

Installation Instructions

Installing InView Marquee 2706-P9xC2-SC Message Displays



Catalog Number: 2706-P92C2-SC, 2706-P94C2-SC

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Important User Information

Solid state equipment has operational characteristics differing from those of electromechanical equipment. Because of this difference, and also because of the wide variety of uses for solid state equipment, all persons responsible for applying this equipment must satisfy themselves that each intended application of this equipment is acceptable.





In no event will Spectrum Controls, Inc. be responsible or liable for indirect or consequential damages resulting from the use or application of this equipment.





The examples and diagrams in this manual are included solely for illustrative purposes. Because of the many variables and requirements associated with any particular installation, Spectrum Controls, Inc. cannot assume responsibility or liability for actual use based on the examples and diagrams.

No patent liability is assumed by Spectrum Controls, Inc. with respect to use of information, circuits, equipment, or software described in this manual.

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Throughout this manual, when necessary, we use notes to make you aware of safety considerations.

<p>WARNING</p> 	<p>Identifies information about practices or circumstances that can cause an explosion in a hazardous environment, which may lead to personal injury or death, property damage, or economic loss.</p>
<p>NOTE</p> 	<p>Identifies information that is critical for successful application and understanding of the product.</p>
<p>SHOCK HAZARD</p> 	<p>Labels may be on or inside the equipment, for example, a drive or motor, to alert people that dangerous voltage may be present.</p>
<p>BURN HAZARD</p> 	<p>Labels may be on or inside the equipment, for example, a drive or motor, to alert people that surfaces may reach high temperatures.</p>

<p>AVERTISSEMENT</p> 	<p>Actions ou situations risquant de provoquer une explosion dans un environnement dangereux et d'entraîner des blessures pouvant être mortelles, des dégâts matériels ou des pertes financières.</p>
<p>NOTE</p> 	<p>Informations particulièrement importantes dans le cadre de l'utilisation du produit.</p>
<p>DANGER D'ÉLECTROCUTION</p> 	<p>Les étiquettes ci-contre, placées sur l'équipement ou à l'intérieur (un variateur ou un moteur, par ex.), signalent la présence éventuelle de tensions électriques dangereuses.</p>
<p>RISQUE DE BRÛLURE</p> 	<p>Les étiquettes ci-contre, placées sur l'équipement ou à l'intérieur (un variateur ou un moteur, par ex.), indiquent au personnel que certaines surfaces peuvent atteindre des températures particulièrement élevées.</p>

Overview


These instructions show you how to mount InView 2706-92C2-SC and 2706-94C2-SC signs with NEMA Types 4, and 4X enclosures. These signs are intended for indoor use.

- Type 4 enclosures are intended to provide a degree of protection against windblown dust and rain, splashing water, and hose-directed water.
- Type 4X enclosures are intended to provide a degree of protection against corrosion, windblown dust and rain, splashing water, and hose-directed water.

Wire and Safety Guidelines

Install the InView display conforming to all locally in effect, Electrical Safety Requirements for Employee Workplaces. In addition to the NFPA general guidelines, refer to the following:

- Careful cable routing helps minimize electrical noise. Route incoming power to the module by a separate path from the communication cables.
- Wire used for installation must be rated higher than 75° C (167° F) or 15° C (59° F) above ambient temperature.

<p>NOTE</p> 	<p>You can configure your InView Communications module or Messaging software without having an InView display connected.</p>
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Description of the 2706-P92C2-SC and 2706-P94C2-SC Displays

There are two InView C2 models, 2706-92C2-SC and 2706-94C2-SC. These displays provide 10, user-selectable colors for fonts and bitmaps. The displays provide a 1800 NITs brightness level. Power consumption is also much lower than the previous models of P9 InView displays. The resolution is 6.25 mm versus 7.5 mm. You may scroll images and characters from right-to-left, or left-to-right, depending on the language. The displays comply with NEMA 4 and IP66 housing standards.

NOTE

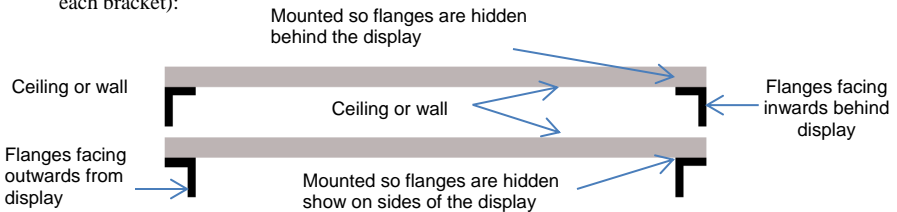


If you use the equipment in a manner not specified by Spectrum Controls, Inc. may impair the protection provided by the equipment.
Mount the sign so that it is easy to disconnect power when servicing.

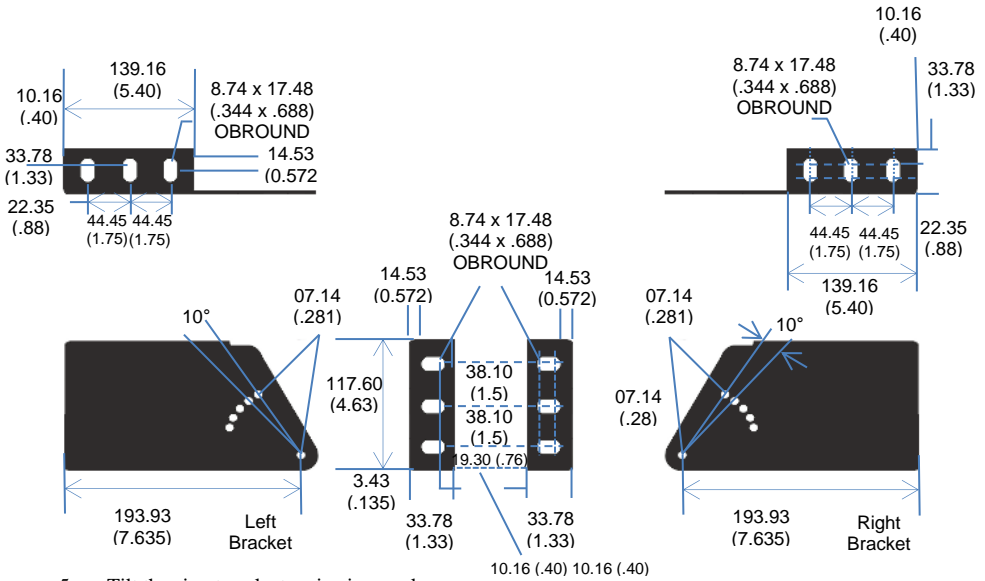
Mounting the 2706-P92C2-SC and 2706-P94C2-SC Displays

To mount the sign:

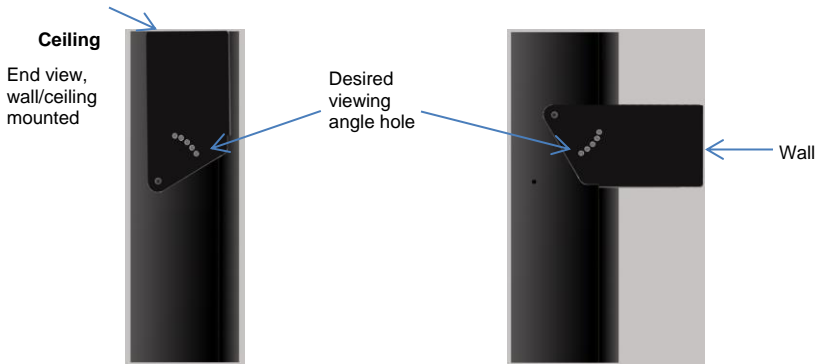
- Attach the two sign brackets to a metal post, wall, ceiling, or other surface with sufficient weight bearing rating. It is preferable that you install the display on metal posts attached directly to studs. **Never** install the brackets only on sheetrock with toggle bolts:
 - If installing directly onto a wall or ceiling, use two 5/16-inch lug bolts and washers per bracket, screwed at least one-inch into the center of wood studs. The washer must be snug against the bracket. The bracket must be snug against the sheetrock or other wall surface.
 - If a wooden stud is not available in the correct spot, use 3/4 -inch thick plywood or a 3/4-inch metal backing plate attached to studs to secure the bracket.
- Be sure to place the brackets so the bracket flanges face appropriately as shown below. Mount the brackets the following distance apart (measured from the center of the mounting holes in each bracket):



- Mount the sign onto the sign brackets using the two hex bolts supplied.
- Insert the bolts into the far single holes first, until the desired viewing angle is determined. Dimensions are shown in mm (in) approximately.



5. Tilt the sign to select a viewing angle.
6. To hold the sign in place, insert the remaining bolts into the desired viewing angle hole on each bracket.



NOTE



Keep a minimum 2.54 cm (1.0 in.) clearance on all sides of the sign for adequate ventilation.

Back-to-Back Mount

To connect the sign:

1. Attach the brackets to the sign in the ceiling mount position with the hex bolts supplied.



2. Match the signs together back-to-back and connect them together using a total of six 5/16" bolts and nuts (not supplied).
3. Attach chains (not supplied) to the top mounting holes of the bracket to hang the signs from the ceiling.

NOTE



Use chains capable of supporting 4 times the total weight of the signs.

Wiring the 2706-P92C2 and 2706-P94C2-SC Displays

WARNING



Hazardous voltage.

Contact with high voltage may cause death or serious injury.

Always disconnect power to the InView display prior to servicing.

Maintain separation of circuits. Route the incoming power directly to the power connections terminal block.

Do not run the power wiring over the logic board.

WARNING



Tension dangereuse.

Toucher un câble a haute tension peut provoquer la mort ou des blessures graves.

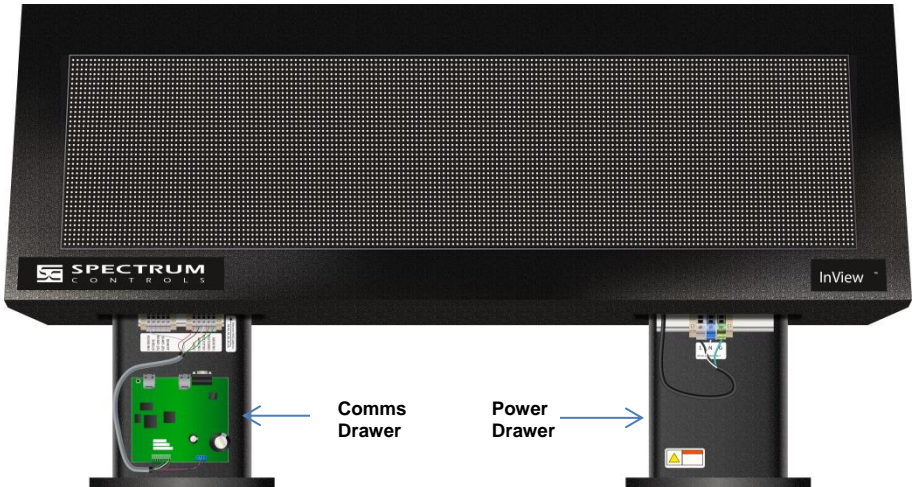
Sortir la prise d'alimentation de l'afficheur avant de le réparer.

Maintenir la séparation des câbles.

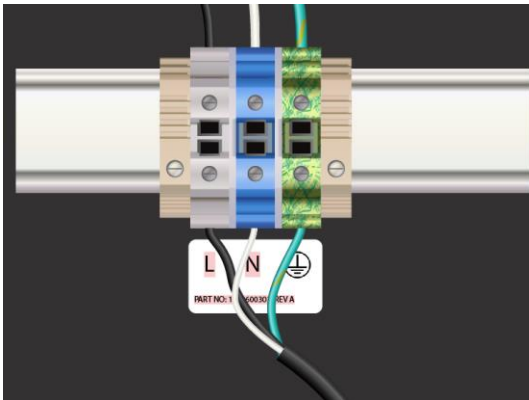
Brancher le câble d'alimentation directement au bornier d'alimentation électrique.

Ne pas faire cheminer le câble d'alimentation le long de la carte

1. Disconnect power to the InView display.
2. Loosen the right-hand drawer by unscrewing its 4 screws until you can pull the drawer out. Set the screws aside for later step.



3. Connect power conduit through the power drawer conduit opening on the left side of the drawer. Pull wires through the conduit and wire as shown below. Ensure you follow all applicable, local, electrical codes for completion of the wiring.
4. The InView Display power terminal block in the right-hand drawer is rated for wire ranges of 20 to 6 AWG for the power wiring. Strip the electrical wires back 6.35 mm (0.25 in).
5. Insert the wires into the appropriate terminal connection as shown below and tighten the screw to 1.47 to 1.7 N-m (13 to 15 in-lbs). Enlarged label is shown following image below:





Wire Color	Wire Name
Black	Line (Hot) connect to L (White terminal)
White	Neutral connect to N (Blue terminal)
Green	Ground connect to G (Green and Yellow terminal)

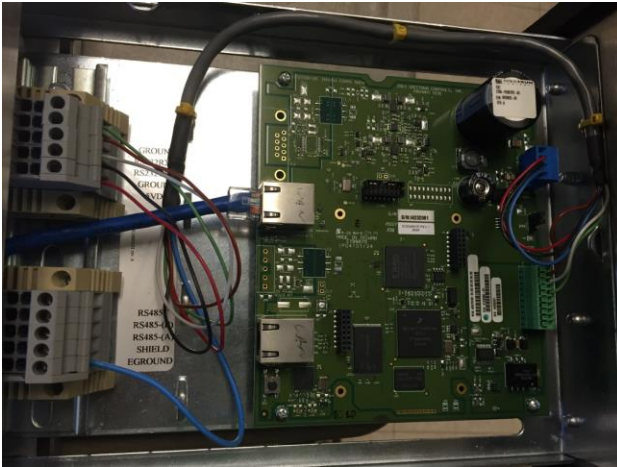
- If you are installing a Communications Module in the left-hand drawer, install it now (refer to the 0300289-0n_A0(Users_Guide_InView_COMMS_MODULE) manual) for additional details.

NOTE

Cable tie locations are supplied within the drawer to help ensure loose wires are not obstructed by adjacent mechanical obstructions.

- Route the Comms cable and tie down the cable as shown below. The cable must be kept above the board until it is past the slots in the drawer. Individual wires must also be kept clear of the slots. The InView Comms Module screws must be torqued to 0.68 N-m (6.0 in-lbs \pm 0.100).

8. Route sixteen inches of the Ethernet cable inside the closure and between the two terminal blocks as shown. This avoids a tight curve in the cable.



9. Use the 0300289-0n_A0(Users_Guide_InView_COMMS_MODULE) manual to complete setup.
10. Replace the drawers using the 4 screws. Torque the screws to 1.8 N-m (16 in-lbs) for NEMA 4 models, and 3 N-m (26.5 in-lbs) for NEMA 4X models.
11. Connect the power wiring to a power source.

Specifications

Display Specifications	2706-P92C2-SC	2706-P94C2-SC
Active Display Area	39.37 in × 9.84 in (100 cm × 25 cm)	68.90 in × 9.84 in (175 cm × 25 cm)
Array/ Pixel pitch	160 × 40 pixels/ 6.25 mm pitch	280 × 40 pixels/ 6.25 mm pitch
Lines of Text/ Character height/ Max characters per line	40H/1 line/9.9 in/7 32H/1 line/7.25 in/20 20H/2 lines/4.75 in/8 16H/2 lines/3.56 in/20 3 lines/3.0 in/13 4 lines/2.25 in/20 5 lines/1.75 in/24	40H/1 line/9.9 in/12 32H/1 line/7.25 in/35 20H/2 lines/4.75 in/14 16H/2 lines/3.56 in/35 3 lines/3.0 in/13 4 lines/2.25 in/20 5 lines/1.75 in/24
Default Brightness Setting	1,800 Nits	
Colors	10 colors	
Viewing Distance	450 ft (137 m)	
Character Set	Standard and extended ASCII	

Display Specifications	2706-P92C2-SC	2706-P94C2-SC
Physical Dimensions	44.8 in W 15.7 in H 5.2 in D 113.8 mm W 39.9 cm H 132 cm D	74.3 in W 15.7 in H 5.2 in D 188.8 cm W 39.9 cm H 13.2 cm D
Unit Weight	62 lbs/28.13 kg	93.5 lbs/42.41 kg
Packaged (Shipping) Weight	74 lbs/33.64 kg	111 lbs/50.45 kg
Electrical and Environmental Specifications		
Input Voltage	100-264 VAC 50/60 Hz	100-264 VAC 50/60 Hz
Power Consumption (blank display)	20 W	35 W
Typical Power Consumption (35% lit) Full brightness	50 W	90 W
Typical Power Consumption (35% lit) Default brightness	35 W	62.5 W
Maximum Power Consumption Full brightness	160 W	280 W
Enclosure Rating	NEMA 4 / IP66	NEMA 4 / IP66
UL Safety	UL 61010-2-201 Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use - Part 2-201: Particular Requirements for Control Equipment (NRAQ, NRAQ7) cUL CAN/CSA C22.2 No. 61010-1-12 (Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use—Part 1: General Requirements)	
UL Hazardous Locations	ULH ANSI/ISA–12.12.01–2007 Nonincendive Electrical Equipment for Use in Class I, Division 2 Hazardous (Classified) Locations (NRAG, NRAG7)	
CE Compliance	EMC Directive 2014/30/EU Low Voltage Directive 2014/35/EU	
Storage Temperature	-40° C to 85° C (-40° F to 185° F)	
Relative humidity (operating)	5% to 95% non-condensing	

2706-P9xC2 Display Language Message Formatting Codes

The following message formatting codes have been added for the C2 displays:

Mode		
Description	ASCII	Hex
Rotate right	A	41
Justification		
Description	ASCII	Hex
Right	^^2	IE32
Message Attributes		
Description	ASCII	Hex
20High	^Z2	IA32
20Fancy	^Z4	IA34
40High	^Z<	IA3C
40Fancy	^Z=	IA3D
Character Color		
Description	ASCII	Hex
RGB Color	^\Zrrggbb	IC5Arrgbb Where: rr=ASCII hex value (00 - FF) for red channel gg=ASCII hex value (00 - FF) for green channel bb=ASCII hex value (00 - FF) for blue channel
Character Width/Height		
Description	ASCII	Hex
Bold	^Q^]01	111D3031

Additional Resources

Resource	Description
InView Communication Module User Manual, Publication 0300289-05	Provides all setup information for the InView Communications module.
All other InView Manuals	http://spectrumcontrols.com/InView.htm
Declaration of Conformity	http://spectrumcontrols.com/InView.htm

You can view or download publications at <http://www.spectrumcontrols.com>

Getting Technical Assistance

Note that your display contains electrostatic components that are susceptible to damage from electrostatic discharge (ESD). An electrostatic charge can accumulate on the surface of ordinary wrapping or cushioning material. **In the unlikely event that the display should need to be returned to Spectrum Controls, Inc., please ensure that the unit is enclosed in approved ESD packaging (such as static-shielding/metallized bag or black conductive container).** Spectrum Controls, Inc. reserves the right to void the warranty on any unit that is improperly packaged for shipment.

RMA (Return Material Authorization) form required for all product returns.

Please note that Spectrum Controls, Inc. contracts with Rockwell Automation TechConnect telephone support. There is no cost to Spectrum Controls, Inc. customers to use this technical support as the service is funded by Spectrum Controls, Inc. for all InView customers.

For further information or assistance, please contact your local distributor, or call the Spectrum Controls, Inc. technical support at:

- United States: 1-440-646-6900
- United Kingdom: 01908-635230
- Australia: 1800-809-929
- Brazil: 011 (55) 11 3619 8800
- Mexico: 001-888-365-8677
- Europe: (49) 2104 960 630

or send an email to support@spectrumcontrols.com

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