Lowrance 000-11749-001

Lowrance 000-11749-001 Outboard Autopilot System for Cable Steered Vessels

Model: 000-11749-001 | Brand: Lowrance

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1. Introduction

The Lowrance Outboard Autopilot System (Model 000-11749-001) is designed to provide automatic steering for cable-steer outboard motors on vessels up to 30 feet in length. This system integrates with Lowrance High Definition System (HDS) displays, enabling precise course control, waypoint navigation, and route following. It allows users to maintain a constant heading or execute specific turn patterns, freeing them to focus on other activities while on the water.

The system includes the NAC-1 computer, a helm drive unit, a Point-1 GPS/Compass, and an Auto/Standby switch, all designed for seamless integration via NMEA 2000. It supports Lowrance SmartSteer control, allowing easy switching between electric-steer trolling motor control and outboard motor control directly from your HDS display. Additionally, trails can be converted to routes for retracing previous paths.

Figure 1: Main components of the Lowrance Outboard Autopilot System.

2. Safety Information

Read all instructions carefully before installation and operation. Failure to follow these instructions may result in product malfunction, property damage, or personal injury.

- **Always maintain situational awareness:** The autopilot system is an aid to navigation and does not replace the need for constant vigilance.
- **Keep clear of moving parts:** Ensure hands, clothing, and other objects are clear of the helm drive unit during operation.
- **Electrical safety:** Disconnect power before performing any installation or maintenance. Ensure all wiring is correctly connected and protected from the marine environment.
- **Professional installation recommended:** If you are unsure about any part of the installation process, consult a qualified marine electronics technician.
- **Check local regulations:** Adhere to all local and national boating safety regulations.

3. Package Contents

Verify that all items listed below are present in your package:

- NAC-1 Autopilot Computer
- Helm Drive Unit (for cable-steer outboards)
- Point-1 GPS/Compass Module

- Auto/Standby Switch
- NMEA 2000 Starter Kit (includes power cable, T-connectors, terminators, drop cables)
- Mounting Hardware
- Documentation (this manual, quick start guide)

4. Setup & Installation

This section outlines the general steps for installing the Lowrance Outboard Autopilot System. Refer to the detailed installation guide included with your product for specific diagrams and instructions.

4.1 Planning the Installation

Before beginning, plan the routing of all cables and the mounting locations for each component. Ensure adequate space and access for maintenance.

- **NAC-1 Computer:** Mount in a dry, protected area, accessible for wiring.
- **Helm Drive Unit:** Install near the helm, ensuring it aligns correctly with the existing steering cable system. This may require modifications to your steering system.
- **Point-1 GPS/Compass:** Mount in a location with a clear view of the sky, away from magnetic interference (e.g., speakers, large metal objects).
- **Auto/Standby Switch:** Install in a convenient location at the helm.

4.2 Component Installation

1. **Mount the Helm Drive Unit:** Securely attach the helm drive unit to the steering system according to the specific instructions for your boat's cable steering mechanism. Ensure smooth operation of the steering cable through the unit.
2. **Install the NAC-1 Computer:** Mount the NAC-1 computer using the provided hardware. Connect the helm drive unit cable to the NAC-1.
3. **Mount the Point-1 GPS/Compass:** Secure the Point-1 module. Connect its NMEA 2000 cable.
4. **Install the Auto/Standby Switch:** Mount the switch and connect its cable to the NAC-1 computer.

4.3 NMEA 2000 Network Connection

The system communicates via an NMEA 2000 network. If you do not have an existing NMEA 2000 network, use the provided starter kit to build one.

1. Connect the NAC-1 computer, Point-1 GPS/Compass, and your Lowrance HDS display to the NMEA 2000 backbone using T-connectors and drop cables.
2. Ensure the network is properly terminated at both ends with NMEA 2000 terminators.
3. Connect the NMEA 2000 power cable to a 12V DC power source, ensuring it is fused appropriately.

Figure 2: Lowrance HDS display integrated with the autopilot system.

4.4 Initial Power-Up and Calibration

After installation, power on your HDS display and the autopilot system. Follow the on-screen prompts on your HDS display to calibrate the autopilot. This typically involves a compass calibration and a rudder response test.

5. Operating Instructions

The Lowrance Outboard Autopilot System is controlled primarily through your Lowrance HDS display using the SmartSteer interface.

5.1 Engaging and Disengaging Autopilot

- **Engage:** Press the "Auto" button on the Auto/Standby switch or select "Auto" from the SmartSteer menu on your HDS display. The system will attempt to hold the current heading.
- **Disengage:** Press the "Standby" button on the Auto/Standby switch, manually steer the boat, or select "Standby" from the SmartSteer menu.

5.2 Steering Modes

The autopilot offers several steering modes:

- **Heading Hold:** Maintains a constant magnetic or true heading. Adjust the heading using the HDS display controls.
- **Waypoint Navigation:** Steers the vessel directly to a selected waypoint.
- **Route Following:** Follows a pre-defined route consisting of multiple waypoints.
- **Turn Patterns:** Executes pre-programmed turn patterns (e.g., U-turn, spiral) for fishing or search operations.

Figure 3: Detailed chart view on a Lowrance display, showing navigation capabilities.

5.3 SmartSteer Interface

The SmartSteer interface on your HDS display allows you to:

- Select between outboard motor control and compatible electric-steer trolling motor control (e.g., MotorGuide Xi5 Pinpoint).
- Adjust autopilot settings and parameters.
- Convert recorded trails into navigable routes.

6. Maintenance

Regular maintenance ensures the longevity and reliable operation of your autopilot system.

- **Inspect Cables and Connections:** Periodically check all NMEA 2000 cables and power connections for corrosion, wear, or damage. Ensure all connections are secure.
- **Clean Components:** Wipe down the NAC-1 computer, Point-1 GPS/Compass, and Auto/Standby switch with a damp cloth. Avoid harsh chemicals.
- **Helm Drive Unit:** Inspect the helm drive unit for any signs of wear on moving parts. Ensure the steering cable moves freely. Lubricate as recommended by your steering system manufacturer.
- **Software Updates:** Check the Lowrance website periodically for software updates for your HDS display and autopilot components. Keeping software up-to-date can improve performance and add new features.

7. Troubleshooting

This section addresses common issues. For more complex problems, contact Lowrance customer support.

Problem	Possible Cause	Solution
Autopilot does not engage.	No power to NAC-1; NMEA 2000 network issue; HDS not recognizing autopilot.	Check power connections to NAC-1 and NMEA 2000 network. Verify NMEA 2000 terminators are in place. Ensure HDS display is updated and configured to recognize the autopilot.
Poor steering performance or erratic course holding.	Improper calibration; magnetic interference near Point-1; mechanical issue with helm drive or steering cable.	Perform a full autopilot calibration (compass and rudder response). Relocate Point-1 GPS/Compass away from interference. Inspect helm drive and steering cable for obstructions or damage.

Problem	Possible Cause	Solution
HDS display does not show SmartSteer options.	Software not updated; NMEA 2000 communication error; autopilot not detected.	Ensure your HDS display has the latest software. Check NMEA 2000 connections. Verify the NAC-1 computer is powered on and recognized by the network.

8. Specifications

Feature	Detail
Model Number	000-11749-001
Brand	Lowrance
Compatibility	Lowrance HDS Gen2, HDS Gen2 Touch displays
Vessel Type	Single outboard, cable-steer vessels up to 30 feet
Components Included	NAC-1 computer, Helm Drive, Point-1 GPS/Compass, Auto/Standby switch
Network Interface	NMEA 2000
Voltage	12 Volts (DC)
Item Weight	2 Pounds (approximate, for main unit)
Product Dimensions	8 x 7.1 x 2 inches (approximate, for main unit)
Material	Aluminum (for certain components)

9. Warranty & Support

9.1 Warranty Information

Lowrance products are covered by a limited warranty. For specific warranty terms and conditions, please refer to the warranty card included with your product or visit the official Lowrance website. Keep your proof of purchase for warranty claims.

9.2 Customer Support

For technical assistance, troubleshooting beyond this manual, or warranty service, please contact Lowrance customer support:

- **Website:** Visit www.lowrance.com/support for FAQs, software downloads, and contact information.
- **Phone:** Refer to the Lowrance website for regional support telephone numbers.