

SYSTEM OVERVIEW

1.1 Description

The SCS-1 Receiver system from DMP is comprised of a full featured digital/multiplex capable alarm receiver, a CRT display for viewing incoming reports, a local 80 character printer, and a detachable keyboard for acknowledging reports and configuring the SCS-1 system and its components.

1.2 Function

The SCS-1 Receiver system provides central stations with computerized monitoring of DMP command processor panels. Features of the SCS-1 receiver include automatic logging of alarm, trouble, and supervisory account reports on a local printer with the date and time of their occurrence.

1.3 CRT Display

The CRT display adds flexibility to the SCS-1 system by allowing the operator to view alarm reports before acknowledging them from the system keyboard. A typical account report includes:

Account Number -	12345
Loop Name -	FRONT DOOR, BACK DOOR
Alarm Type -	Burglary, Fire, Panic
Time and Date of occurrence	

All information is displayed on the CRT screen and logged on the local printer. Opening and Closing reports from monitored accounts provide the operator with:

Account Number -	12345
Area Numbers and Names -	Area: 1 OFFICE Area: 2 STOCKROOM
User Number of Individual -	Disarmed by User #25
Time and Date of Occurrence	

1.4 Printer

Routine reports are logged on the printer without need of operator response while supervisory reports are logged on the printer and displayed on the CRT console for operator acknowledgment.

1.5 Additional Reports

Other reports transmitted to the SCS-1 by DMP command processor panels include:

- Addition and deletion of code numbers including user number of the person making the change
- Bypassing and resetting of loops by number and name including user number of the person making the change
- Schedule changes including user number of the person making the change
- Trouble and Restoral report by loop name and number
- Door access reports including user number and number of the door being accessed

Section 5 of this manual provides a detailed explanation of the alarm and activity reports that can be logged on the SCS-1 printer or displayed on the CRT.

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1.6 Line Capacity

A maximum of five incoming phone lines can be accommodated by the SCS-1 Receiver. Each SCS-1 can be configured with both digital dialer and multiplex receiving lines. Multiplex lines have a capacity of 128 separate accounts. Digital Dialer lines have a capacity of 65,535 separate accounts.

To select the communication type used on each incoming line, refer to Configure System in section 4.10.

1.7 24 Hour Recall Tests

The automatic recall test from a digital dialer account must be tracked manually or with a listed automation system. The SCS-1 Receiver does not automatically indicate a delinquent recall test. Failure to receive a signal from a Digital Alarm Communicator Panel (DACT), over a 24 hour period shall be handled as a trouble signal.

MODEL SCS-1 SECURITY CONTROL RECEIVER

3.1 Description

The DMP SCS-1 Receiver as shipped from the factory includes all of the necessary system components to provide two lines of receiving capability. This package can be expanded to a maximum of five incoming lines. The SCS-1 includes the following:

Quantity	Model Number	Name
1	SCS-201	System Enclosure
1	SCS-1062	Processor Card
2	SCS-100	Line Card
1	SCS-110	Modem Power Supply Card
1	SCS-120	Multibus Power Supply Card
1	SCS-130	Transformer Card
1	SCS-208	Power Cord
1	SCS-203	Convenience Panel
1	SCS-PTR	Printer and Cable
1	SCS-CRT	CRT Display, Keyboard and Cable

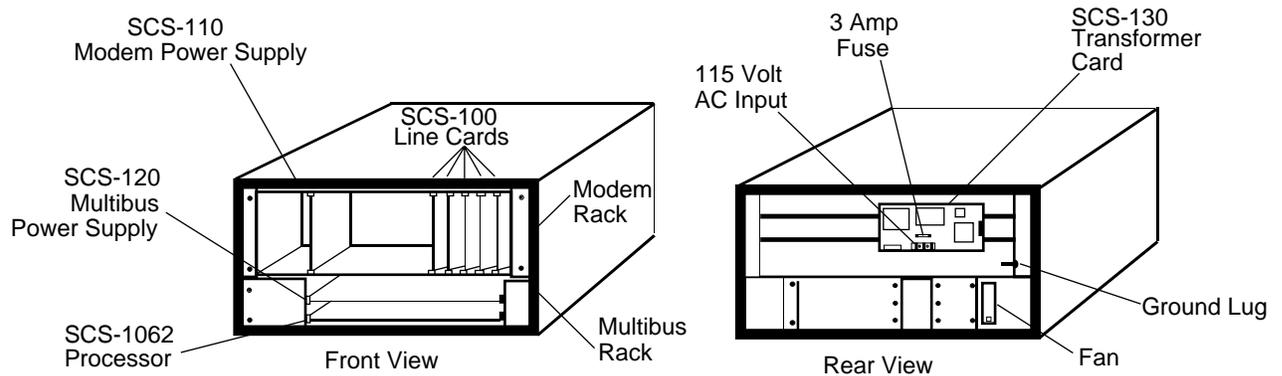
A detailed installation and operational description for each component follows in this section.

MODEL SCS-201 SYSTEM ENCLOSURE

3.2 Description

The SCS-201 provides housing for the receiver processor, power supply, line cards, and associated cables. The enclosure measures 13" deep, 9.75" high and 20" wide.

3.2A Modem Rack



Contained in the top of the System Enclosure is a 5.25" modem rack. The rack holds the modem power supply card and up to five line cards. The transformer card for connecting the 120 VAC is mounted on the rear of the modem rack.

3.2B Multibus Rack

Contained in the bottom of the System Enclosure is a 3.5" multibus rack with cooling fan. The multibus rack holds the processor card and the multibus power supply card.

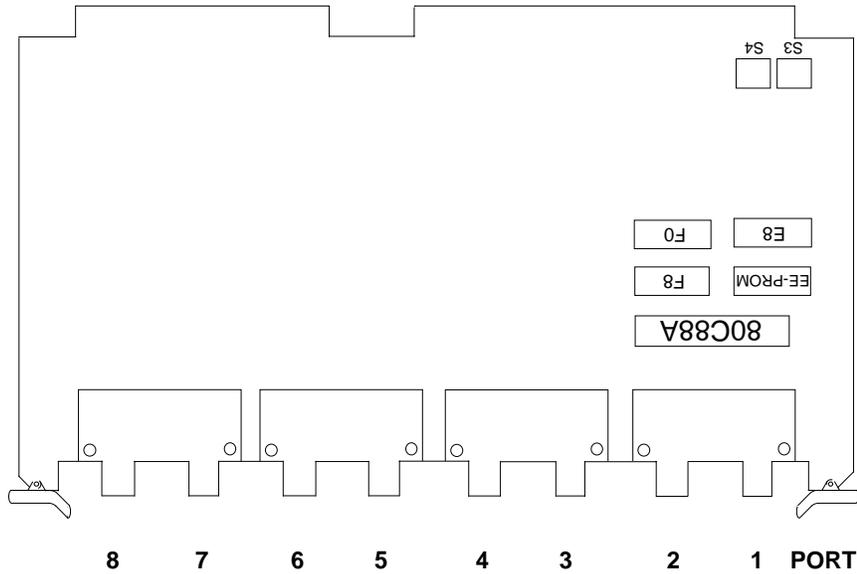
3.2C Installation

Connect the System Enclosure to earth ground before making any connections to the modules. Use a minimum 14 gauge wire for grounding. A crimp type spade connector is provided for connecting the ground wire to the ground lug on the modem rack.

MODEL SCS-1062 PROCESSOR CARD

3.3 Description

The SCS-1062 is the main system processor that controls the line cards, the CRT display, and the printer. The SCS-1062 contains the firmware for system operation, the EEPROM memory of operator codes and line configuration, and performs all time keeping functions.



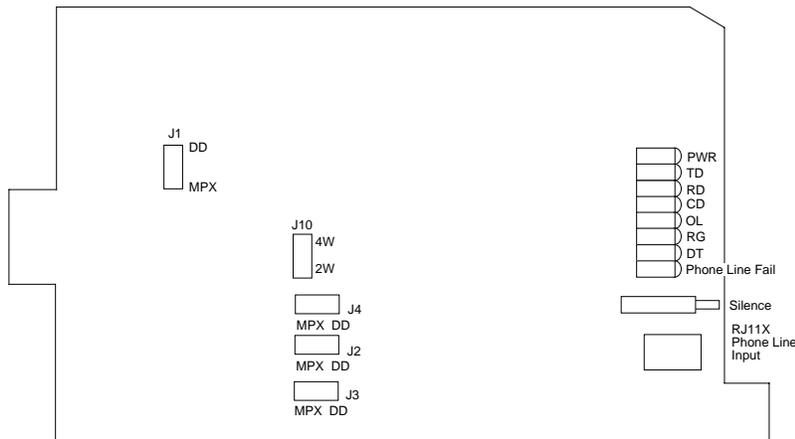
3.3A Installation

Always remove power to the receiver when installing or removing the SCS-1062. Install the board component side up in the lower position of the multibus rack. Install the convenience panel connectors on ports 6, 7, and 8 and the line card flat cables on ports 1 to 5.

MODEL SCS-100 LINE CARD

3.4 Description

The SCS-100 provides for one incoming line of either digital dialer or multiplex communication to DMP command processor panels. Each line card includes one 10 position flat cable for connection to the processor card, and one RJ11X cable for connection of a phone line from a customer supplied RJ11X connection block.



3.4A Card Installation

Install the SCS-100 with the card puller up in any one of the five right hand positions of the modem rack. Connect the 10 position flat cable between the line card and the processor card.

PIN 1 OF THE FLAT CABLE CONNECTOR MUST BE IN THE SAME POSITION ON BOTH THE LINE CARD AND THE PROCESSOR CARD.

The line number of the line card is determined by the processor card port number.

3.4B Phone Line Installation

Install the RJ11X cable provided with the line card between the RJ11X connector on the front of the line card to a customer supplied RJ11X jack. Use a standard 103J voice grade line. A slot is provided in the receiver back plate for the RJ11X cable to pass through.

The SCS-100 is registered with the FCC, registration number CCK8GW-16197-AL-N; Ringer Equivalence 1.2.

3.4C Phone Line Monitor

The incoming phone line voltage is monitored when the Line Card is configured for digital dialer operation. During a loss of phone line voltage, the red Phone Line Fail LED is lit and the alert sounds. The alert can be silenced by pressing the silence switch on the line card. The LED remains lit until the phone line is restored.

3.4D Configuration for MPX or DD

The SCS-100 can be used for either digital dialer or multiplex communication. To change configuration, set the four jumpers labeled J1, J2, J3, and J4 to the appropriate position. For multiplex communication, set the jumper labeled J10 for either 2-wire or 4-wire operation. For 4-wire operation, the yellow and black wires of the RJ11X cable become the receive pair for multiplex.

Always set Jumper J10 for 2-wire operation when using digital dialer communication.

3.4E Power Monitor LED

The green LED labeled PWR is lit when the power supply on the line card is in a good condition.

3.4F Data Communication LEDs

The six yellow LEDs indicate the condition of the line card during the various stages of communication.

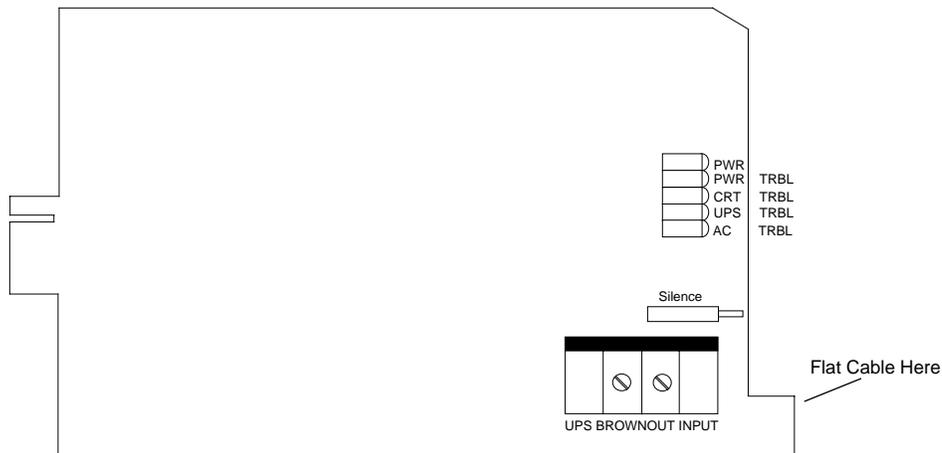
A description of each LED is listed below:

TD	Transmit Data	On when the line card is transmitting to a panel.
RD	Receive Data	On when the line card is receiving data from a panel.
CD	Carrier Detect	On when the carrier tone from the panel is detected on the phone line.
OL	On Line	On when a line card configured for digital dialer has answered the phone line. Not used for MPX.
RG	Ring Detect	On when ringing voltage is detected on phone line. Not used for MPX.
DT	Data Terminal Ready	On when the line card is ready to receive.

MODEL SCS-110 MODEM POWER SUPPLY CARD

3.5 Description

The SCS-110 provides power to a maximum of five line cards. Power is supplied through the modem rack backplane connectors without additional cabling. The SCS-110 also provides monitoring for the CRT connection, UPS system status, and the 120 VAC input to the SCS-1 receiver.



3.5A Installation

Install the SCS-110 with the card puller up in the far left hand position of the modem rack. Plug the flat cable from the SCS-203 convenience panel onto the card edge connector at the bottom of the SCS-110.

3.5B Power Monitor LEDs

The green LED labeled PWR lights when the power supply to the SCS-110 is in good condition. The red LED labeled PWR TRBL is controlled by the multibus power supply card and lights when there is a power problem on the SCS-110. The red LED remains lit until the power problem is corrected. The alert on the multibus power supply card sounds during a power problem and can be silenced by pressing the silence switch.

3.5C CRT Trouble LED

This LED lights and the alert sounds when the CRT is turned off or the CRT cable is unplugged. The alert is silenced by pressing the silence button on the SCS-110.

3.5D UPS Trouble LED

This LED lights and the alert sounds when the UPS Brownout Input is opened. Connect this circuit to the brownout contacts on your UPS system. See Section 3.7B. No end of line resistor is needed. Silence the alert by pressing the silence button on the SCS-110.

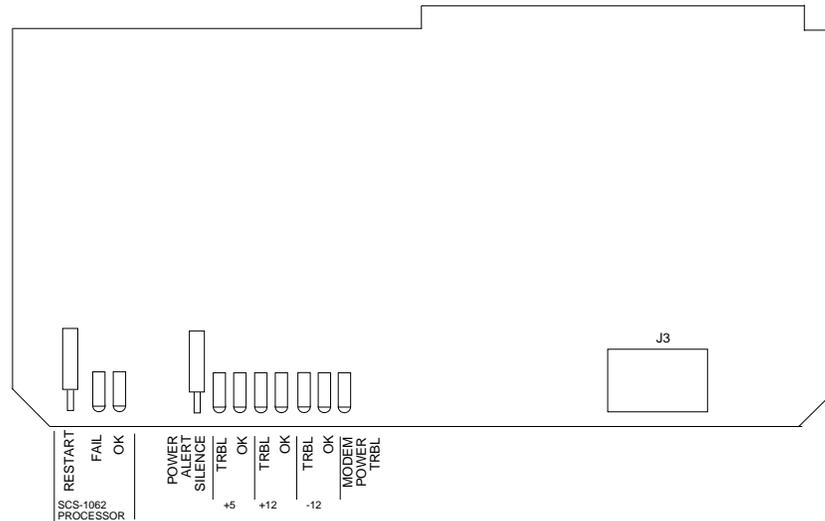
3.5E AC Trouble LED

This LED lights and the alert sounds when AC power to the transformer card fails. Silence the alert by pressing the silence button on the SCS-110.

MODEL SCS-120 MULTIBUS POWER SUPPLY CARD

3.6 Description

The SCS-120 provides power to the processor card through the multibus backplane. The SCS-120 also monitors the condition of the processor card, the voltage output of the modem power supply card, and its own internal voltages.



3.6A Installation

Always disconnect power to the receiver when installing or removing the SCS-120. Install the board with the component side up in the upper position of the multibus rack. Connect the SCS-208 Power Cable to J3 on the front right side of the card. Connect the other end of the power cable to the transformer card on the back of the modem rack. The power cable can be used in either direction.

3.6B Processor Monitor

The SCS-120 monitors the processor of the Model SCS-1062 through the multibus backplane. The green OK LED lights when the processor is operating. If the processor stops operating, the red FAIL LED lights and the failure buzzer on the SCS-120 sounds. Press the processor restart button to restart the system, silence the buzzer, and turn off the red LED. The restart button restarts the system and resets the time of day. All other system configuration information is not changed.

3.6C Power Monitor LEDs

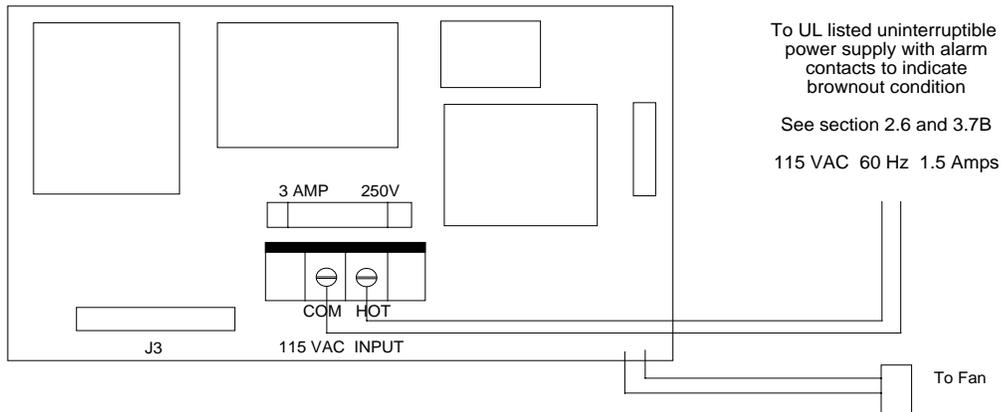
The SCS-120 monitors three different system voltages, +5, +12, -12 and the modem power supply. Four LEDs located to the right of the power trouble silence switch display any voltage failure. A green OK LED lights when the voltages are in good condition. The green PWR LED for the modem power supply is located on the modem power supply card. The red TRBL LED lights and the trouble alert on the SCS-120 sounds when there is a problem with a voltage level.

Press the power trouble silence switch to silence the alert. The red TRBL LED remains lit until the power problem is corrected. The modem power LED, the trouble alert on the SCS-120, and the power trouble LED on the modem power supply operate together.

Model SCS-130 Transformer Card

3.7 Description

The SCS-130 provides power to the modem power supply card and the multibus power supply card. Two terminals are provided for connecting 120 VAC to the system. A power cord is provided for connecting the multibus rack cooling fan.



3.7A Installation

Install the SCS-130 with J2 on the right side to the rear of the modem rack. Four standoffs and four 6-32 screws with lock washers are provided. Connect the SCS-208 Power Cable to J3 on the bottom left of the transformer card. Connect the other end of the power cable to the multibus power supply. The power cable can be used in either direction. Connect the cable from the right end of the modem rack labeled J2 to J2 on the right side of the transformer card. Connect the 2-conductor cables labeled TO FAN to the multibus cooling fan on the lower right side of multibus rack.

3.7B AC Power Connection

Connect 120 VAC to the receiver through the SCS-130 Transformer Card. The receiver backplate provides a 7/8" conduit knockout. AC power connects to the 2-position terminal strip on the bottom of the transformer card. The AC power must be provided by a UL listed UPS. A signal shall be provided at the operators console when the UPS power source switches from primary power to secondary power.

Use a minimum 14 gauge wire and .5" conduit when connecting 120 VAC power to the receiver. Ensure the plastic cover is replaced on the terminal strip after connecting the AC wiring.

DO NOT APPLY POWER TO THE RECEIVER UNTIL BOTH REAR COVERS ARE REPLACED ON THE RECEIVER CABINET.

3.7C 3 Amp Fuse

The 120 VAC connection to the receiver is current limited with a DMP Model 319, 3 Amp 250 volt fuse. The 3 Amp fuse is a Type AGC 1/4" x 1 1/4" fast blow.

MODEL SCS-208 POWER CABLE

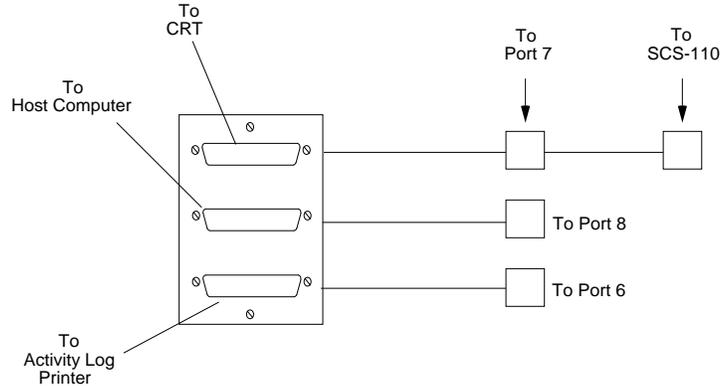
3.8 Description and Installation

The SCS-208 is a 2' long cable that connects the different system voltages between J3 of the transformer card and J3 of the multibus power supply card. The SCS-208 can be used in either direction but is polarized on each end for proper installation to the J3 connectors.

MODEL SCS-203 CONVENIENCE PANEL

3.9 Description

The SCS-203 provides cabling for three RS-232 ports. The three ports are for the CRT display, host output, and activity log printer.



3.9A Installation

Install the three 10 position flat cable connectors to ports 6, 7 and 8 of the processor card. Install the metal plate with the three 25 position RS-232 connectors on the receiver backplate using the two 6-32 x 1/4" screws provided. Connect the CRT display, printers and/or host computer to the RS-232 connectors.

MODEL SCS-PTR PRINTER AND CABLE

3.10 Description

The SCS-PTR is an 80 column printer with a 10' RS-232 cable. The printer can be connected to the all events output connector or the alarm only output connector. See Section 3.9. The SCS-1 Receiver is shipped with one printer.

3.10A Installation

The printer as shipped by DMP has all option switches preset. Install the RS-232 cable between the printer serial interface port and the receiver convenience panel connector. Remove any dummy plugs from the printer output connector. If a printer is not being installed, the dummy plug shorting pins 4 and 5 should remain on the connector.

THE END OF THE CABLE MARKED PRINTER MUST BE INSTALLED INTO THE PRINTER.

3.10B Printer Configuration

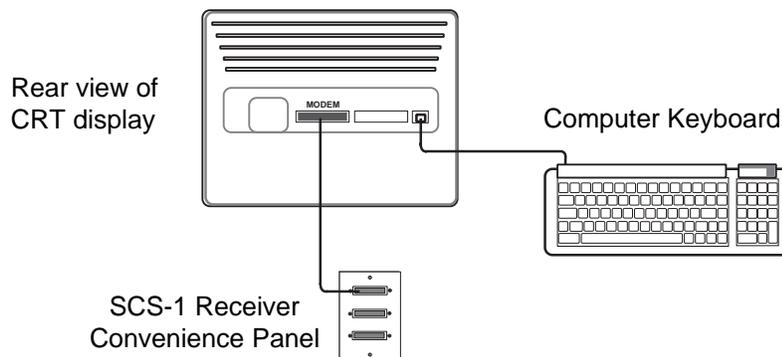
Set the printer option switches on the Okidata ML 184T according to the tables below:

Upper Serial Board		Lower Control Board	
Switch Bank 1	Switch Bank 2	Switch Bank 1	
1 OFF EVEN PARITY	1 ON	1 OFF	
2 ON WITHOUT PARITY	2 ON 1200 BAUD	2 OFF ASCII	
3 ON 8 BITS	3 OFF	3 OFF	
4 ON READY/BUSY	4 OFF DSR	4 OFF	
5 ON CIRCUIT/MONITOR	5 ON 32 BYTES BUFFER	5 ON	
6 ON PRINT MODE	6 ON 200ms BUSY SIGNAL	6 ON AUTO LINE FEED	
7 OFF	7 OFF DTR	7 ON 8 BITS	
8 ON	8 OFF NOT USED	8 OFF ENABLE FRONT PANEL	

Model SCS-CRT Video Display, keyboard, and cable

3.11 Description

The Model SCS-CRT is a 2-color CRT display with keyboard and a 10 foot RS-232 cable.



3.11A Installation

The CRT display as shipped by DMP has the internal Setup Menu options preset. To connect the CRT to the receiver, install the RS-232 cable from the CRT display Modem port to the top connector on the receiver convenience panel. See the diagram above.

3.11B CRT Configuration

The Setup Menu is used to configure the display and keyboard system. To access the Setup Menu, hold down the **Shift** key while pressing the **Setup** key. Repeat the same steps to exit the Setup Menu. Configure the system with the following options:

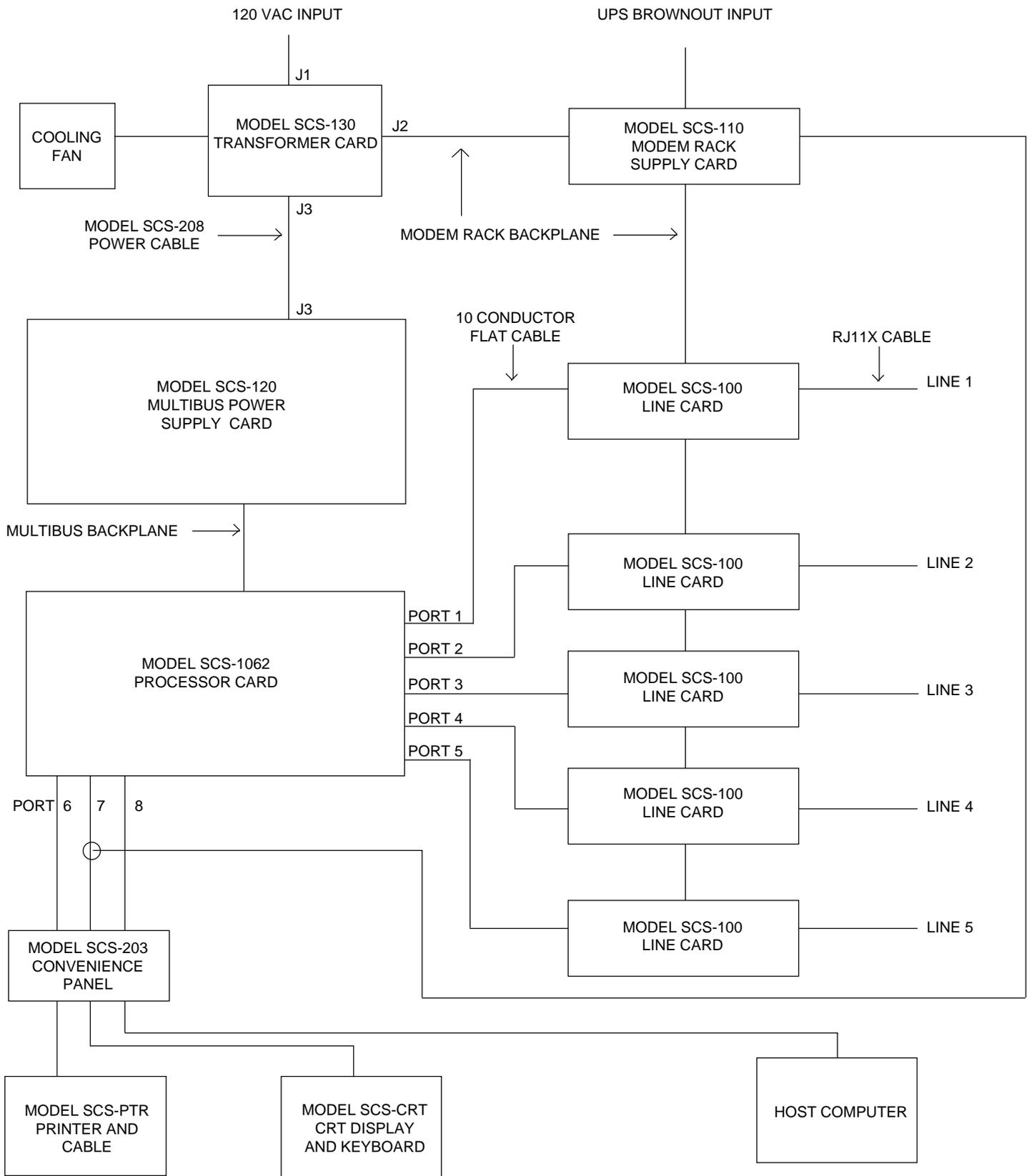
SCREEN: DARK	CURSOR: BLINK LINE	AUTO NL: ON	AUTOSCR: OFF	CRT SAVER: OFF
PERSONALITY: WY30+	ENHANCE: OFF	CR:CR	LANGUAGE: US	MODE: FDX
BAUD RATE: 9600	DATA/PARITY: 8/NONE	STOP BITS:1	HANDSHAKE: DTR	
ATTRIBUTE: PAGE	WPRT: DIM	BLK END: US/CR	FKEYS: REMOTE	
LOCK: REV	REPEAT: ON	KEYPAD: NUMERIC	TRANSMIT LIMIT: OFF	

After you've configured the system and exited the Setup Menu, press the Caps Lock key.

3.11C Special Keys

There are four Special keys on the SCS-1 CRT Keyboard that you use for special operations. The names and functions of these keys are listed below:

Keyboard Key	What it's used for
\ (Back slash)	- To acknowledge incoming signals while in manual mode
Down Cursor	- Returns you to the previous data entry prompt
ESC (Escape)	- Returns you to the Main Menu screen
DEL (Delete)	- To delete information in the current data entry prompt on the OPC and CON screens
Return	- To enter new information or advance through lists of options



INSTALLATION CHECKLIST

2.1 Cover Plates

Remove the front plastic cover by twisting the four knobs 90 degrees. Remove the two metal rear cover plates. The lower rear cover plate attaches to the three flat cables of the convenience panel.

2.2 Earth Ground

Connect the ground lug on the rear side of the modem rack to earth ground. See Section 3.2. A ground lug is provided on the SCS-1 for this purpose. Use a minimum of 14 gauge wire and ground to a cold water pipe or a ground rod. Do not ground to electrical conduit or telephone company ground.

2.3 Location of Circuit Boards

Confirm the circuit boards in the modem rack and in the multibus rack are installed in the proper locations. See Section 3.2. Connect the line card flat cables to the processor card ports. See Section 3.4A.

2.4 SCS-208 Power Cord

Connect the SCS-208 Power Cord from J3 of the multibus power supply card to J3 of the transformer card. See Section 3.8.

2.5 Phone Lines

Connect the RJ11X cables provided with each line card to the phone lines used for alarm receiving. See Section 3.4B.

2.6 AC Power

Connect the wiring for 120 VAC to the transformer card mounted on the rear of the modem rack. See Section 3.7B. **Do not apply AC power yet.** For UL Listed operation, use a UL Listed uninterruptible power supply. The UPS system must have a secondary power source and provide alarm contacts to indicate when the UPS switches from primary power to secondary power. Below is a list of UL listed UPS systems that provide the correct alarm contacts.

Best Power Technology	Any Series M or Models	F2KVA-B F3KVA-B F5KVA-B
Clary Corp.	Any Series A-52	
Elgar	Models	UPS253-3B UPS373-3B UPS503-3B
La Marche	Any Series A-52	
Topaz	Any Series 82000 Models	84462-01 84864-01 84126-01 84130-01

Other UL listed UPS systems that provide alarm contacts to indicate loss of primary power can be used.

2 - INSTALLATION

2.7 Front and Rear Covers

Replace the front plastic cover and the two metal rear covers. The louvered rear cover mounts on top.

2.8 CRT Display

Connect the CRT Display, Keyboard, and RS-232 cable. See Sections 3.11B and 11.5. Connect the CRT to AC power and turn on the CRT power switch. The CRT must be located adjacent to the SCS-201 Cabinet for UL Listed operation.

2.9 Printer

Connect the printer RS-232 cable. See Section 3.10A. Install paper, connect the printer to AC power, and turn on the printer power switch.

2.10 Start up

Apply 120 VAC to the transformer card. The 120 volts supplied to the receiver, the CRT display and the printer(s) must be from the same UPS circuit.

2.11 Configuration

After powering up the system, set the correct time, configure the phone lines, and enter the operator codes. Refer to Section 4 in this manual for instructions on completing the above tasks.