## **Trouble Shooting - Windows**

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Symptom	Probable Cause	Recommended Action
Sash will not open or close.	<ul> <li>Inspect unit for sash that has been painted or varnished shut.</li> </ul>	May require scraping or score the paint before the sash can be opened. Scrape excess paint and sand until smooth.
	Sash swollen due to being left open during rain or high humidity.	Swollen sash can be sanded with coarse sandpaper and plane lightly.
	<ul> <li>Restricted movement of sash.</li> </ul>	Remove objects that may be restricting the movement of the sash.
	Installation; was the sash nailed or screwed shut?	Ensure that the sash was not inadvertently nailed or screwed shut. If so remove nails or screws.
Sash movement is jerky or sash will not operate properly.	• Installation; is the unit installed plumb and square?	An improperly installed unit will experience operational problems. Remove interior casing and reinstall per the appropriate installation instructions.
	• Installation; are the jambs bowed in?	Remove interior trim and check for excessive shimming or if the frame is bowed due to excessive expandable foam insulation. Reinstall shims or cut out excessive foam insulation ensuring that the frame is plumb and square.
	<ul> <li>Inspect unit for excess paint or varnish restricting movement of the sash.</li> </ul>	Scrape excess paint and sand until smooth.
	Dirty, broken or damaged hardware.	☐ Clean, repair or replace hardware.
Air or water infiltration between sash and frame. Frost building up on the windows.	Inspect weatherstripping around the perimeter of the sash and frame.	Remove old weatherstripping and clean out the kerf. Measure and cut new weatherstrip to length. Manually press weatherstripping into place or manually push a wood block along the weatherstripping until it is seated into the kerf.
		Sash weatherstrip must be touching at the corners and secured with a small staple at each corner on wood Casemaster and awning units.
	Installation; are the jambs bowed out?	Remove interior trim and if undershimmed, reinstall shims per appropriate installation instructions ensuring that the frame is plumb and square.
Air or water infiltration around the unit.	Installation; is the unit installed plumb and square?	An improperly installed unit may experience operational problems. Remove interior casing and reinstall per the appropriate installation instructions.
	Examine insulation in the RO cavity.	If the insulation is wet, repair the source of moisture and replace the insulation. If the unit did not have insulation installed, install insulation per installation instructions.
	Installation; inspect condition of exterior casing perimeter sealant.	Remove all old caulking. Inspect condition of backer rod. If damaged, replace backer rod. Reseal with a good quality caulk.
	<ul> <li>Incorrect Rough Opening Preparation</li> </ul>	Remove unit and prepare opening per installation instructions.



Probable Cause	Recommended Action
<ul> <li>Inspect condition of glazing sealant and/or glazing bead.</li> </ul>	Pe-glaze per the appropriate product glazing instructions found in Chapter 3, Section 2 of the Marvin Service Manual.
Climatic conditions.	Refer to condensation information found in Chapter 2, Section 1 of the Marvin Service Manual.
<ul> <li>Inspect for contact of the two panes of IG glass.</li> </ul>	If the two pieces of IG glass are making contact; replace IG glass.  Note: In colder climates you may see condensation buildup in the center of the unit during cold winter days.
Moisture buildup between glass.	r Replace IG glass.
Hardware, clips, screws or retainers are not properly attached or may be loose.	<ul> <li>Check all hardware clips, screws and retainers to ensure all parts are secure and/or properly seated. Correct any deficiencies per the proper installation instruction or service guide.</li> <li>WARNING: Failure to properly install the sash may result in the sash disengaging from the frame, causing potential damage to the sash and/or personal injury.</li> </ul>
	<ul> <li>Inspect condition of glazing sealant and/or glazing bead.</li> <li>Climatic conditions.</li> <li>Inspect for contact of the two panes of IG glass.</li> <li>Moisture buildup between glass.</li> <li>Hardware, clips, screws or retainers are not properly</li> </ul>



Symptom	Probable Cause	Recommended Action
Sash will not open or close.	<ul> <li>Sash swollen due to being left open during rain or high humidity.</li> </ul>	Push the sash closed from the exterior, lock, and allow the sash to dry out. Once dry, the problem may correct itself.
	Shipping block restricting movement of sash.	☐ Remove shipping block.
	Dirty, broken or damaged hardware.	Ensure that the sash guides and hinge tracks are free of dirt or paint buildup. Clean and lubricate the inside of the guides and tracks with petroleum jelly or silicone spray. Remove excess lubricant.
		On operating units detach hardware roto-gear arms from sash per field service guide instructions. Remove wooden roto-gear hardware cover, remove roto-gear wood screws and detach roto-gear assembly from unit. Thoroughly clean roto-gear assembly with a metal cleaning solvent and brush. Crank the handle back and forth several times and check the roto-gear assembly for damage, if damaged replace the roto-gear. If the roto-gear assembly is not damaged, lubricate the gears with a graphite powder, silicone or petroleum jelly and work the lubricant into the gears by turning the crank back and forth several times.
	Sash is sagging.	The sash can be readjusted within the frame by moving the location of the sash hinge. If the sash is binding on the lock side of the sill, moving the top hinge so the sash is butted against the hinged jamb and moving out the lower hinge so the sash is away from the hinged jamb will help level the sash with the sill.
	Check hinge track mounting screws to see if they are driven in straight.	Remove and install hinge. Mounting screws should be driven in as straight as possible to prevent sash sag or the unit from hanging up on the screws. A downward force on the track is necessary to keep it from twisting.
	Broken hinge.	Replace hinge per field service guide found in Swinging Window Hardware section.
Sash locking problems	Sash keepers may be bent too far to the left or right.	☐ Use a pliers too bend the keeper into the correct position.
When sash is opened the roller drops out of the sash guide.	Roto-gear arm assembly.	Put one hand at the middle of the sash guide arm and use the other hand to bend the end of the arm upward until there is sufficient upward tension on the nylon roller to keep it from disengaging from the sash guide.

## **CASEMASTER**



Symptom	Probable Cause	Recommended Action
Roto-gear is loose on the sill	Check roto-gear attachment screws to ensure that they are tight.	Remove wooden hardware cover and tighten screws. It may be necessary to insert wood plugs into the screw holes and reseat the wood screws. The roto-gear should sit tightly on the sill.
Crank handle comes off	Set screw.	Tighten set screw ensuring that it is properly seated into the crank handle.



Symptom	Probable Cause	Recommended Action
Sash will not open or close	Sash swollen due to being left open during rain or high humidity.	Push the sash closed from the exterior, lock, and allow the sash to dry out. Once dry, the problem may correct itself.
	Dirty, broken or damaged hardware.	Ensure the sash guides are free of dirt or paint buildup. Clean and lubricate the inside of the track with petroleum jelly or silicone spray. Remove excess lubricant.
		On operating units detach hardware roto-gear arms from sash per field service guide instructions. Remove wooden roto-gear hardware cover, remove roto-gear wood screws and detach roto-gear assembly from unit. Thoroughly clean roto-gear assembly with a metal cleaning solvent and brush. Crank the handle back and forth several times and check the roto-gear assembly for damage, if damaged replace the roto-gear. If the roto-gear assembly is not damaged, lubricate the gears with a graphite powder, silicone or petroleum jelly and work the lubricant into the gears by turning the crank back and forth several times.
	Check hinge track mounting screws to see if they are driven in straight.	Remove and reinstall hinge. Mounting screws should be driven in as straight as possible to prevent sash sag or the unit from hanging up on the screws. A downward force on the track is necessary to keep it from twisting.
	Broken hinge.	Replace hinge per field service guide found in Swinging Window Hardware section.
Sash locking problems	Sash keepers may be bent too far to the left or right.	Use a pliers too bend the keeper into the correct position.
Crank handle comes off	Set screw	Tighten set screw ensuring that it is properly seated into the crank handle.
Hardware chatters	Hinge size	☐ Replace hinges with the next larger size
Electric Operators		
Sash does not close tightly or operate smoothly.	Check operation of the unit with a manual crank.	If the unit operates properly with a manual crank, turn off power to the unit and determine if the unit has been wired properly.
		If the unit does not operate properly with a manual crank, check for improper installation or problems with the hardware as listed above.



Symptom	Probable Cause	Recommended Action
Sash movement is jerky or sash will not operate properly	Check to see if clutch pivots are seated properly into the locking terminal assemblies.	Remove sash and reinstall ensuring that the clutch pivots are seated into the locking terminal assembly.
	Check for worn or damaged sash and frame weatherstrip.	Replace weatherstrip or spray weatherstrip with a graphite spray. Wipe off excess.
	Check for broken clutch.	Replace broken clutch or balance tube assembly per field service guide instructions found in the Sliding Window Hardware section.
	Check for broken balance tube or mechanism.	Replace balance tube mechanism per field service guide instructions found in the Sliding Window Hardware section.
Sash makes strange sounds when raising or lowering	Check to see if the interior trim finish nails have penetrated into the jamb balance tube.	F Remove trim and finish nails. Reinstall the trim using 3/4" finish nails ensuring that the nails are kept at least 1" away from the jamb liner. If the sound persists, replace the balance tube.
	Check to see if sound is only when lowering sash.	☐ Spray balance tubes with a silicone spray.
Sash moves by itself	Check to see if clutch pivots are properly seated into the locking terminal assemblies in the jamb carrier.	Remove sash and reinstall ensuring that the clutch pivot pins are seated into the locking terminal assembly.  Remove the sash; upon inspecting the balance system you may notice that one or both of the clutches are lodged near the bottom of the jamb. Using a screwdriver turn the clutch 90 degrees to the exterior and hold firmly down against the spring. Raise the locking terminal 3"- 4" and turn the clutch until it locks into place. Take care not to release the spring before in the locked position or damage to the jamb carrier assembly will occur.
	The clutch pivot is broken.	☐ Replace broken clutch pivot.
	The unit is not shimmed properly.	Remove the interior casing and remove existing shims. Shim unit per the appropriate installation instructions, ensuring that the jambs are shimmed at the checkrail.
	Check to see if the balance is the correct specification for the unit.	
Sash will not open	Inspect the check rail for sash that is painted shut.	Grasp the sash at the check rail and pull up to break the seal formed by the dried paint or varnish. In some cases it may be necessary to scrape or score the paint before the sash can be opened.
Sashes do not meet evenly at the check rail	Check frame for square.	Properties Remove interior trim and remove shims. Reinstall the shims ensuring the unit is plumb and square.
	Check sash for square.	☐ Replace sash.

## TILT PAC - DOUBLE HUNG AND SINGLE HUNG



Symptom	Probable Cause	Recommended Action
Sash movement is jerky or sash will not operate	Check to see if cam pivots are positioned above one	Remove sash and reinstall ensuring that the cam pivot pins are located above the locking terminal assembly.
properly.	or both clutches.	PRemove the sash; upon inspecting the balance system you may notice that one or both of the locking terminals are lodged near the bottom of the jamb. Using a flat screwdriver, and holding it firmly, pull down to release locking terminal. Raise the locking terminal 3"- 4" and turn the locking terminal until it locks into place. Take care not to release the spring before it is in the locked position or damage to the jamb assembly will occur.
	Check for broken clutch or balance tube assembly.	Replace broken clutch or balance tube assembly per field service guide instructions found in the Sliding Window Hardware section.
Sash moves by itself	Check to see if cam pivots are properly situated above the clutch in the jamb hardware.	Remove sash and reinstall ensuring that the cam pivot pins are located above the clutch.
		Remove the sash; upon inspecting the balance system you may notice that one or both of the clutches are lodged near the bottom of the jamb. Using a flat screwdriver, and holding it firmly, pull down to release clutch. Raise the locking terminal 3"-4" and turn the clutch until it locks into place. Take care not to release the spring before it is in the locked position or damage to the jamb assembly will occur.
	The cam pivot is broken.	r Replace broken cam pivot.
	Check to see if the balance is the correct specification for the unit.	Check the color of the clutch. Refer to the balance tube chart in the Marvin Parts Manual to determine the correct balance tube for the unit.
Sash will not open or close.	Inspect the check rail for sash that is painted or varnished shut.	Grasp the sash at the check rail and pull up to break the seal formed by the dried paint or varnish. In some cases it may be necessary to scrape or score the paint before the sash can be opened.
	Dirty, broken or damaged hardware.	r Clean, repair or replace hardware.
Sashes do not meet evenly at the check rail.	Check frame for square.	Ensure existing frame is plumb and square.
	Check sash for square.	r Replace if necessary.

## **GLIDER**



Symptom	Probable Cause	Recommended Action
Sash movement is jerky or sash will not operate properly.	Check under bottom rail of operating sash.	☐ Clean or replace bottom rail insert in clad units. On wood units, clean and wax.
	Check sill track.	r Replace if necessary.
Sash will not open or close.	Dirty, broken or damaged hardware.	☐ Clean, repair or replace hardware.
	<ul> <li>Inspect the check rail for sash that is painted or varnished shut.</li> </ul>	Grasp the sash at the check rail and pull up to break the seal formed by the dried paint or varnish. In some cases it may be necessary to scrape or score the paint before the sash can be opened.



Symptom	Probable Cause	Recommended Action
Handle will not return to 90 degree position.	Check if handle will return to the 90 degree position with the sash open. If not the hardware is out-of-time.	With handle in the swing position center all locks. Notice: Adjustment of sash hardware should be done by qualified personnel only.
	If handle will return to 90 degree position with the sash open, check adjustment of the strikes located on the frame.	Protate the strikes toward the interior of the frame using a hex key. See installation instructions for adjustment information.
	If hardware adjustments do not correct the problem, check to see if strikes are properly positioned on the frame.	PRemove strikes with a Phillips screwdriver and move to correct location.
Grinding noise when handle is rotated.	Check to see if the espagnolette gear mechanism has been damaged by forcing the window handle.	Remove handle and replace espagnolette per instructions.
Sash is sagging.	Check hinge adjustments.     Check window installation.	Adjust hinges according to instructions. If Tilt-Turn is installed out of square, remove unit and reinstall.
Air and water infiltration around sash.	Check to see if the weep channel is plugged.	If weep channels are plugged with debris, cleaning the channel will remedy the problem.
	Check to see if the weep channel has been damaged.	r Replace weep channel.
After adjustments, sash does not fit tight.	<ul> <li>Check to see if sash is warped or swollen or if some of the locks are not engaging holding out one corner of the sash causing</li> </ul>	Close the window making sure all the locks are engaged. It may be necessary to push the warped out corner of the sash against the frame so the locks catch. Leave in locked position until warp is eliminated.
	it to warp.	<ul><li>☐ Contact Customer Service department for additional instructions.</li><li>☐ Replace sash.</li></ul>
Sash will not operate properly on Magnum Hopper.	Check the hinges to see if screws have become loose or are missing.	☐ Tighten or replace screws in slots provided on the hinges.
	Check for screws that are improperly seated.	☐ Insert wood plugs into the screw holes and reseat screws.
Sash will not operate in the tilt mode.	Check top hinge adjustment.	☐ Loosen top hinge using a 4mm or 2.5mm Allen wrench.