

MODEL BTD-44 CORDLESS UHF CONVERTER

for all UHF Channels, 14-83



BT

BLONDER-TONGUE

INSTRUCTIONS

Model BTD-44 is a cordless solid-state UHF converter of advanced design, featuring extreme simplicity of operation and high stability. It permits all-channel (14-83) UHF reception, converting UHF channels selected on the tuning dial to VHF channels 5 or 6 (whichever is unused in your area). The BTD-44 is especially designed for strong signal areas, providing excellent reception of both color and black-and-white broadcasts. The BTD-44 requires no AC power, operating from a single, inexpensive flashlight battery which will last a year or more in normal use.

The BTD-44 is designed and built to the highest standards. Every unit undergoes a rigid, comprehensive quality control test before receiving the Blonder-Tongue insignia. In this way, we strive to maintain the quality and reliability with which the Blonder-Tongue name has been synonymous for over fifteen years.

FOR THE MAN IN A HURRY

Don't be surprised at the length of these instructions. Because this converter is a quality design, manufactured with great care, it is only natural that we wish to assure it will perform to its maximum capabilities. For this reason, we have included several paragraphs of installation information, to aid you in setting up your system.

~~Our technical writers and engineers have spent considerable time preparing these instructions for your guidance. To attain the best results, please read this entire booklet carefully, with the converter in front of you, BEFORE proceeding with the installation. It will be time profitably spent.~~

INSTALLATION

Please read this entire section before connecting your converter, since there are several ways of connecting it to your television set and antenna(s).

Antenna and Cable

In order to assure optimum reception, it is necessary that a 'clean' (noise-free), strong signal reach the converter. The best way to assure this is to use a good antenna and high-quality cable for interconnection.

If you are presently using an indoor antenna for VHF (channel 2-13) reception, you will most likely need only an indoor UHF antenna. The antenna should possess good directional characteristics and gain throughout the UHF band. The Blonder-Tongue Golden Arrow antenna provides outstanding performance in all indoor UHF applications. For indoor installations, virtually any twin-lead may be used for interconnection. Make cable lengths as short, direct, and as far from metal as possible, to avoid undesirable effects of cable loops and excessive signal loss.

If you are presently using an outdoor antenna, chances are you will need an outdoor UHF antenna too. The Blonder-Tongue UHF Dart is an outstanding example of antenna design, providing all characteristics necessary for reliable, high-quality reception. For outdoor installations, high-quality cable is an absolute necessity for best reception. Use a professional-quality foam filled twin-lead (see Figure 7), for optimum results. Again, keep wires as short, direct, and as far from metal surfaces as possible.

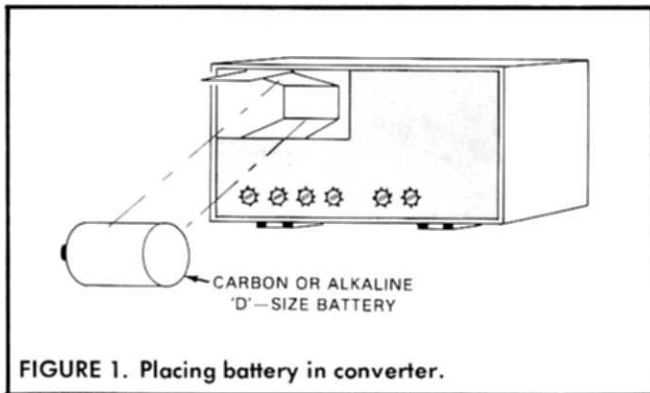


FIGURE 1. Placing battery in converter.

NOW YOU ARE READY TO BEGIN THE INSTALLATION.

1. Place the battery in the battery holder, as shown in Figure 1. For the moment, leave the switch on the front panel OFF.

NOTE

The battery must be placed with its smaller (designated '+', or 'positive') terminal to the left (see Figure 1). If the battery is reversed, the converter will not operate.

The converter may be placed atop your television set, or any other flat surface, as shown in Figure 2a. If you desire this type of installation, place the converter in a convenient location and proceed to step 3, below.

It is also possible to mount the converter on the rear of the set, as shown in figure 2b. Do this as follows:

- (a) Mount a pair of 5/8" long No. 6 FLAT-HEAD wood screws (or 5/8" No. 6 PAN-HEAD sheet-metal screws) on the rear of the television cabinet. Place the edge of the template (on the outside edge of this page) against the top rear edge of the television set. Mark

the locations of the two dots on the template with a pin or a knife-tip.

- (b) Mount the screws in these locations, tightening them only partially, so that half (5/16") of the screw shank still protrudes from the set, as shown.

- (c) Slide the converter legs onto the screws, as shown. The converter controls will then be slightly higher than the top of the TV set.

NOTE

The lead connecting the converter and television set should be made as short as possible, to prevent undesired pick-up of other VHF stations.

3. Connect the converter to your set, as shown in Figure 3 or 4, using the short length of twin-lead supplied. If you have connected the converter as shown in Figure 2, connect the other components in your system, as shown in Figure 5A, B, C or D.

NOTE

If your set has UHF terminals on the rear, do NOT make any connection to them. Your converter is designed to connect to VHF antenna terminals only.

4. Connect twin-lead to the converter as follows:

- (a) Loosen the stripless screws. Do not strip flat twin-lead; slide it under the saw-tooth washers as shown in Figure 6.

- (b) Tighten the screws so that the saw-tooth washers pierce the insulation. Excessive pressure is not required.

NOTE

Some twin-lead may be too narrow to make proper electrical contact. Angle it as shown by the dotted lines in Figure 6. Tubular twin-lead should be tapered, as shown in Figure 7, before insertion under the saw-tooth washers.

top rear edge of the television set

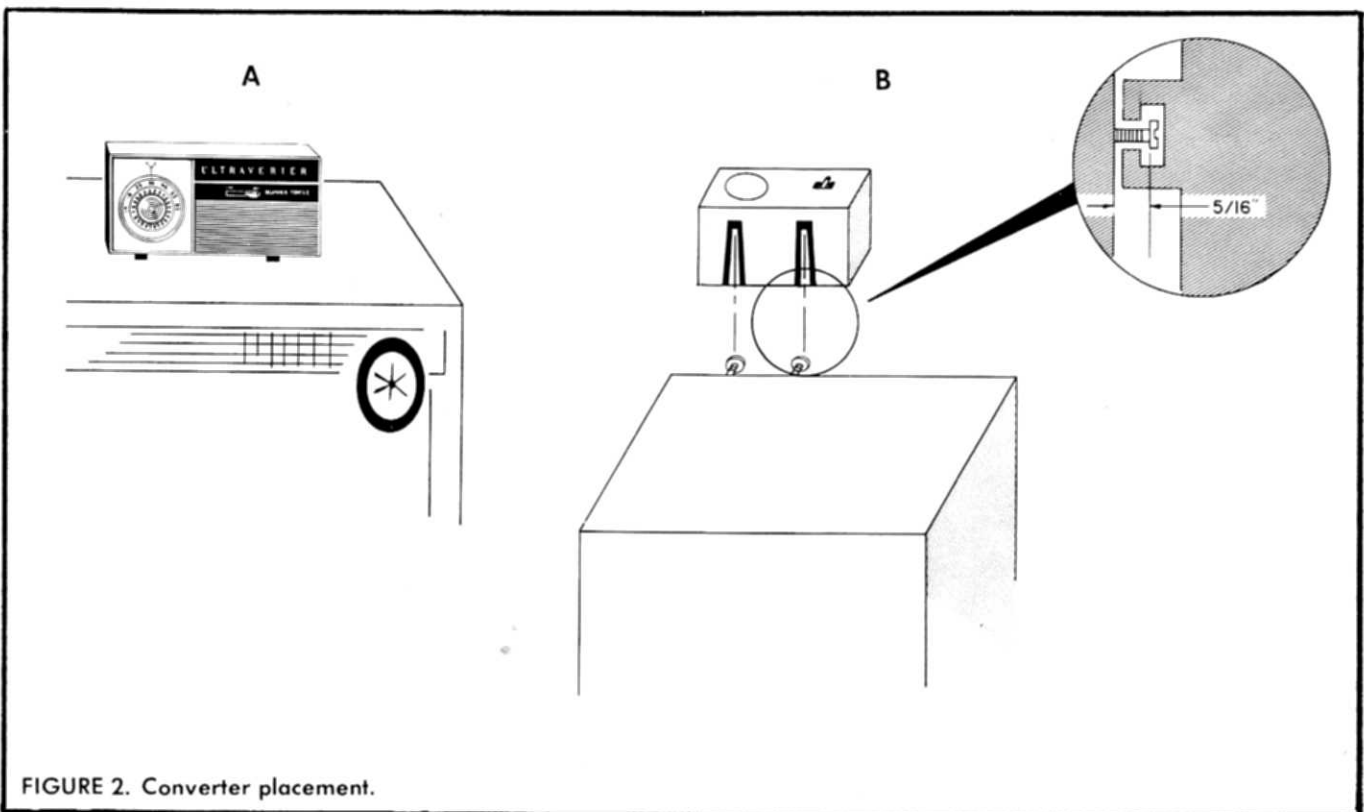


FIGURE 2. Converter placement.

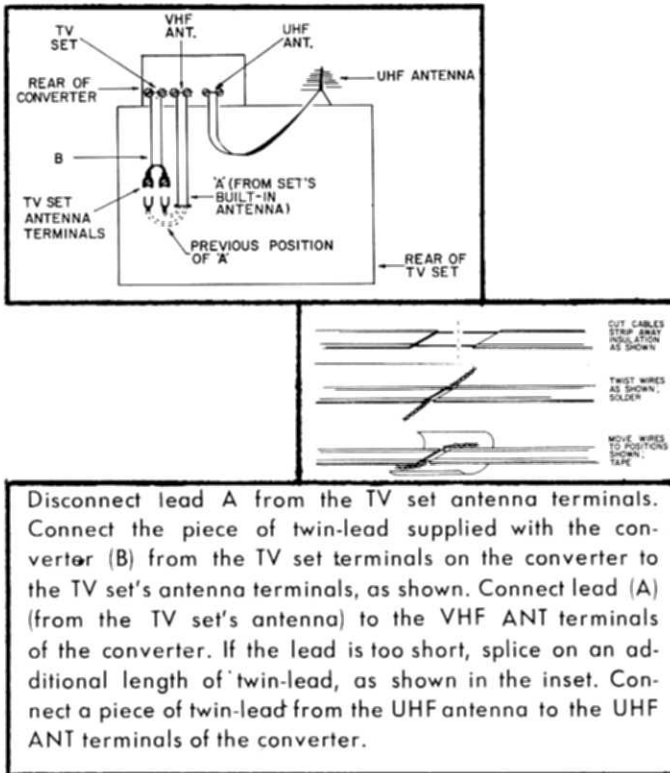


FIGURE 3. Connection of converter to set with built-in antenna.

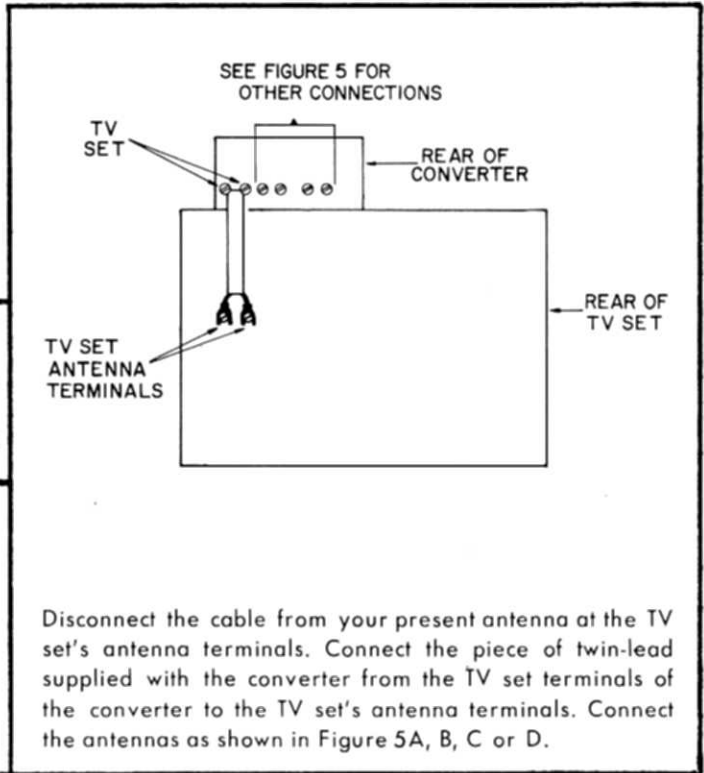
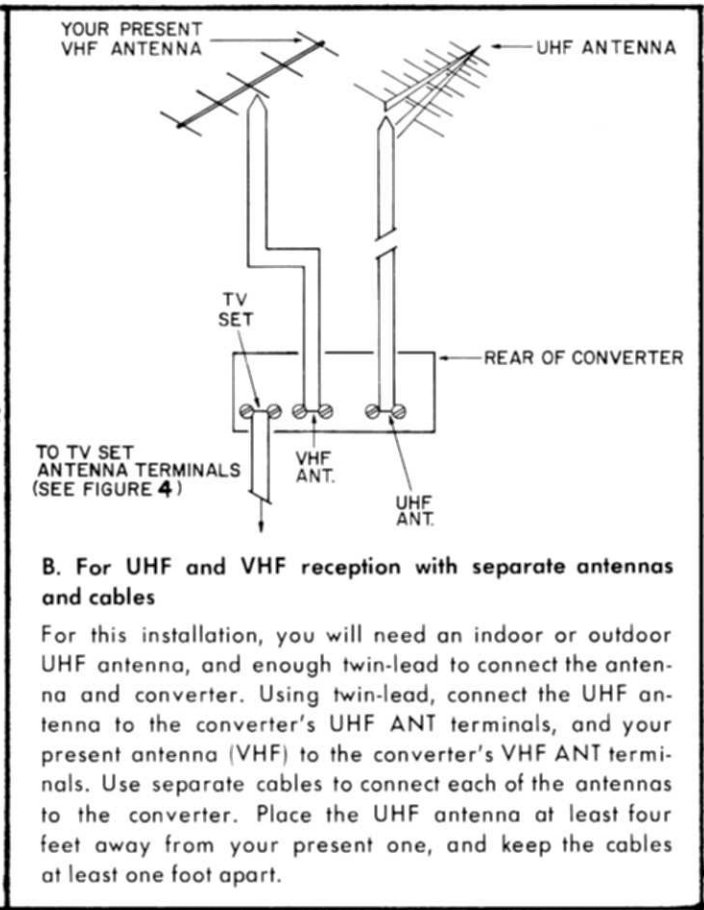
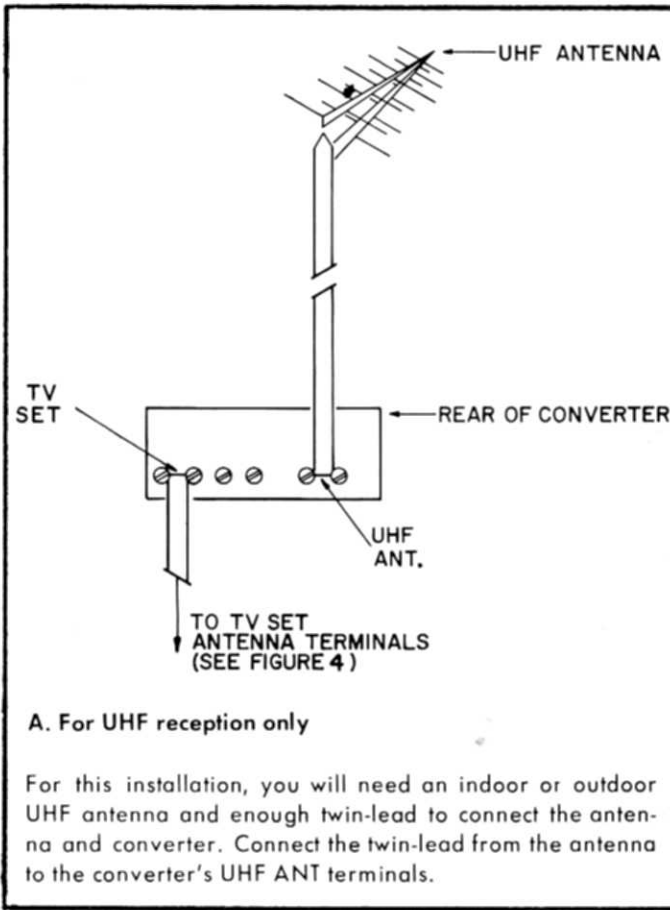
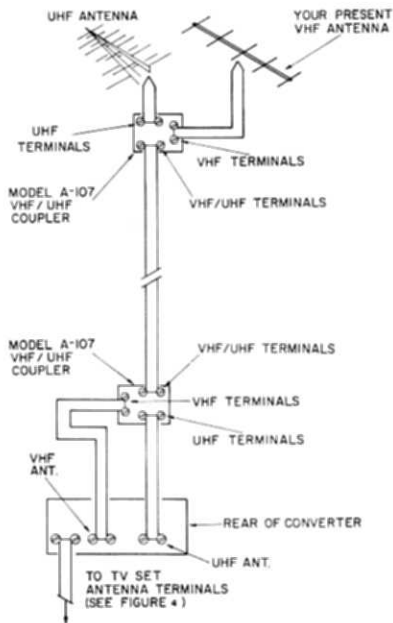


FIGURE 4. Connection of converter to set without built-in antenna.

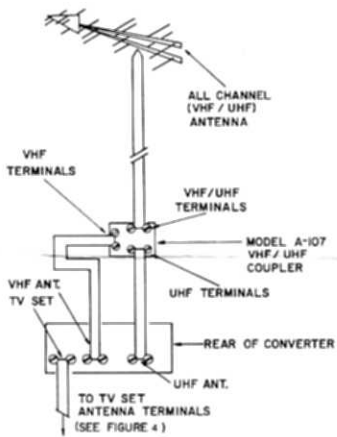
FIGURE 5. Connection of antennas to the converter.





C. For UHF and VHF reception with separate antennas feeding a single cable

For this type of installation, you will need an outdoor UHF antenna and two Blonder-Tongue model A-107 VHF/UHF couplers. Mount the antennas at least four feet apart. Disconnect the cable from your present (VHF) antenna. Connect a length of twin-lead from your present antenna to the VHF terminals of an A-107, which should be located near the antenna. Connect the terminals of the UHF antenna to the UHF terminals of the A-107 via another length of twin-lead. Now connect the cable you removed from your VHF antenna to the VHF/UHF terminals of the A-107 (for even better results, you may wish to replace your old cable with low-loss professional cable — see 'ANTENNA AND CABLE' above). Connect the other end of the cable to the VHF/UHF terminals of the second A-107 (located near the TV set). Connect a short length of cable from the VHF terminals of this A-107 to the VHF ANT terminals of the converter, and a second length from the UHF terminals of the A-107 to the UHF ANT terminals of the converter.



D. For VHF and UHF reception with a single all-channel antenna

For this installation, you will need an all-channel (VHF/UHF) antenna and a Blonder-Tongue model A-107 UHF/VHF coupler. Replace your present antenna with the all-channel antenna (you may also wish to replace your old cable with low-loss professional cable — see 'ANTENNA AND CABLE' above). Connect the other end of the cable from the antenna to the VHF/UHF terminals of the A-107. Connect a short length of twin-lead from the VHF terminals of the A-107 to the VHF ANT terminals of the converter, and another piece of twin-lead from the UHF terminals of the A-107 to the UHF ANT terminals of the converter.

FIGURE 5. Connection of antennas to the converter.

FIGURE 6. Connection of twin-lead to striplless terminals.

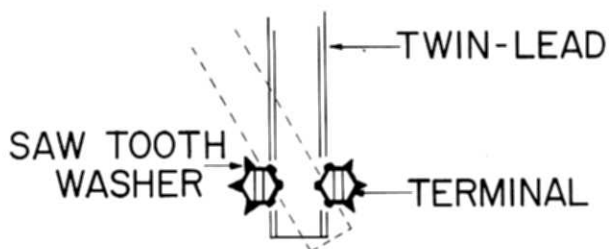
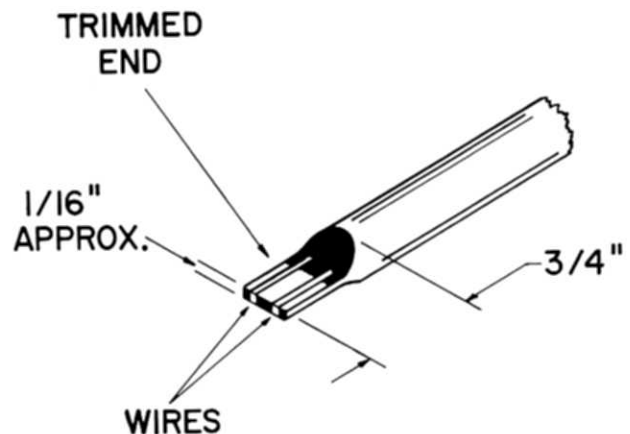


FIGURE 7. Tapering of tubular twin-lead to fit striplless terminals.



OPERATION

1. Turn the television set on and move the switch on the converter to the UHF position.

NOTE

Be sure to turn the converter OFF when not in use. This will greatly extend the battery life. Under normal conditions, the battery should last for approximately a year, assuming the converter is used for approximately four hours a day. If the converter will not be used for an extended period of time, the battery should be removed, to prevent the possibility of damage to the converter by battery leakage.

2. Turn the TV set's channel selector to either channel 5 or 6 (whichever is unused in your area), and set the television's fine tuning control to the center of its range.
3. Turn the tuning dial to the UHF channel desired, and then use the television set's fine tuning control to obtain the best picture.
4. For VHF reception, move the switch on the converter to the OFF position.

SERVICE

Your Blonder-Tongue converter has been carefully designed and manufactured, using conservatively-operated precision components. Its all-solid-state construction assures the ultimate in performance and reliability.

Should any problem occur, carefully check all connections between the antenna, converter and set. If this does not restore normal operation, return the converter to your dealer. If this is not possible, carefully pack the unit and return it to:

SERVICE DEPARTMENT

BLONDER-TONGUE LABORATORIES, INC.

9 ALLING STREET

NEWARK, NEW JERSEY 07102

Units in warranty (see warranty card) will be repaired at no cost to you, and returned postage-paid. All other units will be repaired as inexpensively as possible, and returned parcel post, C.O.D.

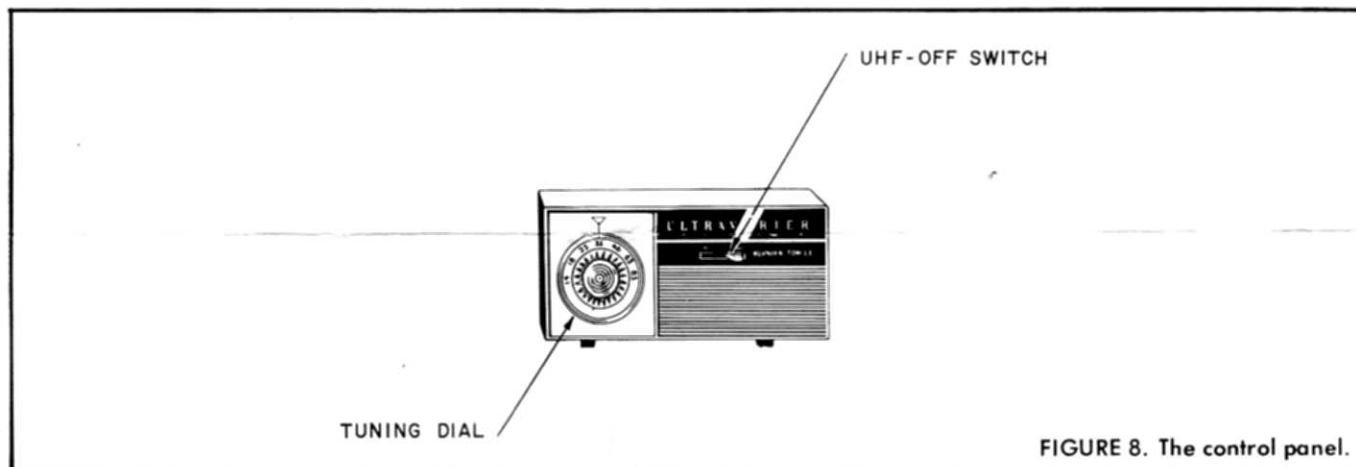


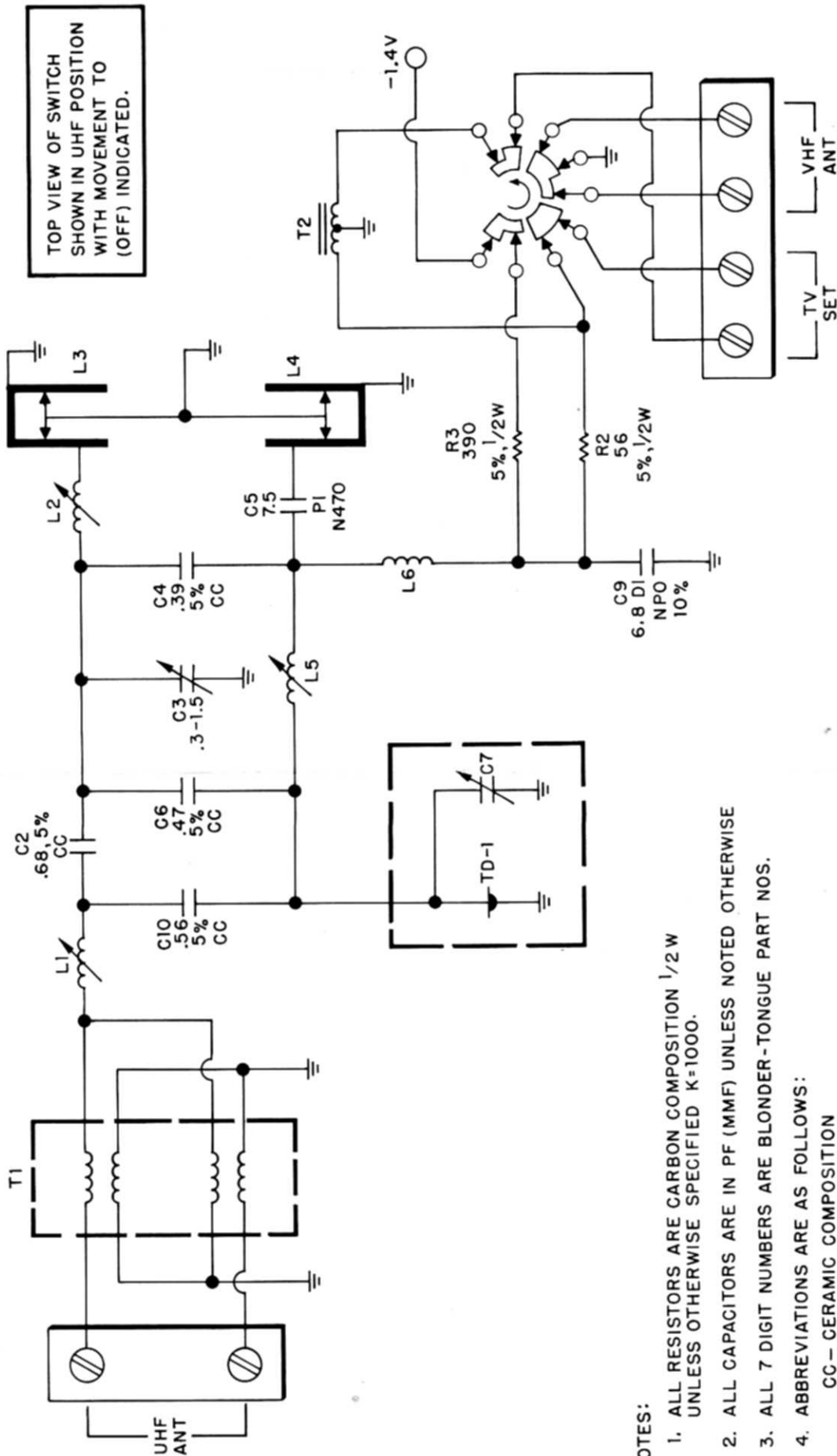
FIGURE 8. The control panel.

ACCESSORIES

Blonder-Tongue manufactures a complete line of home distribution equipment, including antennas, signal amplifiers, matching transformers for TV and FM, and UHF converters. Below is a partial list.

- | | |
|-----------------------|--|
| U/Vamp-2 | mast-mounted transistor UHF/VHF signal amplifier |
| Vamp-2 | mast-mounted transistor VHF signal amplifier |
| MT-283 | VHF/UHF/FM transformer for matching antenna to coaxial downlead, and coax to set |
| Cablematch U/V | Indoor VHF/UHF/FM transformer for matching coax to set input |
| TF-331 U/V | indoor, flush-mounted UHF/VHF/FM feed-through plate |
| A-102 U/V | VHF/UHF/FM two-set coupler |
| A-104 U/V | VHF/UHF/FM Four-set coupler |
| A-107 | VHF/UHF coupler-splitter |

See your dealer for further information on these products, as well as specific recommendations to meet the particular requirements of your own installation.



NOTES:

1. ALL RESISTORS ARE CARBON COMPOSITION 1/2W UNLESS OTHERWISE SPECIFIED K=1000.
2. ALL CAPACITORS ARE IN PF (MMF) UNLESS NOTED OTHERWISE
3. ALL 7 DIGIT NUMBERS ARE BLONDER-TONGUE PART NOS.
4. ABBREVIATIONS ARE AS FOLLOWS:

CC - CERAMIC COMPOSITION

DI - CERAMIC DISC

TD - TUNNEL DIODE

GMV - GUARANTEED MINIMUM VALUE

+ - ELECTROLYTIC

PI - PILL CAPACITOR

FE - FEEDTHROUGH

BTD-44 UHF
CORDLESS CONVERTER

engineered and manufactured by

BLONDER-TONGUE LABORATORIES, INC. / NEWARK, N. J.