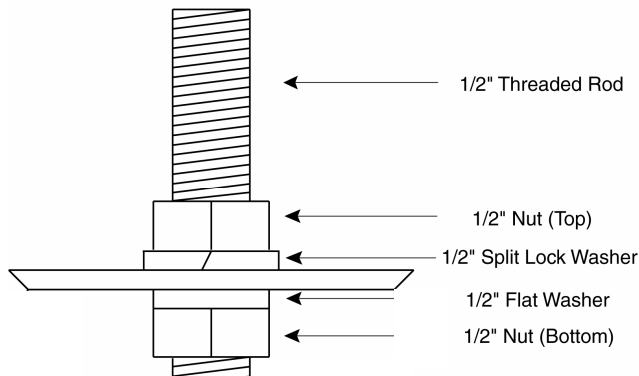# DISPLAY⊛DEVICES

MRCM Installation Instructions

Motorized Rotating Ceiling Mount
Positional Feedback Model 8/7/07

Ensure the ceiling structure is capable of holding at least **four times** the combined weight of the mount **and** projector. This is a **minimum** requirement. Follow any local or state codes that apply to your specific area.

1. Mount chassis to structural attachment points (i.e., Unistrut$_®$, threaded rod). Use hardware no smaller than ½" (M12). Be sure to use flat and locking washers. We recommend the following hardware order.

1/2" Threaded Rod

1/2" Nut (Top)
1/2" Split Lock Washer
1/2" Flat Washer
1/2" Nut (Bottom)

2. Thread lock ring onto each end of the pipe then thread the pipe into the coupling in the unit. Tighten by hand, and then tighten the lock ring using a flat head screwdriver and hammer. Thread the projector mount onto the pipe – tighten lock ring by hand only.
3. Be sure the pipe is level – adjust the mounting hardware as required.
4. Attach handheld remote control cable (5 pin Phoenix style) to the connector in the junction box. If a control system is used (AMX, Crestron, etc.), the remote can be disconnected and replaced with control system at the end of installation. Clockwise = black, Pin1; Counterclockwise = red, Pin 2; Stop = green, Pin 3; and Ground (+5v) = white, Pin 4.
5. Be sure the electrical circuit is not live. Remove the electrical junction box cover and knockout slug where desired. Connect the AC power leads: Ground = green, Neutral = white, Hot = black using the enclosed wire nuts. Replace cover plate and restore power to the circuit.

   Note: the MRCM can be "roughed" in without the projector in place if desired. The MRCM does not have any hard stop points – do not let it rotate continuously.

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Programming Screen Positions:
6. To enter programming mode: Press and hold the Stop Button until the LED near the remote plug flashes rapidly (about 4 seconds).
7. Press the Clockwise button and then press the stop button at the desired projection position. You may go clockwise and counterclockwise to attain the desired position. To memorize this position, simultaneously press and hold the Stop and Clockwise buttons until the LED flashes rapidly (about 4 seconds).
8. Press the Counterclockwise button and then press stop at the desired position. Again you can jog the unit in either direction until you attain the desired position. To memorize this position, simultaneously press and hold the Stop and Counterclockwise buttons until the LED flashes rapidly (about 4 seconds).
9. To exit the programming mode press and hold the Stop button until the LED flashed rapidly (about 4 seconds).
10. Verify your clockwise position by pressing the Clockwise button. If the position is not where you need it, simply rotate the mount to fine tune. After you have the final position tighten the lock ring with a screwdriver and hammer.
11. Press Counterclockwise to rotate to your other screen position. If the position is not accurate, reprogram the Clockwise position only by following steps 6, 8 and 9.
12. Connect control system cables as required. See Motor Control Interface for connections.

MRCM 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