



ROLLER SHADE OWNER'S MANUAL



TABLE OF CONTENTS

Installation Instructions	1	Care and Cleaning	13
Manual Shade Adjustment	3	Troubleshooting	14
Switch Controlled Powered Shade	4		
Remote Controlled Powered Shade	8		
2-Channel Remote	9		
15-Channel Remote	11		



INSTALLATION INSTRUCTIONS

The Day / Night Roller Shade System has been designed with ease of installation in mind. After installing the appropriate number of mounting clips onto the valance, wall, or ceiling, the entire assembly simply snaps into place. All shade assemblies (manual, powered, or combination) use the same physical mounting procedures.



Before you begin the installation, please verify the following:

1. The valance and/or side boards, if applicable, are at least 2" deep.
2. The width of the shade is greater than the window and less than the window valance / side board.
3. You have the correct number of mounting clips and screws to complete the installation.
4. If the shades are motorized, an adequate 12 Volt DC power source is available and can be safely routed to the motor wires. If a source of power is not readily available, you may choose to install a small 12 Volt DC sealed battery and charger to operate the shades, or a 120 VAC to 12 VDC converter can be utilized.

Finished shade assembly size:

- 29" or smaller = 2 clips
- 30" to 60" = 3 clips
- 61" to 79" = 4 clips
- 80" and larger = 6 clips

NOTE: Installation screws are not provided due to variations in requirements. The customer should use #8 pan head sheet metal screws. The most common length is 1" but may vary due to the needs of your particular installation.

INSTALLATION PROCEDURES

NOTE: For best results, all clips should be solidly mounted. When mounting to an uneven or padded surface, it may be necessary to use solid spacers to ensure a firm, dependable and level mounting.

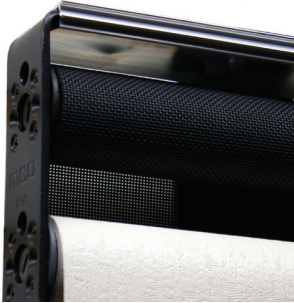
1. For living area window shade installations, begin installation by mounting the clips to the top of the valance, cupboard bottom, or headliner. For best results, the shade should be located as close to the glass as possible (usually 3/8" away from the window frame) while still allowing for unobstructed operation of the shade throughout its entire range of travel (example: the shade should be mounted close to the glass, but not so close that it hangs up on the window frame when lowered). **The outermost clips should be mounted within 2" from the end of the shade assembly.**
2. Center the shade assembly, check for proper orientation and attach to the mounting clips. The shade assembly is mounted to the clips by placing the outside edge of the assembly rail into the clips and rotating the shade toward the clip tabs to firmly and solidly snap the mounting rail into place.
3. For shades in excess of 80", install two clips at each end of the shade assembly separated by no more than 1". The remaining two clips should be evenly spaced across the middle.

For Powered Shades please refer to the proper section of this manual for wiring procedures prior to continuing (Switch Power — Page 4; Remote Power — Page 8).

Check the following to ensure proper operation of the shade:

- The shade must be level. Solid spacers of the appropriate thickness placed under the mounting clips may be necessary.
- The shade should not bind on anything throughout its entire range of travel.
- Proper operation requires clearance around all sides of the shade in the upper position, it should not be rubbing on anything when it is in the upper position.
- The shade assembly should be evenly spaced left to right and/or mounted so that it covers as much of the glass as possible when lowered.

ADJUSTMENT INSTRUCTIONS FOR MANUAL SHADES

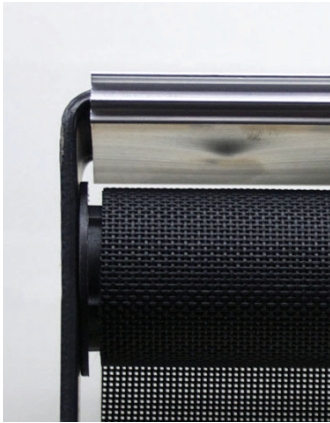


Shades are easily lowered by hand to virtually any position and retracted with a pull-to-release movement. This unique technology allows for a controlled and user-adjustable ascent speed and the AutoStop™ will stop the shade at a predetermined set point every time it's raised. The shade ascent speed and stop point can both be easily changed if desired.

If necessary, the spring tension (Speed) and stop position can be adjusted before installation by simply turning the appropriate adjustment screw at the ends of each shade using a flat blade screwdriver.

MANUAL SPEED ADJUSTMENT

Flat blade screwdriver needed. Push in adjuster with screwdriver before adjusting.



Your shades were set to the ideal speed at the factory and should not require any adjustment. Fine increases or decreases are easily made using the appropriate adjuster.

To adjust the speed at which your shade retracts first identify the speed adjuster – the speed adjuster is **BLACK** in color – it may be on either end depending upon shade configuration. Turn the adjuster clockwise to increase the spring tension and ascent speed. Turn it counter-clockwise to decrease the speed.

Test your shade after adjusting by lowering and raising the shade as normal.

Caution: Over tensioning may cause the shade to “stick” at its upper limit. If you have to “break loose” the shade to lower it, the tension is too high. Release tension until the shade can be easily lowered without having to break it loose, yet allowing it to fully retract.

MANUAL AUTOSTOP™ ADJUSTMENT

Flat blade screwdriver needed. Push in adjuster with screwdriver before adjusting.

To adjust the point at which your shade will stop when raised, first identify the AutoStop™ adjuster – it may be on either end depending upon shade configuration. The AutoStop™ adjuster is **GRAY** in color. Turn the adjuster clockwise to lower the set point and turn the dial counter-clockwise to raise the set point.

POWERED SHADES - SWITCH CONTROLLED

AUTOMATIC SAFETY RETRACTION FEATURE

Switch controlled **windshield** shades are designed to automatically retract the day or night shade into the full up position in the unlikely event a motor fails. This feature is designed to prevent either windshield shade from unrolling and blocking the drivers vision while on the road.

If the Automatic Safety Retraction Feature (ASRF) is activated, please call for further instructions. Do not attempt to adjust the shade or it may be damaged and void your warranty.

OPERATING INSTRUCTIONS FOR DUAL-RANGE™ SWITCH MOTOR (WINDSHIELD SHADE)

To use the Dual-Range™ switch operated shade, simply press the **UP** or **DOWN** button for the appropriate shade. Switch-operated shades require the switch to be held until the shade either reaches its limit or the desired intermediate position (the shade can be stopped at any point by simply releasing the switch).

If the ignition is on, the shade can only operate within the “Ignition ON” range of Set-Limits. With the ignition off, the shade can operate within the entire range of Set-Limits.

If you turn the ignition on prior to raising the shade from the lowest full range limit, the shade will still move in the up direction, but cannot be lowered below the “Ignition ON” upper Set-Limit once it has been raised above this point.

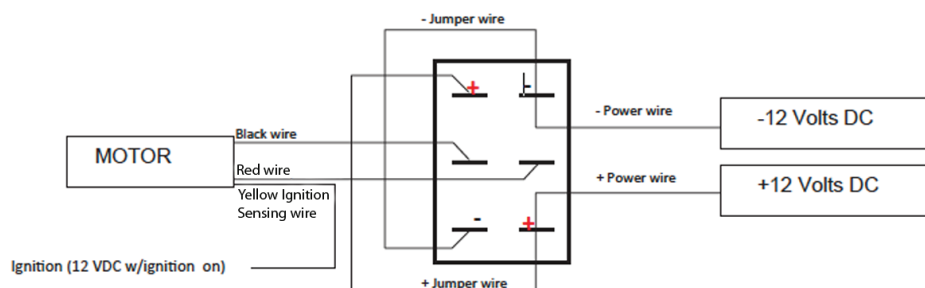
Technical Parameters:

- Power Supply: 12 VDC, 800mA
- Lift Capacity: 11 lb / 5 kg

The switch-controlled motors have built-in electronics to memorize the upper and lower Set-Limits for the shades after the initial setting in “Ignition **ON**” mode and “Ignition **OFF**” mode.

Switch Control Motor: The motor connections determine motor running direction. Utilize a DPDT momentary On-Off-On switch.

NOTE: The Dual-Range™ Motor is designed for windshield use. If using for any other window where the Dual-Range™ safety function is not necessary, disregard the yellow ignition wire and coil it up out of the way.



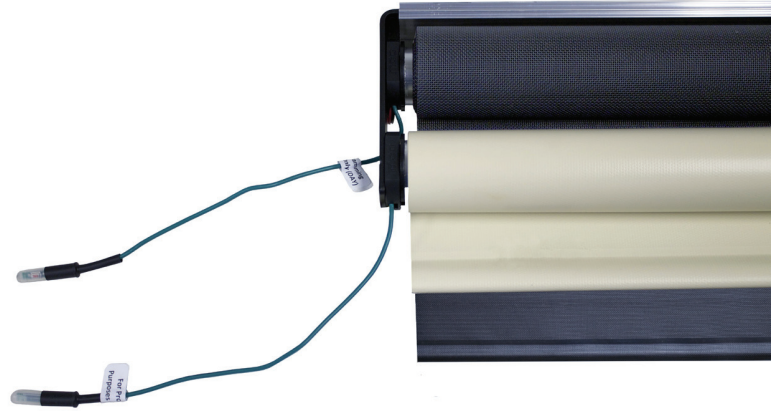
DUAL-RANGE™ SHADE LIMIT ADJUSTMENT (WINDSHIELD)

To Program the Shade:

1. Locate the Learning Key (button) for the shade you want to set the limits for. The button will be on the motor side of the shade where the power wires go into the unit. The button is attached to a small green wire set. Turn your ignition key switch on. You will now set the upper limit and middle limit of the shade, above your eye level. This is called the “ignition on” setting.

NOTE: you may need two people to perform this adjustment depending on where the buttons and switches are located.

2. Press and hold the Learning Key (button) and, at the same time, press and hold the rocker switch which controls that particular shade until you hear a series of beeps. Once you hear the beeps, release the learning button and continue to hold the rocker switch until it gets close to the desired upper or lower limit. Release the rocker switch. You can now “bump” the rocker switch in the same direction of travel by repeatedly pressing it until it reaches the desired limit. Reverse the shade direction (up or down) from the direction you were initially moving the shade and do not release the button until the shade reaches the other limit you want to set. You will hear a series of beeps before the shade travels in the opposite direction. This indicates that limit has been set.



NOTE: This adjustment is for ignition ON so be sure you set your lower limit above your eye level. This is a safety feature and the shade should NOT go all the way to the dash with the ignition key switch on. The lower limit must not block your view of the road on either the day or night shade.

3. You can now once again “bump” the shade in the same direction of the desired limit. When there, reverse the shade travel with the rocker switch. A series of beeps are heard and the shade will begin traveling that direction. Both limits are now set. You can release the rocker switch.
4. Test the shade limits by pushing the rocker switch up to the upper limit and down to the lower limit. If all is well, you can now perform the same adjustment on the other shade (day or night) with the ignition ON.

NOTE: Once the ignition ON settings is changed, you MUST reset the limits for ignition off on the same shade. Changing the adjustments in one mode affects the other mode.

SETTING THE SHADE LIMITS WITH THE IGNITION OFF

The procedure is the same as above, but with the ignition off, you can bring either shade totally down to the dash for complete coverage of the windshield when you are parked.

NOTE: If you release the dash button too soon when reversing the direction of the shade and you have a long distance to your stop point limit, the motor will only allow you to “bump” the shade up or down a little at a time. It may be quicker to reverse the direction again, which takes it out of the learning mode, and begin the procedure all over again (see step 2 above) by holding both buttons and waiting for the beeps.

PROGRAMMING AT A GLANCE

- Turn the coach ignition ON.
- Use the correct Learning Key attached to the green wire hanging from the motor end of the shade. Press and hold both the rocker switch and the learning key at the same time until the shade beeps.
- Release the learning key first and continue to hold the rocker switch.
- Continue the same direction with the shade.
- Release the rocker about mid-way down the windshield, just so you can see under the shade while driving. This is the lower limit. If you need to go further down, the shade will now “bump” down a bit by pushing and releasing the rocker repeatedly. You can only bump the shade in the direction you were traveling.
- Once at the desired position, reverse the rocker switch, the shade will beep then move. Bring the shade up to where you want it to stop at the upper limit. Again, you can bump it up if needed but not down.
- Finally, reverse the rocker switch once again and go down a few inches and release. This will take the shade motor out of the programming mode.
- Test the shade by pressing the switch to raise and lower the shade, verifying that it stops at each limit as it should.
- If both limits are set, you can now perform the same steps with the ignition OFF.

NOTE: With the ignition OFF, be sure to bring the shade all the way down to the dash, not just to the half-way position.

SINGLE RANGE SHADE LIMIT ADJUSTMENT (SWITCH CONTROLLED / NON-WINDSHIELD)

To Program the Shade:

1. Locate the Learning Key (button) for the shade you want to set the limits for. The button will be on the motor side of the shade where the power wires go into the unit. The button is attached to a small green wire set. You will now set the upper limit and lower limit of the shade.

NOTE: you may need two people to perform this adjustment depending on where the learning buttons and switches are located.

2. Press and hold the Learning Key (button) and, at the same time, press and hold the switch which controls that particular shade, until you hear a series of beeps. Once you hear the beeps, release the learning button and continue to hold the switch until the shade gets close to the upper or lower limit you want the shade to be set at. Release the switch. You can now “bump” the shade button in the same direction of travel by repeatedly pressing the switch until you get it to the limit position you desire. Reverse the shade direction (up or down) from the direction you were initially moving the shade and do not release the switch until the shade reaches the desired limit. You will hear a series of beeps before the shade travels in the opposite direction. This indicates that that limit has been set.
3. You can now once again “bump” the shade in the same direction of the desired limit. When there, reverse the shade travel with the switch. A series of beeps are heard and the shade will begin traveling that direction. Both limits are now set. You can release the rocker switch.
4. Test the shade by pressing the switch to raise and lower the shade, verifying that it stops at each limit as it should.

PROGRAMMING AT A GLANCE

- Use the correct Learning Key attached to the green wire hanging from the motor end of the shade. Press and hold both the switch and the learning key at the same time until the shade beeps.
- Release the learning key first and continue to hold the switch.
- Continue the same direction with the shade.
- Once at the desired position, reverse the switch, the shade will beep then move. Bring the shade up to where you want it to stop at the upper limit. Again, you can bump it up if needed but not down.
- Finally, reverse the switch once again and go down a few inches and release. This will take the shade motor out of the programming mode.
- Test the shade by pressing the switch to raise and lower the shade, verifying that it stops at each limit as it should.
- If both limits are set, programming is complete.

POWERED SHADES - REMOTE CONTROLLED

OPERATING INSTRUCTIONS FOR REMOTE CONTROLLED MOTOR

The remote-controlled motors have integrated electronics to memorize the upper and lower Set-Limits for the shades after the initial setting. The remote control motors also have integrated receivers and can be easily programmed to operate independent of other shades and in multiple shade groupings as well, such as in a passenger-side-only mode or in an all-together mode.

Technical Parameters

Power Supply: 12 VDC

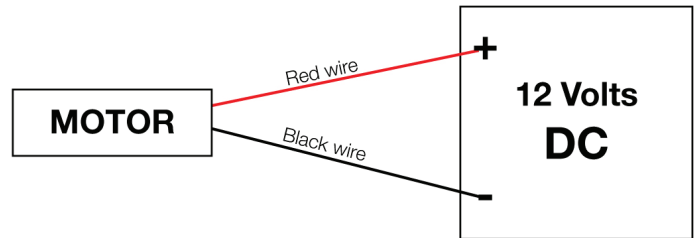
Amperage: 800mA

Lift Capacity: 11 lb / 5 kg

Wiring

Connect the red wire to the positive power source.
Connect the black wire to the negative power source.
The learning wires should never be connected to any power source.

NOTE: If each shade motor and controller is already programmed and you only need to adjust the Set-Limits, you can skip down to the "SECTION 2 – Limit Setting Mode" section of the manual.



2-CHANNEL REMOTE

MOTORS WITH RED LEARNING BUTTON — Motor Jogs

Press and hold learning button for desired number of jogs then release.

FOR CLEAR LEARNING BUTTON SEE PAGE 10

1. **One Jog** = Pairing mode — press and hold for one jog then release.
2. **Two Jogs** = Disable shade — press and hold for two jogs then release — (Recover shade / motor by pressing learning button for one second then release).
3. **Three Jogs** = Reverse motor direction of travel — press and hold for three jogs then release.
4. **Four Jogs** = Factory reset — press and hold for four jogs then release.

SECTION 1 — To Pair Remote To A Shade

1. Choose channel 1 or 2 on remote.
2. Press and hold learning button until shade jogs and beeps one time.
3. Press and release P2 on the remote (shade will jog) see Fig. 1.
4. Press and release P2 on the remote (shade will beep).
5. Press and release the up or down button (shade will jog and beep 6 times).

SECTION 2 — Limit Setting Mode

1. Press and release P2 on the remote (shade will jog and beep one time).
2. Press the up button on the remote (shade will jog and beep one time).
3. Press and release P2 on the remote (shade will jog and beep four times) to confirm you are in limit setting mode.

UP and STOP simultaneously = P2

(Do Not hold for more than 2 seconds)

NOTE: P2 is UP and STOP at the exact same time, the light will go around the remote 2 times fast when P2 is selected.

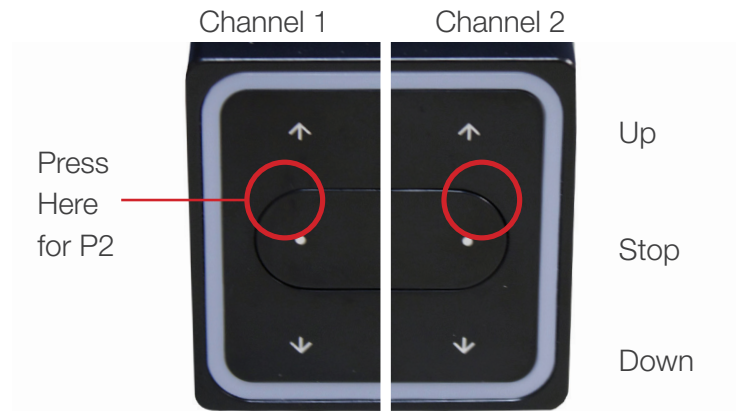


Fig. 1

4. Use the up or down button to move shade to desired upper / lower stop point (for fine tune adjustment press and release P2 while shade is moving) and press stop. Once you have shade at desired location press and hold the stop button until it beeps four times and jogs once. Shade will jog and beep one time to confirm limit is set.
5. If limits need to be adjusted after they have been set, please move shade to the upper / lower limit position first, then press and hold “up and down” buttons together, (shade will jog and beep 4 times) to confirm you are in the upper / lower limit adjusting mode. Then follow Section 2, Step 4 to set new upper / lower limit **OR** delete limits first (see next section), then start over at section 2.

SECTION 3 — Deleting Limits

1. Press and release P2 on the remote (shade will jog and beep).
2. Press the down arrow on the remote (shade will jog and beep).
3. Press and release P2 on the remote (shade will jog and beep 4 times to confirm all limits are deleted).

SECTION 4 — Controlling Multiple Motors / Shades With A Single Channel

1. Start by pairing and setting limits on the first shade / motor (see section 1 and 2).
2. Press and hold learning button on first shade for two jogs and release. Motor will beep confirming that it has been disabled.
3. Move on to the next shade and repeat the above steps (using the same channel).
4. Once you have all shades / motors programmed, you will recover the disabled shades by pressing and releasing the learning button for about one second.
5. All shades should now work together.

*CLEAR LEARNING BUTTON MOTORS — Motor Jogs

Press and hold learning button for desired number of jogs then release.

1. **One Jog** = Pairing mode — press and hold for one jog then release.
2. **Two Jogs** = Reverse motor direction of travel — press and hold for two jogs then release.
3. **Three Jogs** = Factory reset — press and hold for three jogs then release.

15-CHANNEL REMOTE

MOTORS WITH RED LEARNING BUTTON — Motor Jogs

Press and hold learning button for desired number of jogs then release.

FOR CLEAR LEARNING BUTTON SEE PAGE 12

1. **One Jog** = Pairing mode — press and hold for one jog then release.
2. **Two Jogs** = Disable shade — press and hold for two jogs then release — (Recover shade / motor by pressing learning button for one second then release).
3. **Three Jogs** = Reverse motor direction of travel — press and hold for three jogs then release.
4. **Four Jogs** = Factory reset — press and hold for four jogs then release.

SECTION 1 — To Pair A Remote To A Shade

1. Choose channel 1-15 on remote.
2. Press and hold learning button until shade jogs and beeps one time.
3. Press and release P2 on the remote (shade will jog) see Figure 2.
4. Press and release P2 on the remote (shade will beep).
5. Press and release the up or down button (shade will jog and beep 6 times).

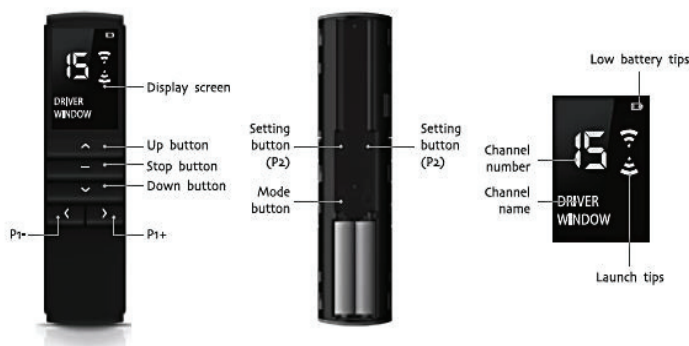


Fig. 2

SECTION 2 — Limit Setting Mode

1. Press and release P2 on the remote (shade will jog and beep one time).
2. Press the up button on the remote (shade will jog and beep one time).
3. Press and release P2 on the remote (shade will jog and beep four times) to confirm you are in limit setting mode.
4. Use the up or down button to move shade to desired upper / lower stop point (for fine tune adjustment press and release P2 while shade is moving) and press stop. Once you have shade at desired location press and hold the stop button until it beeps four times and jogs once. Shade will jog and beep one time to confirm limit is set.
5. If limits need to be adjusted after they have been set, please move shade to the upper / lower limit position first, then press and hold “up and down” buttons together, (shade will jog and beep 4 times) to confirm you are in the upper / lower limit adjusting mode. Then follow Section 2, Step 4 to set new upper / lower limit **OR** delete limits first (see next section), then start over at section 2.

SECTION 3 — Deleting Limits

1. Press and release P2 on the remote (shade will jog and beep).
2. Press the down arrow on the remote (shade will jog and beep).
3. Press and release P2 on the remote (shade will jog and beep three times to confirm all limits are deleted).

SECTION 4 — Setting Up All Day / All Night Channel

1. Select individual channel for the motor / shade that you want to add to an “All” channel.

2. Press and release P2 while on individual channel (shade will jog and beep).
3. Press and release P2 again on same channel (shade will jog and beep).
4. Select desired "All" channel and press and release P2 on that channel **within 7 seconds**. Shade is now controlled by its individual channel as well as the all day / all night channel (shade will jog and beep 7 times).

**NOTE: if shade fails to jog and beep 7 times then the shade may have timed out, start over at Step 1.*

Wait 5 seconds before pressing any other buttons

SECTION 5 — Controlling Multiple Motors / Shades With A Single Channel

1. Start by pairing and setting limits on the first shade / motor (see section 1 and 2).
2. Press and hold learning button on first shade for two jogs and release. Motor will beep confirming that it has been disabled.
3. Move on to the next shade and repeat the above steps (using the same channel).
4. Once you have all shades / motors programmed, you will recover the disabled shades by pressing and releasing the learning button for about one second.
5. All shades should now work together.

SECTION 6 — Channel Name Editing Operation

1. Select the channel you want to edit.
2. Press Mode button on back of remote (the first letter of channel name flashes).
3. Press UP/DOWN button to select desired letter/number after you have reached the desired letter or number, press Channel+ to advance to the next character.
4. After completing the name edit, press stop to save.

***CLEAR LEARNING BUTTON MOTORS — Motor Jogs**

Press and hold learning button for desired number of jogs then release.

1. **One Jog** = Pairing mode — press and hold for one jog then release.
2. **Two Jogs** = Reverse motor direction of travel — press and hold for three jogs then release.
3. **Three Jogs** = Factory reset — press and hold for four jogs then release.

CARE AND CLEANING

DAY SHADE

Solar Screens should be vacuumed periodically to remove accumulated dust, particularly when traveling in dry, dusty climates. We recommend using your vacuum cleaner's soft upholstery brush and gently vacuum each shade.

To clean your Solar Screens, you can use a sponge or a soft brush and water to remove stuck-on dust. Use a towel behind the screen as you clean with a sponge or brush to keep splatter down.

NIGHT SHADE

Vinyl material will typically clean up nicely with water using a micro-fiber cloth or non-colored paper towel. Wipe down with water after cleaning and dry thoroughly before raising the shade. Fabrics have been Teflon treated and should be cleaned with a damp sponge. For stubborn stains, Woolite brand Pet Stain Remover with Oxygen may be used carefully and as directed. After using upholstery cleaner, you should consider reapplying the Teflon treatment by using a ScotchGuard™ brand upholstery protecting spray and following the directions for application on a "lightweight" fabric.

TROUBLESHOOTING

TROUBLESHOOTING PROCEDURE FOR MANUAL SHADES

SYMPTOMS	POSSIBLE CAUSES	REMEDY
Shade retracts slowly	<ol style="list-style-type: none"> 1. Lost tension 2. Shade coning 3. Insufficient clearance around shade assembly 	<ol style="list-style-type: none"> 1. Add tension 2. Use tape to correct "coning" 3. Reposition shade to have sufficient clearance
Shade will not retract	<ol style="list-style-type: none"> 1. Lost tension 2. Broken spring 3. Spring slipping inside tube 	<ol style="list-style-type: none"> 1. Add tension 2. Replace spring 3. Replace spring
Shade retracts too fast	<ol style="list-style-type: none"> 1. Over tensioned 2. Failed slow-rise 	<ol style="list-style-type: none"> 1. Adjust tension 2. Replace spring
Shade will not fully extend	<ol style="list-style-type: none"> 1. Over tensioned 	<ol style="list-style-type: none"> 1. Reduce spring tension by adjusting

Flat blade screwdriver needed. Push in adjuster with screwdriver before adjusting.

Shades Retracting Too Fast / Slow Spring Adjuster Color Black

- Locate the black adjustment wheel for the shade in question.
- Turning the adjuster counter-clockwise will reduce spring tension.
- Turning the adjuster wheel clockwise will increase spring tension.

Shades Stopping Too High / Low AutoStop™ Adjuster Color Gray / White

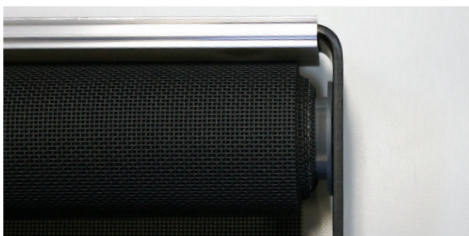
- Locate the gray / white adjuster for the shade in question.
- If the shade is stopping too low you will turn the adjuster counter-clockwise.
- If the shade is stopping too high you will turn the adjuster clockwise.

**Always test the shade by pulling it down and releasing it after any adjustment to be sure it is working properly.*

THE SHADE DOES NOT ROLL UP STRAIGHT (CONING)



Some shades have a tendency to cone on the tube to one side or the other when being rolled up. A common indication of this problem is a shade that slows and stops before reaching the top stopping point. In the photos, notice how the fabric on the shade is encroaching the bracket in the picture on the top. While the picture on the bottom shows the shade is pulling away from the bracket.



To correct this, extend the shade until you can see where the fabric is attached to the roller, apply a small piece of masking tape (three or four inches) on the tube on the opposite end from where the shade is coning. Retract the shade and let it travel to the top. Hopefully, this will have corrected your problem. A second or even third piece can be applied to correct more extreme coning issues.

BLACK PEARL® MOTORS WITH LOW VOLTAGE SENTRY® FEATURE

Black Pearl® roller shade motors have a patent-pending Sentry® early warning low voltage alert function. If voltage starts to drop in the coach / unit, the motor will give an early warning that the voltage is lower than it should be. Set limits will not be lost or changed due to voltage variations.

Low Voltage Sentry® motors operate as follows:

REMOTE MOTORS

- 13.5VDC - 11.5VDC — Standard motor operational voltage
- 11.4VDC - 10.0VDC — Motor operates but at a slower speed
- 9.9VDC - 7.5VDC — Motor emits 10 beeps; Motor operates but at an even slower speed
- 7.4VDC and lower — Motor does not beep and will not operate; Motor retains set limits

SWITCHED MOTORS

- 13.5VDC - 11.5VDC — Standard motor operational voltage
- 11.4VDC - 10.5VDC — Motor operates but at a slower speed
- 10.4VDC - 9.5VDC — Motor emits 3 beeps; Motor operates but at an even slower speed
- 9.4VDC - 8.5VDC — Motor emits 3 beeps and will not operate; Motor retains set limits
- 8.4VDC and lower — Motor does not beep and will not operate; Motor retains set limits

TROUBLESHOOTING PROCEDURE FOR SWITCH CONTROLLED MOTORS

SYMPTOMS	POSSIBLE CAUSE	REMEDY
Shade / motor will not operate	1. Coach battery is low 2. Lost memory 3. Shorted wire	1. Start coach, let battery charge 2. Reprogram using instructions 3. Locate shorted wire and repair
Shade / motor stops at incorrect position	1. Lost memory	1. Reprogram using instructions
Motor "clicks" when you attempt to operate	1. Failed motor	1. Replace motor

1. Verify power is applied to the motor by pressing the rocker switch either up or down. (Voltage should be between 11.0 and 13.6 volts DC.) If the voltage is low, charge the chassis / coach batteries and retry shade operation. Voltage can be verified at the rocker switch or in the disconnect / butt splices in the motor wiring leads. Verify positive and negative voltage (both up and down directions) from the switch.
2. If motor fails to move, press and hold the learning button and rocker switch for about 4 seconds. The motor will give a series of rapid beeps. Release the rocker switch and the learning wires. If the shade beeped, proceed with the directions "Switch Motor Shade Limit Adjustment."
3. If the motor has power but still fails to move in either direction after following Step 2, please contact for assistance.

TROUBLESHOOTING PROCEDURE FOR REMOTE CONTROLLED MOTORS

SYMPTOMS	POSSIBLE CAUSE	REMEDY
Motor runs but stops every couple of inches	1. Lost memory 2. Failed motor	1. Reprogram using instructions 2. Replace motor
Motor will not move	1. Coach battery low or no power 2. Remote control battery low or dead 3. Shorted wire 4. Lost memory 5. Failed motor	1. Start coach and let it charge 2. Replace battery in the remote 3. Locate shorted wire and repair 4. Reprogram using instructions 5. Replace motor
Motor "clicks" when you try to operate up or down	1. Failed motor	1. Replace motor

1. Verify the voltage applied to the motor. Voltage should be between 11.0 and 13.6 volts DC. The positive wire is Red, the negative wire is Black. If the voltage is low, charge the chassis or coach batteries and retry the motor operation. Voltage can be verified in the disconnect/butt splices in the shade motor wiring leads. Verify positive and negative voltage from the switch.
2. If the shade fails to move, attempt to reset the motor by pressing and holding the learning button for four jogs then release. If the motor does not jog, verify that the power is going to the motor. If power for the shade is not present, please correct the power problem.
3. Refer to the 2-Channel or 15-Channel programming guide to link the shade motor to your remote controller.
4. If a shade motor fails to link to the remote controller, try to use a spare channel on your 15-Channel or 2-Channel remote controller. If the motor links to the remote controller on an alternate channel, please contact for assistance.
5. If the motor will not program to any channel on any remote controller, the batteries have been replaced, and correct voltage has been verified, please contact for assistance.