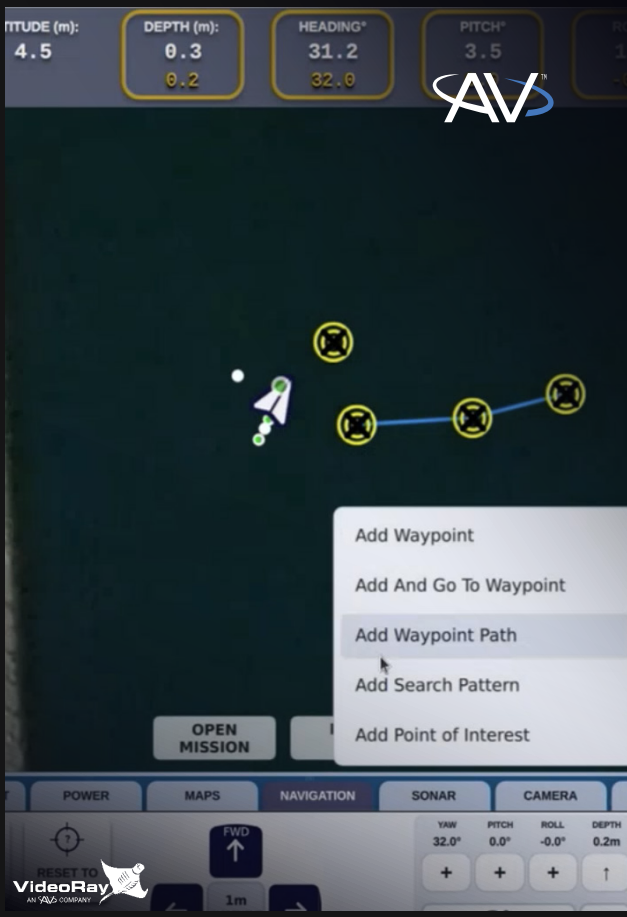
Quick Start



QS-78624

MISSION SPECIALIST

Command Maritime 2.1

WORKHORSE CONTROL CONSOLE

WORKHORSE SPLASHPROOF CONTROLLER

INDUSTRIAL CONTROLLER

XBOX ELITE 2 CONTROLLER

JULY 2026

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Command Maritime User Interface Quick Start

Always complete recommended pre-dive procedures before operation

Do not leave the ROV continuously powered on in air for more than 15 minutes

This Command Maritime UI Quick Start Guide is provided as an operational reference for users already trained and familiar with their Mission Specialist ROV system. This guide is designed to supplement an operators' general system knowledge as needed; VideoRay's recommendations for operation and maintenance are not included in this guide and can be found in the specific ROV Operator Manual.

The instructions below are an overview of the Command Maritime UI. General operational instructions and recommendations are included in this guide. For more details on layout and menu information, refer to the Command Maritime User Guide; for a comprehensive operational resource, refer to the Command Maritime Operator Manual.

If this is your first time with VideoRay's Command Maritime UI control software, please review the User Guide and Operator Manual. A thorough understanding of the software and ROV's capabilities will result in a much more effective and enjoyable experience with your ROV system.

Once all VideoRay Mission Specialist ROV recommended pre-dive inspections are completed, make system connections - starting at the ROV and ending at the system power source. For all systems, ensure to properly install the ROV strain relief. For systems with navigation, ensure to extend the ROV GPS antenna and properly position the topside controller's GPS receiver.

Turn on the VideoRay computer - either via the toggle switch of the Workhorse Control Console (WCC) or the power button of the Expeditionary Splashproof Controller (tablet).

Power on the ROV - *be cognizant of the time powered on in air during these next steps.*



Double-click on the **Command Maritime** icon from the Ubuntu desktop to open the control software; pause until the software boots up and communicates with the ROV's modules and sensors. The map, camera, and sonar (if equipped) imagery will appear in the **Main** and **Bottom Left/Right Displays.**

With the controller, test the functions of thruster and LED modules, as well as checking the camera tilt/pan, AHRS module heading accuracy, and sonar/manipulator functions (if equipped).

Launch the ROV into the water and ensure proper ballast/buoyancy for the specific system configuration; recommendations for typical operation has the ROV trimmed level (pitch/roll) and slight positive buoyancy at the surface. Adjust ballast weight quantities/locations as recommended for the most effective piloting.



From the **System Menu** in the upper left corner of the interface, click/tap 'System Manager'; select the '**Navigation**' dropdown and enter the appropriate magnetic declination for the location of ROV deployment for accurate heading data.

For ROV systems with navigation (DVL/GPS) acquiring GPS/GNSS satellite fix:

- Locate the **Navigation** tab in the **Command Menu** at the bottom of the Main Display. Click on 'Reset ROV to GPS' - the lat/long position should now be displayed in the Header Bar.
- In the **Maps** tab of the **Command Menu**, click on 'Center Vehicle' - the ROV position icon should now be centered in the Main Display.
- With the ROV icon viewable in the **Main Display**, select the preferred map or chart overlay with the 'Change Layer' or 'Load Map' buttons at the bottom of the map; a continuous wi-fi connection will be necessary for any maps not already loaded onto the computer's drive.

In the **Header Bar**, click/touch auto controls for Altitude or Depth and Heading/Pitch/Roll. Enabling these controls aids in providing ROV stability and smooths out operator inputs. Change the auto controls' desired setpoint values with the Precision Movements controls from the Control Menu Left or with corresponding hand controller inputs (roll input is not programmed for VideoRay's Industrial controller).

With a DVL bottom lock, click/tap the 'LAT/LON' position coordinates to the right of the auto controls to enable station keeping.

You should now be operational and ready to begin the mission.



1. HEADER BAR

The Header Bar is an intuitive visual control center that includes a system menu, camera controls, and display/functions for altitude or depth, heading/pitch/roll, and station keeping.

2. CONTROL MENU RIGHT

The **Control Menu Right** provides menus specific to the selected sensor(s) in the Main Display (map, sonar, or video imagery), which remain as on-screen navigation for each selection.

3. MAIN DISPLAY

The **Main Display** provides user-selectable real-time views of the map, sonar, or video imagery. Selecting the preferred imagery via touchscreen or mouse from either the left or right Bottom Display (map, sonar, or camera) will shift it to the Main Display and move the current display to the bottom.

If the ROV is equipped with an auxiliary integrated camera, both camera imagery feeds share the Main Display in a primary/secondary view layout. Toggle views by clicking/tapping on the secondary view, which swaps it to the primary view. The Command Menu must be displayed to toggle views.

Right-click/long tap on the map to add a Waypoint/Waypoint Paths, Search Patterns, and Points of Interest. Select and use the left panel flyout menu to see and/or edit its desired characteristics.

4. BOTTOM DISPLAYS LEFT & RIGHT

The **Bottom Displays** provide a real-time view of alternate sensors (map, sonar, or camera) and can be selected to shift to the Main Display, or opened in a new window from the Control Menu Left.

5. COMMAND MENU

The **Command Menu** is the control center for Command Maritime functions and diagnostics:

- Maps: Adjust map controls and location
- Navigation: Reset ROV position and use jog controls for incremental movements
- Mission: Load, begin, pause, and reverse missions
- Camera: Adjust camera display and control settings; take snapshots
- Sonar: Adjust sonar gain, range, and appearance - also accessible in Control Menu Right
- Power: Thruster power levels and controller input sensitivity
- Depth Profile: Sea floor depth history
- Diagnostics: View software application status, record diagnostics logging data

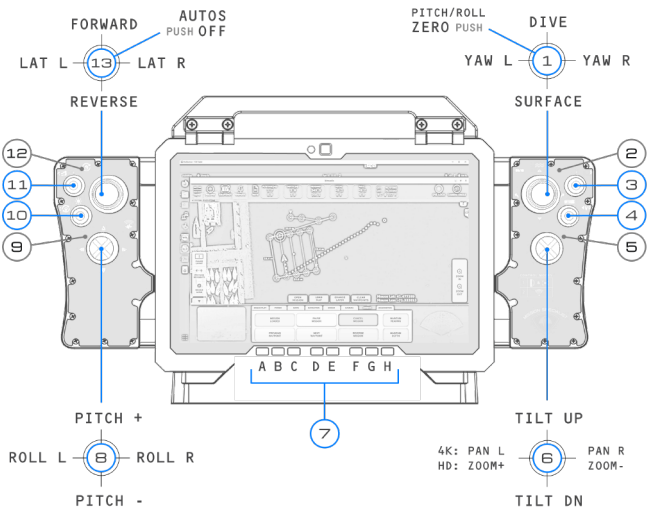
6. CONTROL MENU LEFT

The **Control Menu Left** allows for changing the layout of the Main Display, opening the Precision Movements controls window, and enabling/disabling all auto controls (altitude or depth, heading/pitch/roll, station keeping). Below the menu is the collapse button, which toggles the Command Menu Tabs (display/hide) and allows for additional Main Display area when desired.

Controller Mapping

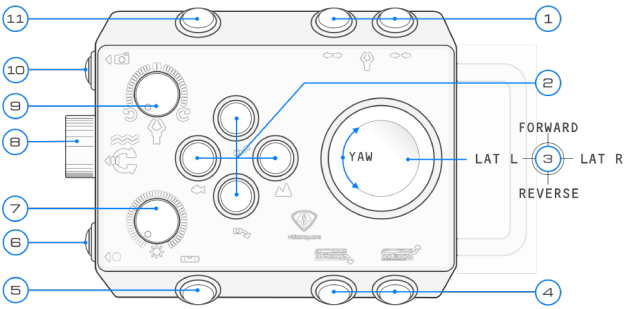
Note: All available controller functions are shown in the following diagrams; dependent on ROV model and system configuration, some controls may not be functional, e.g., lateral, pitch, roll, and manipulator controls.

_EXPEDITIONARY SPLASHPROOF CONTROLLER



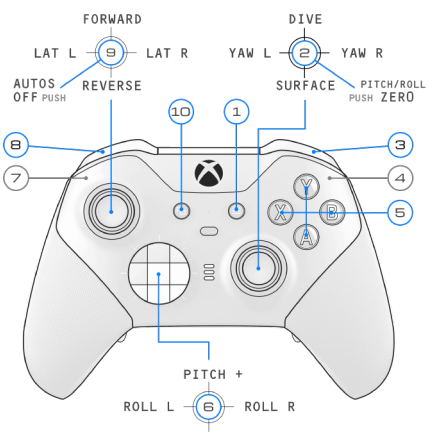
1. Right Joystick
2. Video Record [Rear]
3. Vehicle Pitch +
4. Vehicle Pitch -
5. Manip Open/Close [Rear]
6. Right Pad Camera
7. Front Display Buttons
   A. Screen Rotate Lock
   B. Brightness Decrease
   C. Brightness Increase
   D. Volume Decrease
   E. Volume Increase
   F. Programmable 1
   G. Programmable 2
   H. Programmable 3
8. Left Pad Attitude
9. Manip Rotate [Rear]
10. LED Dim -
11. LED Bright +
12. Screenshot [Rear]
13. Left Joystick

_IP65 INDUSTRIAL CONTROLLER



1. Manip Open/Close
2. Camera Controls
   - Tilt Up, Tilt Down
   - 4K: Pan Left, Pan Right
   - HD: Zoom+ Left, Zoom- Right
3. Joystick
4. Pitch +/-
5. Pitch/Roll Zero
6. Recording
7. LED Bright +/-
8. ROV Dive/Surface
9. Manip Rotate L/R
10. Screenshot
11. Auto Controls Off

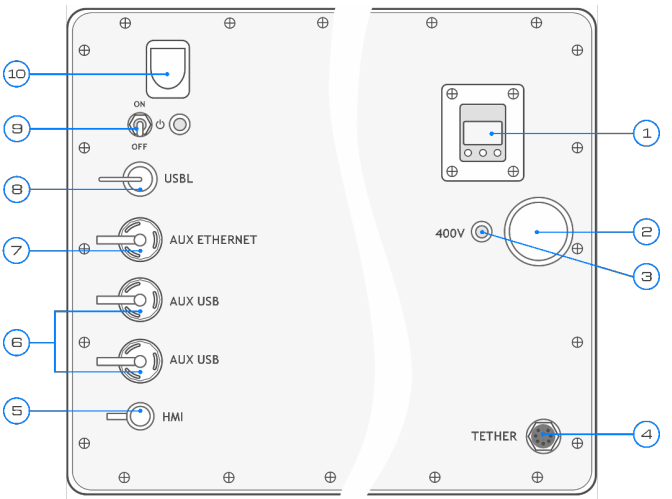
_XBOX ELITE 2 CONTROLLER



1. LED +
2. Right Stick
3. Manip Close
4. Manip Rotate R [Trigger]
5. Camera Controls
   - Y – Tilt Up, A – Tilt Down
   - 4K: X – Pan Left, B – Pan Right
   - HD: X – Zoom In, B – Zoom Out
6. Directional Pad
7. Manip Rotate L [Trigger]
8. Manip Open
9. Left Stick
10. LED -

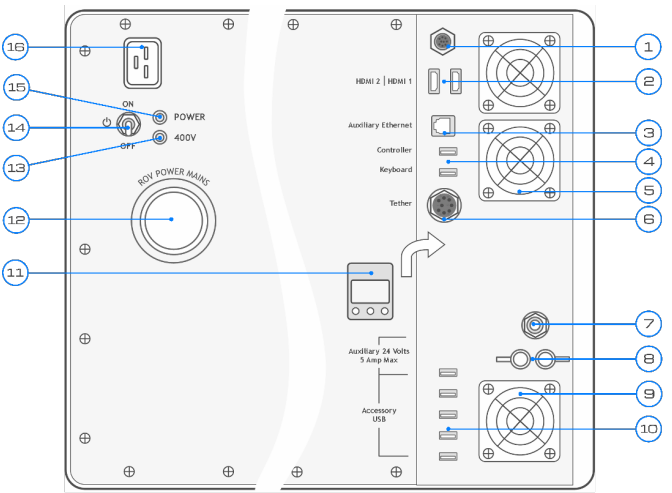
Console Panel Components

_WORKHORSE SPLASHPROOF CONTROLLER (WSC) CONSOLE



1. Line Insulation Monitor
2. ROV Power Main
3. ROV 400V Indicator
4. Tether 8-pin
5. Controller HMI
6. USB-A (2)
7. Ethernet
8. USBL Topside
9. Console Power/Indicator
10. A/C Power

_WORKHORSE CONTROL CONSOLE (WCC)



1. Monitor Out
2. HDMI (2)
3. Ethernet
4. USB-A (2)
5. Exhaust Fans (2)
6. Tether 8-pin
7. Circuit Breaker
8. 24VDC Supply (2)
9. Intake Fan
10. USB-A Hub (5)
11. Line Insulation Monitor
12. ROV Power Main
13. ROV 400V Indicator
14. Console Power
15. Console Power Indicator
16. A/C Power



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