

'DATASPEED'* TAPE SENDER
WITH ERROR DETECTION AND CORRECTION TYPE 4A
INSTALLATION AND CHECKOUT PROCEDURE

1. GENERAL

1.001 This addendum, which supplements Section 592-811-200, Issue 1, is issued to incorporate engineering changes and to add coverage on the TABLE - CHECKOUT PROCEDURE. Arrows in the margins indicate changes and additions.

1.002 Insert the attached pages in accordance with the filing instructions above.

Attached:

Page 5 dated April 1973, reissued
Page 6 dated April 1973, revised
Page 7 dated April 1973, reissued
Page 8 dated April 1973, revised
Page 9 dated April 1973, revised
Page 10 dated April 1973, revised
Page 11 dated April 1973, added

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"DATASPEED"* TAPE SENDER
WITH ERROR DETECTION AND CORRECTION
TYPE 4A
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1. GENERAL	1	2.03 Remove the cabinet from the pallet. Exercise extreme caution during this procedure so as not to jar the cabinet or drop it on the floor.
2. INSTALLATION PROCEDURE	1	2.04 Remove all external tape from cabinet walls. Remove masking tape from edges of front door.
UNPACKING	1	<u>Note:</u> Remove tape carefully from the tape reader contact cover to avoid raising the cover and exposing the contacts to possible damage.
CABINET POSITIONING	4	2.05 Remove the back panel by loosening the screw at the top of the panel and unplug- ging the power line to the cooling fans. See Figures 2 and 4.
INSTALLING ELECTRONIC MODULES	4	2.06 Remove the cardboard boxes from the inside of the cabinet and put aside. Re- move and discard the cardboard liner that keeps the circuit cards in place.
DATA SET INSTALLATION	4	2.07 Remove and discard the bracket, screws, flatwashers and lockwashers from upper rear of modules. See Figure 4.
INPUT POWER CONNECTION	6	2.08 Remove and discard the screw, flat- washer, lockwasher and angle iron from lower rear of the transmitting distributor mod- ule. Remove and discard the screws, flat- washers, lockwashers and angle iron from lower rear of the control module. See Figure 4.
3. CHECKOUT PROCEDURE	6	2.09 Guide the power cord from the station control assembly into and through the bottom slot at the rear of the cabinet.
1. GENERAL		2.10 Plug the cooling fans power line into the receptacle on the wiring field assembly.
1.01 This section provides installation and checkout information for Tape Sender 4A (Figure 1).		2.11 Install the back panel and tighten its screws.
1.02 For other information pertaining to Tape Sender 4A, refer to the appropriate de- scription and servicing sections.		
2. INSTALLATION PROCEDURE		
UNPACKING		
2.01 Remove the outer side nails at the bottom of the shipping crate holding the shipping crate to the pallet. Lift up the shipping crate from the pallet. Discard the shipping crate.		
2.02 Remove the tape holding the four corner posts to the cabinet. Discard the corner posts.		

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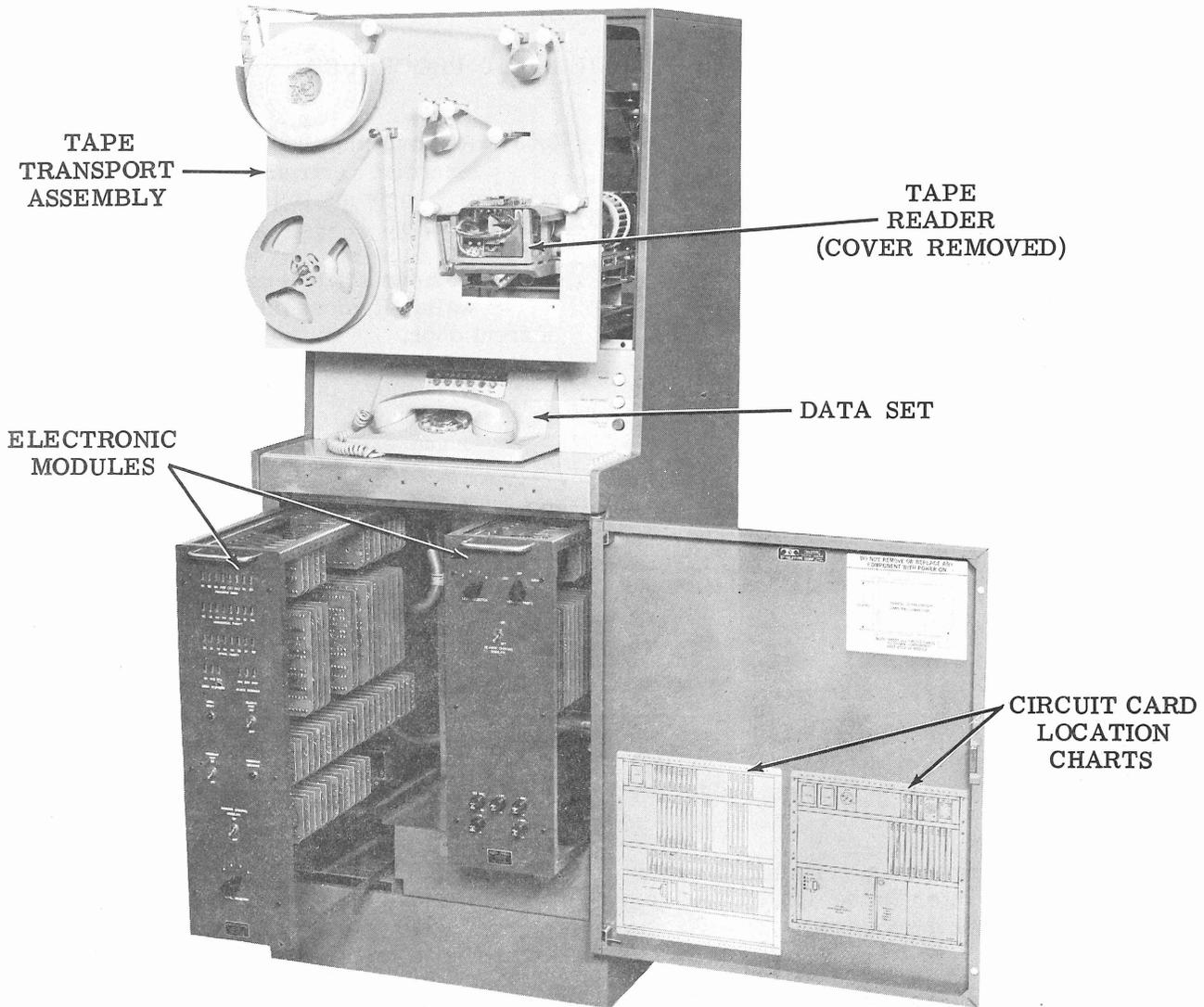


Figure 1 - Tape Sender 4A

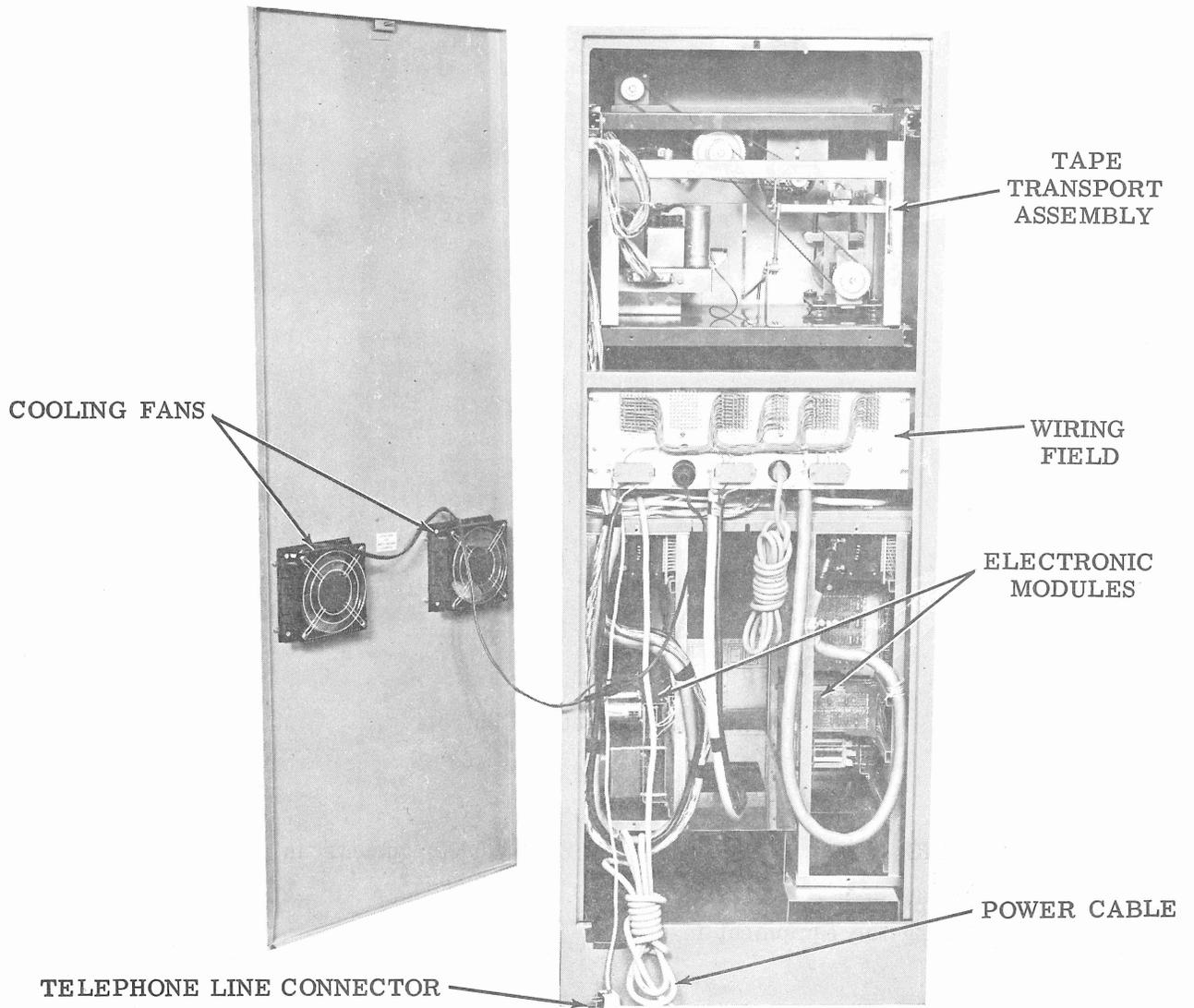


Figure 2 - Tape Sender 4A, Rear Interior View

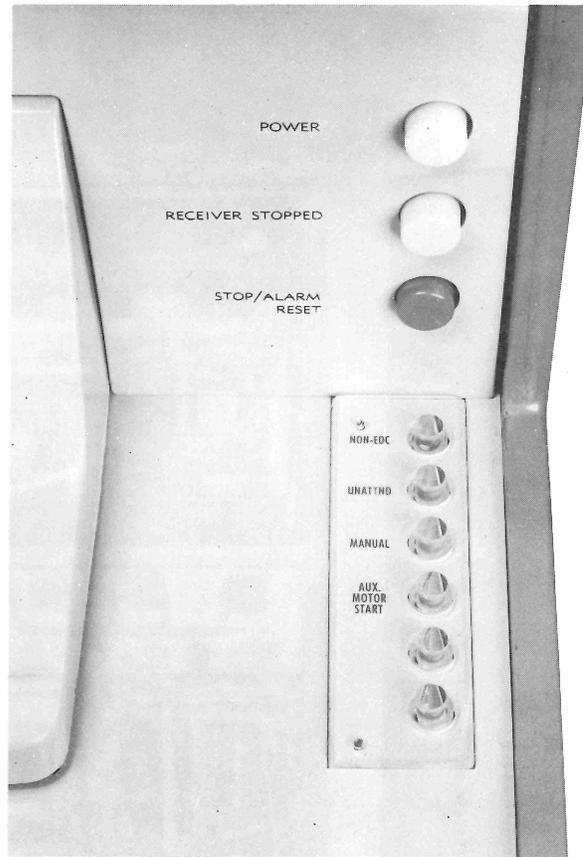


Figure 3 - Operating Controls

CABINET POSITIONING

Note: Be sure all packing hardware is removed before placing the equipment in operation.

2.12 The sender cabinet should be located within 6 feet of a 15 ampere power line circuit.

INSTALLING ELECTRONIC MODULES

2.13 The transmitter control module (TP302728) mounts in the left track of the lower portion of the cabinet as viewed from the front. To install it, it is necessary to first tilt the module backwards and insert the top of the frame behind the bent-over tab on the upper guide. Then the module should be straightened and pushed back in its guide to the rear of the cabinet. The transmitter distributor module

(TP308500) mounts in the right track in the same manner.

2.14 Module cable connections are shown in Figure 6. Make certain the connectors are rigidly held by their mounting screws.

DATA SET INSTALLATION (Figures 1 and 5)

2.15 Space is provided in the sender cabinet for mounting the various data sets associated with the terminal. The data sets can be installed from the front of the cabinet although access to the rear of the cabinet is required for routing the data set cables.

2.16 When installing a data set of the 202 type, the following procedure can be used.

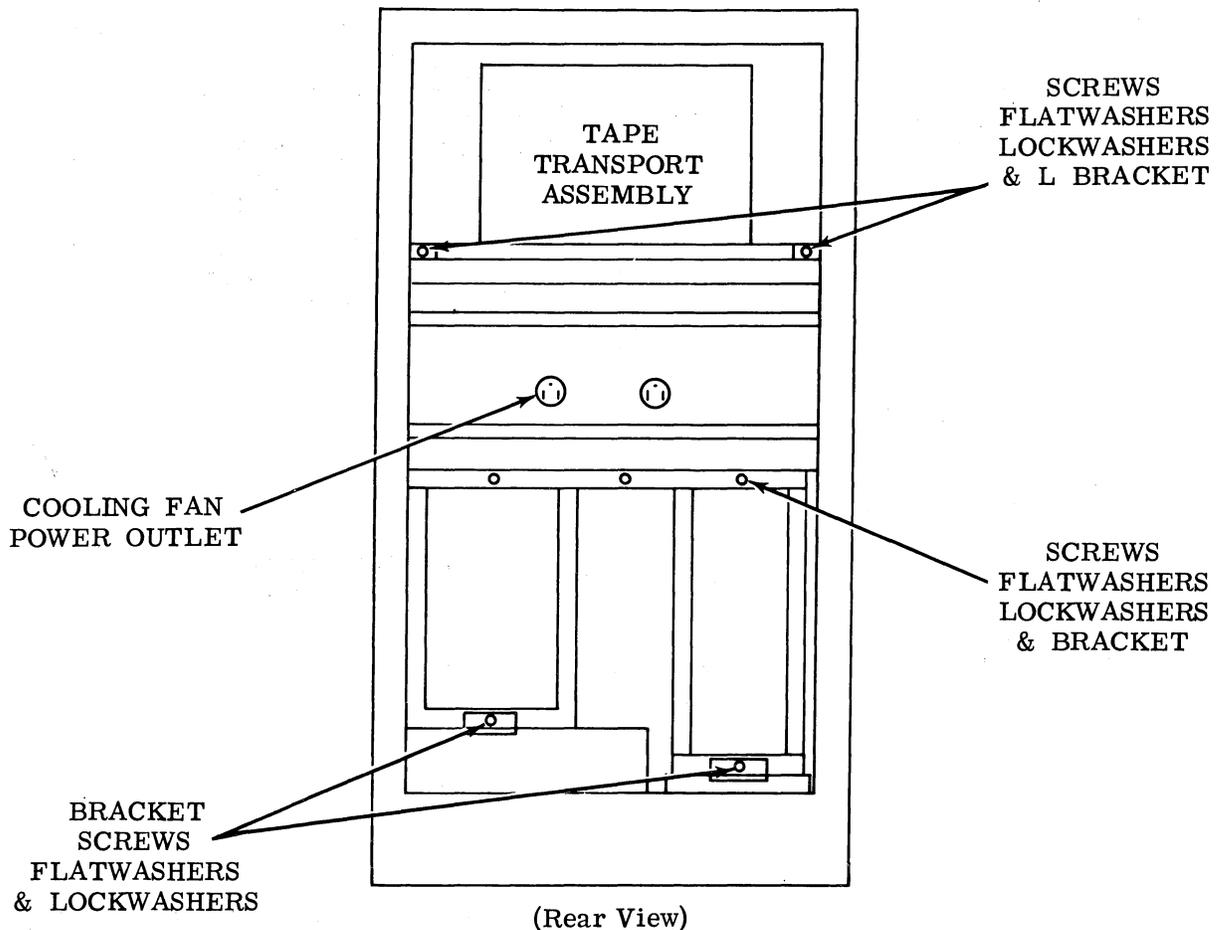


Figure 4 - Location of Shipping Hardware

- (a) Remove the plastic identification card holder and the associated identification card from the horizontal control panel. Open the door at the bottom of the cabinet, remove the 2 screws that hold the horizontal control panel and pull the horizontal control panel forward to remove it from the cabinet. Pull open the tape transport several inches and remove the 3 screws that hold the vertical control panel and remove the vertical control panel from the cabinet. The switches that protrude through the panels will remain mounted in the cabinet. See Figure 5.
- (b) Install the data set in the tray provided and feed the cable(s) from the data set to the rear of the cabinet. Replace the panels.
- (c) Plug the power cable from the data set into the DATA SET receptacle provided on the TP302788 wire field assembly. Connect the TP308467 cable assembly from the TP302788 wire field assembly to the recep-

tacle provided on the data set. The above connections must be made from the rear of the cabinet. Plug in the telephone line connector.

- 2.17 When installing a data set similar to the 201 type, use the following procedure.
- 2.18 Space is provided in the bottom of the sender cabinet to mount a 201 type data set. To install it, the modules must be removed from the cabinet by reversing the procedure given in 2.13. Remove the six screws holding the TP302819 removable tray assembly. The tray is the base that the module on the right hand side of the cabinet rests on. Remove the tray.
- 2.19 Install the data set in the bottom of the cabinet so that the receptacles on the data set face the left wall of the cabinet. Connect the TP308467 cable assembly from the TP302788 wire field assembly to the receptacle on the data set provided for customer equipment. Connect the cable from the handset associated with the

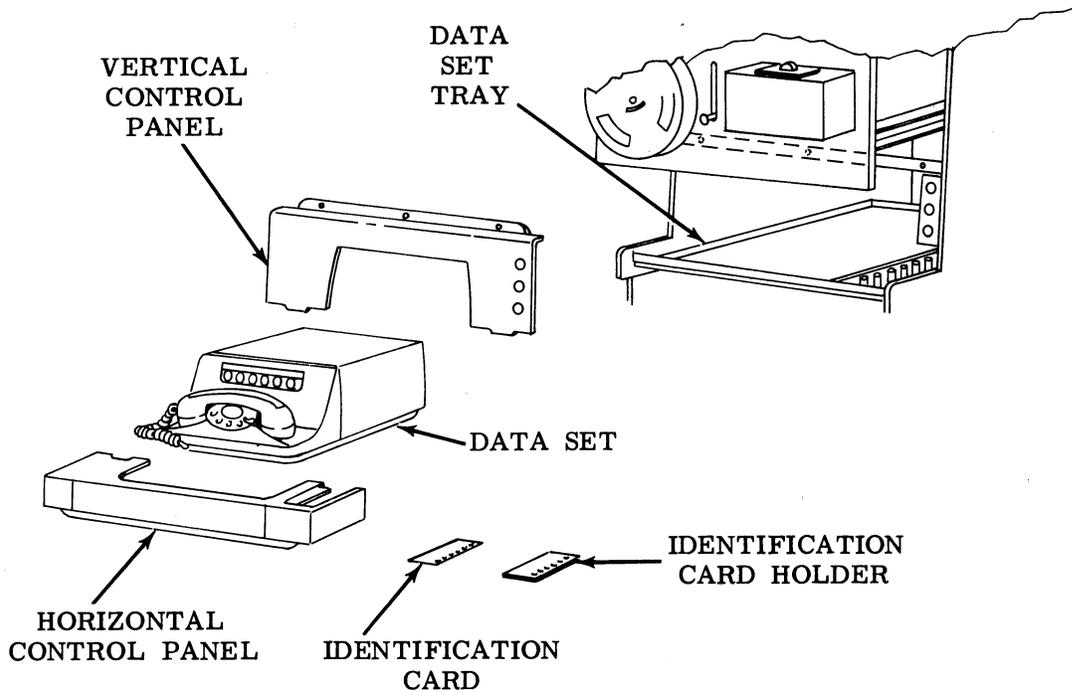


Figure 5 - Data Set Mounting

data set in the receptacle provided on the data set. Plug the power cable for the data set into data set receptacle on the TP302788 wire field assembly. Route the cables so they will not interfere with the module installation. Replace the removable tray assembly making certain that the bend on the bottom front of the assembly fits in the slot on the cabinet. Replace the six screws and re-install the modules following the procedure given in 2.13.

2.20 If a handset is associated with the 201 type data set, it can be mounted in the area where the 202 type data set is normally installed. Remove the horizontal and vertical control panels in the manner described in 2.16. Insert the TP302817 data set retainer in the data set tray. The data set retainer is packaged in a carton taped to the bottom of the cabinet. Packaged with the data set retainer is the TP302818 filler panel which is used to reduce the size of the cutout for the handset. Install the handset in the cabinet so that the rear of the handset rests on the retainer (allow approximately two inches of overlap). Replace the horizontal and vertical control panels. Insert the TP302518 filler panel in the cutout by hooking the bottom of the filler panel to the horizontal control panel and snapping the top of the filler panel

into the vertical control panel. Then pull the handset forward until it drops into place on the data set tray.

INPUT POWER CONNECTION

2.21 The input power cable is part of the TP302788 wire field assembly. Route the cable from terminal board TBJ7 through the opening located in the lower rear of the cabinet to the outside 117v ac power source.

3. CHECKOUT PROCEDURE

→ 3.01 The procedures given in the Table contain the procedures for checking the tape sender for proper operation after installation. The procedure is given in chart form with test conditions arranged in a specific sequence. A visual verification corresponds to each test.

3.02 The tests should be conducted without a data set connected. To provide a clock source, the speed control switch in the transmitter control module should be put in the 1050 position. At the end of the checkout, all switches should be returned to their normal position.

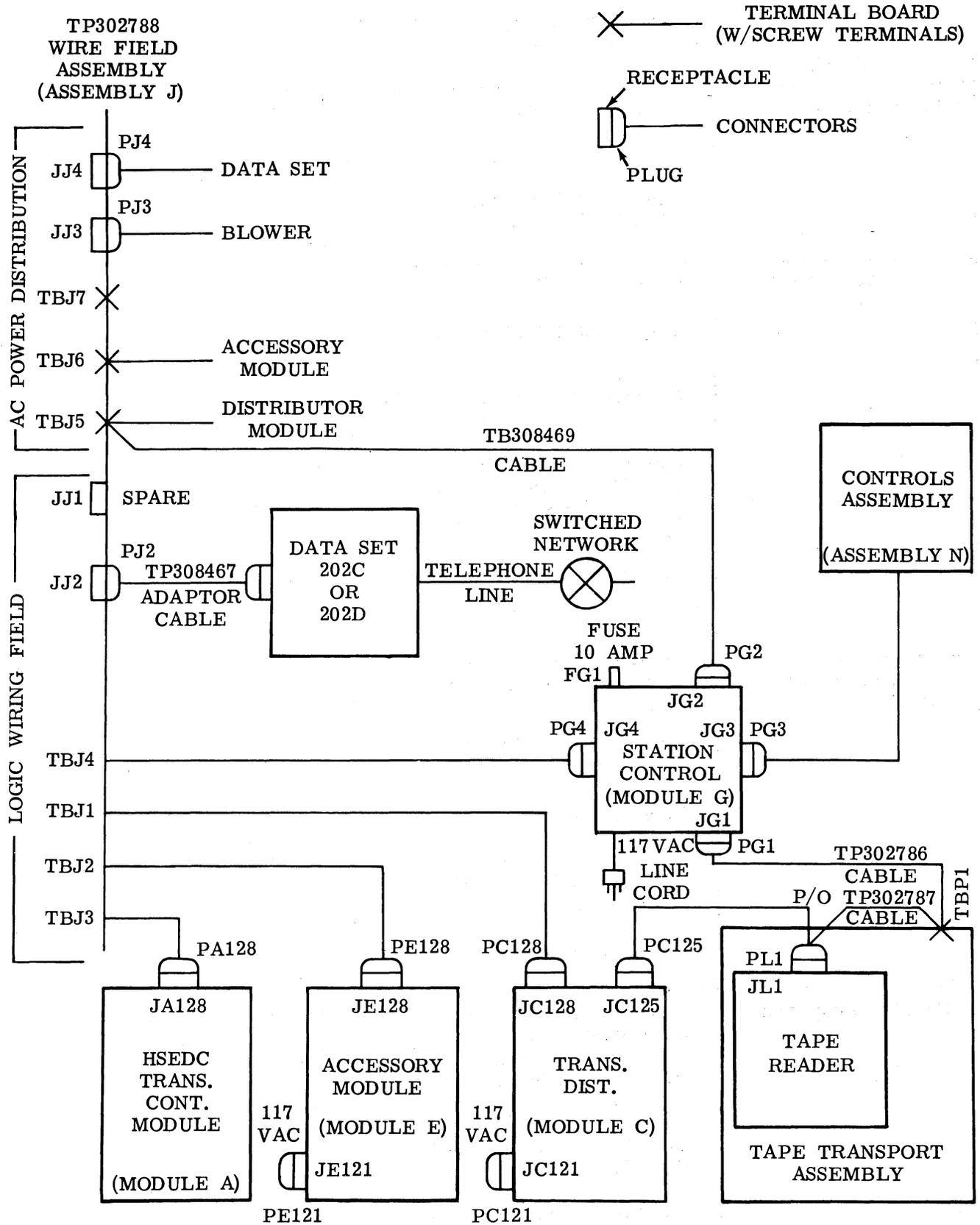


Figure 6 - Cabling Diagram

TABLE - CHECKOUT PROCEDURE

Check	Action	Verification
Power On/Off	Operate the POWER switch. Operate AUX. MOTOR START button.	POWER indicator lights. Power is available at the BLOWER output. Fan operates. AUX. MOTOR START indicator lights. Reader and tape handling motors run.
Terminal Control Switches	Operate MANUAL button. Operate NON-EDC button. Operate MANUAL button. Operate AUX. MOTOR START and NON-EDC buttons simultaneously. Operate MANUAL button.	MANUAL indicator lights. Motors turn off. NON-EDC indicator and MANUAL indicator light. NON-EDC indicator goes out. MANUAL indicator remains on. MANUAL indicator goes out. NON-EDC and AUX. MOTOR START indicators light. Motors run. NON-EDC indicator and AUX. MOTOR START indicator go out. MANUAL indicator lights. Motors turn off.
Stop-Alarm/Reset Switch	Place tape in the reader unit. Operate STOP-ALARM/RESET switch. Remove tape from reader unit. Operate STOP-ALARM/RESET switch. Place tape in reader unit.	STOP-ALARM/RESET indicator goes out. Switch has no effect. Light remains off (except if held depressed). STOP-ALARM/RESET indicator lights. Switch has no effect. Light remains on. STOP-ALARM/RESET indicator goes out.
Data Set Simulation	With tape in the reader, place TEST/OPERATE switch on the station control assembly in the TEST position. Operate the STOP-ALARM/RESET switch. Operate the STOP-ALARM/RESET switch.	Motors turn on. RECEIVER STOPPED indicator comes on. (This indicator should remain on through the following sequence.) STOP-ALARM/RESET indicator lights. Motors turn off. STOP-ALARM/RESET indicator goes off. Motors turn on.

TABLE - CHECKOUT PROCEDURE (continued)

Check	Action	Verification
Data Set Simulation (continued)	<p>Remove the tape from the reader.</p> <p>Place tape in the reader unit.</p> <p>Operate STOP-ALARM/RESET switch.</p>	<p>STOP-ALARM/RESET indicator lights. Motors turn off.</p> <p>No effect.</p> <p>STOP-ALARM/RESET indicator goes off. Motors turn on.</p>
Program Test	<p>Place PROGRAM ADVANCE switch in ON position.</p> <p>Operate PROGRAM ADVANCE pushbutton once.</p> <p>Operate PROGRAM ADVANCE pushbutton one or more times to go to any mode other than SR.</p> <p>Operate (LOGIC RESET) STOP-ALARM/RESET pushbutton.</p>	<p>No effect. Transmitter in SR Mode.</p> <p>Indicator light on program mode advances to BN.</p> <p>Mode advances to BK. Reader runs continuously in forward direction.</p> <p>Mode advances to EOB. Reader stops.</p> <p>Mode advances to CK1.</p> <p>Mode advances to CK2.</p> <p>Mode advances to R1. Reader runs continuously in reverse direction. Block numbers cycle in reverse.</p> <p>Mode advances to R2. Reader continues to run in reverse direction. Block numbers cycle in reverse.</p> <p>Mode returns to SR. Reader stops.</p> <p>Reader may or may not run. Reader does not run in all programmer modes.</p> <p>Mode returns to SR. If reader was running, it stops.</p>

TABLE - CHECKOUT PROCEDURE (continued)

Check	Action	Verification
<p>Terminal Operation - Non-EDC Test</p>	<p>With tape in the reader, the STOP-ALARM/RESET switch off (indicator out) and NON-EDC button pushed (indicator on), put REVERSE CHANNEL SIMULATE switch (on the transmitter control module) in the ON position.</p> <p>Put REVERSE CHANNEL SIMULATE switch in OFF position.</p> <p>Put REVERSE CHANNEL SIMULATE switch in ON position.</p> <p>Operate STOP-ALARM/RESET switch.</p> <p>Operate STOP-ALARM/RESET switch.</p> <p>Allow end of tape to pass through reader.</p> <p>Depress NON-EDC button.</p>	<p>RECEIVER STOPPED indicator goes out. Reader runs continuously in forward direction.</p> <p>RECEIVER STOPPED indicator lights. Reader stops.</p> <p>RECEIVER STOPPED indicator goes out. Reader runs continuously in forward direction.</p> <p>STOP-ALARM/RESET indicator lights. Reader stops. RECEIVER STOPPED indicator remains off. Motors turn off.</p> <p>STOP-ALARM/RESET indicator goes out. Motors turn on. Reader starts.</p> <p>STOP-ALARM/RESET indicator lights. Reader stops. Motors turn off.</p> <p>NON-EDC indicator off.</p>
<p>Terminal Operation - EDC Mode</p>	<p>With tape in the reader, the STOP-ALARM/RESET switch off (indicator out) and MANUAL indicator lighted, put REVERSE CHANNEL SIMULATE switch (on transmitter control module) in the ON position.</p>	<p>RECEIVER STOPPED indicator goes out. Reader runs in forward direction with a slight pause at the end of each block of 80 characters. Top row of lights on transmitter control module cycles between BN and CK2.</p>

TABLE - CHECKOUT PROCEDURE (continued)

Check	Action	Verification
Terminal Operation - EDC Mode (continued)	<p>Place REVERSE CHANNEL SIMULATE switch in OFF position.</p> <p>Place REVERSE CHANNEL SIMULATE switch in ON position.</p> <p>Operate STOP-ALARM/RESET switch.</p> <p>Operate STOP-ALARM/RESET switch.</p> <p>Allow end of tape to pass through reader.</p>	<p>RECEIVER STOPPED indicator lights. Reader will stop at the end of the current block, back up the tape two blocks and then stop.</p> <p>RECEIVER STOPPED indicator goes out. Reader runs in forward direction, as above.</p> <p>STOP-ALARM/RESET indicator goes on. Reader will stop at the end of the current block, back up the tape one block and then stop. Motors will turn off. RECEIVER STOPPED indicator remains off.</p> <p>STOP-ALARM/RESET indicator goes out. Motors turn on. Reader runs in the forward direction, as above.</p> <p>STOP-ALARM/RESET indicator goes on. Reader will stop at the end of the current block. No backup will occur. Motors turn off.</p>
Reader Test	<p>With tape in the reader, the STOP-ALARM/RESET switch off (indicator out), the MANUAL indicator on, and the REVERSE CHANNEL SIMULATE switch in the OFF position, put the READER TEST switch in the ON position.</p> <p>Cause the tape in the reader to stall slightly so that an error in reading will occur.</p> <p>Place the READER TEST switch to the OFF position and then back to the ON position.</p>	<p>Reader will run in the forward direction, as in normal EDC operation, with slight pause at end of each block of 80 characters. Programmer cycles between BN and CK2 modes.</p> <p>Reader will stop at the end of the current block and then back up two blocks. RTA light on transmitter control module will light and RCD indicator goes off.</p> <p>RTA light will go off. Reader will run in forward direction.</p>
Return all switches to their normal position.		