

# ClearPix Screen In Ceiling Casing Installation Manual Trapdoor Version



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# ClearPix Motorized Screen - In Ceiling Casing Installation Manual

## Caution

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1. Read instructions through completely before proceeding.
2. Follow instructions carefully . Installation contrary to instructions invalidates warranty.
3. Entire bottom of screen case should be unobstructed to permit access to bottom panel for electrical connections or servicing.
4. Screen should be installed level (using a carpenter's level).
5. Nothing should be fastened to batten or viewing surface.
6. Operating switch(es) and mouting brackets are packed separately in screen carton. Do not discard with packing material.

***NOTE : Screen has been thoroughly inspected and tested at factory and found to be operating properly prior to shipment.***

## Unpack

1. Take the screen out of the box.
2. Cut the black protection.
3. Install your screen as explained next page. (If you want to install the casing without the roller inside, please place the casing on its side with the Audience Side up and proceed as described on page 5.)
4. Once the screen is installed, cut the three orange protections that attach the black backing to the batten at each end.
5. Lift the batten slightly to access the bolt that attaches the packaging bracket to the casing and remove the packaging bracket.

***NOTE : After removing the orange protections, make sure you do not turn the screen upside down.***

# ClearPix Motorized Screen - In Ceiling Casing Installation Manual

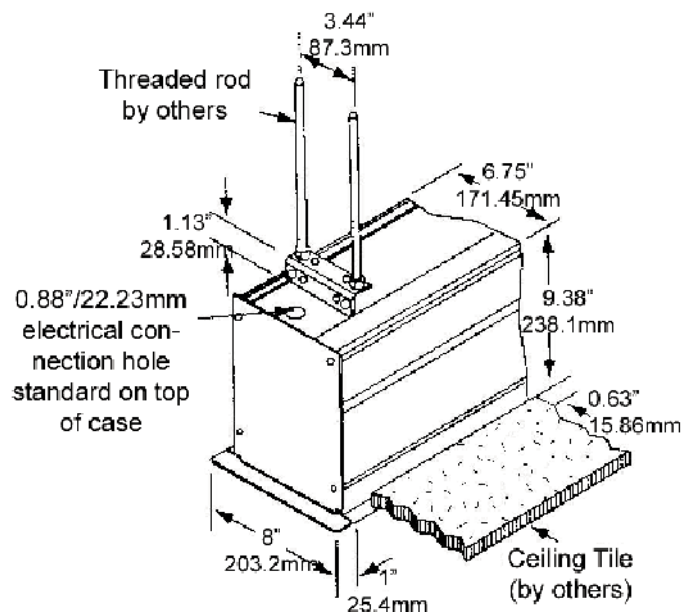
## Hanging Screen

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When locating viewing surface and checking clearance for screen's operation, remember surface is centered in the length of the case.

Screen is normally recessed above ceiling with the motor on the left (as the audience sees the screen).

1. Mounting brackets are packed separately in carton. Engage each bracket with top of housing as shown below and tighten set screws. Alternatively, installer can drill holes in the top of the casing and screw the casing directly to the ceiling.
2. Screen should be positively and securely supported so that vibration or even abusive pulling on viewing surface will not weaken installation.
3. Installer must insure that fasteners used are of adequate strength and suitable for the mounting surface chosen.
4. Entire bottom of case must be readily accessible after installation is complete.
5. The bottom access panel, trap door and lower edge of the case are joined with continuous hinge joints and must operate freely. Front and back of case must be straight - not forced to warp or bow. Hinge joints must be free of mastic or paint built up, and trapdoor and access panel must be unobstructed by ceiling tiles.
6. If case is painted on location, removal of roller/fabric assembly is recommended prior to painting. If not, removed, slots on bottom of case should be shielded to protect viewing surface from paint splatters or overspray.
7. Do not seal unit in ceiling until electrical connections have been made and screen has been operated successfully.



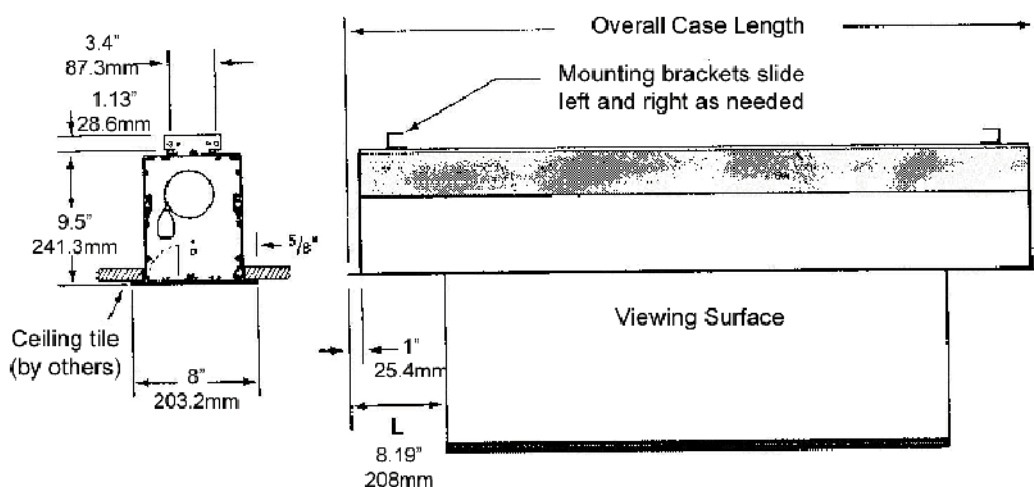
## Electrical connections

Screen is shipped with internal wiring complete and control switch(es) fully boxed. Wire to connect screen to switch(es) and switch(es) to power supply should be furnished by installer. Connections should be made in accordance with attached wiring diagram, and wiring should comply with national and local electrical codes.

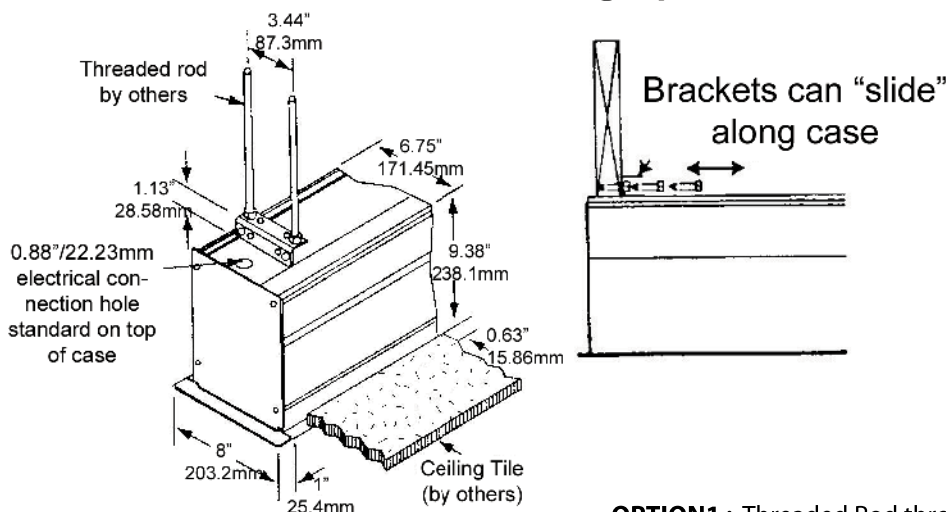
**All operating switches should be "off" before power is connected.**

# ClearPix Motorized Screen - In Ceiling Casing Installation Manual

## Case Dimensions



## Mounting Options



**OPTION1** : Threaded Rod through top of mounting brackets.  
**NOTE** : a mounting bracket should be positioned within 8" from each end of case. Brackets can "slide" along the length of the case.

**OPTION2** : Lagged through side of mounting bracket. Brackets can "slide" along the length of the case.

**OPTION3** : In a grid ceiling, with wire through top of mounting brackets.

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## Bottom access panel/ trap door opening and closing

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Raise the screen completely and open the trap door manually by pushing on it.

A spring latch at each end of the trap door hold this assembly closed.

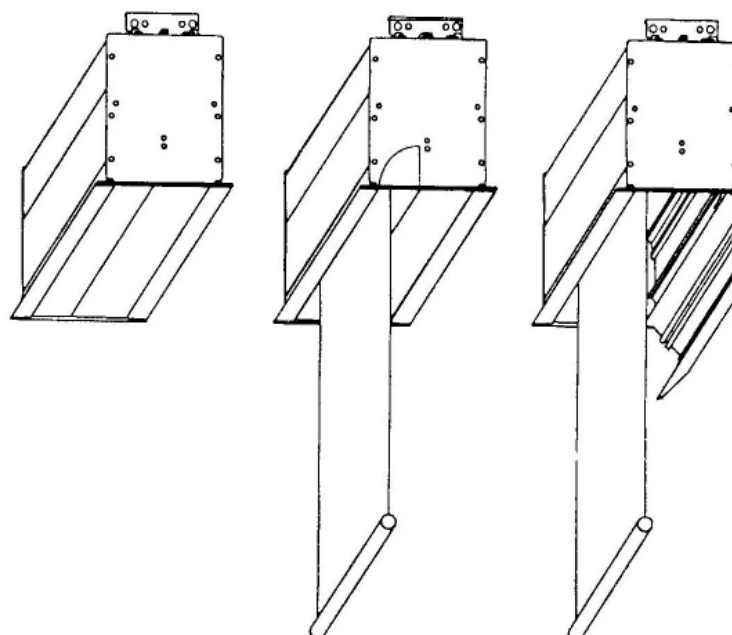
To gain access to inside of screen case disengage spring latch at each end of the case by sliding on the trap door assembly. The latch levers are somewhat concealed from view.

Locate these with the trap door open by feeling for the vertical latch lever above the door about 3"/76.2mm from case endcase and near the center of the case.

The assembly will swing down, opening about 135°. Pivot the right prop arm of the trap door assembly towards the end of the screen case. Prop arm engages with a hole in the endcap to hold the trap door assembly fully open.

To close the trap door assembly disengage prop arm from endcap and pivot it over the access panel. Swing the trap door assembly upward stopping just before the latch levers hit the bottom flanges of the endcaps. Pull levers of latch towards center of screen case to allow the trap door assembly to be pivoted to its closed position.

Make sure that the spring latch levers engage fully with case endcaps.



# ClearPix Motorized Screen - In Ceiling Casing Installation Manual

## Removal / Installation

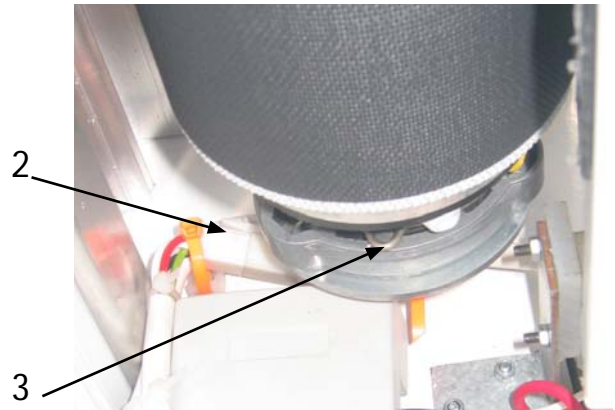
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### Motorized roller/ fabric removal

**2 people are needed to remove the roller.**

1. Open the bottom access panel/trap door (as described on the previous page).
2. Disconnect the electrical plug from the motor to the mating socket on the junction box.
3. Remove the retaining clip.
4. Remove the 2 other screws of the roller mounting brackets on the right of the casing.
5. Remove the screw situated in the middle of the roller mounting brackets on the right of the casing.
6. Take the roller pin out of the the bearing on the idler end mounting bracket.
7. While supporting the idler end of the roller, slide the idler end mounting bracket away from the roller.

**Make sure you do not make the fabric touch the trap motor or be damaged.**



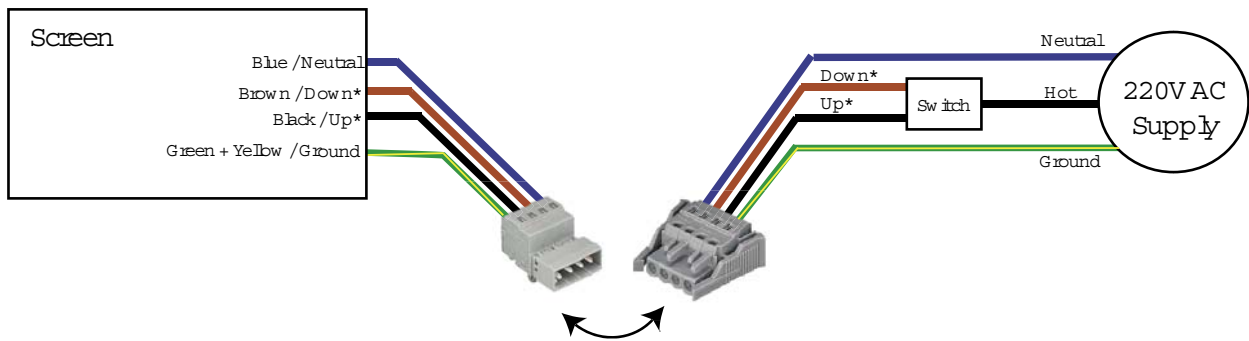
### Motorized roller/ Fabric installation

Reverse the instructions above "Motorized roller/fabric removal" for installation of the unit.

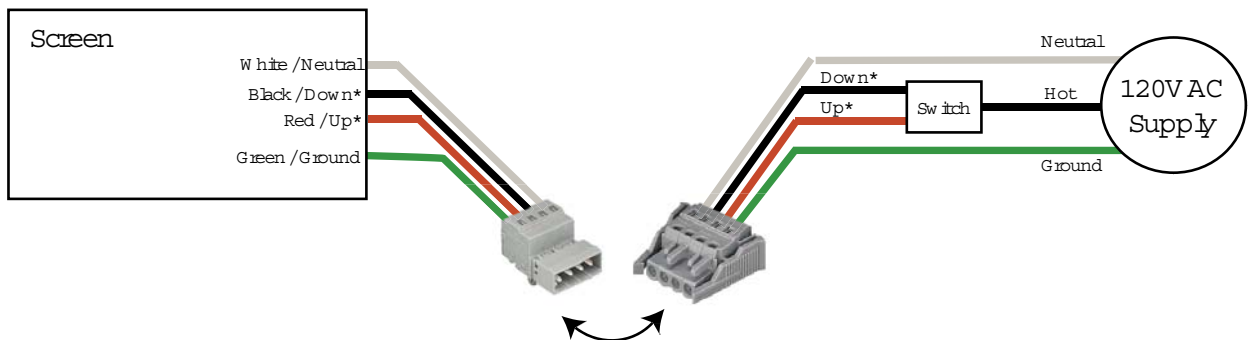
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## Electrical Installation

### 220 V AC wiring

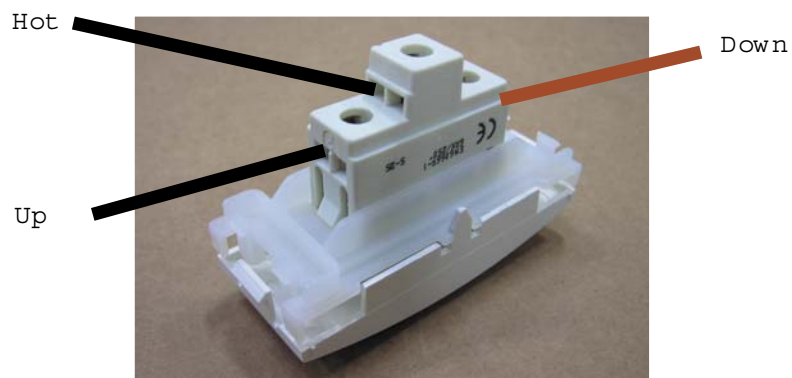


### 120 V AC wiring



### Switch wiring

There is no polarity on the switch. The Up and Down wires can be connected to either side.



If the screen is ultimately to be controlled with a manual switch, the electrical installation is now complete.

If the screen is to be controlled with an external controller (such as an MCS-310), use the Basic Electrical Installation to set the end stops on the screen (see the next page) and then install the controller into the system.

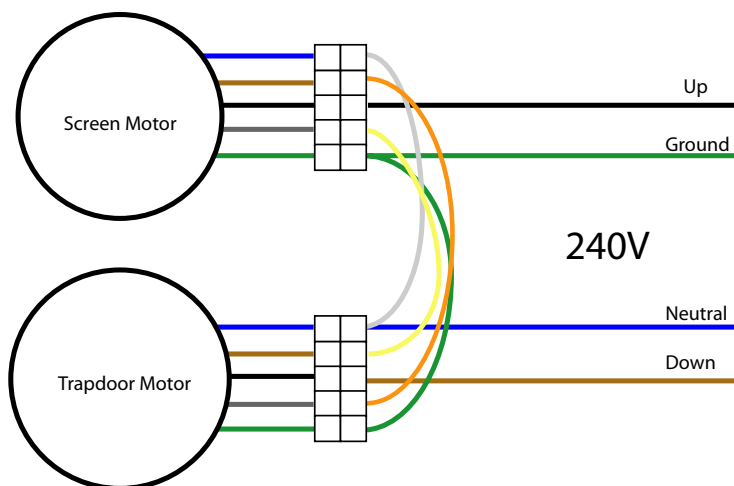
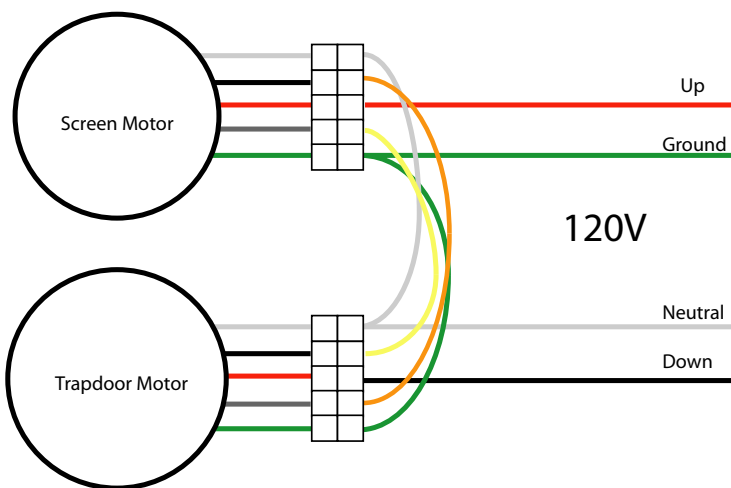
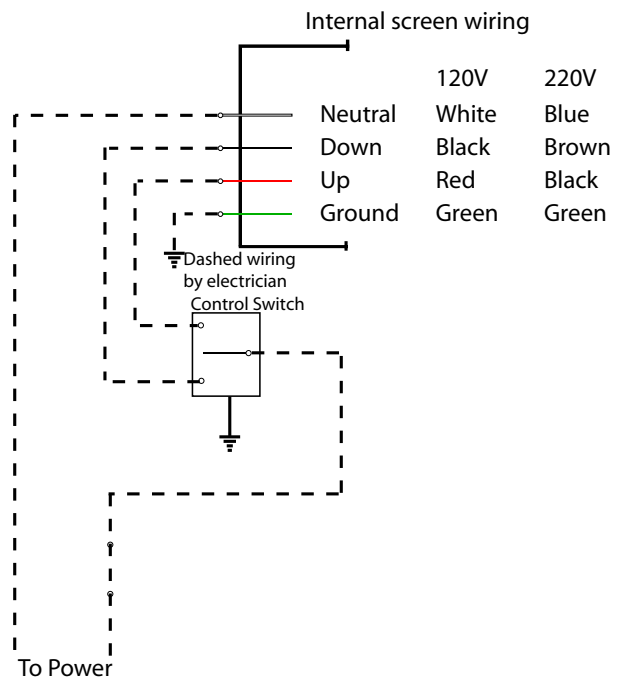
\* for screens which are custom-built with a "reverse" assembly, where the projection surface faces the rear of the casing, these colors are reversed.

# ClearPix Motorized Screen - In Ceiling Casing Installation Manual

## Wiring Diagrams

### Manual Switch control :

3 position UP-STOP-DOWN switch permits operation to be stopped at any point. Factory adjusted limit switches automatically stop screen when fully down or fully up.



# ClearPix Motorized Screen - In Ceiling Casing Installation Manual

## Operation / Adjustments (1/2)

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### Operation

**When the screen is first operated, be cautious.**

Make the unit cycle down and up several times to confirm satisfactory operation.

### Adjustments

#### Screen end of travel adjustments

Screen has been factory set and should not normally require further adjustment. However, if you desire to change "up" and "down" stopping positions, proceed as follow.

**CAUTION:** Make sure that **all switches are in "OFF" position** before adjusting limit switches. Always be prepared to shut screen off manually when new adjustment is being tested. Screen may be severely damaged if viewing surface is allowed to run too far up or too far down.

The screen is equipped with switches which set the upper and lower limits of travel for the screen. These limits are very important; if the screen rolls up too far, the batten can damage the screen, and if it lowers too far it can come unglued from the tube. These limits are set at the factory, but there is a chance that they could have been released during shipping.

The limits are set by rotating buttons - turning them towards the "+" sign allows for more travel, and turning them in the opposite direction allows less travel. There is one for the upper limit (yellow\*) and one for the lower limit (white\*).

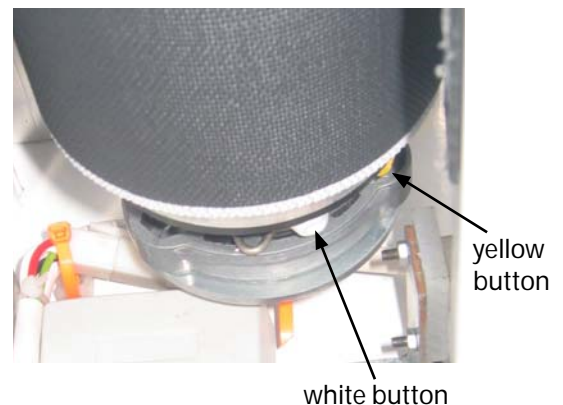
#### Lower Stop

Once the electrical installation is complete, lower the screen fully. Make sure that the screen stops before you see a white line or area above the black portion above the screen. If you see this white area, STOP THE SCREEN. Then set the lower stop somewhere above this position using the procedure described above.

#### Upper Stop

**The upper stop should not be modified.**

Now raise the screen fully. Make sure that the screen stops in the correct position. The batten should stop before it touches the fabric. If you see that the batten is going farther than this, STOP THE SCREEN. Then set the upper stop with the batten in the proper position using the procedure described above. The bottom of the batten should be 90mm (3.5") above the bottom edge of the casing.



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**FAILURE TO PERFORM THIS PROCEDURE WILL VOID THE PRODUCT WARRANTY**

# ClearPix Motorized Screen - In Ceiling Casing Installation Manual

## Operation / Adjustments (2/2)

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### Adjustments

#### Trap door adjustments

**CAUTION:** Make sure that **all switches are in "OFF" position** before adjusting limit switches. Always be prepared to shut motor off manually when new adjustment is being tested. Trapdoor may be severely damaged if it is allowed to run too far up or too far down.

#### Adjusting lower position

**The lower stop should not be modified.** White socket is located on motor end of screen roller and is accessible to a small flat screwdriver or a 5/32" / 4mm hex key. Turning socket counterclockwise will allow the roller to run farther down. Turning it clockwise will shorten operation, causing screen to stop sooner. One fullrevolution of the socket will alter the stopping position of the viewing surface by approximately 1.25" (32mm).

#### Adjusting upper position

**The upper stop should not be modified.** Yellow socket is located on the motor end of screen roller and is accessible to a small flat screwdriver or a 5/32" / 4mm hex key. Turning socket counterclockwise will allow the roller to run farther up. Turning it clockwise will cause the roller to stop sooner. One fullrevolution of the socket will alter the stopping position of the viewing surface by approximately 1.25" (32mm).

# ClearPix Motorized Screen - In Ceiling Casing Installation Manual

## Installing the MCS-310 for Infrared (IR) remote control

You will need:

- Motorized screen
- MCS-310
- MCS-BIE, MCS-BKO, or MCS-BKP
- MCS-IR1, MCS-IRO, MCS-IRP or 3rd-party IR remote

1. Connect the Screen Connector to the MCS-310 "Motor" Connector



2. Connect the MCS-BIE, MCS-BKO, or MCS-BKP to one of the two "EYE" ports on the MCS-310.



3. Plug the MCS-310 to the mains.



4a. For an MCS-IR1: press the "Open" and "Close" buttons to raise and lower the screen. Press either button to stop the screen.



4b. For an MCS-IRO: press the "Screen" buttons to raise and lower the screen. Press either "Screen" button to stop the screen.



4c. For an MCS-IRP: press the "Open 1" and "Close 1" to raise and lower the screen. Press the red Stop button to stop the screen.



5. If you have a third-party learning remote, you can use it to capture the IR codes from any of our IR remotes.

# ClearPix Motorized Screen - In Ceiling Casing Installation Manual

## Installing the MCS-310 for Radio (RF) remote control

You will need:

- Motorized screen
- MCS-310
- MCS-BRR
- MCS-RR1, MCS-RRO, or MCS-RRP. The MCS system is not compatible with 3rd party RF remotes.

1. Connect the Screen Connector to the MCS-310 "Motor" Connector



2. Connect the MCS-BRR to one of the two "EYE" ports on the MCS-310.



3. Plug the MCS-310 to the mains.



4a. For an MCS-RR1: press the "Open" and "Close" buttons to raise and lower the screen. Press either button to stop the screen.



4b. For an MCS-RRO: press the "Screen" buttons to raise and lower the screen. Press either "Screen" button to stop the screen.



4c. For an MCS-RRP: press the "Open 1" and "Close 1" buttons to raise and lower the screen. Press the red Stop button to stop the screen.



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## Installing the MCS-310 for 12V control

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You will need:

- Motorized screen
- MCS-310
- 3rd-party 12V output (i.e., projector)

1. Connect the Screen Connector to the MCS-310 "Motor" Connector



2. Connect the 12V output to the 12V input of the MCS-310. This input is unpolarized, so the +12V and Ground wires can be connected to either connector.



3. Plug the MCS-310 to the mains.

**BEWARE:** the screen will now be controlled by the 12V input. If the 12V source is not on, the screen will rise; if it is on, the screen will descend.

