

GNSS Antenna AU-300/AU-500 Installation Manual

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FURUNO ELECTRIC CO., LTD.

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Safety Precautions

- Please read carefully before use. Be sure to follow these instructions. After reading this manual, be sure to keep it carefully.
- The precautions listed below are to prevent risk of harm to the user and others, as well as to prevent property damage. Be sure to follow these instructions.
- The following classifications describe the extent of harm or damage in the case of improper handling.

 Danger	This content indicates risk of death or serious injury to the user in the case of improper handling.
 Caution	This content indicates risk of injury to the user or damage to physical property in the case of improper handling.

 Danger
<ul style="list-style-type: none"> ⊙ Do not install the antenna on a windy day or a bad weather day because it is dangerous. Especially, do not install the antenna or connect the antenna cable when there is a possibility of lightning strike.

 Caution
⊙ Do not drop the antenna or subject it to strong shocks.
⊙ Do not put excessive force on the antenna or allow it to hang.
⊙ Do not scrape or damage the surface of the antenna with hard objects.
⊙ To clean the surface of the antenna, wipe it lightly with a soft cloth moistened with water or a thin solution of neutral detergent. Do not use thinner, benzene, alcohol, etc. as they will damage the surface.
⊙ Do not turn any screws or bolts other than for assembly or adjustment.
⊙ Do not install near strong radio wave sources such as radios.
⊙ When setting up two or more antennas next to each other, it is recommended that the antennas be separated by at least 1 meter.
Ⓜ Be sure to use the specified antenna cable, as it transmits high frequency signals.
Ⓜ Be sure to use the specified antenna mounting bracket.
Ⓜ Check the antenna pole as necessary to prevent it from breaking or falling due to rust or other damage.
Ⓜ Some buildings may have restrictions on installation. Please be sure to check before installation.
Ⓜ If the installation location is made of aluminum, it may not be able to be installed depending on the strength and other factors. In the case of iron or other materials, make sure that they are not corroded. When installing the product, be sure to consider safety and reliability.

Revision History

Version	Contents	Date
0	First Release	2023.09.29
1	Clerical error correction	2024.01.29
2	Change picture	2024.06.06

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1 Purpose

This document shows the installation procedure for the following GNSS antenna: AU-300/AU-500.

2 Preparing for Installation

Please refer to the antenna Hardware Specifications to avoid electrical damage.

Select an antenna location that ensures the best possible visibility of the sky to maximise satellite signal reception. It is recommended to position the antenna away from obstructions such as other RF antennas, large metal structures, walls or any objects that would interfere with signal reception.

Use a pole or mast with a diameter from 25-70mm, securely fitted in a suitable location.

Use a lightning arrestor and grounding to protect the GNSS receiver and to comply with building safety codes. For details, please refer to Furuno Coaxial Lightning Arrestors at <https://www.furuno.com/en/products/gnss-antenna/TVA-03>.

Use a suitable cable type and length to ensure that the signal delivered to the receiver is of sufficient level for normal. In some cases, it may be necessary to add a GNSS inline amplifier. Please contact your Furuno representative for more details.

3 Package contents

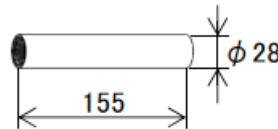
(1) GNSS Antenna: AU-300/AU-500



(2) Mounting hardware : AFB-01 (Sold separately)
Pipe



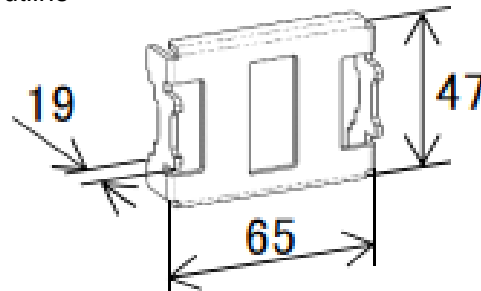
Outline



Mounting auxiliary bracket



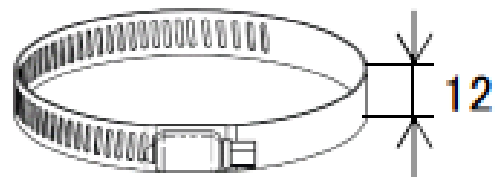
Outline



Stainless band



Outline

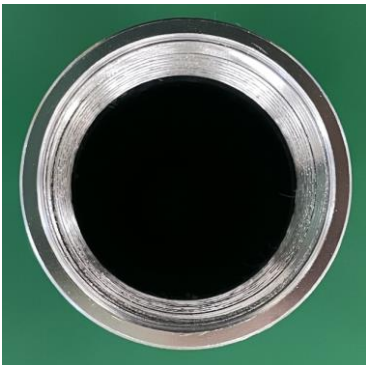


※DIMENSION IN DRAWING FOR REFERENCE ONLY.

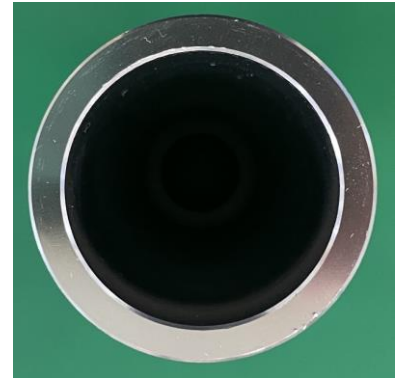
Connector conversion cables

N(J)-TNC(P) conversion cable NJ-TP-3DXV-1 or coaxial cable with TNC(P) connector

4 Installation Procedure



Pipe end with screw thread

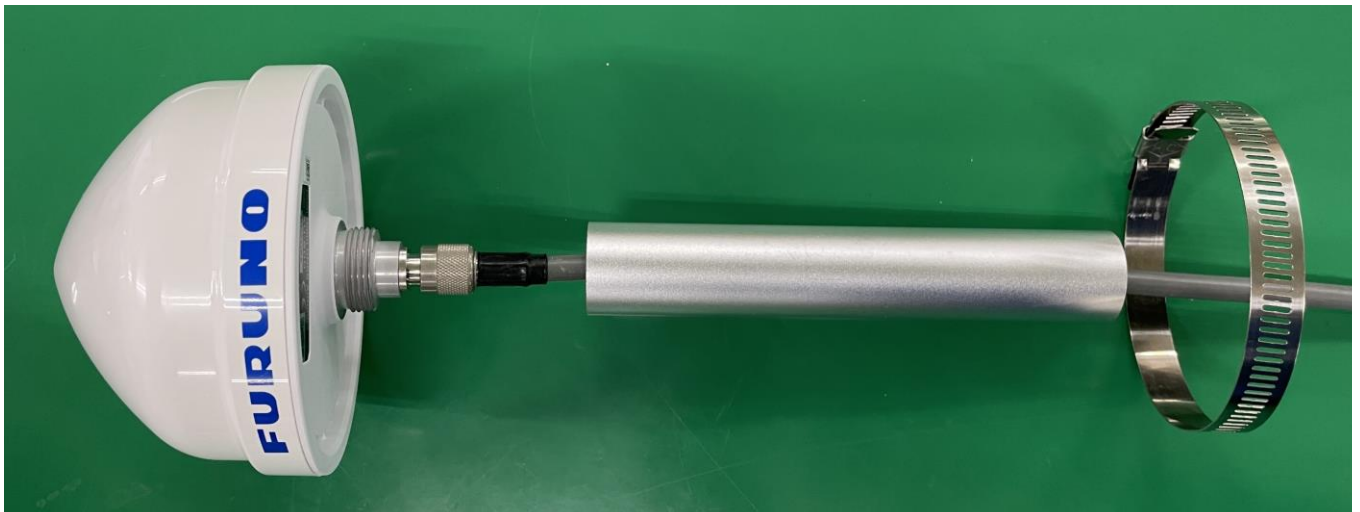


Pipe end with no screw thread

- (1) Pass the coaxial cable with the TNC(P) connector through the hole in the pipe.
Pass the coaxial cable through from the end without screw threads.



- (2) Pass the stainless band through the coaxial cable and pipe



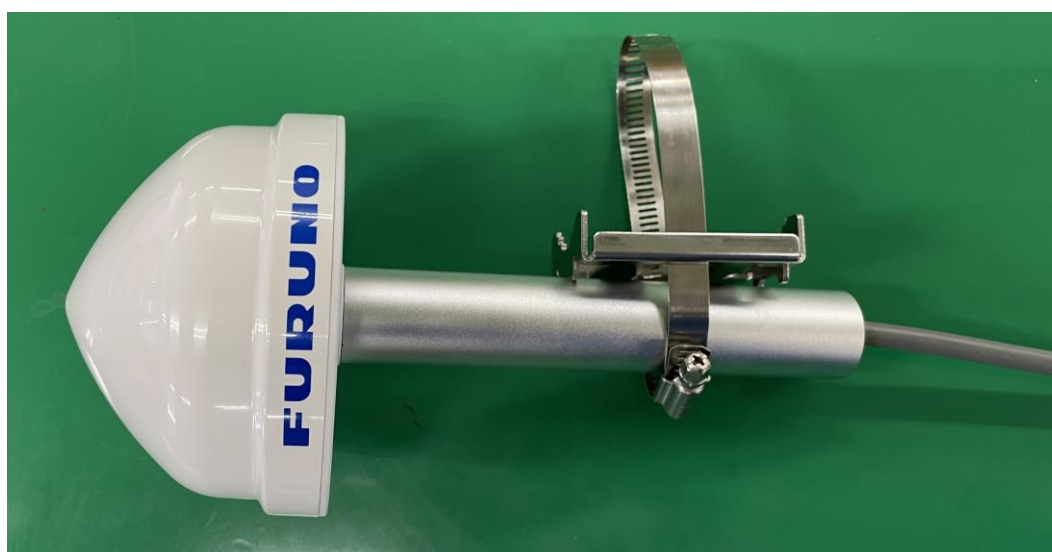
- (3) Connect the cable's TNC connector to the TNC (J) connector of the GNSS antenna AU-300/AU-500.
Do not overtighten, use power tools for assembly, or disassemble.



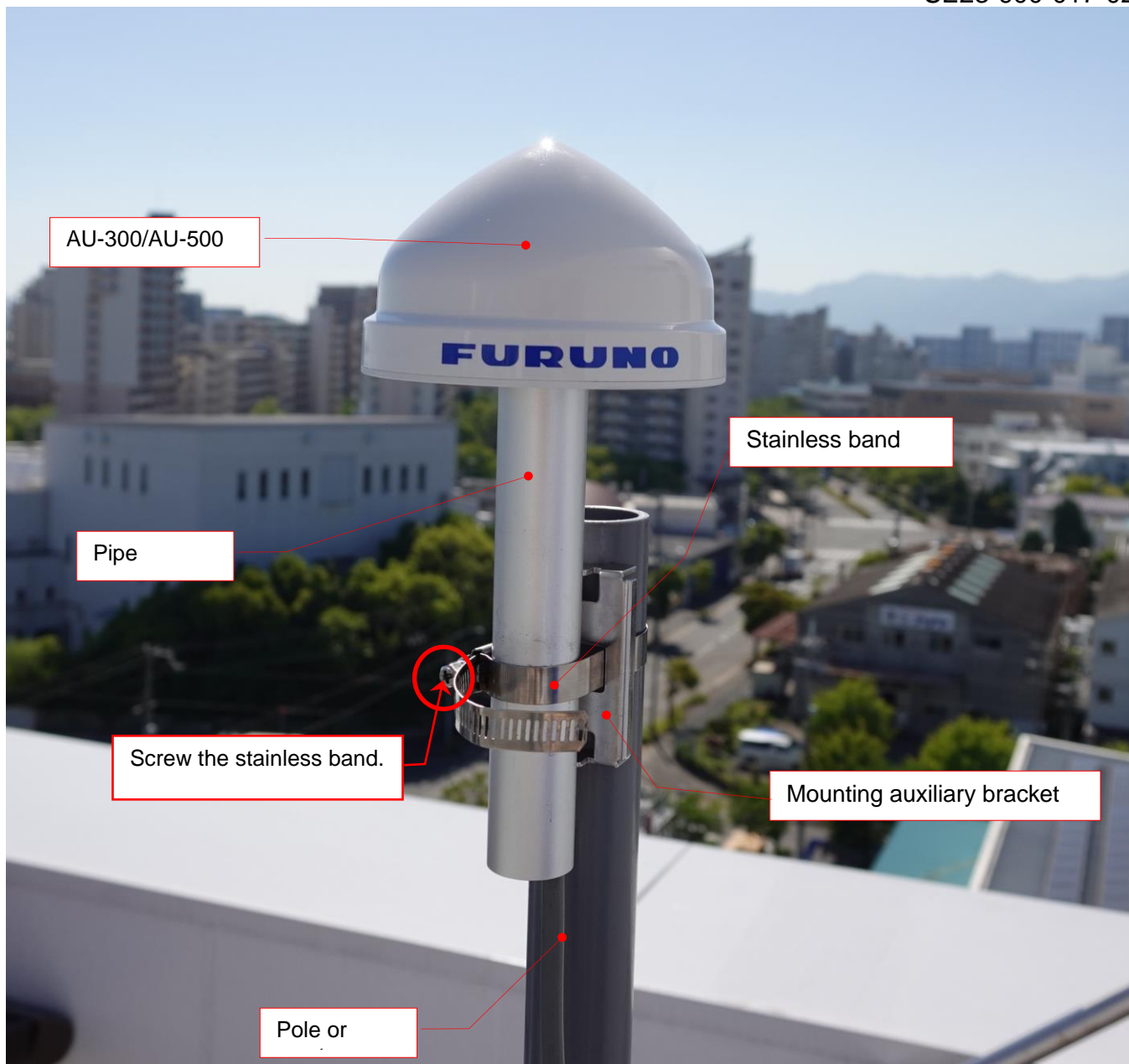
(4) Screw the pipe all the way on to the AU-300/AU-500 antenna thread.



Squeeze the stainless band and pass it through the hole of the mounting auxiliary bracket.



(5) Squeeze the stainless band and pass it through the hole of the mounting auxiliary bracket. Pass it through from the side with the small claw.



- (6) Pass the stainless band through the pole or mast and tighten the screw to secure the antenna pipe. The stainless band is tightened by turning the screw clockwise with a cross-head or Phillips screwdriver. Tighten the stainless band until the mounting auxiliary bracket between the prop and the pipe is fixed and does not move.