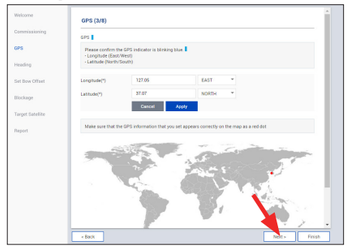
5 Operating Install Wizard

• Step 2: GPS



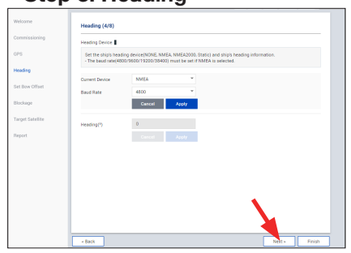
Set the GPS position of the vessel for searching for a satellite. Check the GPS status connected to the antenna system. The indicator right of the title shows the GPS status.

Please confirm the GPS indicator is Blue (blinking).

- Blue (blinking): the system received a correct GPS signal.
- Red: the GPS signal is abnormal or the received value is incorrect (Error).
- Black: the system has not received a GPS signal. You can enter the GPS value manually to set the GPS position.

If you have no problems, click the "Next" button.

• Step 3: Heading



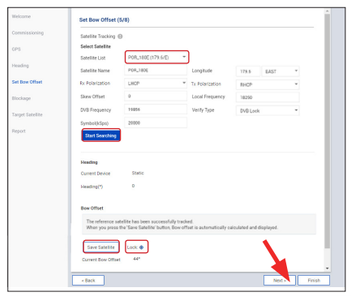
Set the ship's heading device. Choose the device type from the "Current Device" drop-down list. The indicator right of the title shows the device connection status.

- Blue: a ship's heading device is connected.
- Black: a ship's heading device is not connected.

If you have no problems, click the "Next" button.

• Step 4: Set Bow Offset

For setting bow offset, a trackable satellite must be selected. When Antenna tracks the selected satellite, the bow offset will be set up automatically based on the GPS information.



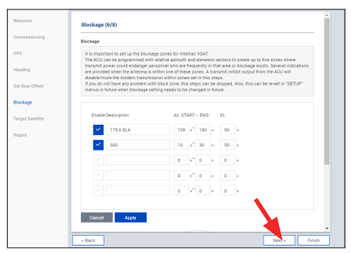
Step 1: select a satellite in satellite list then click the "Start Searching" button.

Please wait until antenna terminal is tracking the satellite. The bow offset will be set up automatically.

Step 2: check the "Lock On" mark and click the "Save Satellite" button in the "Bow Offset" menu to save the bow offset information to BDT.

If you have no problems, click the "Next" button.

• Step 5: Blockage



It is important to set up the blockage zones for Intellian VSAT. The BDT can be programmed with relative azimuth and elevation sectors to create up to five zones where transmit power could endanger personnel who are frequently in that area or blockage exists. The "AZ Start" is where the relative azimuth starts and the "AZ End" is where the relative azimuth ends (Range: 0 ~ 360). The "EL" is where the elevation block starts (Range: 0 ~ 90).

If you have no problems, click the "Next" button.

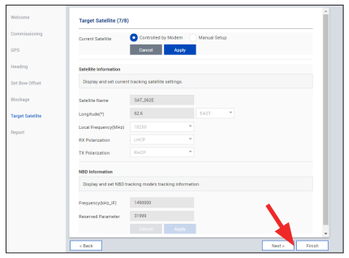
• Step 6: Target Satellite

Sets the target satellite that you want to track. There are two methods for selecting a target satellite.

NOTE

The following images in this step show when the system is using the Open AMIP modem. In case of using other modems, refer to the User Guide for more details.

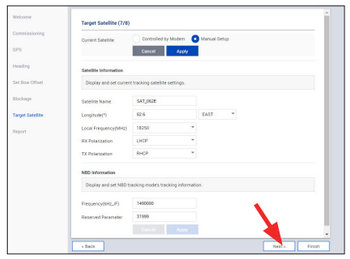
(Option 1: Using Controlled by Modem)



This method is recommended. The "Controlled by Modem" button on the "Current Satellite" is selected and current satellite information and NBD information is displayed automatically.

If you have no problems, click the "Next" button.

(Option 2: Using Manual Setup)



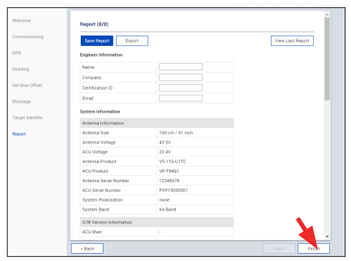
When you did not set the modem connection, select the "Manual Setup" button and enter the satellite information and NBD information manually to track a satellite. Click the "Apply" button.

If you have no problems, click the "Next" button.

• Step 7: Report

NOTE

The following image in this step shows when the system is using the Open AMIP modem. In case of using other modems, the report items displayed may vary with the image below.



Displays the configuration report. You can save the results to the BDT by clicking the "Save Report" button and download the report file (.json) by clicking the "Export" button.

Click the "View Last Report" button to check the recently saved report information including the save date and time. After completing the steps, click the "Finish" button.

1 Important Information

This guide provides basic installation instructions for the Intellian GX100NX. The detailed installation and operation user guide can be readily accessible on our website at http://www.Intelliantech.com. If you need any assistance, please contact Intellian Technical Support. (support@intelliantech.com)

2 Planning Installation

2.1 Selection of Installation Site

The system should be placed in an area onboard the vessel with little to no RF signal blockage. When the antenna is transmitting, obstacles in way of the beam path will cause decreases satellite signal strength. The antenna unit should have direct line-of-sight with the desired satellite without any obstacles in the beam path. Certain minimum distances between the antenna and other onboard devices must also be considered during installation.

2.2 Preparing Mast and RF Cable Installation

Refer to the user manual (http://www.Intelliantech.com) to confirm the height and diameter of the mast before installing an antenna.

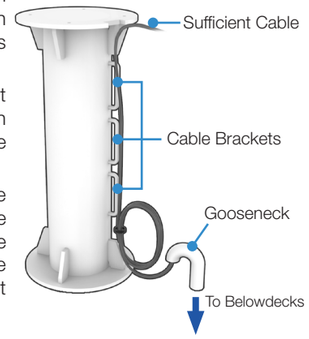
2.2.1 Placing Cable on Mast

Option A. Placing Cable Outside Mast

A.1 Place the cable from the gooseneck labeled on the deck to the antenna as shown in the picture.

A.2 Maintain a sufficient cable length (more than 2M) from the surface of the mast.

After connecting the cable to cable connector inside the cable entry, adjust the cable length and then fix the cable on the cable bracket by using cable ties.

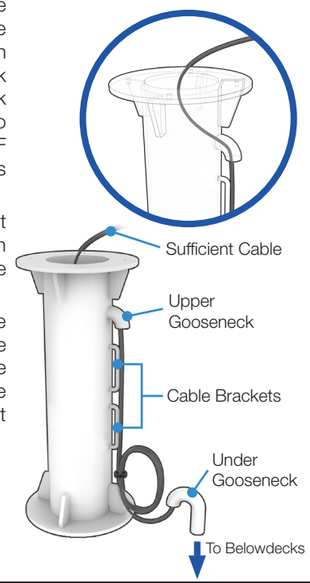


Option B. Placing Cable Inside Mast

B.1 Before placing the radome on the mast, the cable should route through the upper gooseneck from the under gooseneck labeled on the deck to facilitate connecting RF Cable to the antenna as shown in the picture.

B.2 Maintain a sufficient cable length (more than 2M) from the surface of the mast.

After connecting the cable to cable connector inside the cable entry, adjust the cable length and then fix the cable on the cable bracket by using cable ties.



GX100NX

105cm Maritime VSAT Antenna System

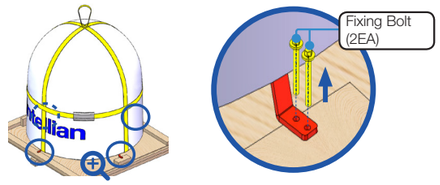
Quick Installation Guide

3 ADE (Above Deck Equipment) Installation

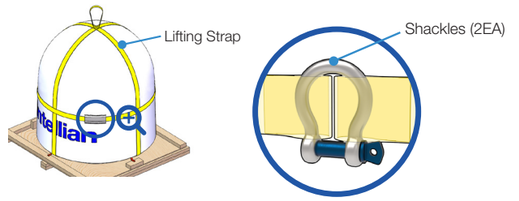
3.1 Removing Antenna from Wooden Crate

Four radome brackets secure the antenna to the pallet. To remove the radome bracket, follow the procedures below.

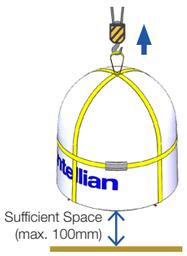
3.1.1 Remove the hex head wrench bolt (2EA) on the radome bracket that secures the antenna to the pallet using a wrench.



3.1.2 Check the condition of lifting strap to make sure the shackles (2EA) are tightened. Re-wrap the shackles with the existing protection to avoid radome damage.



3.1.3 Lift the antenna above the bottom pallet using the crane, and maintain sufficient space (max. 100mm) to remove the shipping brackets.



WARNING

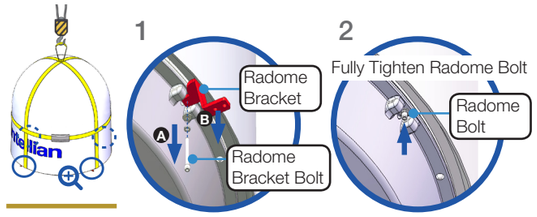
- When lifting the antenna using the lifting straps, make sure to remove the securing radome brackets to separate antenna from the pallet.
- Be careful when lifting the heavy object. Incorrect handling of the heavy object may lead to injury to the installers and/or cause significant damage to the unit.

3.1.4 Remove the radome bracket bolt (1EA) using a wrench, then detach the radome bracket from the radome.

3.1.5 After removing radome bracket, apply Loctite #263 to the bolt's threads to ensure the bolts are fastened firmly. Fully tighten the detached radome bolt (1EA) using a wrench. Apply the same procedure to all four parts.

Continues to the next page.

3 ADE (Above Deck Equipment) Installation



3.2 Placing Antenna on Mast

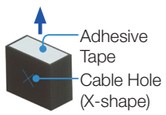
The Intellian antenna comes with the lifting straps pre-mounted from the factory. Check the condition of the lifting strap ensure the shackle is tightened up. Lift the antenna above the mast using a crane and carefully put the antenna down on the mast. When placing the radome, consider that the antenna should be positioned with the BOW marker aligned as close as possible to the ship's heading.

WARNING

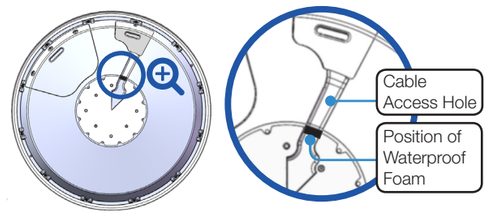
The antenna may be subject to swaying motions in windy conditions. Be careful when handling the antenna.

3.3 Attaching Waterproof Foam

The waterproof foam must be attached to prevent water from penetrating inside the Radome before fully mounting the radome to the mast. Make sure the foam is attached in the same position as in the picture below.

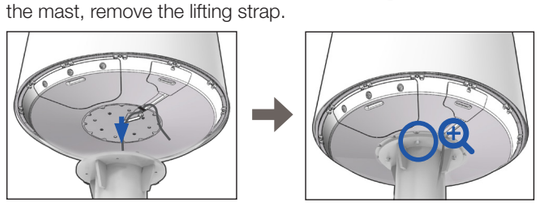


** For details about the installation procedure, refer to the User Guide.*



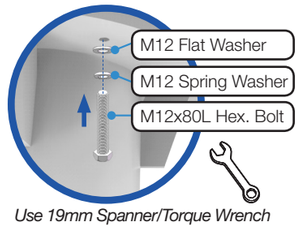
3.4 Mounting Radome

Bring the Bolt Kit (4EA) from the BDT box. Before assembling bolts, apply Loctite #263 to the bolt's threads to ensure the bolts are fastened firmly. Insert the bolts and washers from under the mast into the radome, and fasten them to the nuts assembled inside the radome. After mounting the antenna on the mast, remove the lifting strap.



NOTE

- Make sure the cable from the mast is aligned with the cable entry of antenna bottom for a stable connection.
- If the mast's surface thickness is greater than 20mm, use a M12x100L Hex Bolt.
- To fasten the M12 bolts use a torque setting of 110Nm.

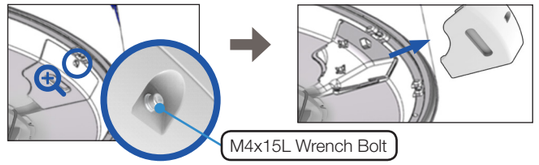


Use 19mm Spanner/Torque Wrench

3.5 Connecting RF Cable (Customer Supplied)

Connect the "RF Cable" from the "ANTENNA" connector on the rear of the BDT to the "RF Connector" inside the cable entry of radome. In the cable connection on both sides, cable termination should be completed using suitable tools. After connecting, securely fix the cable by using the cable ties in place.

3.5.1 Remove the M4x15L Wrench Bolt by using the wrench set then open the cable entry cover.

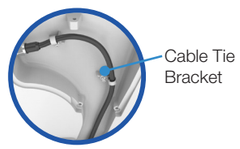


NOTE

After removing the M4x15L Wrench Bolt from the cover of cable entry, Keep it in a safe place for the next step. When closing the cover of cable entry, this bolt must be used.

3.5.2 Terminate N(M) connector on the end of the RF Cable. Intellian recommends using a genuine cable connector and tools. Refer to the cable termination instructions provided by the manufacturer to terminate the N connector.

3.5.3 Connect the terminated RF cable to the connector as shown in the figure. Ensure the cable is firmly fastened to the connector. Fasten the cable with cable ties using the cable mount or cable clamp along the routing path.

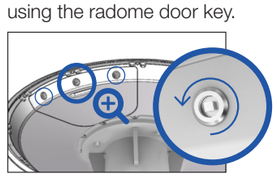


3.5.4 After completing cable connection, put the cover in the right place and tighten the M4x15L Wrench Bolt by using the wrench set.

3.6 Switching on Power Box

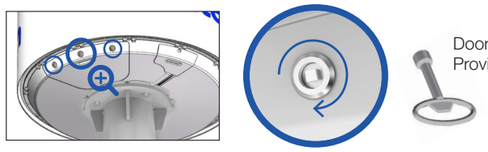
Access the ADU modules inside the radome to check that the power switch is on through the radome hatch. Make sure that there is sufficient free space underneath the ADU to open the radome hatch.

3.6.1 Bring the radome door key from the BDT box. Open the radome hatch by turning the fixed bolts counterclockwise by using the radome door key.



3.6.2 The power box switch was turned on and shipped from the factory. Check the power box inside the radome is switch on. If not, switch on the power box.

3.6.3 Put the radome hatch in the right place. Close the radome hatch by turning the fixed bolts clockwise by using the radome door key.



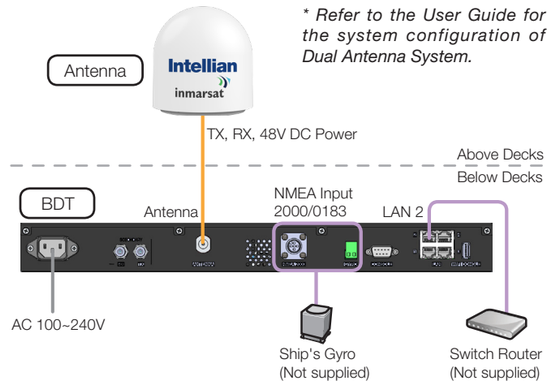
NOTE

After using the door key, store it in a safe place for future use.

4 BDE (Below Deck Equipment) Installation

4.1 System Configuration

For your satellite communication system to work properly, the system has to be connected with all of the provided components as shown in the figure below. Separate purchase of a switch router and ship's gyrocompass may be required. The Basic system configuration consists of one VSAT antenna and one BDT. The configuration is as shown below.



** Refer to the User Guide for the system configuration of Dual Antenna System.*

5 Operating Install Wizard

5.1 Turning On System

Press the Power button on the front of the Below Deck Termial (BDT) then a wait few minutes for system startup. Once the antenna finds the satellite, the "POWER" status lights will be lit Green.

5.2 Accessing AptusNX

The network is automatically configured by DHCP without the need for additional PC IP configuration.

5.2.1 Connect an Ethernet cable from the Management LAN port on the front of the BDT to the LAN port of PC.

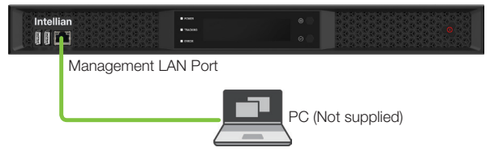
5.2.2 The network connection is established automatically.

5.2.3 Use the following IP address to access Intellian AptusNX web page.

- ***IP Address: 192.168.2.1 (Default)***

5.2.4 Log into the BDT by typing in User Name and Password information. If this system has not been changed from the factory default:

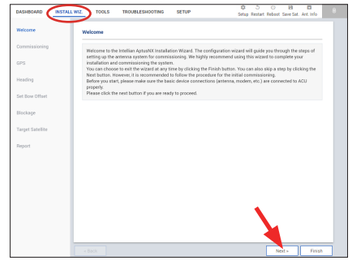
- ***User ID: intellian (Default)***
- ***Password: 12345678 (Default)***



5.3 Starting Install Wizard

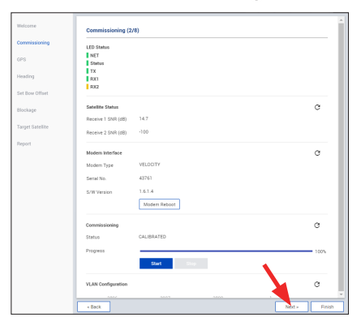
The Install Wizard will guide you through the steps of setting up the antenna system for commissioning. We highly recommend using this wizard to complete your installation and commissioning the system. You can choose to exit the wizard at any time by clicking the Finish button. You can also skip a step by clicking the Next button. However, it is recommended to follow the procedure for the initial commissioning. Before you start, please make sure the basic device connections (antenna, modem, etc) are connected to BDT properly. This wizard includes a brief explanation of the purpose and action buttons to set the values. After accessing the AptusNX main page, go to the "INSTALL WIZ." on the main menu then follow these steps.

• Welcome Page



Displays the welcome message. Click the "Next" button to start.

• Step 1: Commissioning



Performs the commissioning test to calibrate the modem to receive the optimal signal. The RF uplink frequency, the BUC LO frequency, the TX frequency, and the attenuator will calibrate automatically. Click the 'Start' button to perform the commissioning test automatically. Ensure that the commissioning test is performed after the first-time connection of the GX terminal, the BDT/cable replacement, or band conversion. If you have no problems, click the "Next" button.

Continues to the next page.