

ENOVATION[®]

CONTROLS[®]

A HELIOS TECHNOLOGIES COMPANY



PowerView[®]

Model 01 DISP0008

Product: PV700 TCS

Installation Manual

00-02-1424
2026-06-17
Section 78

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



WARNING

BEFORE INSTALLING THIS ENOVATION CONTROLS PRODUCT:

Read and follow all installation instructions.

Please contact Enovation Controls immediately if you have any questions.



This product can expose you to chemicals including lead, which is known to the State of California to cause cancer. For more information, go to www.P65Warnings.ca.gov.

Revision Table			
Date	Description	Date	Description
2026-03-30	Creation of the new TCS version Installation Manual		
2026-04-09	Added Regulatory Information Section		
2026-06-17	Added IP69K to the Protection Specification		

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Hardware Installation

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

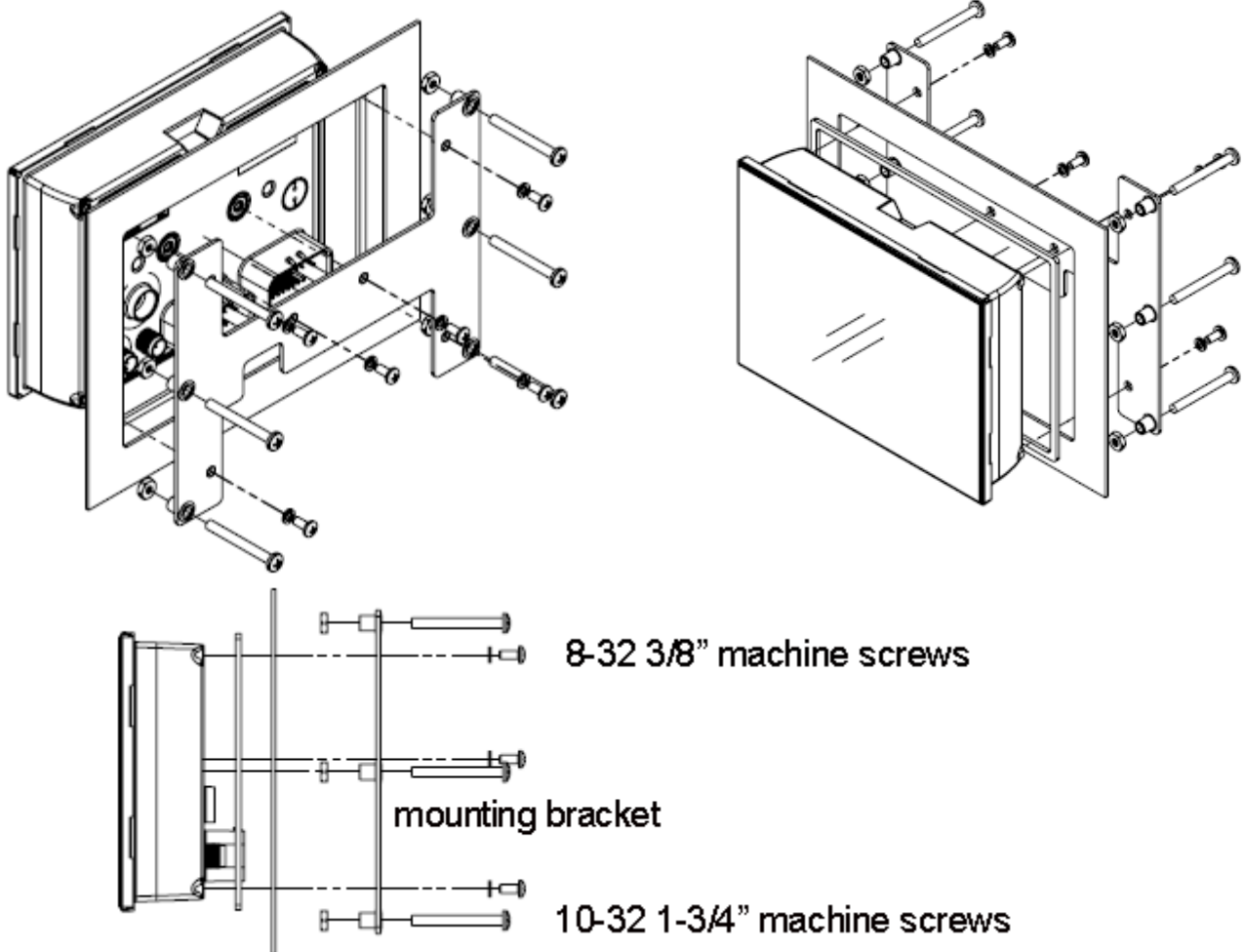
Notice: This product must be mounted so the enclosure is protected from UV rays.

Inspecting Package Contents

Before installing 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:

- Model 01DISPxxxx / PV700 TCS unit
- Installation manual web reference insert

Surface-Mounted Installation



Installation Kit – P/N 78051451 includes

- Mounting Bracket
- Gasket/Panel Seal
- Seven #8 washers
- Seven 8-32 machine screws
- Seven 10-32 nuts 3/8"
- Six 10-32 1-3/4" machine screws

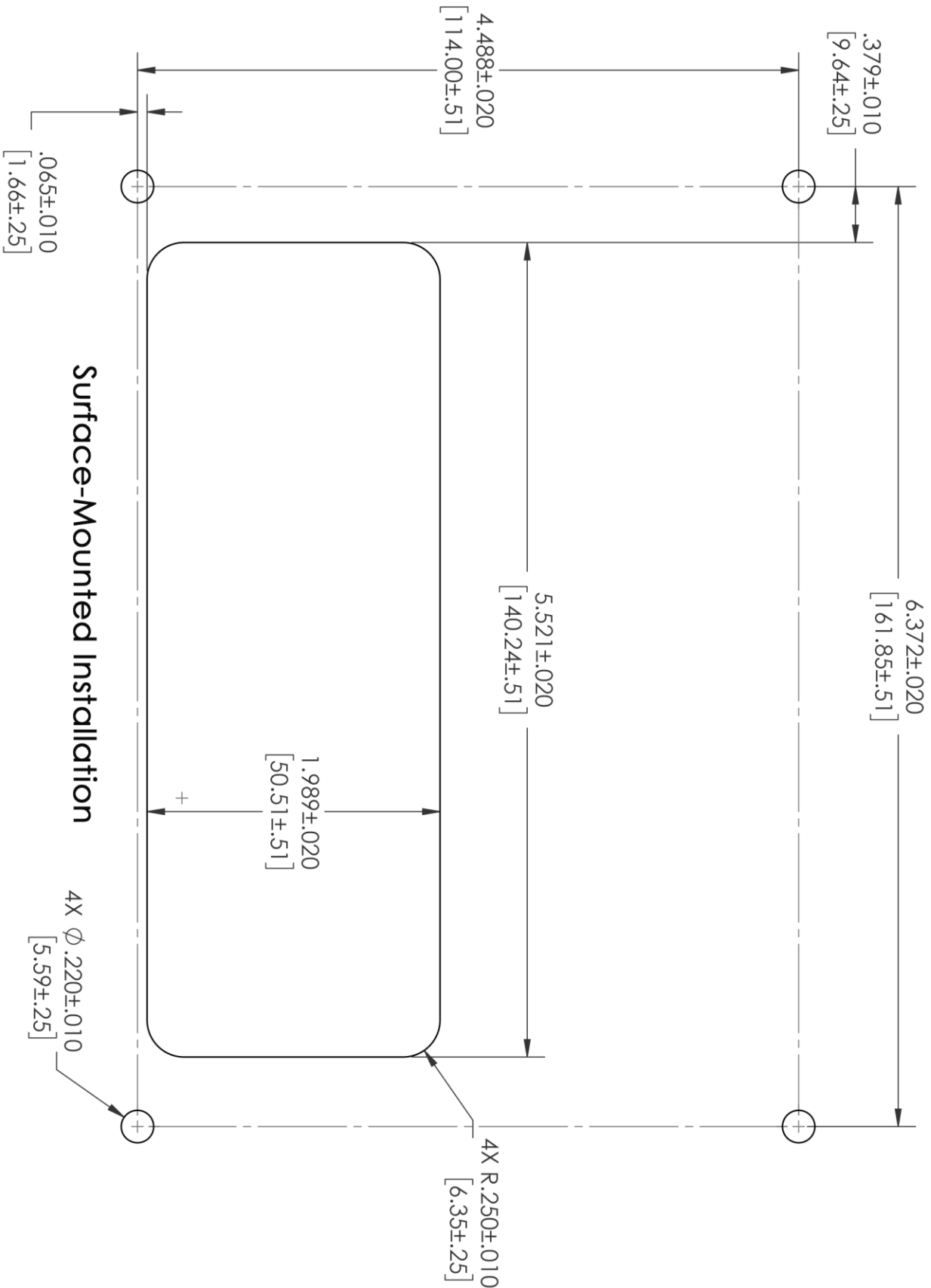
Tools needed.

- Drill with 7/32 in. size bit
- Jigsaw
- Screwdriver

Preparing the Dash

Determine the location of the PV700 in the dash. Cut a hole in the dash to these dimensions:

Surface Mount (Actual Size): (next page)

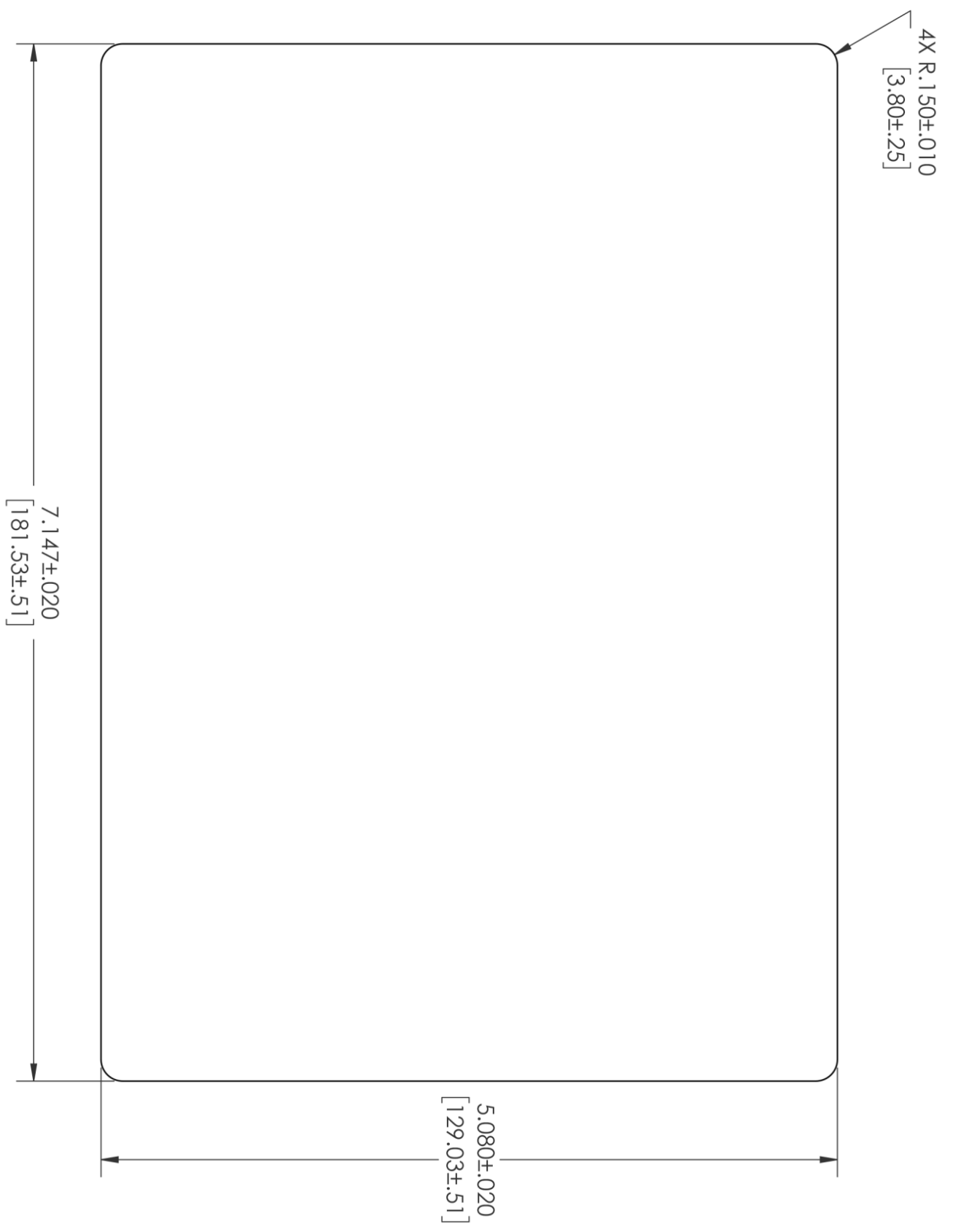


Surface-Mounting the Unit

1. Place the back side of the display through the opening so the display will sit on the face of the dash.
2. Use the included four long screws and locking nuts from the mounting kit (78051451) to attach the unit to the bracket.
3. Torque to 10 inch-pounds.

Flush-Mounted Installation (Actual Size)

Please see the next page:



Flush-Mounting the Unit

1. Slide seal over display.
2. Slide the display through the cutout.
3. Fasten backing plate to the display using the 6 short 8-32 screws. Torque to 10 inch-pounds.
4. Install the long 10-32 screws into the backing plate with locking nuts between the display and the plate.
5. Hand-tighten the screws to draw the display tight against the panel.
6. Torque to 3 inch-pounds then tighten locking nuts.

If using a compatible mounting kit, follow the manufacturer's installation instructions included with the kit.

Available Accessories for the PV700 TCS

The following PV700 TCS displays and accessories are available through Enovation Controls:

Part Number	Description	Order Details
78700651	PV700-TCS (Touch/Connected/Stereo) Model Number 01DISP0008	Display
78090098	Programming Kit, PV780/PV1200	Accessories
78051451	Kit, Mounting Bracket, PV700	
78001299	Audio/Video Harness	
78090069	Harness, PV750/PV700 Conversion, Power/CAN	Service

Optional Equipment for Certain PV700 Models

There are two HV/PV700 model numbers that will have a Bluetooth Range Extender module (03ACCY0002 / 78700656) attached to the display at our factory.

These model numbers are as follows:

- 78350794 HV700B
- 78700626 PV700-TCS with ICE-15

NOTE: When a Bluetooth Range Extender is installed, ensure the Settings menu controlling Bluetooth connectivity is turned on to look for an external Bluetooth signal. Contact Enovation Controls for assistance if needed.

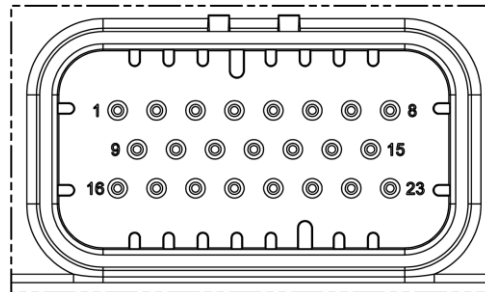
Pinout Specifications

Standard Version

Black Connector	
1	Digital Input 1
2	Analog Input 3 +
3	Analog Input 2 +
4	Analog Input 1 +
5	CAN1 Low
6	CAN1 High
7	Battery
8	Ground
9	Analog Input 3 -
10	Analog Input 2 -
11	Analog Input 1 -
12	Digital Input 3
13	Digital Input 2
14	Frequency Output 1
15	Ignition On
16	N/A
17	N/A
18	CAN2 Low
19	CAN2 High
20	Digital Input 4
21	Digital Input 5
22	Digital Output
23	Frequency Output 2



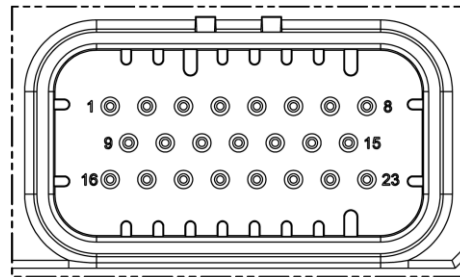
Mating Connector
AMP 770680-1



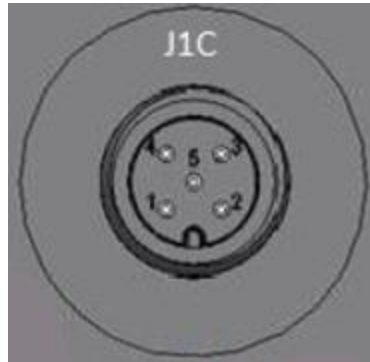
Blue Connector	
1	Frequency In
2	N/A
3	N/A
4	Video 4 In P
5	Video 3 In P
6	Video 2 in P
7	Video 1 in P
8	N/A
9	Frequency In Return
10	12V Output
11	Video 4 In N
12	Video 3 in N
13	Video 2 In N
14	Video 1 In N
15	N/A
16	N/A
17	N/A
18	N/A
19	N/A
20	N/A
21	N/A
22	N/A
23	N/A



Mating Connector
AMP 770680-5



Ethernet (M12) Connector	
1	Ethernet TX+
2	Ethernet RX+
3	Ethernet TX-
4	Ethernet RX-
5	Ethernet Ground



M-12, 5-pos, A-coded, Plastic Knurl Connector

3Pin D code M12 Connector	
1	N/A
3	N/A
4	N/A



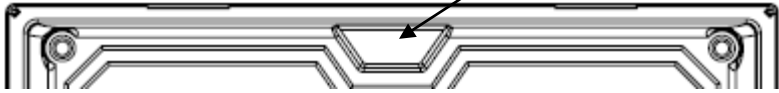
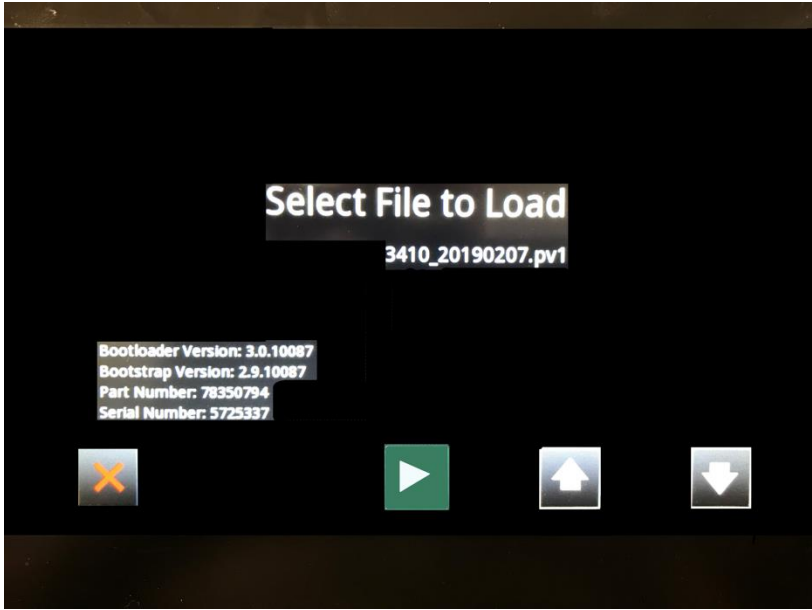
Pigtail Options
USB
Radio Antenna (Optional)
Aux Input (Optional)




This product is protected by a 2A fuse. Replace only with a similar style 2A fuse.

Configuration Information

Follow these steps to download a custom configuration to the PV700 TCS display:

Step	Action
1	Turn off the display.
2	Insert the USB drive that contains the new configuration file into the display's attached USB pigtail.
3	Place a magnet into the notch shown here on the upper middle side of the back of the display: 
4	Power the display back on, continually holding the magnet in place.
5	Remove the magnet when the display shows the utility for loading new software. 
6	Touch the up or down arrow keys on the screen until the appropriate configuration file from the USB to be loaded into the display is shown on the screen.
7	Press the right arrow/green arrow key on the screen twice to load the selected configuration.
8	Once completed, the unit will reboot into the loaded application.

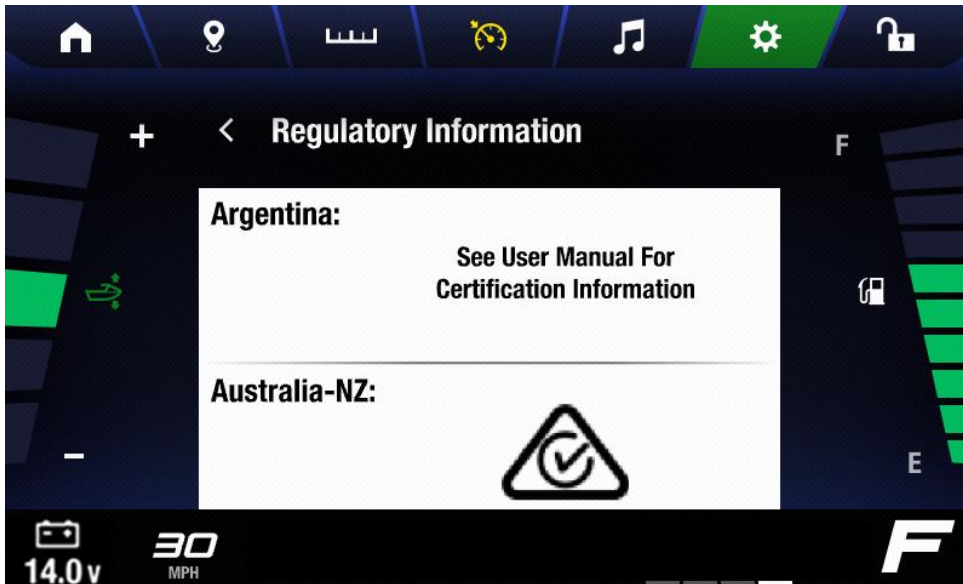
Regulatory Information

To display the regulatory information, touch the Settings button  on the display and scroll to Regulatory Info.

The following certifications will be listed. Scroll down via the d-pad or by touching this screen and moving your finger up (scrolling up).

Touch the back arrow to return to the Settings screen.

The display will appear similar to the following, and the individual PV700TCS certifications are shown below the screenshot:



1. CHINA

China	Enovation Controls, LLC Model: 01DISP0008 CMIIT ID:
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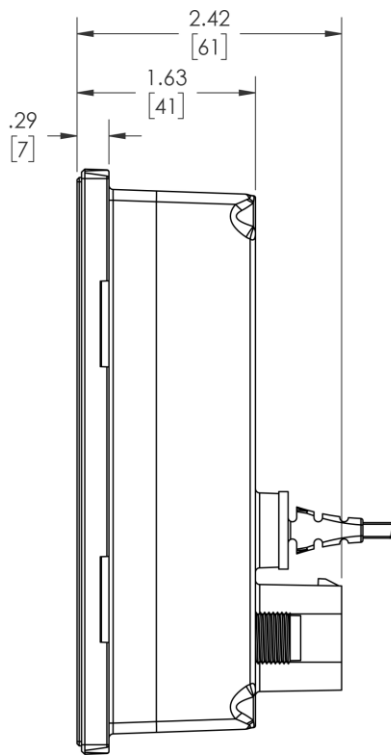
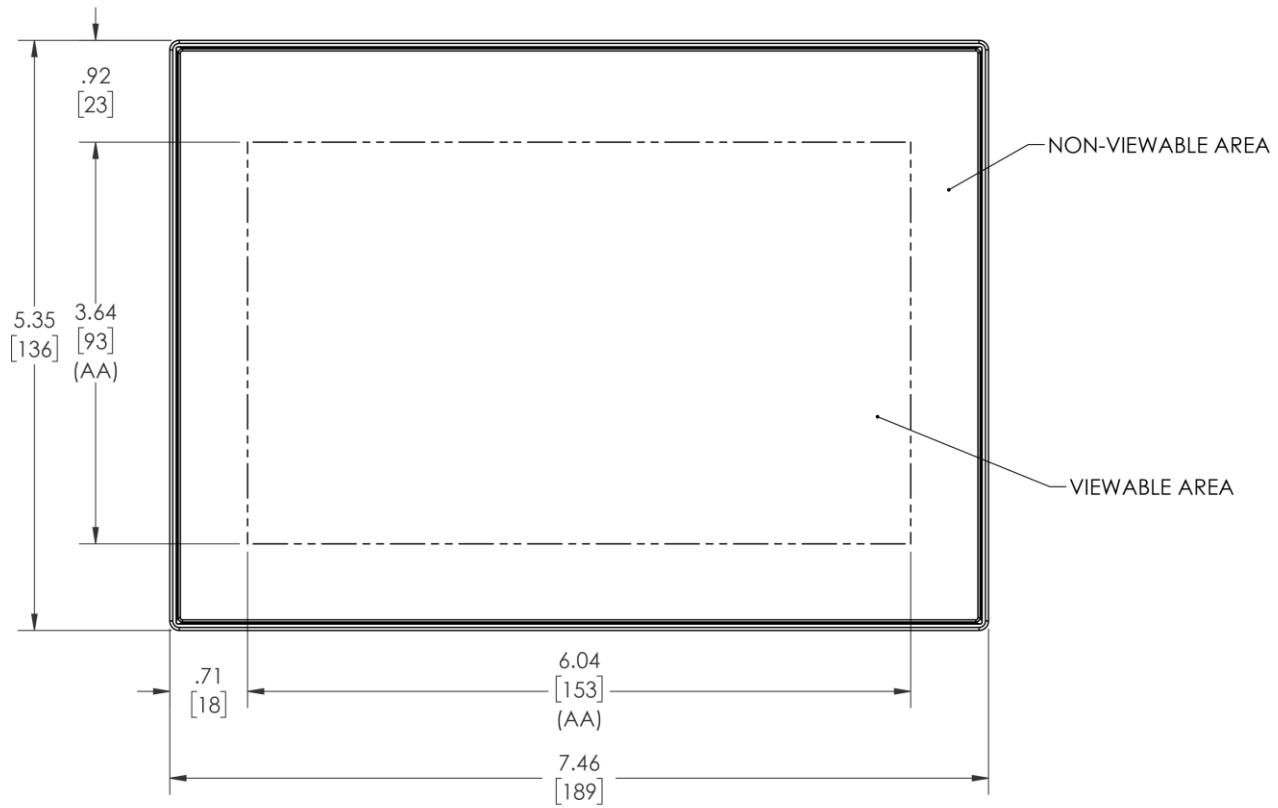
Specifications

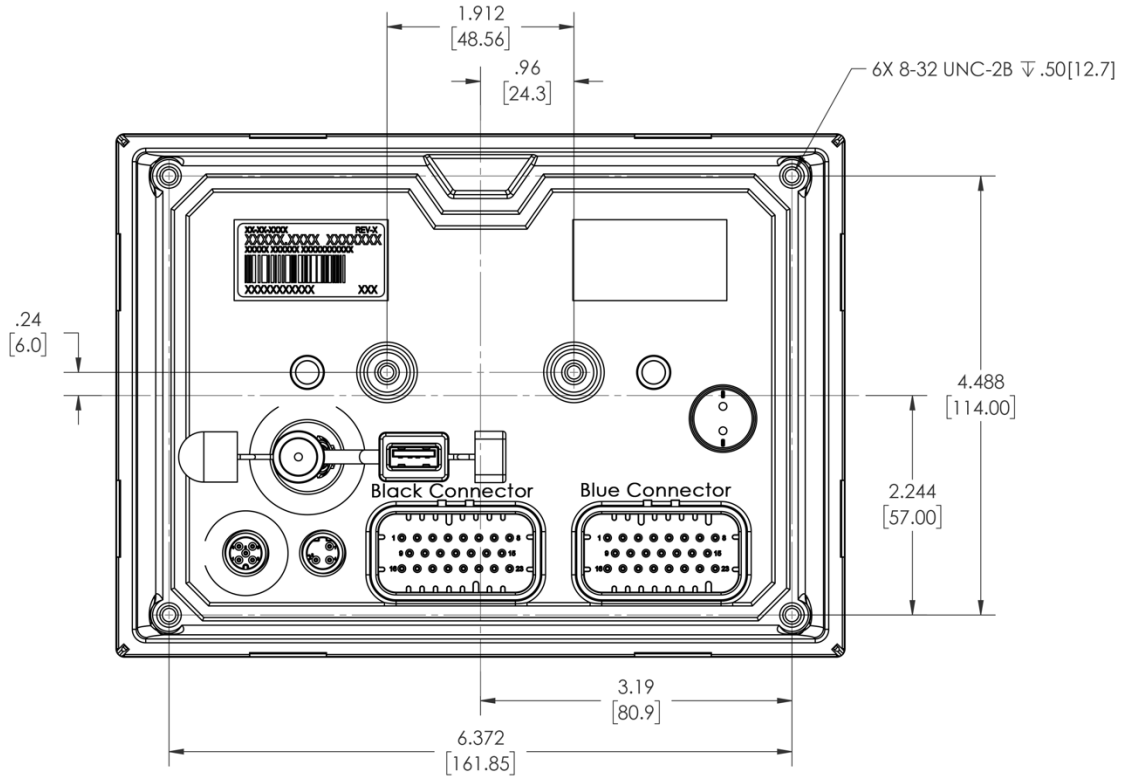
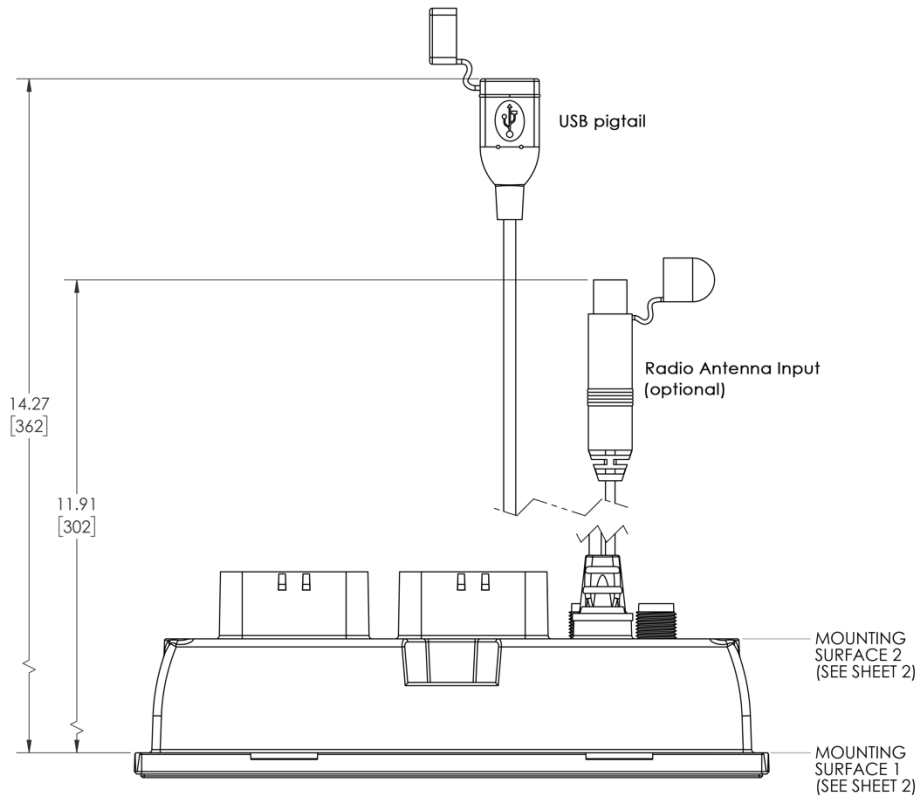
Computing	
Main Processor:	Renesas® R-Car M2 with Arm® Cortex-A15 dual core processor @ 1.5 GHz (32-bit)
Operating System:	QNX® Real-time Operating System
Storage:	8 GB flash memory
Ram:	512 MB DDR3-SDRAM
Display	
Type:	7" (178mm) LED backlight LVDS TFT LCD 16-bit color
Resolution:	WVGA, 800 x 480 pixels
Contrast Ratio:	600:1 (typical)
Brightness:	1000 cd/m ²
Surface:	Anti-glare and hard coating
Touch Panel:	Projected capacitive (PCAP) with glove touch
Hardware	
Real-time Clock:	Li-Ion battery backup (Typ. Lifespan minimum 10 years), non-rechargeable, non-replaceable
Connectors:	(2) Ampseal 23 pin (1) M12, 5-pin (1) M12, 3-pin (1) USB pigtail (1) Antenna Connector pigtail
Video Inputs:	(4) NTSC/PAL (Single channel viewable)
Audio Outputs (Optional)	(1) Sub (2) Line-Out

Continued

Communication	
CAN:	(2) CAN 2.0B according to ISO 11898-2, J1939 and CANopen, proprietary messaging
USB:	(1) USB 2.0 Full Speed Host
Ethernet:	(1) X Ethernet 10/100 Base-T (only available on the PV700-TCS)
Wi-Fi:	802.11 b/g radio (only available on the PV700-TCS)
Bluetooth:	Fully integrated Bluetooth 2.1, Class 1 (only available on the PV700-TCS)
Electrical	
Operating Voltage:	6 – 30 VDC, reverse polarity protected 1.1A Max at 12V, Standby 0.03mA
Outputs:	(1) 500 mA Switched Low-side (2) Frequency Out (2Hz – 3kHz)
Inputs:	(3) Analog 0-5 VDC, 4-20 mA, or resistive, 10-bit resolution (5) Discrete digital, active-high, switch to Battery Positive (1) Frequency In (0.5Hz – 20kHz) 5V offset, 2VAC to 120VAC
Environmental	
Operating and Storage Temps:	-40°C to +85°C (-40°F to +185°F)
Protection:	IP66, IP67, and IP69K
Vibration:	Panel Mount: 7.86 Grms (5 – 2000Hz), 3 axes Ram Mount: TBD
Shock:	Panel Mount: ± 50G in 3 axes Ram Mount: TBD
EMC/EMI:	SAE J1113 ISO 7637-2 ISO 11452 ISO 13766 ISO 16750-2 CISPR 25 EN 13309 CE Mark per 2014/30/EU (EN 61326-1 & EN 60945)

Dimensions





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