

SELECT-A-LOC[™] 
ELECTRONIC LOCKING DIFFERENTIAL

SERVICE MANUAL

MH 586 – Clutch Pack Design

These instructions are intended as an aid for the experienced automobile mechanic in properly rebuilding the Select-A-Loc differential. It is expected that the mechanic be equipped with the proper tools, equipment, and experience before attempting the rebuild and installation.

Select-A-Loc Disassembly

1. Remove differential from axle housing. Refer to Installation Instructions (<https://auburngeardiffs.com/installation-manuals/>).
2. Remove tapered roller bearing from coil end bearing hub.
3. Remove coil from differential case.
4. Remove the needle roller bearing and thrust washer.
5. Remove the snap ring and springs.
6. Remove differential pinion shaft.
7. Gently drive out center block with a suitable driver and mallet.
8. Rotate pinion gears towards differential case window openings and remove pinion gears and thrust washers.
9. Remove the side gear assembly from the coil end of the differential.
10. Invert the differential case and remove the side gear and clutch plate assembly from the opposite end.
11. Clean and inspect the differential case.

Part Identification

Side Gear & Cam Assembly

Side Gear & Clutch Plate



Engagement Plate Assembly

Center Block

Pinion Gears & Thrust Washers

Assembly

1. Apply axle lubricant to the clutch plates. Insert the side gear and clutch plate assembly into the differential case as shown. Once installed, invert the differential case to allow assembly of the remaining components.



2. Disassemble the side gear & cam assembly since alignments may have become compromised during shipment.

3. Position the side gear on a level surface as shown and insert a steel ball into each pocket. The balls will roll to the bottom of each pocket.



4. Place the ball spacer over the balls. Be careful not to reposition the balls.



5. Install the cam ring over the balls. Be certain that the balls are at the bottom of the pockets.



6. Place the needle roller bearing, thrust washer and shim onto the cam ring as shown.



7. To ensure that the balls are properly positioned in the ball ramp pockets, hold down on the thrust needle roller bearing thrust washer and slightly rotate the cam ring each direction. The cam ring will return to the same position each time when the balls are properly positioned.



8. Lubricate the cone clutch with axle lubricant and place onto the side gear & cam assembly. Place the assembly into the differential case as shown.



9. Lift the side gear & cam assembly up into position and install the pinion gears and thrust washers through the two window openings. It will be necessary to hold the side gear & cam assembly in position while installing the pinion gears and thrust washers.

10. Rotate the pinion gears and thrust washers so that the pinion gear bores align with the pinion shaft holes in the differential case. Be sure that both pinion gears are aligned, if not rotate the pinions back to the window openings and make the required adjustment.

11. Rotate the coil end side gear so that the cam ring notches are aligned with the engagement pin holes in the differential case.



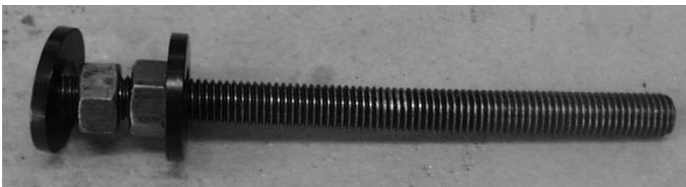
12. Install the engagement plate with the engagement pins onto the differential.

13. Install the disengagement springs and snap ring as shown.



14. Install the pinion shaft far enough to engage one pinion gear. This will keep the gears aligned during installation of the center block.

15. Use a threaded rod, two nuts & two washers to spread the side gears apart from each other. This will facilitate the installation of the center block.



16. Use the proper wrenches to spread the side gears.



17. While the side gears are spread apart, insert the center block between the side gear faces. The threaded hole will need to be accessible through the large rectangular window opening.



18. Remove the threaded rod, nuts and washers.

19. Finish installing the center block with a press or suitable drift and mallet. Align the holes in the center block with the differential pinion shaft and insert the pinion shaft to assure alignment.



20. Install the large needle roller bearing and thrust washer onto the differential as shown.



21. Install the coil onto the differential.



22. Refer to the Installation Instructions for installing the Select-A-Loc into the axle housing.

For tech support, call 260-925-3200
Monday-Friday 7:30am - 4:30pm EST

