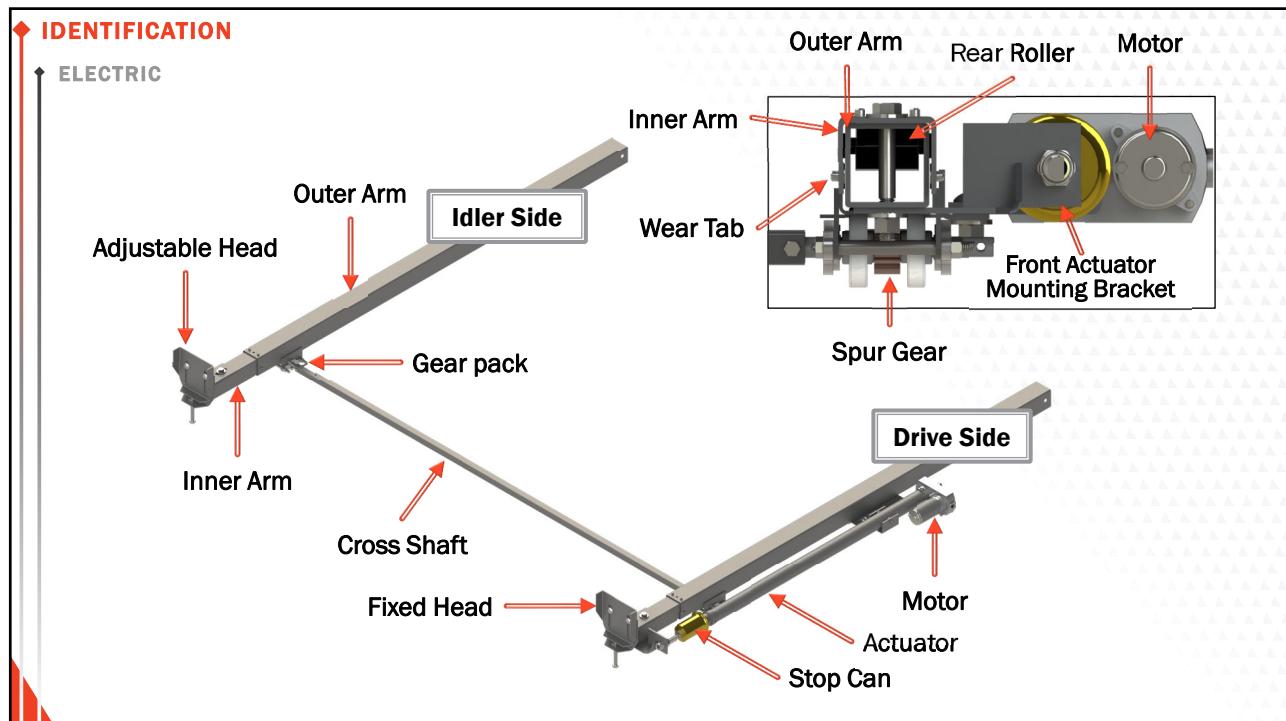


THROUGH FRAME SLIDE-OUT

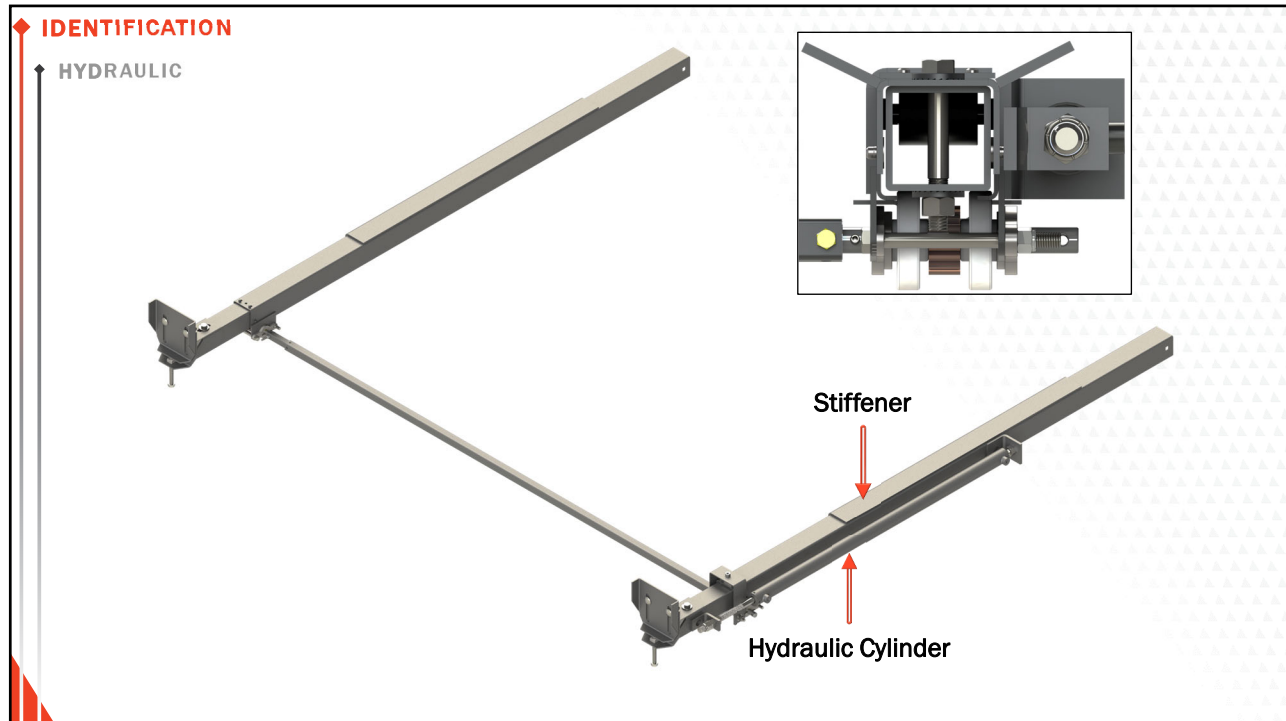
ELECTRIC AND HYDRAULIC



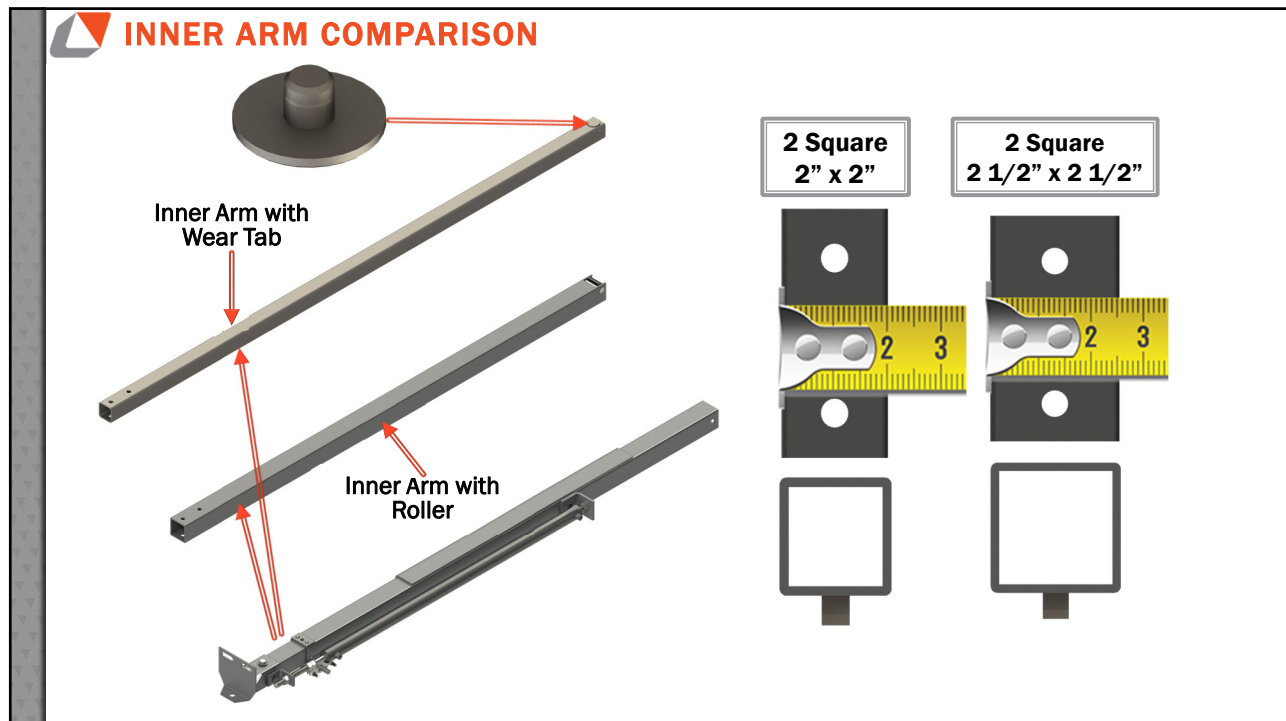
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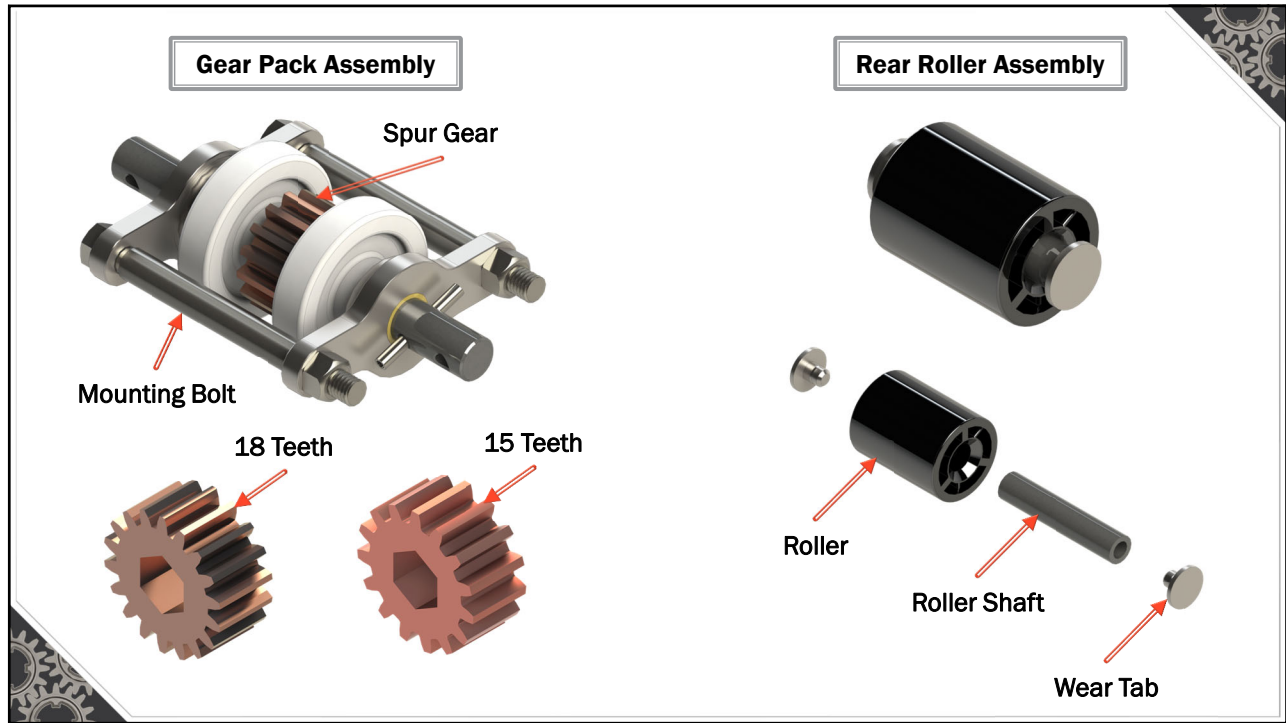
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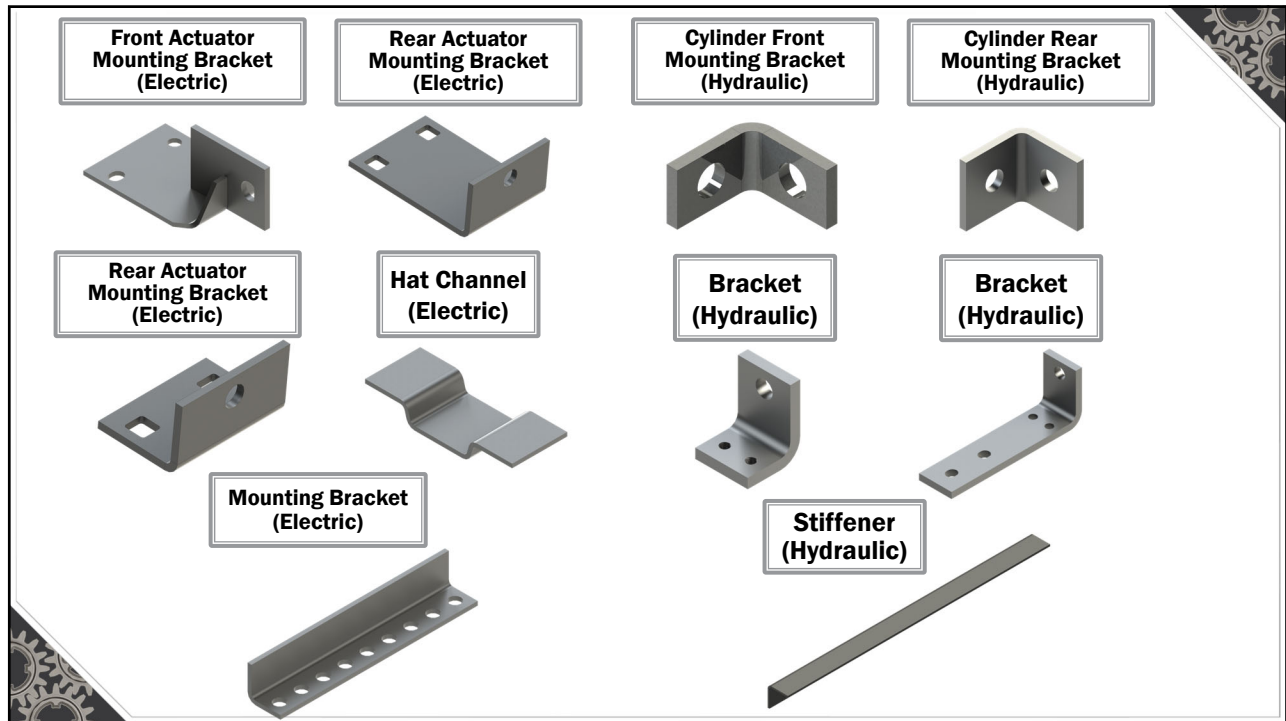
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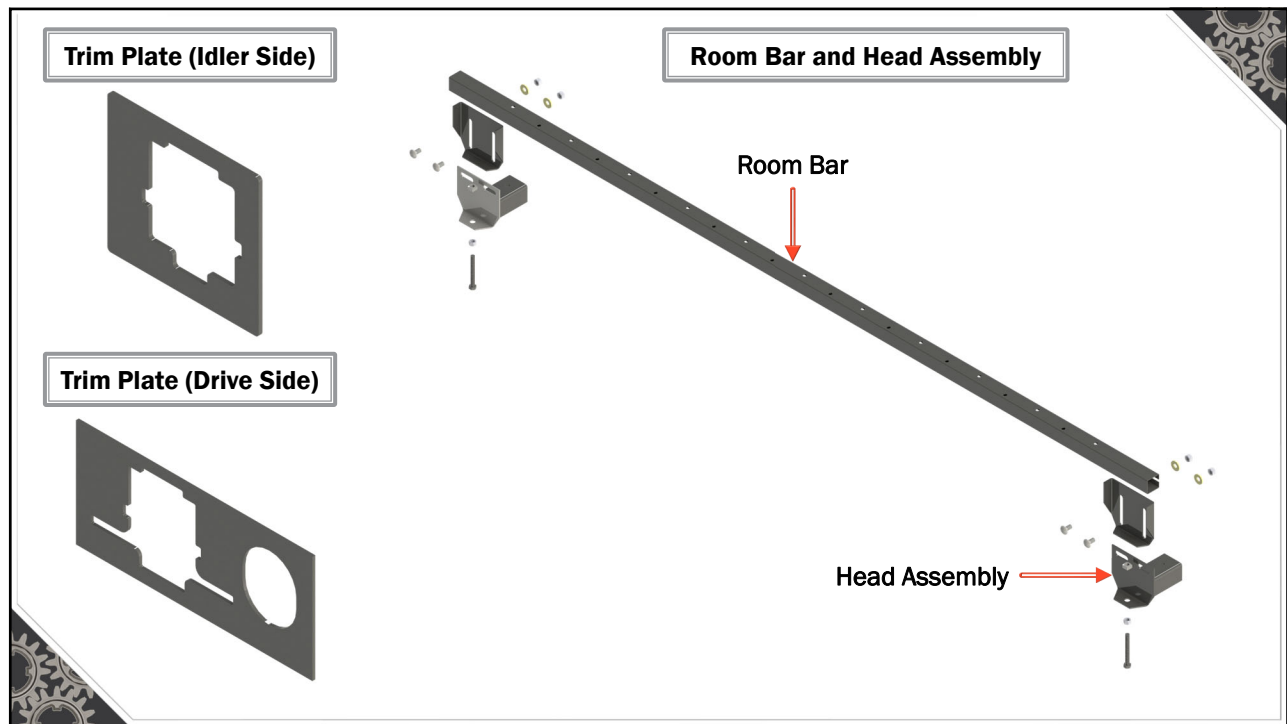
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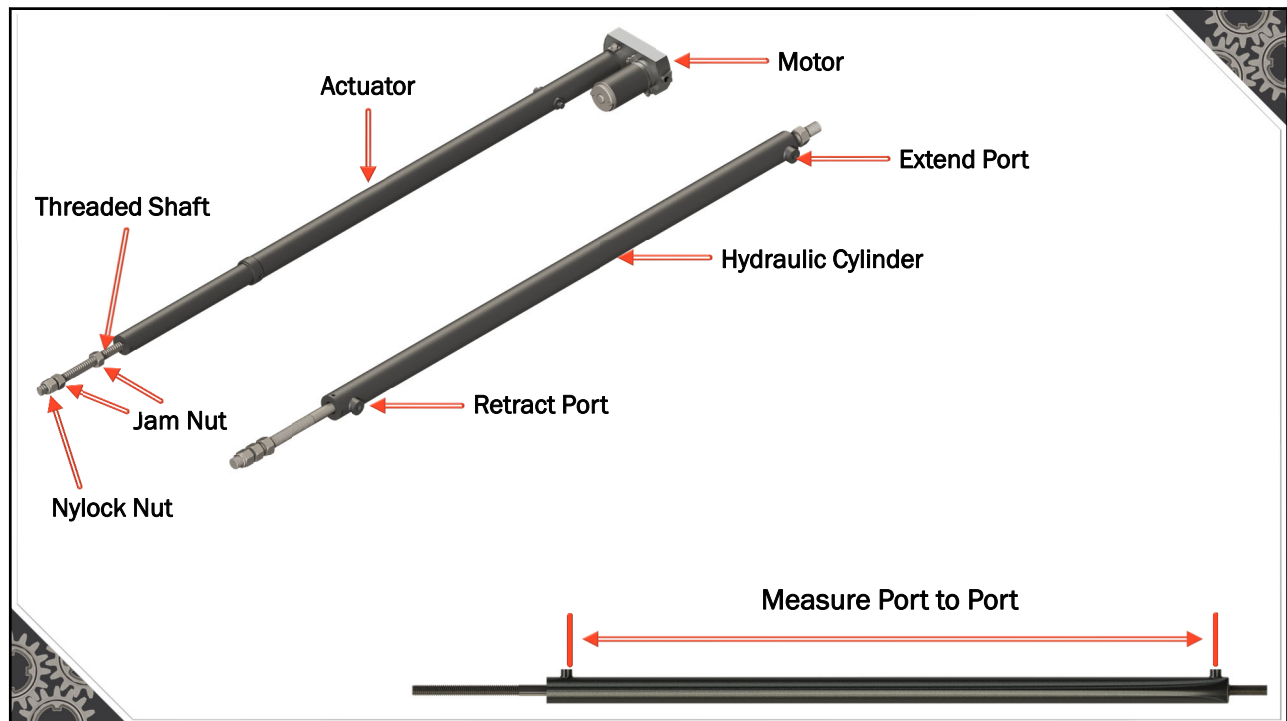
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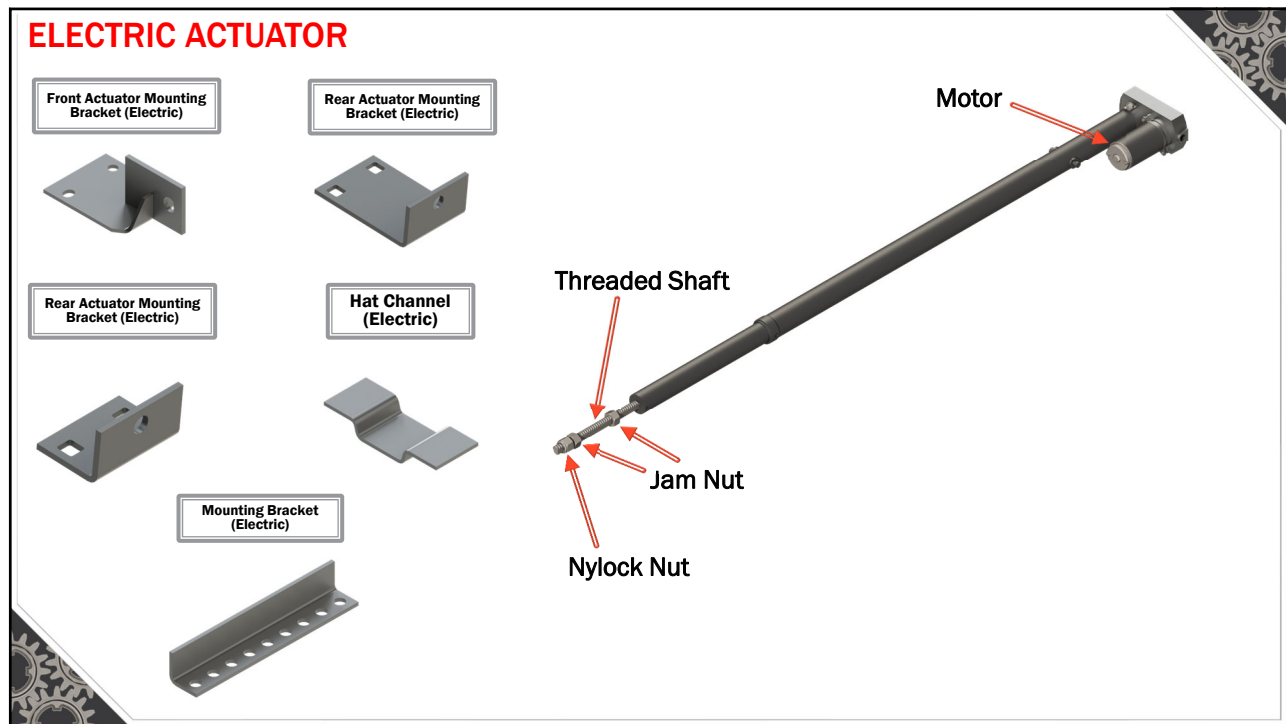
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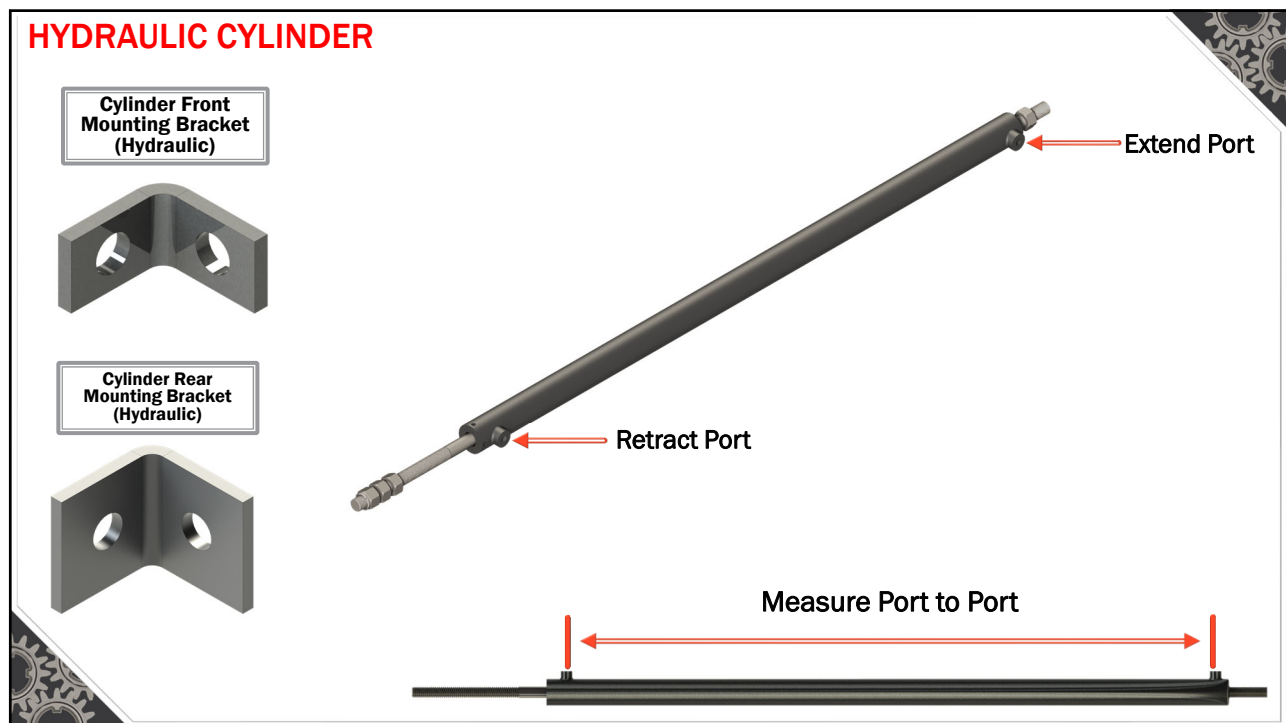
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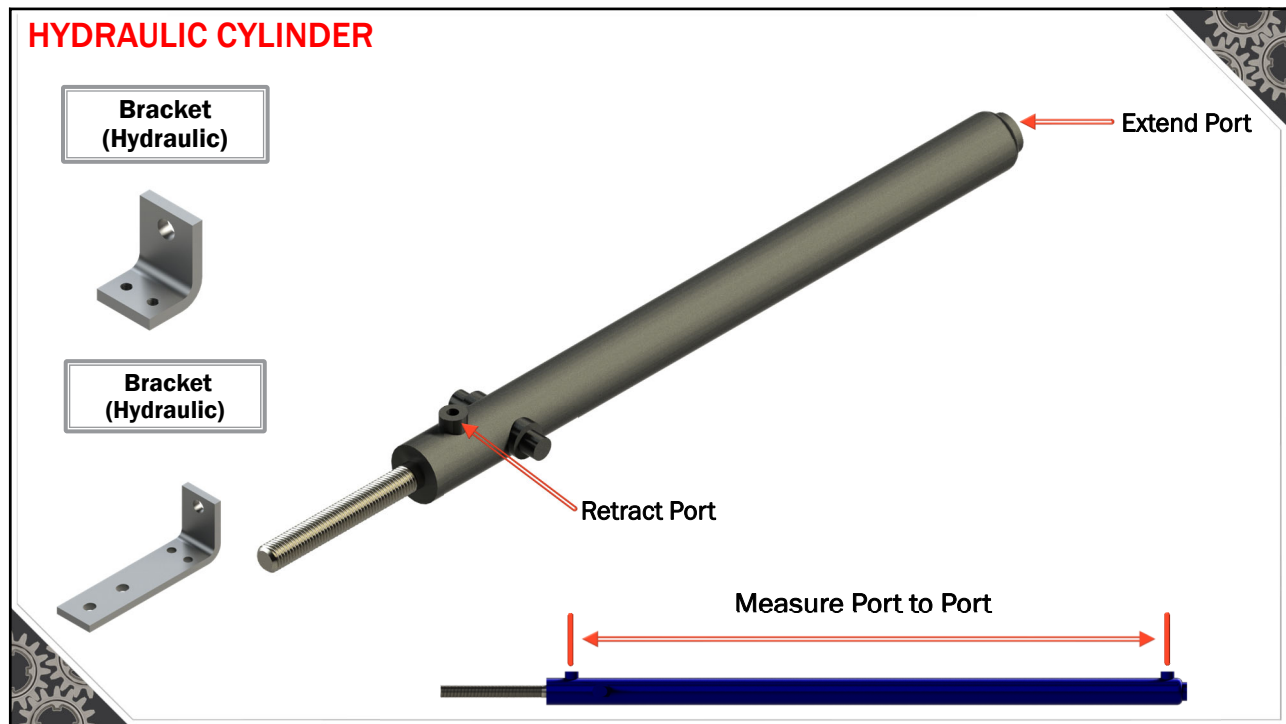
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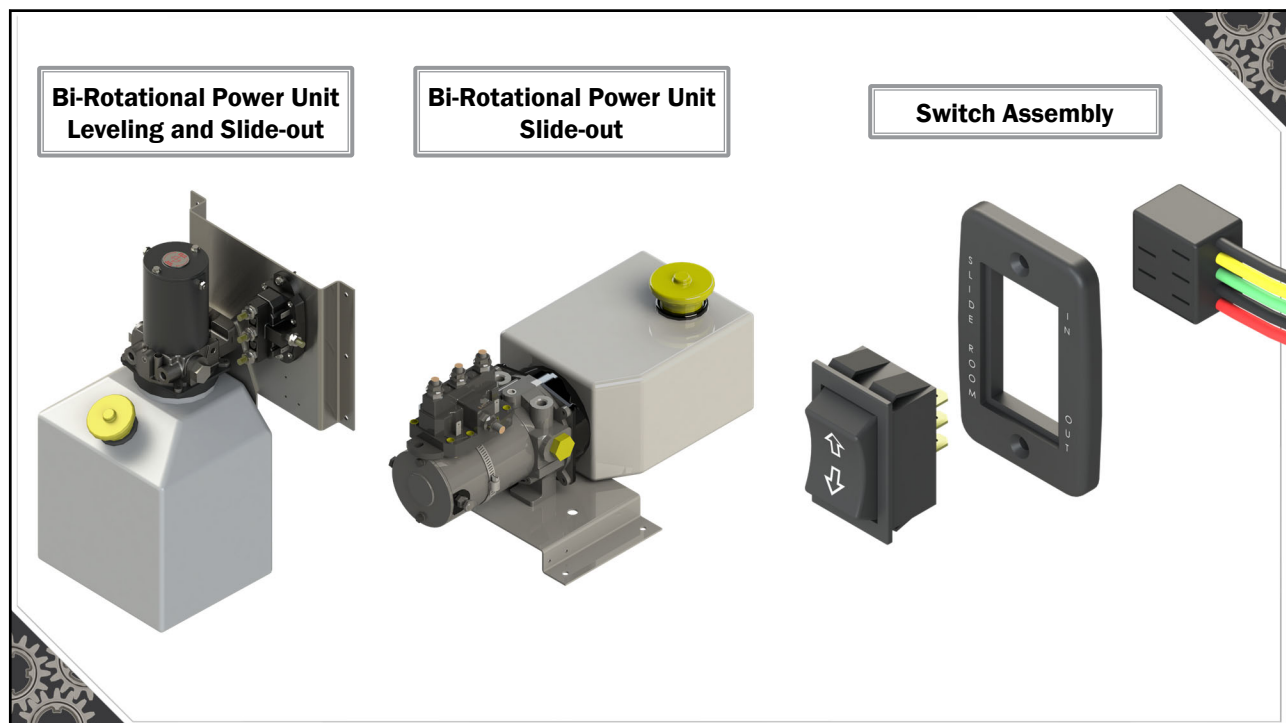
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11

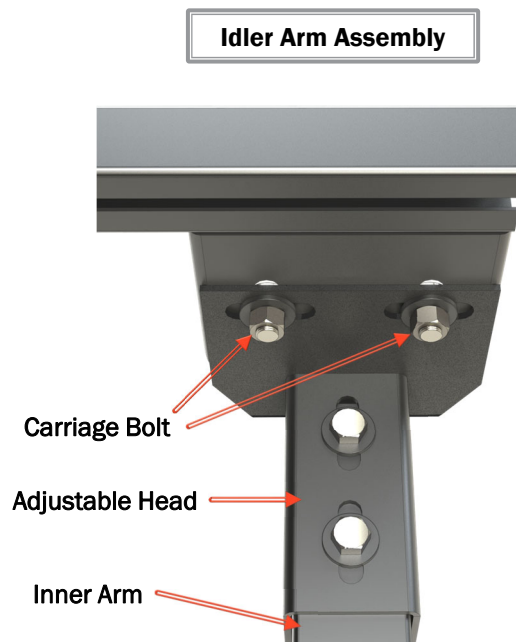


12

HORIZONTAL ADJUSTMENTS

- Loosen carriage bolts on each bracket located at the end of each arm.
- Room is ready to be positioned horizontally by pushing on the outside, sidewall or by using a prying device inserted into the opening between the room and coach.

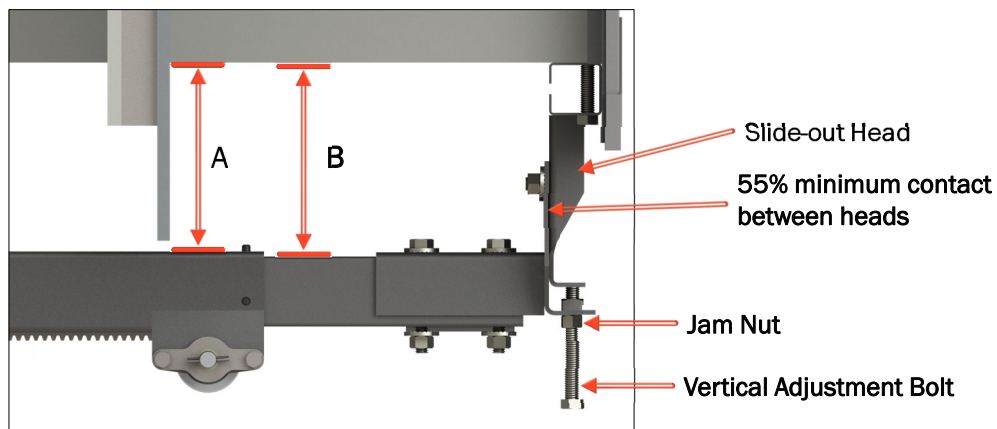
NOTE: All slide-out room adjustments must be performed by certified service technicians. Adjustments made by non-certified persons may void any and all warranty claims. Use caution when using prying device so seals do not become damaged.



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VERTICAL ADJUSTMENTS

- Loosen 2 carriage bolts on each bracket located at the end of each arm.
- Loosen jam nut.
- For vertical adjustment turn vertical adjustment bolt up or down to locate room height.
- Once room height is located, tighten carriage bolts and jam nut.

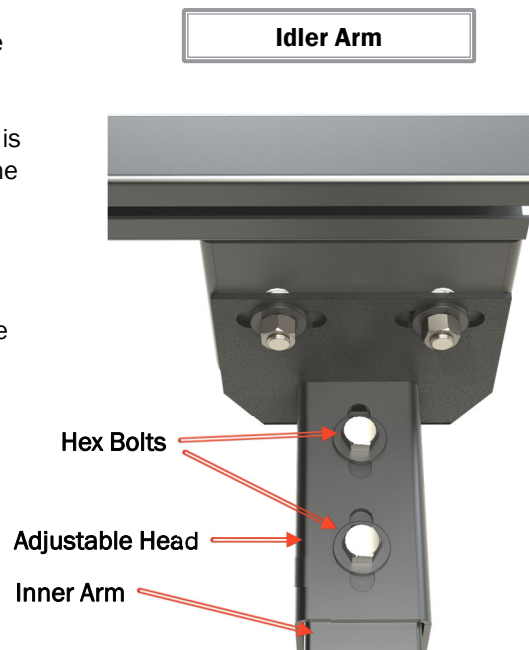


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SYNCHRONIZING ROOM TRAVEL

Room travel (both sides of the room traveling the same distance) can be adjusted with the specially-designed synchronizing bracket mounted on the idler arm. The idler arm is the one that is not powered. The drive arm is the one that has the cylinder attached. If one side of the room fails to seal, adjust as follows:

- Loosen bolt on top of the idler arm.
- Push or pull room (on the idler arm) to align with the drive side.



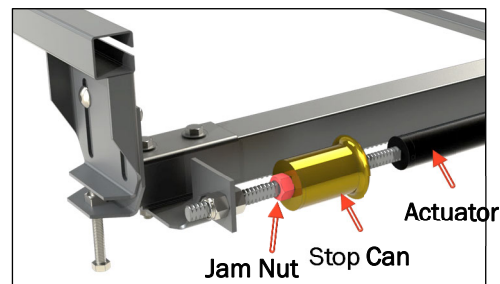
15

ADJUSTMENTS (IN/OUT POSITION)

ELECTRIC

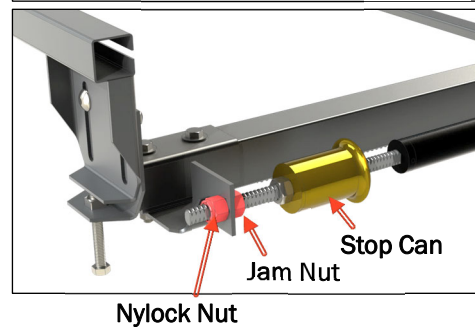
Electric (In Position)

- Locate actuator coming through the frame.
- On the end of the actuator there is a threaded shaft mounted to the drive bracket with 3 nuts and a stop can.
- Loosen the $\frac{3}{4}$ " threaded jam nut using a $1\frac{1}{8}$ " wrench on the outside of the stop can.
- Screw the can out or in, and then tighten down the nut – this will change the location of your seal going to the "in" position.



Electric (Out Position)

- Locate actuator coming through the frame.
- On the end of the actuator there is a threaded shaft mounted to the bracket with 3 nuts and a stop can.
- Move the $\frac{3}{4}$ " jam nut using a $1\frac{1}{8}$ " wrench and the $\frac{3}{4}$ " nylock nut using a $1\frac{1}{16}$ " wrench in the same direction. This will change the location of your seal going to the "out" position.
- Make sure all nuts are tight.



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ADJUSTMENTS (IN/OUT POSITION)

HYDRAULIC

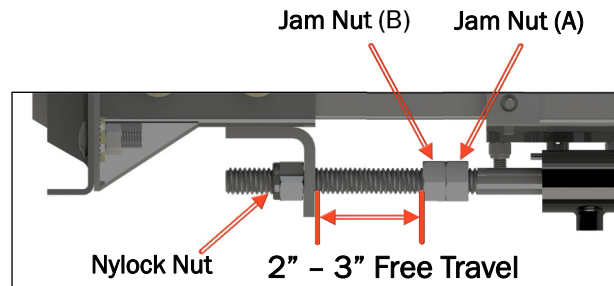
Hydraulic (In Position)

- Locate cylinder coming through the frame.
- Run room partially out.
- Hold jam nut (A) in place with wrench.
- Adjust nylock nut towards the bracket if the room does not seal or adjust the nylock nut away from the bracket if the room is too tight and damages the fascia.

Hydraulic (Out Position)

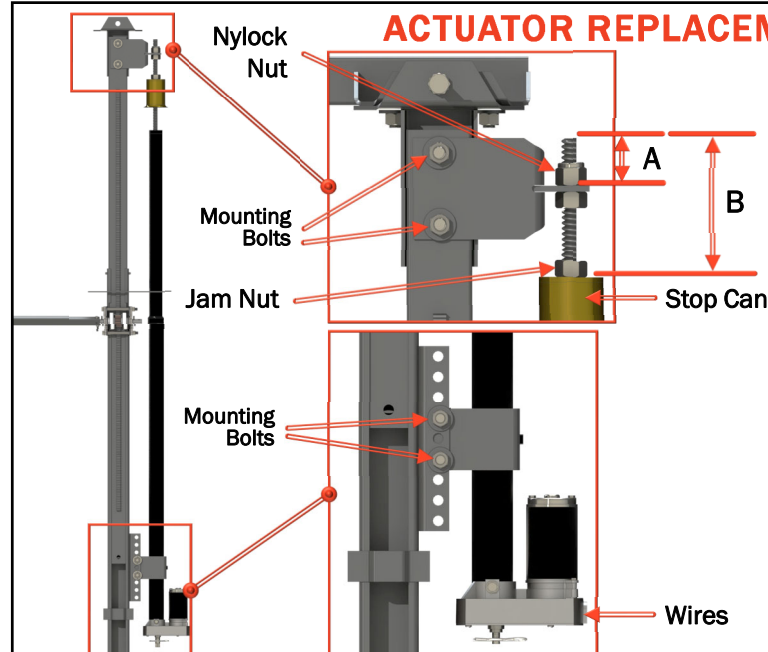
- Locate cylinder coming through the frame.
- Run room completely out.
- Check the inside fascia and seal positioning.
- Partially retract room.
- Loosen jam nut (A) from jam nut (B) and back off jam nut (A) to give jam nut (B) room for adjustment.
- Adjust jam nut (B) away from the bracket if the room extends too far and damages the inside fascia or adjust jam nut (B) towards the bracket if the room does not seal.
- Tighten jam nut (A) to jam nut (B).

NOTE: Make small adjustments, running the room in after each adjustment until proper seal is achieved.



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ACTUATOR REPLACEMENT

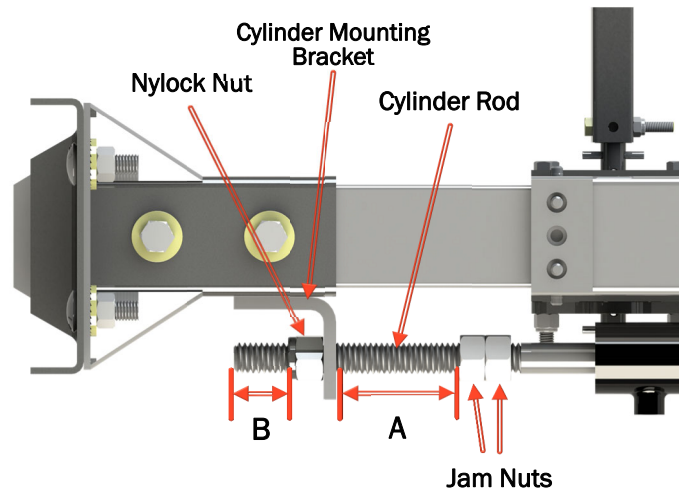


- Disconnect manual crank shaft from end of motor assembly.
- Disconnect motor wires from source.
- Take measurements (A) and (B).
- Remove jam nuts, nylock nut and stop can from threaded shaft on actuator.
- Take note of mounting bolt locations and remove mounting bolts.
- After everything is disconnected, slide actuator out of frame. To replace with new actuator, follow previous directions in reverse.

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CYLINDER REPLACEMENT

- Take measurements A and B.
- Remove both nylock nuts (2 total – one on each end) from threaded shafts on the cylinder.
- Measure jam nut locations and remove.
- After everything is disconnected, slide cylinder out of frame. To replace with new actuator, follow previous directions in reverse.

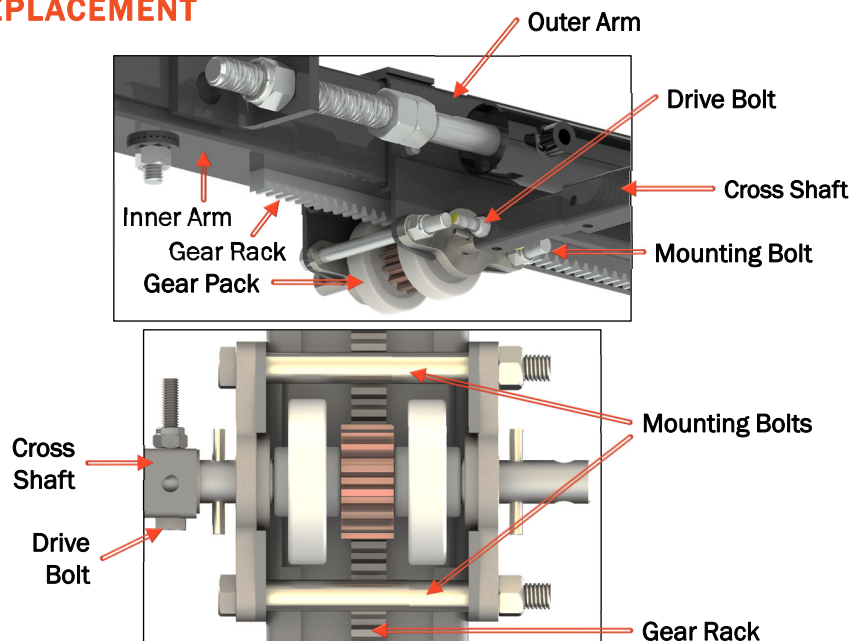


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GEAR PACK REPLACEMENT

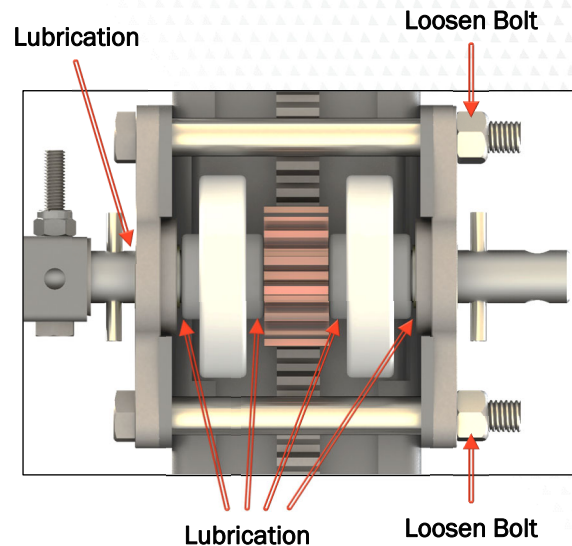
- Run slide-out room half way out.
- Place a jack under the inner arm of the slide-out.
- Jack room up just enough to remove pressure off the gear pack.
- Remove drive bolt from the cross shaft.
- Remove bolts which hold the gear pack assembly in place on the outer arm.
- Drop out the damaged gear pack.
- Install the new gear pack.
- Install bolts to hold gear pack assembly in place on the outer arm.
- Install cross shaft and bolt.
- Gear pack assembly does not need to be torqued down, only adequately and securely tightened.



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◆ SQUEAKING GEAR PACKS

- Loosen both gear pack bolts until tension is off of the gear pack.
 - Apply dry silicone onto gear pack drive shaft at lubrication points.
- NOTE:** Do not lubricate rack or pinion gear teeth, lubricate drive shaft only.
- Extend and retract slide-out arms several times to work lubricant through gear pack.



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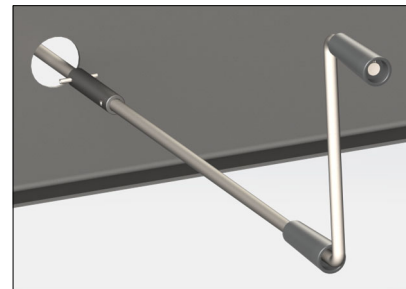
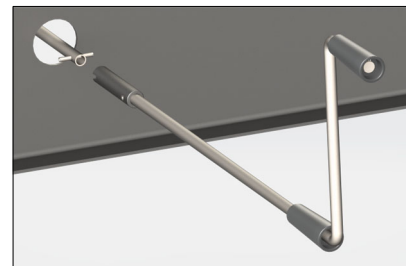
MANUAL OVERRIDE (OUTSIDE FRAME)

ELECTRIC

- Disconnect battery to avoid back feed.
- Locate the crank extension with pin outside of the chassis main rail. This is where the crank handle fits on to allow the manual extension/retraction of the room.
- Rotate the crank handle clockwise to retract and counterclockwise to extend slide-out. Do not attempt to disengage the motor as the actuator is "manual ready."

NOTE: Always disconnect battery from system prior to manually operating system. Failure to disconnect battery can cause electricity to backfeed through the motor and cause serious damage to the system as well as void the warranty.

Use **EXTREME CAUTION** when extending and/or retracting room using the manual override feature. It is possible to operate the slide-out beyond the maximum extension and/or retraction and damage the slide components, slide room structure or trim components. The gears can be stripped out if the room is manually retracted/extended to its fullest extent and the operator continues to rotate the manual override. Any damage due to misuse of the Manual Override feature will disqualify any and all claims to the Limited Warranty.



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MANUAL OVERRIDE (INSIDE FRAME)

ELECTRIC

- Disconnect battery to avoid back feed.
- Locate the crank extension with pin outside of the chassis main rail or locate the hex head crank extension on the gear box at the actuator.
- Using the crank handle or 3/4" socketed tool, rotate clockwise to retract and counterclockwise to extend the slide-out. Do not attempt to disengage the motor as the actuator is "manual ready."

NOTE: Always disconnect battery from system prior to manually operating system. Failure to disconnect battery can cause electricity to backfeed through the motor and cause serious damage to the system as well as void the warranty.

Use EXTREME CAUTION when extending and/or retracting room using the manual override feature. It is possible to operate the slide-out beyond the maximum extension and/or retraction and damage the slide components, slide room structure or trim components.

The gears can be stripped out if the room is manually retracted/extended to its fullest extent and the operator continues to rotate the manual override. Any damage due to misuse of the Manual Override feature will disqualify any and all claims to the Limited Warranty.



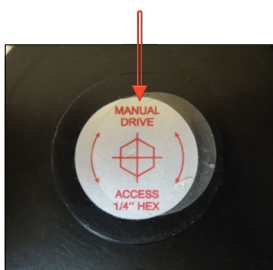
23

MANUAL OVERRIDE

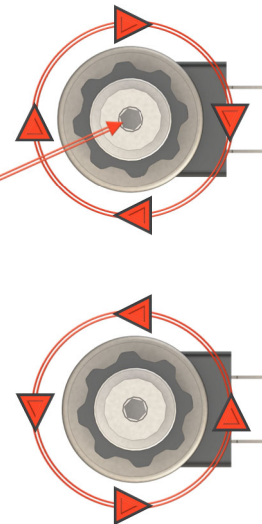
HYDRAULIC

- Remove protective label.
- Using a standard hex bit and auxiliary drive device (cordless or electric drill), insert hex bit into coupler found under protective label.
- Run drill forward or **clockwise** to **retract** slide-out room and in reverse or **counterclockwise** to **extend** slide-out room.

Protective Label



Manual Override Set Screw



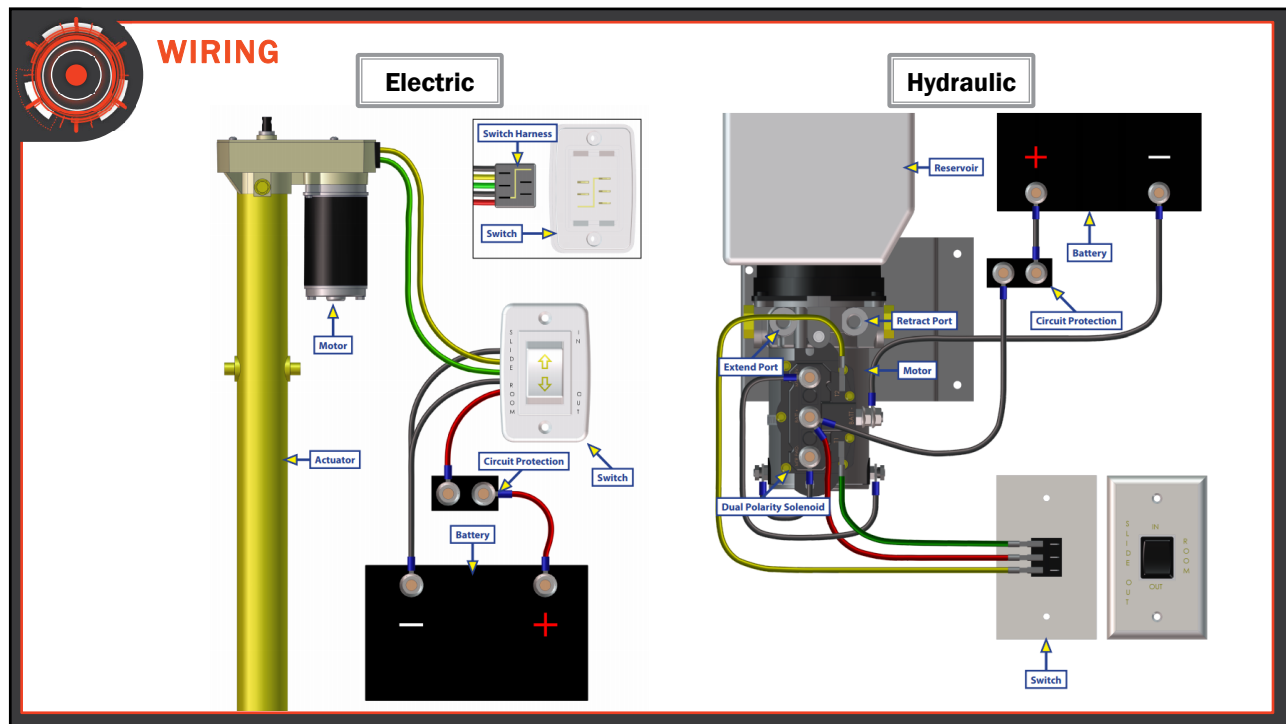
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 TROUBLESHOOTING ELECTRIC		
Problem	Probable Cause	Corrective Action
Room doesn't move when switch is pressed.	Restriction or obstruction inside or outside of unit.	Check for and clear obstruction.
	Low battery voltage, blown fuse, defective wiring.	Check battery voltage and charge if needed. Find and check fuse, replace if blown. Check battery terminals and wiring. Look for loose, disconnected or corroded connectors.
Actuator motor runs but room does not move.	Actuator not attached to front mounting drive bracket.	Check jam nuts/nylock nuts. Be sure that they are properly tightened and adjusted.
	Bad motor or gear housing.	Replace motor.
Motor runs but room moves slowly.	Low battery voltage, poor ground, extremely low outdoor temperature.	Charge battery and check ground wire.
	Room is in a bind	Check to see that room is properly adjusted.
Room stalls in mid travel.	Actuator in a bind.	Crank manual override and move room short distance then retry electric switch to move room.
	Bad actuator.	Replace actuator if above instructions do not work.

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 TROUBLESHOOTING HYDRAULIC		
Problem	Probable Cause	Corrective Action
Room doesn't move when switch is pressed.	Restriction or obstruction inside or outside of unit.	Check for and clear obstruction.
	Low battery voltage, blown fuse, defective wiring.	Check battery voltage and charge if needed. Find and check fuse, replace if blown. Check battery terminals and wiring. Look for loose, disconnected or corroded connectors.
Power unit runs but room does not move.	Restrictions both inside and outside of unit.	Check for and clear restriction.
Power unit runs, room moves slowly.	Low battery, poor ground, extremely low outdoor temperature.	Charge battery and check ground wire.
Room drifts in both the "in" and "out" positions.	Possible external leak in the hydraulic system.	Tighten fittings. Inspect hoses, fittings and power unit for external leaks.
	Air in system.	After checking all connections, cycle pump several times in and out.
In the closed position, room drifts out.	Leaking cylinder seal.	See cylinder test.
	Fluid bypassing cylinder piston.	See cylinder test.
	Hose from pump is leaking.	Tighten fitting or replace hose.
	Air in system.	After checking all connections, cycle pump several times in and out.
	Loose mounting bolts.	Tighten mounting bolts.
In the open position, room drifts in.	Hose from pump is leaking.	Tighten fitting or replace hose.
	Leaking cylinder seal.	See cylinder test.
	Fluid bypassing cylinder piston.	See cylinder test.

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Question and Answer

If you have questions, please feel free to ask us now. Otherwise, we are available and happy to discuss anything presented with you.

TECHNICAL SUPPORT



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