

HUGHES NETWORK SYSTEMS

FIELD SERVICE BULLETIN

SUBJECT: Tri-Mast Mount Install Specifications

FSB NUMBER: FSB_140114_01A

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SUBMITTED BY: M.Furtaw

APPROVED BY: D. Dostalík

CHANGE TO BE IMPLEMENTED BY:

AUTHORIZED HUGHES REPRESENTATIVE

CUSTOMER

DOCUMENTATION AFFECTED:

Training, Installation Specifications

CATEGORY:

HARDWARE

FIRMWARE

SOFTWARE

OTHER

EFFECTIVE DATE:

IMPLEMENT:

IMMEDIATELY

NEXT SERVICE CALL

OTHER:

COMMENTS: More details can be found for this mount in the Site Prep Guide (1035678-0001-K)

REMOVED MATERIAL DISPOSITION

SHIP TO N/A

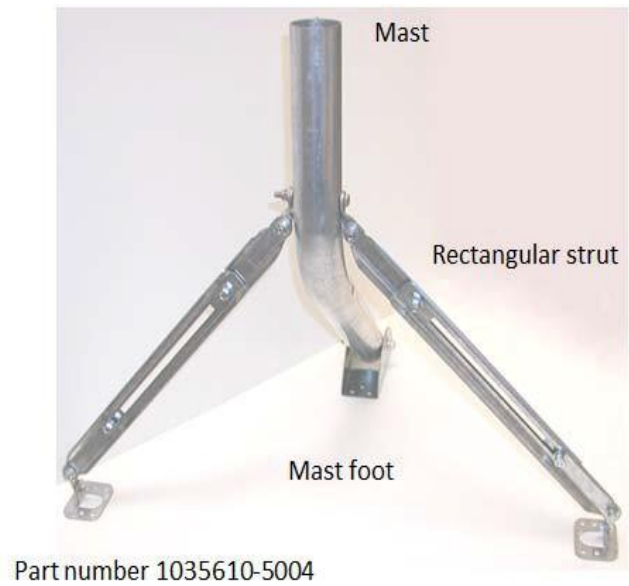
ATTENTION N/A

COMMENTS N/A

1. A Tri-Mast is a compact, tubular mast with two adjustable support struts that is used to mount Hughes .74 m or .98 m satellite antennas. The Tri-Mast can be configured to make it suitable for various installation surfaces. The flexibility of the Tri-Mast enables you to use a configuration that may improve the look angle to the satellite or avoid obstructions such as dormers or roof peaks.
2. Hughes uses three trimast types known as type A , type B, and type C. Depending on the roof angle, if necessary, reconfigure the Tri-Mast so the short end of the Tri-Mast is at the bottom (see page 3). Place the mast so it is vertical and provides the desired look angle; then mark where to drill mounting holes into the surface. Secure the Tri-Mast to the mounting surface and adjust it as necessary.



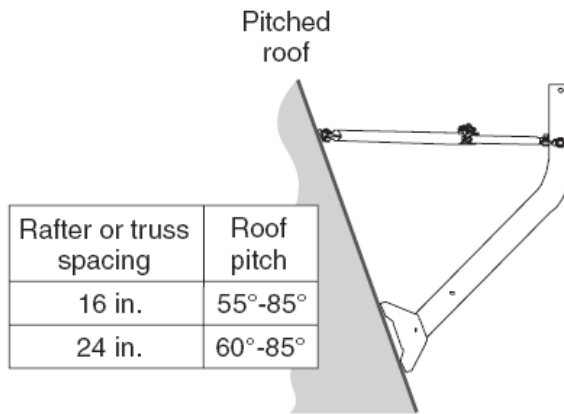
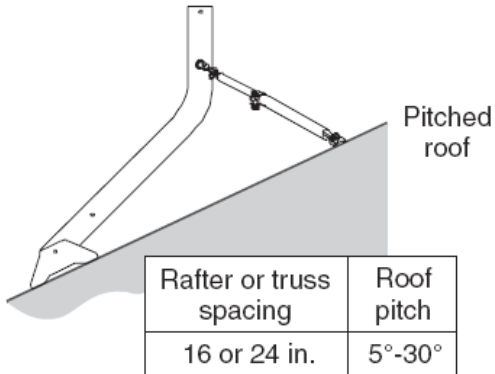
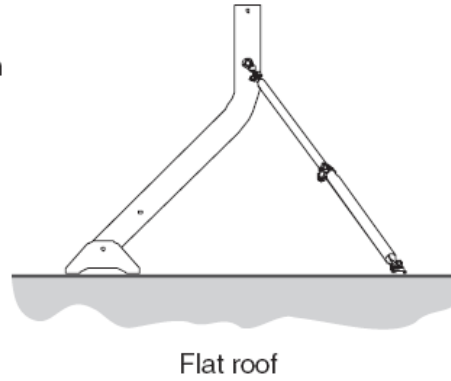
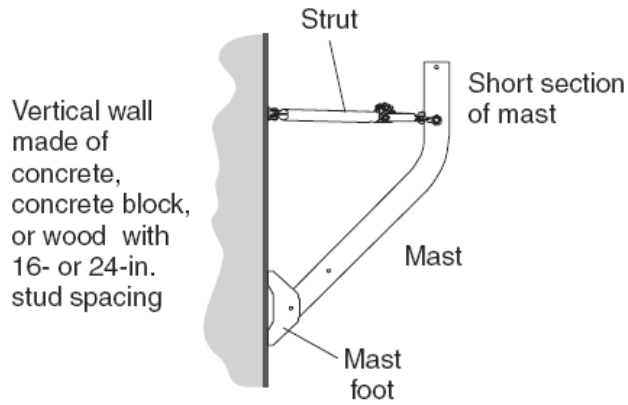
Type "A"



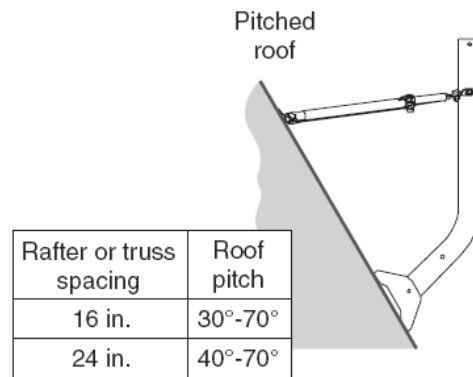
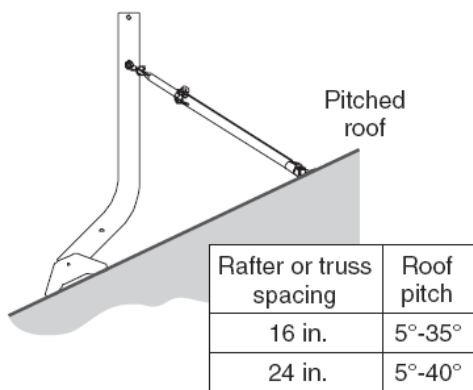
Type "B"



Type "C"



T0139944



T0139952

3. Note: On Type A & B the mast foot has extra holes, in addition to the center holes, so that if you drill in an unsuitable location (for example, if you miss a roof truss) you can use one or more of the extra holes. You must fill any unused holes you drill with a suitable, waterproof material. **Basically you only need to use the two in the center.**
4. This process for drilling the pilot hole is for both the base and the struts.
5. On the hole center mark, drill a pilot hole for the lag screw, ¼ inch in diameter and 2 inches deep. Use a drill stop to avoid drilling too deeply. A piece of duct tape around the drill bit will work.
6. Apply silicone sealant in the hole and to the entire back side of the mast foot. Apply enough so that it will press out around the edges when the plate is fastened down.
7. Use a socket wrench to screw the lag screw, with washer, into the mast foot center hole. (There is a center hole in each end of the mast foot).
Note: Do not pound lag screws into a truss or rafter with a hammer or mallet. Doing so may split the wood and render the rafter or truss unusable.
8. Use a torque wrench to make sure ***lag screws in wood are tightened to 18 ft-lb***; tighten lag screws into concrete (with sleeve anchors) to 10 ft-lb.
9. Do not use a battery-powered drill to tighten nuts or lag screws unless you check the torque afterward with a torque wrench. Most battery-powered drills cannot provide the required torque.

Mounting Parts List

Part	Description	Quantity
Lag screws	5/16inch × 4 inches	6
Flat washers	5/16 inch	6

Torque Settings

Fastener	Torque
All nuts on Tri-Mast	12 - 18 ft-lb
Lag screws into wood	18 ft-lb
Lag screws into concrete with sleeve anchors	10 ft-lb

Locating trusses or rafters

All center hole lag screws must be centered in the truss or rafter to which they are attached. For this reason, you must be able to locate trusses and rafters and their centers with a high degree of accuracy. You need some experience in home construction to be able to determine the exact location of trusses or rafters. Stud finders can give false readings on a multi-layered surface such as a roof.

If access inside the attic allows it, lift a shingle and drive a nail vertically through the roof beneath the shingle such that the nail projects above and below the roof at least 1/4 inch, and then measure from the nail to the rafter within the attic. Transfer this measurement onto the roof to locate the rafter and its center. Ideally this measurement should be accurate to within 1/16 inch. After installing the lag screws, check inside the attic to make sure each screw did not miss the rafter or split out the side of the rafter (even partially). Do not leave the nail protruding on the outside.