

Maintenance Guide

BV13 and BV17 series tools

Front Housing Replacement and Loctite® Application



BV17

BV13

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Job Preparation

These instructions detail the process for removing and replacing the Front Housing on both the BV13 and BV17. This procedure takes approximately 1 hour and requires intermediate mechanical skills. The equipment listed below should be gathered prior to beginning work. Please refer to Component Drawings on pages 6 and 7 to identify parts named in the procedure.

- | | | |
|----------------------------|------------------------------|--|
| Equipment Required: | | |
| • Bench Vice | • Large Adjustable Wrench | • Loctite® 603* - High Strength Retaining Compound |
| • Phillips Screwdriver | • Hex driver or Allen wrench | |
| | • a source of heat | |

* **Loctite** is a registered trademark of Henkel IP & Holding GmbH.

Procedure

1. Remove the battery from the tool. Use a large adjustable wrench to remove the nose adapter (Figure 1).



Figure 1

2. Place the tool on the bench with the front end to the left and the handle to the right (as shown in Figure 2). Remove the fourteen (14) case screws and the two (2) Allen bolts. Set the screws and bolts aside.



Figure 2

3. Turn the tool over so that the front end is to the right and the handle to the left (as shown in Figure 3). Remove the remaining the two (2) Allen bolts. Set the bolts aside.



Figure 3

4. Turn the tool back over so that the front end is to the left & remove the plastic cover (as shown in Figure 4). Set the plastic cover aside.



Figure 4

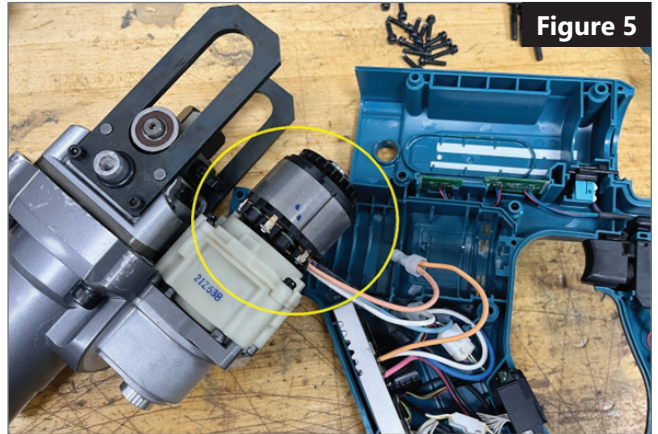


Procedure continued...

5. Remove the ball screw and front housing assembly from the plastic cover.

Pull the electric motor out of the gear assembly (Figure 5).

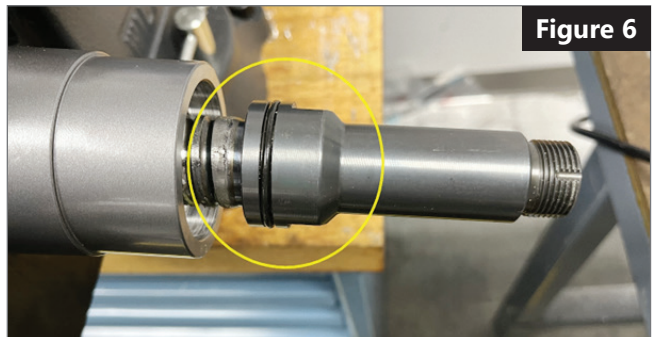
Take the ball screw and front housing assembly (without the electric motor) and place it in a bench vice. Be sure to that the jaw pressure from the vice is applied to the front housing casing and not to the ball screw guide rails.



6. Remove the o-ring from the joint assembly.

NOTE: Make sure you remove O-Ring before applying heat.

Apply heat evenly around the joint assembly for two (2) minutes. Then use a large wrench to loosen the joint assembly (turn counterclockwise as viewed from the front of the tool). Repeat the cycle of applying heat and torque loosening until the joint assembly can be removed. joint assembly.



7. After the joint assembly is removed, remove the four (4) Allen bolts that hold the front housing in place and set aside (Figure 7).

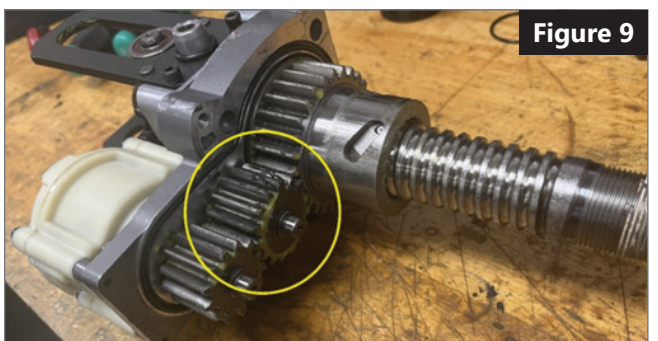


8. Separate the front housing from the ball screw assembly.

Remove the spur gear from the front housing (Figure 8).



9. Place the spur gear in line with the gear assembly (Figure 9).





Procedure continued...

10. Remove the gear washer from the front housing (Figure 10).



11. Place the gear washer onto the spur gear in the gear assembly (Figure 11). Make sure the o-ring is properly seated in its groove.



⚠ NOTE: O-Ring must be seated in the Rear Housing Groove.

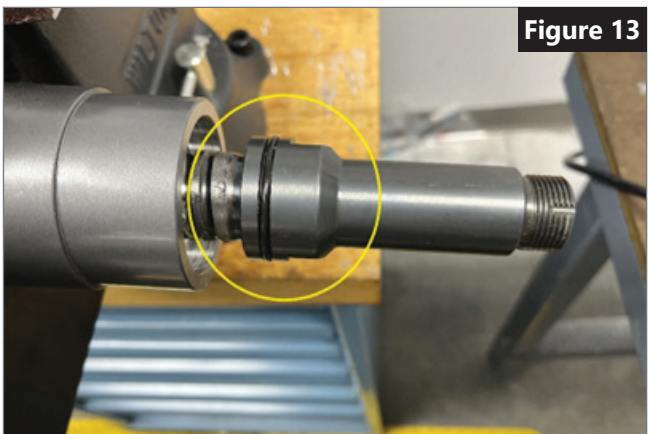
12. Slide a new front housing onto the gear assembly.

Secure with the four (4) Allen bolts removed in Step 7 (Figure 12).



13. Apply Loctite® 603 High Strength Retaining Compound to the end of the ball screw and tighten the joint assembly onto it.

Reinstall the rubber o-ring (Figure 13).



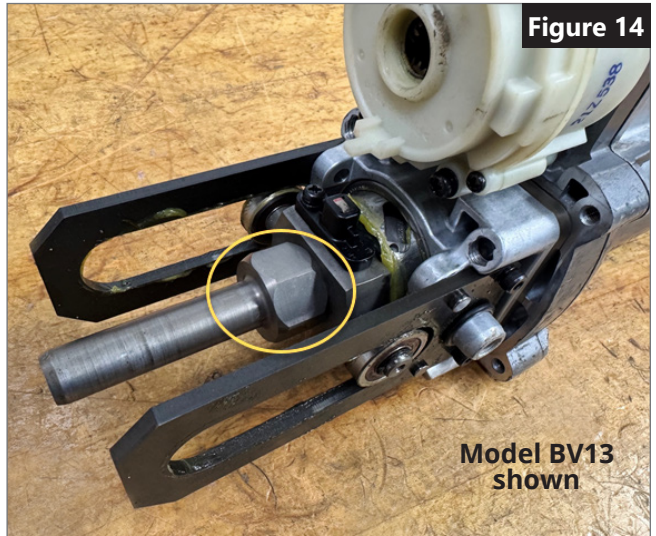


Procedure continued...



14. Apply Loctite® 603 High Strength Retaining Compound to the other end of the ball screw.

Tighten the retaining nut onto the ball screw.


Torque tighten the retaining nut to 100-105 Nm (73.75-77.44 lb-ft) (Figure 14).



Retaining Nut

BV17		BV13
	Apply Loctite® 603 (cylindrical retaining compound) to threads	
509642		509610

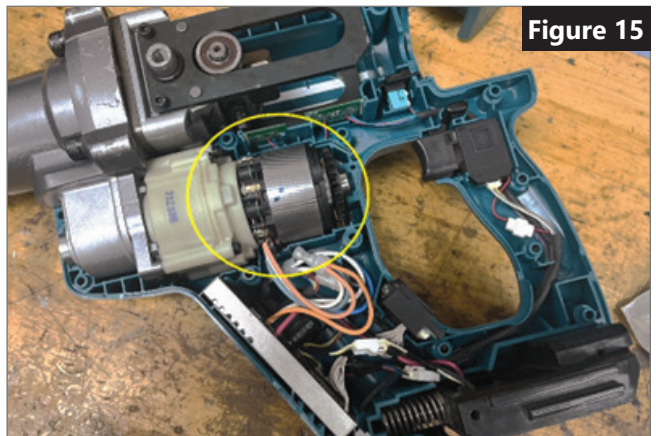
Hold and Torque tighten Retaining Nut to:
100-105 Nm (73.75-77.44 lb-ft)

 **Apply Loctite® 603**

15. Slide the electric motor back into the gear assembly.

Carefully set all components back into the plastic tool casing. Make sure all parts fit snugly.

Set all wiring into a recessed area so the wires do not get pinched (Figure 15).



16. Replace the plastic cover that was removed in Step 4. Make sure all seams fit tightly together and no wires are pinched or protruding.

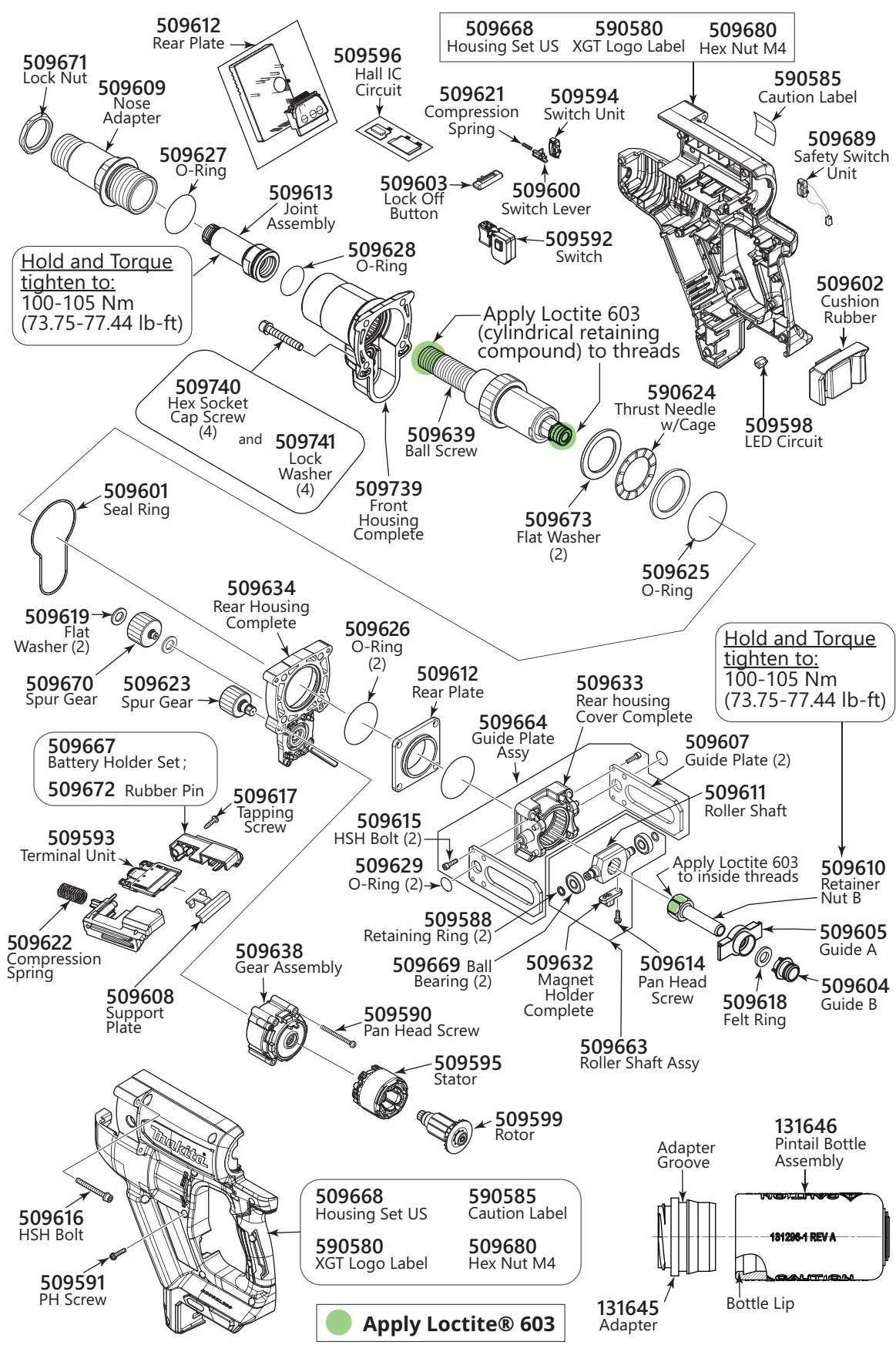
Replace and tighten the four (4) Allen bolts and fourteen (14) screws removed in Step 2 (Figure 16).

Install the battery and conduct a test pull to make sure the tool is working properly.





BV13 Component Drawing





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