



# OpenView<sup>®</sup> Model S70

Installation Manual

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 enovationcontrols.com.

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



#### BEFORE BEGINNING INSTALLATION OF THIS ENOVATION CONTROLS PRODUCT:

Read and follow all installation instructions.

Please contact Enovation Controls immediately if you have any questions.

# **Table of Contents**

Hardware Installation	
Inspecting Package Contents	9
Product Dimensions	9
Installation	11
Wiring Information	12
Pin Out Specifications	12
Configuration and Programming Information	13
Specifications	13

#### THIS PAGE INTENTIONALLY LEFT BLANK

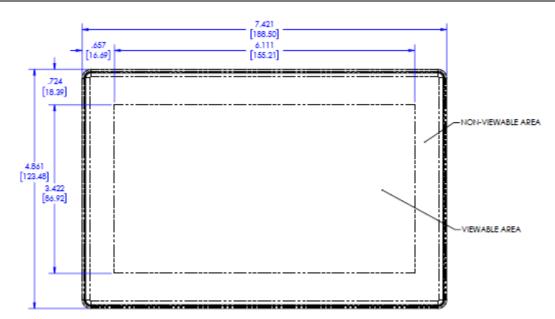
# Hardware Installation

The following instructions will guide you through installing the OpenView S70 display.

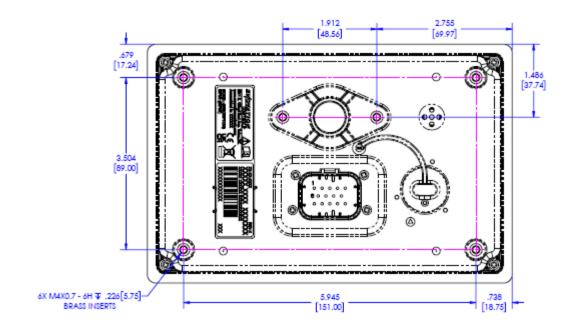
### Inspecting Package Contents

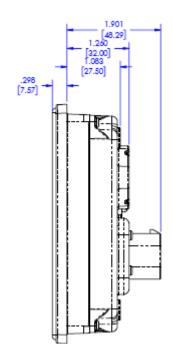
It is recommended that you ensure all parts are accounted for and inspect each item for damage (which sometimes occurs during shipping) before attempting to install the product. The items included in the box are:

- OpenView S70 unit
- Installation manual web reference insert



#### **Product Dimensions**





Measurements shown in inches [mm]

#### Installation

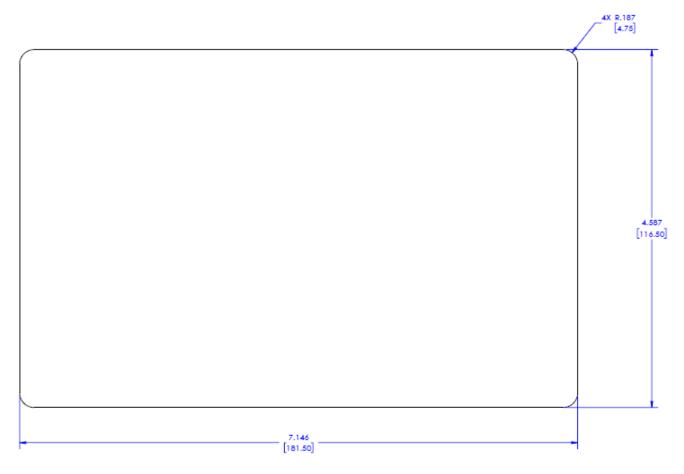
There are six M4x0.7 brass inserts on the back of the OpenView S70 which can be used to attach the display to a mounting surface. An optional installation kit (P/N 78001601) can be purchased separately to aid in mounting to flat panel surfaces.

Tools needed.

- Drill with 3/8 in. size bit
- Jigsaw

### **Preparing the Surface**

Determine the location of the OpenView S70 in the panel. Cut a hole in the dash to these dimensions: (For actual cutout template, see support.enovationcontrols.com, then search for OpenView S70)



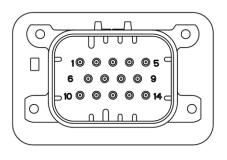
#### Mounting the Unit

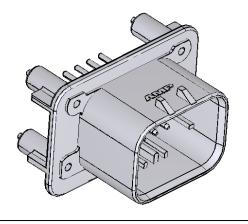
Use M4 machine screws (not provided) and the six M4x0.7 brass inserts on the back of the OpenView S70 to mount the display securely and to create a seal with the panel. Recommended torque for the M4 screws is 20 to 26 inch-pounds.

# Wiring Information

## **Pin Out Specifications**

14-pin Ampseal Connector		
1	GROUND	
2	RS485_A	
3	RS485_B	
4	CAN_HI	
5	DIG_OUT_2	
6	VBAT	
7	IGNITION	
8	CAN_LO	
9	N/C	
10	DIG_IN_1	
11	ANA_IN_1	
12	ANA_IN_2	
13	DIG_IN_2	
14	DIG_OUT_1	





On Back of Display: TE Connectivity AMPSEAL 776261-1 (Black)

The mating connector for the display is a TE Connectivity AMPSEAL 776273-1 (Black)



IMPORTANT NOTE: Per IEC 62368-1 requirement the equipment needs to be protected in case of excessive input power. It is recommended that an external fuse be added to the wiring to limit the input power to the device and remove the electrical energy completely in case of a fault. Adding an external fuse is a way of protecting your electrical devices from overcurrent or short circuits. It involves connecting a fuse holder and a fuse to an existing circuit, usually using a fuse tap or a wire splice. The fuse rating should match the current draw of the device you are powering.

This same recommendation should also be applied to the output pins due to 1) being powered separately and 2) their sinking current.

# **Configuration and Programming Information**

Please see the OpenPV<sup>TM</sup> Help Center to determine how to:

- prepare the OpenView S70 for firmware updates, and
- utilize the OpenPV<sup>™</sup> toolset for programming the display.

To find out more, go to - <u>OpenPV™ Software – Enovation Controls Help Center</u>

# **Specifications**

Computing			
Main Processor:	2x 650Mhz Arm Cortex A7 + GPU (OS/Graphics)		
Coprocessor:	1x 200Mhz Arm Cortex M4 (Real time control)		
Operating System:	Linux		
Storage:	4 GB Flash memory		
Ram:	512 MB DDR3-SDRAM		
Graphics:	Renesas graphics processor		
Display/HMI			
Туре:	7-inch, RGB IPS LCD w/ LED backlight 24bit color		
Resolution:	1024 x 600		
Contrast Ratio:	800:1 (typical)		
Brightness:	720 cd/m <sup>2</sup>		
Touch Panel:	Projected capacitive (PCAP) with glove touch		
Buzzer	For alarms and notifications. 80dB, Adjustable Frequency		

Continued

Interfaces		
CAN:	(1) CAN	
Serial:	(1) RS-485	
USB:	(1) USB-C with locking connector	
Wi-Fi:	802.11 b/g/n	
Bluetooth:	Bluetooth V4.2/EDR, and Bluetooth LE specification	
Electrical		
Operating Volts:	6-36 VDC, reverse polarity protected	
Outputs:	2x 500mA Low-side	
Inputs:	2x Resistive (0-5V)	
	2x Dig/Ana (0-36V)	
Environmental		
Operating Temperature:	-20°C to +70°C (-XX°F to +XXX°F)	
Storage Temperature:	-30°C to +70°C (-XX°F to +XXX°F)	
Protection:	IP65	
Vibration:	IEC 60068-2-64	
Shock:	IEC 60068-2-27	
EMC/EMI:	ISO 14982:2009, ISO 13766:2018	

### How to Order

The following OpenView S70 accessories are available through Enovation Controls:

Part Number	Description	Order Details
78700710	OpenView S70, 7" TOUCH-SCREEN	Display
78001601	Installation Kit	Accessories
TBD	Wire Harness	Accessories

- THIS PAGE INTENTIONALLY LEFT BLANK -

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. MURPHY products and the Murphy logo are registered and/or common law trademarks of Enovation Controls, LLC. This document, including textual matter and illustrations, is copyright protected by Enovation Controls, LLC, with all rights reserved. (c) 2023 Enovation Controls, LLC. A copy of the warranty may be viewed or printed by going to www.enovationcontrols.com/warranty

ENOVATION CONTROLS CORPORATE HEADQUARTERS 5311 S 122ND EAST AVENUE TULSA, OK 74146

ENOVATION CONTROLS LTD. – UNITED KINGDOM CHURCH ROAD LAVERSTOCK SALISBURY SP1 1QZ UK

SUN MURPHY INTERNATIONAL TRADING (SHANGHAI) CO., LTD B15 ROOM, 6# BUILDING, 351 SIZHUAN ROAD SONGJIANG DISTRICT, SHANGHAI 201601, CHINA

ENOVATION CONTROLS INDIA PVT. LTD. PLOT NO. 146, SECTOR 10, PCNTDA BHOSARI, PIMPRI CHINCHWAD PUNE - 411026 MAHARASHTRA, INDIA

#### U.S. SALES & SUPPORT

PHONE: 918 317 4100 EMAIL: SALES@ENOVATIONCONTROLS.COM WWW.ENOVATIONCONTROLS.COM

CONTACT US



#### **INTERNATIONAL SALES & SUPPORT**

EUROPE, MIDDLE EAST, AFRICA PHONE: +44 1722 410055 EMAIL: EMEASALES@ENOVATIONCONTROLS.COM

CHINA PHONE: +86 21 6237 5885 EMAIL: APACSALES@ENOVATIONCONTROLS.COM

INDIA PHONE: +91 91581 37633 EMAIL: INDIASALES@ENOVATIONCONTROLS.COM





1022QAP07 (India)