CS-SHADE-ROLLER-BATT

Quick Start

Shade Motor and Hardware for CS-SHADE-ROLLER-BATT with CSA-ARCH3 Brackets

The Crestron® CS-SHADE-ROLLER-BATT with CSA-ARCH3-BRKT shade mounting brackets allow Crestron shades to be mounted on a wall or window jamb. The adjustable mounting brackets allow adjustments to the shade installation without removing the mounting brackets from the wall. A battery-powered QMT® shade motor provides precise and reliable control of the shade.

Shade Mounting

The supplied brackets mount to the wall or window jamb. The roller shade assembly, end caps (if applicable), and fascia then attach to the brackets.

CAUTIONS:

- There is risk of personal injury and equipment damage if the shade or associated parts fall during mounting. Use care when mounting. Use proper mounting hardware for the mounting surface (for example, screws or bolts) when securing the brackets to the surface.
- Two or more people are required to properly mount the shades.

NOTES:

- The screws provided with the mounting brackets are intended for use on walls (or jambs) with wood or metal blocking. These screws should not be used for hollow drywall or masonry installations. It is the responsibility of the installer to make sure that the mounting method used is secure.
- Ensure that all mounting brackets are level and on the same plane.
- All shades must be aligned along a single axis (no off-angle positioning).

Mount the Brackets

To mount the brackets:

NOTE: The motor bracket must be installed on the left side of the window.

1. Check for a proper fit by holding the roller shade assembly in the approximate mounting location. Use the fascia to measure the proper distance between mounting brackets. The brackets should be mounted flush with the end of the fascia.
2. Mark the locations of the brackets and make sure that the mounting points are level and on the same plane. Use a laser level or snap a chalk line to mark the locations of the brackets. Space the brackets according to the specifications on the order form.
3. If applicable, attach the end caps to the mounting brackets. Attach the end cap marked **LEFT** to the motor bracket (stamped with an L) and the end cap marked **RIGHT** to the idler bracket (stamped with an R). The end caps snap into place.

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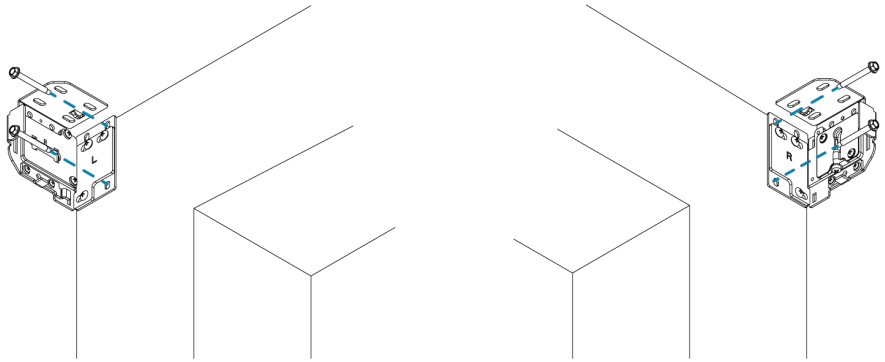
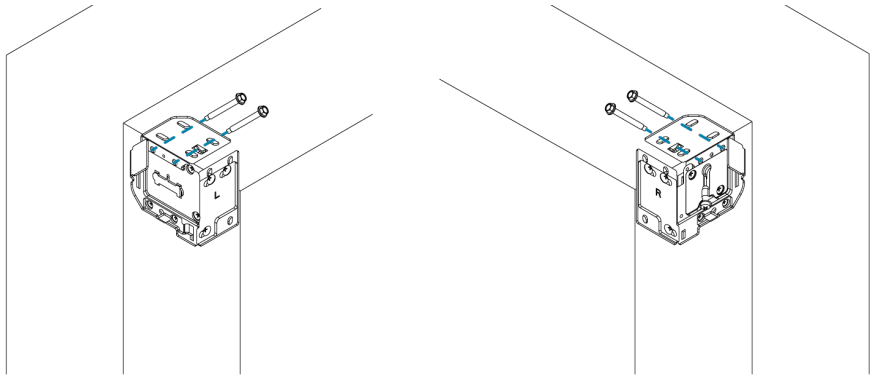
4. Mount the brackets to the outside of the window frame (outside mount) or the inside of the window frame (inside mount). Use hardware that is appropriate for the mounting surface. Make sure the brackets are level and mounted to a flat surface.
   - **Motor Bracket (L):** Mounts on the left-side of the window opening.
   - **Idler Bracket (R):** Mounts on the right-side of the window opening.

> NOTES:
> - The stamped **L** and **R** on the bracket should face the wall and window.
> - For inside mounts, secure the mounting brackets into the window jamb or the window header.
> - When using a fascia, align the brackets with the width of the fascia before attaching them to the header.

Outside Mount (CSA-ARCH3-BRKT)



Inside Mount (CSA-ARCH3-BRKT)



Shade Motor and Hardware for CS-SHADE-ROLLER-BATT with CSA-ARCH3 Brackets

Mount the Roller Shade Assembly

Mount the roller shade assembly to the mounting brackets.

CAUTIONS:

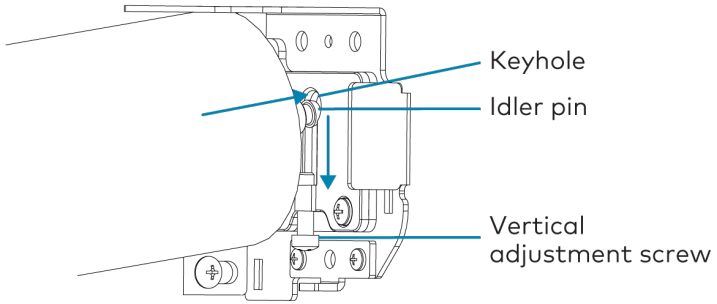
- There is risk of personal injury and equipment damage if the shade or associated parts fall during installation. Use care when mounting. Use proper mounting hardware (for example, screws or bolts) for the mounting surface when securing the brackets to the surface.
- Two or more people are required to properly mount the shades.

NOTE: The motor must be installed on the left side of the window.

To mount the roller shade assembly:

1. Insert the idler pin into the top of the keyhole on the right bracket, and slide it down into the keyhole. The idler pin sits on the vertical adjustment screw.

   Insert the Idler Pin into the Keyhole (CSA-ARCH3-BRKT)

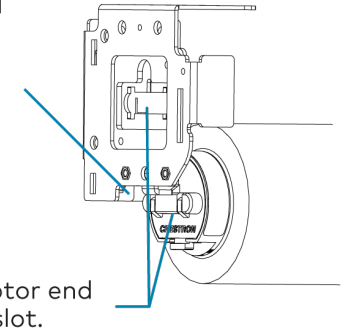


2. Raise the motor end of the roller shade assembly to the motor bracket.
3. Push the roller shade assembly toward the idler bracket to compress the spring on the idler pin and align the tab on the motor assembly with the hole in the motor bracket.

   Align the Motor with the Motor Bracket (CSA-ARCH3-BRKT)

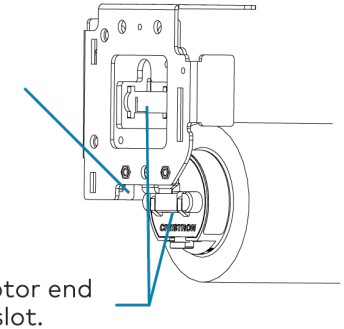
When the bracket is installed inside a pocket, the motor must be rotated 90 degrees to clear the tab.

Rotate the motor so it aligns with the mounting bracket.



Maneuver the motor end into the bracket slot.

Rotate the motor so it aligns with the mounting bracket.



Maneuver the motor end into the bracket slot.

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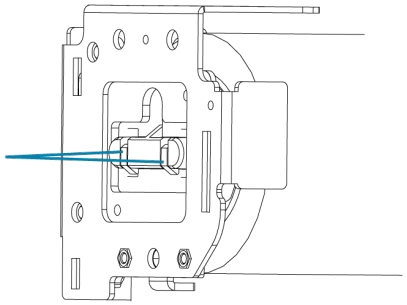
4. Push the tab on the motor assembly into the hole in the motor bracket. When the shade is properly seated, the two clips spring down to secure the motor to the bracket. Make sure that the shade is properly mounted before letting go.

Secure the Motor to the Motor Bracket (CSA-ARCH3-BRKT)

Plastic clips lock the motor into its bracket when the motor is fully inserted. Pull the motor gently to the right to ensure that the motor is securely locked into place.



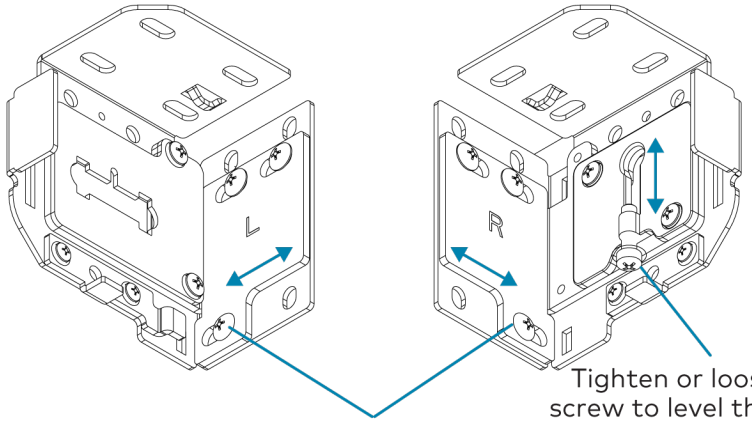
Level and Center the Shade Assembly

Once the roller shade assembly is mounted, make adjustments to level the shade and center it in the opening.

WARNING: If the roll-up diameter is close to the maximum allowance, do not use the vertical adjustment screw to level the shade. The fabric can be damaged from contact with the bracket, fascia, or other hardware. Remount the bracket to level the shade.

To level and center the shade assembly, use the adjustment features built into the shade bracket.

Adjust the CSA-ARCH3 Bracket



Loosen the screws, adjust the shade so that it is centered in the opening, and then tighten the screws to lock the shade into place.

If the shade assembly is not level, telescoping of the fabric may occur during operation. Situations that may cause telescoping:

- The shade is not perfectly level.
- The shade bumped into objects while traveling up or down.

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- The HVAC ductwork is blowing on the shade, or air is coming in through a window.
- A foreign object is stuck to the shade fabric (for example tape, bugs, dust, etc.).

To prevent telescoping:

- Use the leveling features built into the shade brackets to make sure the shade is level. If the bracket adjustment is not enough to compensate, use a shim to level the system.
- Make sure that no obstructions exist near the window area that the shade could bump into while traveling (for example, latches and cranks).
- Direct HVAC airflow away from the shade, and make sure that windows are closed while operating the shade.
- Lower the shade all the way down to the bare tube (the shade will need to be placed into **Limit Setup** mode to allow the shade to travel below its lower limit). Inspect the front and back of the shade to make sure that no foreign objects are stuck to the shade fabric.

If the shade is still telescoping, shim using a small (1 in. x 1 in.) piece of tape on the bare tube. The shade must be rolled down past its lower limit to expose the tube. For details, refer to .

- **Fabric is telescoping to the left:** Place the tape on the right side of the tube.
- **Fabric is telescoping to the right:** Place the tape on the left side of the tube.

Battery Pack

Battery-operated shades that use the CSA-ARCH3 brackets ship with a jumper cable and a battery pack that is integrated into the fascia.

CAUTION: Removing the batteries or disconnecting the battery-pack cable from the motor during motor operation may result in lost shade limits. To reset the shade limits, refer to Adjust the Shade Limits.

NOTE: If the shade motor is not acquired by a gateway, the shade motor enters **Acquire** mode after it is powered on. To join a wireless network, place the gateway into **Acquire** mode before powering the shade motor. For details, refer to Motor Programming.

Jumper Cable

A 15 ft (3 m) jumper cable is included to provide temporary power to the shade motor so that the shade can be set up prior to installing the fascia. The local controls on the shade motor and the leveling screw are easier to access when the fascia is removed.

To use the jumper cable:

1. Place the fascia near the shade on a table or the floor. Use care to avoid scratching or damaging the fascia.
2. Insert batteries into the battery pack. For details, refer to Insert or Replace Batteries.
3. Connect one end of the jumper cable to the power pack and the other to the battery-powered shade motor.

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Insert or Replace Batteries

Use 8 D-cell, 1.5V, alkaline batteries to power the shade motor. Only 10-year batteries should be used. The batteries must be new.

CAUTIONS:

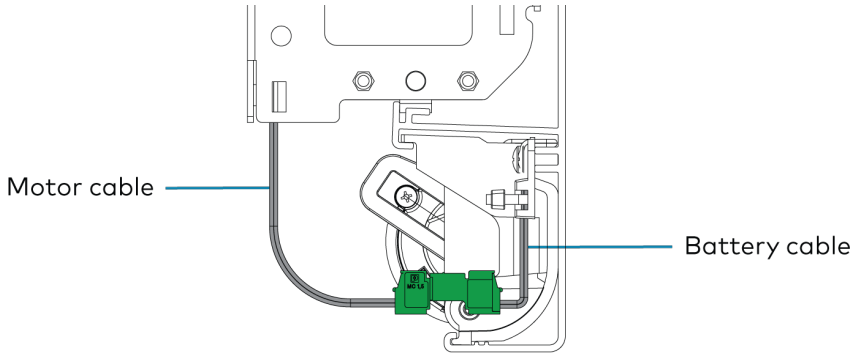
- Permanent damage to the shade motor may occur if the incorrect batteries are used. Use D-cell, 1.5V, alkaline batteries.
- Don't mix old and new batteries, batteries of different brands, or batteries of different types.

To insert or remove batteries:

NOTE: Always dispose of used batteries properly.

1. If the motor cable is connected to the battery-pack cable, rotate the connector bracket down and then disconnect the motor cable.

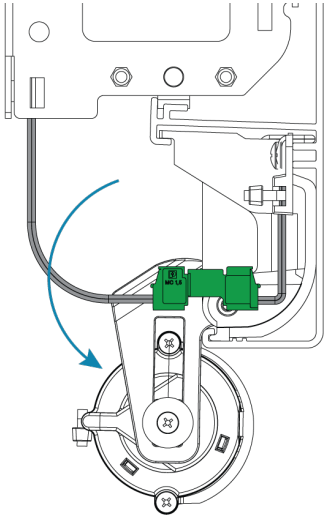
CAUTION: Removing the batteries or disconnecting the battery-pack cable from the motor during motor operation may result in lost shade limits. To reset the shade limits, refer to Adjust the Shade Limits.



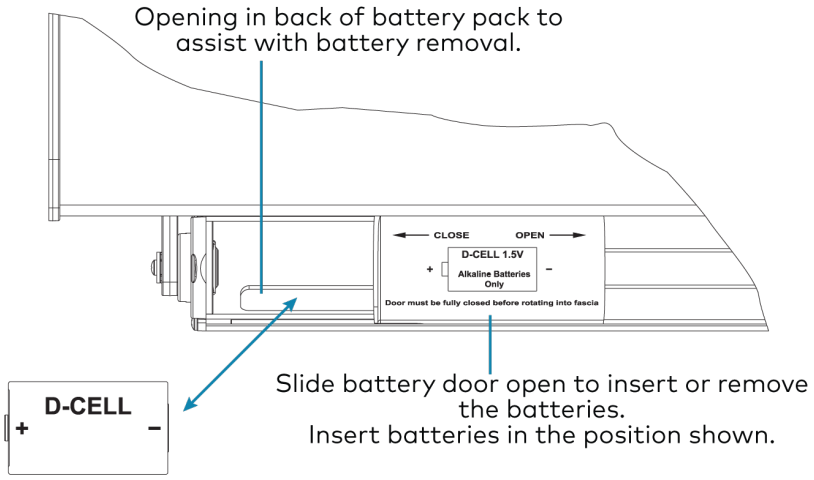
To disconnect battery assembly from motor, disconnect the connector on the motor cable from the connector on the battery cable.

Shade Motor and Hardware for CS-SHADE-ROLLER-BATT with CSA-ARCH3 Brackets

2. Pull and rotate the battery pack until it is fully extended out of the fascia.



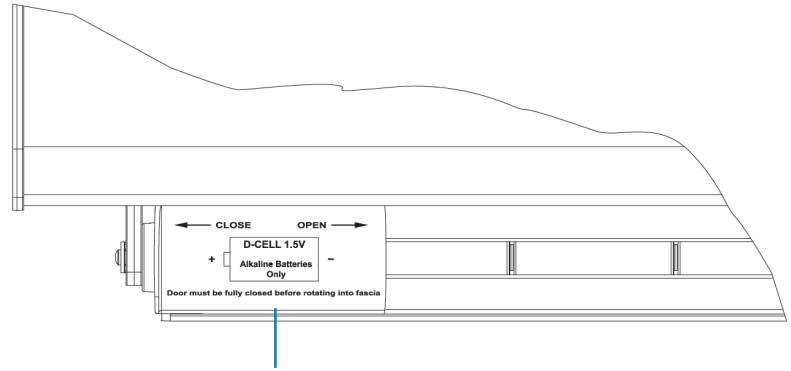
3. Slide the battery door into the **OPEN** position.



4. If necessary, remove the old batteries from the battery pack. Use the opening in the back to help remove the batteries.
5. Insert 8 D-cell batteries into the battery pack. Follow the markings on the battery pack to ensure proper orientation.

> **NOTE:** Make sure that the batteries are inserted in the proper orientation.

6. Slide the battery door into the **CLOSE** position. The battery door will click into the closed position.



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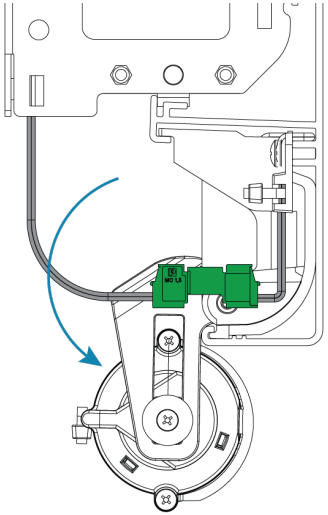
7. Rotate the battery pack into the fascia until the battery pack clicks into the fully closed position.



Rotate battery pack to original position.
Battery pack clicks into position.

8. Connect the motor cable to the battery-pack cable on the connector bracket.

Motor Wiring

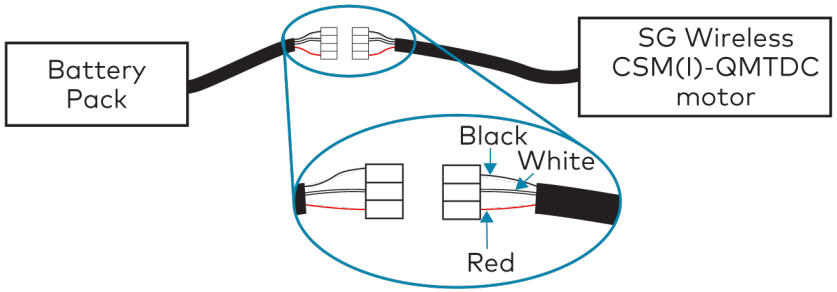
Routing the Cables

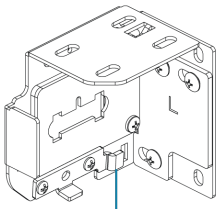
To ensure proper functionality and a clean look, consider the following when routing cables and making connections:

- Route the cables so that they remain out of sight.
- Use cable ties to secure the cables to the loop on the bracket.
- Ensure that the cables and connectors do not make contact with the shade fabric.

Making the Connections

Wire the SG Wireless QMT® Shade Motor





Route the motor wire behind the tab on the fascia mount

Shade Motor and Hardware for CS-SHADE-ROLLER-BATT with CSA-ARCH3 Brackets

Motor Programming

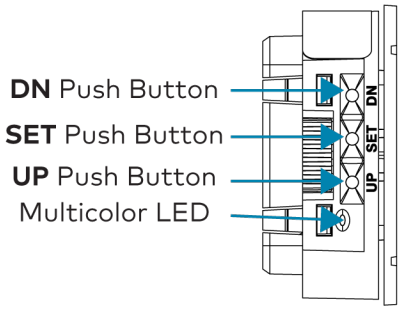
Program the QMT® shade motor using the buttons on the motor.

NOTE: The procedures described in this document can also be performed remotely using a control system.

Controls and Indicators

The Crestron CSM(I)-QMTDC shade motors have **UP**, **SET**, and **DN** (down) push buttons that are used to program the shade. The shade motors have a multicolor LED that lights red, amber, green, blue, or white to provide confirmation, operating mode, and error state feedback. The **UP** button is located closest to the LED, the **SET** button is the second button from the LED, and the **DN** button is the third button from the LED.

LED and Pushbutton Orientation - CSM-QMTDC-163-1-SG



Test the Shade Travel

Test the travel of the shade fabric to ensure that it does not come in contact with building materials and that the upper and lower shade limits are properly set.

WARNING: Care has been taken to ensure that the shade is properly balanced. Prior to initial operation, confirm that the shade assembly is level and centered and that the brackets are level and plumb. To prevent damage to the fabric, do not leave the shade unattended during the first few open and close cycles. Failure to follow these instructions may result in damage to the shade fabric, which is not covered by the warranty.

To test the shade travel:

1. Press **DN** to lower the shade until it reaches its lower limit. **Stop immediately if the following occurs:**
   - The shade fabric contacts the mounting brackets or building materials.
   - The shade fabric telescopes.
2. Verify that the shade stops at the desired lower limit. If the shade does not travel to the desired lower limit, adjust the shade limits. For details, refer to Adjust the Shade Limits.
3. Press **UP** to raise the shade until it reaches its upper limit. **Stop immediately if the following occurs:**
   - The shade fabric contacts the mounting brackets or building materials.
   - The shade fabric telescopes.
4. Verify that the shade stops at the desired upper limit. If the shade does not travel to the desired upper limit, adjust the shade limits. For details, refer to Adjust the Shade Limits.
5. After adjusting the shade travel, perform several complete open and close cycles to verify that the shade is functioning properly.

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Adjust the Shade Limits

Shades are shipped from the factory with upper and lower limits set. If the shade limits are not set, the LED flashes red three times, pauses for 1 second, flashes once, pauses for 5 seconds, and then repeats this pattern until the limits are set. If necessary, adjust the upper and lower shade limits.

> **NOTE: Limit Setup** mode exits after 120 seconds of inactivity.

To adjust the lower limit:

1. Press and hold **SET** for 4 seconds to enter **Limit Setup** mode. The LED alternates between amber and green.
2. To begin lower limit setup, press **DN**. The green LED flashes.
3. Press **UP** and **DN** to set the shade to its desired position.
4. Press and hold **SET** for 4 seconds. The LED turns solid red to confirm that the lower limit was successfully set.
5. If the upper limit is not set, the motor automatically enters **Limit Setup** mode for the upper limit. To set the upper limit, refer to step 3 in the procedure below.

To adjust the upper limit:

1. Press and hold **SET** for 4 seconds to enter **Limit Setup** mode. The LED alternates between amber and green.
2. To begin upper limit setup, press **UP**. The amber LED flashes.
3. Press **UP** and **DN** to set the shade to its desired position.
4. Press and hold **SET** for 4 seconds. The LED turns solid red to confirm that the upper limit was successfully set.
5. If the lower limit is not set, the motor automatically enters **Limit Setup** mode for the lower limit. To set the lower limit, refer to step 3 in the procedure above.

Wireless Communications

The device connects to the Crestron network using the SG wireless communications protocol. A CEN-GW1 or CENI-GW1 universal wireless gateway (both sold separately) is required for SG wireless communication. Use the procedures outlined below to join or leave the wireless network and to verify communications between the device and the control system.

To simplify the setup process, the battery shade enters Acquire mode after it is received from the factory and powered on for the first time. This allows shades to easily be acquired and tested with fascia installed.

Join a Wireless Network

To join a wireless network:

> **NOTE:** A device can be acquired by only one gateway.

1. Put the gateway into **Acquire** mode from the unit itself, the Web UI, Crestron Home™ Setup app, or from Crestron Toolbox.

   > NOTES:
   > - If the gateway is part of a Crestron Home™ OS system, the Crestron Home Setup app must be used to enter and exit **Acquire** mode. For details, refer to Pair Crestron Wireless Device with a Gateway in the Crestron Home OS product manual.
   > - In an environment where multiple gateways are installed, only one gateway should be in **Acquire** mode at any time.

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2. Place the device into **Acquire** mode:
   - If the battery shade motor is powered on for the first time after it is received from the factory, it enters **Acquire** mode automatically and attempts to join a gateway. The LED flashes white slowly to show that the device is actively scanning the network.
     - The LED turns on for 5 seconds to show that the device joined the wireless network.
     - The LED flashes quickly to show that the device did not join the wireless network. Press the **SET** button to turn off the LED. Ensure the gateway is in **Acquire** mode and within range before attempting the acquire process again.
   - If the device did not enter **Acquire** mode automatically, use the **SET** button or a power-cycle sequence to enter **Acquire** mode. Use the power-cycle sequence if fascia is installed or the buttons are inaccessible.

     Enter Acquire mode using the SET button:

     a. Press **SET** three times, and then press and hold it down (tap-tap-tap-press+hold) until the white LED on the device flashes once. It may take up to 10 seconds for the LED to flash.

     b. Release the button to start the acquire process. The LED flashes slowly to show that the device is actively scanning the network.
        - The LED turns on for 5 seconds to show that the device joined the wireless network.
        - The LED flashes quickly to show that the device did not join the wireless network. Press the **SET** button to turn off the LED. Ensure the gateway is in **Acquire** mode and within range before attempting the acquire process again.

     Enter Acquire mode using a power-cycle sequence:

     a. Disconnect the battery pack.

     b. Power cycle the motor two times:
        i. Connect the battery pack to the motor.
        ii. Wait 5 seconds.
        iii. Disconnect the battery holder.

c. Connect the battery pack to the motor for a third time. The motor enters **Acquire** mode and the LED flashes slowly to show that the device is actively scanning the network.
   - The LED turns on for 5 seconds to show that the device joined the wireless network.
   - The LED flashes quickly to show that the device did not join the wireless network. Press the **SET** button to turn off the LED. Ensure the gateway is in **Acquire** mode and within range before attempting the acquire process again.

3. Once all devices have been acquired, take the gateway out of **Acquire** mode. Refer to the gateway's manual for details.

Leave a Wireless Network

To leave a wireless network:

1. Make sure that there are no gateways in **Acquire** mode.
2. Place the device in **Acquire** mode. To place the device in **Acquire** mode, refer to Join a Wireless Network.
3. The device leaves the wireless network when it is searching for a new network. The LED flashes quickly to show that the device left the wireless network and that it did not join a new wireless network. Press the **SET** button to turn off the LED.

Verifying Communications Status

To check the communications status of the device, tap the **SET** button three times and then press and hold it down (tap-tap-tap-press+hold) for up to 2 seconds. The white LED indicates the communications status.

White LED	Communications Status
Turns on for 5 seconds	The device is communicating with the control system.
Flashes three times	The device is communicating with the gateway but the gateway is not communicating with the control system.
Flashes twice	The device was previously joined to the network but is not communicating with the gateway.
Flashes once	The device is not joined to the network.

LED

The LED flashes to provide a visual reference that the motor is operating normally or if it is in an error state.

The following table provides a list of possible LED patterns encountered during normal operation. All LEDs extinguish after 1 minute of inactivity.

LED Patterns

LED Pattern	LED Color	Operating Mode
Solid	Blue	The motor is in **Bootloader** mode.
Fast flash (1/4-second on, 1/4-second off)	White	The motor is in **Identify** mode.
Slow flash (1/2-second on, 1/2-second off)	Green	The motor is moving from a local button press.
Solid	Green	The motor is communicating with the control system program.

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Troubleshooting

Use the following sections to view corrective actions for possible trouble situations and error states.

Trouble Situation

The following table provides corrective action for possible trouble situations. If further assistance is required, please contact Crestron Support.

Crestron CSM(I)-QMTDC Motor Troubleshooting

Trouble	Possible Cause(s)	Action
The motor cannot be controlled and all of the LEDs are off.	There is no power provided to the motor.	Check the power connections between the battery pack and motor.
	The power connection is reversed between the motor and the battery pack.	Ensure batteries are installed in the battery holder in the proper orientation and that the batteries have not exceeded their useful life.
The motor moves in the opposite direction.	The motor was installed on the wrong side of the window opening.	Reinstall the shade with the motor on the left side of the window opening.
The motor intermittently stops working.	The motor is exceeding its maximum duty cycle.	Reduce the duty cycle of the motor operation.
	The motor is encountering an obstacle or excessive friction, which is causing it to stop.	Verify that all components are aligned and running smoothly.
	The load on the motor is exceeding its maximum rating.	Verify that the fabric weight and tube size do not exceed the rating for the motor.
The LED is blue.	The motor is stuck in the bootloader.	Reload firmware to the motor.
Motor speed reduced unexpectedly.	Batteries are nearing the end of their useful life.	Replace existing batteries with new batteries.

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Error State

Crestron CSM(I)-QMTDC motors display error codes using the red LED on the interface. The LED flashes a pattern to indicate the error.

> **NOTE:** The error code does not flash while the motor is in a sleep state. If the error state is still active when the motor wakes up, the LED will continue to flash the code.

For example, when a 3-3 LED flash pattern occurs, the LED flashes three times, pauses for 1 second, flashes three times, pauses for 5 seconds, and then repeats until the error is corrected. When a 2-1 LED flash pattern occurs, the LED flashes two times, pauses for 1 second, flashes once, pauses for 5 seconds, and then repeats this code until the error is corrected.

The flash patterns are listed in the following table. Refer to Troubleshooting for possible corrections.

LED Blinking Patterns

LED Error Code	Error State
2-1	The motor is unable to communicate with the gateway. Check that the motor is connected to a wireless gateway.
2-2	The motor is not being polled by the control system. Ensure that the RF ID matches the control system program and that the program is running on the control system.
3-1	The motor limits are not set.
3-3	An obstruction is blocking the shade fabric from moving freely.
3-4	A motor overcurrent error exists. Check for obstacles or any sources of excessive friction.
3-5	A motor duty-cycle error exists. Reduce the operating duty cycle of the motor to correct the error.

Fascia

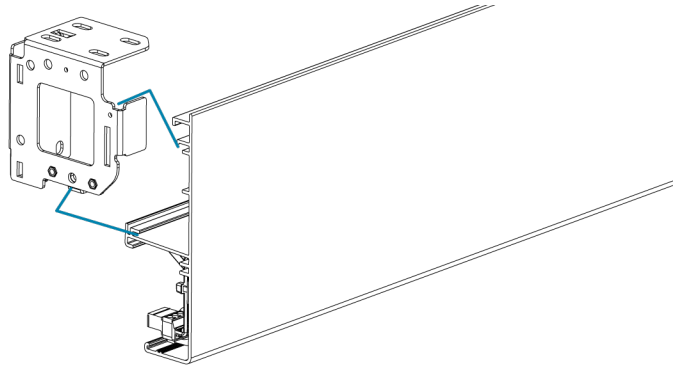
Once the assembly is installed and programmed, mount the fascia.

Mount the Fascia

To mount the fascia:

1. Place the top of the fascia on the top of the bracket.
2. Press the fascia into place on the bottom of the bracket. The fascia snaps into place.

Mount the Fascia (CSA-ARCH3-BRKT)



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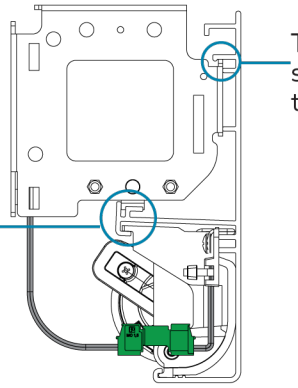

Visit the Product Page

Scan the QR code to visit the product page.

www.crestron.com/model/6510732

Remove the Fascia

To remove the fascia, pull the bottom of the fascia down to clear the bottom tab on the bracket. Then, pull the fascia away from the window and upward to release the top of the fascia.

NOTE: The fascia for battery-operated shades contains an extra battery pack mounting bracket on the end of the fascia opposite the motor. This bracket is used to help facilitate the removal of the fascia.

Shade Motor and Hardware for CS-SHADE-ROLLER-BATT with CSA-ARCH3 Brackets

Additional Information

Original Instructions
The U.S. English version of this document is the original instructions.
All other languages are a translation of the original instructions.

Regulatory Model: M202034001

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