TYPE N AND ON2 CARRIER TELEPHONE SYSTEMS
DEVIATION REGULATOR
MAINTENANCE TESTS AND ADJUSTMENTS
CHECK FOR DEFECTIVE SHAPE NETWORK

If the gain of the deviation regulator does not meet the requirements listed in these sections, and replacing the line amplifier does not clear the trouble; the signal tracing method given below may be used to isolate the network in trouble. ***This procedure can only be used when the regulator is out of service because of trouble.***

APPARATUS:

BYPASS Plug
DEV REG TST Cord
200CD Oscillator
VTVM, with W2DW Cord

STEP	PROCEDURE
1	Remove the CONNECTOR plug from jack J1.
2	Insert the BYPASS plug into jack J1.
3	Remove the CONNECTOR plug from jack J2.
4	Insert the REG TST cord into jack J2.
5	Connect the 200CD oscillator 600-ohm balanced output to the REG TST cord. Energize the oscillator and allow 10 minutes for it to warm up.
6	Insert the SHORTING plugs supplied with the deviation regulator into the TERM SL, TERM BU, TERM CU, and TERM QU jacks.
7	Insert the DUMMY plugs supplied with the deviation regulator into the SLOPE TST, BULGE TST, CUBIC TST, and QUARTIC TST jacks.
8	Adjust the 200CD oscillator frequency control for 208 kc.
9	Bridge the VTVM across the oscillator OUTPUT terminals. Set the selector range switch on the VTVM to +10 and adjust the output control on the oscillator for a reading of 0 db on the meter.
10	Connect the lower (ground) INPUT terminal of the VTVM to the chassis ground and connect the upper (hot) INPUT terminal of the VTVM to terminal 1 on NET 1. The reading on the VTVM meter should be — ***Requirement:*** -13.0 ± 1.0 db If the requirement is not met, it is an indication of probable trouble preceding NET 1. If the requirement is met, proceed to Step 11.

STEP	PROCEDURE
11	Connect the upper (hot) INPUT terminal of the VTVM to terminal 15 of NET 1. The reading on the VTVM should be — ***Requirement:*** -4.0 ± 1.0 db If the requirement is not met, it is an indication that NET 1 is probably defective and should be replaced. If the requirement is met, proceed with Step 12.
12	Connect the upper (hot) INPUT terminal of the VTVM to terminal 15 of NET 2. The reading on the VTVM should be — ***Requirement:*** -29.0 ± 1.0 db If the requirement is not met, it is an indication that NET 2 is probably defective and should be replaced. If the requirement is met, it is an indication that the trouble is in the amplifier circuit which follows.