JERROLD

INSTRUCTION SHEET

435-136.1

TELEVISION TAP MODEL LT-77

DESCRIPTION

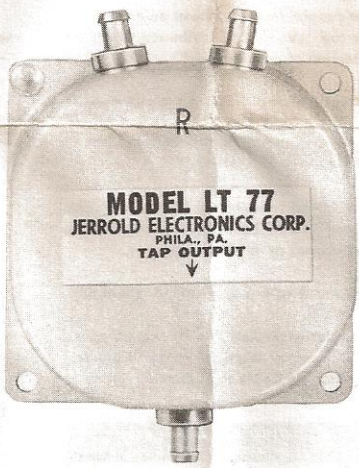
Model LT-77 is a *matched*, television, service tap-off unit, designed expressly for use with Jerrold's new *Positive Matched System*. The unit is particularly designed for use with RG-59 cables between the tap and receiver as well as the feeder lines. The coaxial braid acts as a shield against stray pickup, which, like mismatch can be a source of ghosts, smear, etc. For this reason, Model LT-77 (or 1477 where wall plate mounting is desirable) is particularly recommended in areas where severe direct pickup problems are prevalent.

The special circuitry of Model LT-77 is *matched* to 75 ohms in all directions. The excellent *match* to the feeder (VSWR = 1.4 max) reduces pickup problems, mutual interference between taps due to line resonances and makes the length between taps and from tap to receiver non-critical; thereby eliminating ghosting and smearing conditions arising from these sources.

Model LT-77 is color-coded (R,Y,G,) for different values of RF isolation, which determines the physical location of the unit in any given feeder. The electrical characteristics of each unit, displaying an inverse isolation value with respect to cable attenuation, assures equal signal levels at all channels.

Model LT-77 also provides RF isolation to the cable system and between receivers. When used as recommended, complete AC isolation is afforded the system from transformerless receivers ("hot chassis").

As can be seen from the photo reproduced above, Model LT-77 is entirely enclosed in an attractively finished (ivory) surface-mounting, "blister" type can. Although the excellent specifications of Model LT-77 were cited expressly to meet the demands of the *Positive Matched System*, this unit will improve the quality of pictures in any type of Television Distribution System.



Model LT-77

Whenever Model LT-77 is used as the last tap-off unit on a feeder line, it must be terminated with a Jerrold TR-72F Terminating Resistor.

SPECIFICATIONS

IMPEDANCE:
Feeder (input & output): 75 ohms
Tap: 75 ohms

V.S.W.R.:
Feeder (input & output): 1.4 Max.
Tap: 1.8 Max.

BANDWIDTH:
Pass Channels 2 through 13

MOUNTING:
Surface mounts with wood screws provided

ISOLATION AND FEED THRU: (Chart below)

CHANNEL	LT-77 COLOR		
	RED	YELLOW	GREEN
	ISOLATION / FEED THRU	ISOLATION / FEED THRU	ISOLATION / FEED THRU
2	27.5 / .25	24 / .4	19 / .2
6	27.5 / .25	21 / .4	13.5 / .5
7	22.5 / .25	17.5 / .6	9 / 1.0
13	21 / .25	15.5 / .6	7 / 1.5

FITTINGS:
Feed thru and tap connections are B-59 bushings.

INSTRUCTIONS FOR MODEL LT-77

A. Cut coaxial feeder cable at point selected for tap (see Color Distribution Chart for selection of proper color).

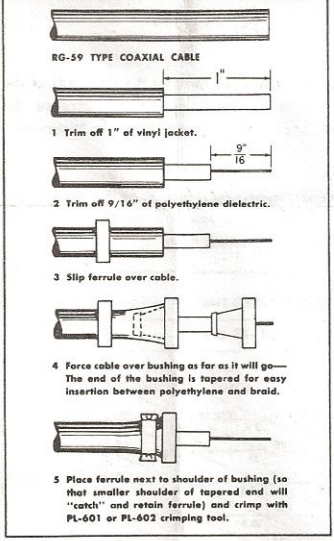
B. Dress cut ends and connect to proper B-59 bushings (top two on the illustration) as described under "Mounting Coaxial Cables on B-59 Bushings."

C. Cut tap-off cable to required length, and mount on B-59 bushing, referring to same instructions as in "B" above.

D. Use wood-screws provided to mount unit.

E. Connect undressed end of tap-off cable to receiver as described under "Connecting Tap-Off Cable to Receiver."

MOUNTING COAXIAL CABLE ON B-59 BUSHING



CONNECTING TAP-OFF CABLE TO RECEIVER

In order to obtain optimum rejection of undesired signals, it may be necessary to ground the braid of the coaxial tap-off cable to the receiver*.

In many cases the receiver chassis will be isolated from the a-c line by a power transformer, and the braid may be grounded directly.

In the case of a "hot chassis" (transformerless receiver), it will be necessary to bring the braid to RF ground through a 300 uuf capacitor in order to maintain a-c power isolation (the lead should be kept as short as possible).

An alternative is to use either one of receiver isolation units Model ST-1601 or 1201 or matching transformer T-372, in which case the braid may again be grounded directly.

If one of these units is used, it should be mounted as close to the receiver as possible, so as not to defeat the purpose of the coaxial tap-off cable.

ST-1601 or T-372 should be mounted on the chassis (except a "hot chassis" when it should be mounted on a wooden part of the set). If T-372 is used, 6 dbj additional will be realized at the set.

* *It may also be necessary to use L-20 Shielded Loom between the tuner and antenna terminals.*

COLOR DISTRIBUTION CHART

SIGNAL LEVEL AT HEAD END OF FEEDER		DISTANCE FROM START OF FEEDER OF LT-77 COLORS		
MICROVOLTS	DBJ	R	Y	G
500,000	54	309'–333'	333'–379'	379'–420'
354,000	51	242'–284'	284'–330'	330'–371'
250,000	48	157'–233'	233'–279'	279'–320'
179,000	45	71'–156'	156'–202'	202'–243'
125,000	42	0'–90'	90'–144	144'–202'
88,500	39	0'–30'	30'–84'	84'–146'
62,500	36	——	0'–31'	31'–130'

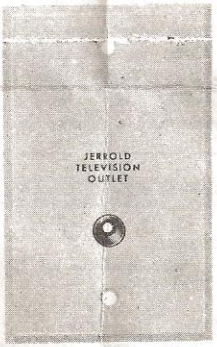
NOTES

1. Chart is based on the following assumptions:
   a. RG-59 type feeder cables.
   b. 10 taps per 100'
   c. 3000 microvolts (approx. 10 dbj) at tap.
   d. Channels 2 through 13.
   e. O dbj—1000 microvolts.
2. If T-372 is used, add 88 ft. of LT-77W at head end of feeder.

MODEL 1477

Model 1477, electrically identical to Model LT-77, available for installation in standard electrical outlet boxes.

Request Technical Data #501.1



Data subject to change without notice

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