



**BLONDER  
TONGUE**  
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## **INSTRUCTION MANUAL**

# **BTY-UHF-BB**

Professional UHF Broadband Antenna

Stock No. 4875



651137900G

The lightning flash with arrow-head symbol within an equilateral triangle is intended to alert you to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electrical shock to persons.



The exclamation point within an equilateral triangle is intended to alert you to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

**TO REDUCE THE RISK OF ELECTRICAL SHOCK, DO NOT REMOVE COVER FROM THIS UNIT. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.**

**WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE**

### **NOTE TO CATV SYSTEM INSTALLER**

This reminder is provided to call the CATV System Installer’s attention to Article 820-40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

## **WARNING**

**INSTALLATION OF THIS PRODUCT NEAR POWER LINES  
IS DANGEROUS. FOR YOUR SAFETY, FOLLOW THE  
INSTALLATION DIRECTIONS.**

# HOW TO SAFELY INSTALL YOUR OUTDOOR TV ANTENNA

## IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE U.S. CONSUMER PRODUCT SAFETY COMMISSION

### THESE SAFETY RECOMMENDATIONS ARE FOR USE WITH **BLONDER-TONGUE** **UHF/VHF/FM ANTENNAS**

## INSTALLATION INSTRUCTIONS

### YOU, YOUR ANTENNA, AND SAFETY

Each year hundreds of people are killed, mutilated or receive severe permanent injuries when attempting to install an antenna. In many of these cases, the victim was aware of the danger of electrocution, but did not take adequate steps to avoid the hazard.

For your safety, and to help you achieve a good installation, please **READ** and **FOLLOW** the safety precautions below: **THEY MAY SAVE YOUR LIFE!**

1. If you are installing an antenna for the first time, please, for your own safety as well as others, seek **PROFESSIONAL ASSISTANCE**. Consult your dealer. He can explain which mounting method to use for the size and type antenna you are about to install.
2. Select your installation site with safety, as well as performance, in mind. (Detailed information on Site Selection appears in a separate section of this booklet.) **REMEMBER: ELECTRIC POWER LINES AND PHONE LINES LOOK ALIKE. FOR YOUR SAFETY, ASSUME THAT ANY OVERHEAD LINES CAN KILL YOU.**
3. Call your electric power company. Tell them your plans and ask them to come look at your proposed installation. This is little inconvenience, considering **YOUR LIFE IS AT STAKE**.
4. Plan your installation procedure carefully and completely *before* you begin. Successful raising of a mast or tower is largely a matter of coordination. Each person should be assigned to a specific task, and should know what to do and when to do it. One person should be designated as the "boss" of the operation to call out instructions and watch for signs of trouble.
5. When installing your antenna, **REMEMBER:**  
**DO NOT** use a metal ladder.  
**DO NOT** work on a wet or windy day.  
**DO** dress properly—shoes with rubber soles and heels, rubber gloves, long sleeve shirt or jacket.
6. If the assembly starts to drop, get away from it and let it fall. **REMEMBER: The antenna, mast, cable, and metal guy wires are all excellent conductors of electrical current. Even the slightest touch of any of these parts to a power line completes an electrical path through the antennas and the installer—THAT'S YOU!**
7. If any part of the antenna system should come in contact with a power line—**DON'T TOUCH IT OR TRY TO REMOVE IT YOURSELF. CALL YOUR LOCAL POWER COMPANY.** They will remove it safely.
8. If an accident should occur with the power lines—  
**DON'T** grab hold of the person in contact with the antenna and power line or you, too will be electrocuted. Use a DRY board, stick or rope to push or pull the victim away from the antenna. If the victim has stopped breathing, administer artificial respiration—and stay with it. Have someone call for medical help.

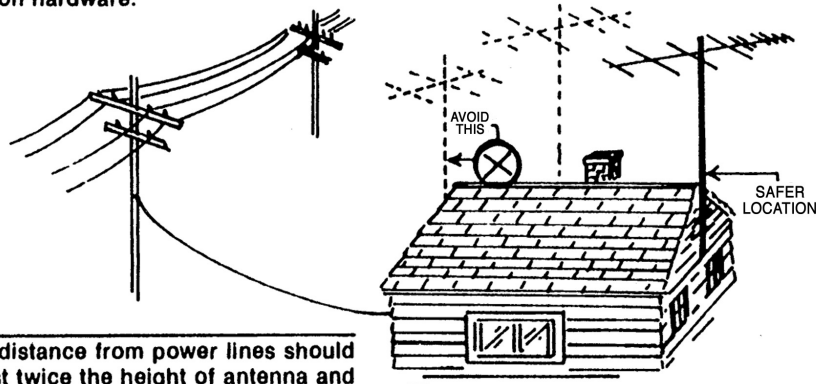
### SITE SELECTION:

Before attempting to install your antenna, think where you can best place your antenna for safety and performance.

To determine a safe distance from wires, power lines and trees:

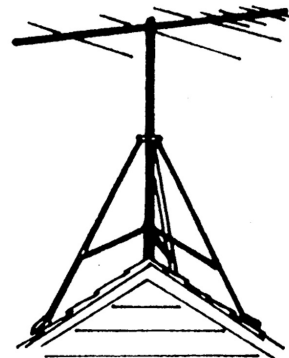
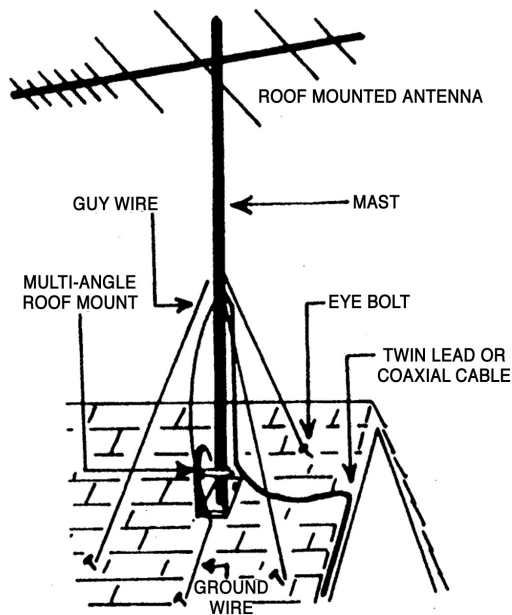
1. Measure the height of your antenna
2. Add this length to the length of your tower or mast, and then
3. Double this total for the minimum recommended safe distance.

If you are unable to maintain this safe distance, **STOP! GET PROFESSIONAL HELP.** Most antennas are supported by pipe masts attached to the chimney, roof, or side of the house. Generally, the higher the antenna is above ground, the better it performs. Good practice is to install your horizontal antenna about 5 to 10 feet above the roof line and away from power lines and obstructions. Remember that the FCC limits your antenna height to 60 feet. If possible, find a mounting place directly above your set, where the antenna wire can take a short, vertical drop on the outside of the house for entry through a wall or window near the set. Your dealer carries a complete line of installation hardware.



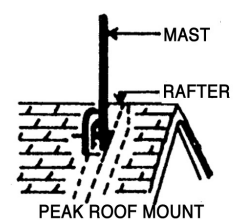
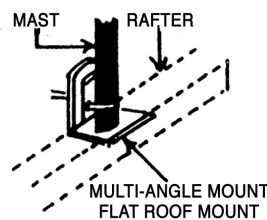
### CHOOSE A PROPER SUPPORT AND MOUNTING METHOD:

There are three types of supporting structures commonly used in antenna installations. Illustrations of these devices and various mounting methods follow.

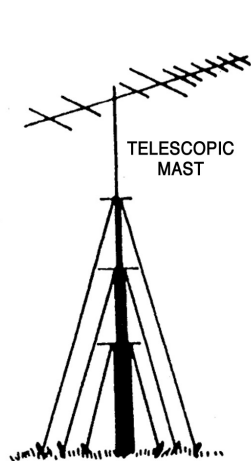


### ROOF MOUNTING

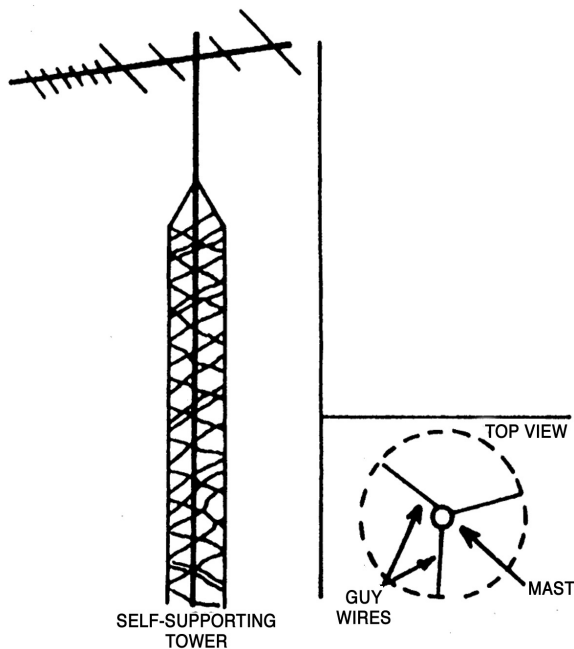
The swivel feature of "universal" type mounting brackets makes a convenient antenna mount for flat or peaked roofs. One clamp type bracket is used with 3 or 4 guy wires equally spaced around the mast and anchored to the roof or eaves by eyebolts. Apply roofing compound around the base of the bracket, screws and eyebolts for moisture sealing.



**THESE MOUNTING STRUCTURES CAN BE  
FREE STANDING OR ALONG  
SIDE OF BUILDING**

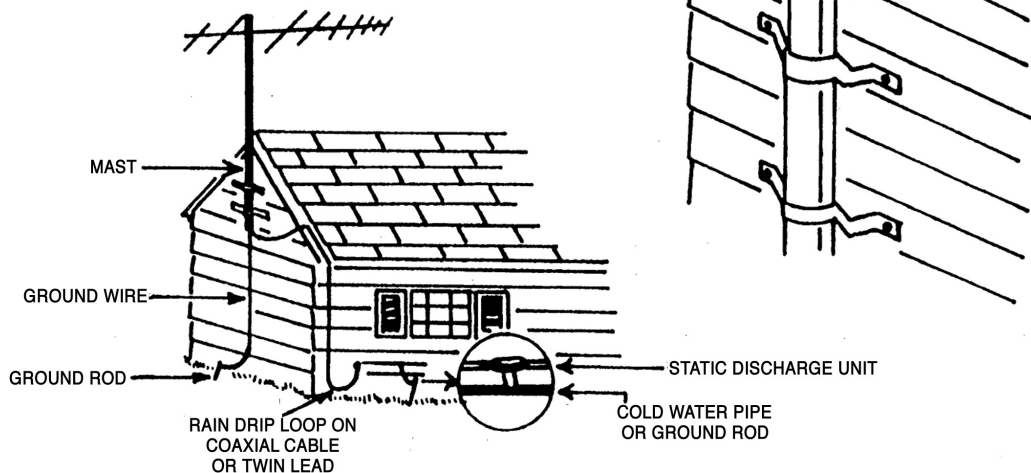


Guy wires should be equally spaced in at least three directions. Use at least three guy wires for each 10 foot section of mast.



**SIDE OF HOUSE MOUNT**

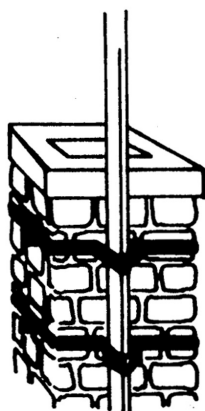
The safe distance from power lines is at least twice the height of antenna and the mast combined.



**SIDE OF HOUSE MOUNTING**

Where roof overhang is not excessive, the side of the house provides a convenient mounting. Position the brackets over a stud if possible, one above the other, and space two or three feet apart. For metal siding, first mark mounting holes, then drill pilot holes through the siding to accept mounting screws.





CHIMNEY MOUNTING

### CHIMNEY MOUNTING

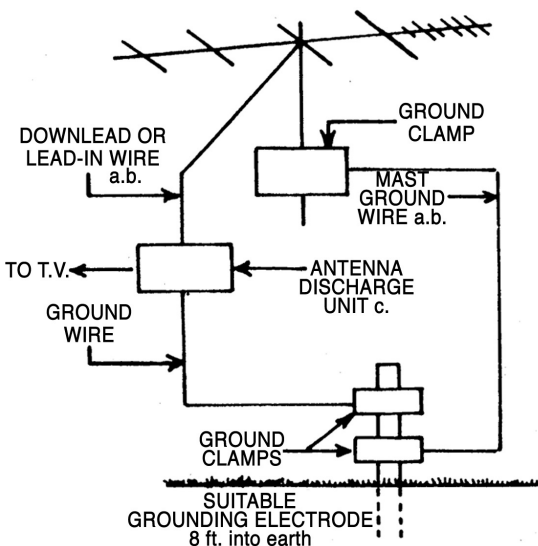
The chimney is often an easy and convenient mounting place. But the chimney must be strong enough to support the antenna in high winds. Do not use a chimney that has loose bricks or mortar. A good chimney mount makes use of a 5 or 10 foot 1½" diameter steel mast, and a heavy duty two strap clamp-type bracket. Install the upper bracket just below the top course of bricks, and the lower bracket two or three feet below the upper bracket. For maximum strength, space the brackets as far apart as possible.

### GENERAL INSTALLATION INSTRUCTIONS FOR MAST MOUNTED ANTENNAS

1. Assemble your new antenna on the ground at the installation site. Keep separate assembly instructions that come with it.
2. On the **ground**, clamp antenna to mast, pull enough twinlead or coaxial cable and connect to antenna.
3. To insure that a mast does not fall the "wrong way" if it should get away during the installation or take down, durable non-conductive rope should be secured at each two foot level as the mast is raised. The boss stands in a position where he can yank or pull the ropes if the need arises to *deflect* the falling mast away from hazards (such as power lines) into a "safe fall" (such as a yard or driveway). The ropes are tied taut at the base of the mast after installation and in place at the various levels.
4. Install selected mounting bracket.
5. If you are going to use guy wire installation instead of a mounting bracket:
  - install guy anchor bolts
  - estimate length of guy wire and cut
  - attach a mast using guy ring.
6. Carefully take antenna and mast assembly to mounting bracket and insert. Tighten clamp bolts. In case of guyed installation, it will be necessary to have at least a second person hold the mast upright while the guy wires are attached and tightened to the anchor bolts.
7. Install self-adhering "DANGER" label packaged in antenna hardware kit at eye level on your mast.
8. Install ground rod to drain off static electricity build up and connect ground wire to mast and ground rod. Use special ground rods, not a spare piece of pipe.

### EXAMPLE OF ANTENNA GROUNDING AS PER NATIONAL ELECTRICAL CODE INSTRUCTIONS

- a. Use No. 10AWG copper or No. 8 AWG aluminum or No. 10 AWG copper-clad steel or bronze wire, or larger as ground wires for both mast and lead-in. Securely clamp the wire to the bottom of the mast.
- b. Secure lead-in wire from antenna to antenna discharge unit and mast ground wire to house with stand-off insulators spaced from 4 feet (1.22 meters) to 6 feet (1.83 meters) apart.
- c. Mount antenna discharge unit as close as possible to where the lead-in wire enters the house.
9. Drill a hole in wall (CAREFULL there are wires in that wall!) near set just large enough to permit entry of cable.
10. Punch cable through hole and form a rain drip loop close to where it enters house.
11. Put a small amount of caulking around cable where it enters house to keep out drafts.
12. Install static electricity discharge unit.
13. Connect antenna cable to set.



	Dry	1/2" Ice
Maximum Equivalent Lateral Horizontal Area	.341 sq. ft.	.754 sq. ft.
Equivalent Torque Area	.326 sq. ft.	.659 sq. ft.
Effective Horizontal Moment of Torque (About Mast)	10.3 in.	10.3 in.
Lateral Force @ 100 mph	13.6 lbs.	30.2 lbs.
Torque @ 100 mph	11.2 ft./lbs.	22.6 ft./lbs.
Verticle Weight	2 lbs. 8 oz.	7 lbs. 2 oz.
Operational/Survival Wind Velocity	125 mph	125 mph

## Preparation for Installation

1. Items Required (but not supplied)
  - 1 "F" Connector (male)
  - 1 Tube silicon grease
  - 1 Roll Electric tape
2. Tools Required
  - 1 each nut driver: 1/4", 7/16", 9/16", 5/8"
  - 1 each open end wrench: 7/16", 9/16", 5/8"
3. Check hardware and tools to ensure that all material is on hand
4. Read all instructions before starting assembly/installation

## Installation Procedure

### Mast Mounting

1. Mount the antenna on the mast ("F" connector down). Use the hardware contained in Bag #1 (U Bolt, Back Plate, etc.) as shown in Fig. 1. The antenna can be attached on either the right or the left side of the mast, but the U Bolt should be inserted through the upper boom.
2. Coat the cable connection with silicone grease before covering it with the weatherboot supplied. You may find it more convenient to attach the coaxial cable before mounting the antenna.
3. Securely lash the downlead to the mast. For best results the coax should be fastened to the antenna boom as shown in Fig. 2, with the nylon ties supplied.

### Mounting to VHF Broadband Antenna

(Coupling the 4875 BTY-UHF-BB Antenna to the 4874 BTY-LP-BB (VHF) Antenna to make a single Broadband All-Channel UHF/VHF Antenna).

NOTE: Requires Optional Mounting Kit BTY-UVMK Stock No. 4882

1. Unpack and assemble the VHF Antenna (4874) according to the instructions included with it. HOWEVER, do not secure the forward element (#12) of the lower boom with the clamp and screw at this time, also the 75 Ohm coaxial cable MUST extend at least 30 inches out of the lower boom front. This length will be needed to connect the UHF Antenna.  
If the VHF Antenna is already completely assembled, remove the clamp and #8 x 1-3/4" screw from the lower forward (#12) element (save the screw for later use) and extend the coaxial cable 30 inches, as above.
2. Unpack the assembled UHF antenna. Open the option A1 Mounting Kit (BTY-UVMK, Stock No. 4882) containing the upper and lower boom couplers, spacers, etc.)
3. Mount the Lower Boom Coupler to the bottom of the lower UHF boom with (2) each 1/4 - 20 Bolts, Lockwashers and Nuts, using the spacers, as shown in Fig. 3. Mount the Upper Boom Coupler Plate to the top of the upper UHF boom with (4) #6 x 3/8" Screws as shown in Fig. 4.
4. Move the back of the UHF Antenna (with the couplers attached, step 3, above) into the front of the VHF Antenna, making sure the coaxial cable exits the VHF Antenna in the gap between the open front end of its lower boom and the smaller UHF boom. Using the Lower Boom Coupler in place of the bottom element clamp, insert the #8 x 1-3/4" screw and secure the forward (#12) VHF Antenna element using the clamp-nut (as for the other VHF elements) on top. See Fig. 3.
5. Insert (4) #6 x 3/8" screws on the bottom and sides of the lower boom coupler. Tighten all hardware firmly. Insert (4) #6 x 3/8" screws into the top of the upper boom coupler and tighten firmly.
6. Place the 75 Ohm coaxial cable from the VHF Antenna along the lower UHF Antenna boom as shown in Fig. 5 and secure with the cable ties supplied.
7. Slip the weatherboot onto the coax, attach an "F" connector, then screw it to the UHF antenna's jack. Coat the connection liberally with the silicone grease before covering it with the weatherboot.



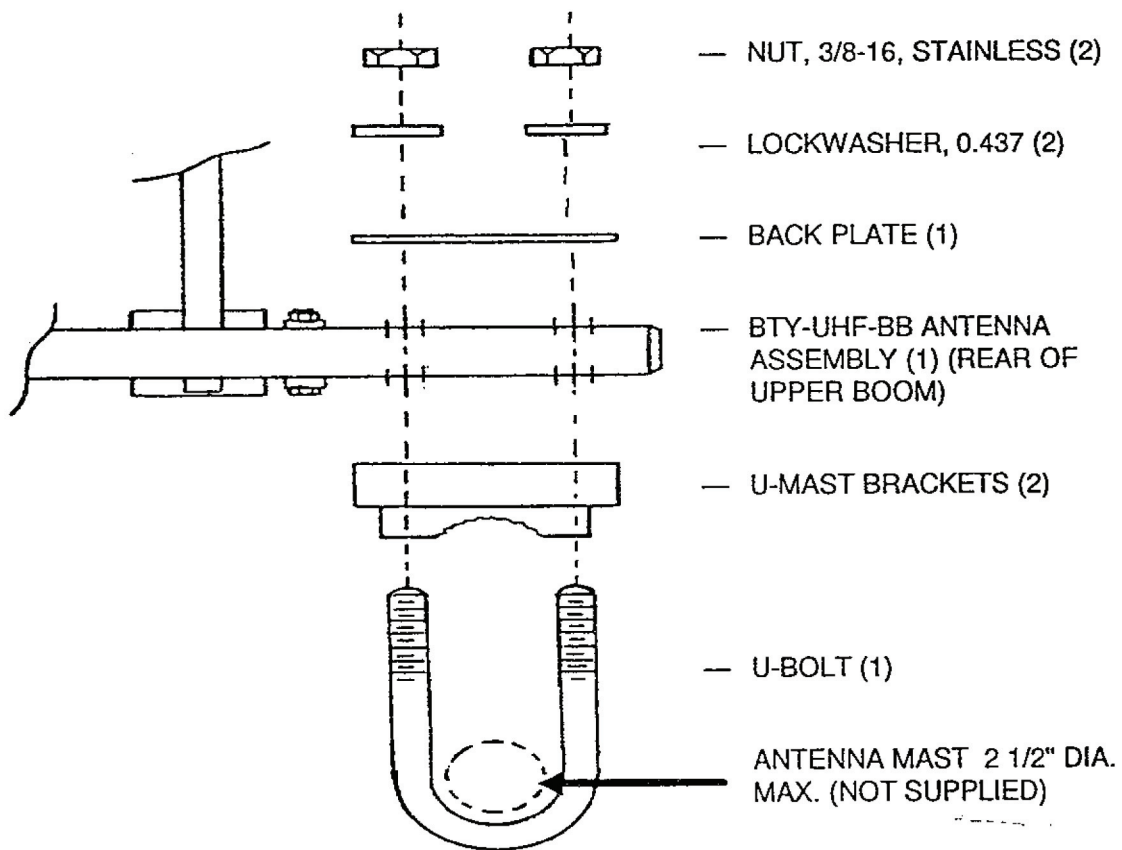


FIG. 1

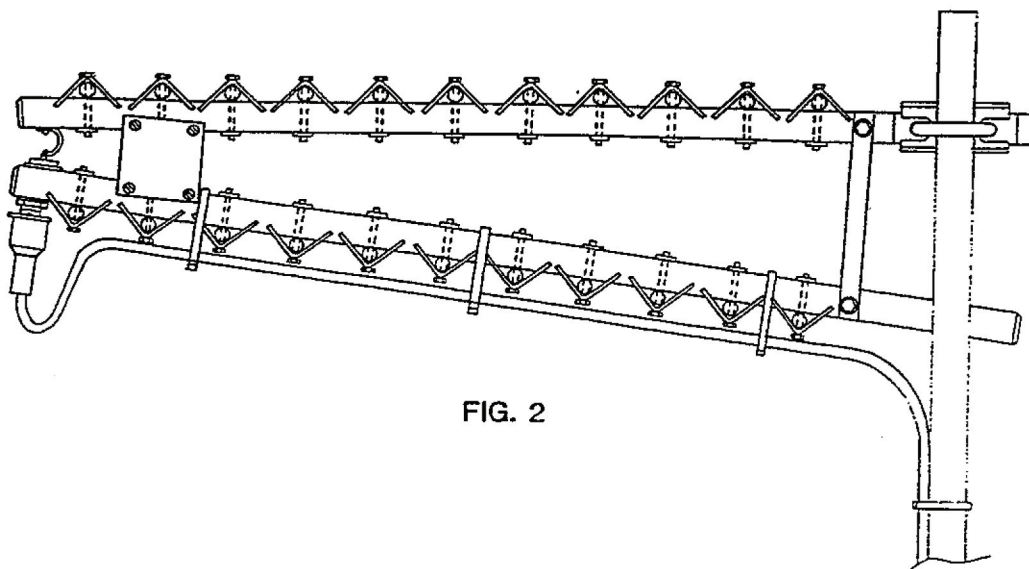


FIG. 2

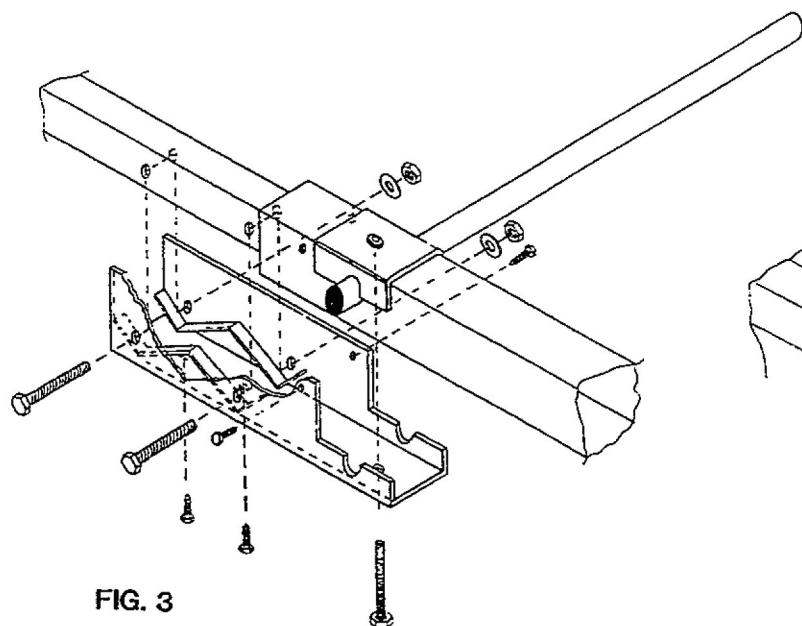


FIG. 3

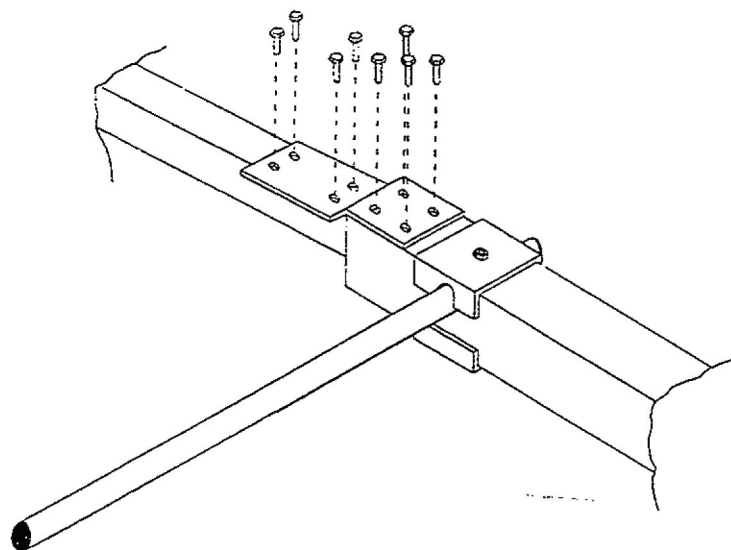


FIG. 4

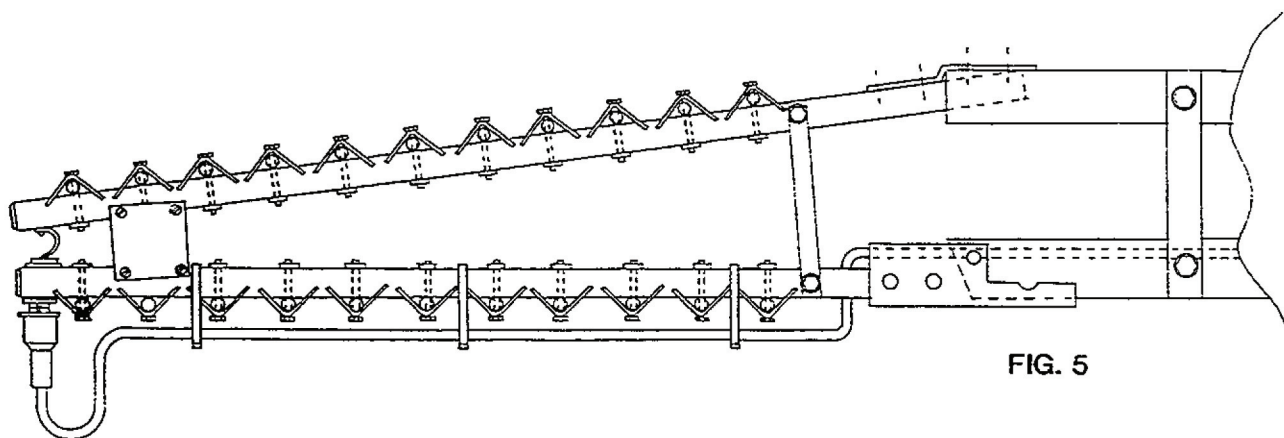


FIG. 5

# Limited Warranty

Blonder Tongue Laboratories, Inc. (BT) will at its sole option, either repair or replace (with a new or factory reconditioned product, as BT may determine) any product manufactured by BT which proves to be defective in materials or workmanship or fails to meet the specifications which are in effect on the date of shipment or such other specifications as may have been expressly agreed upon in writing (i) for a period of one (1) year from the date of original purchase (or such shorter period of time as may be set forth in the license agreement specific to the particular software being licensed), with respect to iCentral™ (hardware and software) and all other software products (including embedded software) licensed from BT, (ii) for a period of one (1) year from the date of original purchase, with respect to all MegaPort, IPTV products and fiber optics receivers, transmitters, couplers and integrated receivers/distribution amplifiers (including TRAILBLAZER™, RETRO-LINX™ and TWIN STAR™ products) as well as for VideoCipher® & DigiCipher® satellite receivers, and (iii) for a period of three (3) years from the date of original purchase, with respect to all other BT products. Notwithstanding the foregoing, in some cases, the warranty on certain proprietary sub-assembly modules manufactured by third party vendors and contained in BT products and on certain private-label products manufactured by third parties for resale by BT are of shorter duration or otherwise more limited than the standard BT limited warranty. In such cases, BT's warranty with respect to such third party proprietary sub-assembly modules and private-label products will be limited to the duration and other terms of such third party vendor's warranty. In addition, certain products, that are not manufactured but are resold by BT, carry the original OEM warranty for that product. The limited warranty set forth in this paragraph does not apply to any product sold by BT, which at the time of sale constituted a Closeout Product.

BT will at its sole option, either repair or replace (with a new or factory reconditioned product, as BT may determine) any product sold by BT which at the time of sale constituted a refurbished or closeout items ("Refurbished Product" and "Closeout Product"), which proves to be defective in materials or workmanship or fails to meet the specifications which are in effect on the date of shipment or such other specifications as may have been expressly agreed upon in writing, for a period of ninety (90) days from the date of original purchase. Notwithstanding the foregoing, in some cases, the warranty on third party software and on certain proprietary sub-assembly modules manufactured by third party vendors and contained in BT products and on certain private-label products manufactured by third parties for resale by BT are of shorter duration or otherwise more limited than the BT limited warranty for Closeout Products. In such cases, BT's warranty for Closeout Products constituting such third party software, third party proprietary sub-assembly modules and private-label products will be limited to the duration and other terms of such third party vendor's warranty. In addition, notwithstanding the foregoing, (i) certain Closeout Products that are not manufactured (but are resold) by BT, carry the original OEM warranty for such products, which may be longer or shorter than the BT limited warranty for Refurbished or Closeout Products. All sales of Refurbished or Closeout Products are final.

To obtain service under this warranty, the defective product, together with a copy of the sales receipt or other satisfactory proof of purchase and a brief description of the defect, must be shipped freight prepaid to: Blonder Tongue Laboratories, Inc., One Jake Brown Road, Old Bridge, New Jersey 08857.

This warranty does not cover damage resulting from (i) use or installation other than in strict accordance with manufacturer's written instructions, (ii) disassembly or repair by someone other than the manufacturer or a manufacturer-authorized repair center, (iii) misuse, misapplication or abuse, (iv) alteration, (v) lack of reasonable care or (vi) wind, ice, snow, rain, lightning, or any other weather conditions or acts of God.

**OTHER THAN THE WARRANTIES SET FORTH ABOVE, BT MAKES NO OTHER WARRANTIES OR REPRESENTATIONS OF ANY KIND, EXPRESS OR IMPLIED, AS TO THE CONDITION, DESCRIPTION, FITNESS FOR A PARTICULAR PURPOSE, MERCHANTABILITY OR AS TO ANY OTHER MATTER, AND SUCH WARRANTIES SUPERSEDE ANY ORAL OR WRITTEN WARRANTIES OR REPRESENTATIONS MADE OR IMPLIED BY BT OR BY ANY OF BT'S EMPLOYEES OR REPRESENTATIVES, OR IN ANY OF BT'S BROCHURES, MANUALS, CATALOGS, LITERATURE OR OTHER MATERIALS. IN ALL CASES, BUYER'S SOLE AND EXCLUSIVE REMEDY AND BT'S SOLE OBLIGATION FOR ANY BREACH OF THE WARRANTIES CONTAINED HEREIN SHALL BE LIMITED TO THE REPAIR OR REPLACEMENT OF THE DEFECTIVE PRODUCT F.O.B. SHIPPING POINT, AS BT IN ITS SOLE DISCRETION SHALL DETERMINE. BT SHALL IN NO EVENT AND UNDER NO CIRCUMSTANCES BE LIABLE OR RESPONSIBLE FOR ANY CONSEQUENTIAL, INDIRECT, INCIDENTAL, PUNITIVE, DIRECT OR SPECIAL DAMAGES BASED UPON BREACH OF WARRANTY, BREACH OF CONTRACT, NEGLIGENCE, STRICT TORT LIABILITY OR OTHERWISE OR ANY OTHER LEGAL THEORY ARISING DIRECTLY OR INDIRECTLY FROM THE SALE, USE, INSTALLATION OR FAILURE OF ANY PRODUCT ACQUIRED BY BUYER FROM BT.**

All claims for shortages, defects and non-conforming goods must be made by Buyer in writing within five (5) days of receipt of merchandise, which writing shall state with particularity all material facts, concerning the claim then known to Buyer. Upon any such complaint, Buyer shall hold the goods complained of intact and duly protected, for a period of up to sixty (60) days. Upon the request of BT, Buyer shall ship such allegedly nonconforming or defective goods, freight prepaid to BT for examination by BT's inspection department and verification of the defect. BT, at its option, will either repair, replace or issue a credit for products determined to be defective. BT's liability and responsibility for defective products is specifically limited to the defective item or to credit towards the original billing. All such replacements by BT shall be made free of charge f.o.b. the delivery point called for in the original order. Products for which replacement has been made under the provisions of this clause shall become the property of BT. Under no circumstances are products to be returned to BT without BT's prior written authorization. BT reserves the right to scrap any unauthorized returns on a no-credit basis. Any actions for breach of this contract must be commenced by Buyer within thirteen (13) months after the cause of action has accrued. A copy of BT's standard terms and conditions of sale, including the limited warranty, is available from BT upon request. Copies of the limited warranties covering third party proprietary sub-assembly modules and private label products manufactured by third parties are also available from BT on request. VideoCipher® & DigiCipher® are registered trademarks of Motorola Corp.



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