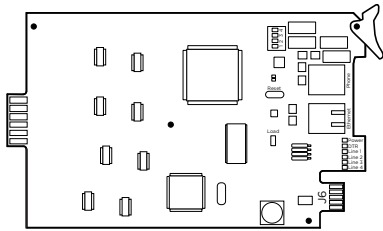# MODEL SCS-104 LINE CARD
Installation Guide

DESCRIPTION

The SCS-104 provides four digital dialer (DD) lines and a network connection for communication to DMP panels. Each card includes one Ethernet network connection. Each card also includes a non-shielded eight-pin modular connector that supports up to four digital dialer lines, when connected to a standard RJ61 jack.

An optional PC software application, SCS-CTM Check-in Table Manager, is available to backup the SCS-104 records of all supervised network accounts for up to 32 different SCS-104 line cards. The SCS-CTM program is compatible with SCS-104 Version 100 or higher. For complete operation information, refer to the SCS-CTM User's Guide (LT-0940). Contact DMP Customer Service to purchase a copy of the SCS-CTM Check-in Table Manager software.

Compatibility

- DMP SCS-1R Network Enabled Receiver

What is Included?

- One SCS-104 Line Card
- Hardware pack

OVERVIEW

To complete an SCS-104 Line Card installation, this guide walks you through these required steps:

1. Install the SCS-104 Line Card.
2. Connect communication lines.

1 INSTALL THE LINE CARD

Install the line card in any one of the rack positions with the card puller in the up position. Connect the line card cable from the processor card to the line card with pin 1 up. The line card's number is determined by the cable it's connected to.
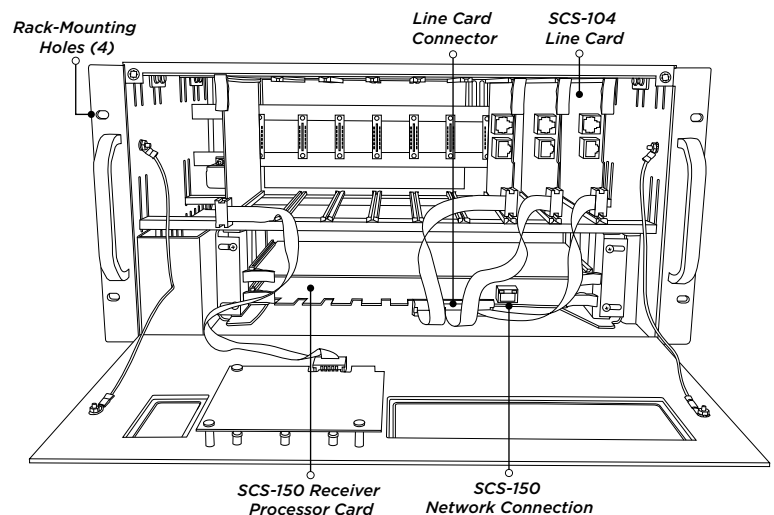

Figure 1: SCS-104 Line Card Positions in the SCS-1R

2 CONNECT COMMUNICATION LINES

Connect network and digital dialer lines to the SCS-104 as needed.

Network

Connect an Ethernet cable from the line card to the customer's network. Maximum line impedance is 100 Ohms. The SCS-104 automatically communicates UDP or TCP and uses 128-bit or 256-bit AES Encryption with compatible panels.

📝 **Note:** 256-bit encrypted messages sent to the SCS-1R receiver from an XR550E Panel with Version 104 or higher requires SCS-104 Line Cards with Version 102 or higher.

Digital Dialer

Connect a phone line from the line card to the customer's phone line. Use a standard 103J voice grade (analog) line. Cables can be fed through the slot in the receiver back plate. Maximum line impedance is 100 Ohms. Refer to Figure 2 for pinout.

The SCS-104 is registered with the FCC, registration number CCKCN03BSCS-104; Ringer Equivalence 0.3B.
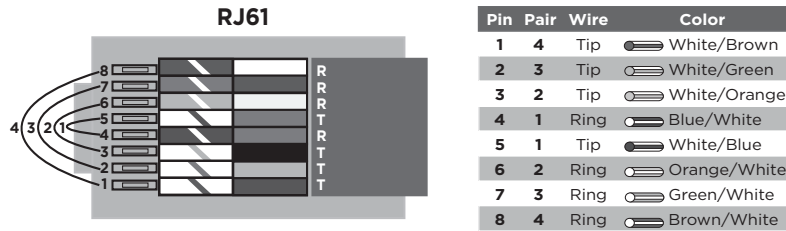
RJ61

Pin	Pair	Wire	Color
1	4	Tip	White/Brown
2	3	Tip	White/Green
3	2	Tip	White/Orange
4	1	Ring	Blue/White
5	1	Tip	White/Blue
6	2	Ring	Orange/White
7	3	Ring	Green/White
8	4	Ring	Brown/White

Figure 2: Pinout Diagram with Chart

ADDITIONAL INFORMATION

Programming

The SCS-104 is programmed through the SCS-150 Receiver Processor Board with software such as Remote Link™. For more information see the [SCS-1R Installation Guide (LT-1037)](#).

Phone Line Monitor

The SCS-104 monitors incoming phone line voltage. During a loss of phone line voltage, the SCS-104 sends a Phone Line Trouble message (System Message 153) to the host automation or LCD display.

LED Operation

The SCS-104 provides eight LEDs on the card. The green LED labeled PWR turns on when the power supply on the line card is working properly. Table 1 describes the LED operation:

LED	DESCRIPTION		
	SOLID	**FLASHING**	**OFF**
POWER	Power On	N/A	Power Off
DTR	Data Terminal Ready	N/A	Processor is nearly full
LINE 1	Connected (off hook)	Ringing	Idle
LINE 2	Connected (off hook)	Ringing	Idle
LINE 3	Connected (off hook)	Ringing	Idle
LINE 4	Connected (off hook)	Ringing	Idle
LINK	Indicates a valid Network connection	Indicates a valid Network connection	No connection
LINK SPEED	Connected a 100 Base-T	N/A	Connected at 10 Base-T

Table 1: LED Operation

SCS-104 Software Update

Updating SCS-104 firmware requires Remote Link Version 1.61 or higher.
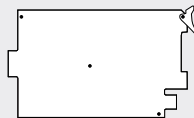
1. Remove the SCS-104 Line Card from the SCS-1R Receiver.
2. Connect a Model 399 Programming Cable from the line card PROG header to a computer with Remote Link.
3. Place a shorting clip across the 2 pins of the LOAD header, then reinsert the line card into receiver.
4. Open Remote Link and go to **System > Remote Update**.
5. In **Update File**, press the More button, then select the **SCS104.RU** update file. Select the COM port where the line card is connected, then select **Update**.
6. After the update is complete, remove the SCS-104 from the receiver, disconnect the 399 cable, and remove the shorting clip from the LOAD header. Reinsert the line card to begin normal operation.

SCS-104

Specifications

NIST AES Algorithm Certificate #1760 128-bit
NIST AES Algorithm Certificate #2599 256-bit
California State Fire Marshal (CSFM)
New York City (FDNY)
Underwriters Laboratory (UL) Listed

ANSI/UL 864	Fire Protective Signaling
ANSI/UL 163	Digital Alarm Communicator
ANSI/UL 1610	Central-station Burglar

ANSI/UL 365	Police Station Connected Burglar
ANSI/UL 1076	Proprietary Burglar
ULC-S559-04	Equipment for Fire Signal Receiving Centers and Systems
ULC-S545	Standard for Residential Fire Warning System Control Units
ULC-S304	Standard for Central and Monitoring Station Burglar Alarm Units
ULC-C1023	Household Burglar Alarm System Units
ULC/ORD-C1076	Standard for Proprietary Burglar Alarm Units and Systems