Pella Lifestyle Series

Motorized Between-the-Glass Blinds and Shades Troubleshooting Guide

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TOOLS REQUIRED

Flat Head Screwdriver

Paper Clip/Other Small Tool

Pliers

PRE-WORK

The following steps frequently resolve operating issues and should be attempted by the customer or service technician before proceeding to the rest of the guide.

1) **Factory Reset Blind or Shade** – Reference Appendix D on Page 12. If Blind or Shade operates as expected following a factory reset, you are finished.

2) **Battery may need to be charged** – If unit worked for several weeks, but is no longer working, it may not be getting enough direct sunlight to keep the battery charged.

   Direct sunlight means the sun's rays shine directly on the solar panel for at least 2-3 hours per day. Large shade trees, bushes, exterior furniture, and overhangs may block sunlight from reaching the solar panel. Also, north facing units will typically get very little direct sunlight, especially during winter months in northern climates. If the solar panel is not getting enough direct sunlight, the customer will need to charge the batteries every 6-9 months using a BTG Motorized Shade Charger.

   If you suspect the battery may be low, connect a BTG Motorized Shade Charger to the unit and allow it to charge overnight. Reference Appendix C on Page 11.

BLIND OR SHADE WILL NOT OPERATE

The following steps will cover several potential root causes that may prevent a Blind or Shade from operating correctly.





Start by verifying that the Remote is operating correctly:

- Press and release any button on the remote and the remote LED should light red briefly.
- If the LED does not light red, remove the battery cover and ensure the plastic battery tab has been removed and that the battery is installed with the "+" side visible.
- If the battery is installed correctly and the remote LED does not light red, replace the battery.
- If the LED does not light red with a new battery installed, order a replacement remote.
- If remote has been previously paired with a Blind/Shade, and Blind/Shade will not operate even though the LED turns red, change battery in remote. Retry remote steps with a new battery.

Determine if power is reaching the motor from the battery:

- Factory Reset Blind or Shade – Reference Appendix D on Page 12.

If **Blind or Shade makes any movement**, then it has power and you should continue to the BLIND OR SHADE TROUBLESHOOTING steps on Pages 4 and 5.

If **no movement is detected**, continue to the next step.
Note: The shade drive is designed so that it will not operate if the air space between the glass is greater than 175° F. Although very rare, if this occurs, opening the HGP will help reduce this temperature allowing the drive to operate.



The following steps will check the connection between the Power Unit and Motorization Wire Harness:

- Remove the Power Unit just enough to allow access to the end with the connectors. Reference Appendix A on Page 9. Unplug the Motorization Wire Harness from the Power Unit.
- Verify pins within female portion of the connector are not bent or broken. Reconnect and verify wires are solidly held in the connector.
- Factory Reset Blind or Shade – Reference Appendix D on Page 12.

If Blind or Shade **moves up and fully compresses at top of unit**, then a connection was loose or the control boards needed to be power cycled to restore normal operation. If the Blind or Shade now operates correctly, you are finished.

If Blind or Shade **does not move up and fully compress at top of unit**, continue to POWER UNIT TROUBLESHOOTING.

POWER UNIT TROUBLESHOOTING

The following steps will test potential root causes in the Motorization Wire Harness and Battery Pack.

- Reference Appendix A on Page 9 to remove the Power Unit from the HGP. Connect a different Power Unit that is known to work to the Motorization Wire Harness.
- Factory Reset Blind or Shade – Reference Appendix D on Page 12.

If **Factory Reset is unsuccessful**, perform the following steps to check the Motorization Wire Harness.



- Reference Appendix B on Page 10 to remove the Blind or Shade to allow access to the connections between the Motorization Wire Harness and Blind or Shade. Verify that the Motorization Wire Harness is firmly plugged into the Blind or Shade connector.
- Unplug the connectors and inspect for loose wires and bent or broken pins.
- Switch the Motorization Wire Harness with a Motorization Wire Harness that is known to work. Factory Reset Blind or Shade.
- If successful and the Blind or Shade now operates correctly, order a replacement Motorization Wire Harness. You are now finished.
- If unsuccessful, continue to BLIND OR SHADE TROUBLESHOOTING steps on Pages 4 and 5.

If **Factory Reset is successful, but the blind or shade still does not operate correctly**, there are issues with the initial Power Unit AND the blind or shade.

If the blind or shade does not move or moves slowly
(1" per second), connect a BTG Motorized Inductive Shade Charger

– Reference Appendix C on Page 11.

If Blind or Shade **operates normally after fully charging the original Power Unit**, you are now finished.

If Blind or Shade **does not operate after fully charging the original Power Unit**, order a replacement Battery.

BLIND OR SHADE TROUBLESHOOTING

Start by verifying that the Power Unit is operating as expected:

- If all remote troubleshooting has been performed on page 3 and Blind/Shade will not move with remote, but factory reset will move Blind/Shade, there could be an issue with the power unit and charging that is interfering with its operations

- If wall charger is attached to the unit, remove charger from unit and use the remote to control the Blind/Shade.



- If Blind/Shade responds check the wireharness to see if it has ferrite cores.
  - If it does not have ferrite cores, order a new wireharness
  - If it does have ferrite cores, order a new battery.

  You are now done.



Ferrite core

- If no wall charger was attached, or removing the wall charger did not help, remove the power unit from the HGP referencing Appendix A on page 9.

- Once removed, unplug solar panel from power unit, and then reinstall power unit into HGP. Use the remote to control the Blind/Shade.



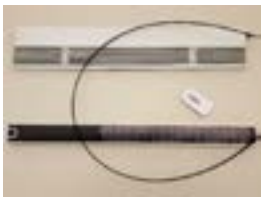
- If Blind/Shade responds check the wireharness to see if it has ferrite cores.
  - If it does not have ferrite cores, order a new wireharness
  - If it does have ferrite cores, order a new battery.

  You are now done.

If the Blind/Shade does not respond continue troubleshooting steps.

Verify that the Motor Drive is operating as expected.

- Remove Power Unit, Motorization Wire Harness, and Blind or Shade from HGP. Reference Appendices A and B on Page 9 and 10



- Use a Flat Head Screwdriver to release the End Cap from the shade and slide the End Cap and Motor Drive out of the cover.



- With the Motor Drive plugged into the Power Unit, use a paper clip or other small tool to press and hold the Factory Reset button for 3 seconds. Lift Shaft Gear should begin rotating.



If **Lift Shaft Gear does not begin rotating**, follow the POWER UNIT TROUBLESHOOTING steps on Page 4 until the issue is found. If POWER UNIT TROUBLESHOOTING steps have already been completed, order a replacement Motor Drive. You are now finished.

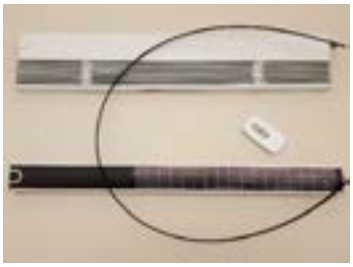


If **Lift Shaft Gear rotates**, the Motor Drive has power. Continue to the next step.

Verify that the Motor Drive is handed correctly:

- Hold the drive as shown and observe the direction of rotation.
- After observing direction of rotation, press and hold the Factory Reset button for 3 seconds and the Lift Shaft Gear will stop rotating.
- If it turns counterclockwise, the Blind or Shade was setup as a RH. If it turns clockwise, the Blind or Shade was setup as a LH.
- To determine the Hand of the Blind or Shade, look at the exterior face of the Blind or Shade. If the Motor Drive is on the RH side of the Blind or Shade, it is a RH unit. If the Motor Drive is on the LH side, it is a LH unit. The Blind shown is a RH Unit.
- Verify that hand of Motor Drive matches the hand of the Blind or Shade.





If the **hand does not match**, order a new Motor Drive and ensure it has the correct handing. You are now finished.

If the **hand matches**, continue to the next step to test.



- While watching the Lift Shaft Gear, move the remote back and forth across the Motor Drive.
- Lift Shaft Gear should rotate about half a turn in one direction and will then reverse and rotate about half a turn in the opposite direction.

If the **Lift Shaft Gear does not rotate**, the sensor within the Motor Drive is not functioning properly. Order a replacement Motor Drive. You are now finished.

If the **Lift Shaft Gear rotates**, continue to the next step to confirm the motor works properly:



- Hold the Up button on the remote until the Lift Shaft Gear rotates again. At this point, the remote has been successfully learned to the Motor Drive.
- Test the Motor Drive by pressing the Down button on the remote. The Lift Shaft Gear should begin rotating in one direction.
- After a few seconds, press and release the Center button and the Lift Shaft Gear should stop rotating.
- Press the Up button and the Lift Shaft Gear should rotate until the Motor Drive returns to its upper position.
- If the Motor Drive responds to these commands, it is working as expected and is not the root cause of the shade not operating. Continue to the next step to verify that the lift cords on the Blind or Shade are spooled correctly.

Verify that the Blind or Shade Lift Cords are not tangled around the spool:

- Remove the Blind or Shade Cover.
- Inspect Blind or Shade spools to verify that lift cords have not become tangled around the spools.



SPOOLED CORRECTLY



TANGLED LIFT

- If tangled, unwind the lift cord from each of the spools and allow the rail of the shade to drop to its bottom limit to put tension on all the lift cords.



- Verify that the spools have the correct timing. The lift cords should be in the exact same position on each spool to ensure that they have the same timing with the lift shaft. The pictures below show a LH and RH spool that are timed correctly.





- Install Motor Drive into Blind or Shade, but leave cover off.
- Factory Reset and lift cords should wind onto spools.
- Re-install cover and end caps.
- Re-install Blind or Shade into unit and connect Motorization Wire Harness to the Power Unit and Blind or Shade.
- You are now finished.

BLIND OR SHADE BOTTOM RAIL IS NOT LEVEL



The bottom rail for a single Blind or Shade is not level.

- Home the Blind or Shade – Reference Appendix E on Page 13.

Note: It may require multiple Home cycles to fully level Bottom Rail.

- Verify that there are no obstructions such as glazing sealant, grille bars, etc.
- You may also straighten the Bottom Rail by hand and operate the Blind or Shade several times to verify that is stays level and there are no obstructions.

BLIND OR SHADE SAGGING

The Blinds or Shades starts to sag down after a few seconds to a few minutes.

Check to ensure correct size brake is installed, and that brake is installed correctly.

- Remove Shade from HGP
- Remove cover from shade
- Check to see if brake is installed correctly
    - From exterior view, the large orange circle should face to the left regardless of handing
      Or
    - Run Blind or Shade up and down and feel tension on brake spring. Tension should feel much less when shade is travelling down as compared to travelling up.
- If brake installed incorrectly, reverse brake
- Check brake size
    - Compare brake spring size to working Blind or Shade of similar size
    - If brake is different than working Blind or Shade brakes, order the correct shade brake
- If sagging still persists after ensuring that the brake size and orientation are correct, check to see that the Blind or Shade spools are all timed the same.

Check the timing the Blind or Shade spools

- Remove shade from HGP
- Remove cover from Blind or Shade
- Remove lift shaft from Blind or Shade
- Unwind the lift cord from each of the spools and allow the rail of the shade to drop to its bottom limit to put tension on all the lift cords
- Verify that the spools have the correct timing. The lift cords should be in the exact same position on each spool to ensure that they have the same timing with the lift shaft
- If spools all seem to be timed correctly and evenly and Blind or Shade still sags, order a new Motorized Blind or Shade.
- If all spools on the Blind or Shade are not all timed the same, try retiming the spools

Retiming the Blind or Shade spools

- With lift shaft still removed from Blind or Shade, unwind the lift cord from each of the spools and allow the rail of the shade to drop to its bottom limit to put tension on all the lift cords
- Place the lift shade back in through the spools, ensuring that each spool is in the exact same position as the other ones while placing lift shaft through the spool
- Once lift shaft is installed, install Motor Drive into Blind or Shade (connected to the power unit), but leave cover off
- Factory reset the Blind or Shade and the lift cords should wind onto the spools.
- If Blind or Shade doesn't sag any more, reinstalled cover and endcaps, and reinstall Blind or Shade into the HGP
- If spools all seem to be timed correctly and evenly and Blind or Shade still sags, order a new Motorized Blind or Shade.

BLIND OR SHADE BOTTOM RAILS ARE NOT ALIGNED AT A SETPOINT



The bottom rails for multiple Blinds or Shades are not aligned with each other.

If the homeowner or installer **HAS NOT changed the setpoints** from the Factory Default, complete the following steps in sequence:

Note: When you Factory Reset, all setpoints will be reset to Factory Default positions.

- Factory Reset Blind or Shade to Home and restore them to the original setpoints. Reference Appendix D on Page 12.
- Press the Down button on the remote and all Blind or Shades should fully close.
- Press the Up button on the remote and all Blind or Shades should fully compress at the top.
- If Blinds or Shades are aligned, you are finished.

BLINDS OR SHADES ARE NOT TRAVELING AT THE SAME SPEED

Lifestyle Series Blinds or Shades are designed to travel at 2 inches per second. When battery is low, the Blind or Shade will slow to a rate of 1 inch per second.

- Connect a BTG Motorized Inductive Charger and Charge Connector Assembly to charge Blind or Shade. Reference Appendix C on Page 11.

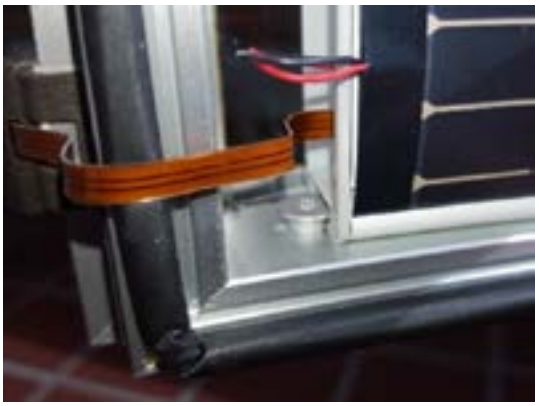
If Blind or Shade **continues to run slowly after charging the battery**, order a replacement Battery. You are now finished.

APPENDIX A: REMOVING POWER UNIT

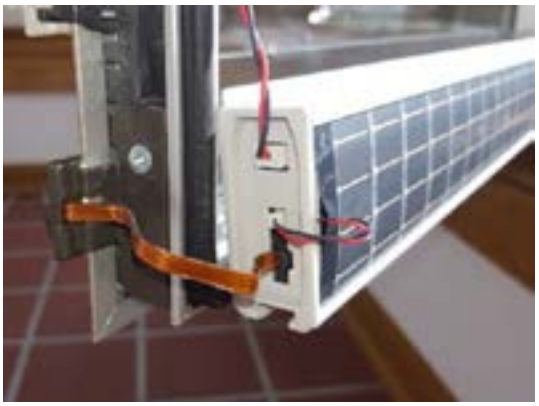
- Use the Pull Tab to remove one end of the Power Unit from the Shade Stud.



- Slide the Power Unit to allow access to the Power Unit End Cap.



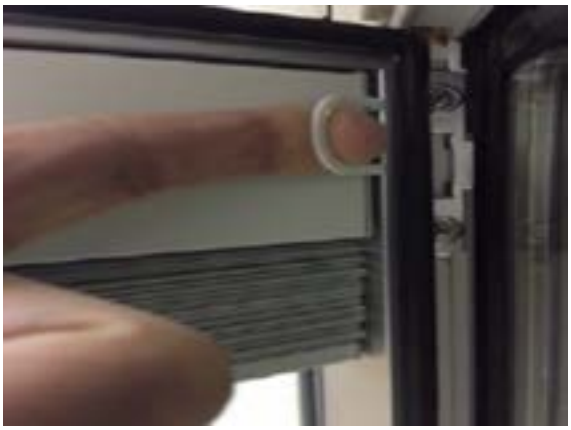
- Disconnect the Motorization Wire Harness from the Power Unit.



- Remove the Power Unit from the HGP.

APPENDIX B: REMOVING BLIND OR SHADE

- Use the Pull Tab to remove one end of the Blind or Shade from the Shade Stud.



- Slide the opposite end of the Blind or Shade off the other Shade Stud.



- Disconnect the Motorization Wire Harness from the Blind or Shade.



- Remove Blind or Shade from the HGP.

APPENDIX C: CHARGING BLIND OR SHADE

If you suspect a battery may be low, use the following procedure to connect a BTG Motorized Shade Charger to the unit to recharge the battery.

- Ensure the customer has the correct 12 Volt BTG Motorized Inductive blind and shade chargerr & Wall Adapter Cord (03ZT0000.)
  If not, order through the Pella Catalog in PQM:



- Plug the 12 Volt BTG Motorized Shade Charger into a 120 VAC wall outlet.
- Plug the other end of the charger into the Inductive Transmitter.
- Place the transmitter up to the receiver allowing the magnet to hold it in place.



RECEIVER

- The transmitter light will turn blue if properly connected.
  - The blue light will turn green when it is finished charging.



- If the blue light does not come on; Remove the power unit from the HGP and take the battery/receiver out of the power unit. Flip the battery and make sure the coil is on the opposite side of the solar panel. Move the handing piece appropriately. If the coil is on the correct side, the transmitter will magnetically connect to the receiver and the LED will turn blue. If the transmitter does not magnetically connect to the receiver, place the transmitter on the other side of the unit. - For right-hand units, (both doors and windows), the receiver is located on the left side (interior view) of the unit. - For left-hand units, (both doors and windows), the receiver is located on the right side (interior view) of the unit.

- Allow Power Unit to charge:
  - Lithium Ion battery (black wrap) requires 8 hrs of charging to recharge a fully depleted battery.

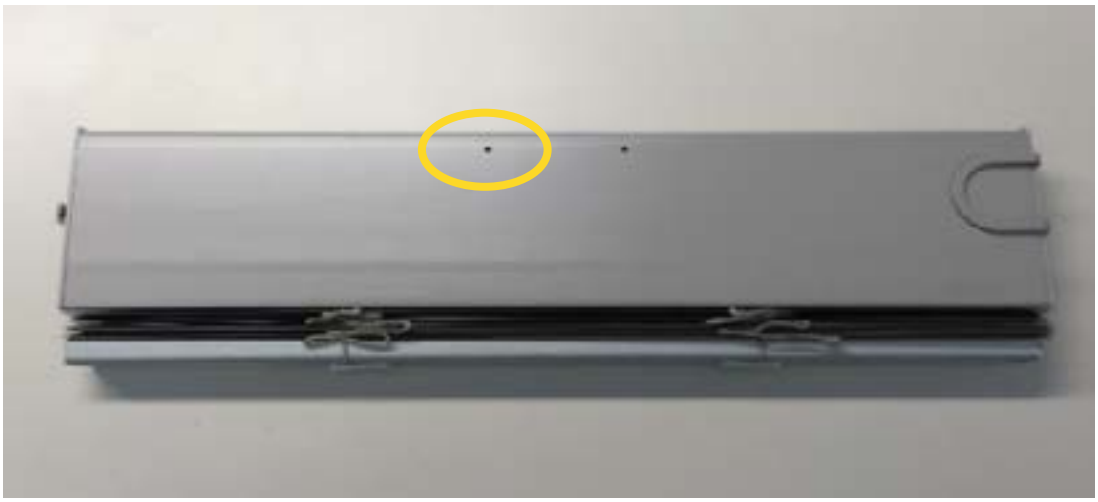
Note: In rare cases, if the air space between the glass is greater than 120° F, the system will not allow the batteries to charge although the transmitter will light blue. Opening the HGP will help reduce this temperature.

APPENDIX D: FACTORY RESET BLIND OR SHADE

This procedure:

- Will reset all Blind or Shade positions to factory default settings
- Re-homes the Blind or Shade and resets the upmost position
- Will remove Remotes, but not Bridges or Repeaters that have been paired
- Upon moving, confirms that the shade is receiving power from the battery, but does not indicate if the battery is fully charged

- Open the Hinged Glass Panel (HGP.)
- Locate the small hole in the top cover about 4" from the end where the wire connects.



- Insert a paper clip or other small tool into the hole and depress the reset switch for about 3 seconds or slightly longer.
- Blind or Shade will move to top position to acknowledge successful reset.



BOTTOM UP AFTER RESET

- If Blind/Shade does not move all the way up to the top upon factory reset, check lift cord entanglement troubleshooting as seen on page 7

- If lift cord does not appear to be entangled or damaged, try charging battery for 15 minutes. See Appendix C on page 11. If Blind/Shade travels to the top, the battery was low and just needed charged.

- If Blind/Shade is sufficiently charged, and the lift cords do not appear to be damaged or entangled, but the Blind/Shade still will not travel all the way up when factory reset, order a new motor.

APPENDIX E: HOMING THE BLIND OR SHADE

Over time you may notice that the fully opened position for bottom-up Blind or Shades or raise-and-lower Blinds or the fully closed position for top-down Blind or Shades has drifted. This is due to normal wear and use of Blind or Shade and can be corrected by Homing. The Homing process will cause Blind or Shade to move up until it is fully compressed and then reset its position.

This Procedure:
- Will NOT reset all Blind or Shade positions to factory default settings
- Re-homes all Blinds or Shades that are paired to that remote at one time
- Will NOT remove Remotes or Bridges that have been paired

- Press and hold the Up button on Remote until Blind or Shade reaches the top point of travel, then release the button.

- Press and hold the Up button for about 10 seconds until Blind or Shade begins to move up. Blind or Shade will stop moving when fully compressed and will reset the fully opened or closed position.



BOTTOM UP AFTER RESET

For additional information and troubleshooting help, see the Blind or Shade Product Guide at connectpella.com

- If Blind/Shade does not move all the way up to the top upon homing, check lift cord entanglement troubleshooting as seen on page 7

- If lift cord does not appear to be entangled or damaged, try charging battery for 15 minutes. See Appendix C on page 12. If Blind/Shade travels to the top, the battery was low and just needed charged

- If Blind/Shade is sufficiently charged, and the lift cords do not appear to be damaged or entangled, but the Blind/Shade still will not travel all the way up when homing, order a new motor.

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