Seafloor AutoNav Plus Autonomous Control System User Guide

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AutoNav PLUS™

User Manual

Getting Started

Overview

The AutoNav Plus was designed to navigate Seafloor Unmanned Survey Vessels along preprogrammed track lines. It was designed specifically to allow the hydrographic surveyor to reliably and effectively tackle hydrographic surveys in shallow waters or hard to reach areas when conventional survey boats are not an option. The AutoNav PLUS expands on the USV's usability by allowing direct access to the onboard computer on the survey vessel for easier data collection from the shore.

Figure 1

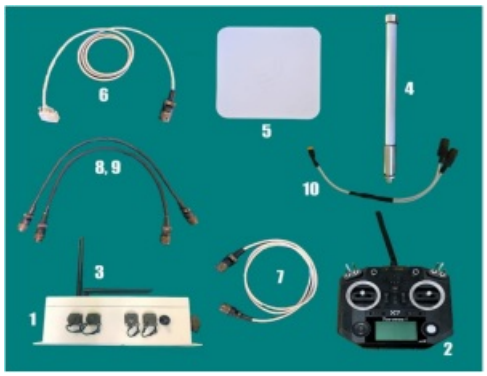


Figure & Table 1: AutoNav PLUS Components

Part Number	Description	Quantity
1	AutoNav Plus	1
2	FrSky Remote	1
3	Receiver Antennas	2
4	Wifi Bridge Antenna	1
5	Wifi Directional Antenna	1
6	GPS Serial Cable	1
7	Sonarmite Serial Cable	1
8	Port pontoon AutoNav Cable	1
9	Starboard pontoon AutoNav Cable	1
10	External power cable	1

Setup

Operation

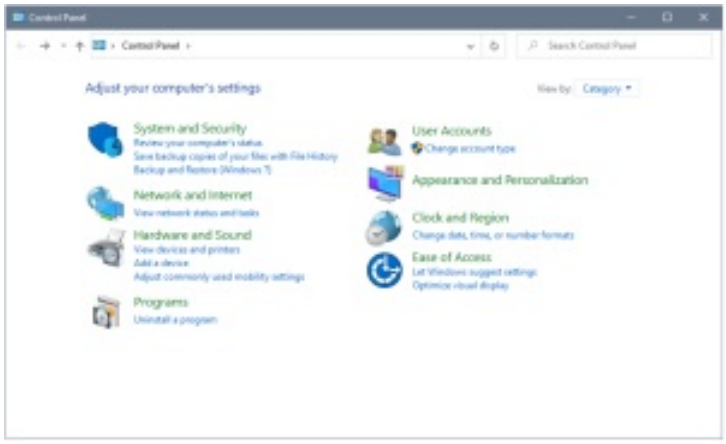
Shoreside Setup

To setup the shoreside Wi-Fi Bridge, plug in an ethernet to metal housing, and plug the other end of the ethernet into the power over ethernet adapter. Attach the bullet connector to the POE and plug it into a power source. Lastly, plug the POE ethernet adapter into the computer being used to remote into the AutoNav PLUS.

Then, setup the base computers network settings following the steps below.

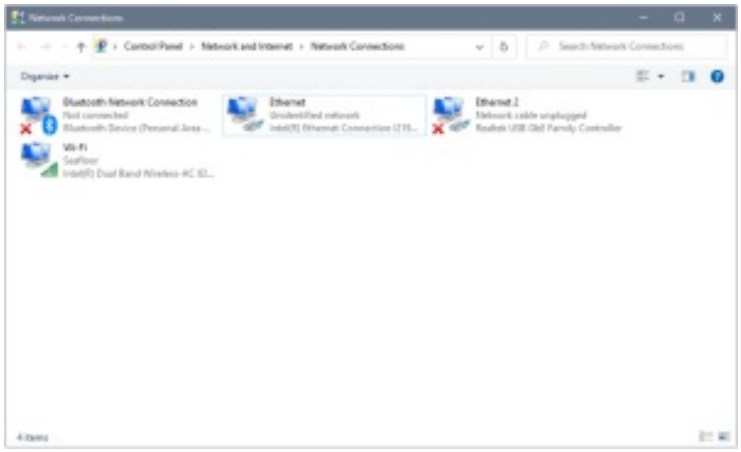
1. Open control Panel (Figure 2).

Figure 2



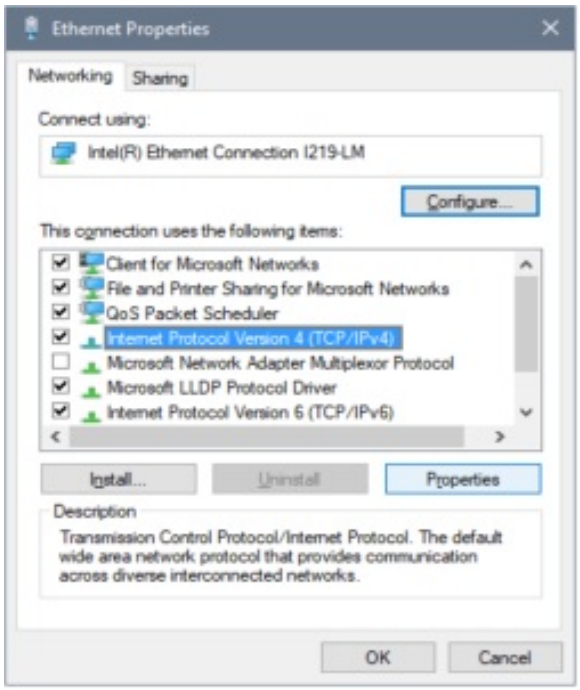
2. Open “Network and Internet” (Figure 3).

Figure 3



3. Right Click on the ethernet port with the description “Unidentified network” and select “properties” (Figure 4).

Figure 4



4. Highlight “Internet Protocol Version 4 (TCP/IPv4)” and click “Properties” (Figure 5).

Figure 5

5. Set the IP address and Subnet mask as shown in (Figure
6. Select “OK” and close all windows.
7. Using the Windows search bar type “Remote Desktop” and hit enter.
8. Type in the IP address: 192.168.1.8 as shown in Figure 6

Figure 6

9. Make sure the Username to log in is “ANP”
10. The password is Seafloor (capital “S”)

HyDrone Pairing

First, plug in both the Port and Starboard pontoon batteries and make sure the switches are set to “off.” Then attach the box to the frame using the four screws included. Once fastened to the frame attach the port pontoon using the Mil-Spec cable and the “Port” bulkhead on the AutoNav Plus. Then attach the starboard pontoon to the AutoNav Plus “Starboard” Bulkhead. This allows both the Wi-Fi bridge and onboard computer to receive power. Flip the switch on the front of the box to “on” and wait 30 seconds for the pc to boot before trying to connect. The Wifi Bridge will have full green bars when it has linked to the AutoNav.

The PC login info is as follows

Username: ANP
Password: Seafloor (Capital “S”)

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Documents / Resources

	Seafloor AutoNav Plus Autonomous Control System [pdf] User Guide AutoNav Plus Autonomous Control System