

1A TRANSACTION TELEPHONE TEST LINE STATION INSTALLATION AND CONNECTIONS

CONTENTS	PAGE
1. GENERAL	1
2. SPECIAL TOOLS	1
3. TEST EQUIPMENT	1
4. OPTIONS	2
5. LOOP-LOSS MEASUREMENT	2
6. INSTALLATION AND CONNECTION PROCEDURE	2

1. GENERAL

1.01 This section covers the procedures to be followed when installing the 1A TRANSACTION telephone test line station (1A TTLS) on Bell System or customer premises.

1.02 This section is reissued to note that the 1A TTLS can be equipped with all types of 806E data auxiliary sets (for testing TRANSACTION II telephone sets and TRANSACTION II with printer in addition to TRANSACTION I). Since this reissue constitutes a general revision, change arrows ordinarily used to denote changes have been omitted.

1.03 The 1A TTLS can provide up to two TRANSACTION telephone test lines. Each test line consists of a data set 407A-type and a data auxiliary set (DAS) 806E-type. The 41B2 data housing is used to mount the test lines and the necessary power units (101A and 210A types).

1.04 The 1A TTLS may be housed in a KS-20018-L12-type cabinet, or equivalent, or

any mounting rack arrangement that will accept the 23-inch 41B2 data mounting.

1.05 Verify that the location selected for the 1A TTLS is adequate for maintenance and that the 117-Vac power outlet is **not** controlled by a switch. The ac power outlet must be within reach of the 5-1/2 foot power cord supplied with the 41B2 data mounting.

1.06 Reference to directions (left, right, front, or rear) are with respect to facing the 41B2 data mounting with the 101A power unit mounting location on the right side.

1.07 Ensure that the data loops are tested and that they meet the requirements outlined in the section entitled Data System—DATAPHONE® Service on Direct Distance Dialing Network—Test Requirements for Subscriber, Foreign Exchange, and Remote Exchange Lines (314-205-501) or Voice Bandwidth Private Line Data Circuits—Tests and Requirements (314-410-500).

2. SPECIAL TOOLS

2.01 When the 1A TTLS is to be installed in a KS-20018-L12-type cabinet, or equivalent, the following special tools are required in addition to the standard installation tools:

- KS-19053-L1 screwdriver, or equivalent
- Screw starter, Kedman Company, No. 1736, or equivalent.

3. TEST EQUIPMENT

3.01 TTS-4 transmission measuring set (or equivalent) is required.

NOTICE

Not for use or disclosure outside the
Bell System except under written agreement

4. OPTIONS

4.01 Table A shows the options that must be installed in the data set(s) 407A-type and on the 101A power unit when they are used in the 1A TTLS. Options must be installed in the data sets and power unit prior to final insertion in the 41B2 data mounting.

4.02 Option A or B must be installed, depending upon the type of service required (switched network: 900 ohms, or private line: 600 ohms). Options C, J, and HH must always be installed. Option E, F, or G must be installed per Part 5.

5. LOOP-LOSS MEASUREMENT

5.01 In order to determine the answer-back level of the data set, it is necessary to know the loop loss. To determine the loop loss, dial the central office milliwatt supply or request the local testboard to send a 1000-Hz tone at 0 dBm on the loop. Use a TTS-4 transmission measuring set (or equivalent) to measure the incoming signal across the line tip and ring.

Note: If the 1A TTLS is to be installed in the central office, the loop loss will probably be less than 1 dB. If this is the case, Option G (-12 dBm) is the correct answer-back level to install in the data set (see Table A).

5.02 After loop loss is determined, install the proper option so that the answer-back level is -12 dBm when it reaches the central office.

6. INSTALLATION AND CONNECTION PROCEDURE

6.01 The front cover of the 41B2 data mounting is removable (by opening to a horizontal position and pulling forward). One label is attached to the inside front cover. This label is used to designate data set number location and computer port assignment in a standard 407-type multiple installation and will be replaced with a new label in Step 18 of the installation procedure.

6.02 The installation and connection procedure for the 1A TTLS is as follows:

TABLE A

1A TTLS OPTIONS

FEATURE OR OPTION TO BE INSTALLED		WIRING OPTION	INSTALLATION PROCEDURE
			INSTALL RED STRAPS ON DATA SET 407A-L1
Switched network		A	E34 - E32, E37 - E38, E42 - E41
Private Line		B	E34 - E33, E37 - E36, E42 - E43
Without ACD		C	E28 - E26, E30 - E29
Contact interface		J	E49 - E47, E51 - E50
Answer-back level 407A-407A-L1A	-3 dBm	E	E54 - E56, E60 - E58
	-7 dBm	F	E54 - E53, E60 - E59
	-12 dBm	G	E54 - E55, E60 - E61
Answer-back level 407A-L1B	-5 dBm		E54 - E56, E58 - E60
	-7 dBm		E54 - E55, E60 - E61
	-9 dBm		E53 - E54, E59 - E60
	-11 dBm		E54 - E92, E60 - E25
			INSTALL STRAP ON 101A POWER UNIT
Frame ground connected to signal ground		HH	E16 - E17

STEP

PROCEDURE



Do not apply power to the data mounting or any of the related components of the 1A TTTLS until the complete station is installed.

- 1 If the TTTLS is to be installed in a KS-20018-L12-type cabinet, position the cabinet near a telephone company (telco) or customer-provided 60-Hz power outlet.

Note: For ease of installation of the 41B2 data mounting, the KS-20018-L12-type cabinet may be placed **face up** during installation. (A bag of number 12 mounting screws and star washers are supplied with the 41B2 data mounting. Frame ground is connected to the cabinet from the data mounting by the use of star washers.)
- 2 Gain access to the front of the cabinet.
- 3 Verify that terminals E16 and E17 on the 101A power unit are connected (Option HH) per Fig. 1.
- 4 If the 101A power unit is installed in the data mounting, remove it at this time.
- 5 Remove the front cover of the data mounting.

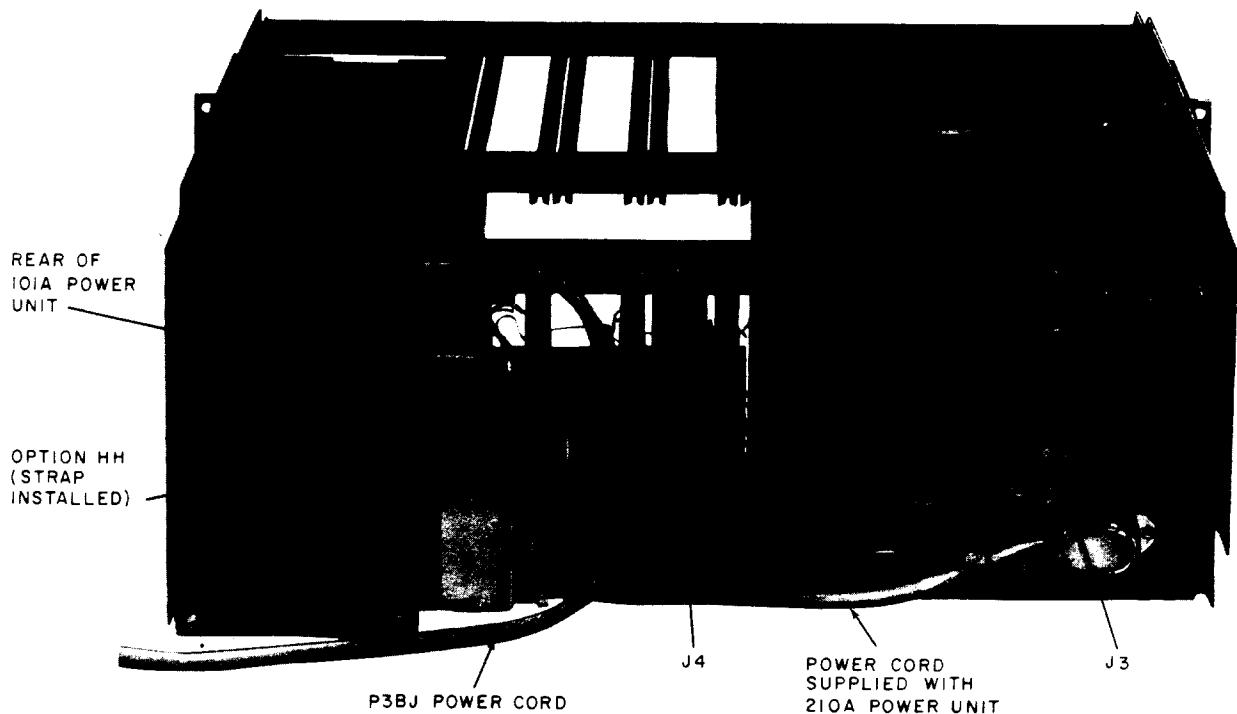


Fig. 1—Rear View of 41B2 Data Mounting

STEP

PROCEDURE

Note: Removal of the power unit and front cover from the data mounting ensures easy installation of the data mounting within the cabinet or on the rack.

- 6 Remove the card guides for the right half of position 1 and the left half of position 2 per Fig. 2.
- 7 Mount the data mounting in the cabinet or on the rack, as required, using the number 12 mounting screws and star washers.
- 8 Gain access to the rear of the data mounting and install the 101A power unit in its correct location. Refer to Fig. 1 for correct location of the power unit.
- 9 Install the 210A power unit in positions 1 and 2 of the data mounting per Fig. 3.
Note: Ensure that a good connection is made to the data mounting by using sufficient force when pushing the power unit, data set, or DAS into position.
- 10 Verify that all pertinent data set options are properly installed per Table A and Fig. 4.
- 11 Insert the properly optioned data set in position 3 of the data mounting and the DAS in positions 4 and 5 (per Fig. 3).

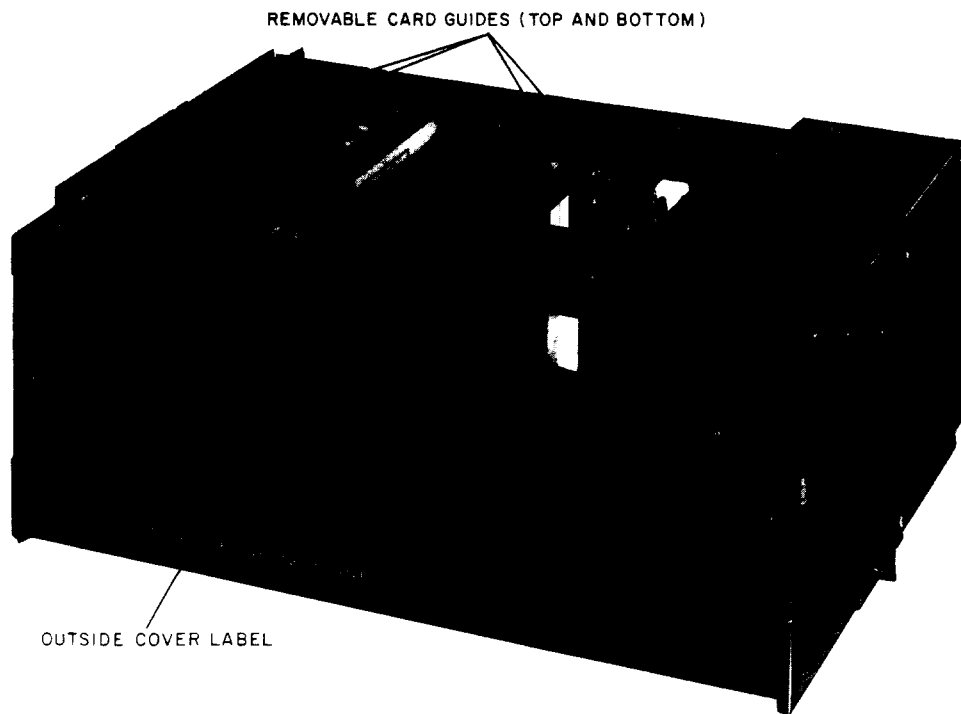


Fig. 2—1A TTLS—Front Cover in Place

STEP	PROCEDURE
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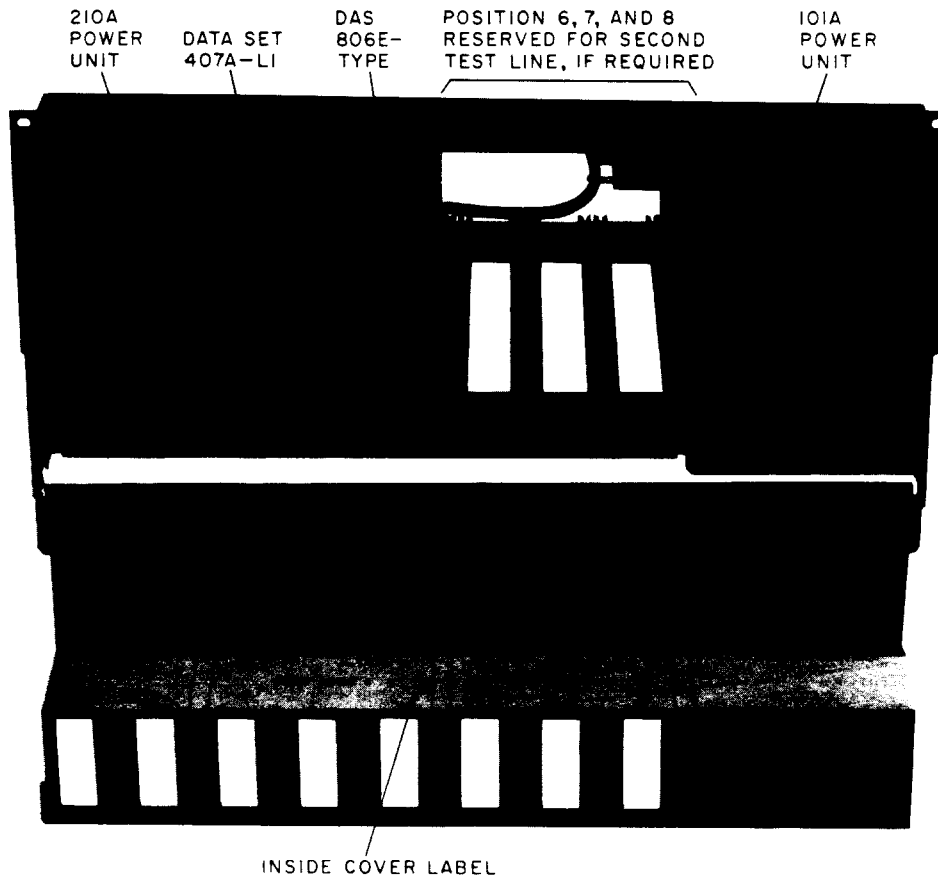


Fig. 3— 1A TTLS—Front Cover Lowered

- 12 If two test lines are to be installed, insert the second properly optioned data set in position 6 of the data mounting and the DAS in positions 7 and 8.
- 13 Connect the 18-inch power cord supplied with the 210A power unit between the 101A and the 210A power units as shown in Fig. 1.
- 14 Insert the telephone connector plug(s) (A25D connector cable equipped with KS-16689-L3 plug) into J3 (and J4 if two test lines are to be installed) located on the rear of the data mounting.
- 15 Route the A25D connector cable(s), as required, to the connecting block or intermediate distribution frame (IDF) and terminate per Fig. 5.

STEP

PROCEDURE

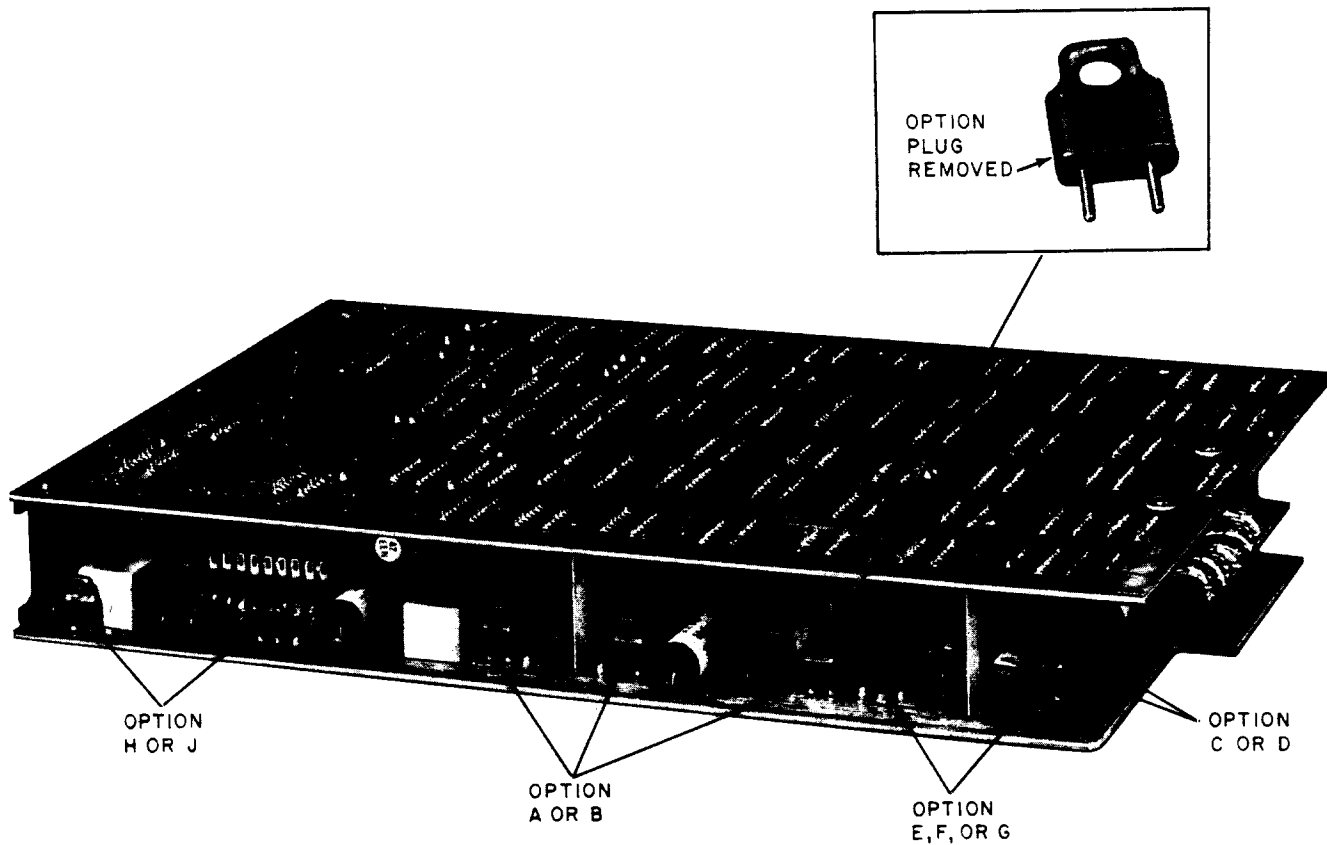


Fig. 4—Data Set 407A-Type—Option Strap Locations

- 16 Attach the labels supplied with the DAS to the data mounting cover as shown in Fig. 2 and 3.
- 17 Connect the P3BJ power cable to the twist-lock ac outlet located on the side of the 101A power unit as shown in Fig. 1, then connect the other end to a 117-volt 60-Hz ac outlet.

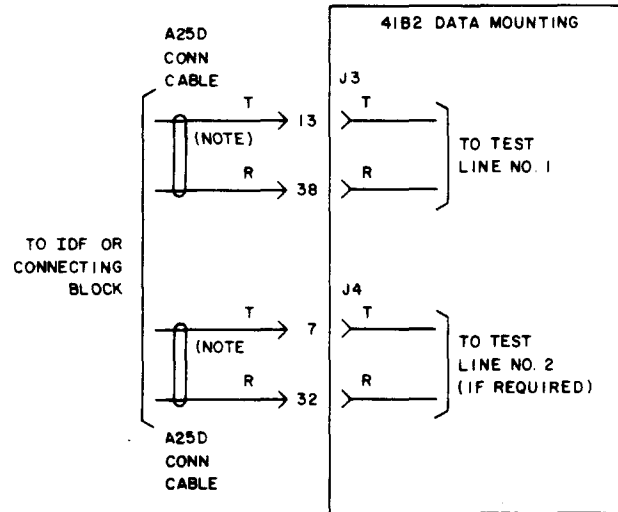
Requirement: All ON lamps lighted. All eight data lamps on the DAS lighted.



If the DAS is removed from the data mounting while power is applied, 5-volt power may be lost from the 101A power unit due to activation of the crowbar circuit. If this happens, it is necessary to remove the 60-Hz power from the 1A TTLS and then reinstate it.

STEP

PROCEDURE



NOTE:
 TERMINALS 13, 38, 7, AND 32 CORRESPOND
 TO TERMINALS 26, 25, 14 AND 13, RESPECTIVELY,
 ON A 66E-TYPE CONNECTING BLOCK.

Fig. 5—1A TTTLs—Telephone Line Connections

- 18 Connect the 6-inch M25B cord(s) between data set(s) and DAS(s) and position cords so that front cover will close (Step 19).

Requirement: All eight data lamps on the DAS are extinguished. All ON lamps remain lighted.

- 19 Install front cover on the data mounting and perform the tests per Section 314-811-500.