SLIMRACK® SLIDE-OUT MOTOR AND DRIVE BLOCK REPLACEMENT

TI-287

SLIDE-OUT

Purpose

This document provides instructions on replacing the motor and drive block installed on a SlimRack® Slide-out system.

Safety

Read all instructions and safety labels before beginning any component replacement.

⚠WARNING

The "WARNING" symbol above is a sign that an installation procedure has a safety risk involved and may cause death or serious injury if not performed safely and within the parameters set forth in this manual. Always wear eye protection when performing this installation procedure. Other safety equipment to consider would be gloves and possibly a full face shield, depending on the nature of the installation procedure.

⚠WARNING

Always make sure that the slide-out's path is clear of people, pets and objects before and during operation of the slide-out. Always keep away from the gear racks when the slide-out is being operated.

⚠CAUTION

Moving parts can pinch, crush or cut. Keep clear and use caution.

Resources Required

- Left hand (LH) drive block assembly (366645)
- Right hand (RH) drive block assembly (366644)
- Motors (two)
- Felt pads for drive block (366739) (two)
- Rectangular tape seal (366740) (four)
- Push nut (368947) (four)
- Screw gun
- Various bits
- 3⁄8" driver bit
- Small socket (for push nut installation)
- Means of supporting the slide out room box
- Needle nose pliers or 5⁄16" open end wrench
- Side cut pliers
- #10 button or pan head self-tapping screws

Preparation

- Slide system controls **MUST** come from Lippert Components. Controls supplied by other companies will void warranty.
- Voltage supply **MUST** come from a 12V DC automotive/RV type battery.
- Power and wiring **MUST** be such that there is not less than 10.5 running volts supplied at the motor leads under maximum load.

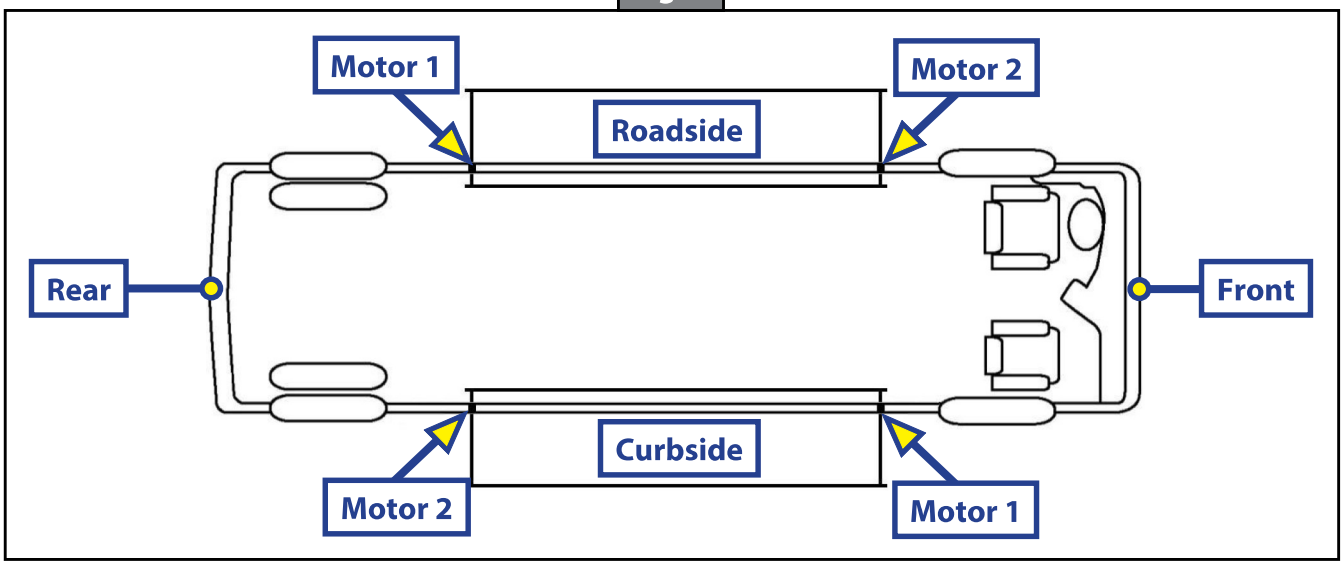
Instructions

The following instructions are for a single slide-out located on either the roadside or curbside of the unit (Fig. 1). A two slide-out configuration requires the use of a special wire harness, different wiring and installation instructions, which are not included in this document.

SLIMRACK® SLIDE-OUT MOTOR AND DRIVE BLOCK REPLACEMENT

SLIDE-OUT

Fig. 1



1. Retract the slide-out room.
2. From inside the unit, remove the four screws in both the top and bottom end brackets attached to the ends of the gear racks.
3. Extend the room approximately half way and support the room.
4. From outside the unit, remove the four screws in both the top and bottom end brackets attached to the ends of the gear racks (Fig. 2).
5. If the C-column has an inner and an outer flange:
   - **A.** From inside the unit, remove the row of screws attaching the flange to the C-column.
   - **B.** From outside of the unit, remove the row of screws attaching the flange to the wall of the unit.
6. If the C-column only has one flange on the outside of the unit, remove the row of screws attaching the flange to the wall of the unit.
7. If the C-column only has one flange on the inside of the unit, remove the row of screws attaching the flange to the C-column (Fig. 3).

Fig. 2

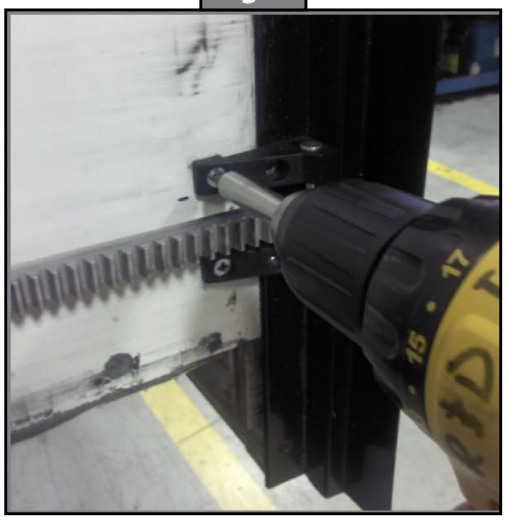


Fig. 3



8. Unplug the motor from the wire harness (Fig. 4A) and remove the column assembly from the unit.
9. Motor retention disconnect:
   - **A.** Motor retention spring: Using needle nose pliers, remove the motor retention spring from the motor spring clip (Fig. 4B).
   - **B.** Motor retention screw: Use a 5/16" open-ended wrench (Fig. 5A) to remove the motor retaining screw (Fig. 5B).
10. Remove the motor.
11. Remove the motor coupler (Fig. 4C).

Fig. 4

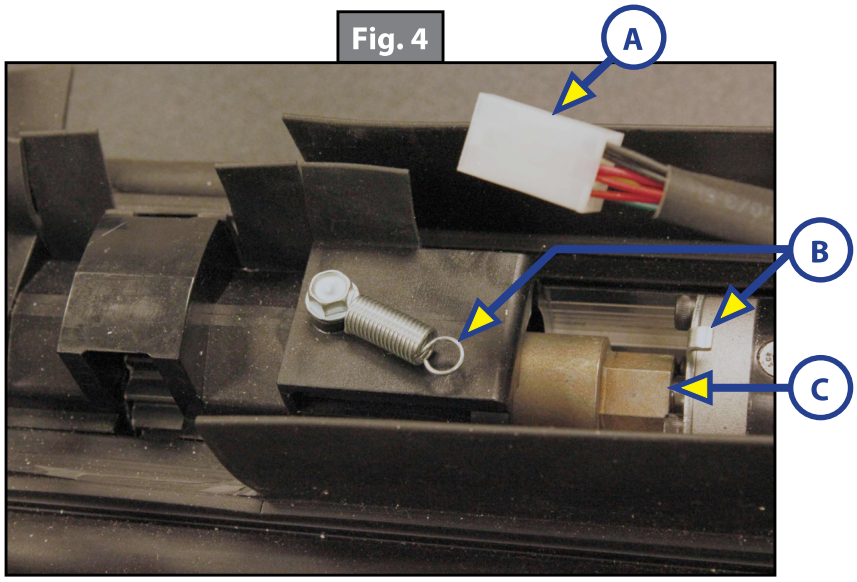
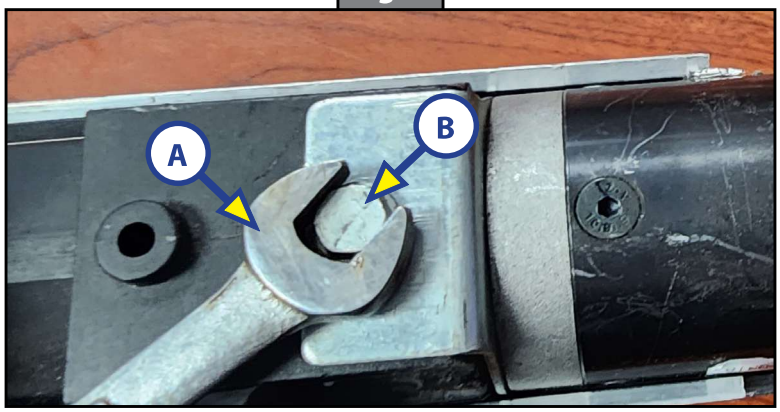


Fig. 5



12. Starting with the upper gear rack:

⚠ CAUTION

Push nuts area one-time use item. Do NOT reuse. Discard removed push nuts. Replace with new.

- **A.** Use the side cut pliers to remove the push nut fastener from the bottom of the inner end bracket pin and discard.
- **B.** Remove the pin from the end bracket.
- **C.** Remove the end bracket from the gear rack.
- **D.** Gently remove the rectangular seal tape from the end of the gear rack.
- **E.** Remove any remaining adhesive from the gear rack.

13. Repeat steps 9 - 12 for the lower gear rack.

14. Grasping either the upper or the lower gear rack, pull the rack completely out of the drive block—the other gear rack will follow.

15. If necessary, remove the small plastic shipping pins holding the upper and lower drive blocks in the C-column and discard.

NOTE: These pins may already be sheared. If so, they will not need to be removed. Replacing these pins will not be necessary when reassembling the column assembly.

16. Pull the drive block/shaft assembly out of the bottom of the C-column.

17. Remove the spring clip from the upper drive block. One bearing flange will slide down the drive shaft and into the lower bearing block.

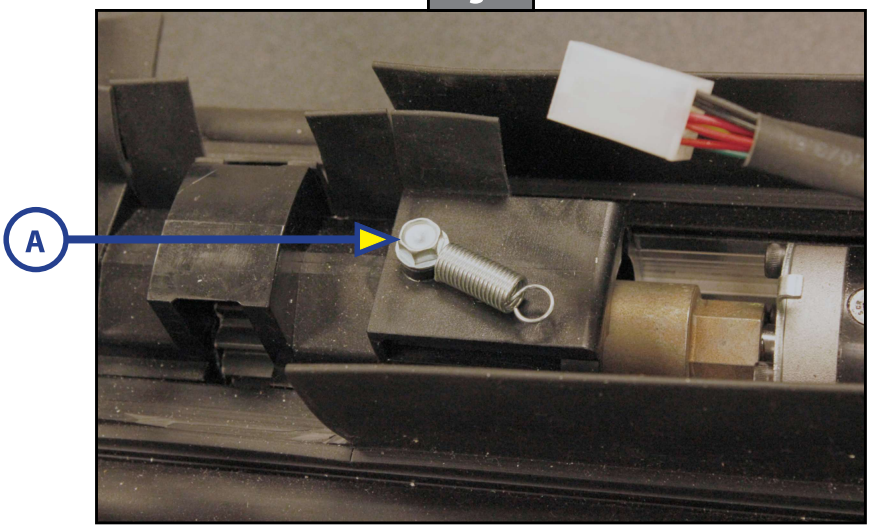
18. With the spring clip removed, slide the drive block down the drive shaft to expose the other spring clip.

- **A.** Remove this spring clip and pull the drive block assembly off the drive shaft.
- **B.** The spur gear inside of the drive block will be loose and will come out of the drive block.
- **C.** Set the spur gear aside for later assembly.

19. Turn the drive shaft assembly upside down so that the bearing flange slides off the drive shaft.
20. For systems with motor retention spring: Using a ⅜" drive bit, remove the screw holding the motor retention spring to the drive block assembly (Fig. 6A).
21. For systems with motor retention spring: Using a ⅜" drive bit, attach the motor retention spring to the new drive block with the previously removed screw (Fig. 6A).

NOTE: Make sure that the wipe seal on the new drive block matches the orientation of the wipe seal on the old drive block.

Fig. 6



22. Attach a new felt pad to the new drive block assembly.

NOTE: Skip step 22 (above) if unit being serviced is a Winnebago.

23. With the flange facing down, slide one of the bearing flanges onto the drive shaft (Fig. 7).
24. Insert the previously-removed old spur gear into the new drive block assembly (Fig. 8).

NOTE: Make sure the orientation mark on the spur gear is oriented to the same side of the drive shaft that has the holes for the spring clips.

25. Slide the drive block with spur gear onto the drive shaft (Fig. 8).
26. With the flange facing up, slide a second bearing flange onto the drive shaft.
27. Install a spring clip into the hole at the top of the drive shaft to capture the bearing flanges and spur gear (Fig. 7).
28. Turn the drive shaft upside down so that the bearing flanges and drive block all seat against the spring clip that was just installed.

NOTE: Make sure that the bearing flanges are both properly engaged with the drive block assembly (Fig. 8).

29. Install another spring clip into the hole on the drive shaft (Fig. 7) to secure bearing flanges and spur gear (Fig. 8).
30. Slide the drive block/shaft assembly into the C-column.
31. Lay the C-column assembly on its side.

Fig. 7

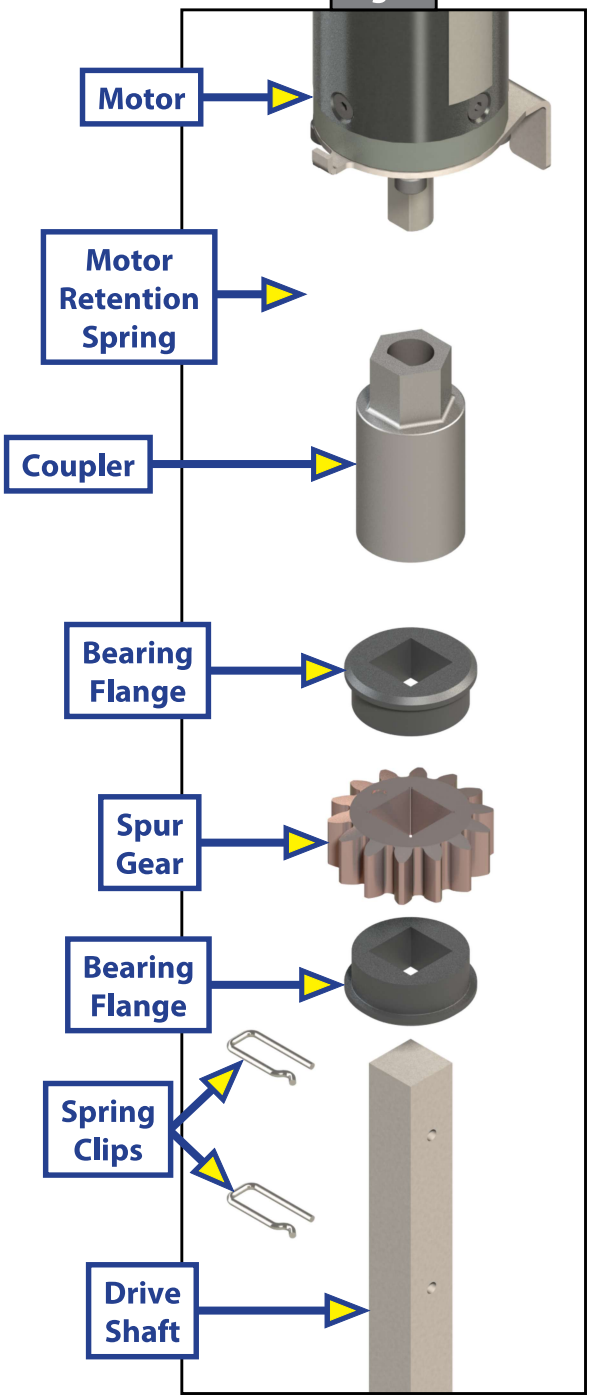
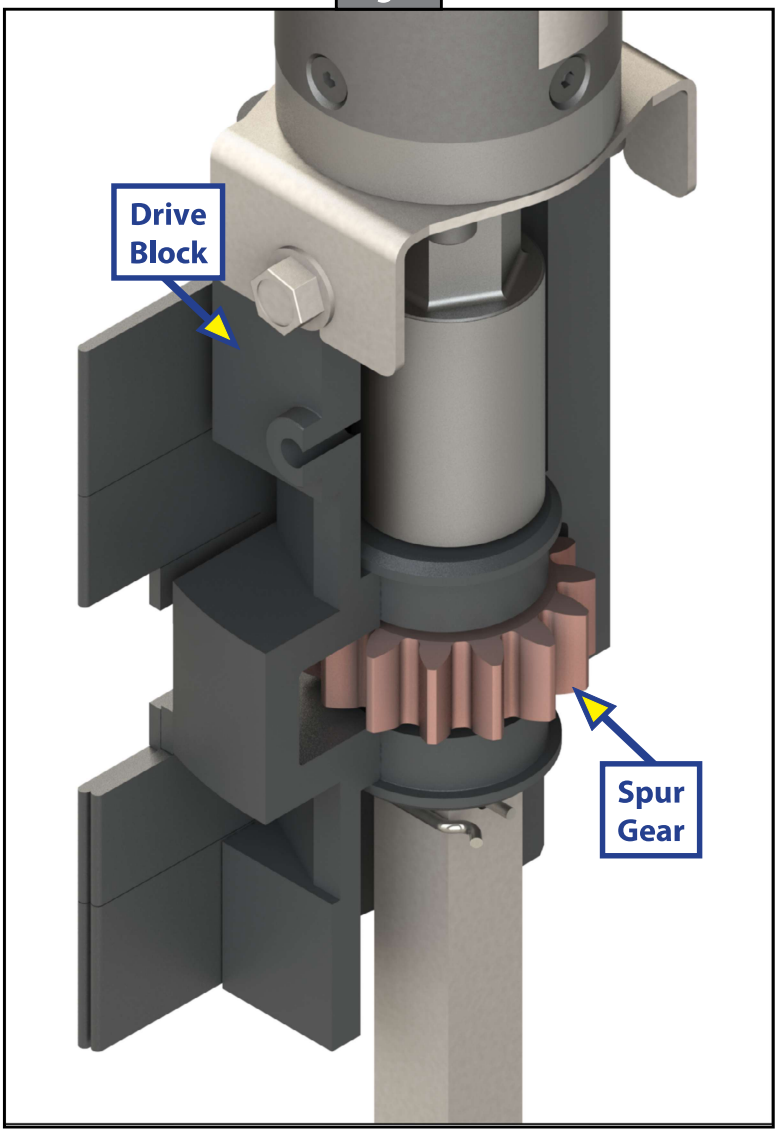

Motor
Motor Retention Spring
Coupler
Bearing Flange
Spur Gear
Bearing Flange
Spring Clips
Drive Shaft

Fig. 8


Drive Block
Spur Gear

32. Begin inserting the upper gear rack into the upper drive block assembly (Fig. 9).
33. Place the lower gear rack onto the spur gear (Fig. 9), then turn the drive shaft assembly to properly time the upper and lower gear racks.
34. Push the upper gear rack in about half way (Fig. 10)—the lower gear rack will follow.

Fig. 9

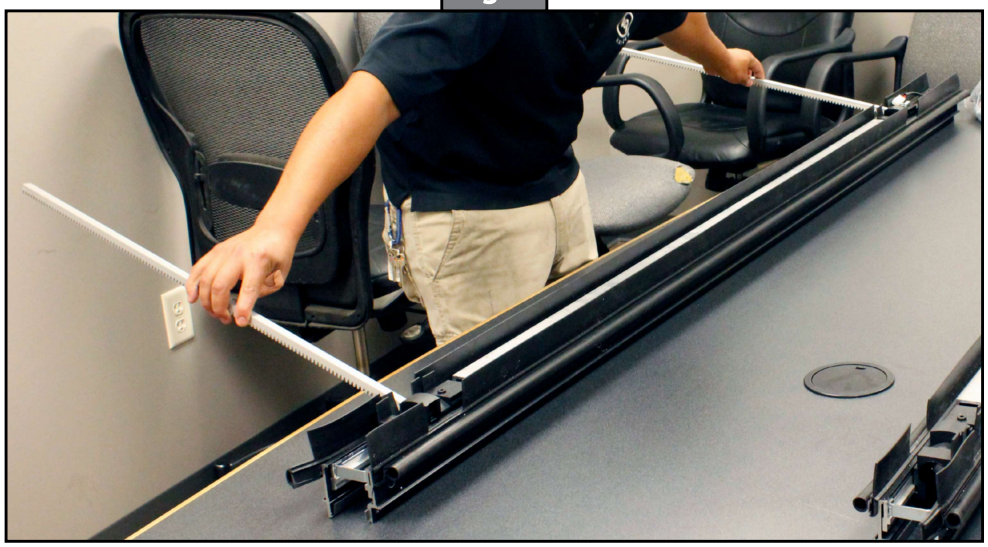
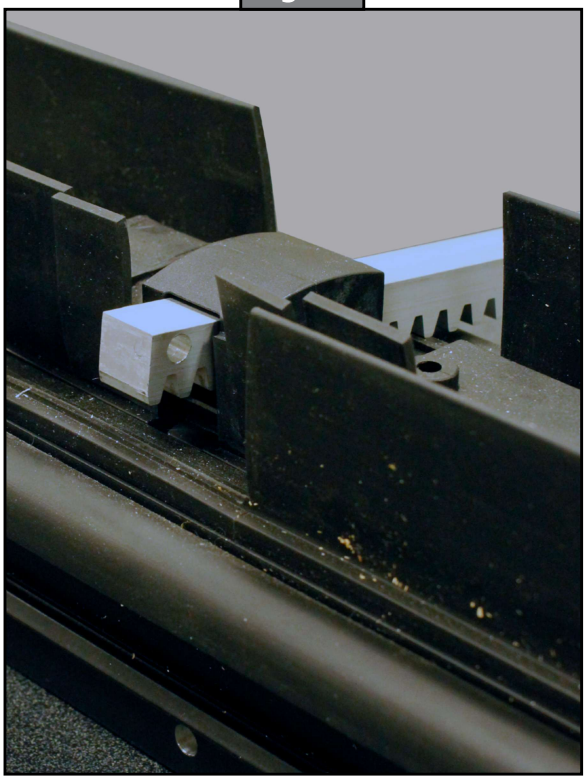


Fig. 10



35. Place an end bracket Fig. 12) onto the end of one of the gear racks.
36. Use one of the end bracket pins (Fig. 11A) to secure the end bracket to the gear rack.
37. Using a small socket (Fig. 11B), install a new push nut fastener (Fig. 11C) onto the bottom of the end bracket pin (Figs. 13 and 14).
38. Repeat steps 34 - 37 for the other end bracket.

Fig. 11

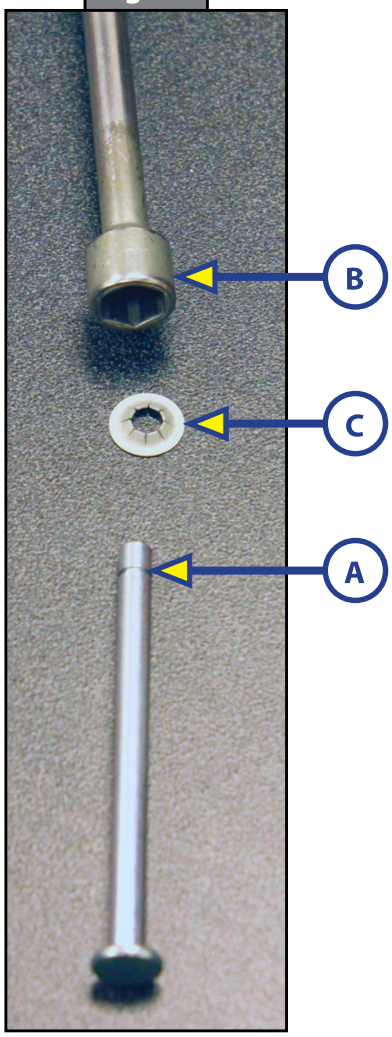


Fig. 12

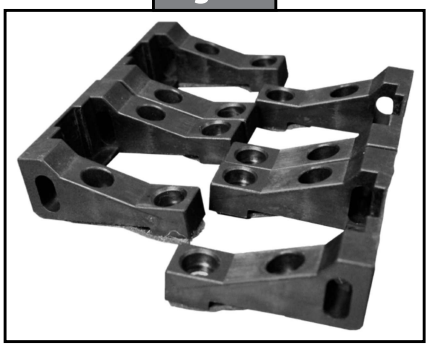


Fig. 13

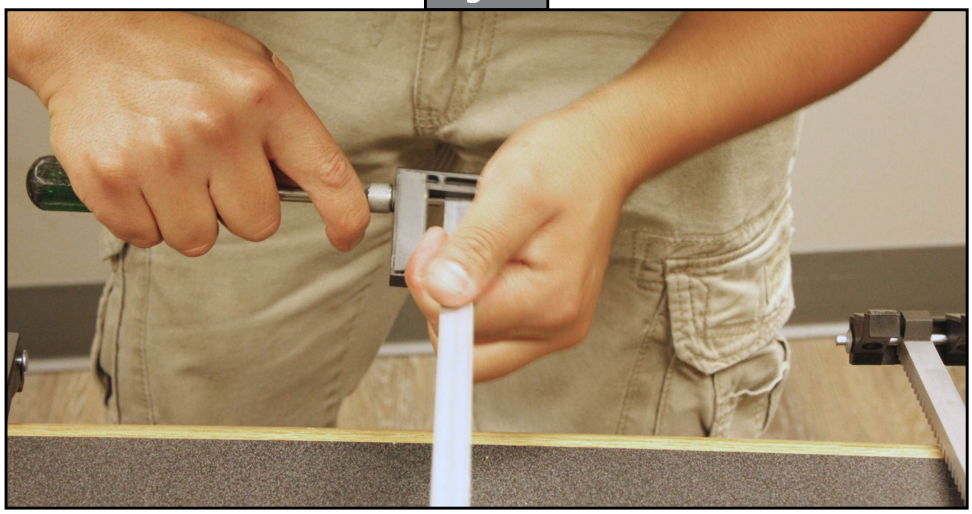
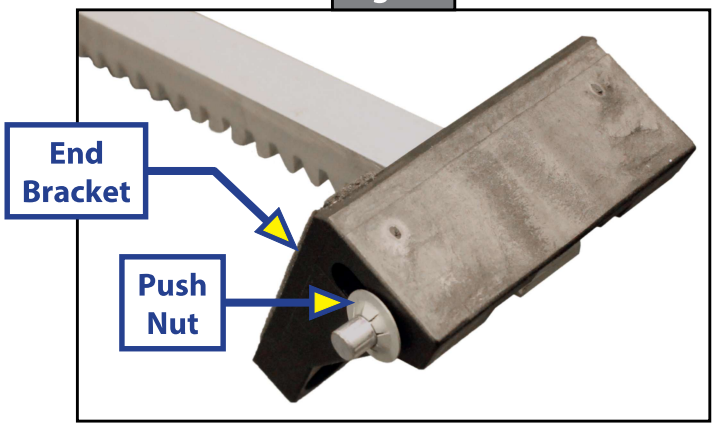


Fig. 14



39. Place a new piece of rectangular seal tape (Fig. 15A) over the end of each gear rack.
40. Insert the motor coupler into the top of the upper drive block so that it engages with the drive shaft (Figs. 6 and 7).
41. Insert the new motor into the motor coupler and drive block assembly (Figs. 7 and 8).
42. Motor retention connection:
    - **A.** Using needle nose pliers, pull the motor retention spring up and over the motor spring clip (Fig. 4B).
    - **B.** Use a 5/16" open-ended wrench (Fig. 5A) to install the motor retention screw (Fig. 5B). Tighten screw by hand until it stops, do not over tighten.
43. Install the slide-out system back into the unit in the reverse order it was removed.

Fig. 15

