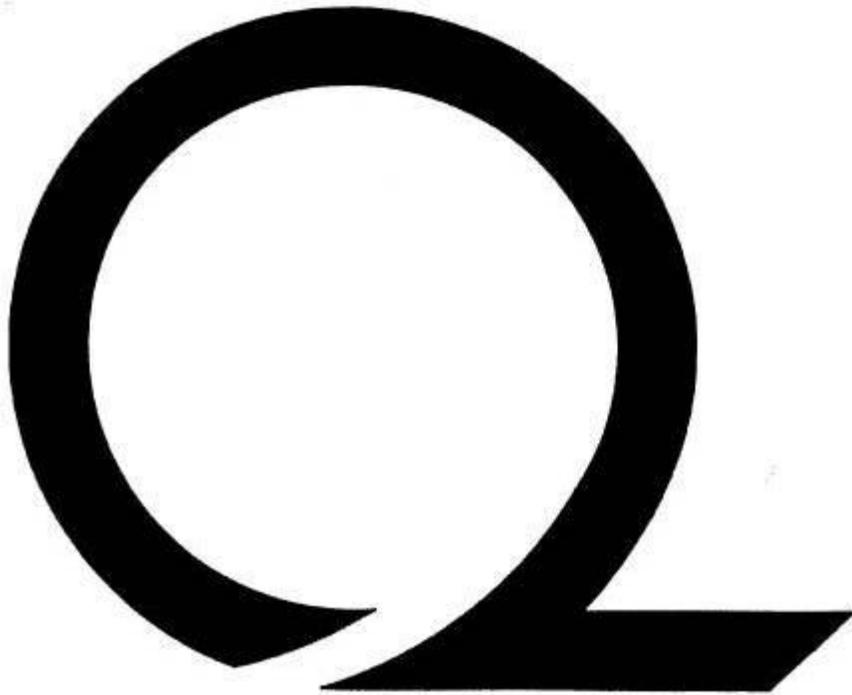


# **INSTALLATION INSTRUCTIONS**

**SELF LEVELING  
RADAR ANTENNA MOUNT  
MODEL 500G MAST MOUNT**



**QUESTUS MARINE, INC.  
PO BOX 9  
MARBLEHEAD, MA 01945  
TEL (781) 639-1900  
1-800-RADAR66  
FAX (781) 639-1905  
[WWW.QUESTUSMARINE.COM](http://WWW.QUESTUSMARINE.COM)**

## INSTALLATION INSTRUCTIONS

## 500G MAST MOUNT

Congratulations, you have purchased a system designed to maximize the full potential of your marine radar system.

Please read over these instructions fully before attempting to install your Questus Self Leveling Radar Mount.

Note: In applications where a head sail will be hitting the Questus mount and radar antenna, it is advisable to install an optional mast mount sail guard to prevent damage to the sail and or the radar antenna.

### BEFORE YOU BEGIN:

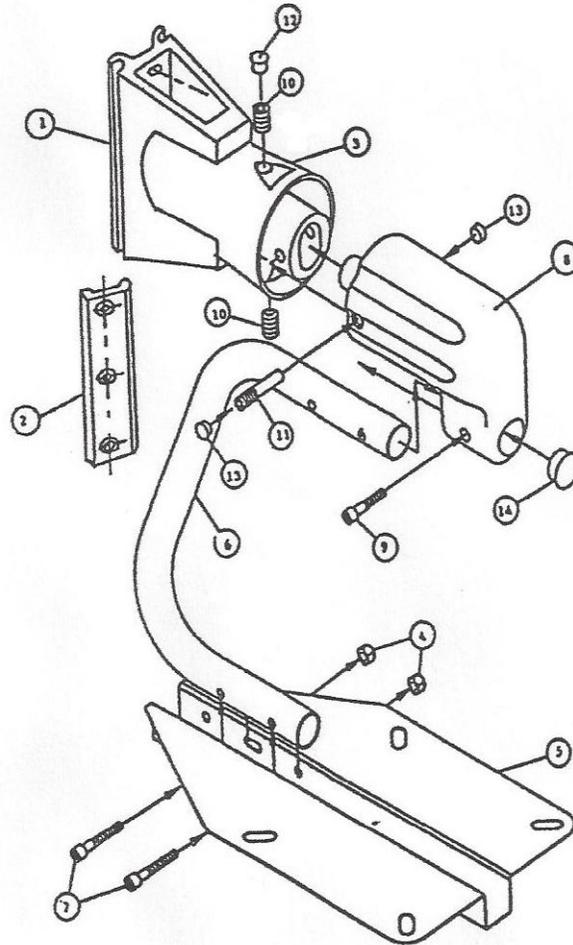
1) Identify all Questus mount items, (diagram on following page):

1. (1) Pivot Base Cone
2. (2) Pivot Base Hinge
3. (10) 1/4-20 X 1/2" screws and washers
4. (2) Self Locking Nuts
5. (1) Radar Antenna Mounting Plate
6. (1) Cradle Tube
7. (2) 1/4-20 X 1.5" Allen Cap Screws
8. (1) Pivot Damper Assembly
9. (1) 1/4-20 X 1.25" Allen Cap Screws
10. (2) 1/2-13 X 5/8" Allen Set Screws (installed)
11. (1) Threaded Pivot Pin (installed)
12. (1) Medium Dome Hole Plug
13. (2) Small Dome Hole Plugs (installed)
14. (1) Large Dome Hole Plug
15. (3) Cable Ties
16. (1) Loctite
17. (1) 1/4" Allen Wrench
18. (1) 3/16" Allen Wrench
19. (1) 5/32" Allen Wrench
20. (1) Rubber Grommet

2) Tools required:

1. Hammer
2. Center punch
3. Drill
4. #7 (13/64" or 5mm) drill bit
5. 1.75" hole saw
6. 1/4-20 UNC-2B tap
7. Tap wrench
8. Pliers
9. 7/16" Box Wrench

**MODEL 500G  
SELF LEVELING RADAR MOUNT  
PARTS LIST**



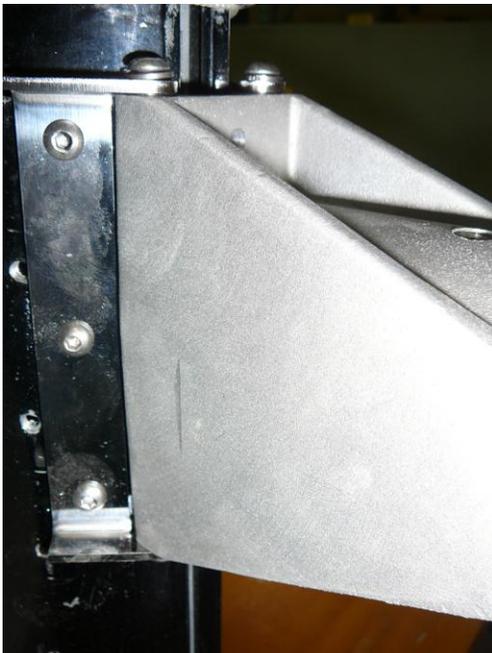
Item	Part No.		Item	Part No.	
1	103024-000	Pivot Base Cone	11	102504-000	Threaded Pivot Pin (installed)
2	103400-003	Pivot Base Hinge	12	102239-004	Medium Dome Hole Plug
3	100105-003	1/4-20 X 1/2" screws and washers	13	102239-003	Small Dome Hole Plug (installed)
4	100359-301	Self Locking Nut	14	102239-002	Large Dome Hole Plug
5	102493-000	Radar Antenna Mounting Plate	15	100379-003	Cable Ties
6	102496-000	Cradle Tube	16	100161-018	Loctite
7	100104-17	1/4-20 X 1.5" Allen Cap Screws	17	102229-013	1/4" Allen Wrench
8	102519-000	Pivot Damper Assembly	18	102226-011	3/16" Allen Wrench
9	100104-022	1/4-20 X 1.25" Allen Cap Screws	19	102229-010	5/32" Allen Wrench
10	100106-104	1/2-13 X 5/8" Allen Set Screws (installed)	20	102273-101	Rubber Grommet

The Questus Model 500G Self-Leveling Radar Mount System can be mounted to the vessels Main Mast, Mizzen Mast or a Stern Pole (Radar Pole, Arch, etc.) that is at least 3" in diameter. The Model 500G should be mounted high enough so that the Radar Antenna (Dome) is at least eight feet above the highest point on the cabin top where a crew member might stand.

Note: The Model 500G Pivot Damper Assembly has been pre-assembled at the factory thus eliminating the need to disassemble for installation.

#### Step 1: ASSEMBLE MOUNTING BRACKETS TO PIVOT DAMPER ASSEMBLY

- 1) Orient the Pivot Damper Assembly and the mast mounting brackets on the Pivot Base Cone.
- 2) Align the holes (brackets and Pivot Damper Assembly) and insert the (4) 1/4-20 washer and (4) 1/4-20 X 1/2" Allen Cap Screws (top and bottom of each hinge), DO NOT TIGHTEN as mounting brackets need to move to desired angle of mast.



- 3) Hold mounting brackets against mast. Position Questus mount straight fore and aft.

Suggestion: Two large hose clamps around the mast with sufficient padding to prevent scratching of painted surface may help to hold the Questus mount in position as you make fore and aft and horizontal adjustments.

- 4) Mark the center of the mounting bracket holes, three per side, on the mast using a suitable marker. Then remove the Questus mount.
- 5) Make a small indent at the center of each mark (marked holes for mounting brackets) utilizing a hammer and center punch.
- 6) Drill a #7 hole perpendicular to the surface of the mast at each indent.
- 7) Using the 1/4-20 UNC-2B tap and tap wrench, tap each hole.
- 8) Mount the Questus mount to the mast using the (6) 1/4-20 X 1/2" long button head cap screws and (6) split washers – Use a few drops of Loctite on each screw.

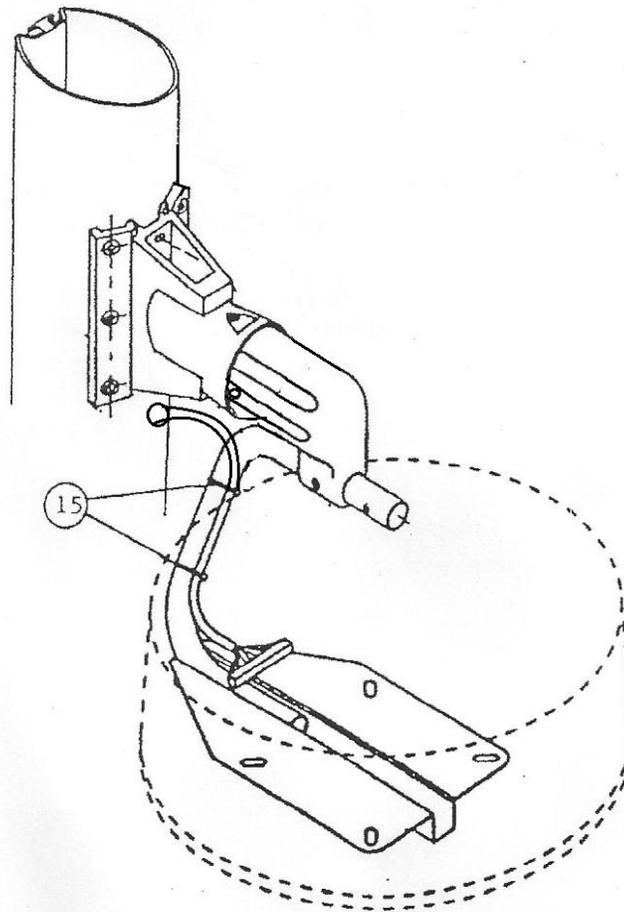
NOTE: For attachment to a wooden mast, substitute a 1/8" drill bit for the #7 drill bit and do not tap. Fasten the Questus mount to the mast using (8) #14 X 1" long wood screws (not included)



- 9) Using the 1.75" hole saw, drill a 1.75" hole for the radar antenna cable to exit the mast approximately 2" (508mm) below the centerline of the Pivot Damper. Be sure to carefully round the edges of the hole and install the rubber edge guard (included) to prevent chaffing.
- 10) Pull the radar cable up the mast and thru the 1.75" hole. Pull enough cable thru the hole to allow the cable to have a service loop and then to run down the cradle arm.
- 11) Attach radar cable to the antenna per radar manufacturer's instructions.
- 12) Fasten the radar dome to the Radar Antenna Mounting plate (5).
- 13) After the mast has been stepped and properly tuned, the Model 500G Radar Mount may be adjusted so that the Radar Antenna Cradle is level with the horizon. Tighten and/or loosen the Allen Set Screws (10 in the diagram) using the 1/4" Allen Key (17).
- 14) After leveling the cradle, insert Dome Plugs (12 & 14).

NOTE: The Questus Radar Mount Damper Assembly is filled with fluid and does not contain any Customer serviceable parts. Disassembly of the Damper should not be attempted.

NOTE: Be sure to seal the area around the antenna cable where it enters the mast with a good waterproof sealant.



**QUESTUS MARINE LIMITED WARRANTY FOR:  
SELF LEVELING RADAR MOUNT**

- I. **WARRANTY:** Questus Marine warrants that the Self Leveling Radar Mount products will be free from defects in materials and workmanship for a period of one year. Any part which proves defective in normal usage during the one year period will be repaired or replaced by Questus Marine.

This Warranty is subject to the following conditions and limitations:

- 1) Questus Marine liability shall be limited to repair or replacement, at the discretion of Questus Marine, of goods or parts deemed defective in material or workmanship. This shall be the buyer's exclusive remedy.
  - 2) Except where otherwise specified, quality shall be in accordance with Questus Marine specifications.
  - 3) The Self Leveling Radar Mount must be installed and maintained properly and used under normal conditions in the application for which it was intended.
  - 4) This warranty does not apply to any products that were improperly installed or maintained, or subject to misuse or negligence during normal operation and storage.
  - 5) Questus Marine shall not be responsible for shipping charges or labor associated with any warranty claims.
- II. Failure to follow installation instructions or otherwise be aware of the information contained in the installation instructions may void this warranty.
- III. The limited warranty is in lieu of all other warranties; any implied warranties are limited in duration to the duration of the warranty stated here.
- IV. Questus Marine is not responsible for consequential damage of any sort, to the extent that such exclusion is permitted by applicable law.