

*A1 Call Signal Option Card  
for the MODEL SSA-324  
System-to-System Adapter*

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See the enclosed warranty card for further details.

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Technical questions should be directed to:

Customer Service Department  
RTS/Telex Communications, Inc.  
12000 Portland Avenue South  
Burnsville, MN 55337 USA  
Telephone: 800-392-3497  
Fax: 800-323-0498

**RETURN SHIPPING INSTRUCTIONS**

Customer Service Department  
Telex Communications, Inc. (Lincoln, NE)  
Telephone: 402-467-5321  
Fax: 402-467-3279  
Factory Service: 800-553-5992

Please include a note in the box which supplies the company name, address, phone number, a person to contact regarding the repair, the type and quantity of equipment, a description of the problem and the serial number(s).

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All shipments of product should be made via UPS Ground, prepaid (you may request from Factory Service a different shipment method). Any shipment upgrades will be paid by the customer. The equipment should be shipped in the original packing carton. If the original carton is not available, use any suitable container that is rigid and of adequate size. If a substitute container is used, the equipment should be wrapped in paper and surrounded with at least four (4) inches of excelsior or similar shock-absorbing material. All shipments must be sent to the following address and must include the Proof of Purchase for warranty repair. Upon completion of any repair the equipment will be returned via United Parcel Service or specified shipper, collect.

Factory Service Department  
Telex Communications, Inc.  
8601 East Cornhusker Hwy.  
Lincoln, NE 68507 U.S.A.  
Attn: Service

This package should include the following:

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## DESCRIPTION

The A1 Option Card installs in a Model SSA324 System-to-System Adapter. It converts RTS (either "TW" or Series 800), Clear-Com or Audiocom call signal input into a relay contact output which can be used to key a transceiver or other device. And, it converts a contact closure input from the external device back into an RTS, Clear-Com or Audiocom call signal. The A1 Option Card also converts call signals between RTS, Audiocom and Clear-Com intercom systems. Applications include interfacing to 4-wire telephone or microwave circuits, to 2-way radios, to an RTS 4-wire matrix intercom system, or simply activating a call indicator light.

## INSTALLATION INSTRUCTIONS

1. Disassemble the SSA324.

On the back panel, remove the six screws securing the top and bottom covers. Remove the top cover. Disconnect the front panel headset jack from J2 on the circuit board. Grasp the back panel and slide the back panel and circuit board assembly out of the bottom cover.

2. On the A1 Option Card, set the S101 and S201 jumpers.

The S101 and S201 shorting jumpers on the A1 Option Card must be set for the type of intercom system(s) being connected to the SSA324. S101 is for an intercom system connected to the System A connector on the back of the SSA324; S201, is for an intercom system connected to the System B connector. When connecting a Clear-Com intercom system, install a shorting jumper on S101 or S201 as appropriate. For RTS or Audiocom, leave the shorting jumper off or connected to one pin only

**NOTE:** As an option, remote switches may be used to independently enable/inhibit call signalling on System A and System B. (See "Remote Call Signal Enable/Inhibit Control," page 3.) To use this option on System A do not install the S101 jumper. To use this option on System B do not install the S201 shorting jumper.

3. On the A1 Option Card, set the W1 jumpers.

The W1 jumpers interconnect the call signals between System A and System B. To interconnect System A and System B, install shorting jumpers on pins 1-2 and 3-4. If you do not want call signal exchange, remove the jumpers or connect to one pin only.

4. On the SSA324 circuit board, set the W103 and W203 jumpers.

W103 and W203 must be set for the correct type of intercom system. W103 is for System A; W203 is for System B. For Clear-Com, install a shorting jumper on pins 2-3. For RTS or Audiocom, install it on pins 1-2.

5. Connect the A1 Option Card to the SSA324 circuit board using the supplied cables.

- a. Connect J3 on the option card to J4 on the SSA324 circuit board.
- b. Connect J4 on the option card to J5 on the SSA324 circuit board.
- c. Connect J8 on the option card to J3 on the SSA324 circuit board.

6. Mount the A1 Option Card.

Refer to Figure 1 and mount the option card as shown using the supplied hardware.

7. Reassemble the SSA324.

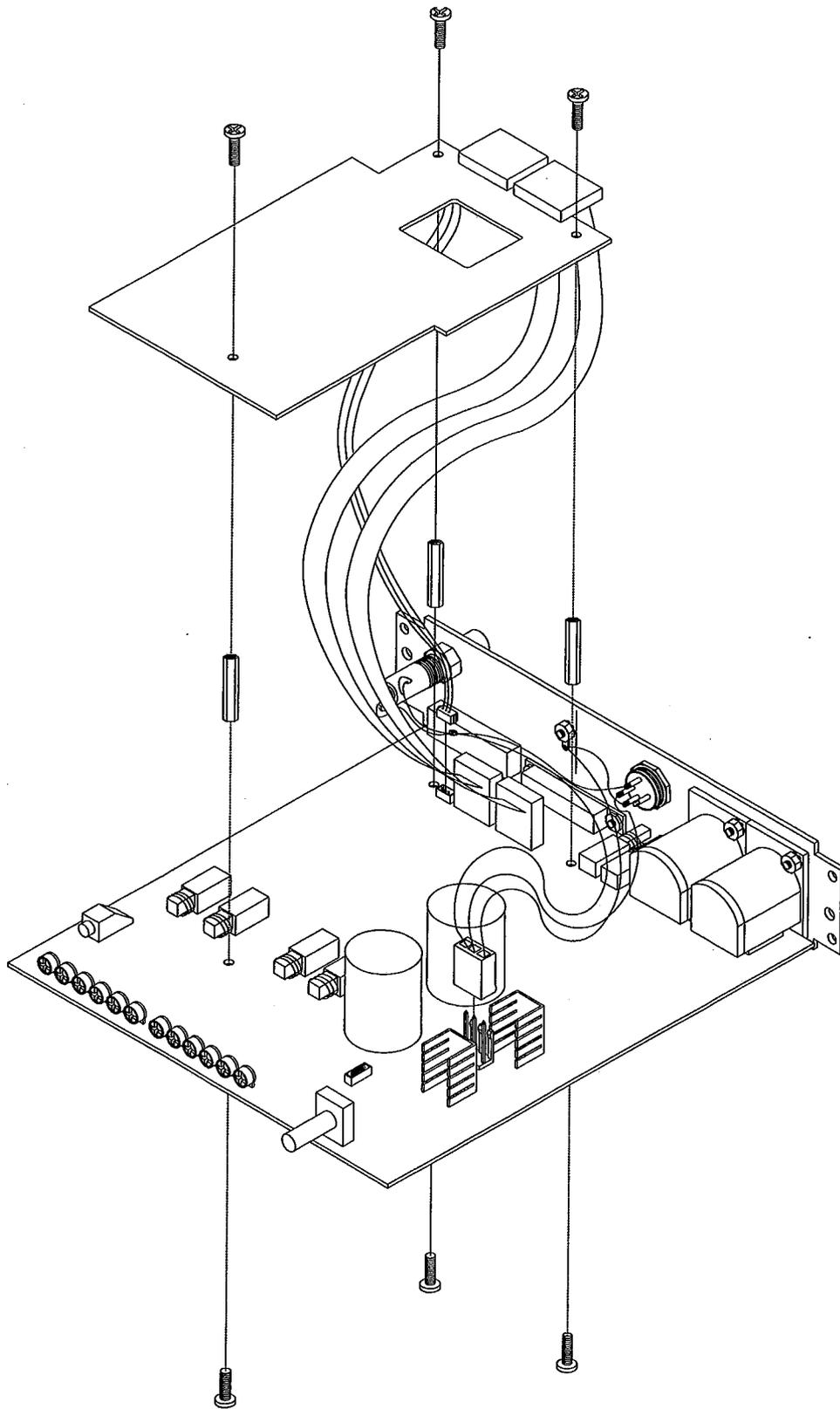


Figure 1

## CALL SIGNALLING CONNECTIONS

Connector pin usage is summarized in Tables 1-3. For further information regarding audio connections and operation, refer to the SSA324 User Manual.

### KEYING INPUT FROM TRANSCEIVER OR OTHER EXTERNAL DEVICE

The keying inputs operate by detecting an external switch contact closure. The keying inputs can be connected to the carrier detect or squelch detect output (on transceivers so equipped) to trigger a call signal when the transceiver is receiving.

#### System A

Connect the keying input from your transceiver or other device to J103, pins 6 and 19. (A switch contact closure connecting pin 19 to pin 6 will cause a call signal to be sent to the intercom system connected to J101.)

#### System B

Connect the keying input from your transceiver or other device to J103, pins 11 and 24. (A switch contact closure connecting pin 24 to pin 11 will cause a call signal to be sent to the intercom system connected to J102.)

### KEYING OUTPUT TO TRANSCEIVER OR OTHER EXTERNAL DEVICE

#### System A

For normal-open keying output: Use J103, pins 8 and 9. (Sending a call signal from the intercom system connected at J101 will cause an internal relay contact closure between pins 8 and 9.)

For normal-closed keying output: Use J103, pins 9 and 21. (Pin 21 is normally connected to pin 9. Sending a call signal from the intercom system connected at J101 will cause an internal relay contact to open, disconnecting pin 21 from pin 9.)

#### System B

For normal-open keying output: Use J103, pins 22 and 23. (Sending a call signal from the intercom system connected at J102 will cause an internal relay contact closure between pins 22 and 23.)

For normal-closed keying output: Use J103, pins 23 and 10. (Pin 10 is normally connected to pin 23. Sending a call signal from the intercom system connected at J102 will cause an internal relay contact to open, disconnecting pin 10 from pin 23.)

### REMOTE CALL SIGNAL ENABLE/INHIBIT CONTROL

#### System A

**NOTE:** For this application the S101 jumper should not be installed.

For remote enable/inhibit of System A call signalling, connect a switch between J103, pins 7 and 20.

For Audiocom or RTS: Closing the switch will inhibit call signalling. Opening the switch will enable call signalling.

For Clear-Com: Opening the switch will inhibit call signalling. Closing the switch will enable call signalling.

## System B

**NOTE:** For this application the S102 jumper should not be installed.

For remote enable/inhibit of System B call signalling, connect a switch between J103 pins 25 and 12.

For Audiocom or RTS: Closing the switch will inhibit call signalling. Opening the switch will enable call signalling.

For Clear-Com: Opening the switch will inhibit call signalling. Closing the switch will enable call signalling.

**Table 1**  
**Connector Pin Usage for J101 and J102**

	AUDIOCOM/RTS (BALANCED)	RTS "TW" (UNBALANCED)	CLEAR-COM (UNBALANCED)
CH1	2, 3	2	3
CH2	—	3	—
COMMON	1	1	1

**Table 2**  
**Connector Pin Usage for TB1**

PIN NO.	DESCRIPTION
1	4-Wire Audio Input Hi, System A
2	4-Wire Audio Input Lo, System A
3	4-Wire Audio Output Hi, System A
4	4-Wire Audio Output Lo, System A
5	4-Wire Audio Input Hi, System B
6	4-Wire Audio Input Lo, System B
7	4-Wire Audio Output Hi, System B
8	4-Wire Audio Output Lo, System B

**Table 3**  
**Connector Pin Usage for J103**

PIN NO.	DESCRIPTION
1	Earth
2	4-Wire Audio Input Hi, System A
3	4-Wire Audio Output Hi, System A
4	4-Wire Audio Input Hi, System B
5	4-Wire Audio Output Hi, System B
6	Keying Input Gnd, System A
7	Call Signal Enable Gnd, System A
8	Relay Contact NO, System A
9	Relay Contact Common, System A
10	Relay Contact NC, System B
11	Keying Input Gnd, System B
12	Call Signal Enable Gnd, System B
13	Not Used
14	Not Used
15	4-Wire Audio Input Lo, System A
16	4-Wire Audio Output Lo, System A
17	4-Wire Audio Input Lo, System B
18	4-Wire Audio Output Lo, System B
19	Keying Input Hi, System A
20	Call Signal Enable Gnd, System A
21	Relay Contact NC, System A
22	Relay Contact NO, System B
23	Relay Contact Common, System B
24	Keying Input Hi, System B
25	Call Signal Enable Hi, System B









1

2



