



Introduction

The KA-09 is a high-performance GNSS antenna designed to operate reliably in harsh environments. It features a robust design that ensures stable performance under various weather conditions, making it ideal for use on ships, vehicles, and other applications requiring precise GPS positioning. With its high gain and low noise characteristics, the KA-09 delivers accurate and reliable positioning information across diverse location-based applications.

What comes with your KA-09

1	Main unit*1	
2	Flat base*1	
3	Long screws*4 (TA5-20)	
4	Short screws*2 (ST4-6)	
5	Screw buckles*2	
6	Wire thread buckle*1	
7	Sealing plug*1	

Mounting

There are two mounting options:



① Installation on flat surface



② Installation with a pipe

Installation on flat surface



1. Place the supplied base on a flat surface.



2. Use the four long screws provided to secure the base.



3. According to the image, correctly align and insert the cable into the corresponding slot.



4. Run the cable through the hole on the base.



5. After placing the GNSS Antenna on the base, rotate the knob to the right to tighten it.



6. Use the two short screws provided to secure the GNSS Antenna to the base. After installing the screws, fasten the two screw buckles, and finally use a wire thread buckle to secure the coil hole.

Installation with a pipe



1. When installing, align the two clips with the corresponding slots.



3. Use screws to tighten the mounting base to ensure a secure installation.



2. After positioning the GNSS antenna on the base, turn the knob clockwise to tighten and secure it in place.



4. Install the KA-09 onto the mounting pole outside the boat. The specifications of the mounting pole are:

- Thread distance: 2.3 mm
- Thread depth: 0.8 mm

Considerations

Considerations before installation:

- Please install the KA-09 outside, ensure that the GPS is not covered.
- Keep the length of the cable in mind when selecting a mounting location.
- It should be installed with a minimum of 1 meter to prevent the influence of iron and steel or other magnetic materials.
- Do not use magnetic screws for fixing KA-09.
- Select the vertical way position for installation.

Specification

Low Noise Amplifier (LNA)

Performance Specifications:

- Gain: 32 ± 2 dB
- Noise Figure: < 1.5 dB
- Input VSWR: < 2.0
- Output VSWR: < 2.0
- Current Consumption: < 15 mA
- Output Impedance: 50 ohm

Electrical characteristics :

- Operating Voltage Range: DC 3 ~ 5.5V
- Positioning Satellites:
 - GPS
 - GLONASS
 - BDS (Beidou)
 - GALILEO
- Amplification (Gain): 32 ± 2 dB
- Operating Temperature: $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$
- Storage Temperature: $-40^{\circ}\text{C} \sim +90^{\circ}\text{C}$
- Waterproof Rating: IPX7