

SUPERSEDED FILE
(BD-103-T1)

SERVICE TEST INSTRUCTIONS

FOR

TESTBOARD [✓]BD-103-T1

BD-103-T1

Testboard

OBSOLETE
Class: EQUIPMENT
Date: OBSOLETE



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SERVICE TEST INSTRUCTIONS
FOR
TEST BOARD BD-103-T1

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SECTION I DESCRIPTION

1. General.--Testboard BD-103-T1 provides a portable connecting point between the Command Post switchboard and the incoming trunks and local lines. It is located at a distance from the Command Post to prevent the noise and confusion resulting from the construction crews operations from disturbing the Staff Section of the Post.

Sufficient lines are run, either in cable or field wire, from the Command Post switchboard to the testboard to accomodate the incoming trunk and long local lines. This cable or wire is hereinafter referred to as Switchboard Lines.

The lines from other switchboard and long local lines are terminated by the construction crew at the testboard and are hereinafter referred to as Field Lines.

2. Description of Testboard BD-103-T1.--Testboard BD-103-T1 provides facilities for terminating twenty field lines and twenty switchboard lines and for connecting these lines together by means of patching keys or patching cords.

The testboard is a manually operated unit mounted on four telescopic legs which are permanently attached to the cabinet.

The overall dimensions of the testboard with the legs folded are 25-3/4" by 12-1/2" by 10-3/16". Each unit may be used singly or in conjunction with one or more units up to a maximum of four.

A compartment is provided at the right front of the testboard for a Test Set EE-65-(), one of which is necessary for each group of four or less testboards. A compartment is provided at the right rear for storing patching cords.

Binding posts are provided on the rear panel to terminate the field lines and switchboard lines.

Four Connectors M-336 are mounted on the rear panel below the binding posts to terminate the switchboard lines when rubber covered cable is used.

A square hole is provided at the left end of the cabinet for the entrance of wire to the binding posts.

3. List of Components.--

<u>a. Quantity</u>	<u>Approx. Wt.</u>
1 Testboard BD-103-T1	68 lbs.
4 Batteries BA-30	16 ozs.
2 Instruction Books for Testboard BD-103	4 ozs.
5 Cords CC-66, 1' 6" long, plug ended	15 ozs.
3 Cords CC-77, 3' 6" long, plug ended	14-1/2 ozs.
1 Cord CC-79, 7' 6" long, plug ended	9 ozs.
1 Cord CC-89, 10' 6" long, plug ended	11 ozs.
1 Cord CC-349, 11' 2" long, plug on one end terminals on other end.	11 ozs.

<u>b. Facilities, Testboard BD-103-T1</u>	<u>Circuit</u>
20	Jack Circuits for field lines
20	Jack Circuits for switchboard lines
1	Night Alarm Circuit
Test Set EE-65-()	
1	Ringling Circuit
1	Talking Circuit
1	Testing Circuit

c. Components required for each group of four or less Testboards BD-103-T1.

<u>Quantity</u>	<u>Approx. Wt.</u>
1 Test Set EE-65-()	14 lbs.

<u>Quantity</u>	<u>Approx. Wt.</u>
1 Handset TS-9	1.1 lbs.
1 Ground Rod GP-29	8 lbs.
1 Battery BA-1	1 lbs.
2 Battery BA-2	2-1/2 lbs.

Two or more lengths of Cable WC-535 with one end equipped with two Cable Stubs CC-344 when required. (Not furnished with service test models).

4. Power Supply.--Testboard BD-103-T1 is equipped with two Batteries BA-30 (1.5v dry batteries) for the night alarm circuit. The ringing power is supplied by the hand generator in Test Set EE-65-().

SECTION II INSTALLATION AND OPERATION

5. Installation.--

a. When transported, the steel supporting legs of the testboard are telescoped, folded, and locked in place under the cabinet. When placing the testboard in operation, the legs should be unfolded and extended full length by turning the testboard on either end or top and pressing the button on the spring release of each leg. Place the testboard upright in the desired spot so that it will be level. If the testboard is to be used on a support, leave the legs locked in place against the bottom of the cabinet.

b. Open the operating compartment front panel and hook it in place horizontally to form a writing shelf. Open the large rear compartment and install field and switchboard lines.

c. Terminate the field lines on the binding posts marked FIELD, T-R on the rear panel.

d. The lines from the switchboard may be run in either 10-pair rubber-jacketed Cable WC-535 or field wire. If the Cable WC-535 with two Cable Stubs CC-344 on one end is used, connect the plug end of the cable to the Connectors M-336 in the rear of the testboard. If field wire is used connect to binding posts marked SWBD-T-R. When Cable WC-535 is used it is necessary to leave the rear door of the cabinet partially open.

e. Place Test Set EE-65-() in the small compartment to the right of the jack field.

6. Preparation for Use.--After the lines have been connected to the testboard they are to be tested by means of Test Set EE-65-(). Connection of field and switchboard lines may be made as desired as indicated in paragraph 8.

7. Testing with Test Set EE-65-().--Connect the ground binding post to the Ground Rod GP-29. Connect Handset TS-9, to the three binding posts on the lower left side of the panel: Connect R to the white wire of the handset cord, C to the red wire, and T to the black wire. If the cord of a handset or a head and chest set, when used, terminates in a Plug PL-58, insert the plug in the jack located next to the handset terminals. Use Cord CC-349 or Cord CC-350 to connect Test Set EE-65-() to jacks in Testboard BD-103. Make the necessary tests for continuity, resistance and capacity as well as for grounds, shorts, opens and crosses on each line entering Testboard BD-103. When each line has been tested in the above manner, the wire chief will notify the operator at the Command Post switchboard that the line is ready for service and will make through connections as desired in accordance with paragraph 9.

8. Testboard Operation.--The normal procedure for connecting a field line to the switchboard line after the lines are connected to the binding posts and

tested is to turn the associated Key 498-M to the right (marked PATCH). This operation removes the combined jack and signal from the circuit and connects the field line to the switchboard line associated with the switchboard jack immediately below the field line jack and key.

If it is desired to connect a field line (after it has been connected to binding posts) to any particular switchboard line this may be done by cross connecting the associated binding posts or by the use of patching cords with plugs at each end. One plug to be inserted in the field jack and the other plug in the switchboard jack.

To provide facilities for the Command Post switchboard to call Testboard BD-103, cross-connect the field line binding posts of a designated pair to the corresponding switchboard line binding posts. Leave Key 498-M in "TEST" position. Insert the Test Set EE-65-() cord-plug into the jack of the 23-C combined jack and signal to answer calls.

SECTION IV MAINTENANCE

9. Care.--The greatest single factor in trouble free operation is careful handling of equipment while transporting, unpacking, installing and packing. After the installation has been completed the binding post connections should be examined periodically and tightened when necessary.

SECTION V SUPPLEMENTARY DATA

10. Table of Replaceable Parts:--

<u>Ref. #</u>	<u>Stock #</u>	<u>Name of Part</u>	<u>Description</u>	<u>Function</u>	<u>Mfr.</u>	<u>Dwg. #</u>
3A1		Battery	BA1	EE-65 Test Set		
3A2		Battery	BA2	EE-65 Test Set		
3A30		Battery	BA30	Night Alarm		
		Binding Posts	TM-196			ESD-22515
4C1707B		Buzzer	Type 7B	Signalling	W.E.Co.	ESD-22509
		Cable connector	M-336	Connector	Mines Eq.	ESD-22509
		Combined jack and signal -on	23-C	Testing	W.E.Co.	ESD-22509
4C4623C-1		Signal Mounting	89-D		W.E.Co.	ESD-22509
		Cords	CC-66	Patching		
			CC-77	Patching		
			CC-79	Patching		
			CC-89	Patching		
			CC-349	Testing		
			CC-350	Testing		
		Designation Strip	SM	Line Designation	W.E.Co.	ESD-22510

<u>Ref. #</u>	<u>Stock #</u>	<u>Name of Part</u>	<u>Description</u>	<u>Function</u>	<u>Mfr.</u>	<u>D.R. #</u>
	3F4065	Test Set	FE-65	Line testing	Conn.Elec.	
	3Z3329	Ground rod	GP-29	Ground		
	4B1109A	Handset	TS-9	Talking	W.F.Co.	
	4C4823A	Jack	223A	Testing	W.F.Co.	ESD-22509
	4C5104.98M	Key	498-M	Patching	W.F.Co.	ESD-22509
		Leg assembly				
	3Z8131	Switch	SW-131	Night alarm		ESD-13095
						ESD-22509

11. List of Manufacturer's Names and Addresses:--

- Western Electric Company, Kearny, New Jersey
- Mines Equipment Company, Saint Louis, Missouri
- Connecticut Electric Company, Meridan, Connecticut



FIG. 1 TESTBOARD BD-103-TI, FOR USE WITH COMMAND POST SWITCHBOARD
FRONT $\frac{3}{4}$ VIEW, PANELS OPEN, LEGS EXTENDED.

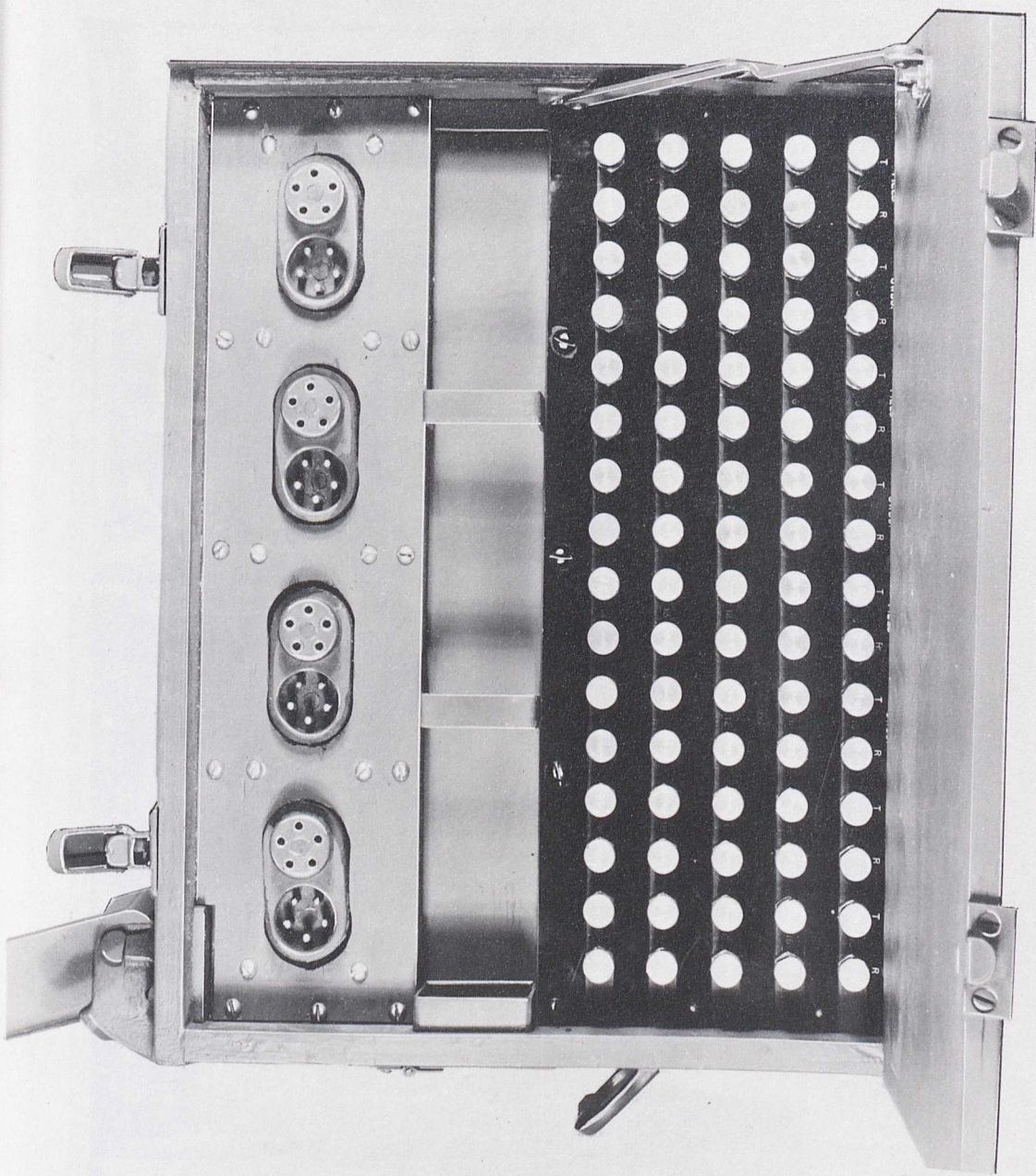


FIG. 2 TESTBOARD BD-103-TI, FOR USE WITH COMMAND POST SWITCHBOARD REAR VIEW, PANEL OPEN, SHOWING LINE CONNECTING ARRANGEMENT.

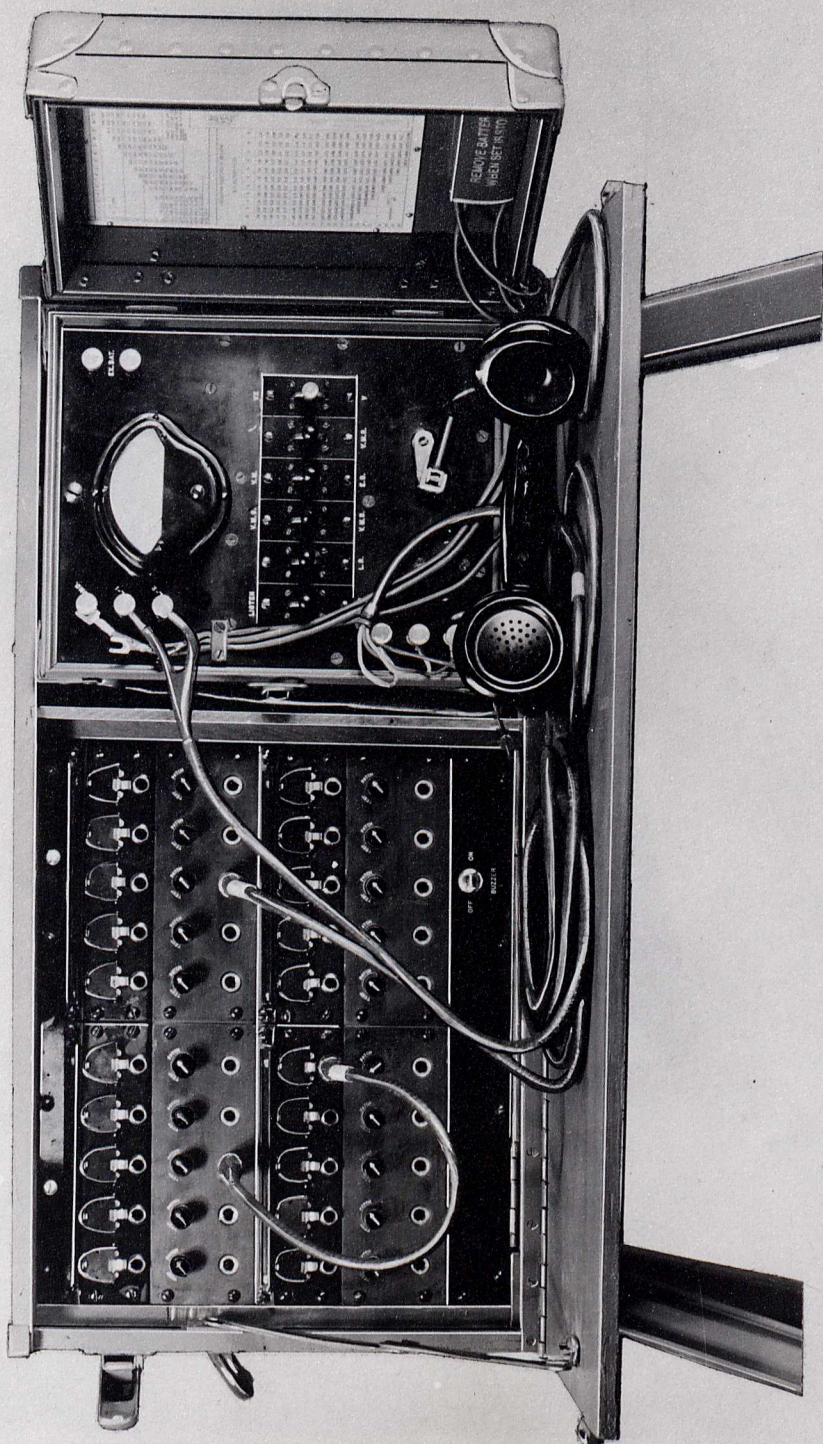


FIG. 3 TESTBOARD BD-103-T1, FOR USE WITH COMMAND POST SWITCHBOARD FRONT VIEW, PANEL OPEN, SHOWING JACK FIELD AND TEST SET EE-65 IN PLACE.

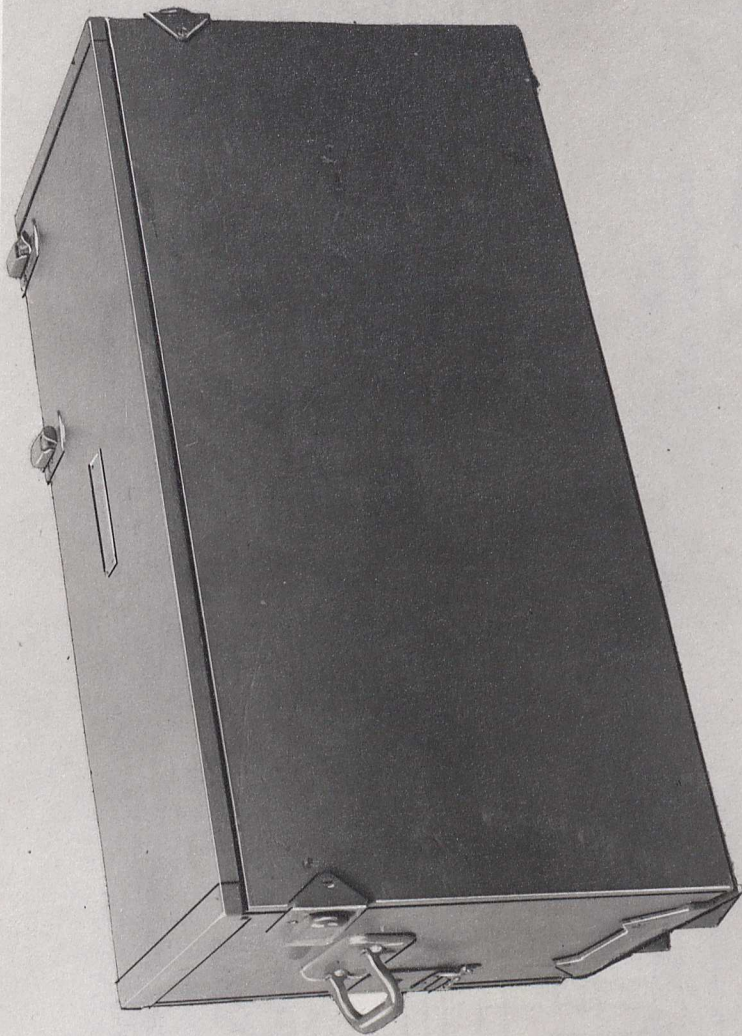


FIG. 4 TESTBOARD BD-103-TI, FOR USE WITH COMMAND POST SWITCHBOARD
OVERALL VIEW, PREPARED FOR TRANSPORTATION

FIG. 1
MAGNETO LINE CIRCUIT

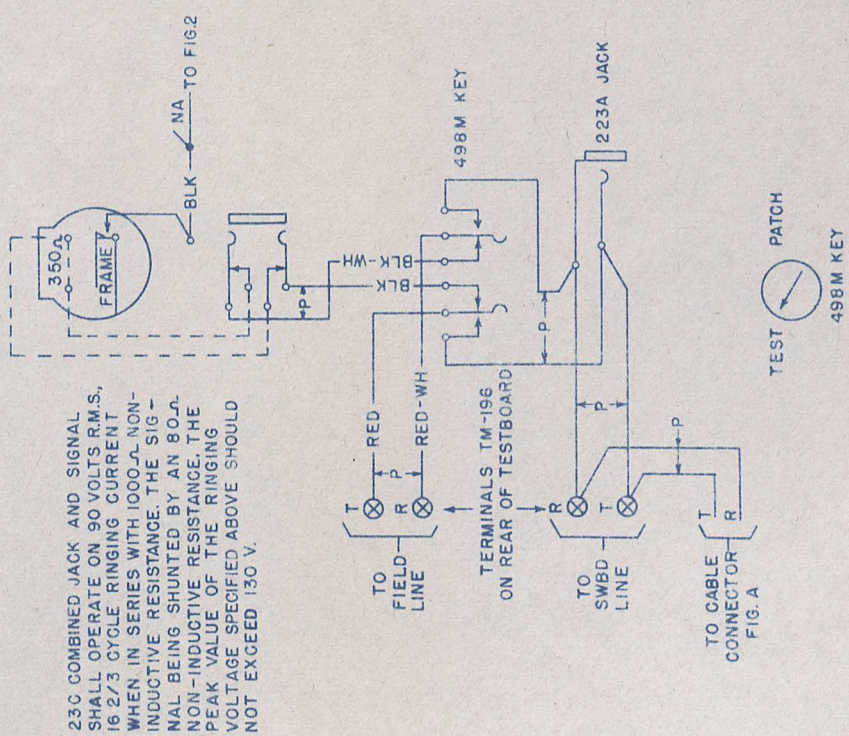
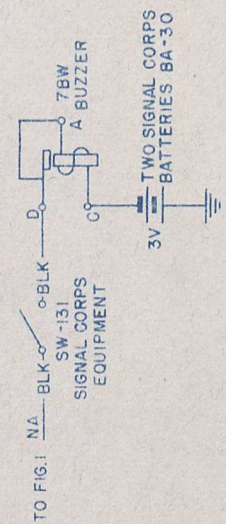


FIG. 2
NIGHT ALARM CIRCUIT



NOTES:

- 1 - UNLESS OTHERWISE SPECIFIED ALL CODE NUMBERS REFER TO WESTERN ELECTRIC CO. INC., CHICAGO, ILL.
- 2 - ALL WIRES TO BE #22 A.W.G.
- 3 - "P" DENOTES PAIR.
- 4 - #22 WIRE SHALL BE TINNED ENAMELED CONDUCTORS, DOUBLE SILK (OR SUITABLE SUBSTITUTE) AND SINGLE COTTON SERVICINGS, LAQUER COATED TYPE "D1" AS MADE BY THE WESTERN ELECTRIC CO. INC., CHICAGO, ILL., OR EQUAL.
- 5 - EACH COLOR SHOWN IN FIG. A IS TO FOLLOW THRU ON ITS RESPECTIVE LINE, TO THE MAKE CONTACTS OF THE KEY.

FIG. A
CABLE CONNECTOR

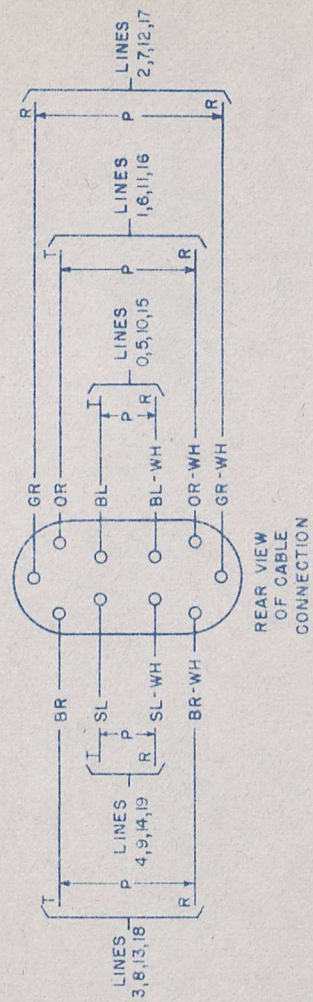


FIG. 5 TESTBOARD BD-103-T1, WIRING DIAGRAMS

