

# DISPLAY<sub>®</sub> DEVICES

## IMRCM Installation Instructions

Motorized Rotating Ceiling Mount – *for continuous rotation*

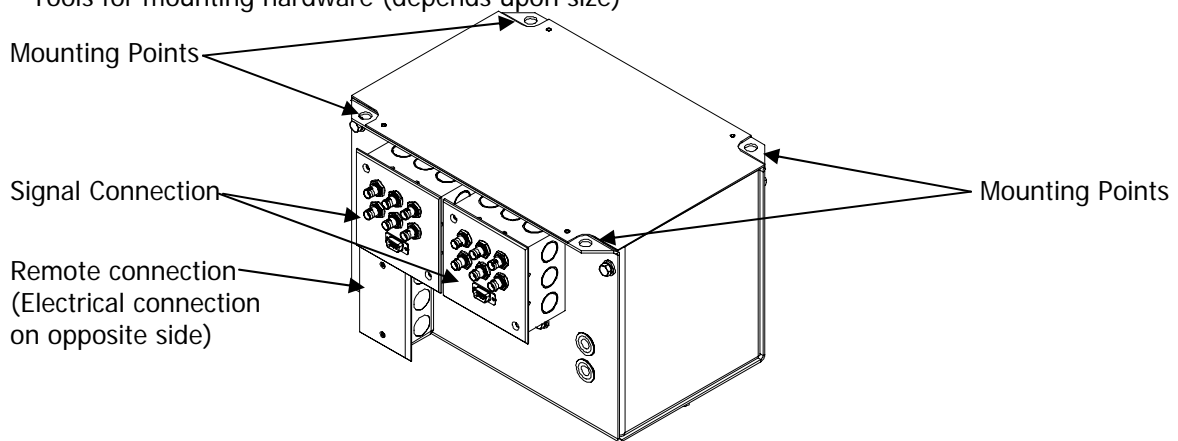
Thanks for purchasing a Display Devices product. We're sure your customer will use this product for years to come. Our products are designed to be maintenance-free saving you future service time. If you experience any difficulties, please contact us at 303-412-0399. Thank you for your support.

**It is the responsibility of the dealer installer to ensure this product is properly supported and meets all local building codes. DO ensure the ceiling structure is capable of holding at least four times the combined weight of the IMRCM, flat panel mount and display(s). This is a minimum requirement. Follow any local or state codes that apply to your specific area.**

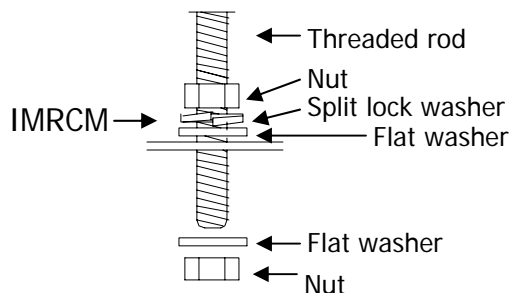
The IMRCM is a ceiling mount designed for continuous directional rotation of flat-panel displays. The mount utilizes a slip-ring for passing power, signal and control cables. The unit features (2) RGBHV, (2) composite video, (2) display control (send, receive, ground) and (2) power (shared). The unit is pre-wired with BNC-f inputs and BNC-m outputs.

Tools required:

- Small Phillips-head screwdriver
- Flat-head screwdriver
- Mallet
- 7/16" open-end wrench
- Tools for mounting hardware (depends upon size)



1. Mount chassis to structural attachment points (i.e., Unistrut, threaded rod). Use hardware no smaller than 1/2" (M12). Be sure to use (2) flat and (1) split lock washers.



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Be sure chassis is level front-to-back and left-to-right. If the chassis is not level, the pole extending down will not be perpendicular with the ceiling and may cause undue wear on the unit.

2. Attach hand-held remote control cable (5-pin Phoenix style) to the connector in the junction box.
3. Be sure the electrical circuit is not live. Remove the electrical junction box cover and knockout a slug where desired. Feed the power cable through the knockout into the junction box. Connect the power leads to the AC power source using the enclosed wire nuts: Ground = green, Neutral = white, Hot = black. Add strain relief to the cable then replace cover plate and restore power to the circuit.
4. Thread lock ring onto the pipe then thread the pipe into the coupling in the base of the unit. Tighten by hand, and then tap the lock ring with a flat-head screwdriver and mallet to compress it against the coupler in the IMRCM. (*Note: most units ship with the pole attached*).
5. Thread lock ring on to pole bottom, then thread the interface block on the bottom of the pole. Tighten by hand, and then tap the lock ring with a flat-head screwdriver and mallet to compress it against the interface block.
6. Remove the tilt collar from the interface block. Remove upper/lower (4) ¼"x20 bolts with a 7/16" socket wrench. Loosen the (2) center pivot bolts.
7. Attach the interface mount to the tilt collar with (4) ¼-20 x 1" bolts, using (2) flat washers, (1) split lock washer and (1) nut per bolt. The vertical height of the flat-panel display will depend upon the vertical placement of the tilt collar on the interface mount.
8. Place clean cardboard or a packing blanket on a flat debris surface. Lay the flat-panel display on the blanket – image side down. Align the interface mount to the mounting holes on the rear of the display. Attach the mount using the manufacturer's display hardware.
9. Lift the flat-panel/interface mount to the interface block. Hook the center tabs over the center pivot bolts. Replace the upper and lower bolts into the tilt collar. Adjust the display(s) to the proper viewing angle and tighten the 7/16" bolts on the tilt collar(s).
10. After unit is installed and functioning, you may connect your control system (AMX, Crestron, etc.). The remote can be disconnected and replaced with the control system at the end of installation. Clockwise = black, Pin1; Counterclockwise = red, Pin 2; Stop = green, Pin 3; and Ground (+5v) = white, Pin 4. See Motor Control Interface for connections.

**NOTE: This unit is designed for continuous rotation – not start, stop, start operation. Depending upon the video/data signal, you may notice a slight pause during start and stop. There is a 10-second time out from when moving in one direction, stopping, then moving in the opposite direction.**

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## IMRCM Connections

AC Connection terminates in one attached junction box  
(*be sure circuit power is off until wiring is completed*)

- 1 Line AC Ground = Green
- 2 Line AC Hot = Black
- 3 Line AC Neutral = White

**Contact Closure** – the easiest and most popular control.

The standard controls (handheld remote) are three momentary buttons (contacts). For AMX/Crestron control, attach your auxiliary control to the 5-pin Phoenix style connector in the side junction box opposite of AC power.

- Pin 1 Black Clockwise
- Pin 2 Red Counterclockwise
- Pin 3 Green Stop
- Pin 4 White Common for all buttons

**Low Voltage Control** ( $5dc < V < 24$  vdc) Control Signal

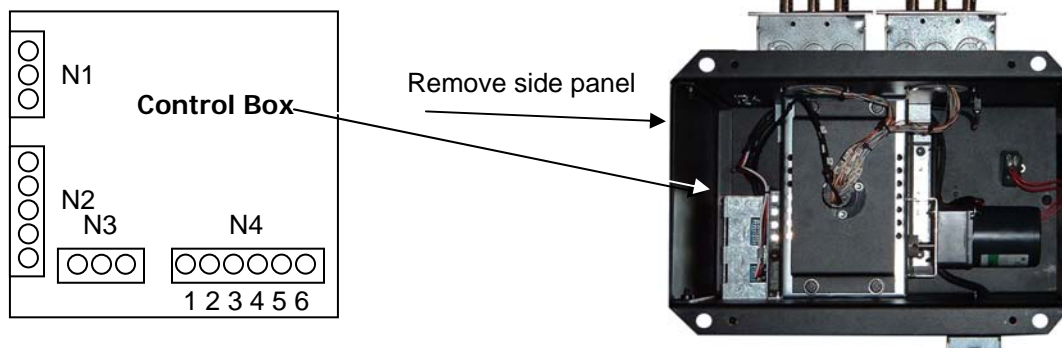
This function requires removal of the access side panel to get to the control box.

- Jumper from pin1 to pin 4 and pin 2 to pin 4
- Trigger voltage to pin 5
- Trigger voltage ground to pin 4

**Single Latching Contact – no stop ability**

This function requires removal of the access side panel to get to the control box.

- Block N4: Jumper from pin1 to pin 4 and pin 2 to pin 4
- Contacts between pin 5 and pin 6
- Contact technical support for further installation assistance.



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DRAWING REVISION BLOCK				DATE
REV	ECO	DESCRIPTION	DRAWN	CHECKED

ITEM NO	QTY	PART NO	DESCRIPTION
1	1	64-140	INFINITE MRCM ASSEMBLY
2	1	65-315	POLE ASSEMBLY - 2' TO 4'
3	1	65-565	CTSM 45 DUAL PLASMA NFC 42"

<b>DISPLAY DEVICES</b>		<b>DISPLAY DEVICES, INC</b>	
5880 SHERIDAN BLVD		ARVADA, CO 80003	
IMRCM W/CTSM DUAL DISPLAY		DRAWING NO. <b>B</b>	
NONMRCM W CTSM DUAL DISPLAY.SLDDRW 1 OF 1		REV <b>AX1</b>	

4. DEBUR ALL SHARP EDGES.  
 3. Ⓞ = ITEM CHANGED AT LAST REVISION.  
 2. ALL DIMENSIONS ARE IN INCHES.  
 1. DO NOT SCALE DRAWING.

NOTES: UNLESS OTHERWISE SPECIFIED

DRAWING REVISION BLOCK				DATE
REV	ECO	DESCRIPTION	DRAWN	CHECKED

ITEM NO	QTY	PART NO	DESCRIPTION
1	1	64-147	DRIVE UNIT ASSEMBLY
2	1	64-116	DRIVE UNIT MOUNT
3	1	64-143	OUTER CASE
4	1	64-119	ELECTBOARD MOUNT
5	1	64-120	ELECTBOARD COVER/MRCM
6	2	64-144	END CAP
7	1	64-123	CABLE TRACK # 1
8	1	64-124	BOTTOM COVER PLATE
9	1	64-125	CABLE TRACK # 2
10	1	64-141	TOP COVER SLIP RING STYLE
11	1	64-142	SLIP RING MOUNT PLATE
12	2	64-145	2 GANG J-BOX MOD
13	2	64-146	CUSTOM WALL PLATE
14	1	8075-2220	PCB000323BO ARD
15	1		SLIP RING
16	1	4600-1365	RUBBER GROMMET
17	1	W/MOD/B	MOD TO H CAPACITOR
18	1	4000-1870	5 PH FT PANEL HEADER
19	18	5950-12350	1/4 FL WASHER SAE SIL PL
20	18	5950-1325	1/4 LK WASHER SIL PL
21	10	5900-2060	1/4-20 X 3/4, HCS, HX, GR5, PL
22	4	5900-2890	1/4-20 X 9/16, HCS, HX, GR5, BO
23	2	3000-1045	SINGLE GANG BOX EXTENSION
24	2	4600-1550	METAL BLANK WALL PLATE - WHITE
25	2	5900-1690	4-60 X 1/2" PH, P, SIL, Z
26	2	3450-2092	3/4" KNOCKOUT PLUG
27	15	5900-21450	6-32 X 3/8, PH, P, SIL, Z
28	5	6000-1370	8-32, HEPS NUT, SIL, Z
29	5	6000-1250	4-40, HEPS NUT, SIL, Z
30	3	5850-1125	SPCR 4-40 X 1/4 X 1/4, HX, NY, F.F. W
31	4	5900-3095	1/4-20 X 1/2" PH, P, SIL, Z
32	3	6000-1295	8-32 NYLK NUT, SIL, Z
33	13	4000-1020	ENC CRIMP CONNECTION
34	2		MALE DB9

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INFINITE MRCM ASSEMBLY		DRAWING NO. <b>B</b>	
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12/04  
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