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› Raymarine Element 9 HV - 9" Chart Plotter User Manual

Raymarine E70534-00-102

Raymarine Element 9 HV - 9" Chart Plotter User Manual

Model: E70534-00-102

1. INTRODUCTION

The Raymarine Element 9 HV is a 9-inch chart plotter designed for marine navigation and fishfinding. It integrates CHIRP Sonar, HyperVision, Wi-Fi, and GPS capabilities to provide detailed underwater imaging and precise positional data. This manual provides essential information for the proper installation, operation, and maintenance of your Element 9 HV unit.

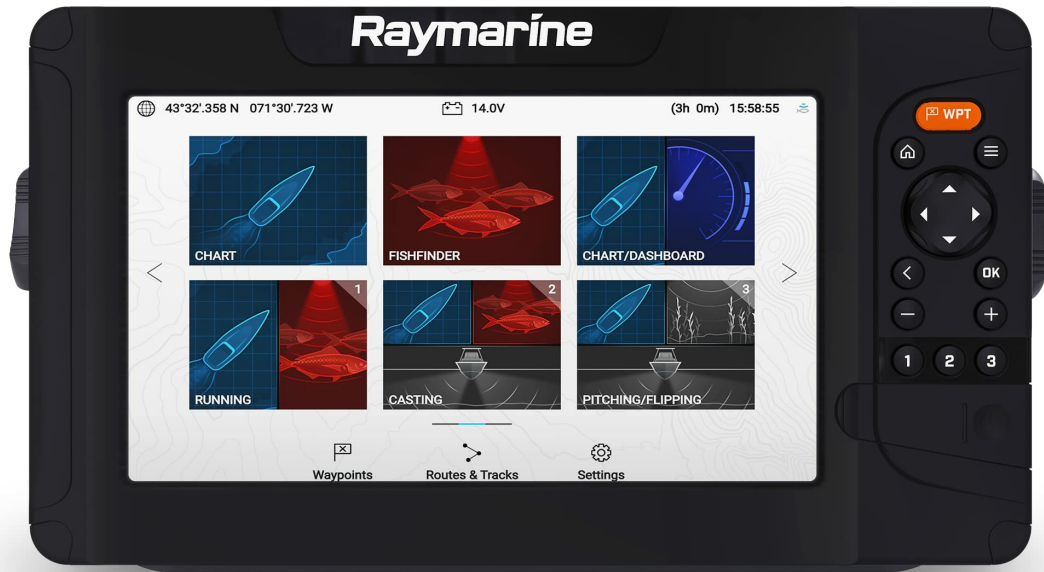


Figure 1.1: Raymarine Element 9 HV unit displaying sonar data.

2. SAFETY INFORMATION

Please read all safety warnings and instructions carefully before installing and operating the Element 9 HV. Failure to follow these instructions may result in product damage, personal injury, or poor performance.

- **Power Supply:** Ensure the power supply voltage matches the unit's requirements (12V DC nominal). Incorrect voltage can damage the unit.
- **Mounting:** Securely mount the unit to prevent movement during vessel operation. Ensure mounting location does not obstruct visibility or interfere with vessel controls.
- **Cabling:** Route all cables away from heat sources, sharp edges, and areas where they might be pinched or damaged. Use appropriate cable glands for waterproof connections.
- **Water Exposure:** While the unit is designed for marine environments, ensure all connections are properly sealed to prevent water ingress.
- **Navigation Aid:** The Element 9 HV is an aid to navigation. Always use official government charts and exercise caution. Do not rely solely on electronic navigation.

3. WHAT'S IN THE BOX

Verify that all components are present before beginning installation:

- Raymarine Element 9 HV Display Unit

- Power/NMEA2000 Cable
- Mounting Bracket (Bail Bracket)
- Flush Mount Kit (Gasket, Studs, Thumb Nuts)
- Documentation Pack (including this manual)
- Lighthouse North America Chart Card (pre-programmed)
- *Note: Transducer is NOT included and must be purchased separately.*

4. SETUP

4.1 Mounting Options

The Element 9 HV can be installed using either the supplied bail bracket for surface mounting or flush-mounted into a panel.

4.1.1 Bail Bracket Mounting

Attach the bail bracket to a flat surface using appropriate fasteners. Secure the Element 9 HV unit to the bracket using the provided knobs, allowing for tilt adjustment.

4.1.2 Flush Mounting

Cut an opening in the mounting panel according to the template provided in the full installation guide. Insert the unit into the opening, apply the gasket, and secure it from the rear using the studs and thumb nuts.



Figure 4.1: Element 9 HV mounted on a vessel.

4.2 Power Connection

Connect the red wire from the power cable to the positive (+) 12V DC supply and the black wire to the negative (-) 12V DC supply. Ensure an inline fuse (recommended 5A) is installed on the positive line. The power cable also includes NMEA2000 connections for integration with other marine electronics.

4.3 Transducer Connection

The Element 9 HV requires a compatible HyperVision (HV) transducer for sonar functionality. Connect the transducer cable directly to the designated port on the back of the Element 9 HV unit. Ensure the connection is secure and watertight. This product does not include a transducer; it must be purchased separately.

4.4 GPS Antenna

The Element 9 HV features an internal GPS antenna. For optimal performance, ensure the unit has a clear view of the sky. In some installations, an external GPS antenna may be required if the internal antenna's signal is obstructed.

4.5 Chart Card Installation

The Element 9 HV comes with a Lighthouse North America Chart card. Locate the microSD card slot on the unit (typically behind a waterproof cover). Insert the chart card firmly until it clicks into place. Ensure the cover is securely closed after installation.



Figure 4.2: Element 9 HV with Lighthouse Charts.

5. OPERATING INSTRUCTIONS

5.1 Powering On/Off

Press and hold the Power button (usually located on the front panel) for approximately 3 seconds to power the unit on or off. A short press will bring up the power menu for quick actions like screen brightness adjustment.

5.2 Basic Navigation and Keypad Controls

The Element 9 HV features dedicated keypad controls for intuitive operation. Use the directional pad to navigate menus and pan charts. The 'OK' button confirms selections, and the 'Back' button returns to the previous screen. Dedicated buttons for Home, Menu, and Waypoint (WPT) provide quick access to key functions.

5.3 Chart Plotter Functions

Access the Chart application from the Home screen. The pre-loaded Lighthouse North America Chart provides detailed cartography. Use the zoom in/out buttons (+/-) to adjust the chart scale. Pan the chart using the directional pad. Create and manage waypoints by pressing the 'WPT' button and following the on-screen prompts.



Figure 5.1: Chart Plotter view with detailed marine cartography.



Figure 5.2: Navigation screen with chart and data overlay.

5.4 Sonar Functions (CHIRP, HyperVision)

The Element 9 HV supports various sonar modes, including standard CHIRP, DownVision, and SideVision, utilizing HyperVision technology for high-resolution imaging. Select the Sonar application from the Home screen to view real-time underwater data.

- **CHIRP Sonar:** Provides traditional sonar views for fish arches and bottom contours.
- **DownVision:** Offers a photo-like view of the underwater world directly beneath your boat.
- **SideVision:** Scans the areas to the port and starboard of your vessel, revealing structure and fish targets over a wide area.
- **HyperVision:** Operates at 1.2 MHz for extremely high-resolution imaging in DownVision and SideVision modes, ideal for identifying structure and baitfish with exceptional clarity.



Figure 5.3: SideVision sonar display showing underwater structure.

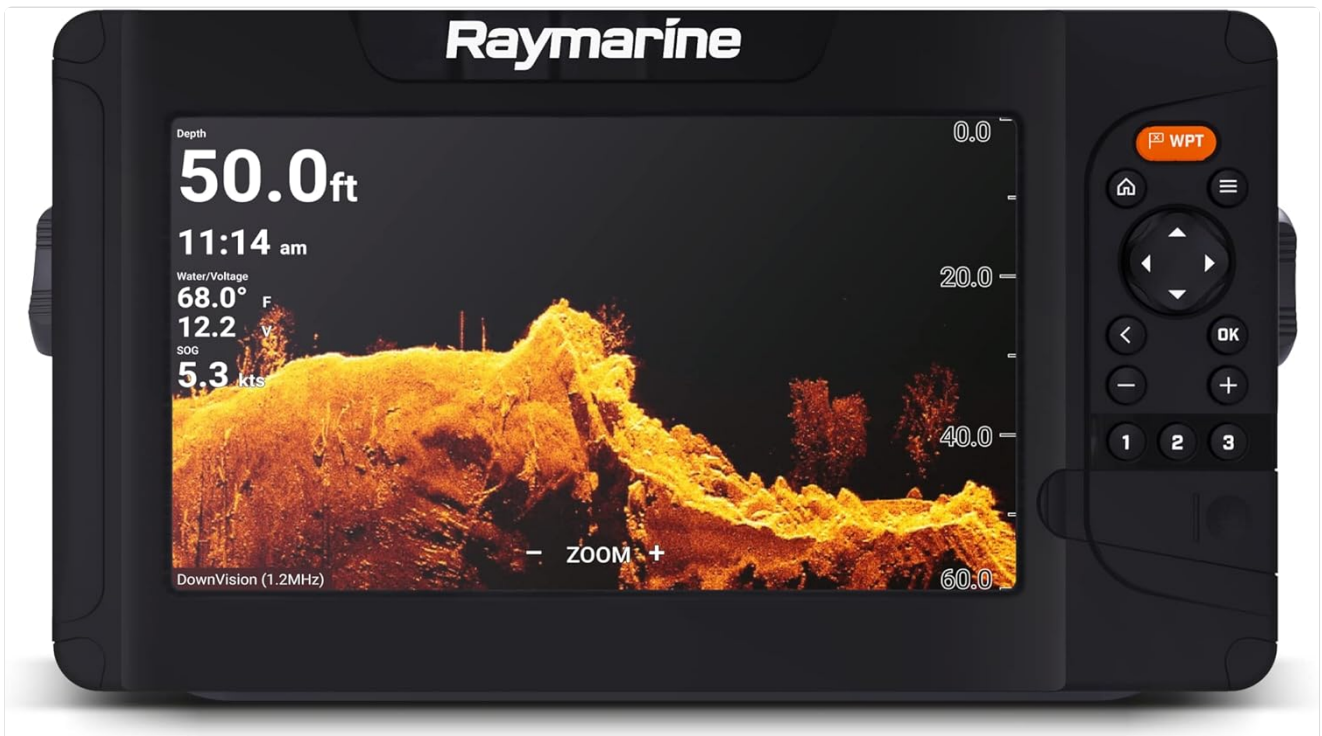


Figure 5.4: DownVision sonar display showing detailed bottom structure.

5.5 Wi-Fi Connectivity

The Element 9 HV features built-in Wi-Fi for connecting to mobile devices via the Raymarine mobile app. This allows for viewing and controlling the display remotely, as well as performing software updates. To connect, enable Wi-Fi on the Element 9 HV from the settings menu and follow the instructions in the Raymarine mobile app.

5.6 Display Settings

Adjust display brightness, color palette, and other visual settings through the system menu. A short press of the power button provides quick access to brightness controls.

6. MAINTENANCE

6.1 Cleaning the Display

Clean the display screen with a soft, damp cloth and fresh water. For stubborn marks, use a mild glass cleaner. Avoid abrasive cleaners, solvents, or harsh chemicals, as these can damage the screen coating.

6.2 Software Updates

Periodically check the Raymarine website for software updates. Updates can be performed via Wi-Fi using the Raymarine mobile app or by loading the update file onto a microSD card and inserting it into the unit.

6.3 General Care

Ensure all cable connections are secure and free from corrosion. Inspect the unit and cables regularly for any signs of wear or damage. When not in use for extended periods, consider covering the unit to protect it from harsh environmental elements.

7. TROUBLESHOOTING

This section addresses common issues you might encounter with your Element 9 HV unit.

Problem	Possible Cause	Solution
Unit does not power on	No power supply; Blown fuse; Loose connection	Check power cable connections; Inspect fuse; Verify 12V DC supply.
No GPS signal	Obstructed view of sky; Internal antenna issue	Relocate unit for clear sky view; Consider installing an external GPS antenna.
No sonar image	Transducer not connected; Damaged transducer; Incorrect sonar settings	Ensure transducer is securely connected; Check transducer for damage; Verify sonar settings are appropriate for depth.
Chart not displaying	Chart card not inserted; Corrupt chart data	Ensure chart card is correctly inserted; Try re-inserting the card; Check for chart card updates.

For further assistance, refer to the Raymarine support website or contact customer service.

8. SPECIFICATIONS

- **Model Name:** Element 9 HV

- **Model Number:** E70534-00-102
- **Screen Size:** 9 Inches
- **Display Type:** LCD
- **Connectivity Technology:** Wi-Fi
- **Map Type:** North America (Lighthouse Charts)
- **Sonar Technology:** CHIRP Sonar, HyperVision (DownVision, SideVision at 1.2 MHz)
- **Control Method:** Keypad
- **Mounting Type:** Bail with swivel, Flush
- **Item Weight:** 5 Pounds (approx.)
- **UPC:** 723193837696

9. WARRANTY AND SUPPORT

9.1 Manufacturer Warranty

The Raymarine Element 9 HV is covered by a Manufacturer Warranty. Please refer to the warranty card included with your product or visit the official Raymarine website for detailed terms and conditions regarding warranty coverage and duration.

9.2 Customer Support

For technical support, product registration, or to download the latest software updates and full documentation, please visit the official Raymarine support website:

www.raymarine.com/support

You may also contact Raymarine customer service directly for personalized assistance.