

**TYPE N AND ON2 CARRIER TELEPHONE SYSTEMS
DEVIATION REGULATOR
BYPASSING A FAULTY NETWORK THERMISTOR**

This procedure may be used when tests have indicated that a thermistor in a shape network is defective. Normally, if the deviation regulator is operating near the mean condition, the terminating resistor included with the regulator may be used to replace a defective thermistor. When there is a possibility that improper regulation will result if the disabled shape network is terminated with the terminating resistance, the procedure outlined below is available to bring transmission back to a near normal condition. Fig. 1 illustrates the procedure involved.

APPARATUS:

- VTVM, with W2DW Cord
- NET TERM Cord
- Decade Box

STEP PROCEDURE

- 1 Connect the NET TERM cord to the TERM jack of the shape network in trouble.
- 2 Connect the decade box to the NET TERM cord and adjust the resistance dials to the mean value of resistance required for the network in trouble as shown in Table A.

TABLE A

NETWORK	RESISTANCE
Slope	750 Ohms
Bulge	816 Ohms
Cubic	920 Ohms
Quartic	1130 Ohms

- 3 Using a W2DW cord, or equivalent, connect the lower (ground) INPUT terminal of the VTVM to the chassis ground.
- 4 Connect the upper (hot) INPUT terminal of the VTVM to terminal 3 (middle terminal) on the output potentiometers on the channel pick-off filter associated with the network in trouble as shown in Table B.

TABLE B

NETWORK	CHANNEL FILTER
Slope	2
Bulge	7
Cubic	5
Quartic	4

Note: Allow several minutes for the thermistors in the other networks to stabilize before continuing with the procedure.

- 5 Slowly increase or decrease the resistance in the decade box (allowing time for the thermistors to stabilize) until the reading on the VTVM is within ± 1.0 db of the value recorded for that channel filter at the time of the last line-up adjustment.
- 6 Check the readings on the other channel filters. Each measurement should be within—
Requirement: ± 3.0 db
of the values recorded at the time of the last line-up adjustment before continuity of service on all channels can be assured.

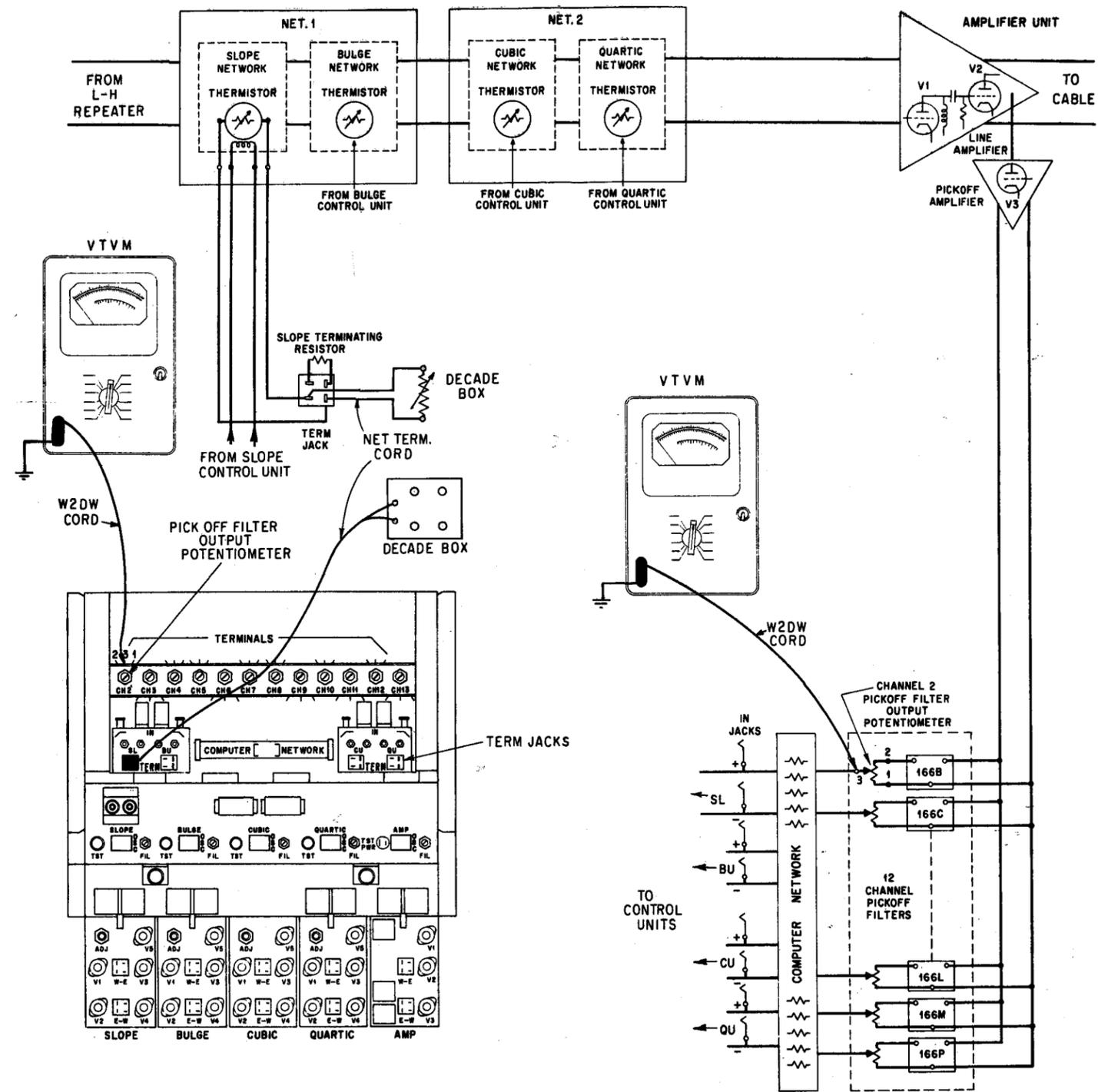


Fig. 1 - Method for Bypassing a Defective Thermistor