



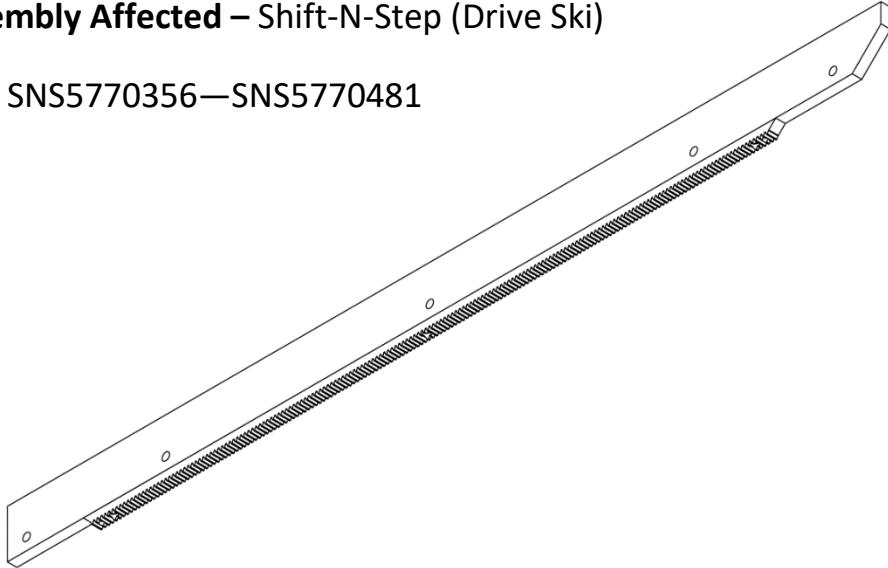
## TECHNICAL SERVICE BULLETIN

**Technical Service Bulletin Number-TSB0015 – Shift-N-Step Shortened Rack**

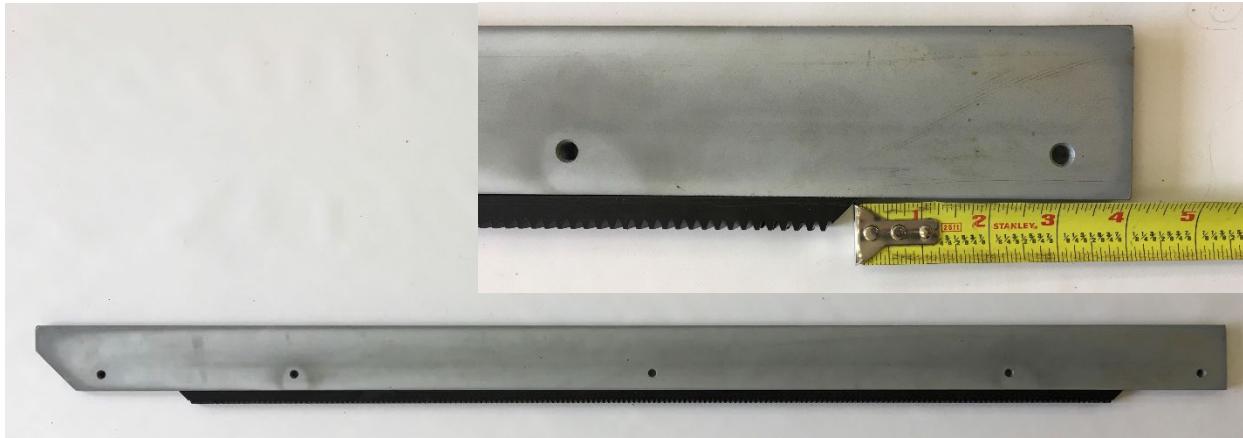
**Date – 8/12/2020**

**Item, Unit or Assembly Affected – Shift-N-Step (Drive Ski)**

**Unit(s) Affected – SNS5770356—SNS5770481**



**Reason for Bulletin –** Affected Shift-N-Step units will look and operate normally, but have a shortened range of teeth on the rack of the drive ski. To determine if this affects your unit, operate the Shift-N-Step to put the lift in the full right (lift operation) position. Then, look into the channel where the emergency back-up/manual operation tool is inserted and determine if the rack teeth extend far enough to the left for the tool to work properly. Replacement skis may be ordered free of charge directly from [mary@abilitrax.com](mailto:mary@abilitrax.com). Labor reimbursement claims are be made by contacting [ap@fentonmobility.com](mailto:ap@fentonmobility.com). Labor allowance will be at a rate of 3 hrs @ \$90.00 per hour



### Tools/Materials Needed –

- $\frac{1}{2}$ " and  $\frac{9}{16}$ " Sockets
- Ratchet,  $\frac{1}{4}$ " drive
- Torque wrench ( $\frac{3}{8}$ " drive recommended)
- Needle-nose Pliers
- $\frac{5}{32}$ " Allen bit (shallow)
- Impact driver
- Philips-head bit or screwdriver
- Floor covering/protection
- Knife or razor blade
- Pry bar (optional)

### Action Required –

The drive ski must be **replaced**.

First, **deploy** the lift and **remove** the two bridge plate screws with the  $\frac{5}{32}$ " Allen. To remove the bridge plate, **push** it down toward the floor and **slide** it forward or back until it comes loose. This will expose the lift bolts. Use the  $\frac{1}{2}$ " socket to **remove** the 6 lift bolts under the bridge plate, and **keep** them organized, they are different lengths and need to be replaced in the same locations. **Leave** the 4 corner bolts in place for now.



Now, **stow** the lift, and be careful to hold the inner barrier up as it passed over the sensors that were previously protected by the bridge plate. With the lift's included manual release lever (or by **touching** on the "Unfold" button briefly), gently **let** out hydraulic pressure so that the lift rests on the *Lift Tite Latches*.

**Locate** the circuit breaker behind the plastic plug in the driver's side stepwell and press the red button to cut power to the lift. Then, with the 9/16" socket on the ¼" ratchet, **remove** the lift power and interlock. **Use** a Philips-head to remove the two screws that mount the Schlepp cable to the top plate. Once again, use the ½" socket to **remove** the remaining 4 corner bolts that hold down the lift.

**Lay down** cardboard or other floor protection inside the vehicle behind the lift and carefully **shift** the weight of the lift back off the ski stand-offs, alternating from side to side in order to keep it from tipping.

Now, with the lift out of the way, **remove** the ski stand-off from the drive ski/front track. Then, use the 5/32" Allen bit to **remove** the 4 bolts holding down the slide plate, and needle-nose pliers to **release** the springs. Now use the 5/32" Allen bit with an impact driver to **remove** the 38 bolts holding the top plate down. A knife or razor will be needed to **cut** 4 holes in the slide tape that covers some Allen bolts. One is located beneath the "ATTENTION: FULL SHIFT LEFT" sticker.





At this point, it is possible to **peel** up the lift plate and remove the drive ski from the Shift-N-Step unit. It may be necessary to **remove** the plastic covers on the B-pillar. It is a good idea to **take** some pictures before disturbing the layers, this will make re-assembly easier. There is also a diagram provided in this document. At this point, the ski can be **removed**. **Insert** the replacement ski between the Nylatron strips, using caution not to damage them.

Now, the top plate should be **replaced** and **secured** with the 38 Allen bolts that were removed earlier. **Replace** the ski stand-off, and use the lift bolts to temporarily **line it up** on the ski.

From here, the **complete** Lift Mounting instructions can be referenced from *SNSIM0001\_B Shift-N-Step Installation Manual Rev. B* starting on page 26.

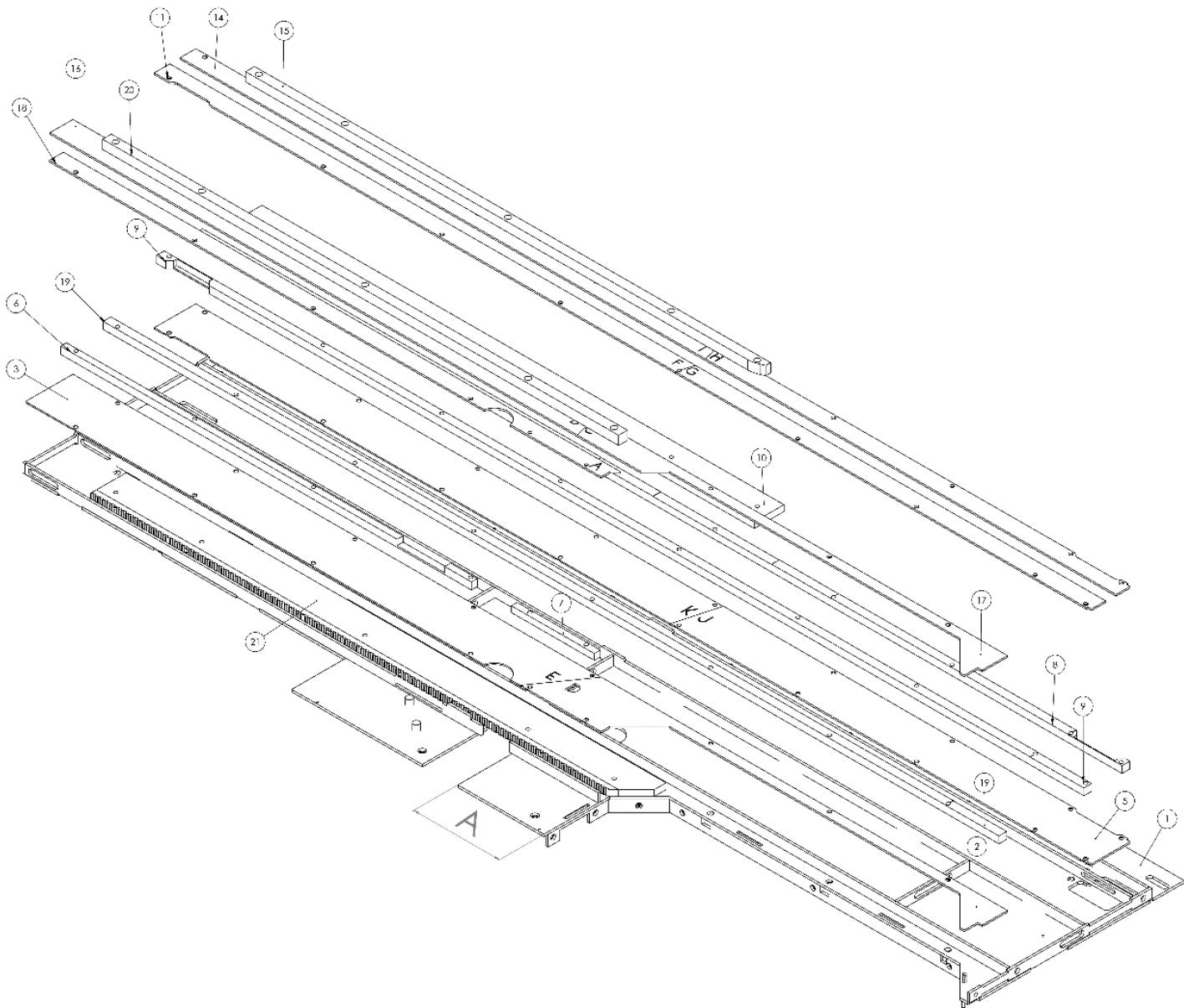
Now, for the purpose of alignment, “**slam**” both skis in the track to toward the back of the vehicle. **Remove** the temporary bolts, and carefully **put** the lift back into its position on the ski stand-offs, using caution not to disrupt the alignment.

Finally, **replace** the 4 corner lift bolts in their original locations and tighten. **Reconnect** power and interlock, **reset** the breaker, and **test** for alignment and fit. Once smooth operation is confirmed, **deploy** the lift (while **holding** the inner barrier up so it doesn’t drag), **replace** the rest of the lift bolts (the bolt chart at the end of this document can be used as a guide), and **don’t forget to insert** the shims. Use the torque wrench to **tighten** the 10 bolts to the 15-ft-lb specification. **Replace** the bridge plate and test the pressure sensor. **Refer** to *TSB0005 Shift-N-Step Ski Alignment* to address any “tight install” problems that arise.



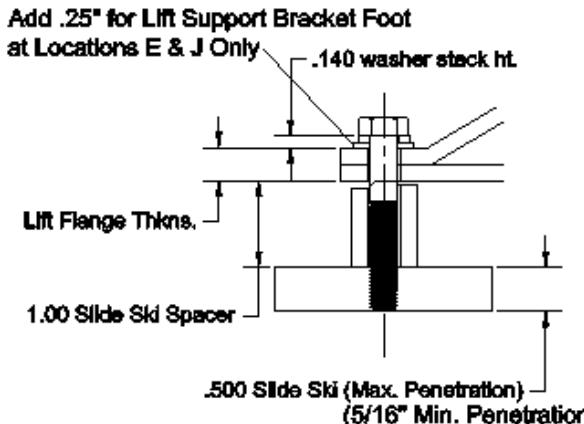
## Safety Issue? - Potentially

The keyswitch will be able to move the Shift-N-Step. If the lift is in the operation position (full right) and the vehicle's battery dies, it will be difficult to push the Shift-N-Step out of the way of the door opening. This could be a safety concern.





## Bolt Length Requirements for Mounting Braun or Ricon Lift to Shift-N-Step



.140 + Lift Flange + 1.00 + .500  
= Bolt Length\* @ A, B C, D, F, G, H, & I

.140 + .25 + Lift Flange + 1.00 + .500  
= Bolt Length\* @ E & J ONLY

\*Round Down to Nearest available  
bolt length but 5/16" MINIMUM Bolt  
penetration MUST be maintained.  
Any changes to total stacked height  
(added shims, altered Slide Ski  
Spacer height, etc.) must be  
accommodated accordingly

Using the proper length bolts to attach a Braun or Ricon Lift to the Shift-N-Step Unit is critical. Required bolt lengths will vary depending on Lift Manufacturer and Bolt location. Using Bolts that are too long may result in bolts protruding beyond the face of the Slide Skis. This will cause the Skis to "drag" in the channels and will cause the Shift-N-Step to bind or jam. Protruding bolts will also damage the Ski bearing surfaces. Bolts must also penetrate at least 5/16" into the Slide Skis to assure adequate lift retention.



Please refer to the chart below for “normal” conditions. Keep in mind that adding to the total “stacked height” (added shims, etc.) may result in inadequate bolt penetration into the Slide Skis (5/16” MINIMUM) and reducing the total “stacked height” (reduced Slide Ski Spacer height, etc.) may result in bolts that are too long. Any changes in total “Stacked Height” will require recalculations of bolt lengths accordingly

