

COMMON SYSTEMS
"ON" CARRIER TELEPHONE
ON1 or ON2 COMBINING NETWORK
& OSCILLATOR CKT

CHANGES

B. CHANGES IN APPARATUS

B.1 Added

1 - Res (R23)
145A
3570 ohms

1 - Res (R24)
145A
140 ohms

D. DESCRIPTION OF CIRCUIT CHANGES

D.1 A combining pad, consisting of Resistors (R23) and (R24) covered in B.1 above, was added as "W" option, for connecting a sixth ON2 Group.

D.2 Note 102 was added.

D.3 Note 202 was changed. It previously read "Provide (LEV CONT OSC UNIT) when less than 5 'ON1' Groups are equipped except for cases of 'ON' on 'K' Cables where Group 5 is the omitted group."

D.4 Connecting information was changed to include reference to type ON2 Carrier and connection to carrier-to-radio junctions and radio multiplexing circuits.

D.5 The title was changed to include reference to ON2 Carrier.

All other headings under Changes, No change.

1. PURPOSE OF CIRCUIT

1.1 The outputs of the transmitting sides of as many as six groups of the "ON" Terminal and the output of the Level Control Oscillator are combined by means of resistance pads for transmission to the transmitting side of the "ON1" or "ON2" Carrier Repeater.

1.2 The output of the receiving side of the "ON1" or "ON2" Carrier Repeater is transmitted through a step-down transformer to match impedances and then to the inputs of the receiving sides of up to six Groups of the "ON" Carrier Terminal.

2. WORKING LIMITS

2.1 None.

3. FUNCTIONS

3.1 A potentiometer is provided for adjustment of the output of the Level Control Oscillator.

3.2 A pair of pin jacks is provided for measuring the output of the Level Control Oscillator.

4. CONNECTING CIRCUITS

4.1 Plug in Units

4.11 "ON1" Misc. Osc. Ckt. SD-95158-01

4.2 When this circuit is listed on a key sheet the connecting information therein should be followed. The following are typical connecting ckts.

4.21 "O" and "ON" Carrier Telephone Application Schematic for O1, ON1 and ON2 Carrier Terminal - SD-95150-01

4.22 "N1" and "ON1" Carrier Telephone Application Schematic for Carrier Repeaters - SD-95124-01

DESCRIPTION OF OPERATION

5. TRANSMITTING

5.1 Resistors (R10) through (R21), (R23), and (R24) form a resistance combining pad for combining the outputs of as many as six groups of an "ON" Carrier Terminal and the Level Control Oscillator. The combined outputs are transmitted via transformer (T2) to the transmitting side of an "ON" Carrier Repeater. Transformer (T2) provides for separation between the balanced leads toward the repeater and the unbalanced combining pad. Capacitors (C1 and C2) improve transmission.

5.2 The Level Control Oscillator is plugged into the (LEV CONT) jack. Power for this unit is obtained from Group 1 of the "ON" Carrier Terminal.

5.3 The (LEV CONT) potentiometer permits setting the output of the Level Control Oscillator to the value required by the number of "ON" Groups equipped. A voltmeter may be connected across pin jacks (LEV CONT) and (GRD) to measure this level.

6. RECEIVING

6.1 Transformer (T1) is a step-down transformer in the receiving side

to furnish an impedance match between the 135 ohm output impedance of the "ON" Carrier Repeater and the parallel impedance of up to six Group Rec. Units of the "ON" Carrier Terminal.

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