TYPE N AND ON2 CARRIER TELEPHONE SYSTEMS
DEVIATION REGULATOR
MAINTENANCE TESTS AND ADJUSTMENTS
MEASUREMENT OF TOTAL CARRIER POWER OUTPUT

The purpose of this test is to measure the total carrier power output of the deviation regulator on an in-service basis and determine whether the total power measured is carrier or noise. See Fig. 1 for the test set arrangement for this test.

APPARATUS:

2J Test Set

STEP	PROCEDURE
1	Check that the CONNECTOR plugs are in place in jacks J1 and J2. Remove the CONNECTOR plug from jack J2, leaving the second connector in the other jack.
2	Connect the 2J repeater test set to jack J2.
3	Set the rotary switch on the 2J set to ADD 10 position. Set the DBM toggle switch to W-E. Read the power output on the meter scale. ***Requirement:*** +12.0 ± 1.5 db If the requirement is not met, the deviation regulator will be considered satisfactory if the measured output is within ±1.0 db of the output measured at the preceding low-high N carrier repeater at this location. ***Note:*** Where an artificial line is used at the output of the deviation regulator the corrections in Table A should be added to the value read on the 2J test set before applying the above requirements.
4	Operate the rotary switch on the 2J set to MON and the DBM toggle switch to W-E. Monitor the output on the 2J set. Normal carrier will be heard as varying tones. The absence of these tones or the presence of excessive noise is an indication of trouble in the deviation regulator or in the preceding line.
5	When the test has been completed, disconnect the 2J test set from jack J2 and replace the CONNECTOR plug.

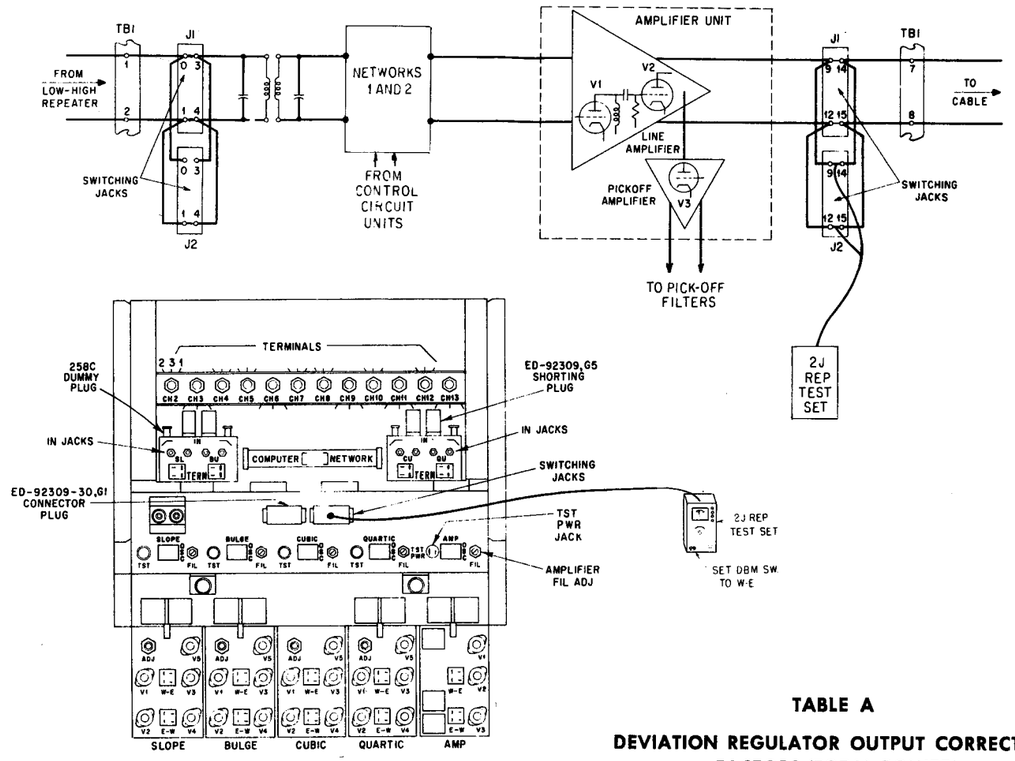

TABLE A

DEVIATION REGULATOR OUTPUT CORRECTION FACTORS (TOTAL POWER)

ARTIFICIAL LINE (MILES)	SPAN PAD (DB)	CORRECTION FACTOR (DB)
	0	+2.4
	2	+1.5
1 Mile	4	+0.9
	6	+0.7
	8	+0.4
	10	+0.2
	0	+4.8
	2	+3.0
2 Mile	4	+1.6
or	6	+1.0
4 Mile	8	+0.6
	10	+0.4
Not Used	Any	None

+ Sign indicates that the measured value should be made more positive by the correction factor.

Fig. 1 – Method for Measuring Total Carrier Output