the shelf to wire-wrap panel connections.

3.02 Figure 2A shows the location of the connector panel on the rear of the shelf, and Figure 2B shows the connector panel in detail. Connect the connector panel to the SCIU wire-wrap panel as follows: for SCIU position 1, connect J1 on the connector panel to J1 on the SCIU wire-wrap panel; for SCIU position 2, connect J2 on the connector panel to J2 on the SCIU wire-wrap panel, etc.

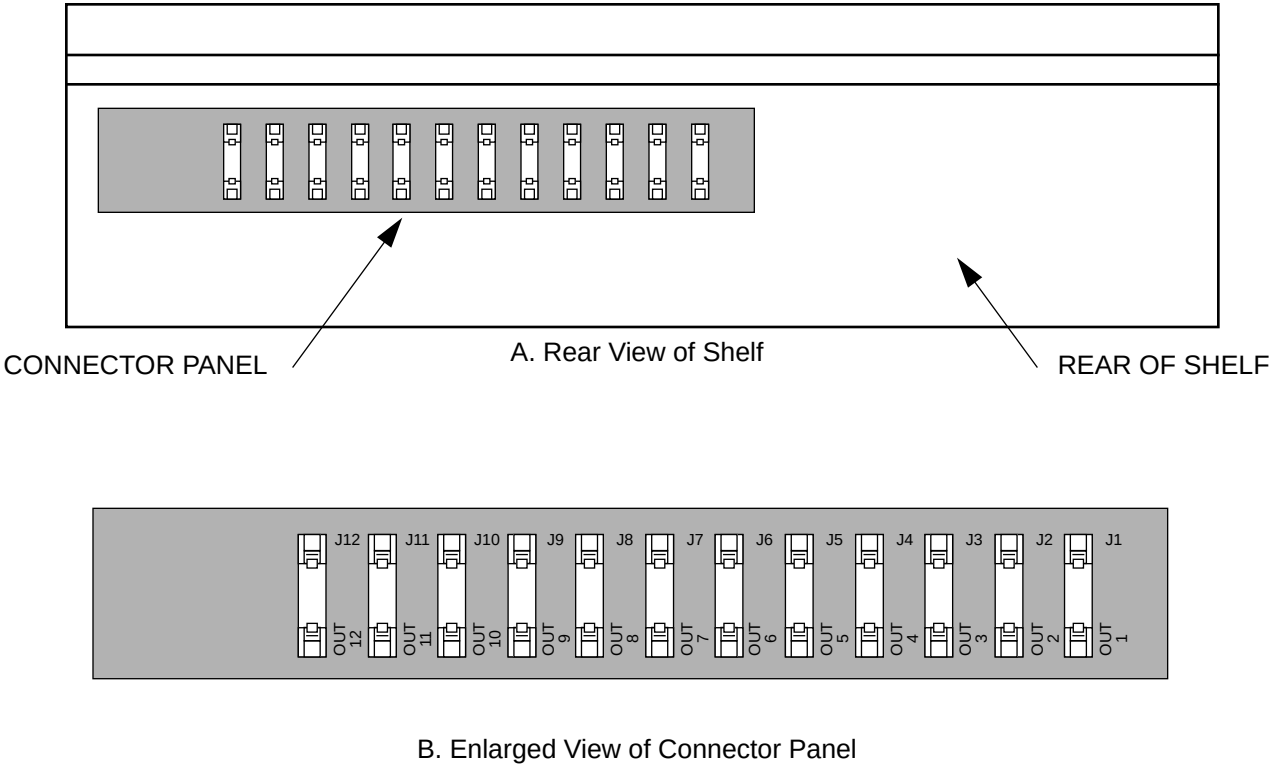


Figure 2. Connector Panel on Rear of Shelf 990-40000-25

B. Card Installation

Warning: *When handling cards, use local office procedures regarding electrostatic discharge (ESD), including the following:*

- Use grounded wrist bands connected to equipment frame ground when handling cards.
- Store cards only in antistatic packaging provided by the factory.

Unpacking

3.03 Do not remove the SAM from the protective antistatic shipping container until the card is to be installed in the DCD shelf.

3.04 Inspect the SAM for shipping damage, including bent or loose hardware, broken connectors, or other visible defects. Notify Telecom Solutions and the carrier who delivered the equipment if the equipment is damaged.

Options

3.05 The SAM has three sets of options which can be set to control the alarm that occurs when a SCIU card is removed from the DCD-CIM shelf (from 1 to 12 SCIUs may be installed in the DCD-CIM shelf):

- Designates which SCIU card slots are actually equipped with SCIU cards.
- Designates whether the alarm function for each SCIU card slot is enabled or disabled.
- Designates whether a major or minor alarm (or both) is generated when a SCIU card is removed.

Equipped SCIU Cards

3.06 Switches SW5, SW6, and SW7 determine whether the 12 possible SCIU card slots are actu-

ally occupied by SCIU cards. Figure 3 shows each of these switches with the 12 possible card slots labeled above the corresponding switch sections.

3.07 Set each section of SW5 to the up position for each of the slots 1 through 4 that are occupied by an SCIU, or to the down position if the slot is occupied by anything other than an SCIU (or not occupied).

3.08 In a similar manner, set each section of SW6 to the up position for each of the slots 5 through 8 that are occupied by an SCIU, or to the down position if the slot is occupied by anything other than an SCIU (or not occupied).

3.09 In a similar manner, set each section of SW7 to the up position for each of the slots 9 through 12 that are occupied by an SCIU, or to the down position if the slot is occupied by anything other than an SCIU (or not occupied).

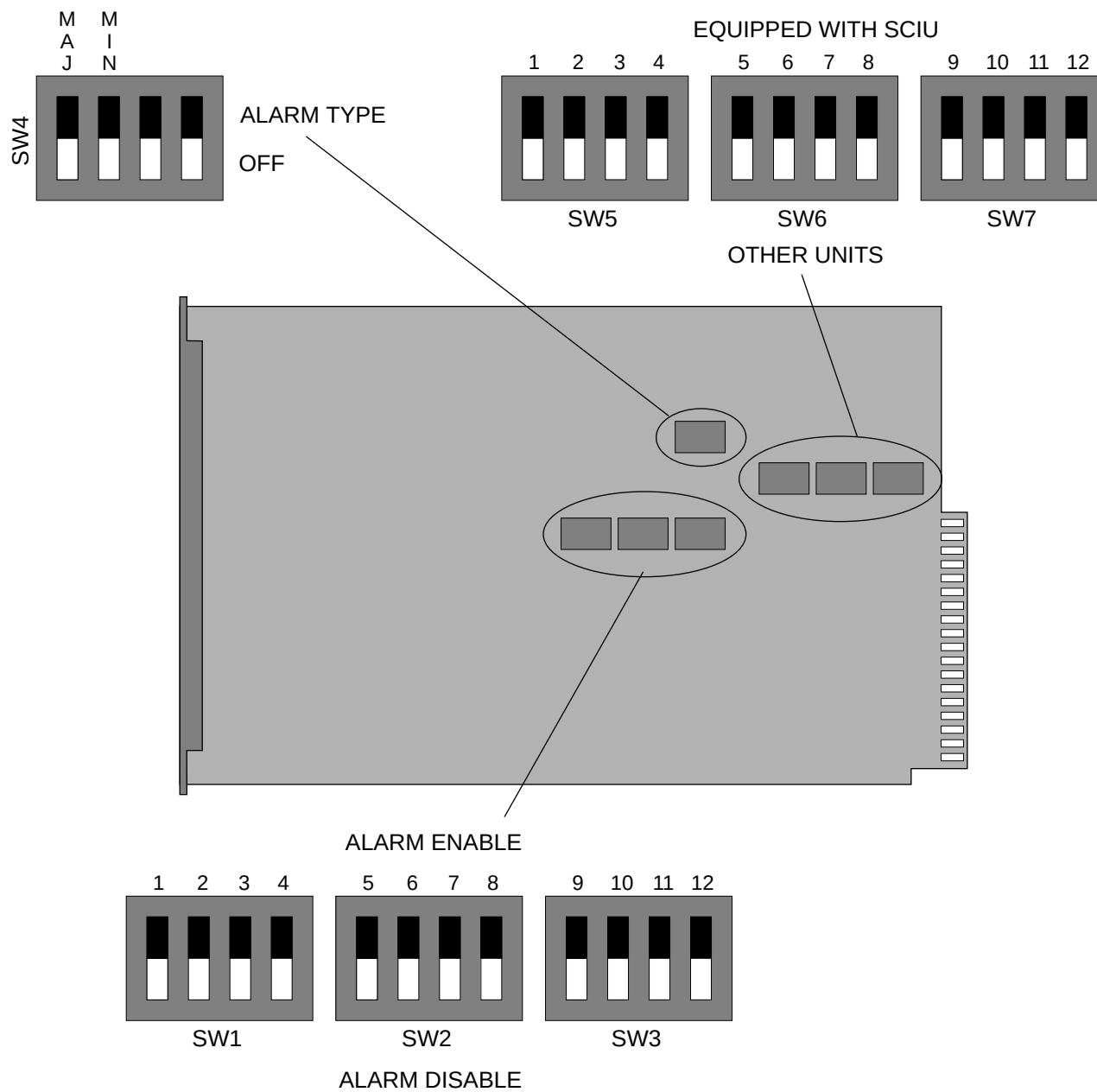
Card Slot Alarm Enable

3.10 Switches SW1, SW2, and SW3 determine whether the alarm function for the 12 possible SCIU card slots are enabled or disabled. Figure 3 shows each of these switches with the 12 possible card slots labeled above the corresponding switch sections.

3.11 Set each section of SW1 to the up position to enable the alarm function for each of the slots 1 through 4, or to the down position to disable the alarm function for the slot.

3.12 In a similar manner, set each section of SW2 to the up position to enable the alarm function for each of the slots 5 through 8, or to the down position to disable the alarm function for the slot.

3.13 In a similar manner, set each section of SW3 to the up position to enable the alarm function for each of the slots 9 through 12, or to the down position to disable the alarm function for the slot.



Note: All switches are shown in the enabled (up) position.

Figure 3. Switch Locations

Major or Minor Alarm

3.14 Switch SW4 determines whether a major or minor alarm (or both) is generated when an SCIU is removed from the shelf (for those slots where the alarm function is enabled and the slot is selected as equipped with an SCIU). Figure 3 shows this switch with the major (MAJ) and minor (MIN) alarm functions labeled above the first two switch sections (the last two switch sections are not used).

3.15 Set the first section (MAJ) of SW4 to the up position to cause a major alarm when an SCIU is removed, or to the down position to prevent a major alarm from being generated when an SCIU is removed.

3.16 In a similar manner, set the second section (MIN) of SW4 to the up position to cause a minor alarm when an SCIU is removed, or to the down position to prevent a minor alarm from being generated when an SCIU is removed. If both sections are set to the down position, no alarm is generated when the alarm is removed from the shelf.

Card Installation and testing

3.17 Remove the blank panel (if equipped) covering the card slot. Lift the latch lever up and slide the SAM card into the MC (far right) slot of the DCD-CIM shelf. Lock the card into place by rotating the latch lever down.

Caution: *The following procedure assumes that the SCIU cards are NOT carrying traffic.*

3.18 Verify the operation of the SAM card as follows:

1. On the SAM card: verify the FAIL lamp is off.
2. Remove an SCIU card from the DCD-CIM shelf.

3. Verify that an SCIU alarm corresponding to the removed SCIU card appears on the front of the SAM card.
4. Verify that the FA card displays the appropriate alarm (previously optioned on the SAM for that SCIU position).
5. Replace the previously-removed SCIU card.
6. Verify that all alarms clear on the SAM and FA cards.
7. Repeat this procedure for each SCIU position in the DCD-CIM shelf.

4. OPERATION

4.01 The SAM provides a monitoring function to alert the office personnel of removed SCIU cards that may affect customer service. The SAM card scans the system bus for installed SCIU cards in the DCD-CIM shelf.

4.02 When a change in system bus status is detected indicating a removed unit, the SAM card notifies the FA card to issue a major or minor alarm (if optioned to do so). Front panel lamps on the SAM card show which SCIU card has been removed from the shelf (when optioned to do so). Refer to Table A.

Table A. Front Panel Indicators

LAMP	CONDITION
FAIL	When lit red, indicates the SAM unit has failed.
SCIU ALARMS (1-12)	When lit, indicates that an SCIU card has been removed from the shelf.

5. MAINTENANCE

5.01 SAM cards do not require routine maintenance. If a unit fails, field repair is limited to replacement of the card. Ensure that the switches on the replacement card are set to the same positions as those of the failed card.

5.02 Questions concerning the card may be directed to Telecom Solutions at (408) 433-0910. Obtain repair services as follows:

1. Obtain a Return Material Authorization (RMA) number from the Telecom Solutions Repair and Return Department by calling (408) 433-0910.
2. If the warranty has expired, provide a purchase order with "bill to" information.
3. Provide a description of the trouble, part number, serial number, issue / revision level, and warranty expiration date.
4. Provide a customer field contact, address, phone number, and FAX number.
5. Provide return shipping information.
6. Pack the defective equipment in the original packing material if possible. If unavailable, the appropriate shipping material will be provided by Telecom Solutions.
7. Mark the RMA number and the equipment serial number on the outside of the shipping carton.

8. Ship the equipment prepaid and insured to:

Telecom Solutions

Attn: Repair and Return

85 West Tasman Drive

San Jose, CA 95134-1703

5.03 Repaired equipment is shipped within 10 working days after receipt by Telecom Solutions. If the equipment is in warranty, return transportation is prepaid unless the equipment was received otherwise. For equipment that is out of warranty, all transportation costs are paid by the customer.

6. SPECIFICATIONS

6.01 The physical and electrical characteristics of the SAM card are listed in Table B. Telecom Solutions reserves the right to change any or all of the specifications without notice.

Table B. Specifications

ITEM	SPECIFICATION
Location	Mounts in "MC" slot of DCD-CIM shelf assembly (p/n 990-40000-25).
Input/Output	DCD-CIM system bus
Dimensions L X W X H	9.75" X 1.5" X 6.0"
Weight	16 oz. approx.
Power	2W max.