



by **ENOVATION** CONTROLS



Murphy CONNECT Installation Manual

Initial Release for U.S. Only

00-02-1150
Section 40
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In order to consistently bring you the highest quality, full-featured products, we reserve the right to change our specifications and designs at any time. The latest version of this manual can be found at novationcontrols.com.

Warranty - A limited warranty on materials and workmanship is given with this Murphy product. A copy of the warranty may be viewed or printed by going to www.novationcontrols.com/warranty



BEFORE BEGINNING INSTALLATION OF THIS MURPHY PRODUCT:

- Read and follow all installation instructions.
- Visually inspect this product before installation for any damage during shipping.
- Disconnect all electrical power to the machine. Failure to do this before welding can result in damage to the panel and/or its components.
- It is your responsibility to have a qualified technician install the unit and make sure the installation conforms to local codes including but not limited to double insulation and fire containment.
- Observe all Warnings and Cautions in each section of these instructions.
- The Murphy CONNECT product is a telemetry product designed for use in industrial environments for remote monitoring and control when used with Murphy's PowerCore® family of controllers.

Contact Enovation Controls Technical Service if you have any questions or concerns at: +1 918-317-4100.

IMPORTANT! Improper use and operation of electronic products can be dangerous. It is required that point-of-operation guarding devices be installed and maintained. All such devices must meet OSHA and ANSI Machine safety standards. The manufacturer shall not accept any responsibility for installation, application or safety of systems.

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The CONNECT device can be used for remotely starting an engine when used in conjunction with Murphy's PowerCore[®] controllers. Please be cognizant at all times of hands and other objects that are in close proximity to the machine(s) being controlled as they may commence operation suddenly and without warning.

Operations Manual Location

After installation, please review the Murphy CONNECT Telematics Operations Manual prior to placing the module into service. In order to access the Murphy CONNECT Telematics Manual please visit Support.enovationcontrols.com, and then search for Murphy CONNECT Telematics. The current manuals are listed under the Manuals section.

Hardware Installation

Inspecting Package Contents

Before attempting to install the product, it is recommended that you ensure all parts are accounted for and inspect each item for damage (which sometimes occurs during shipping). The items included in the box are:

Murphy CONNECT Telemetry Module – P/N 40-70-0525 includes:

- CONNECT Module
- Quick Start Guide
- Dual Antenna with GPS and Cellular, 9.5 ft.
- P/N 00-02-1150 Murphy CONNECT Installation Manual

Installation

Preparation

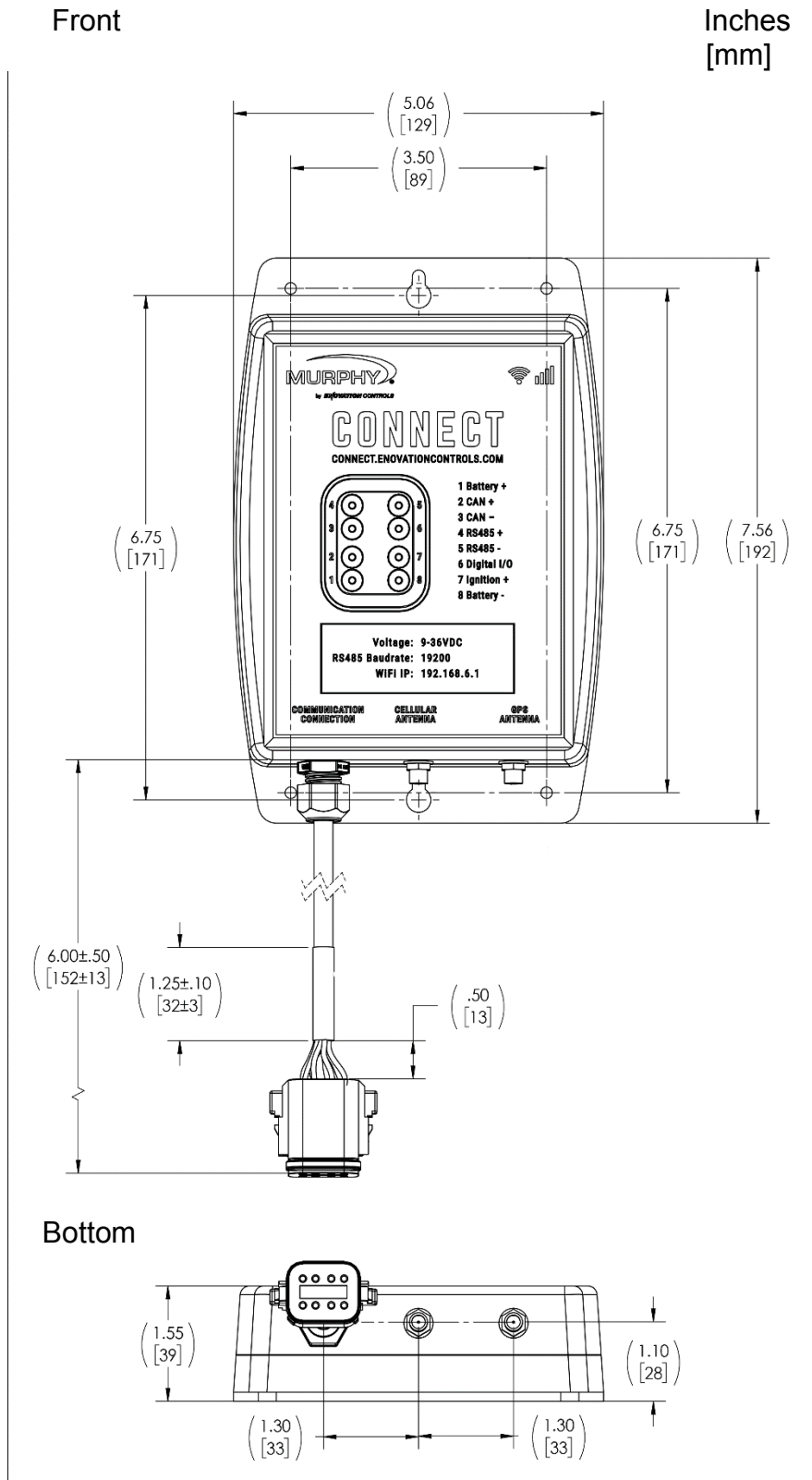
Determine the location of where the CONNECT module will be installed. Ensure there is proper room for the module to be mounted and the harnessing to be properly connected. Ensure the supplied antenna is mounted in a location exterior to the enclosed panel where cellular and GPS signals are readily accessible to the antenna.

Installing the Module

Place the back side of the Module through the opening in the panel.

1. Use the 4 screws to line up the unit with the drilled holes.
2. Ensure that the back of the case is flush.
3. Use the screws provided to attach the module. Use the appropriate wrench or socket to tighten. Torque screws to 7.5 inch pounds.

Dimensions for Installation



Wiring Instructions

PIN Specifications for 8 Position Amphenol Connection

| PIN | 8 Pin |
|-----|-------------|
| 1 | Battery (+) |
| 2 | CAN + |
| 3 | CAN - |
| 4 | RS485 + |
| 5 | RS485 - |
| 6 | Digital I/O |
| 7 | Ignition + |
| 8 | Battery - |

Wiring of this device must meet all applicable electrical codes.

When the accessory harness is used, the PowerCore controller in the panel will need the I/O established prior to use:

- TEC-10 and ML1000: Set the Digital Output 2 function to Ignition On (On in Standby).
- ML2000: Set the Digital Output 4 function to Ignition On (On in Standby).

NOTE: If the application is left in Auto mode, a battery maintaining system should be installed for possible battery drain due to parasitic loads of ancillary devices on the system.

Accessories

| Part # | Component |
|----------|--|
| 40000665 | 36" CONNECT Harness from PowerCore Panel to CONNECT Module |

Specifications

Electrical

Operating Voltage: 9-36 VDC, protected against reverse battery polarity

Max Voltage: -40 to +60 VDC

Power Consumption:

12 VDC: Transmitting: 265 mA

Idle: 135 mA

Off: 0.5 mA (Using IGN to turn off)

On: ~ 175 mA Average

24 VDC: Transmitting: 135 mA

Idle: 90 mA

Off: 0.5 mA (Using IGN to turn off)

On: ~ 115 mA Average

Communications

1-CAN: J1939 (future use)

RS485: Modbus RTU

Wi-Fi: 2.4 GHz 802.11 b/g/n (Troubleshooting)

Cellular: (LTE)

GPS: (Location Services)

Connection: CONNECT Connector: Amphenol AT06-08S

Mating Connector: Amphenol AT04-08PA

Deutsch DT04-08PA

Inputs (1):

(1) **Digital Inputs:** Future Use (Shared with Digital Output)

Outputs (1):

(1) **Digital Output:** Future Use (Shared with Digital Input)

Environmental

Operating Temperature: -30°C to +80°C (-22°F to 176°F)

Storage Temperature: -30°C to +80°C (-22°F to 176°F)

Protection: IP67

Vibration: Random vibration, 8.17 Grms (5-2000 Hz), in 3 axes (Vibration spec was met without the use of rubber isolation mounts)

Shock: 25g in 3 axes (shock specification was met without the use of rubber isolation mounts)

Mechanical

Case Material: Polycarbonate 94V-2

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