IN-WALL® SLIDE-OUT TROUBLESHOOTING AND COMPONENT REPLACEMENT

Troubleshooting

Error Codes

During operation when an error occurs, the board will use the LEDs to indicate where the problem exists. The green LED will blink once for Motor 1, and two times for Motor 2. The red LED will blink from two to nine times, depending on the error code. The error codes are as follows:

LED Error Code	Error Code Concern
2	Battery drop out: Battery capacity low enough to drop below 6 volts while running.
3	Low battery: Voltage below 8 volts at start of cycle.
4	High battery: Voltage greater than 18 volts.
5	Excessive motor current: High amperage, caused by an obstruction.
6	Motor short circuit: Motor or wiring to motor has shorted out.
8	Wire short between controller and motor: Encoder is not providing a signal. Usually a wiring problem.
9	Hall power short to ground: Power to encoder has been shorted to ground. Usually a wiring problem.

Manual Override

In the event of any error code, the system can be manually overridden electronically using these steps:

1. Locate the controller.
2. Press the “mode button” six times quickly, press a seventh time and hold for approximately five seconds.
3. The red and green LED lights will begin to flash indicating the system is in override mode.
4. Using the wall switch, press and hold the IN button until the room comes completely in.

NOTE: The "8" error code is the most common. This can signify one of these issues:

- Pinched or broken wiring in the system harness or motor pigtail.
- Disconnected or faulty motor.

Checking Fuses

Check the 12 volt fuse box for blown fuses, and replace any if necessary. If the fuse blows immediately upon replacement, there is a problem with the wiring to the circuit board. Have qualified service personnel check and repair.

Obstructions

Check outside the unit for possible obstructions: tree, post, car, folded over flap seals, debris on top of the slide room, etc. Check inside the unit for any obstructions: luggage, furniture, open cabinets, carpeting, wiper seal, etc. Also check for smaller objects that may be wedged under the floor or in the sides of unit. Remove obstructions before proceeding.

Low Voltage

The Slide-out Controller is capable of operating the room with as little as 8 volts. But at these lower voltages the amperage requirement is greater. Check voltage at the controller. If voltage is lower than 11 volts, it is recommended that the battery be placed on a charger until it is fully charged. It may be possible to "jump" the unit battery temporarily to extend or retract the room. Consult the unit manufacturer's owner's manual on the procedure for "jumping" or charging the battery.

⚠WARNING

Never "jump" or charge the battery from the power connections on the IN-WALL® Controller. Always do this at the battery. Failure to do so could result in serious injury.

Only One Side Moving

The IN-WALL® Slide-out System has a separate motor to operate each side of the room. Does only one side of the room move a short distance (2 to 4 inches) and stop?

Q. Will non-moving side move with help?
A. If only one side of the room is moving, then with someone's assistance, press the switch to extend or retract the room while pushing the non-moving side in the appropriate direction. On larger rooms it may be necessary to have two or more people pushing the room.
Q. Can non-moving side be moved manually?
A. Try to push the non-moving side in and out. If a motor shaft has broken, it may be possible to move that side of the room several inches by hand. Larger rooms may require several people to push.
Q. With motor disengaged can room be moved?
A. Disengage motor. After disengaging the motor, attempt to move the room by hand. On larger rooms more than one person may be required to move the room.

Debris

Check all gear racks on the side of the room for debris. Check for obstructions, such as wiper seals caught in floor or v-rollers.

Status LEDs

Find the slide controller. When the room slide extend/retract switch is actuated, do the status LEDs light up? Check this in both the extend and retract modes. If the LEDs do not light up, or only light in one direction, then unplug and re-plug the extend and retract wire connection on the board. If the problem persists, the LEDs still do not light up in both directions, then the switch or the wiring between the switch and the room is defective.

Power And Ground Connections

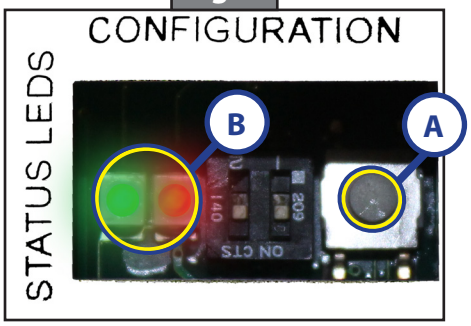
Make sure connections are clean, tight, and free of corrosion.

Slide-Out Removal Procedure

Tools Required

- Electric drill or cordless screw gun
- Rubber mallet
- 2x4 (length = gap between T-molding and side of unit-¼")
- Razor knife
- Flathead screwdriver
- Putty knife
- Floor jack

Fig. 1



Procedure

NOTE: If the slide will not move by use of the switch it may be necessary to use one of the three methods (A, B, or C) described below:

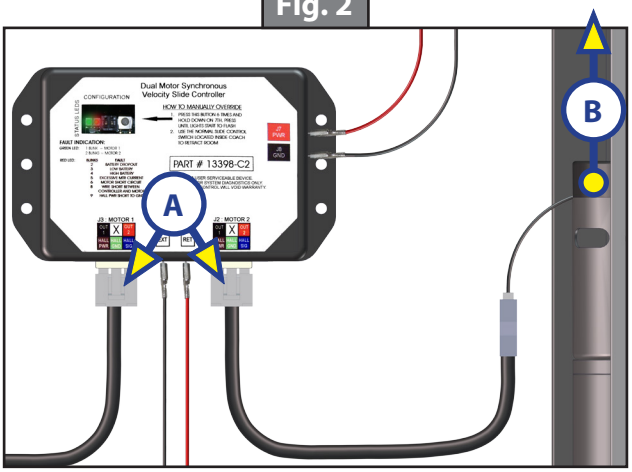
A. Use electronic override mode on the IN-WALL® controller.

- **I.** Press the "mode button" six times quickly, press a seventh time and hold for approximately 5 seconds (Fig. 1A).
- **II.** The red and green LED lights will begin to flash indicating system is in override mode (Fig. 1B).
- **III.** Using the wall switch, press and hold the IN button until the unit comes completely in.

B. Disconnect the motor harnesses from the IN-WALL® controller (Fig. 2A) to allow the slide room to be manually pushed into position.

C. Disengage the motors to allow the slide room to be manually pushed into position (Fig. 2B).

Fig. 2

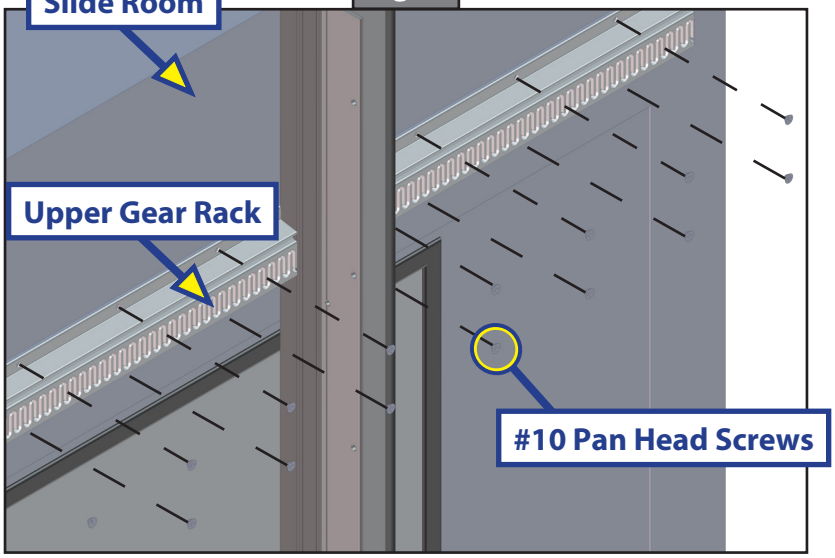


1. Remove first three sets of screws in each rack on the interior side of slide room.
2. Extend the slide room until about 8" of the room is left inside the unit.
3. Support the slide room with a floor jack or other adequate support before continuing.
4. Place the 2x4 block on top of the slide room (standing on its edge between the T-molding and side of the unit.)
5. Reach inside the top of the slide column to disconnect the wiring harness from the motor.
6. Using a razor knife, carefully cut the caulk bead along the edge of the slide column.
7. Remove the screws from the slide column attaching it to the side wall of the unit.
8. Create a jumper wire from an extra wiring harness: Cut a 3-foot length of the harness (with the motor wire connector attached) and strip the ends of the red and black wires (Fig. 3).
9. Plug the jumper wire into the motor wire.
10. Holding the black and red wires against the terminals of your cordless screw gun battery, determine which polarity actuates the motor in the retract direction. The slide column should slide away from the side of the unit.

Fig. 3

11. Remove all screws (Fig. 4) from the gear racks.

Fig. 4



12. You may need to pry the gear racks away from the sides of the slide room with a flathead screwdriver or putty knife. Do this carefully so you don't damage the finish on the side of the slide room.

13. Carefully slide the ends of the gear racks past the bulb seal on the T-molding.

14. Pull the full system out and set aside.

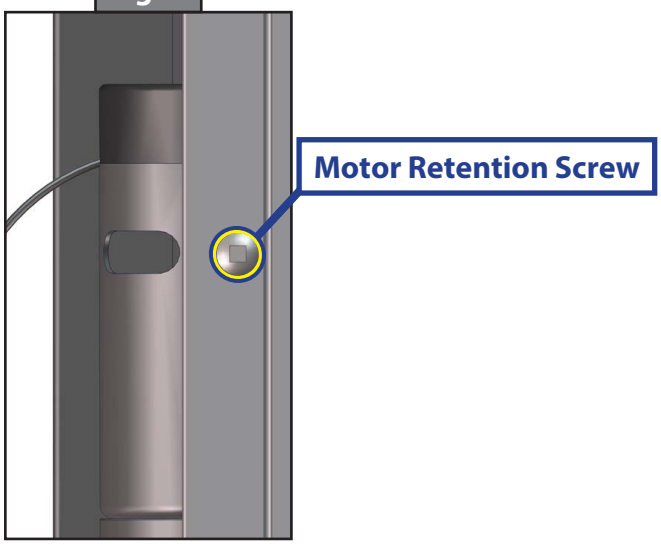
NOTE: LCI recommends that inspection and repair of the assembly be done on a clear workbench to prevent further damage to the system.

15. If the motor is still in the column, remove at this time. The motor is held in place by a retention screw. It is typically located on the exterior side of the column, (Fig. 5). Removal of the retention screw (Fig. 5) will allow the motor to easily slide out of the column.

16. Remove the upper, middle (if applicable), and lower racks from the column by grasping the column in one hand and sliding the racks toward your body.

NOTE: All racks will move together. Take necessary precautions to prevent damage to the racks from a possible drop to the ground.

Fig. 5

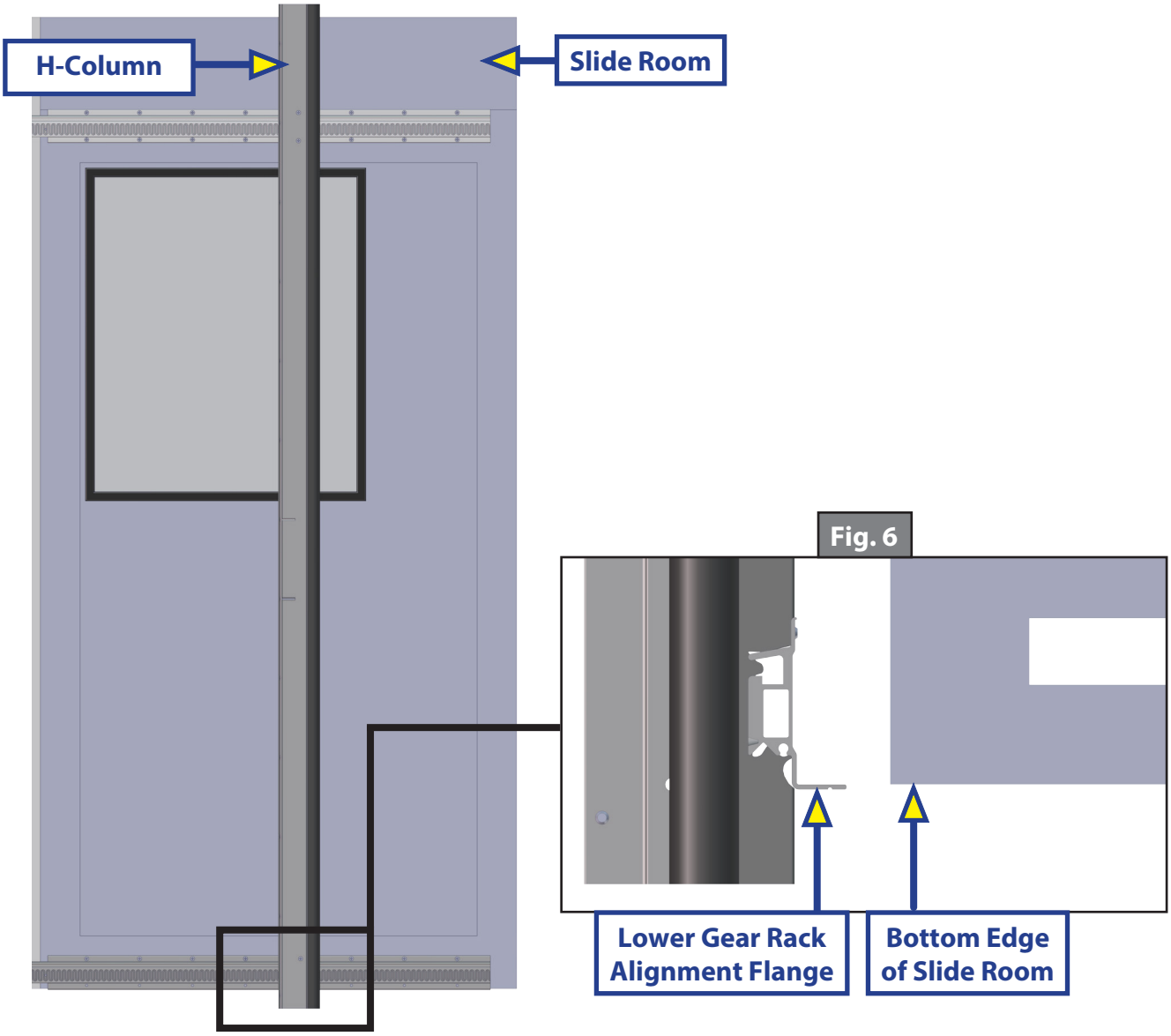


Slide-Out Installation Procedure

1. Prepare the slide room and side of the unit for the new install by cleaning the surfaces of any adhesive residue using a putty knife and a solvent, being careful not to damage the finishes on the unit.
2. Prepare the new system for installation: measure the distance (center to center) from one gear rack to the next gear rack along the slide column. Write these measurements down.
3. Apply OEM recommended sealant to the entire length of the H-column along the inside edge where it will contact the side face of the unit.

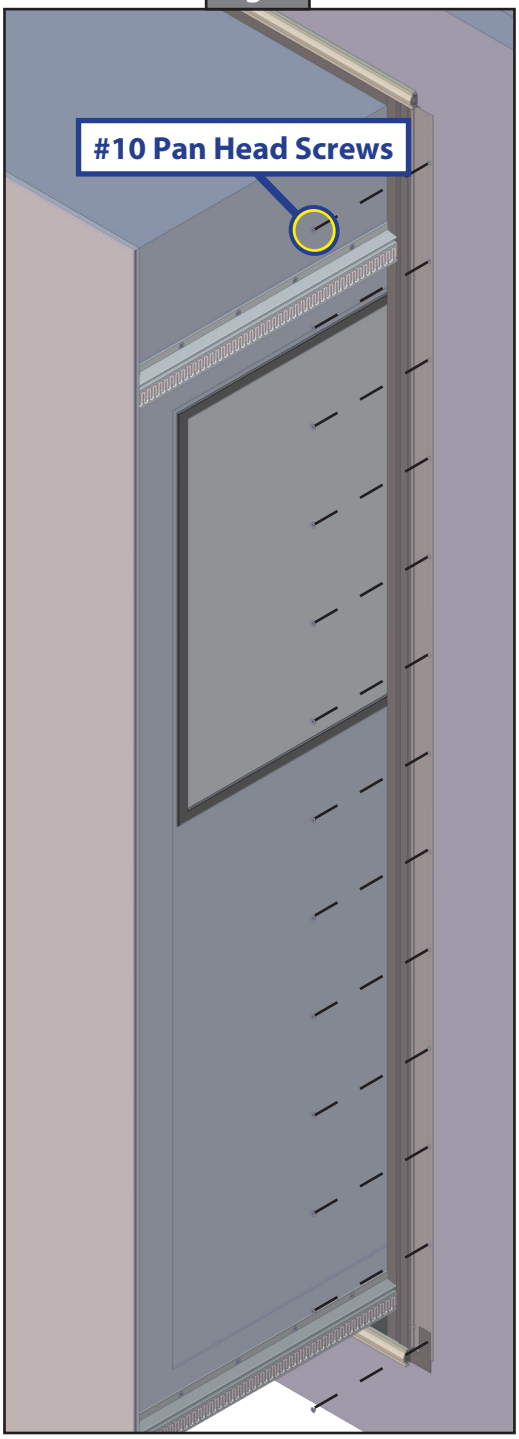
NOTE: If installing a new assembly, remove the shipping angles before continuing this procedure.

4. Gently slip the system through the opening between the slide room and the side wall opening. Tuck the gear racks inside the bulb seal attached to the T-molding.
5. Align the bottom lip (alignment flange) of the lower gear rack with the bottom edge of the slide room (Fig. 6).
6. Push the bottom gear rack tight against the bottom of the slide room and put a screw into each end of the gear rack.



7. Measure from the bottom gear rack (center to center) to the next gear rack and align that rack so that it matches the measurement you took off of the system during step 2. This will ensure that the racks are installed parallel and square. Put a screw in each end of the gear rack to hold it in place until you align all the gear racks.
8. Once you align and secure all the gear racks, put all the screws into the gear racks.
9. Attach the jumper wires to the motor in top of the slide column and then to the cordless screw gun battery. Actuate the motor to move the slide column in towards the unit. Stop the column when it is still a few inches away from the unit. Remove the jumper cable.
10. Make sure the motor cable is tucked into the top of the slide column.
11. Remove the 2x4 block.
12. Push the slide room in by hand until the slide column is flush with the side wall of the unit.
13. Screw the slide column into the side wall by placing a screw in the column by each rack and in the middle of the column to make sure the rack is straight, then fill in remaining screws (Fig. 7). Remove the floor jack.
14. From the inside of the unit, connect the wiring harness to the motor cable.
15. Repeat this process for the other side of the slide room (if required).
16. Once you have completed both sides of the slide room, synchronize the slide system motors. See Synchronizing The Slide-Out Motors section.

Fig. 7



Synchronizing The Slide-Out Motors

1. Fully extend the slide room using the switch. Keep the switch engaged until the motors shut down on their own.
2. Retract the room 1-2 inches.
3. Repeat steps 1 and 2 until both motors shut down at the same time. In many cases, two or three repetitions are necessary to re-sync the system.
4. Fully extend and then retract the room. Again, always let the motors shut down on their own before releasing the switch.