

Safety Information

WARNING: To minimize the risk of potential safety problems, you should follow all applicable local and national codes that regulate the installation and operation of your equipment. These codes vary from area to area and it is your responsibility to determine which codes should be followed, and to verify that the equipment, installation, and operation are in compliance with the latest revision of these codes.

Equipment damage or serious injury to personnel can result from the failure to follow all applicable codes and standards. We do not guarantee the products described in this publication are suitable for your particular application, nor do we assume any responsibility for your product design, installation, or operation.

If you have any questions concerning the installation or operation of this equipment, or if you need additional information, please call us at 1-800-633-0405 or 770-844-4200.

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What's in the Box

- Included in the shipping carton are the following:
- The ViewMarq LED Message Display Unit
 - Mounting Brackets
 - Two Wall mount bracket assemblies with hardware (disassembled)
 - Two Chain mount brackets with hardware (disassembled)
 - Back Covers
 - Power Back Cover
 - 1/2" cable gland for power cable (with 10 mm grommet installed)
 - Communication Back Cover
 - Two 1/2" cable glands (6 mm and 10 mm grommets installed)
 - 3/4" cable gland (with 6 mm split grommet installed)
 - Two cable gland plugs (1 – 6 mm, 1 – 10 mm)
 - Accessories
 - 7 ft Ethernet Patch Cable
 - This Installation Guide

Power Wiring

The ViewMarq LED message display can accept either DC power (24 VDC) or AC power (120 or 240 VAC). There is a power terminal for each.

AC Power Input

Model	Max Input Power
MD4-0112T-1	22 W
MD4-0124T-1	38 W
MD4-0212T-1	
MD4-0224T-1	74 W
MD4-0412T-1	
MD4-0424T-1	123 W

DC Power Input

Model	Max DC Current
MD4-0112T-1	1.0 A
MD4-0124T-1	1.5 A
MD4-0212T-1	2.0 A
MD4-0224T-1	
MD4-0412T-1	3.5 A
MD4-0424T-1	4.0 A

Power Supply Tightening Torque		Power Supply Required Wire Specification	
Power Supply Wire Connection	4.5 in-lbs (0.5 N-m)	Supported Temperature	75 °C
		Wire Material	Copper - solid or stranded
		Wire Size	12 - 14 AWG

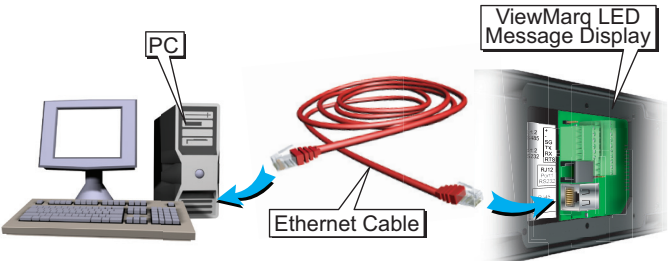
Agency Approvals

UL/CUL/CE Certification Numbers		
Name	UL61010, 61010-2-201	CE
ViewMarq LED Message Display	E139594	EN61010, EN61010-2-201 (Safety) EN61131-2 (EMC)

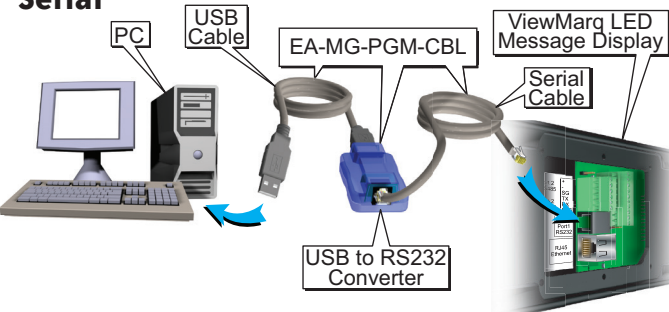
PC to LED Display Wiring

The ViewMarq LED message display may be connected to your PC via Ethernet or Serial communications.

Ethernet



Serial



- NOTE:** AutomationDirect serial cable p/n: D2-DSCBL may be used with a PC with a serial port.
- NOTE:** Refer to the ViewMarq User Manual for other connection options.

Communications Tightening Torque		Communications Wire Specification	
Communications Wire Connection	1.7 in-lbs (0.2 N-m)	Supported Temperature	75 °C
		Wire Material	Copper - solid or stranded
		Wire Size	14 - 28 AWG

Configuration Software

- ViewMarq Software is used to:
- Create and Preview messages
 - Send messages to the ViewMarq LED Message Display
 - Configure the ViewMarq LED Message Display
 - Create ASCII Command strings for use in a PLC to control the message display
 - Create and download a Message List to the ViewMarq LED Message Display

NOTE: The ViewMarq software can be downloaded for free at <http://support.automationdirect.com/downloads.html>

Additional Help and Support

- For product support, specifications, installation and troubleshooting, a User Manual can be downloaded from the Online Documentation area of the *AutomationDirect* web site.
- For additional technical support and questions, call our Technical Support team @ 1-800-633-0405 or 770-844-4200

ViewMarq LED Display Mounting Guidelines

- These are the general guidelines for mounting the display:
- Only qualified personnel should mount the ViewMarq LED display.
 - Verify correct operation of the display on a test bench before mounting. After testing, disconnect power and communications until after the display is mounted.
 - The ViewMarq LED Display is rated for indoor use only and should not be mounted outdoors.
 - Protect the lens from scratches while installing the display.
 - Do not remove the end caps. This will invalidate the NEMA ratings and void the warranty.
 - Do not drill or cut holes in any part of the display. This will invalidate the NEMA ratings and void the warranty.

Use the appropriate hardware and fasteners (not included) to hang or suspend the display. All hardware, fasteners and mounting methods must be rated for a minimum of **Four** times the weight of the display.

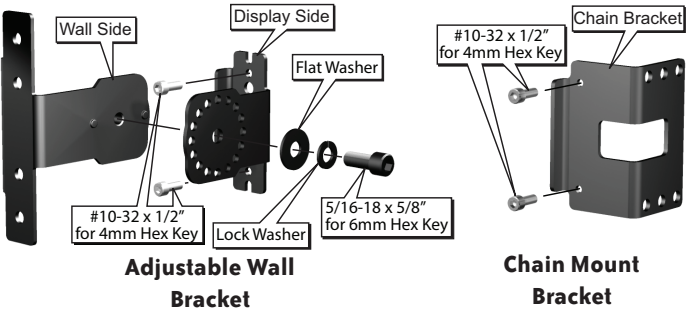
ViewMarq LED Display Weights		
Model	Weight with Wall Mount Brackets	Weight with Chain Mount Brackets
MD4-0112T-1	6.1 lbs (2.8 kg)	5.4 lbs (2.5 kg)
MD4-0124T-1	10.2 lbs (4.6 kg)	9.6 lbs (4.4 kg)
MD4-0212T-1	8.5 lbs (3.9 kg)	7.8 lbs (3.5 kg)
MD4-0224T-1	14.3 lbs (6.5 kg)	13.6 lbs (6.2 kg)
MD4-0412T-1	13.3 lbs (6.0 kg)	12.6 lbs (5.7 kg)
MD4-0424T-1	23.7 lbs (10.8 kg)	23.0 lbs (10.5 kg)

Installation Notes

- In order to maintain UL61010, UL61010-2-201 rating, flexible conduit must be used in place of included cable glands.
- The UL61010, UL61010-2-201 rating does not apply for a chain mounted display.
- In UL61010, UL61010-2-201 installations the allowable ambient air temperature range is 0 - 60 °C (32 - 140 °F)
- In order to maintain UL61010, UL61010-2-201 rating, discrete inputs must be powered from a Class 2 power supply.

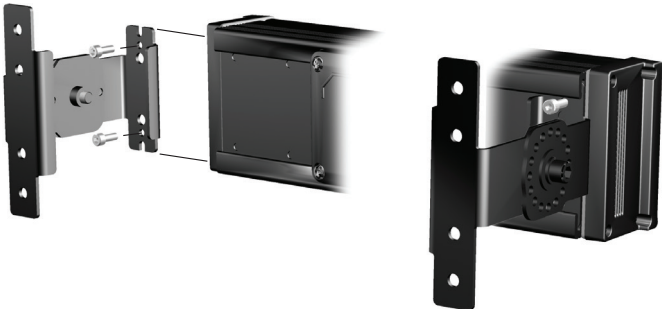
Mounting Brackets

The ViewMarq LED message display offers flexiblty in mounting. Two sets of mounting brackets including hardware are supplied with each display.



Wall Mounting

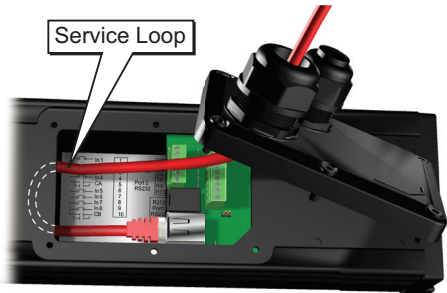
- 1) Assemble both adjustable wall brackets as shown above. Slide a bracket into the display mounting rail that runs the length of the back of the display. Repeat for the opposite end. Place each bracket in the desired position and finger-tighten the two 5mm locking screws in each bracket to prevent them from sliding.



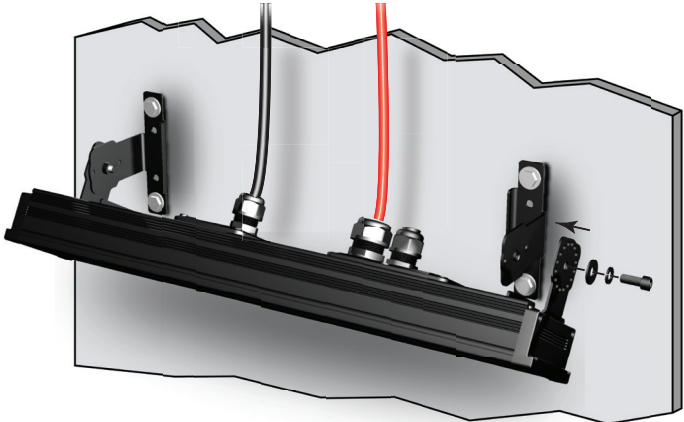
- 2) Hold the ViewMarq display in the desired mounting position and mark where the mounting bracket holes are positioned on the mounting surface.
- 3) Disassemble the mounting brackets, leaving the “display side” of the brackets in the display mounting rail.
- 4) Attach the “wall side” of the brackets to the mounting surface using appropriate fasteners for the type of mounting surface. Make sure the brackets are level with each other. (Wall mounting hardware is not included.)

Wall Mounting – Continued

- 5) Install the power and communication cabling through the appropriate cable glands and covers. Connect power and communication cables to their ports on the message display.
- 6) Install the covers and make sure that there is enough cable inside the housing to provide a “service loop” so as not to exceed the minimum bend radius of the cable.

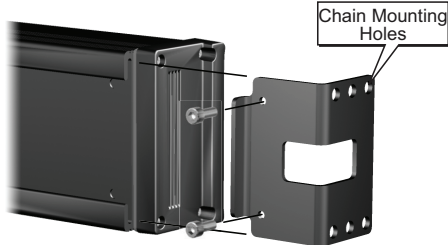


- 7) Install covers, being careful to observe the orientation keying. Tighten the captive cover screws to 10 in-lbs. Properly tighten the cable glands to maintain the NEMA rating on the enclosure.
- 8) Loosen the “display side” brackets to allow movement in the display mounting rail. Align one “display side” bracket on the display with the corresponding “wall side” bracket on the wall and finger tighten the 6mm pivot screw with the flat washer and lock washer.
- 9) While holding the display in position slide the other “display side” bracket in the mounting rail on the display to line up with the other “wall side” bracket and insert the 6mm pivot screw with the flat washer and lock washer as shown.
- 10) Set the desired viewing angle and tighten the 6mm pivot screws to 6 in-lbs of torque. Tighten the 5mm locking screws to 9 in-lbs of torque.

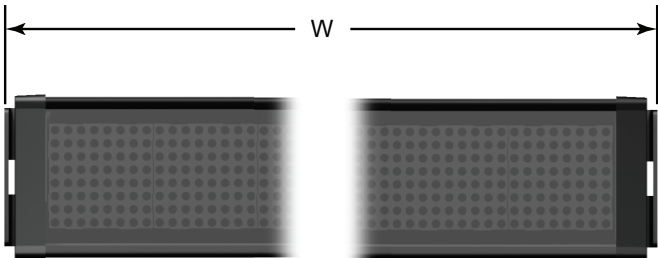


Chain Mounting

- 1) Slide the chain mount brackets into the display mounting rail on each end of the display. Tighten the 5mm locking screws to 9 in-lbs (1.0 N-m).



- 2) Attach a chain to an appropriate mounting surface or structure at the width listed in the table below. Connect the chain ends to one of the chain mounting holes on each bracket to achieve the desired viewing angle.
- 3) Install the appropriate cabling per steps 5 – 7 in the wall mounting procedure above.



ViewMarq Chain Mount Width	
Model	Overall Width with Chain Mount Brackets (W)
MD4-0112T-1	23.60" [600 mm]
MD4-0124T-1	45.21" [1148 mm]
MD4-0212T-1	23.60" [600 mm]
MD4-0224T-1	45.21" [1148 mm]
MD4-0412T-1	23.60" [600 mm]
MD4-0424T-1	45.21" [1148 mm]