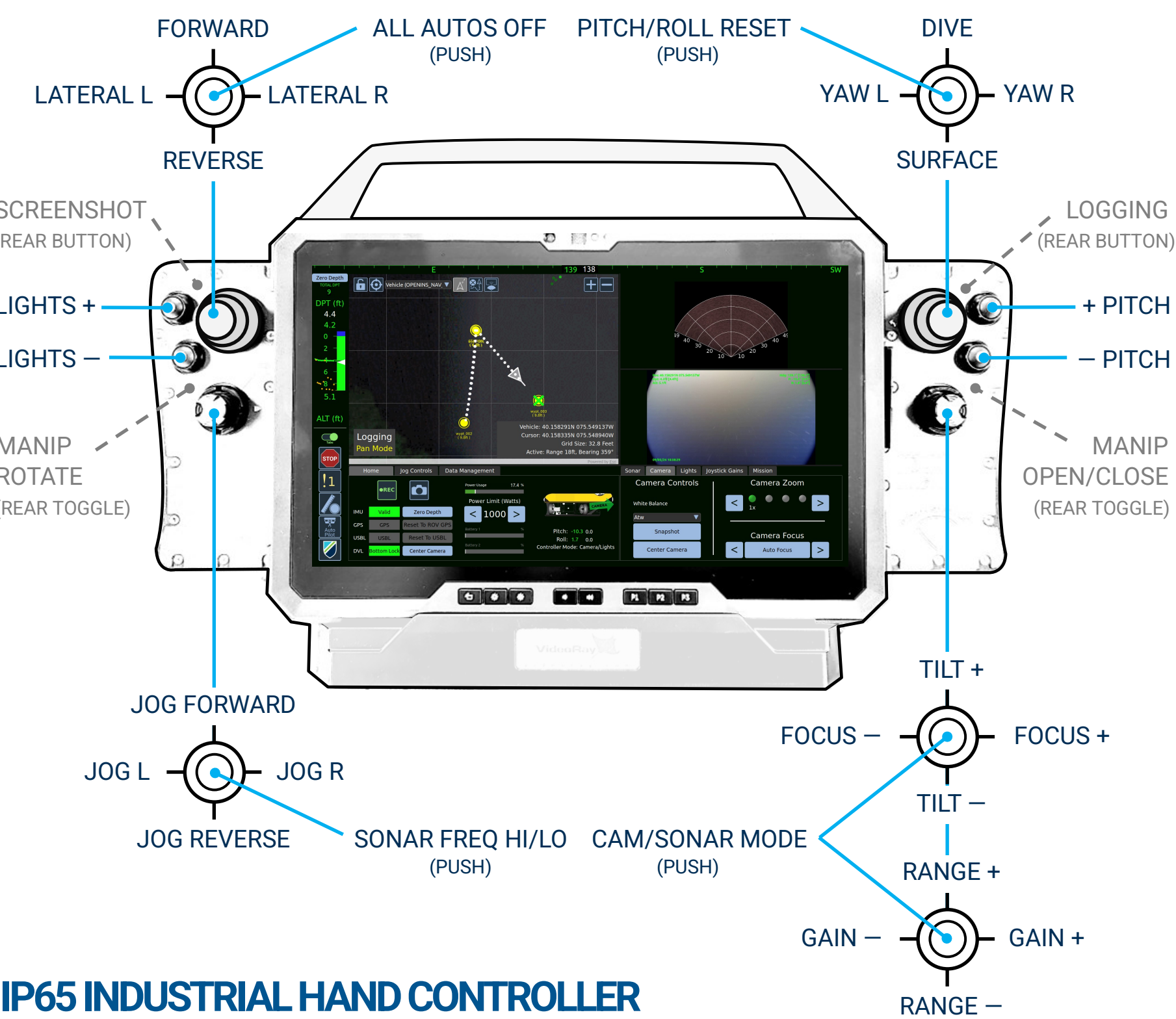


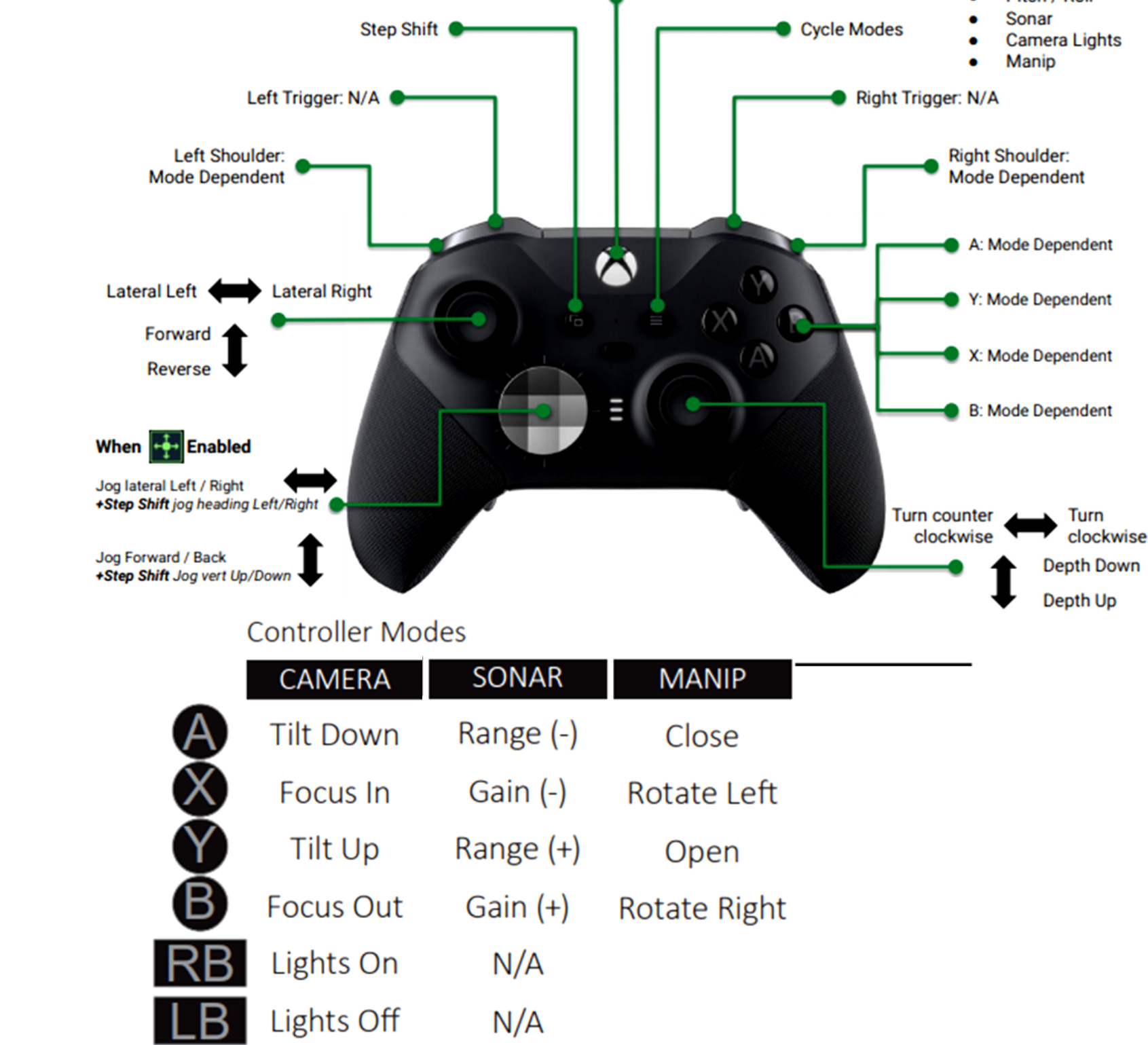
EXPEDITIONARY SPLASHPROOF CONTROLLER



IP65 INDUSTRIAL HAND CONTROLLER



XBOX ELITE PRO



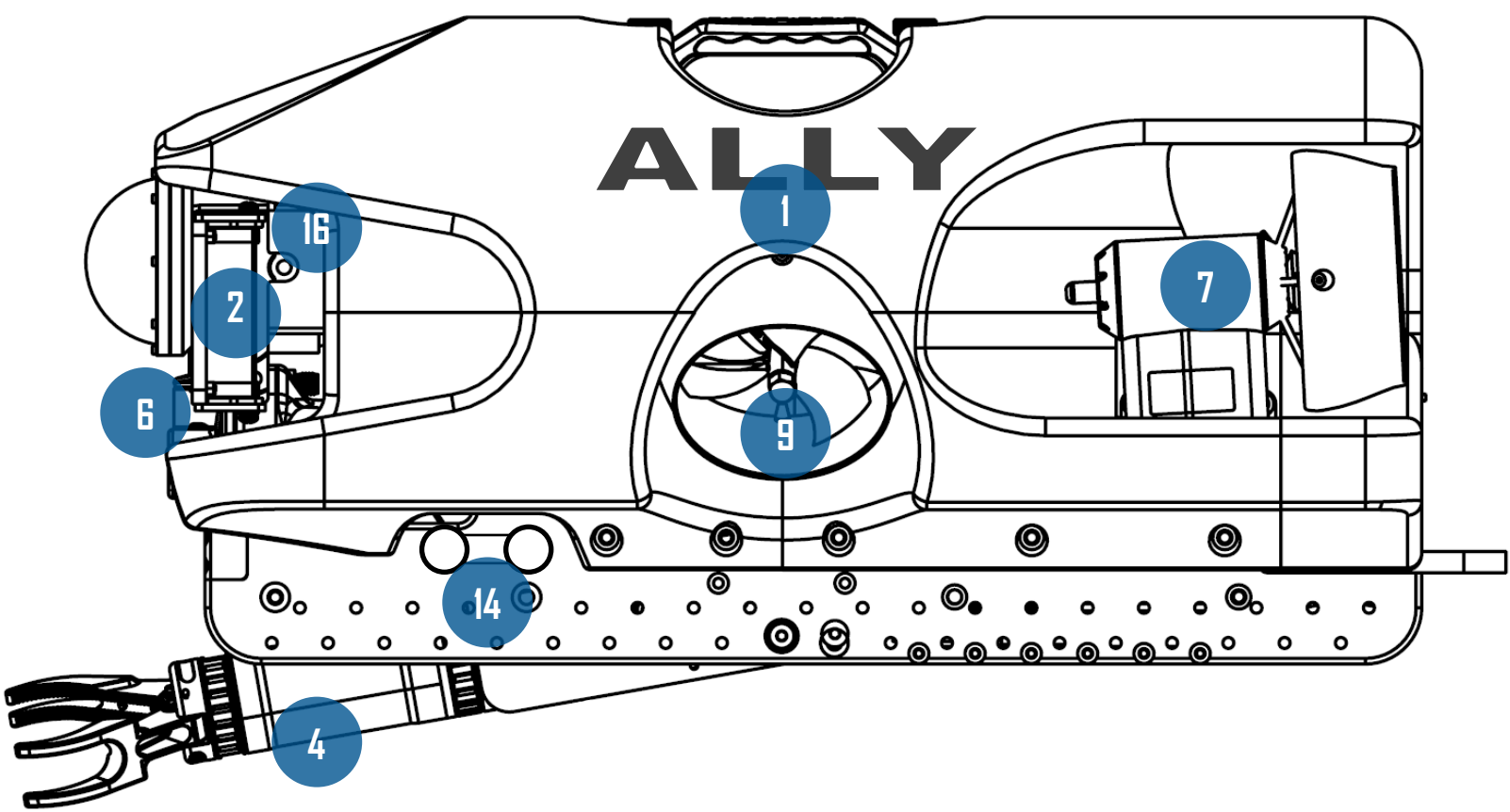
videoray.com/resources/  
support@videoray.com  
+1 610-458-3000, Opt. 1



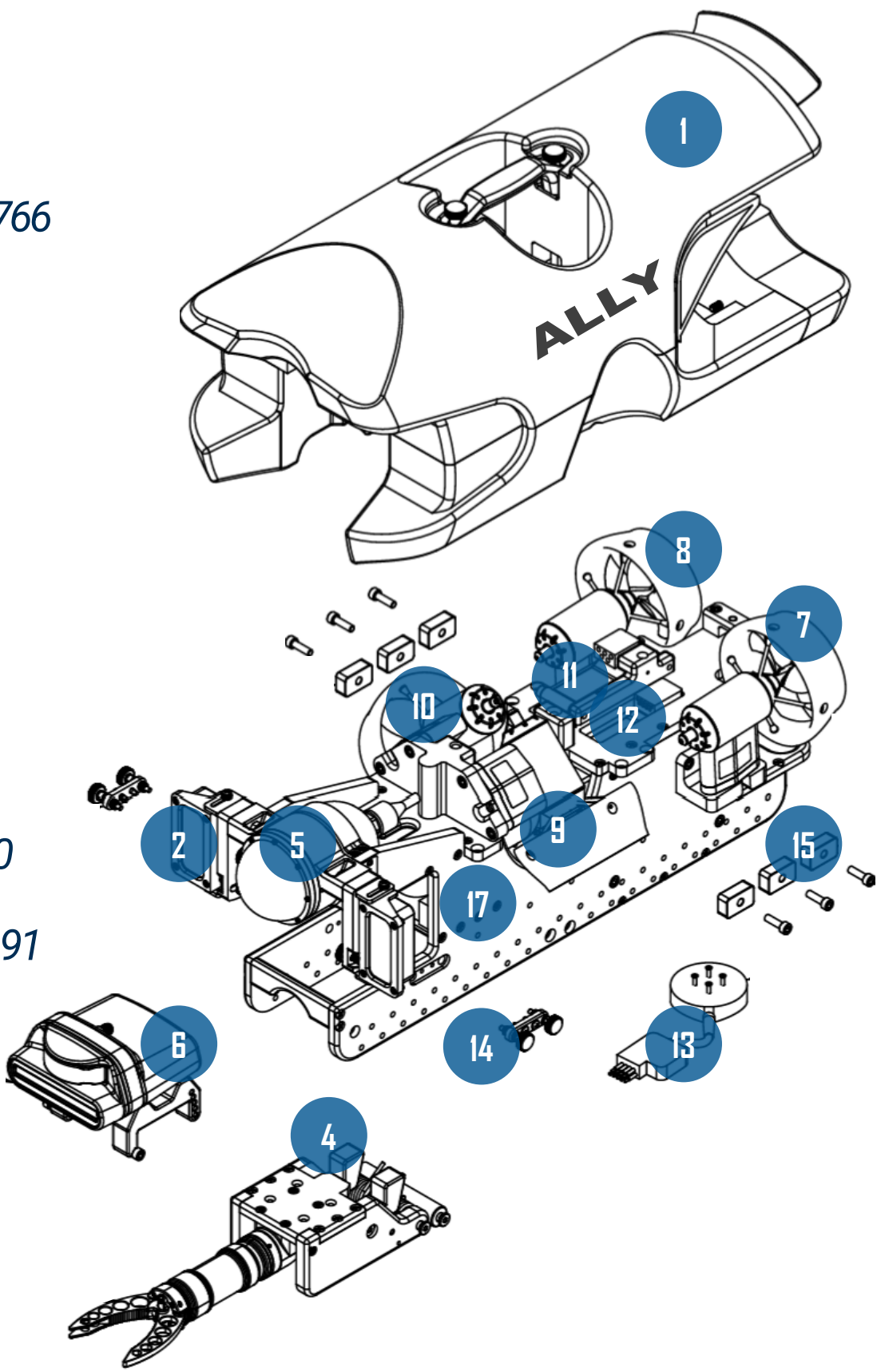
QUICK GUIDE

VideoRay  
Mission Specialist  
Ally System

ALLY COMPONENT ID - PREMIUM PACKAGE CONFIGURATION



- 1 Round Float Kit *part number 75079*
- 2 LED Module Assembly *part number 71764*
- 3 Manipulator Mount *part number 74766*
- 4 Alpha Manipulator Assembly *part number 74766*
- 5 4K Ultra Camera *part number 74687*
- 6 M750d Sonar Kit *part number 74964*
- 7 Port Horizontal Thruster *part number 70503*
- 8 Stbd Horizontal Thruster *part number 70503*
- 9 Port Vectored Thruster *part number 70503*
- 10 Stbd Vectored Thruster *part number 70503*
- 11 Power Module (not visible) *part number 70160*
- 12 Comms Module (not visible) *part number 70191*
- 13 A50 DVL Kit *part number 74886*
- 14 Lock Pin Assembly *part number 75072*
- 15 Ballast Weight 50g ea. *part number 70451*
- 16 Serial Number Plate *part number 74979*
- 17 AHRS Module (not visible) *part number 70273*



Mission Specialist Ally - Premium Package

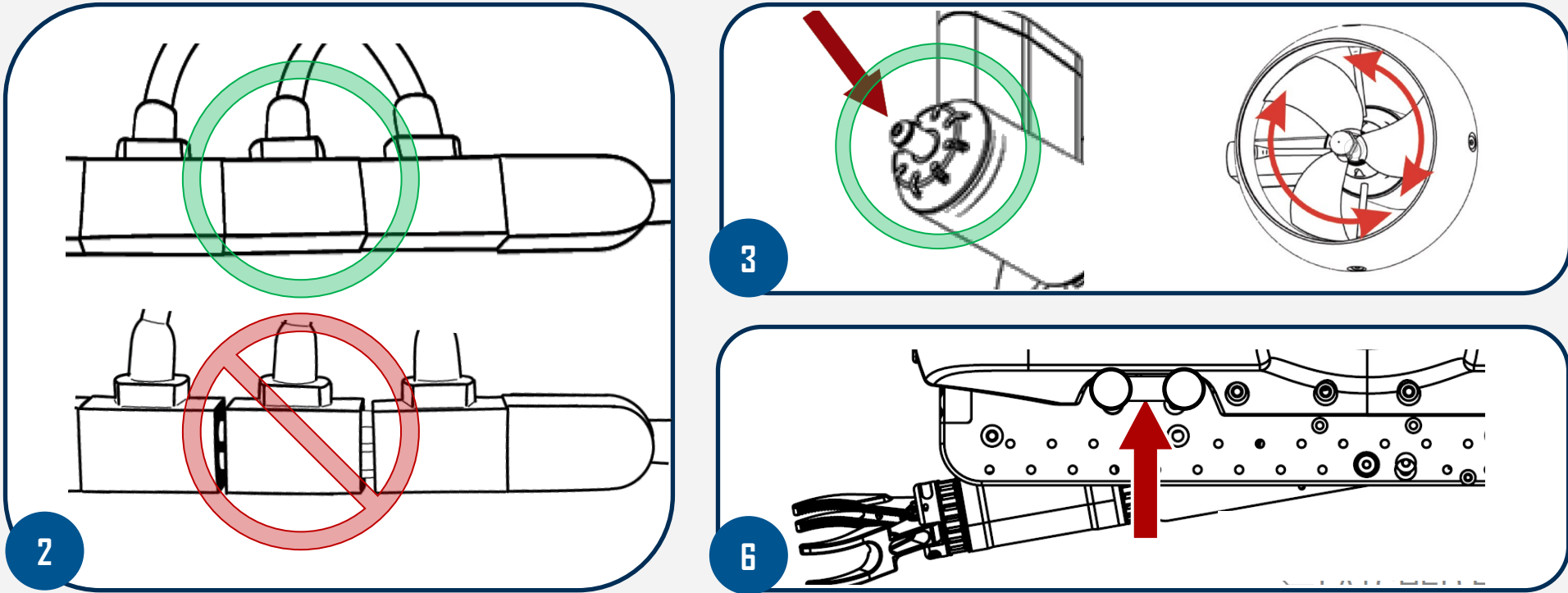
- |                           |                               |
|---------------------------|-------------------------------|
| Mission Specialist Ally   | Navigation DVL                |
| Workhorse Control Console | Subsea Batteries (optional)   |
| Dual Frequency FL Sonar   | Square Float Block (optional) |
| Dual Axis Manipulator     | Spares & Tools                |



Pre-Dive Operations - \*steps for configurations with optional accessories

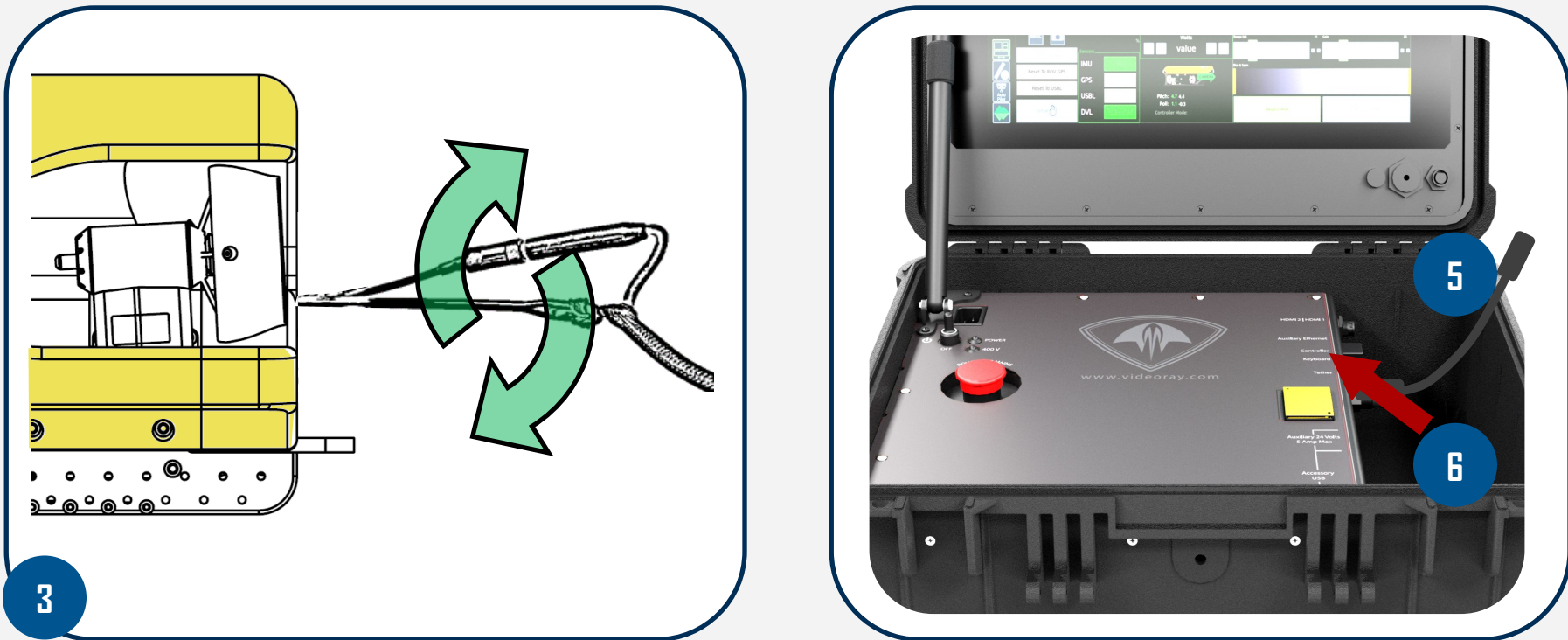
VISUAL INSPECTION

- 1. Confirm all mission equipment is on scene
- 2. Remove float block and inspect connections
- 3. Check that thruster tell tales are visible and protruding from the thruster housing
- 4. Check that propellers spin freely and for damage to blades/cracks along hub
- 5. Check camera dome for damage or internal moisture
- 6. \*Set sonar and manipulator angles by locking out or releasing lock pins



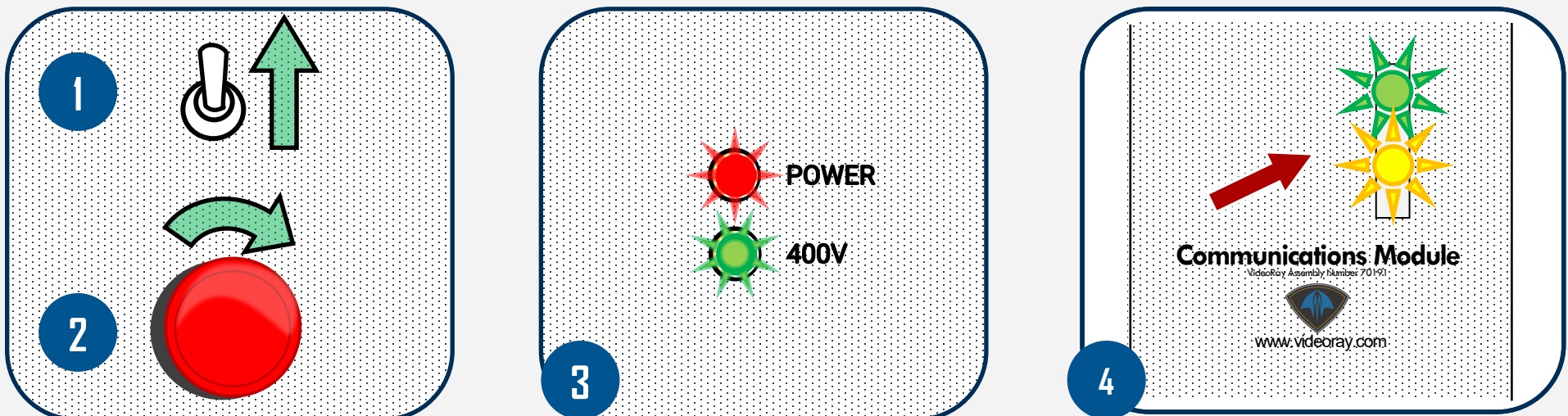
MAKE CONNECTIONS

- 1. Always start making connections at the Ally and work toward the controller
- 2. Using silicone, lubricate and securely mate the tether to the Ally's 8-pin whip
- 3. Connect the strain relief and test all angles to prove no tension is on the tether
- 4. Replace float block
- 5. Connect the topside end of the tether to the console's 8-pin whip
- 6. Make connections within the console (keyboard, controller)
- 7. Connect the system to a clean and reliable power source



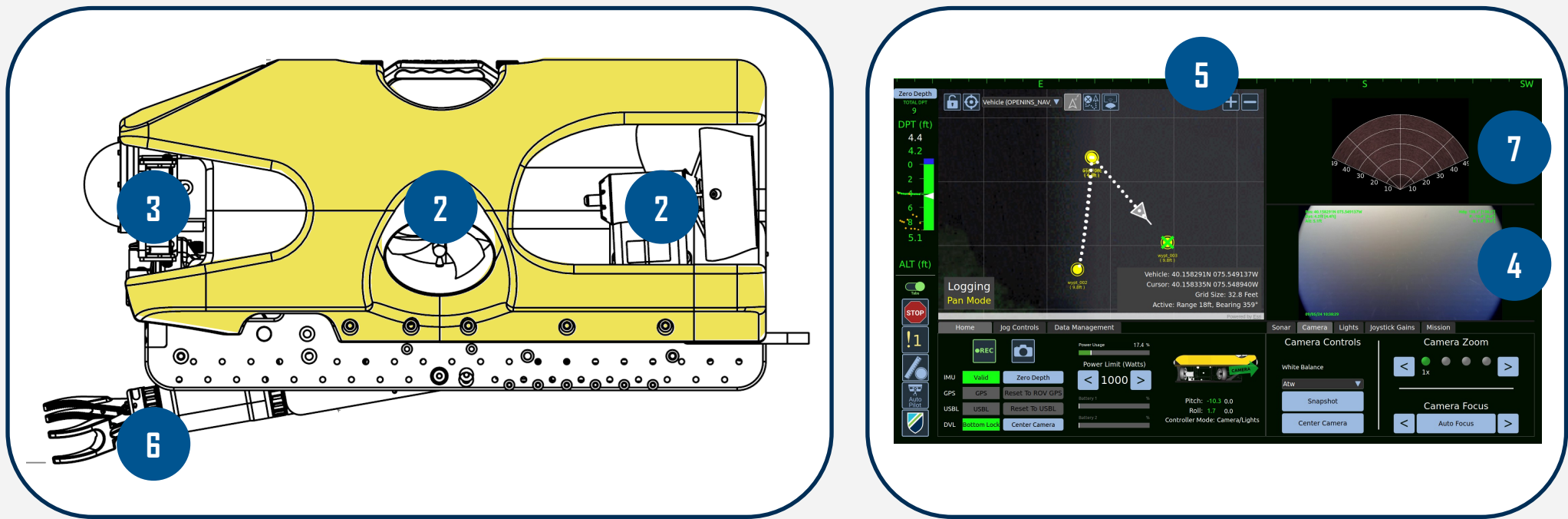
POWER SYSTEM ON

- 1. Power on the console using the toggle switch and power on tablet
- 2. Rotate the red Power Mains clockwise to send power to the Ally
- 3. Confirm console and 400v power indicators are illuminated
- 4. After several seconds, verify that the Ally is powered up by checking the status LEDs on the Power and Communications modules



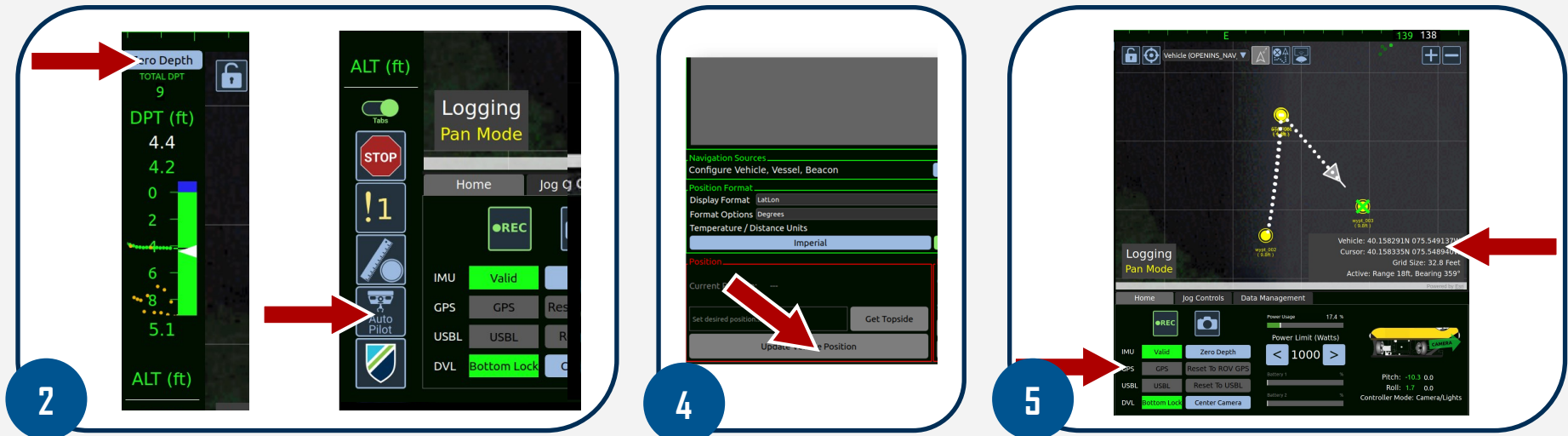
FUNCTION TEST

- 1. Double-click the Greensea Workspace Icon on the desktop to open the control software
- 2. Momentarily test thrusters (horizontal/vectored in all directions)
- 3. Momentarily test LED light functions (on/bright/dim/off)
- 4. Verify video feed imagery, (camera pan/tilt/focus)
- 5. Check that compass heading ribbon is responsive and accurate
- 6. \*Check manipulator operation (open/close, rotation, tilt/return)
- 7. \*Verify sonar feed is displayed



LAUNCH

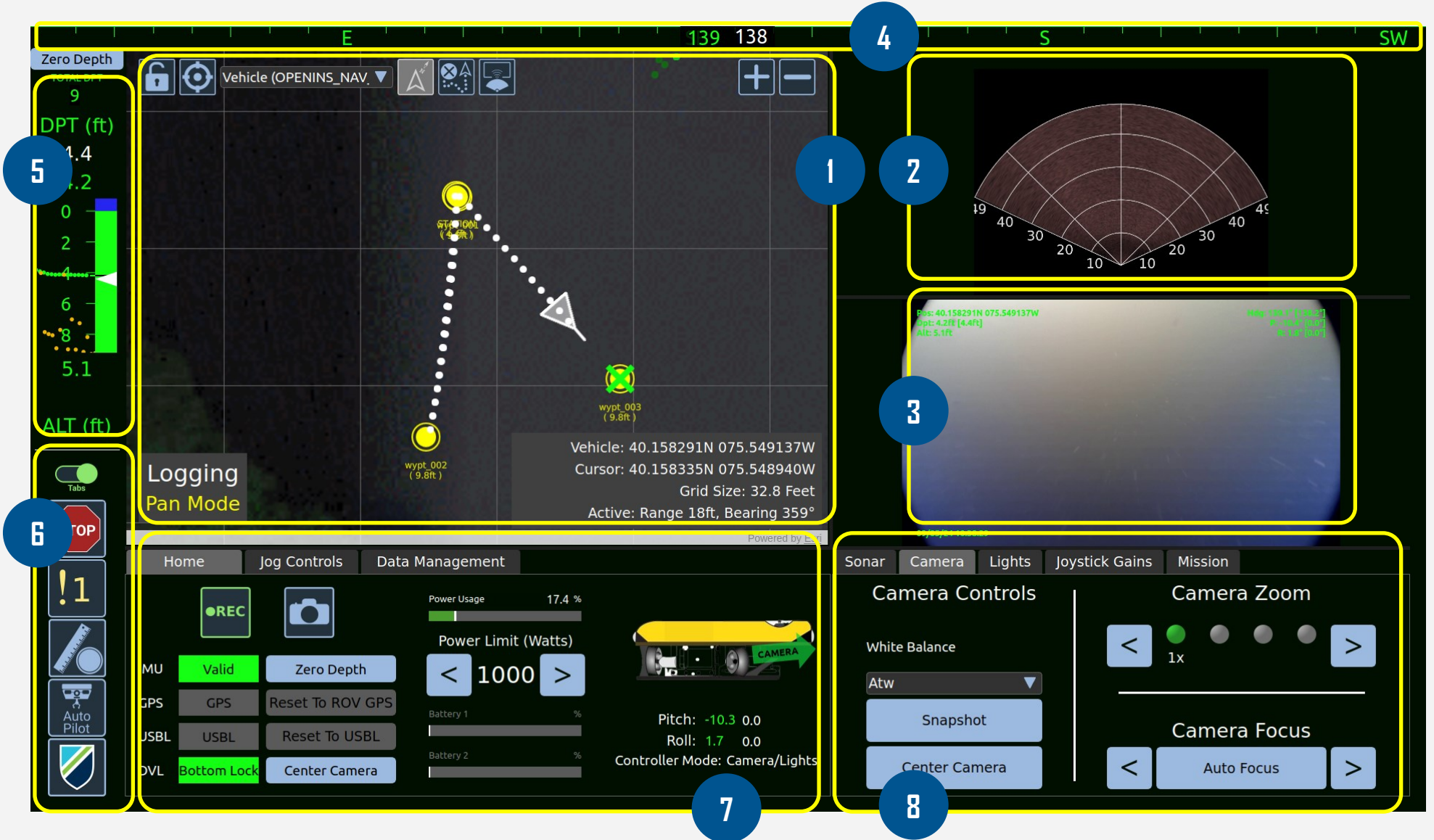
- 1. Deploy the Ally and check ballast / trim— optimum buoyancy is just at the surface and level
- 2. Zero the depth while on the surface, then enable Auto controls and \*Dynamic Positioning
- 3. \*Extend the topside GPS receiver cable for the best reception, wait for position to be acquired
- 4. \*Keeping the Ally nearest the topside GPS receiver, select 'Update to Vehicle Position'
- 5. \*Dive 1-2 m and verify positioning in the Map View and navigation sensor status in the Home tab



Operational Overview

Piloting the Ally will have minor variations with different configurations and control software versions. The recommended considerations are as follows:

- Use caution and be mindful of people and hazards on the surface and underwater.
- Make sure tether connections and strain reliefs are secure
- Select a deployment site that aids in piloting and tether management, e.g., a clear path without obstructions
- Begin slowly and use moderate controller inputs as you improve your piloting skills and techniques
- Without navigation capabilities, keep track of your heading and route and use visible tether to estimate your location



- 1. Map Display
- 2. Sonar Display
- 3. Video Display
- 4. Heading Bar
- 5. Depth & Altitude Bar
- 6. Control Bar
- 7. Control Menus
- 8. Flight View Tabs

Post-Dive Operations - \*steps with optional accessories

- 1. Maintain communication between pilot/tether handler
- 2. Disable all Auto Pilot controls, \*Dynamic Positioning
- 3. Recover via the tether or Ally grab handles
- 4. Shut off Ally Power Mains and console
- 5. Stop video logging and exit Greensea software
- 6. Undo all deployment connections, inspect, and replace protective caps/covers
- 7. Remove float block - rinse the Ally and subsea components
- 8. Conduct a thorough post-dive inspection of the entire system
- 9. If operating in salt or brackish water, soak the Ally for a minimum of 30 minutes
- 10. Allow to dry completely before storing