

# JERROLD®

INSTRUCTION SHEET

435-260.2

## ANTENNA MIXING NETWORKS

MODELS AMN-Lo and AMN-Hi

### DESCRIPTION

Jerrold Models AMN-Lo and AMN-Hi are tuned networks capable of combining the outputs of non-adjacent single-channel antennas, amplifiers or other single-channel devices, into a single output in the vhf tv low-band or high-band range respectively.

Conversely, the networks can be used for splitting the output of a broad-band device to derive several outputs of single-channel bandwidth each. Model AMN-Lo is capable of passing up to 3 non-adjacent low-band channels, Model AMN-Hi will pass up to 4 non-adjacent high-band channels.

Impedance on every fitting is 75 ohms compatible with the use of RG-59/U type coaxial cable in master antenna systems.

AMN-Lo units are factory-tuned to channels 2, 4 and 5; AMN-Hi units are factory-tuned to channels 7, 9, 11 and 13. Designed for indoor mounting, each model is shipped with 4 mounting screws, the appropriate number of F-59A coaxial cable connectors, and one TR-72F terminating resistor for terminating an unused fitting.

Additional channel isolation can be achieved in cases where one leg of the network is not used, by tuning that leg to function as an adjacent channel sound trap (see fig. 4).

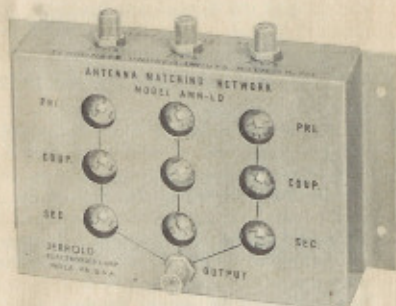


Figure 1. Model AMN-Lo Antenna Mixing Network

### SPECIFICATIONS

		AMN-Lo	AMN-Hi
BANDWIDTH		6 mc	
FLATNESS		0.5 db p/v	
CHANNELS:	factory-tuned tunable	2, 4, 5 2, 3, 4; 3, 4, 5; 4, 5, 6	7, 9, 11, 13 7, 8; 9, 10; 11, 12; 12, 13
INPUT & OUTPUT IMPEDANCES		75 ohms	
VSWR (average)		Ch. 2, 3, 4 1.6:1 (13 db ret. loss) Ch. 3, 4, 5 1.6:1 (13 db ret. loss) Ch. 4, 5, 6 2.4:1 (8 db ret. loss) Output 2:1 (9 db ret. loss)	At all inputs and at output 1.5:1 (14 db ret. loss)
ATTENUATION (between input terminals and output terminal)		Ch. 2, 3, 4 to output 2.5 db max., 1 db typical Ch. 3, 4, 5 to output 2.5 db max., 2 db typical Ch. 4, 5, 6 to output 2.5 db max., 2 db typical	Ch. 7, 8 to output 2 db max., 1.25 db typical Ch. 9, 10 to output 2 db max., 1.5 db typical Ch. 11, 12 to output 2 db max., 1.5 db typical Ch. 12, 13 to output 2 db max., 1.25 db typical

## INSTALLATION

- Accessories shipped with units:
  - 4 wood screws (both AMN-Lo and AMN-Hi).
  - 4 F-59A cable connectors (AMN-Lo).
  - 5 F-59A cable connectors (AMN-Hi).
  - 1 TR-72F terminating resistor.
- Mount the unit with the 4 wood screws supplied.
- Prepare the ends of the coaxial cables to be connected to the unit and install the F-59A connectors, as described in Jerrold instruction sheet 435-344.
- Connect each cable to the appropriate fitting on Model AMN, connecting single-channel devices to the ANTENNA INPUT fittings and the broad-band device to the OUTPUT fitting; wrench-tighten the F-59A connectors not more than 1/6 of a turn.
- Terminate an unused input with the TR-72F supplied.
- To assure flat response over the desired channel, check, and if necessary adjust, the setting of PRI and SEC variables by observing the response of the channel on an oscilloscope. Set up the test equipment as illustrated in fig. 2 to obtain a response as illustrated in fig. 3. DO NOT tamper with the COUP coupling adjustment; it is factory-aligned for proper bandwidth!

- In absence of test equipment specified in fig. 2, use the Jerrold field strength meter, which is capable of measuring both picture and sound carriers. It can be employed to measure the carrier amplitudes directly off the antennas through the OUTPUT of the AMN-Hi or AMN-Lo and peaking PRI for picture and SEC for sound and then re-touching both to maintain relative carrier amplitude as measured on the field strength meter, while watching a test pattern receiver for improvement in picture.
- The PRI and SEC adjustments in an unused channel must be tuned away from desired channels to avoid interference.
- Similarly, where it is desired to retune an AMN unit to different non-adjacent channels, the procedures in steps 6 to 8 can be applied. The tuning range of each leg on an AMN unit is indicated by the channel numbers silkscreened at the ANTENNA INPUT fittings.

NOTE: Where it is desired to combine the outputs of an AMN-Lo and an AMN-Hi unit, the Jerrold Model LHS-76 can be used. Model LHS-76 is a cross-over network consisting of a low-pass and a high-pass filter with passbands of 0 to 110 mc and 170 to 216 mc respectively, having a joint cross-over frequency at approximately 140 mc.

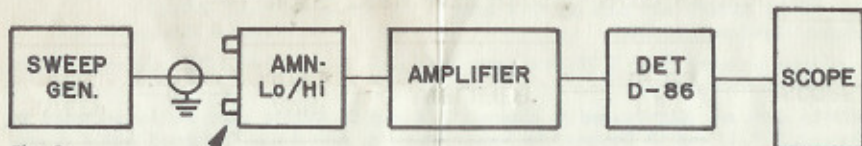


Fig. 2

NOTE: TERMINATE UNUSED ANTENNA INPUTS

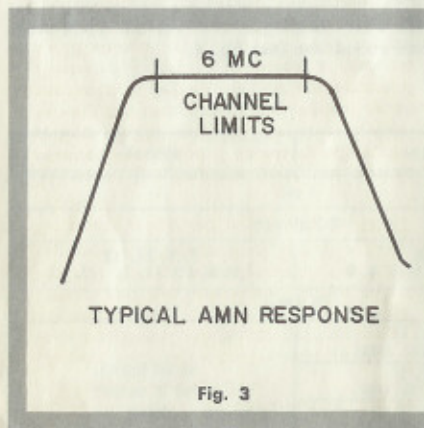


Fig. 3

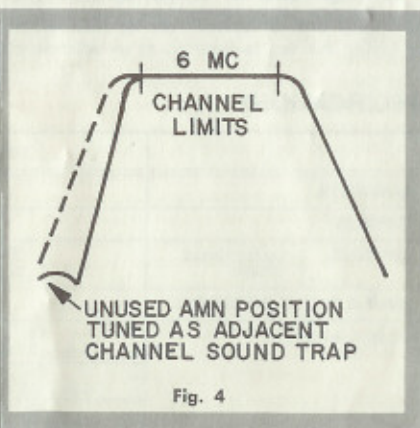


Fig. 4

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