![Omnisense systems logo]

Ulysses micro

High performance compact thermal camera

Quick Start Guide

Part No: ULS-M384U, ULS-M384S, ULS-M640S

Ver 2.0

IMPORTANT: The Quick Start Guide is part of the complete documentation for your thermal camera. Please visit Omnisense Systems website to download the complete and latest user guide for your product.

Mounting the Camera Turret

Begin by selecting an apparated location to install the camera. It should ideally be installed at a good vantage point with emphasis on forward view.

Using the Mounting Template decal provided, mark and drill all the holes required for Camera Turret installation at the selected location.

Prepare the camera for installation by installing the provided 4 x m6 studs into the base of the camera (Fig.2). Be sure not to over tighten these studs as doing so may severely damage the camera.

Pass the camera harness cable through the center hole and route it to the junction box location. Connect the cable harness to mating connector under the camera base.

Note the orientation of the Camera Turret indicated by the "forward arrow" under the camera and install the camera with it's base facing toward the bow of your vessel. Secure the camera with supplied hardware as indicated in Fig. 2.

Pro Tip: Put a temporary mark of the front side of the base, to indicate the forward side to aid installation.

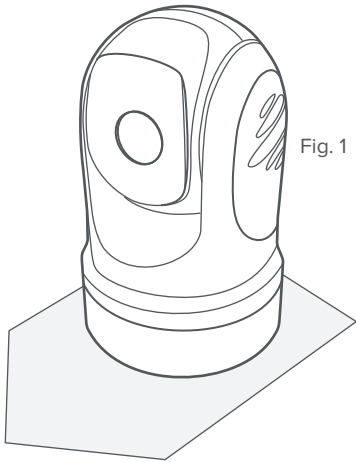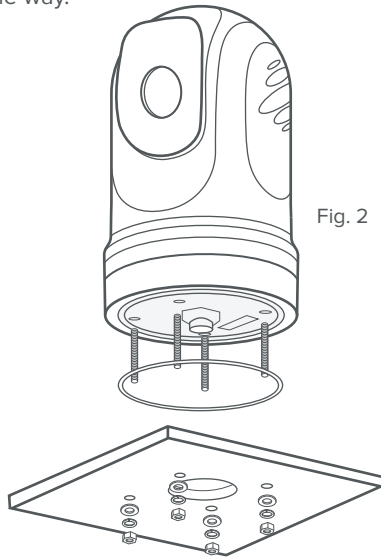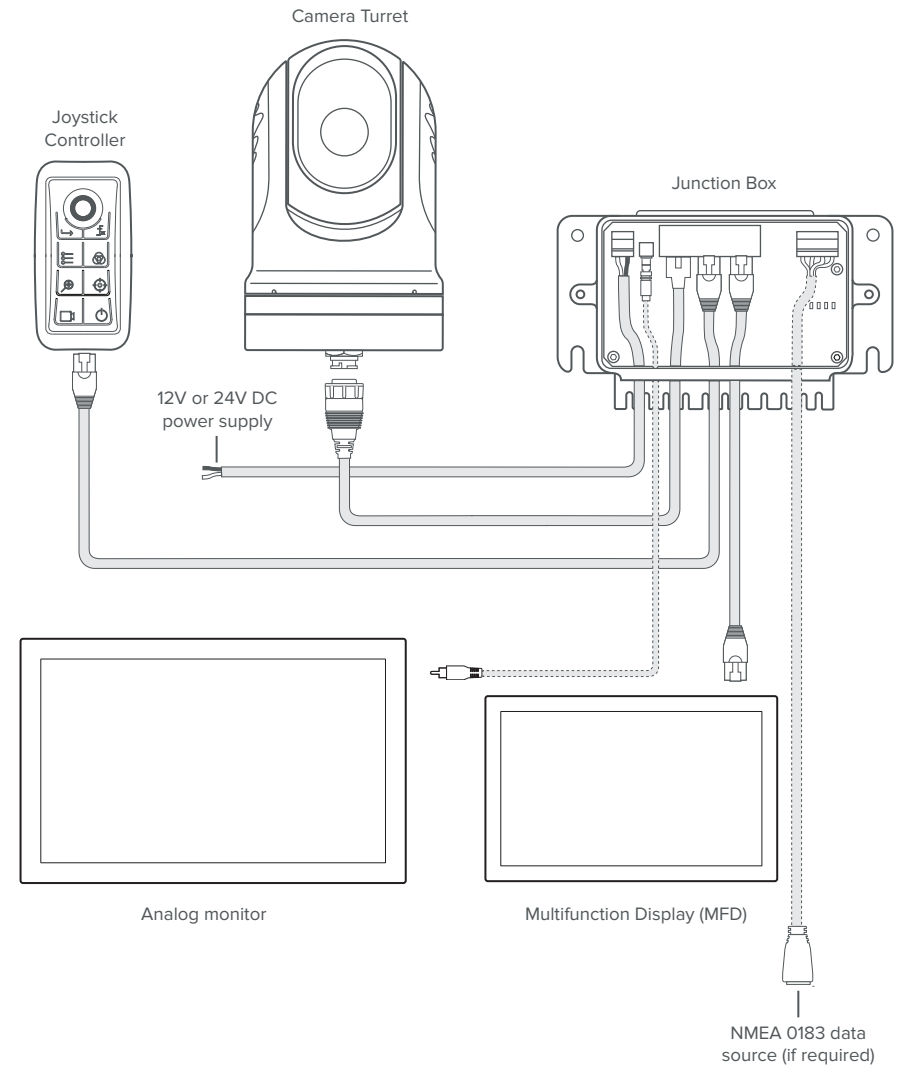Camera can be installed on a riser in the same way.

Fig. 1

Fig. 2

⚠️ Ensure depth of screws do not penetrate more than 13mm from the base. Failure to observe this may severely damage the product and is not covered under the warranty.

System Layout and Connections

Before you commenced the installation, it is important to produce a schematic diagram. The diagram will be handy for any future maintenance or upgrades to the system. The diagram should include the location of all components, cable types, routing and length.

This is the layout plan of how your Ulysses Micro thermal camera system will be set-up.

Camera Turret

Joystick Controller

Junction Box

12V or 24V DC power supply

Analog monitor

Multifunction Display (MFD)

NMEA 0183 data source (if required)

Change IP Settings

If you are unable to connect to the camera due to the a different set of IP address, follow this step to configure the camera for Windows user.

1. Go to Settings, then click on Network & Internet.

2. Right-click on your Ethernet Network that is connected to the Junction Box and click on Properties (Fig. 7).
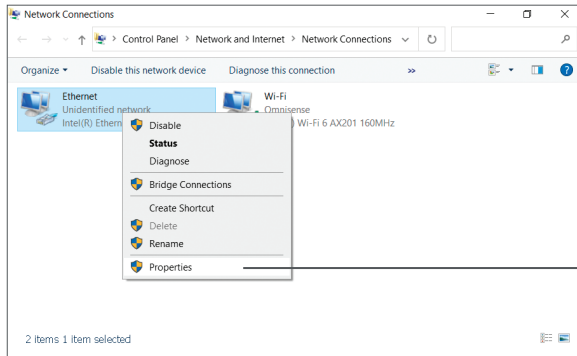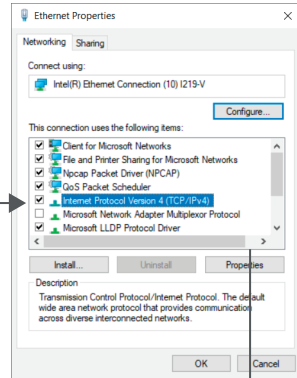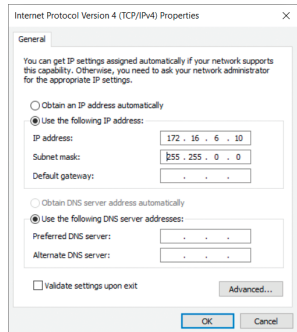

Fig. 7

3. On the properties screen, select **Internet Protocol Version 4 (TCP/IPv4)** and click on Properties (Fig. 8).

4. On IPv4 properties screen, select **Use the following IP Address** option (Fig. 9).

5. Enter the following IP address: 172.16.6.xxx (any number). As you can see in above image (Fig. 9), the first 3 number sets (172.16.6) in IP Address field need to be the same as the Junction Box IP address. You can only change the last number set with any number from 1 to 254. Click in the Subnet Mask area, which should auto-complete. Click OK (Fig. 9).

Fig. 8

Fig. 9

6. Launch your web browser and enter the following address **http://172.16.6.225/** and login with the following:

    Username: admin
    Password: 12345

Full control of the camera can be accessed through the Web Interface. You can configure the IP address to connect to your MFD from the Settings menu.

Mounting the Joystick Controller

Identify the desired location of the Joystick Controller. Use the supplied mounting template decal and create the necessary openings as indicated on the template.

The Joystick controller has a flush mounting flange that will sit on a flat surface and sealed with a gasket. Secure it from under the panel with supplied hardware as indicated in Fig. 3. The supplied nut can be fastened with fingers and then tighten with an appropriate hand tool.

Note:
Please measure the thickness of your mounting surface and purchase the required length of these screws if the supplied studs are not used.

Fig. 3

Joystick
Menu navigation and camera control

Enter
Confirm selection

Menu
Display menu options

Zoom
Adjust zoom

Sensor Select
Toggle between cameras

Function
Programmable key

Color Palette
Select color mode

Radar Track
Activate tracking functions

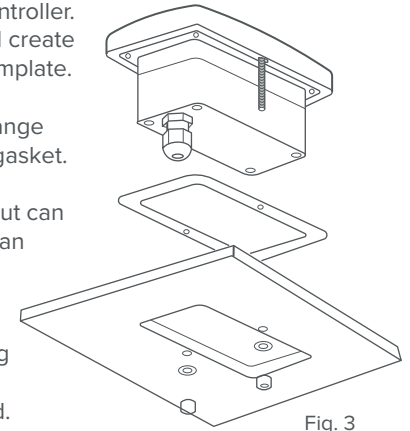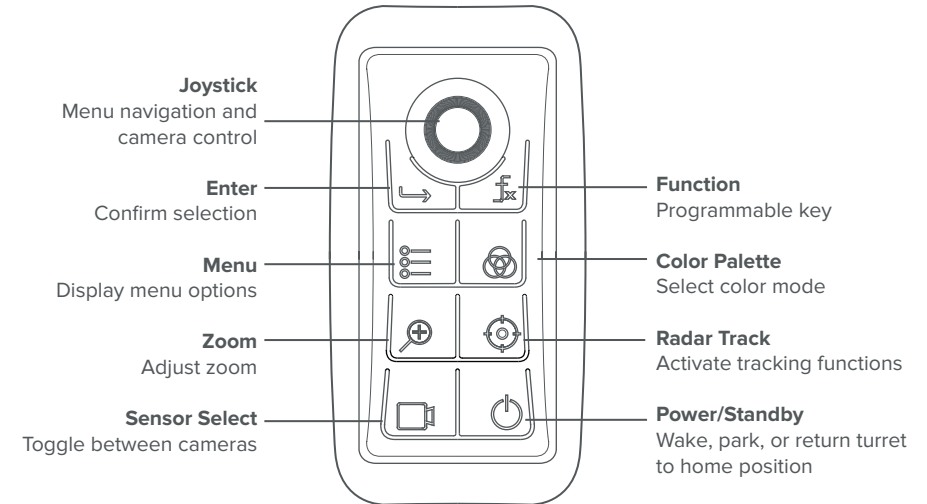**Power/Standby**
Wake, park, or return turret to home position

Fig. 4

Joystick Controller Functions

All essential functionalities are integrated and accessed via the 8 buttons and joystick (Fig. 4).

Press any of the button once to activate the menu items on the screen. Use the joystick to select and cycle-through the options available.

Connecting the Cables

Fig. 5

Fig. 6

1. Power
2. AV
3. Camera
4. Controller/MFD
5. Controller/MFD
6. NMEA
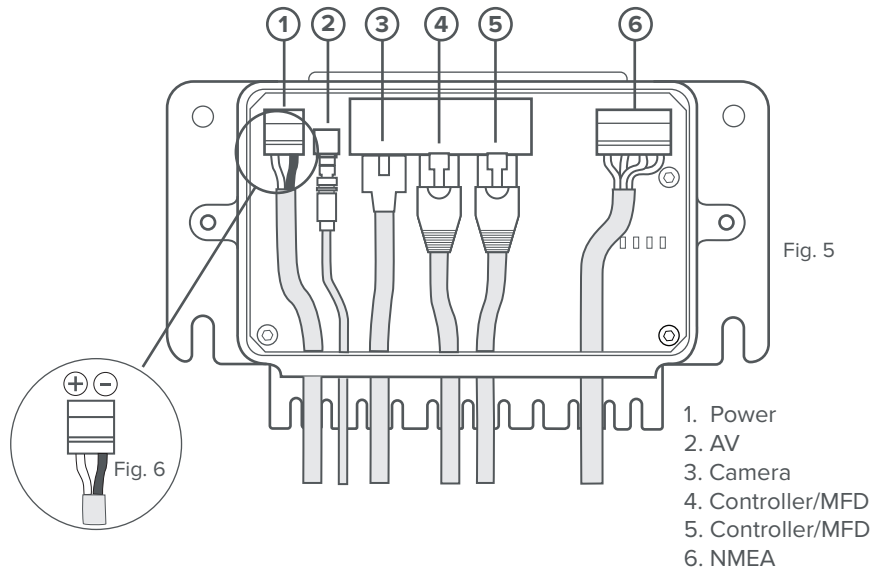
Junction Box

The Junction Box is the primary means to provide power to the Camera and Joystick Controller. It also serves as a hub for data transmission and interfacing point to other connected network devices.

1. Power cable - Connect the power cable provided to the [Power] port in the Junction Box and to a DC power source on your vessel. It is recommended that you use either a 12V or 24V DC power. The power cable consists of Black for (-) negative, White for (+) wire. Please ensure that the correct polarity is inserted into the right terminal (Fig. 6).

2. AV Analog cable - Connect the AV Analog cable to the Junction Box [AV] port and the other end to your analog monitor (if required).

3. Camera harness - Connect the end of the camera harness to the ethernet port in the Junction Box marked [Camera].

4. Controller cable - Connect the ethernet cable to the Junction Box [Controller/MFD] port (4) and the other end the Joystick Controller.

5. MFD cable - Connect the ethernet cable to the Junction Box [Controller/MFD] port (5) on and the other end to your MFD.

6. NMEA 0183 socket - For devices that require input from NMEA 0183 devices, connect the NMEA 0183 data source to the [NMEA] socket in the Junction Box using 24-20 AWG cables and the output from the NMEA device to the Rx pins in the Junction Box.

Connecting to your Display via Ethernet (Options)

You can choose to display the video output of your Ulysses Micro to a supported MFD via IP (ethernet), an analog monitor via AV analog cable and/or a laptop computer (via web browser). Instructions are as follows:

1. Connecting to a MFD:
Connect the ethernet cable from the [Controller/MFD] port in the Junction Box to a compatible MFD. The camera will work with Garmin MFD with OneHelm. If you are using a Garmin's MFD, you should see a Ulysses Micro icon displayed on the 'OneHelm' page after powering up both the MFD and camera system. Launch the Ulysses Micro icon to use the camera.

If you are using a Furuno or Navico's MFD, you will need to configure the camera system to communicate in the correct network environment by using a web browser or an analog monitor/Joystick Controller. Refer to setup section on the next page.

2. Connecting to a PC:
Connect an Ethernet cable from your PC to Ethernet port on the Junction Box marked [Controller/MFD]. On your web browser, enter the default IP address as indicated at the base of the turret and login with the following:

    Username: admin
    Password: 12345

Full control of the camera can now be accessed through the Web browser.

3. Connecting to an analog monitor:
Connect the AV analog cable from the [AV] port in the Junction Box to your analog monitor. The display will appear on the screen. Use the Joystick Controller to control the camera.