PowerView™ Model PV450

cCSAus, Class1, Division 2 Supplement

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 www.fwmurphy.com.

WARNING

FW MURPHY has made efforts to ensure the reliability of the Centurion controller and to recommend safe usage practices in system applications. Please note that in any application, operation and controller failures can occur. These failures may result in full control outputs or other outputs which may cause damage to or unsafe conditions in the equipment or process connected to the Centurion controller. Good engineering practices, electrical codes, and insurance regulations require that you use independent external protective devices to prevent potentially dangerous or unsafe conditions. Assume that the Centurion controller can fail with outputs full on, outputs full off, or that other unexpected conditions can occur.

BEFORE BEGINNING INSTALLATION OF THIS MURPHY PRODUCT:

Please read the following information before installing the PV450 display. This installation information is intended for PV450 and PV450NV displays only. Before installing, visually inspect the product for any damage during shipping.

Disconnect all power and be sure machine is inoperative before beginning installation.

Installation is to be done only by qualified technician.

Observe all Warnings and Cautions at each section in these instructions.

Device shall be wired in accordance with Class I, Division 2 wiring methods.

This equipment is suitable for use in Class I, Division 2, Groups B, C, and D hazardous Areas.

WARNING–Explosion Hazard–Substitution of components may impair suitability for Class I, Division 2.

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

Hardware Installation

The following instructions will guide you through installing the PV450 display.

> **NOTE:** This device must be installed within a system enclosure where the suitability of the overall assembly is determined acceptable by the Authorities Having Jurisdiction

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:

Installation kit – P/N 78-00-0877 includes:

- 4 ea. machine screws
- 4 Kept nuts
- 4 O-Ring
- 1 Dash mount gasket
- Read me first insert – P/N 00-02-0752
  (**http://forum.fwmurphy.com** Instruction and Operations manual)

Tools needed.

- Drill with 5/32" size bit
- Jig Saw
- Wrench or socket 6-32 Nylock nuts (provided) to studs

Prepare the PV450 Mounting Hole

Determine the PowerView 450 mounting location. Use the Installation Template (included at the end of the supplement) as a guideline to cut a hole in the dash to the specified dimensions. Drill holes where indicated on the template for the mounting screws.
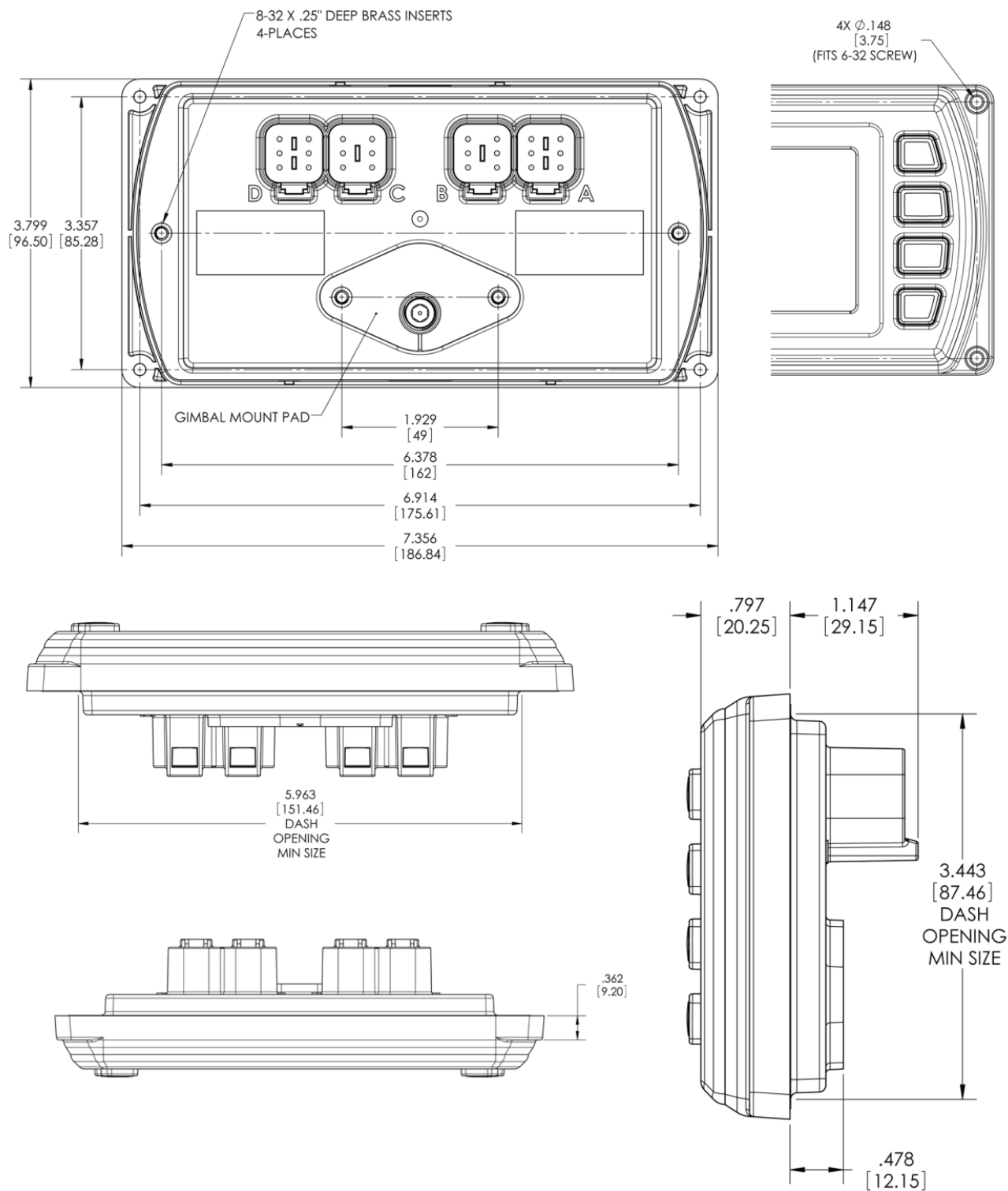
> **NOTE**: When using the paper template from the manual, please be aware that if you downloaded this document from the FW Murphy website, the pdf file might not automatically print to scale. When submitting the file for print, you will need to select "None" for Page Scaling. Check the accuracy of the printed template by verifying the measurements labeled on the template are correct.
>
> If this manual was supplied with your product, the template will be correct.

Installation of Display

1. Remove paper liner from gasket. Then apply the gasket onto the backside of the PV450 display. **Be sure not to wrinkle or stretched the gasket.**

2. Insert the O-ring onto each of the four screws.

3. Place the back side of the display through the cut-out opening.

4. Use the 4 screws to line up the unit with the drilled holes.

5. Push the unit through the opening and screws through the drilled holes until the back of the case is flush.

6. Use the kept nuts provided to tighten unit to the dash. Use the appropriate wrench or socket to tighten. Torque lock nuts to 5-6 inch pounds.

Dimensions for Installation

8-32 X .25" DEEP BRASS INSERTS
4-PLACES

4X Ø.148
[3.75]
(FITS 6-32 SCREW)

3.799
[96.50]

3.357
[85.28]

GIMBAL MOUNT PAD

1.929
[49]

6.378
[162]

6.914
[175.61]

7.356
[186.84]

5.963
[151.46]
DASH
OPENING
MIN SIZE

.362
[9.20]

.797
[20.25]

1.147
[29.15]

3.443
[87.46]
DASH
OPENING
MIN SIZE

.478
[12.15]

Specifications

Electrical

Display	Bonded 4.3" color transmissive TFT LCD
Resolution	WQVGA, 480 x 272 pixels, 16-bit color
Aspect Ratio	16:9
Orientation	Landscape or portrait
Backlighting	LED, 500-650 cd/m2 (30,000 hr lifetime)
Microprocessor	Freescale iMX35, 32bit, 532 MHz
Operating System	QNX Real Time
Flash Memory	256 MB
RAM	128 Mb DDR2 SDRAM
Operating Voltage	6 - 30 VDC, protected against reverse polarity and load-dump
Power Consumption	163mA Max @ 30VDC
CAN	Two CAN 2.0B
RS-485	1 MODBUS Master/Slave
Protocols	J1939, CANopen and proprietary CAN messages
Connection	4 Deutsch DT 6-pin connectors
Keyboard	8 tactile buttons
USB	USB 2.0 host (full speed)
Input	(1) Resistive, 0-5 V, or 4-20 mA (software configurable)
Video Input (optional)	Two NTSC/PAL input channels with one displayed at a time
Output	(1) open-drain, capable of sinking 500mA
Real-time Clock	With internal rechargeable Li-ion battery; >300 day date/time retention when not connected to power.

Environmental

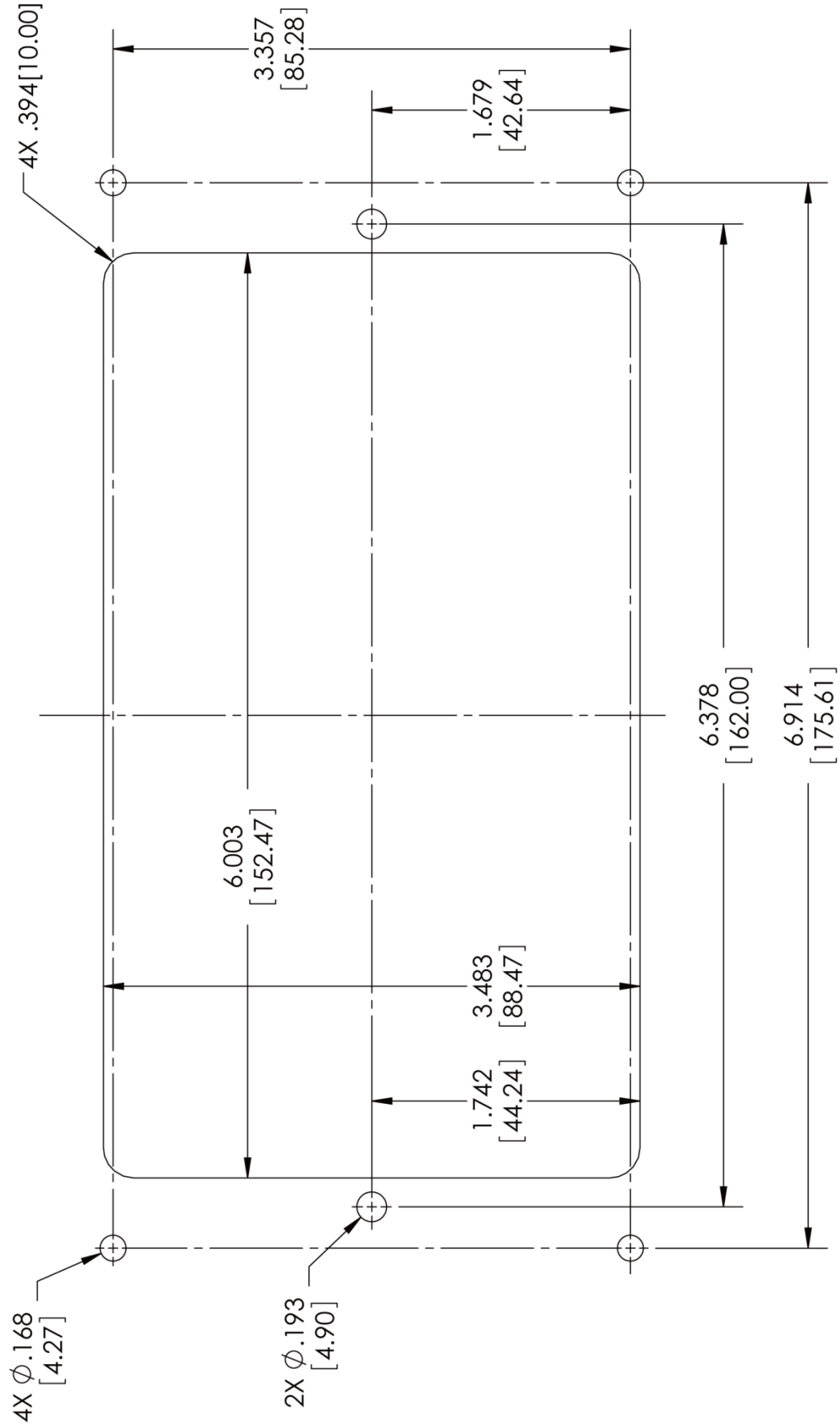|	
Operating Temperature	-40° C to +85° C
Storage Temperature	-40° C to +85° C
Protection	IP 66 front and back when installed within a system enclosure per installation instructions where the suitability of the overall assembly is determined acceptable by the Authorities Having Jurisdiction.
Emissions and Immunity	Electromagnetic Compatibility: 2004/108/EC J1113/2, 4, 11, 21, 26 and 41 • EN61000-6-4 • EN 61000-6-2 (immunity) • EN 501121-3-2 • EN 12895
Vibration	Random vibration, 7.86 Grms (5-2000 Hz), 3 axis
Shock	+/- 50G in 3 axis

Mechanical

Case Material	Polycarbonate back case

Certification

cCSAus	Class 1, Division 2, Groups B,C,D, T4

PV450 CUTOUT

4X .394[10.00]

3.357
[85.28]

1.679
[42.64]

6.378
[162.00]

6.914
[175.61]

6.003
[152.47]

3.483
[88.47]

1.742
[44.24]

4X ⌀.168
[4.27]

2X ⌀.193
[4.90]

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