

TYPE ON/K CARRIER — REPEATERED HIGH-FREQUENCY LINE
PRELIMINARY TESTS
PREPARATION AND PLACEMENT OF
TERMINAL, REPEATER AND JUNCTION EQUIPMENT

Each terminal group should be prepared in accordance with preparation procedures outlined in other sections in this division of the Plant Series. The level control oscillator is not used for ON/K systems except at ON/K to ON junction point.

Both X and Y wiring is connected in the group transmitting units.

APPARATUS:

- 1 — Volt-ohmmeter
- 1 — 17B Oscillator or equivalent
- 1 — 31B TMS or equivalent

STEP	PROCEDURE																				
	LINE FACILITIES																				
1	Install cable terminal or terminal block.																				
2	Check tip and ring to S.T.T.																				
3	Install 559-type filter.																				
4	Check tip and ring from cable side of cable terminal or terminal block to S.T.T.																				
5	Make a frequency run between lugs 5-6 of the 559A filters between repeater points. Measure at 84 kc, 104 kc and 132 kc for ON1 and at 72 kc, 104 kc, 128 kc for ON2. Requirement: Losses should be approximately:																				
	<table border="0"> <thead> <tr> <th></th> <th>ON1</th> <th>ON1</th> <th>ON2</th> <th>ON2</th> </tr> </thead> <tbody> <tr> <td></td> <td>84 KC</td> <td>4.38 db/mi</td> <td>72 KC</td> <td>4.08 db/mi</td> </tr> <tr> <td></td> <td>104 KC</td> <td>4.88 db/mi</td> <td>104 KC</td> <td>4.88 db/mi</td> </tr> <tr> <td></td> <td>132 KC</td> <td>5.58 db/mi</td> <td>128 KC</td> <td>5.45 db/mi</td> </tr> </tbody> </table>		ON1	ON1	ON2	ON2		84 KC	4.38 db/mi	72 KC	4.08 db/mi		104 KC	4.88 db/mi	104 KC	4.88 db/mi		132 KC	5.58 db/mi	128 KC	5.45 db/mi
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	Note: There should be no large deviations between pairs at the same frequency.																				
	ON/K Terminal, Repeater, and Junction Amplifiers																				
6	Check strapping of TB3 in plug-in power unit. <ul style="list-style-type: none"> (a) For +152-volt power supplies, terminals 5 and 2 should be strapped to terminals 4 and 3, respectively. (b) For +130-volt and -24-volt power supplies, terminals 5 and 2 should be strapped to terminals 6 and 1, respectively. 																				
	Note: It is very important that there be good electrical connections.																				

STEP	PROCEDURE
7	Place power unit, with fuses removed, into mounting.
8	Place receiving amplifiers in J1 and J2 with slope switch set as specified on the circuit layout card.
9	Place transmitting amplifiers in J4 and J5 after checking to see that regulating thermistor RT1 is wired in and not resistor R11.
10	Check to see that span pads and artificial lines are correct and wired in per the drawing.
11	Place ED-92309-30 G1 repeater connectors in J6, J7, J8, and J9.
12	<p>Check to be sure there are no grounds on the following terminals of TB1 and TB2.</p> <p>TB1 — 1, 2, 6, 10, 11, 12, 22, 23, 24, 26, 29, 30</p> <p>TB2 — 1, 2, 7, 8</p>
13	Place proper fuses in power unit.
14	Adjust filament voltages in accordance with Section 362-610-501.
15	<p>ON/K — ON Connecting Circuits</p> <p>Install level control oscillator in proper jack on connecting circuit panel.</p>
16	<p>ON Repeater</p> <p>At ON junctions, preliminary tests on ON repeaters are made in accordance with the sections listed in Section 362-400-300.</p>
17	<p>ON Junction</p> <p>Preliminary tests on ON junctions are made in accordance with Section 362-105-502.</p>