HIGH SEAS AND OVERSEAS RADIO
MARITIME LINCOMPEX 100/101 TRANSMIT/RECEIVE TERMINAL
INSTALLATION

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1. GENERAL

1.01 This section provides information for the installation of the Lincompex 100/101 transmit and receive unit (Fig. 1). For a description of the transmit unit, see Section 403-311-101; for the receive unit, see Section 403-311-102. Both sections may be helpful in the installation of the system.

2. INSTALLATION

EXTERNAL POWER TAP ADJUSTMENT

Note: The connections given apply to both the transmit and receive units, unless otherwise stated.

2.01 Remove the power modules (Fig. 2) from position 8 of the units. Verify that the panels on the rear plates of the modules are correctly set for the main utility power source with which the equipment is to be used. All units are factory set at 250 volts to prevent damage to the equipment by the inadvertent application of the high-supply voltage.

MAIN POWER CABLE CONNECTION

2.02 A 3-conductor cable for hot, neutral, and ground (live, neutral, and earth) connections is to be used for the connection of the external power source to the unit. The conductors of the cable must be at least NO. 14 wire.

2.03 Remove the larger of the two rear cover plates by unscrewing the six retaining screws. Thread the main supply cable through the rubber grommet fitted in the left side plate of the case, leaving an adequate length to route the cable to the terminal strip TSC (Fig. 3). Remove the warning plate from the terminal strip and connect LIVE (hot), NEUTRAL, and EARTH (ground) leads of the power cable to the terminals marked L, N, and E of TSC. Clamp the cable securely to the chassis using the cable clamp.

2.04 Replace the warning plate over the terminal strip. Ensure that the rubber grommet is correctly located in the slot in the side plate and replace the rear cover plate.

SIGNAL, ALARM, AND PRIVACY SWITCHING CABLE CONNECTIONS

2.05 Remove the small upper rear cover plate by unscrewing the four retaining screws. Route the cables to TSA and TSB from the left side using the cable clamp provided. Make sure the ventilation opening for the power supply module is unobstructed.

2.06 Solder the channel input to TSA-1 and TSA-2. If a shielded cable is used, connect the shield to TSA-3.

2.07 If an external alarm system, operating on the completion of a loop, is to be used to indicate a failure in the power supply, the external alarm leads should be soldered to TSA-4 and TSA-5. A short circuit will exist between these terminals if the unit is switched off or if the main power source or any of the three regulated dc output voltages should fail during operation. The "tone off" alarm loop on the receive unit is connected between TSA-6 and TSA-7.

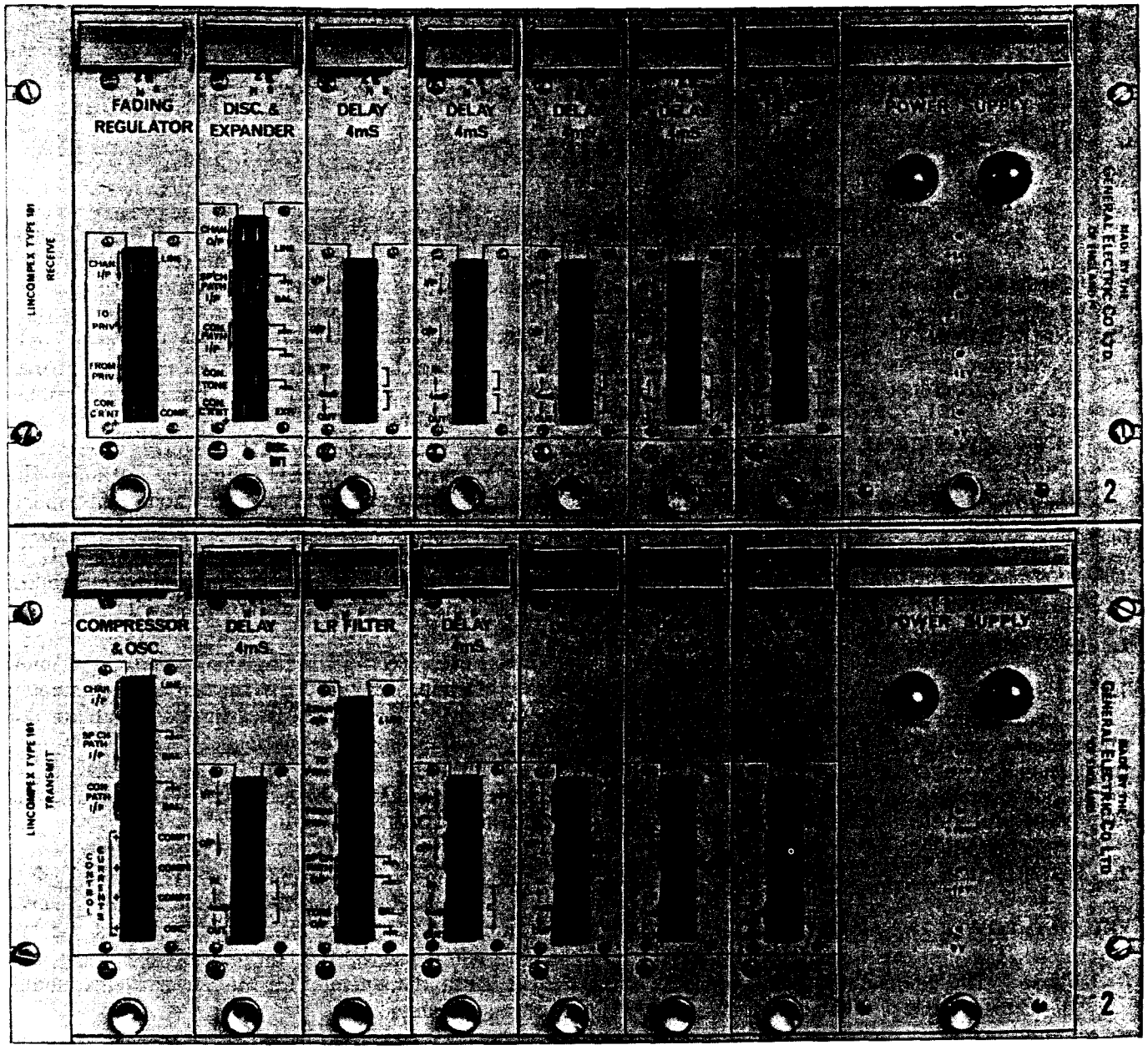

Fig. 1—Lincompex 101 Transmit and Receive Unit

2.08 Solder the channel output cable to TSA-9 and TSA-10 using TSA-8 to anchor the shield of the shielded twin lead.

2.09 If privacy equipment is to be used, the cable carrying the speech signal to the privacy equipment is soldered to TSB-1 and TSB-2. The return from the privacy equipment is soldered to TSB-4 and TSB-5. There were no plans at the time this section was written to use privacy equipment on the Lincompex 100/101. If those plans change, a change to the section will be furnished.

2.10 The cables should now be dressed and laced, and the small terminal cover plate replaced.

2.11 Care should be taken when the unit is mounted on a rack, that the cables do not

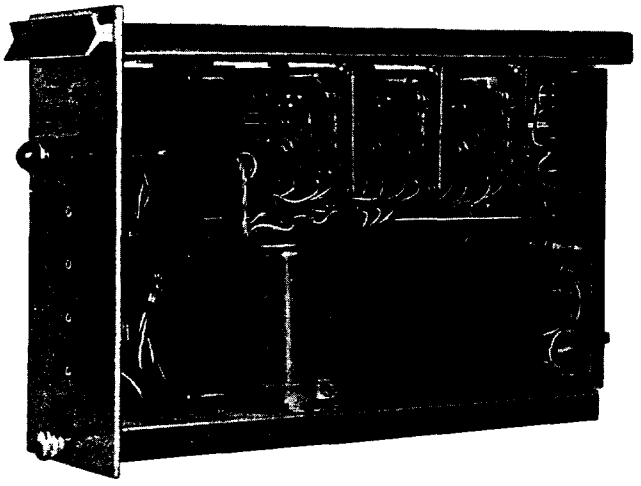

Fig. 2—Power Supply Module

obscure more than one-quarter of the ventilation holes in the right side plate of the units.

SETTING-UP PROCEDURE

2.12 The units are fully set up during assembly and the only adjustments necessary during installations are to set the input and output attenuators to accommodate the working speech levels on the link.

2.13 ***Transmit Unit:*** Strap input attenuator AT1, mounted on the rear panel (Fig. 3), to give a test level of −16 dBm after the attenuator. Factory setting of AT1 is 0 dB. The composite level before the output attenuator AT2 is approximately +9.5 dBm. Strap AT2, mounted on the rear panel, to give the required level after the attenuator. Factory setting of AT2 is 18 dB.

2.14 ***Receive Unit:*** Strap input attenuator AT1, mounted on the rear panel, to give a composite test level of −13.5 (dBm) after the attenuator (equivalent to a speech only level of −15 dBm). Factory setting of AT1 is 5 dB. The speech output test level before the output attenuator AT2 is +7 dBm. Strap AT2, mounted on the rear panel, to give the required level after the attenuator. Factory setting of AT2 is 11 dB.

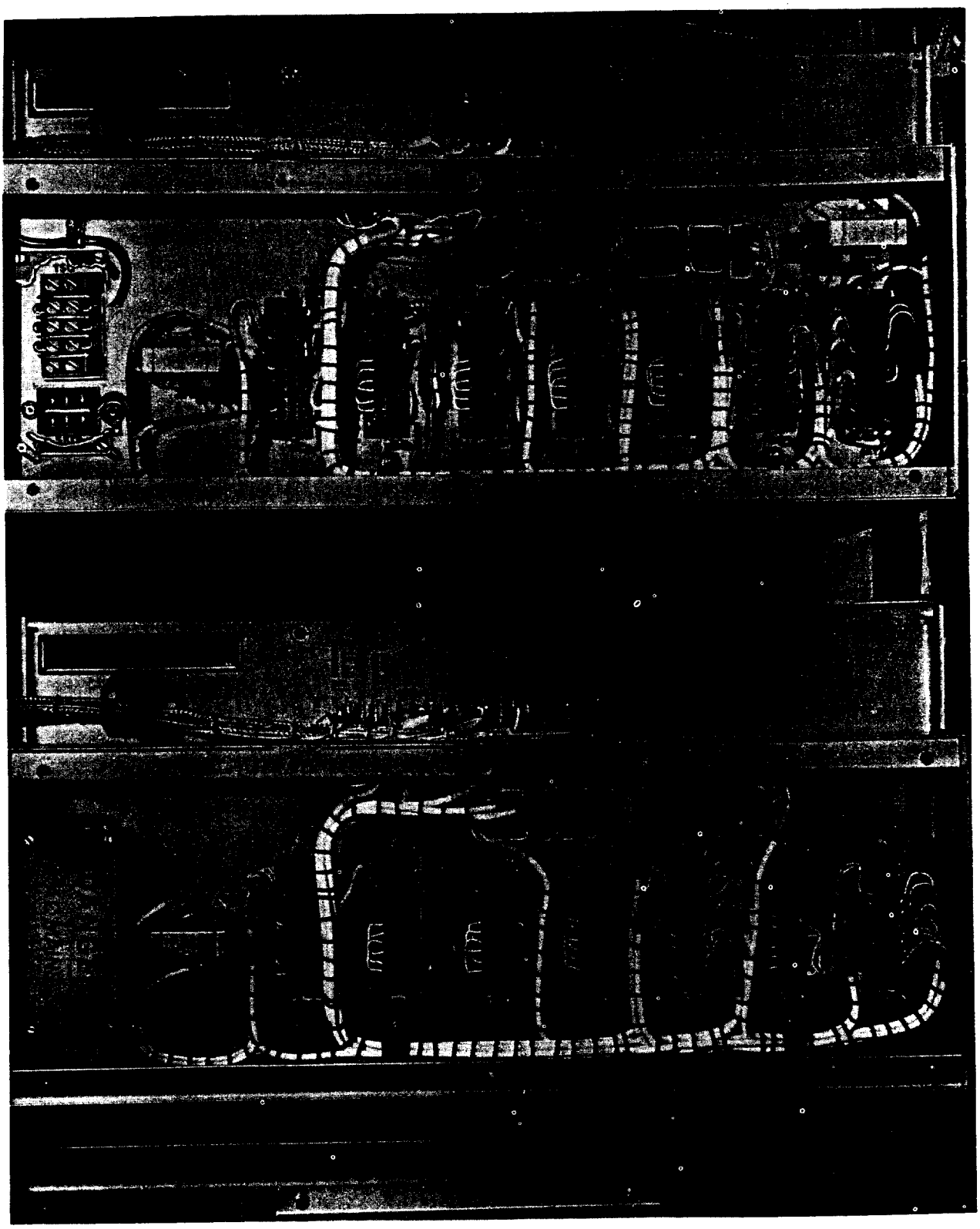

Fig. 3—Main Power Cable Connection