DATA SET 603B-TYPE

INSTALLATION INSTRUCTIONS

1. GENERAL

1.01 This section contains instructions for connecting and installing Data Set 603B-type. This section does not include specific installation methods or operating information for the associated business machine and related equipment.

1.02 This section is reissued to add the following:

- Information necessary to meet signal level requirements
- Information necessary for using Data Set 603B-type with key telephone units.

1.03 Cover removal and replacement procedure for the 603B-type receiver is described in Section 596-013-300.

1.04 ◗Data Set 603B-type shall be installed in conformance with existing practices covering installation of station sets. Data Sets 603B1 (Fig. 1) and 603B3 are rotary dial sets. Data Sets 603B2 (Fig. 2) and 603B4 are TOUCH-TONE® sets.◖

1.05 The set must be located within range of the interface connector cord supplied by the customer. This cord should not exceed 50 feet.

1.06 To avoid interference during data transmission, the following restrictions apply to the data line where practicable.

- Use only on individual lines.
- Do not connect extension telephones.

1.07 To minimize inductive interference to the data signal on the telephone (data) line, the line should not be placed in the same run or raceway as the interface cable between the data set and its business machine, or lines carrying dc teletypewriter services. If this requirement cannot be met, it will be necessary to run telephone (data) line in SK (shielded) station wire between data set and cable distribution terminal or building entrance. Shield should be grounded at distribution terminal end only.

1.08 The customer must provide a 3-wire ac outlet that is not under control of a switch. The outlet must accept a plug having two parallel blades and a U-shaped grounding pin.

> ***Note:*** To ensure that data set and business machine grounds are at the same potential, the data set should be served from the same ac distribution panel as the business machine. If this condition does not exist, a test using the 6A impulse counter should be made to detect any noise. This test procedure is described in the section entitled Data Set 603B-Type, Test Procedures (Section 596-013-500). If test requirement is not met, data set ground and business machine ground must be bonded together.

Local operating practices should specify the method of providing this bond.

1.09 Check with local test center that telephone loop facilities assigned have been tested to verify they meet design requirements. If not, the loop must be tested to see that it meets these requirements before proceeding with installation. These requirements are described in ◗the section entitled DATA-PHONE service, Direct Distance Dialing Network Test Requirements for Subscriber, Foreign Exchange, and Remote Exchange Lines (314-205-501).◖

1.10 Before proceeding with installation tests:

(a) Check that telephone portion of installation meets standard direct current, talk, signaling, and supervision requirements.

(b) Check that data set options agree with service orders.

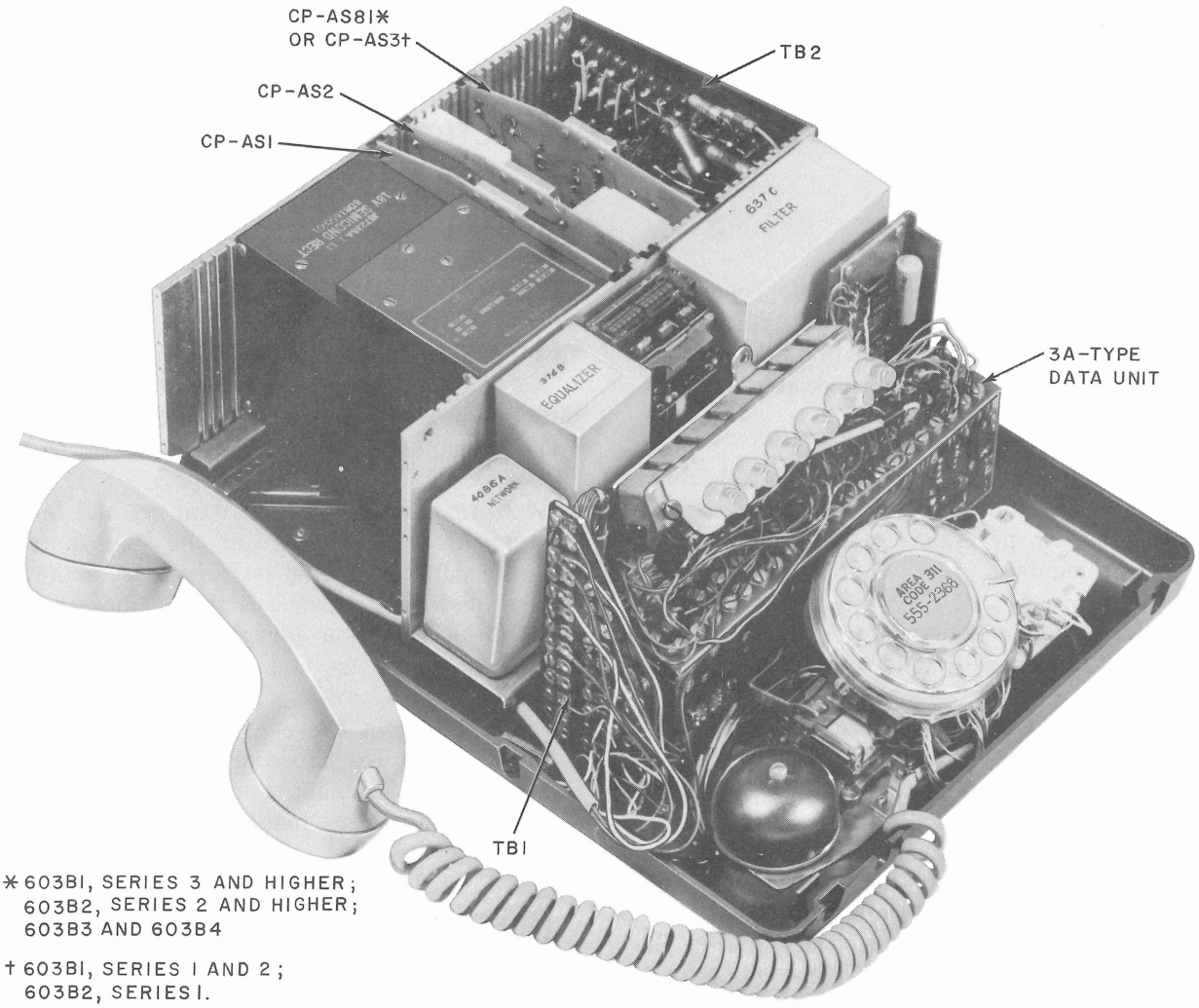


Fig. 1—Data Set 603B1, Cover Removed

READ

Take proper steps to ensure that the customer is not billed for test calls. Refer to the section entitled Crediting Charges on Test Calls (010-250-001).

2. OPTION STRAPPING

2.01 Table A shows wiring options. Options required for each installation must be specified on the service order.

READ

Metal formed straps found on terminals 1, 2, 3, 4, 14, 15, 16, 17, 27, 28, 29, 30, 40, 41, 42, and 43 are factory adjustments of the 18-volt supplies and should not be removed or altered.

3. INSTALLATION AND CONNECTIONS

3.01 All in-service data sets must meet signal level requirements which allow the data signal level to be no greater than –12 dBm at the serving central office. The reverse channel output level of Data Set 603B-type must meet these requirements. The power reverse channel output power option (shown in Table A) is selected to provide a signal of –12 dBm or less at the central office. On later model data sets (603B1 series 3 and higher, 603B2 series 2 and higher, 603B3, and 603B4), the lower reverse channel output level option(–12 dBm) is provided for low-loss loops. If earlier models of Data Set 603B are used, it may be necessary to install a 3-dB pad (refer to Fig. 3) to maintain a level below –12 dBm. If loop loss

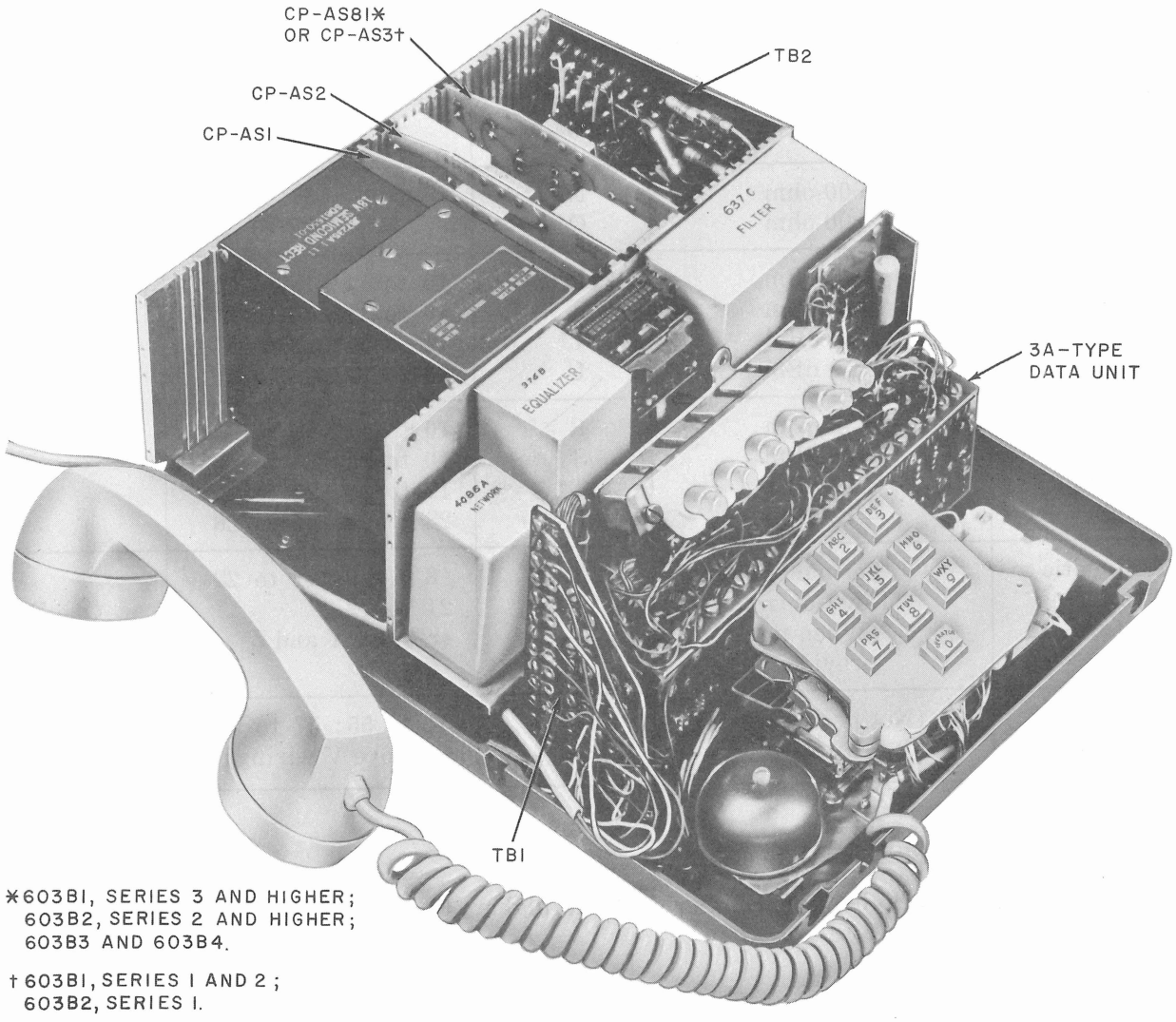


Fig. 2—Data Set 603B2, Cover Removed

is between 0 dB and 3 dB, a 3-dB pad is required. If loop loss is between 3 dB and 12 dB, no pad is required. The pad may be constructed locally or ordered with the information contained in Fig. 3.

3.02 For normal operation, make line connections to the data set as shown in Fig. 4.

TABLE A

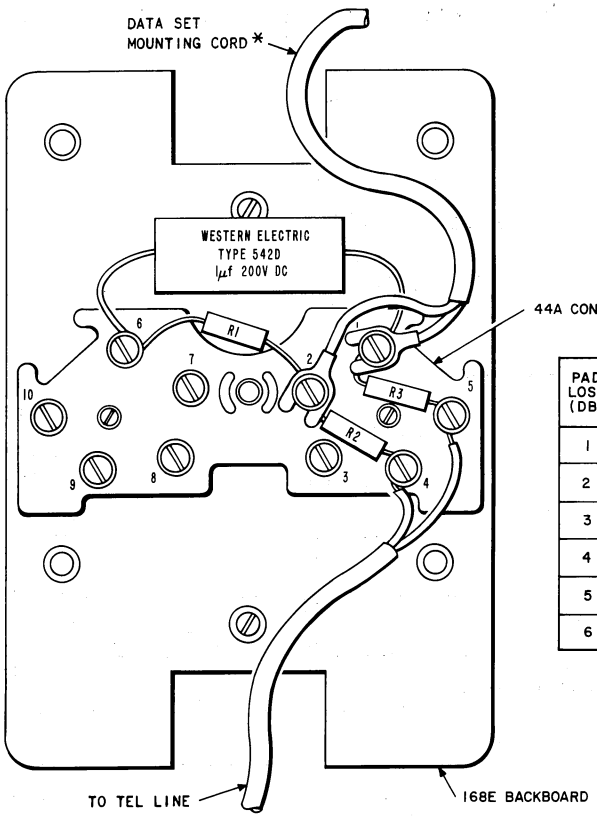
OPTIONS AND CONNECTIONS

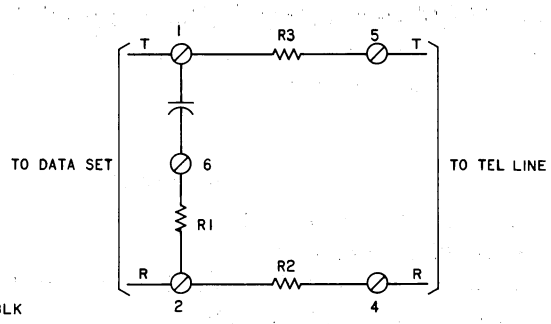
FEATURE OR OPTION		DESIGNATION	STRAP TERMINALS ON TB2	PROVIDE
Input Termination	600-ohm 900-ohm	N Q*	37 to 38 38 to 39	One Per Station
Reverse Channel Transmit Level†	0 dBm —3 dBm —6 dBm —9 dBm	R S T* U	10 to 11; 12 to 13 10 to 11; 25 to 26 12 to 13; 23 to 24 23 to 24; 25 to 26	One Per Station
Reverse Channel Transmit Level‡	—3 dBm —6 dBm —9 dBm —12 dBm	R S T* U	10 to 11; 12 to 13 10 to 11; 25 to 26 12 to 13; 23 to 24 23 to 24; 25 to 26	
Automatic Answering Feature	Permanent Key Control (When not provided)	Y Z —	8 to 9; 21 to 22 21 to 22 (remove Y and Z wiring	One Per Station
Dial Tone Feature	(Not provisioned)	V —	54 to 55; 57 to 58 (remove V wiring)	One Per Station

* Factory Wired.

† 603B1, Series 1 and 2; 603B2, Series 1.

‡ 603B1, Series 3 and higher; 603B2, Series 2 and higher; 603B3 and 603B4.





PAD LOSS (DB)	RESISTOR VALUE (OHMS)				ORDERING INFORMATION
	R1		R2 AND R3		
1	8200	GRAY RED RED	47	YELLOW VIOLET BLACK	F-58101
2	3900	ORANGE WHITE RED	110	BROWN BROWN BROWN	F-58102
3	2700	RED VIOLET RED	160	BROWN BLUE BROWN	F-58103
4	2000	RED BLACK RED	220	RED RED BROWN	F-58104
5	1500	BROWN GREEN RED	240	RED YELLOW BROWN	F-58105
6	1100	BROWN BROWN RED	270	RED VIOLET BROWN	F-58106

NOTES:
1. RESISTORS ARE ALLEN BRADLEY, 1 WATT, 5% TOLERANCE (KS-19151 L1). CAPACITOR IS WESTERN ELECTRIC CO. 542D TYPE, 1UF, 200VDC.
2. A 101C TYPE COVER SHOULD BE USED TO PROTECT THE PAD.
3. THE PAD VALUE SHOULD BE STENCILED ON COVER FOR FUTURE REFERENCE.

* STORE UNUSED CONDUCTORS ON VACANT TERMINALS

Fig. 3—Pad Construction and Connections

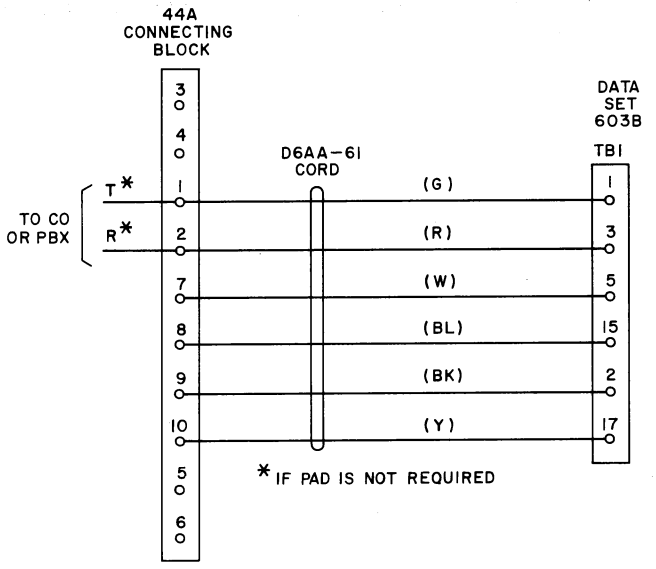


Fig. 4—Connections for Data Set 603B-Type Used in Two-Wire Switched Network

3.03 If earlier model data sets are to be used with key telephone units (A lead control), they must have wiring modification as follows:

DISCONNECT	CONNECT TO
Orange wire from TB1-11	Terminal F of Network
Blue wire from TB1	TB1-19
Yellow wire from Terminal F of Network	TB1-11
Brown wire from TB1-19	TB1-30

Later models have this modification factory-installed.

3.04 When the data set is to be used with key telephone units, make connections as shown in Fig. 5.

4. POST-INSTALLATION TEST

4.01 The following tests should be performed following each installation:

- Loop-back
- Automatic answer (required only when Y or Z option is used).

These tests are outlined in the section entitled in Data Set 603B-Type, Test Procedures (596-013-500).

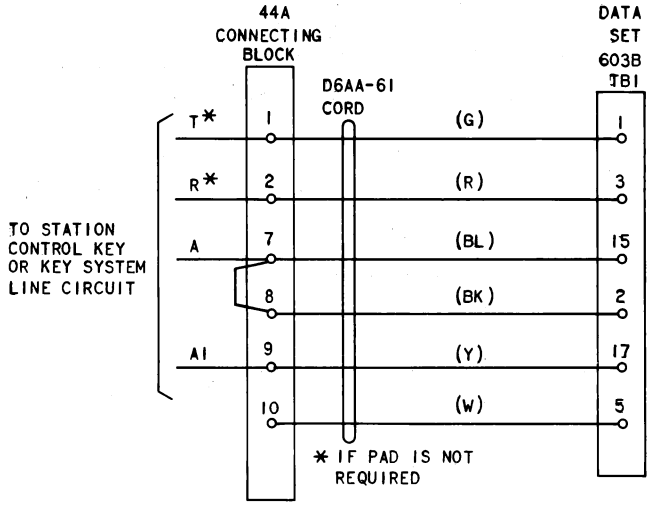


Fig. 5—Connections for Data Set 603B-Type Used With Key Telephone Unit