TYPE N AND ON CARRIER REPEATERS — REPEATERED HIGH-FREQUENCY LINE
TRANSISTORIZED REPEATER POINTS
METHOD OF LOOPING SECTIONS OF HIGH-FREQUENCY LINE

A means of testing for transmission troubles is provided by looping the transmission at the repeater so that the sending and receiving paths terminate in the same terminal. By progressive looping at different repeaters, trouble may be localized.

This method can be used only when the system is out of service.

APPARATUS:

Looping at Repeater Outputs:

1 — Looping Connector per Fig. 1

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The looping connector per Fig. 1 may be made up locally using:

2 — 2507P Transformers

2 — KS-14160 Connectors

1 — Bud Radio Inc., Minibox No. CU-2100 or equivalent

The unit is so wired that when the output is looped back the OUTPUT LOOP appears on top, by turning the unit 180° and plugging the other plug into the jack, the inputs are looped back and and the INPUT LOOP appears on top.

STEP	PROCEDURE
1	The system must be out of service. At a repeater remove the regular repeater connector from J2. For output looping, insert the looping connector, per Fig. 1 in J2. Remove the other regular connector from J3 color coded yellow.
2	At the terminal measure the received carrier at the R1 jacks with a 400C or D vacuum tube voltmeter. Supplement the measurements with listening tests at the E1-E2 jacks or the voice-frequency out jacks. Near normal measurement at the R1 jacks and the absence of excessive noise on listening tests would indicate no trouble in the looped section and one half of the repeater, as in Fig. 2.
3	Replace the regular connector in J3 and remove the looping connector unit.
4	For input looping insert the looping connector per Fig. 1 in J2 and remove the regular connector from J3. Again make R1 measurements and listening tests as in Step 2. This is a check of the other half of repeater at this location as in Fig. 3.
5	Replace the regular connector in J3 and remove the looping connector from J2. Replace the other regular connector in J2. By looping at the various repeaters the trouble will be located in a certain section of the high-frequency line or at a particular repeater.

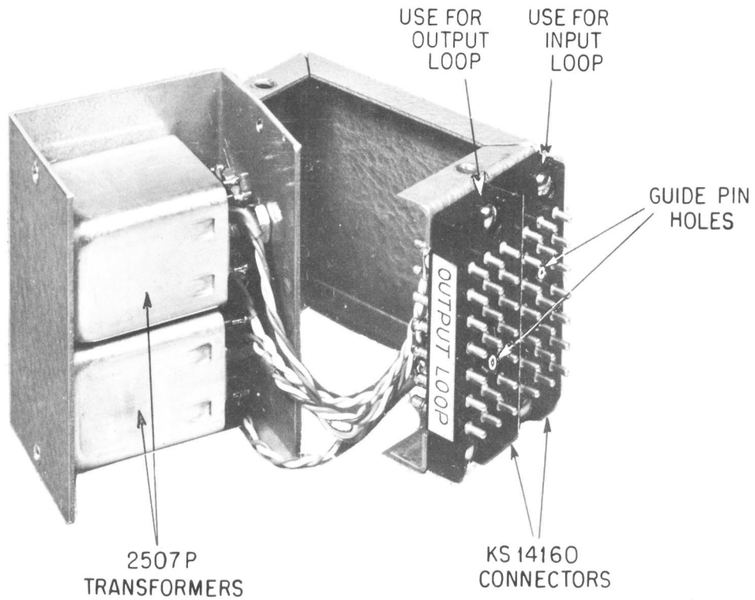

Fig. 1 – Looping Connector for Use at Repeater Outputs or Inputs With Any Power Feed Condition

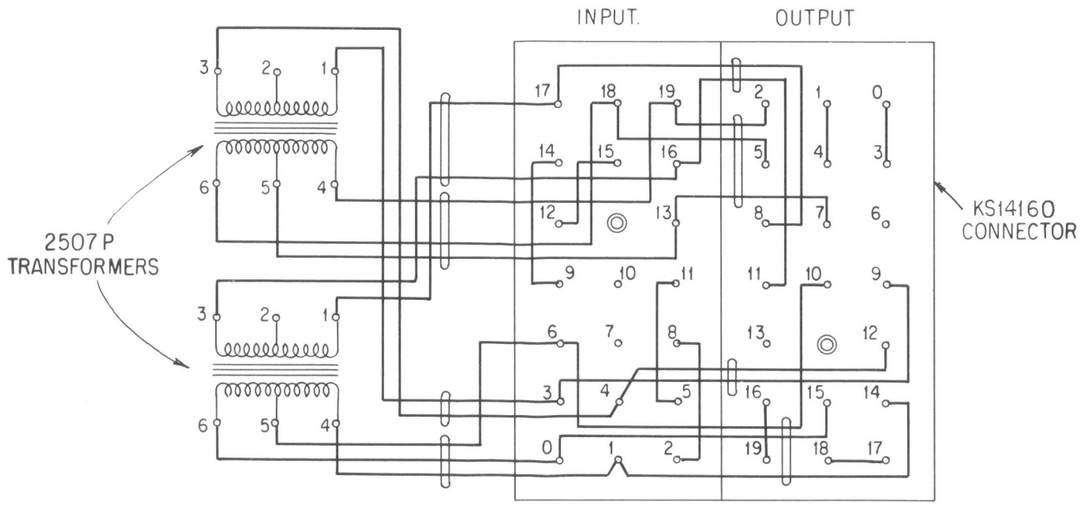

FIG.1 LOOPING CONNECTOR FOR USE AT REPEATER OUTPUTS OR INPUTS WITH ANY POWER FEED CONDITION.

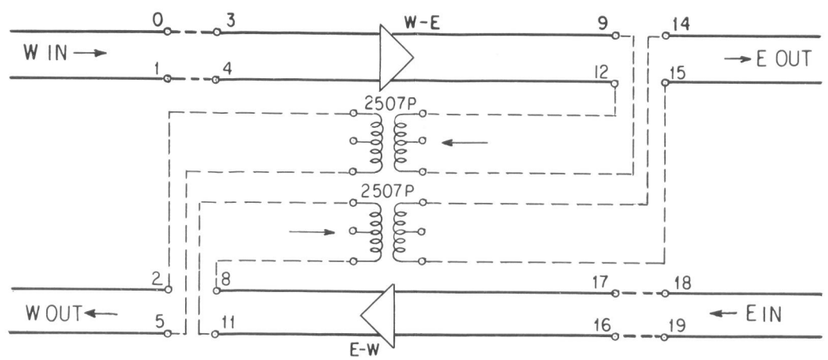

Fig. 2 – System Looped at Outputs With Fig. 1 Connector

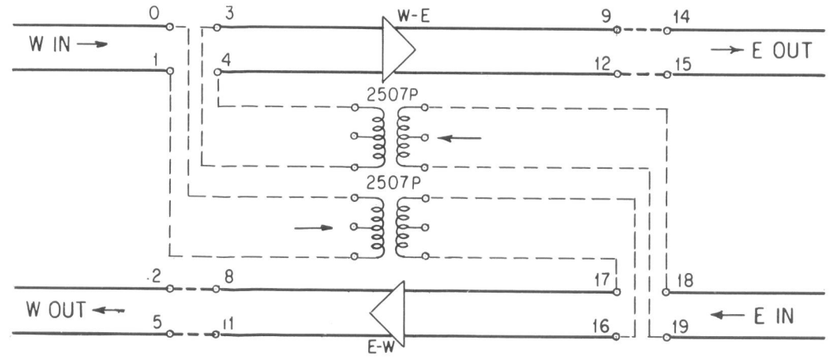

Fig. 3 – System Looped at Inputs With Fig. 1 Connector