Murphy by Enovation Controls PowerView PV101-C (78700615)

Murphy by Enovation Controls PowerView PV101-C Tier 4 Display User Manual

Model: PV101-C (78700615)

1. Introduction

The Murphy by Enovation Controls PowerView PV101-C Tier 4 Display is a robust and versatile information display module designed for monitoring engine and transmission parameters in various equipment. This manual provides essential information for the setup, operation, maintenance, and troubleshooting of your PV101-C display.

Product Overview

The PV101-C Tier 4 display offers real-time monitoring, comprehensive diagnostics, and multi-language support. It can present data as a single parameter or a quadrant display showing four parameters simultaneously. It features enhanced alarm indicators with ultra-bright amber and red LEDs for critical alerts.

Key Features

- Multiple Language Options for user interface.
- Password Protected OEM Menu offering Auto Regen, Request Regen, and Inhibit Regen functions.
- Torque Speed Control (TSC1) capabilities.
- Two (2) 4-Up Screens for simultaneous display of multiple parameters.
- Displays SPN, FMI, and OC for all detected faults, providing detailed diagnostic information.
- Sender Input for additional sensor integration.
- Five Service Reminders to assist with maintenance scheduling.
- Ability to Select Source Address and CAN bus Data Rate.

Figure 1: Front view of the Murphy PowerView PV101-C Tier 4 Display. The screen is illuminated green, displaying "1712 RPM" prominently, with "ENG RPM" and "COOL TEMP!" visible below. An exclamation mark icon is present in the top right corner, indicating an alert. Below the screen are four circular buttons for navigation and control.

2. Setup and Installation

Proper installation is crucial for the optimal performance and longevity of your PV101-C display. It is recommended that installation be performed by qualified personnel.

Power Requirements

The display and all connected components are designed to operate with either**12-volt** or **24-volt** electrical systems. Ensure your power source matches these requirements.

Connectivity

The PowerView display supports connection of up to**32 components** using a simple daisy chain wiring scheme via **RS485**. This allows for integration with various J1939 compatible gauges and other components. The display is fully backward compatible with PV100 and PV101-A models.

Mounting

Mount the display in a location that is easily visible to the operator and protected from excessive vibration, direct sunlight, and extreme temperatures. Ensure adequate space for wiring connections at the rear of the unit.

3. Operating Instructions

The PV101-C display provides intuitive navigation and data presentation.

Display Modes

- **Single Parameter Display:** Shows one selected engine or transmission parameter at a time, typically with a larger font for easy readability.

- **Quadrant Display (4-Up Screens):** Divides the screen into four sections, allowing simultaneous monitoring of four different parameters.

Navigation and Menus

Use the buttons located below the display screen to navigate through menus, select parameters, and access settings. Refer to the on-screen prompts for specific actions.

Diagnostic Capabilities

The display monitors over 50 standard SAE J1939 parameters broadcast by engine and transmission ECUs. It also displays active and ECU-stored faults with text descriptions, aiding in the diagnosis of equipment malfunctions. The enhanced alarm indicators (amber for warning, red for shutdown) provide immediate visual alerts for critical conditions.

Language Selection

Access the settings menu to select your preferred language for the display interface.

Service Reminders

The display can be configured to provide five distinct service reminders, helping to ensure timely maintenance of your equipment.

4. Maintenance

Regular maintenance ensures the longevity and reliability of your PowerView PV101-C display.

- **Cleaning:** Use a soft, damp cloth to clean the display screen and housing. Avoid abrasive cleaners or solvents that could damage the plastic or screen coating.
- **Connections:** Periodically check all wiring connections to ensure they are secure and free from corrosion.
- **Environmental Protection:** While designed for rugged environments, protect the display from direct exposure to extreme weather conditions, excessive moisture, or prolonged direct sunlight when possible.

5. Troubleshooting

This section provides guidance for common issues you might encounter with your PV101-C display.

Display Not Powering On

- Check power connections to ensure they are secure and receiving the correct 12V or 24V supply.
- Verify that the vehicle's ignition or power switch is in the ON position.
- Inspect fuses in the power circuit.

No Data Displayed / Incorrect Readings

- Ensure all J1939 CAN bus connections are properly made and secure.
- Verify that the engine ECU is powered on and communicating.
- Check for active diagnostic trouble codes on the display; these may indicate a sensor or communication issue.
- Confirm the correct CAN bus Data Rate is selected in the display settings.

Alarm Indicators Active

- An amber LED indicates a warning condition. Check the display for specific fault codes and text descriptions.
- A red LED indicates a critical shutdown condition. Address the underlying issue immediately.
- Consult your equipment's service manual for detailed information on specific fault codes.

For persistent issues, contact a certified service technician or Murphy by Enovation Controls support.

6. Specifications

Specification	Value
Brand	Murphy by Enovation Controls
Model Number	PowerView PV101-C (78700615)
Item Weight	8 ounces
Package Dimensions	4 x 4 x 2 inches
Power Input	12 or 24-volt systems
Communication Protocol	SAE J1939, RS485
Max Components (RS485)	Up to 32
Compatibility	Backward compatible with PV100 and PV101-A
Replaces Model	PV101-C (78700439)

7. Warranty and Support

For detailed warranty information and technical support, please refer to the official documentation provided with your product or visit the Murphy by Enovation Controls website. Contact information for customer service and technical assistance can typically be found on the manufacturer's website or in the product packaging.