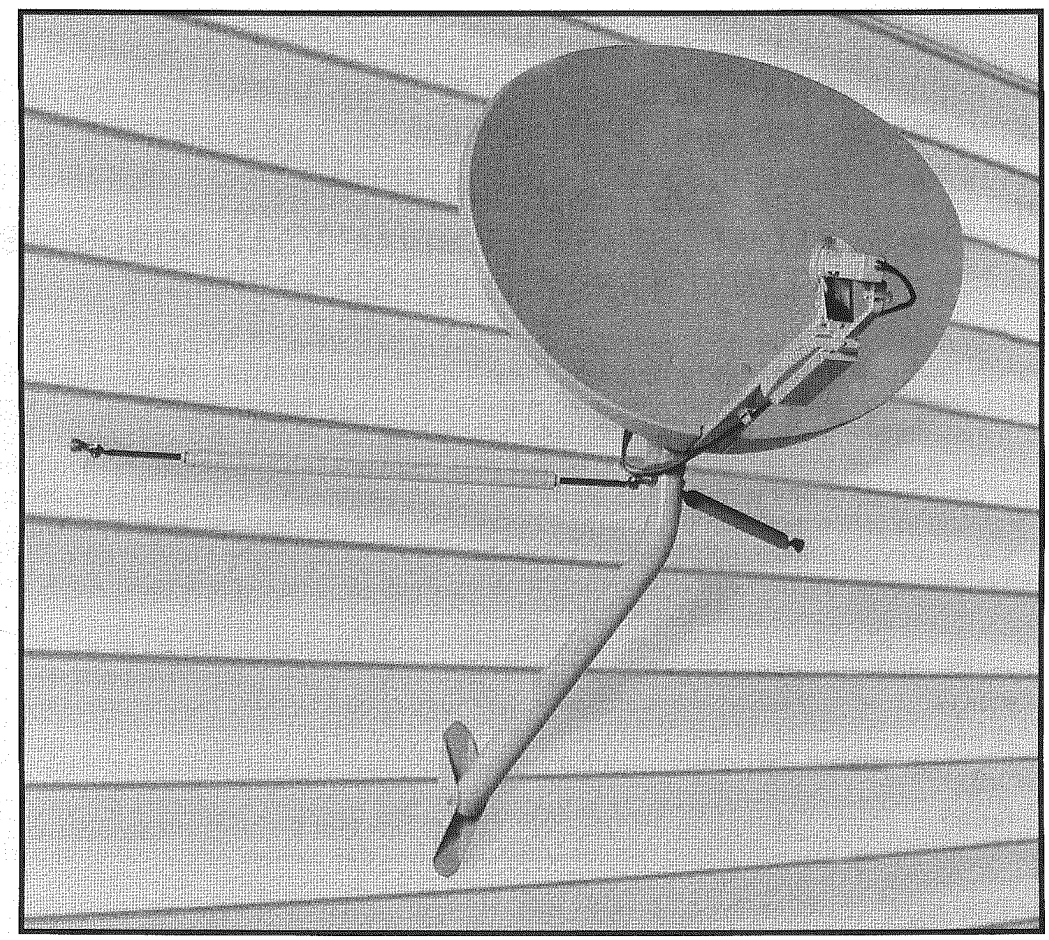
Model 610022002 Tri-Mast Roof/Wall Mount
With 2-3/8" (60mm) O.D. Mast



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DATE	DESCRIPTION	REV.
3/02	ECN 9000000	Rel.
6/04	ECN 9006666	
12/04	New Revised Warranty ECN 9006999	
9/05	ECN 9007200	
12/05	ECN 9007225	Rev A

ANDREW CORPORATION
VERY SMALL APERTURE TERMINAL (VSAT) PRODUCTS
TWELVE (12) MONTH LIMITED WARRANTY

Seller warrants that all Andrew manufactured VSAT products are transferred rightfully and with good title; that they are free from any lawful security interest or other lien or encumbrance unknown to Buyer. Seller also warrants that for a period of twelve (12) months from the date of shipment from Seller's factory, all its VSAT products shall be free from defects in material and workmanship which arise under proper and normal use and service. Buyer's exclusive remedy hereunder is limited to Seller's correction (either at its plant or at such other place as may be agreed upon between Seller and Buyer) of any such defects by repair or replacement at no cost to Buyer, except for the costs of any transportation in connection with the return of the defective VSAT products to be replaced or repaired, and the costs to remove and/or reinstall the products, which shall be borne by Buyer. The limited warranty period shall not be extended beyond its original term with respect to any part or parts repaired or replaced by seller hereunder.

This warranty shall not apply to VSAT products which (i) have been repaired or altered in any way so as to affect stability or durability, (ii) have been subject to misuse, negligence or accident, (iii) have been damaged by severe weather conditions such as excessive wind, ice, storms, lightning, or other natural occurrences beyond Seller's control; (iv) have presented damages, defects or nonconformances caused by improper shipping, handling or storage, and (v) have not been installed, operated or maintained in accordance with Seller's instructions.

Buyer shall present any claims along with the defective VSAT product(s) to Seller immediately upon failure Non-compliance with any part of this warranty procedure may invalidate this warranty in whole or in part.

SELLER MAKES NOW WARRANTY, EXPRESS OR IMPLIED, OTHER THAN AS SPECIFICALLY STATED ABOVE. EXPRESSLY EXCLUDED ARE ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. THE FOREGOING SHALL CONSTITUTE ALL OF SELLER'S LIABILITY (EXCEPT AS TO PATENT INFRINGEMENT) WITH RESPECT TO THE VSAT PRODUCTS. IN NO EVENT SHALL SELLER BE LIABLE FOR ANY LOSS OF PROFITS OR REVENUE, LOSS OF USE, INTERRUPTION OF BUSINESS, OR INDIRECT, SPECIAL, CONSEQUENTIAL OR INCIDENTAL DAMAGES OF ANY KIND AS A RESULT OF THE USE OF THE PRODUCTS MANUFACTURED BY SELLER, WHETHER USED IN ACCORDANCE WITH THE INSTRUCTIONS OR NOT. UNDER NO CIRCUMSTANCES SHALL SELLER'S LIABILITY TO BUYER EXCEED THE ACTUAL SALES PRICE OF THE VSAT PRODUCTS HEREUNDER.

In some jurisdictions, Buyer may have other rights under certain statutes that may imply non-excludable warranties. No representative is authorized to assume for Seller any other liability in connection with the VSAT products.

WARNING!!!

BEFORE ASSEMBLING OR INSTALLING THIS PRODUCT, THE INSTALLER USER MUST CAREFULLY READ AND UNDERSTAND THIS MANUAL AND ALL THE WARNINGS AND INSTRUCTIONS HEREIN. FAILURE TO DO SO COULD LEAD TO DEATH OR SERIOUS PERSONAL INJURY. IF THE INSTALLER DOES NOT UNDERSTAND THE WARNINGS AND INSTRUCTIONS IN THIS MANUAL, THE INSTALLER MUST CONSULT ADDITIONAL PROFESSIONAL HELP OR CONTACT THE MANUFACTURER BEFORE ATTEMPTING ASSEMBLY OR INSTALLATION OF THIS PRODUCT.

WARNING!!!

INSTALLATION OF THIS PRODUCT ABOVE GROUND LEVEL IS EXTREMELY DANGEROUS AND MUST BE PERFORMED BY A TRAINED PROFESSIONAL INSTALLER ONLY. FAILURE TO FOLLOW THIS WARNING COULD LEAD TO DEATH OR SERIOUS PERSONAL INJURY.

DANGER!!!

WATCH FOR WIRES! You can be KILLED if this product comes near power lines. Installation of this product near power lines is extremely dangerous and must never be attempted.

For your own safety, you must follow these important safety rules. FAILURE TO FOLLOW THESE RULES COULD LEAD TO DEATH OR SERIOUS PERSONAL INJURY.

1. Perform as many functions as possible on the ground.
2. Watch out for overhead power lines. Check the distance to the power lines before starting installation. Stay at least 6 meters (20 feet) away from all power lines.
3. Do not install antenna or mast assembly on a windy day.
4. If you start to drop antenna or mast assembly, get away from it and let it fall.
5. If any part of the antenna or mast assembly comes in contact with a power line, call your local power company. DO NOT TRY TO REMOVE IT YOURSELF! They will remove it safely.
6. Make sure that the mast assembly is properly grounded.

WARNING!!!

Assembling dish antennas on windy days is extremely dangerous and must never be attempted. Because of the antenna surface, even slight winds create strong forces. For example, this antenna facing a wind of 20 mph can undergo forces of 30 lbs. BE PREPARED TO SAFELY HANDLE THESE FORCES AT UNEXPECTED MOMENTS. ATTEMPTING TO ASSEMBLE, MOVE OR MOUNT A DISH ON WINDY DAYS COULD CAUSE DEATH OR SERIOUS PERSONAL INJURY. The manufacturer is not responsible or liable for damage or injury resulting from antenna installations.

WARNING!!!

Antennas improperly installed or installed to an inadequate structure are very susceptible to wind damage. This damage can be very serious or even life threatening. The owner and installer assumes full responsibility that the installation is structurally sound to support all loads (weight, wind & ice) and properly sealed against leaks. The manufacturer will not accept liability for any damage caused by a satellite system due to the many unknown variable applications.

Look for this symbol (!) for very important procedures.

SITE SURVEY

Select a wall or roof slope that faces south, southeast or southwest.

Refer to antenna assembly manual and installation instructions to determine the satellite look angles for your site. Use these values for site selection.

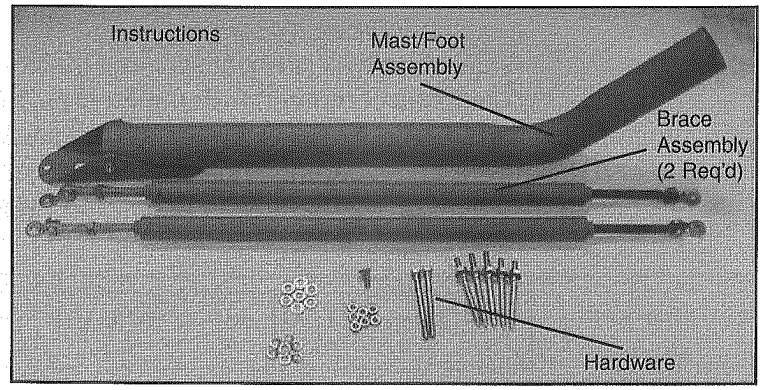
Wall Construction Recommended

a. Solid brick load bearing wall.
b. Concrete block load bearing wall.
c. Wood frame with 16"c-c or 24"c-c studs covered with OSB or plywood and vinyl siding.
d. Wood frame with 16"c-c studs covered with fiberboard and vinyl siding. The preferred location for this construction is the gable end of the house that allows braces to be anchored in the top plates or bandboard approximately 94" from the bottom of vinyl siding.
e. Wood frame with 16"c-c studs covered with T-111 wood siding or 1/2"-3/4" lap boards.

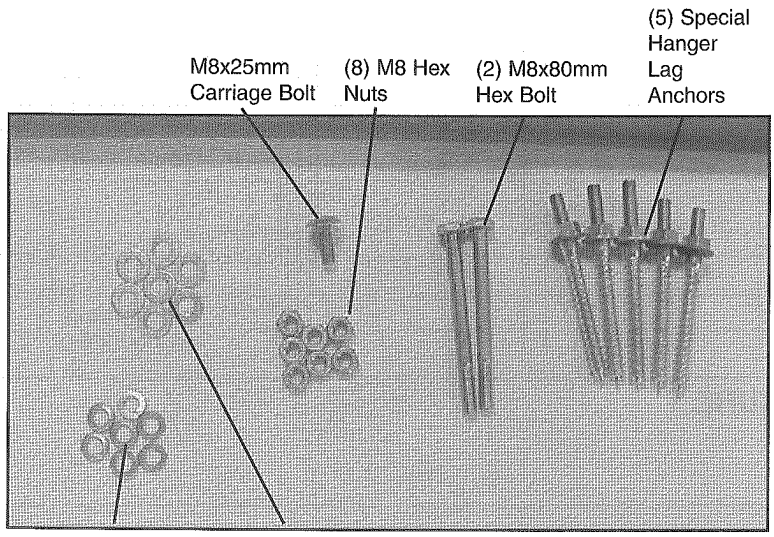
Roof Construction Recommended

a. Wood truss or rafters on 16"c-c or 24"c-c covered with 1/2"-5/8" plywood and asphalt shingles.
b. Not recommended for tile, slate, or wood shake roofs.

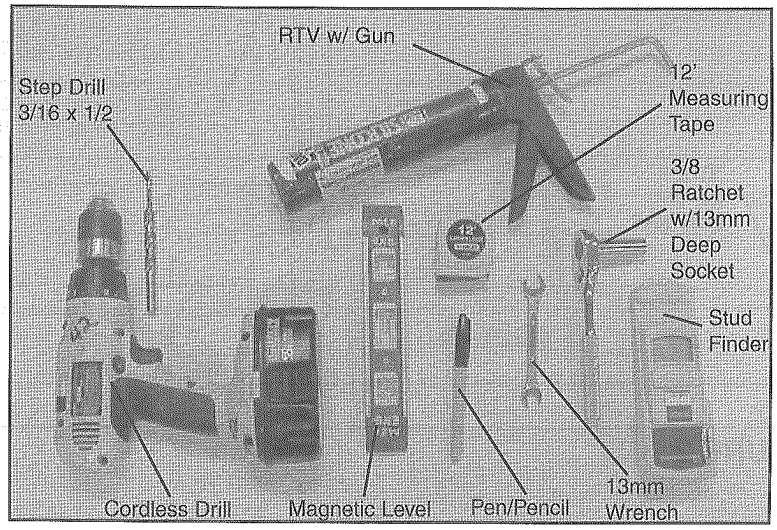
Inspect Package Contents For Missing Parts



Hardware Bag Contents



Tools Recommended



Section IA
Wood Wall w/T-111, Lap Board or Vinyl Siding

The first step in mounting the Tri Mast to a wood wall is to determine if the construction of the wall incorporates studs that are 16 inches on center or 24 inches on center. Refer to Figures 1 & 2 to get an idea of how the wall mount will be anchored into the wall studs. Using a stud finder, locate the stud for mounting the mast foot brace. Mark the center of the stud and drill a pilot and clearance hole for the hanger lag anchor. If mounting on a wall with vinyl siding, locate this hole a minimum of 1/2" from vinyl ridge. See Page 6.

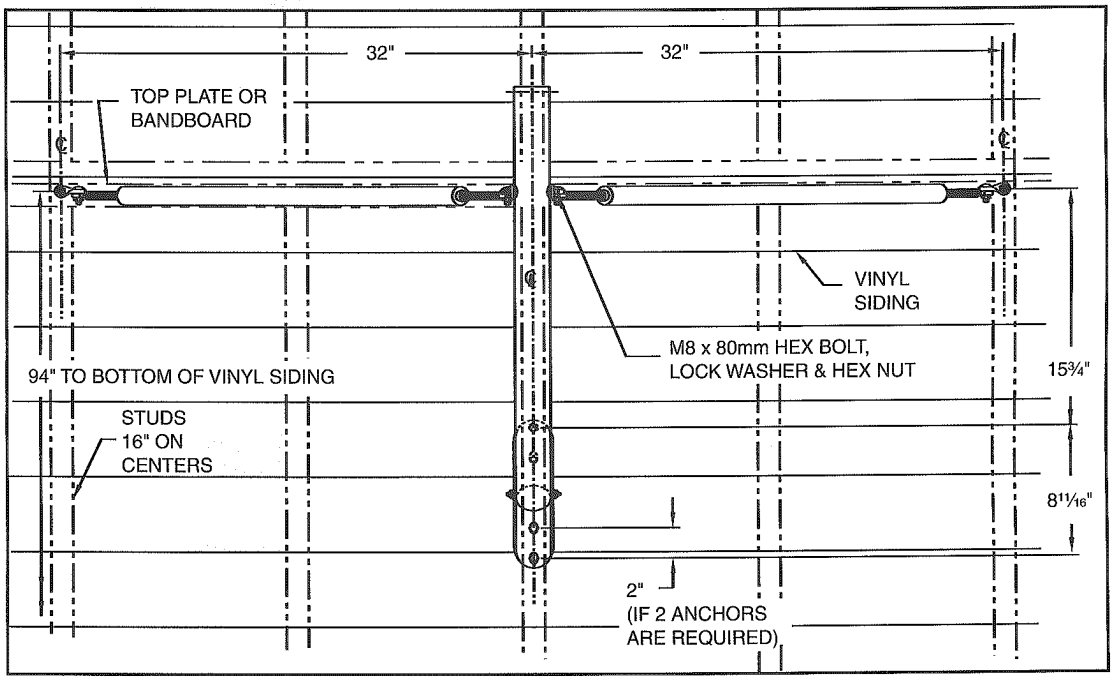


FIGURE 1

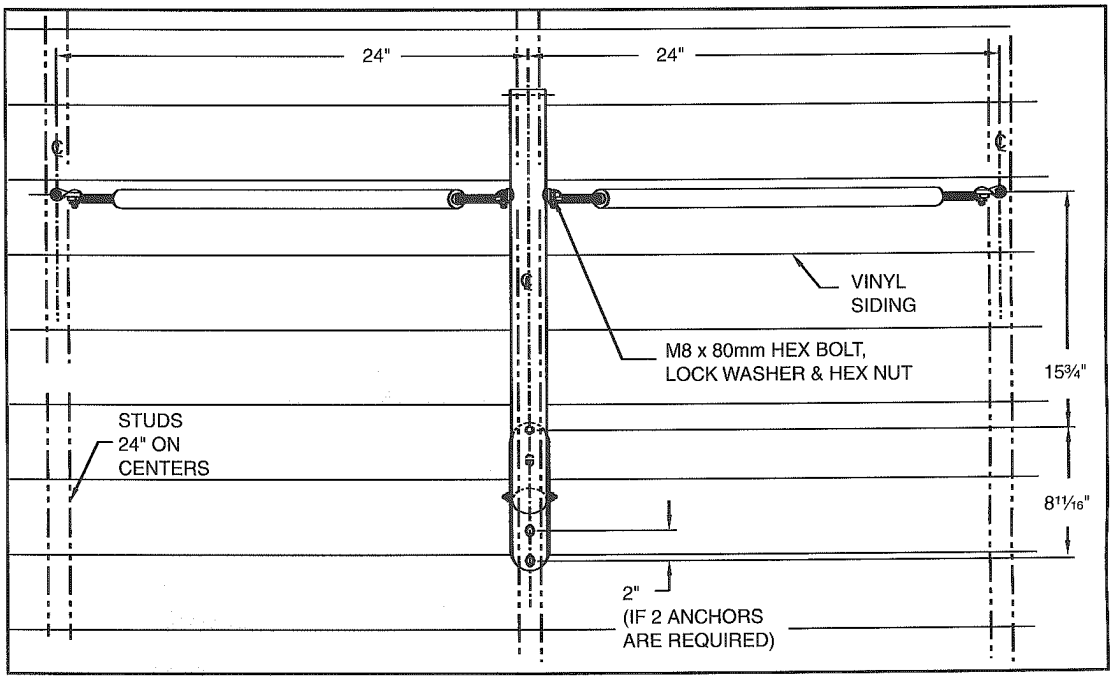


FIGURE 2

Wall Mount Installation

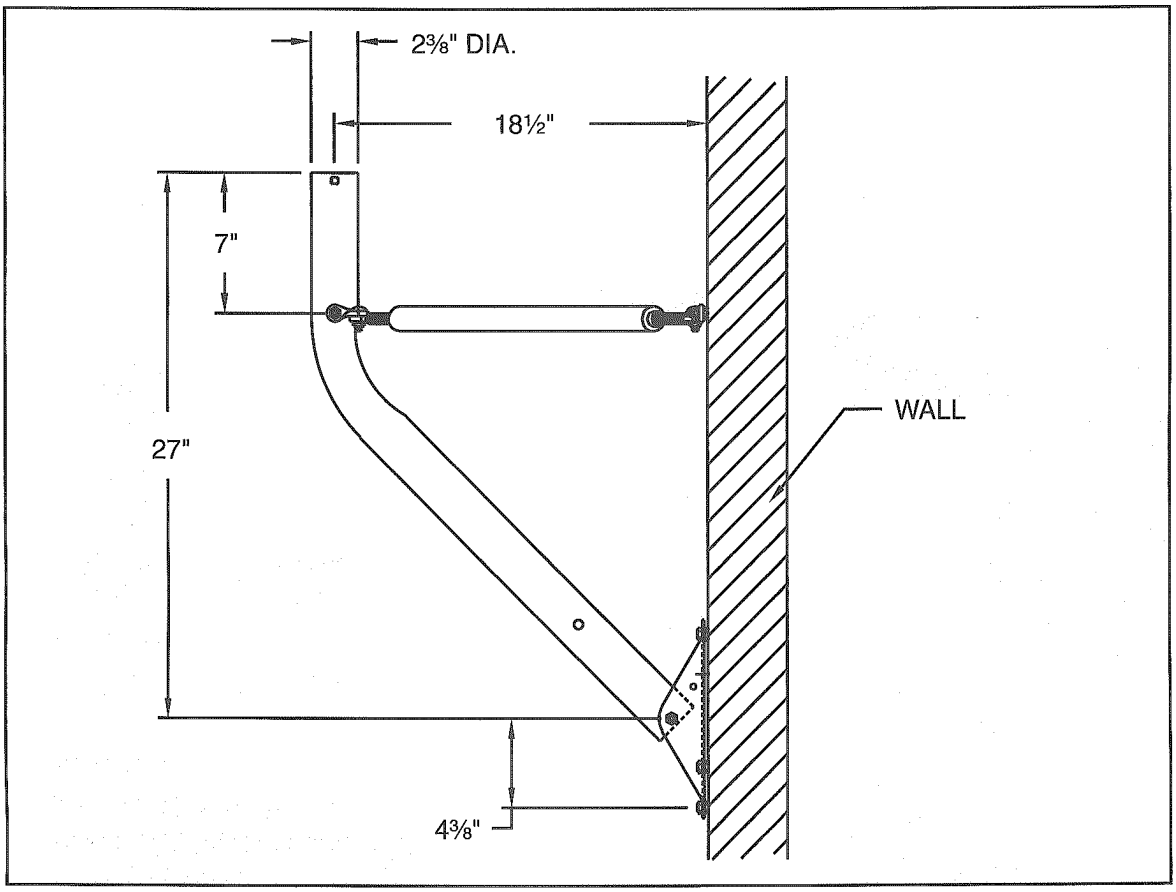
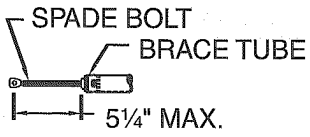


FIGURE 3



WARNING!
TO PREVENT DISENGAGEMENT OF SPADE BOLT AND BRACE TUBE, AND TO MAINTAIN THE STRUCTURAL INTEGRITY OF THE MOUNT, IT IS VERY IMPORTANT NOT TO EXCEED THE 5¼" DIMENSION SHOWN.

FIGURE 4

BRACE FACTORY SET FOR 16" C-C WALL STUDS. FOR 24" C-C WALL STUDS, ADJUST AS SHOWN.

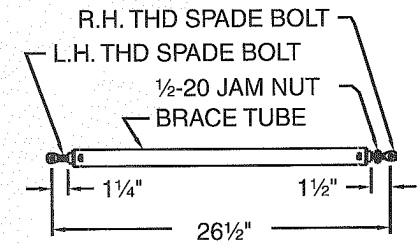
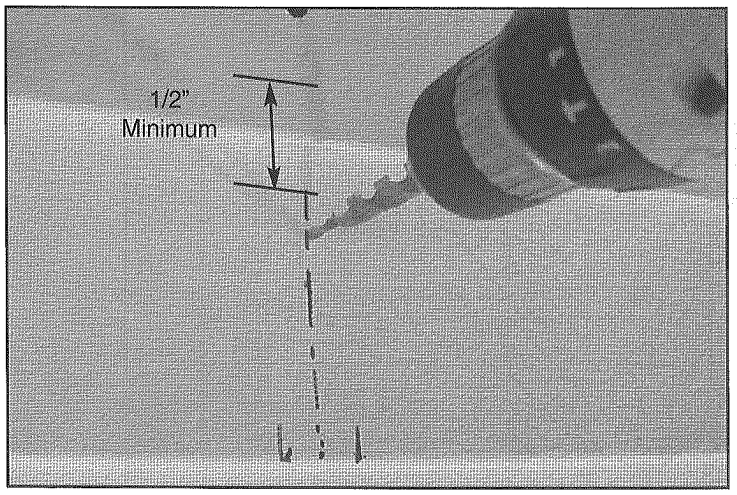


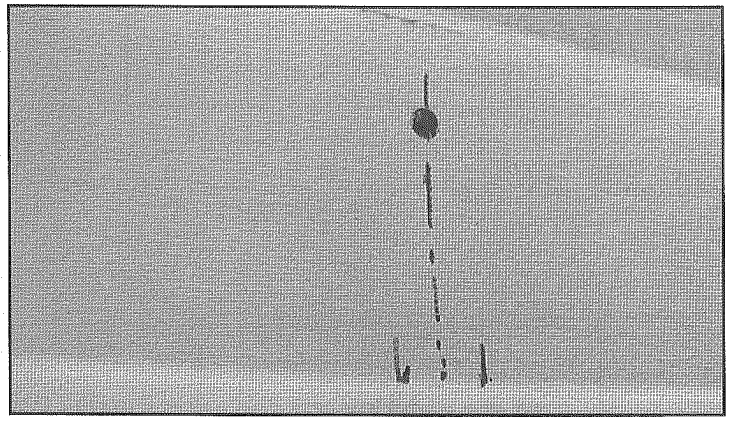
FIGURE 5

Section IB
Wall Mount Installation

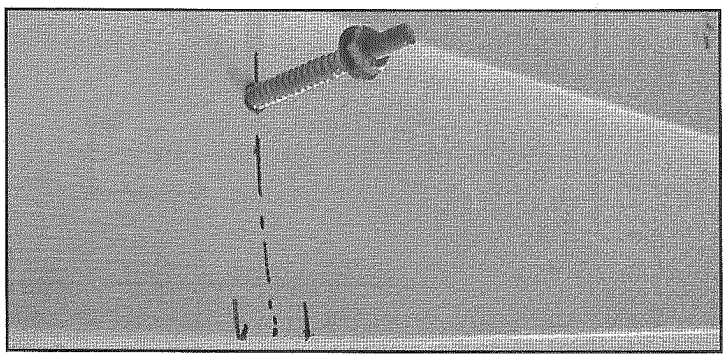
For Wood Walls w/T-111, Lap Board or Vinyl Siding



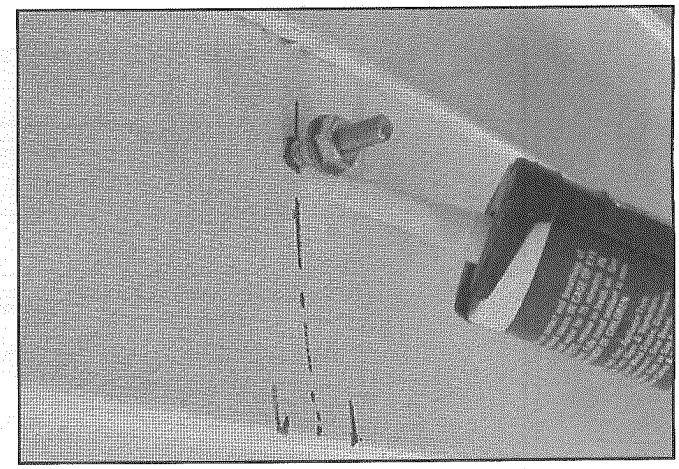
1. Drill Pilot for Hanger Lag Anchors With a Minimum of 1/2" From Vinyl Ridge



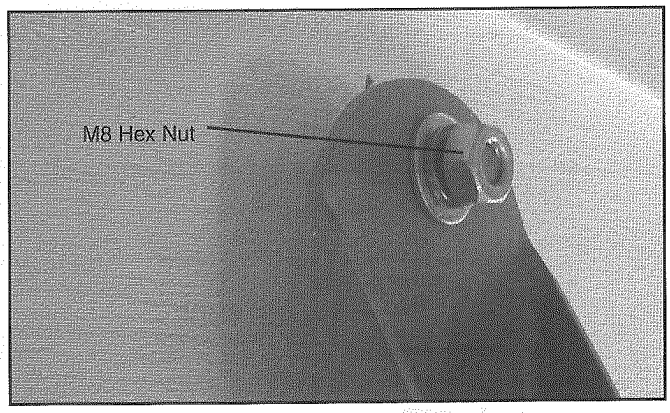
2. Drill Anchor Pilot Hole in Stud with Step Drill. Stop Drill Depth When 1/2" Hole is in Vinyl.



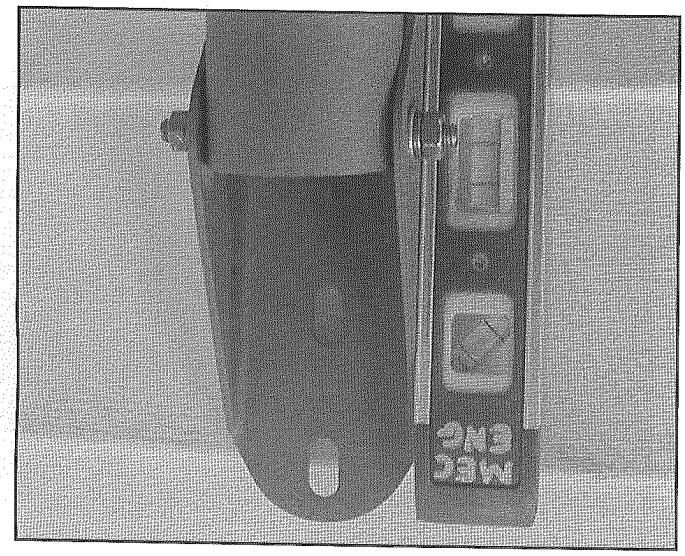
3. Install Anchor As Straight As Possible. Stop Hex Washer Approximately 1/4"-3/8" From Vinyl Siding.



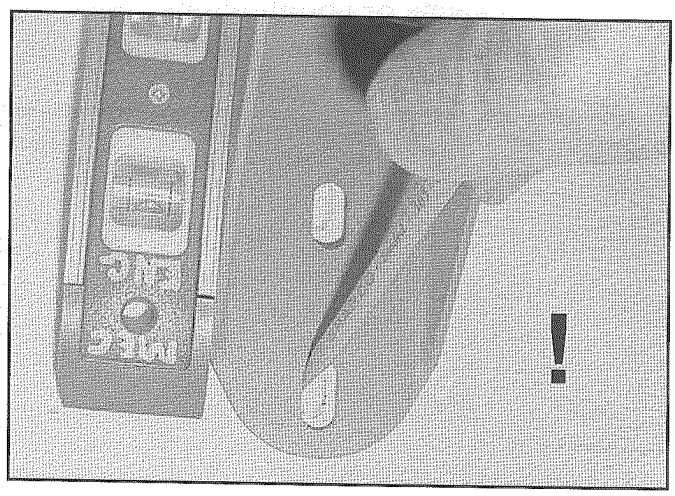
4. Liberally apply RTV in hole and around hanger lag anchor to provide a watertight seal. Continue to run hanger lag anchor down to within approximately 1/8" from vinyl siding.



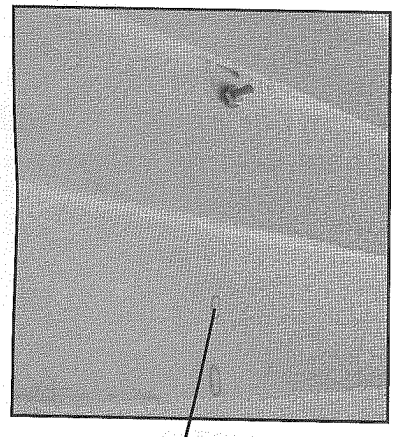
5. Temporarily Hang the Mast/Foot Assembly



6. Plumbing Mast/Foot Assembly.

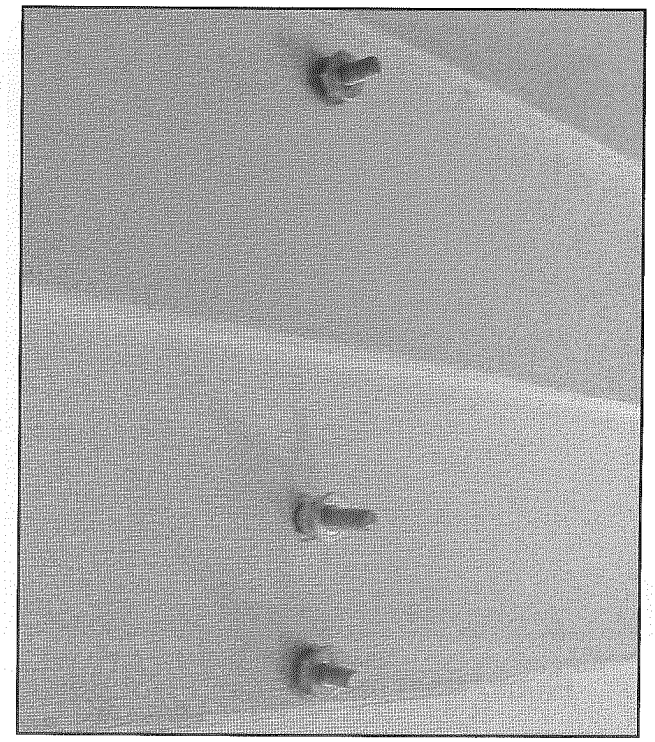


7. Marking #2 and #3 Hanger Lag Anchor Locations While the Mast Foot is Plumb.

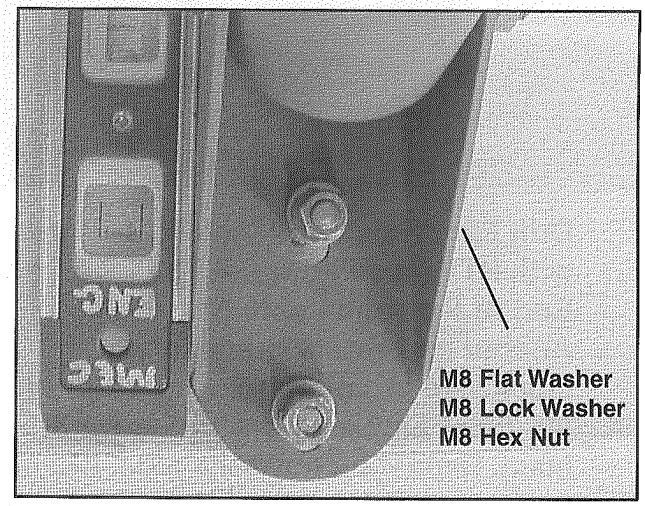


8. #3 Anchor - Use on vinyl siding w/16"cc. studs & insulation board. #3 anchor not required on other wall constructions.

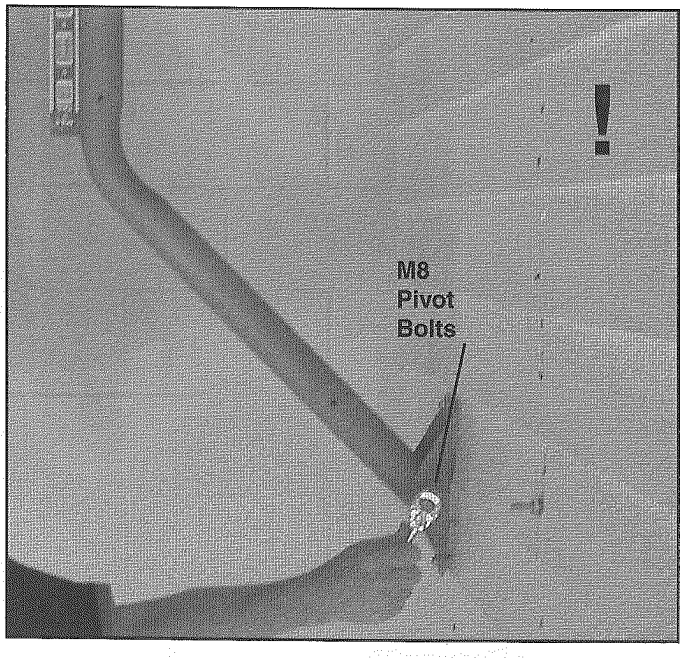
#2 and #3 Anchor Marked



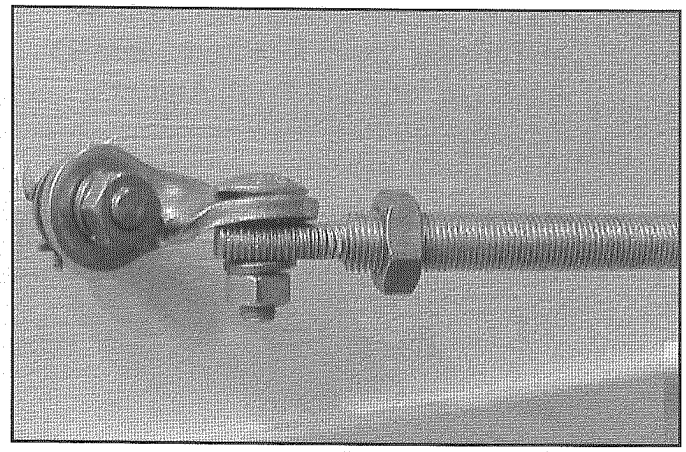
9. Drill in Center of Marked Slots. Install and apply RTV to #2 and #3 Anchors for Mast Foot. Adjust Anchors so that All Hex Heads are on The Same Plane. Add Flat Washer Over Hex Head.



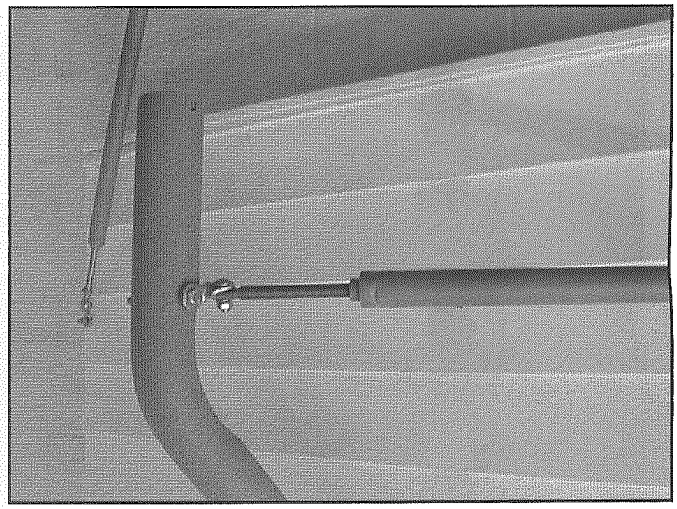
10. Secure Foot Anchors. Plumb Foot and tighten all M8 hardware.



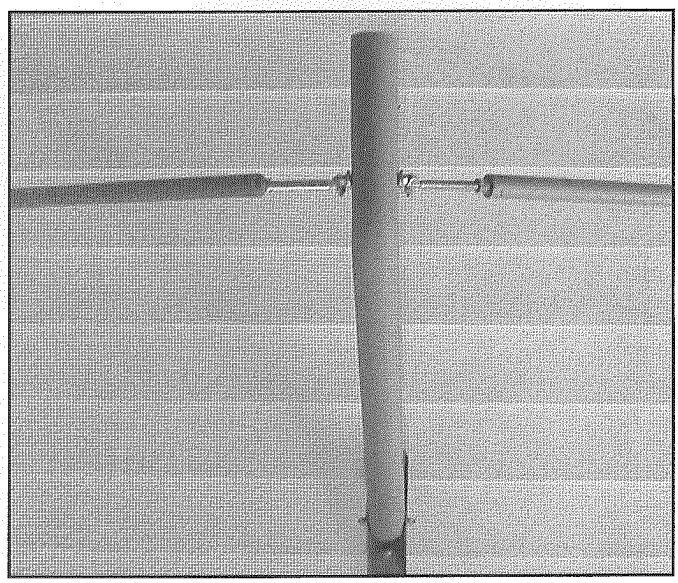
11. Plumb Mast and Tighten Pivot Bolts.



12. Drill Pilot Holes and Install Anchors with RTV (see Pages 6 & 7). Place One End of the Adjustable Brace on Anchor and rotate brace tube clockwise or counterclockwise until 90° Twist Link aligns with Sleeve in Mast. Repeat on opposite side. Attach to mast with M8 x 80m Hex Bolt Lock Washer and Hex Nut.



13. Install adjustable braces. The adjustable brace tubes can be rotated clockwise or counterclockwise to fine tune the plumbness if required.



14. Completed Installation of 75E Gen II Roof/Wall Mount For Wood Walls with T-111, Lap Board Siding or Vinyl Siding.

Section II
Brick or Concrete Wall Construction

To Install on a Solid Brick or Concrete Structure, Load Bearing Wall.

1. Place mast foot on wall with level.
2. Plumb and mark hole and slot (8 11/16" apart). Do not locate or mark on or near the mortar joint.
3. Anchors should be in the web of hollow concrete block. Drill for M8 x 50 (5/16" x 2") double expansion-type anchors.
4. Install (2) anchors. Mount and plumb mast foot. For plumbing mast foot, refer to section 1B, page 9.
5. Referring to Figure 1, measure and mark brace anchor locations. Then drill for anchors.
6. Assemble braces to anchor and mast. (Again see Figure 1). Check to make certain mast is plumb and adjust braces if required.

Section III
Roof Mount Installation

USE STUD FINDER TO LOCATE RAFTER OR THE FOLLOWING PROCEDURE FOR LOCATING ROOF RAFTER

STEP 1

To locate rafter, tap roof using a hammer, moving in the sequence as shown in Figure 1 until a sharp thud is heard, indicating rafter location. The sound changes when tapping roof from a hollow thump to a sharp thud as hammer blows approach rafter. If no distinguishable sounds are obtained, it may be necessary to move up or down the roof and repeat the above procedure. After determining the general location of rafter, mark the spot and proceed to Step 2..

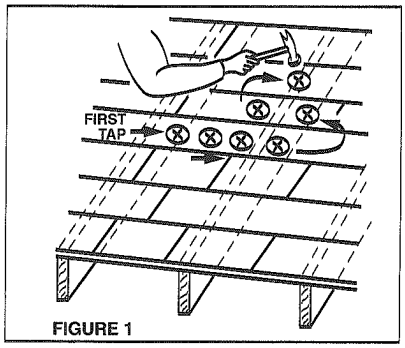


FIGURE 1

STEP 2

After locating rafter position, drill a 1/8" diameter hole at marked spot to find center line of rafter. 90% of the time, this hole will be in the rafter. To determine if hole is in center of rafter, drill holes 1/2" on either side of first hole and use hole as shown in one of the "case" examples on next page.

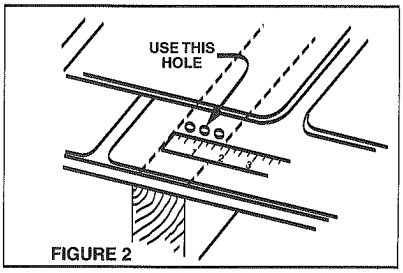


FIGURE 2

STEP 3

If hole hits rafter edge, drill additional hole 3/4" in toward rafter and this should be center of rafter. See Figure 3. If hole misses rafter, drill a second hole at 1-1/2" from first hole and continue to do so until rafter is located. After rafter is located, drill holes 1/2" on either side of previous hole to determine center of rafter. See illustration on next page for more details on this procedure.

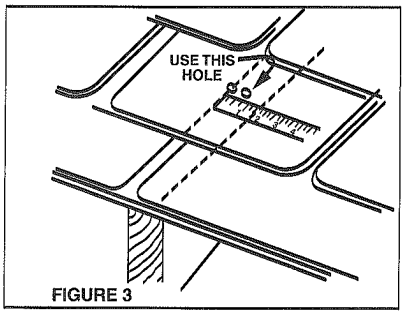


FIGURE 3

STEP 4

Surface must be clean, dry and free of frost, soap, grease and dirt. To plug unused holes, apply RTV Sealant (white or black) or equivalent into holes, completely filling them. Press RTV cartridge nozzle into each hole filling hole with sealant. See Figure 4.

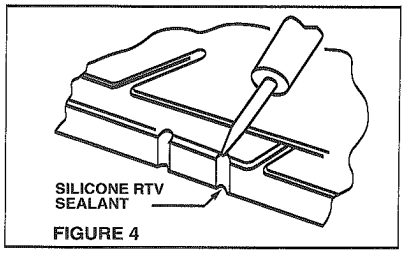


FIGURE 4

Apply additional RTV to top surface of shingle and crown edges as shown in illustration. See Figure 5. To seal holes used to secure roof mount, apply a generous 1/4" to 3/8" diameter bead of silicone RTV sealant around holes as shown in Figure 6.

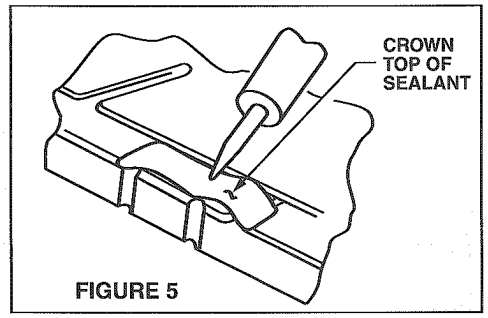


FIGURE 5

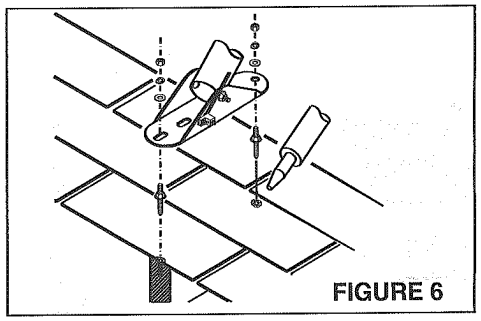
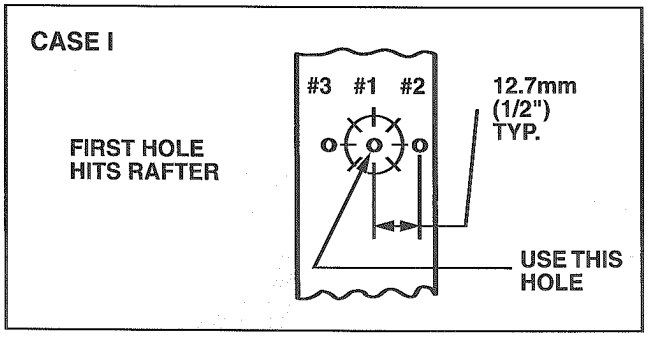


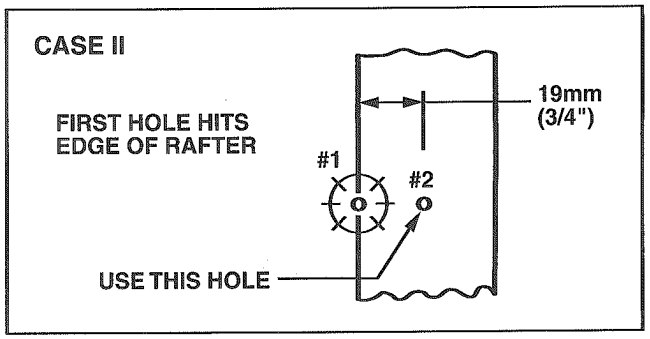
FIGURE 6

CASE I



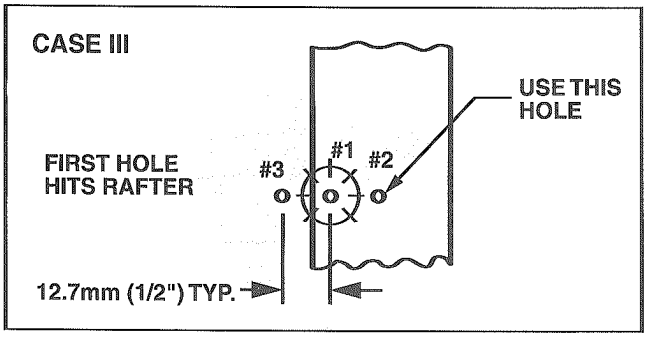
If the first drilled hole hits rafter, drill a second hole 1/2" to the right of the first hole and a third hole 1/2" to the left of first hole. If all three holes are in rafter, then use the first drilled hole for lag as this will be on center of rafter.

CASE II



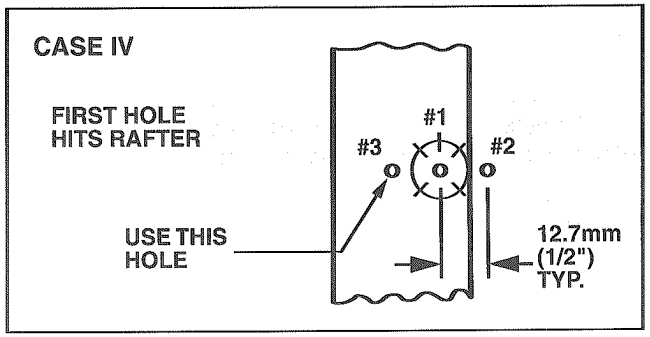
If the first drilled hole hits edge of rafter, drill a second hole 3/4" to the right of first hole and use this hole.

CASE III



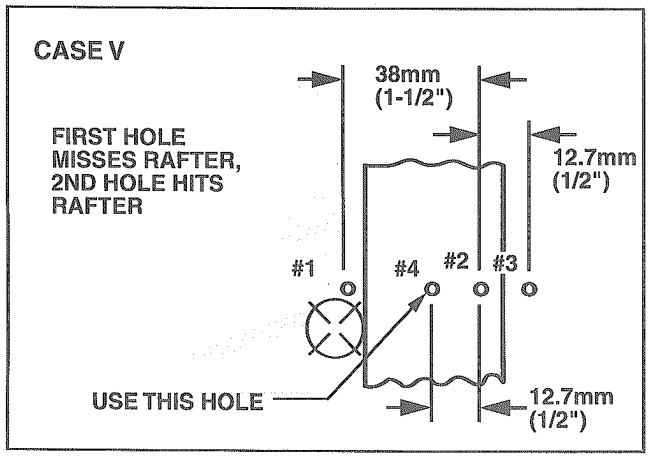
If the first hole hits rafter, drill a second hole 1/2" to the right of first hole. If this hole misses rafter, drill a third hole 1/2" to the left of first hole and use this hole for lag.

CASE IV



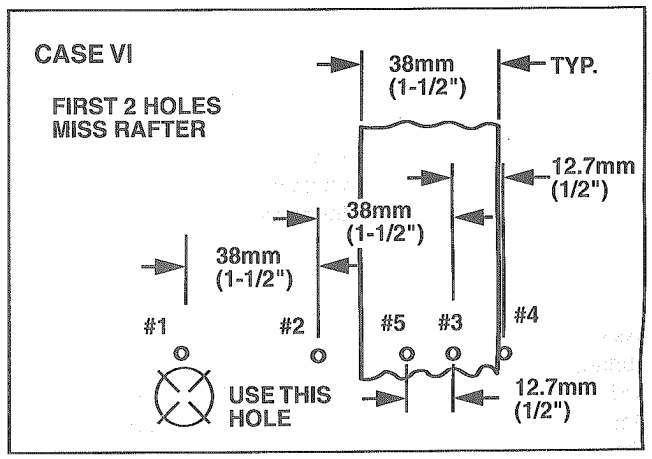
If the first hole hits rafter, drill a second hole 1/2" to the right of first hole. If this hole hits rafter, drill a third hole 1/2" to the left of first hole. If third hole misses rafter, use the second hole for lag as this will be on center of rafter.

CASE V



If the first hole misses rafter, drill a second hole 1-1/2" to the right of first hole. If this hole hits rafter, drill additional holes 1/2" to each side of this hole. If hole #3 misses rafter, use the #4 hole for lag.

CASE VI



If the first two holes miss rafter, drill a third hole 1-1/2" from the second hole. If this hole hits rafter, then drill additional holes 1/2" on each side of the third hole. If hole #4 misses rafter, use #5 hole for lag.

GROUNDING

NOTE: All installations to conform to latest issue of National Electric Code.

Ground antenna mount assembly and feed cables in accordance with current National Electric Code and local electric codes. Figures 1.5 & 1.50 illustrate typical grounding methods.

Clamps that provide a solid connection between ground wire and ground rod should be used.

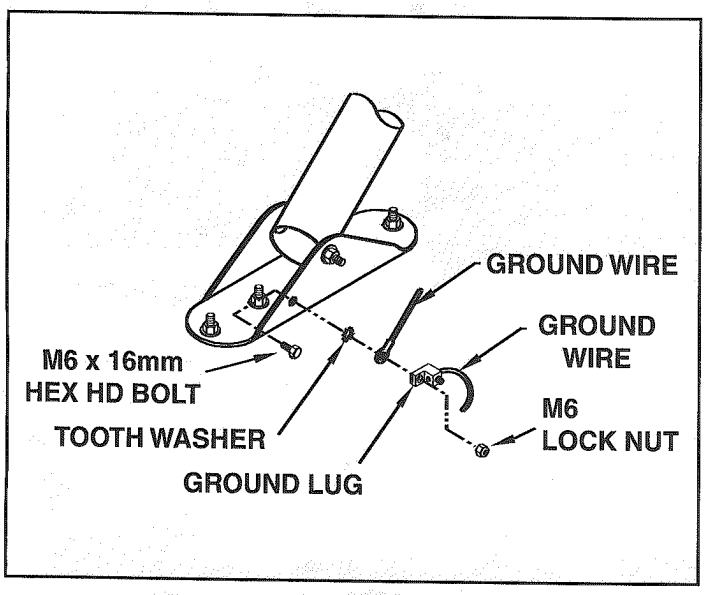


FIG. 1.5 - GROUNDING ANTENNA MOUNT ASSEMBLY

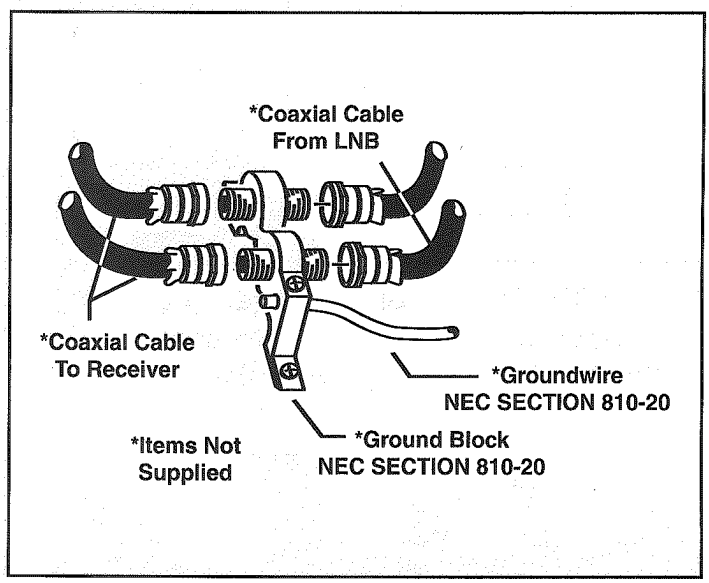
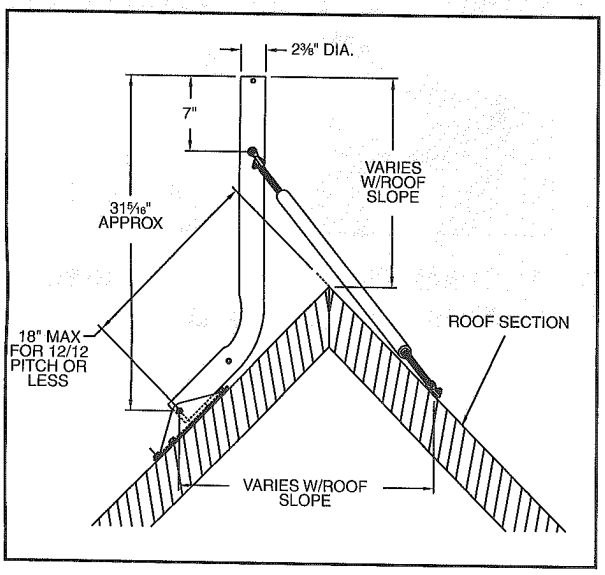


FIG. 1.50 - GROUNDING FEED CABLES

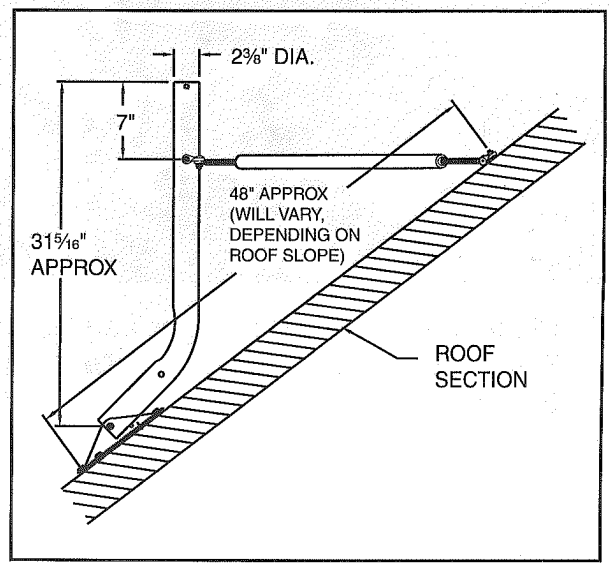
IMPORTANT

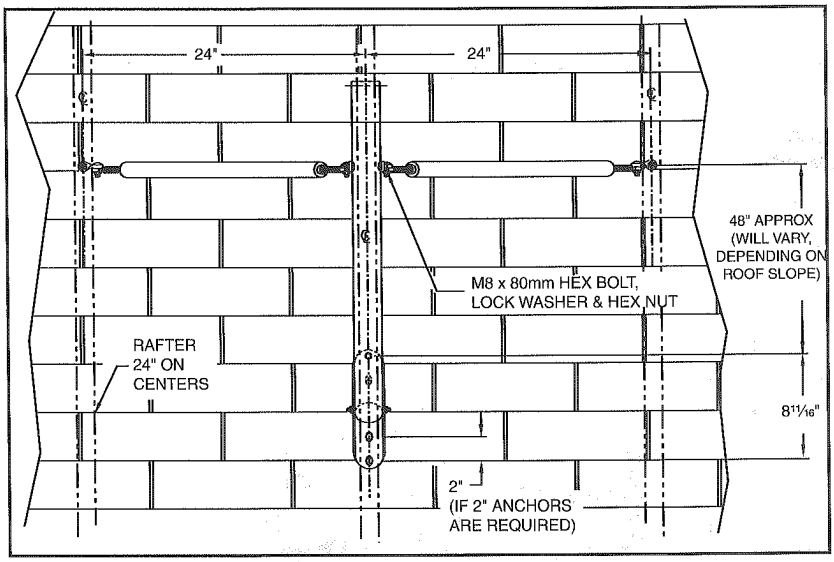
For roof mounting, the mast foot must be relocated to the opposite end of the mast.

PEAK MOUNTED



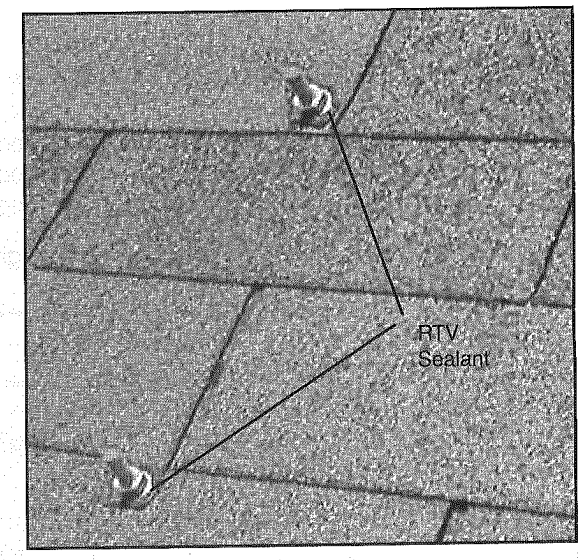
SLOPE MOUNTED



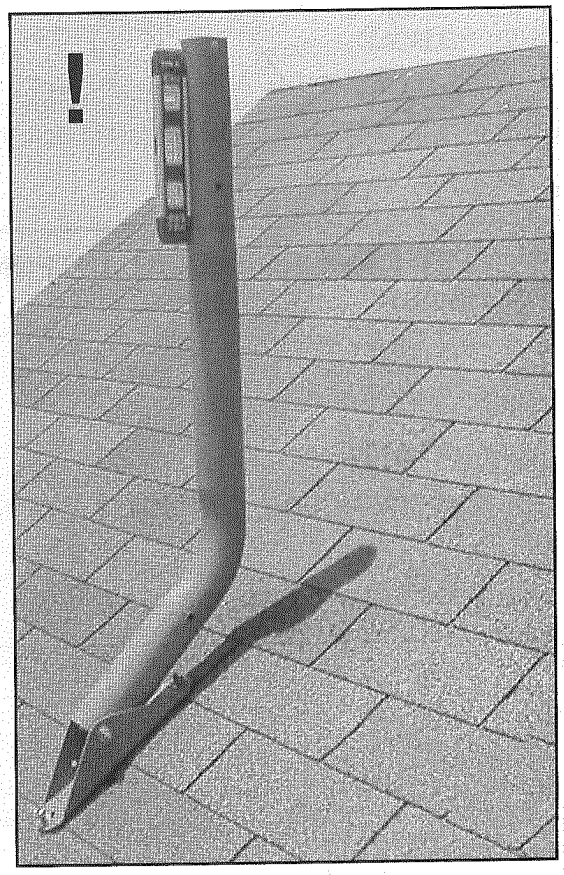


1. **Drill 3/16" Pilot Hole in Rafter and Install Special Hanger Lag Screw, w/RTV to seal, Sinking the Hex Washer into the Asphalt Shingle.**

2. **Place Mast Foot on Hanger Lag Screw. Temporarily Plumb Mast and Drill 3/16 Pilot for 2nd Hanger Lag Screw.**

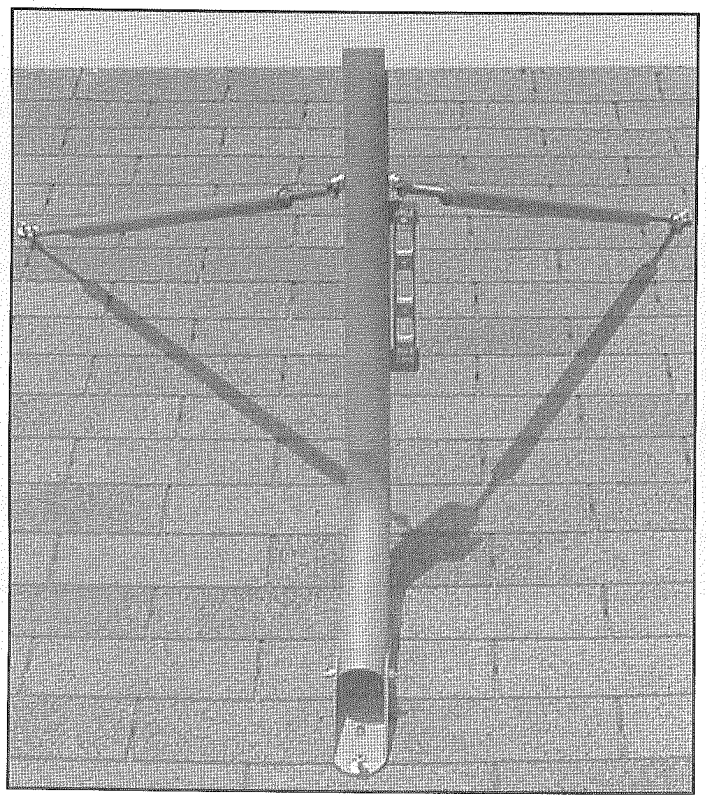


3. **Install 2nd Hanger Lag Screw.**



4. **Check Plumb Front to Rear and Tighten Mast Pivot Bolts.**

5. Make Sure (2) Braces are Same Length and Attach to Mast with M8x80 Hex Head Bolt, Lock Washer, Hex Nut.



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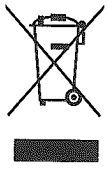
6. Keeping Mast Plumb in Each Direction, Swing Braces Until the 90˚ Twist Link End is Over a Rafter. Drill 3/16 Pilot and Install Hanger Lag Screws w/RTV Sealant.
7. Secure braces with M8 Hex Nuts and Lock Washers.
8. Tighten all Hardware. (12 Ft-lbs)



DO NOT DISCARD CONTENTS

The product in this packaging was placed in the market after August 13, 2005. Its components must not be discarded with normal municipal or household waste.

Contact your local waste disposal agency for recovery, recycling, or disposal instructions.