

## HALO LOCKER KIT INSTRUCTIONS

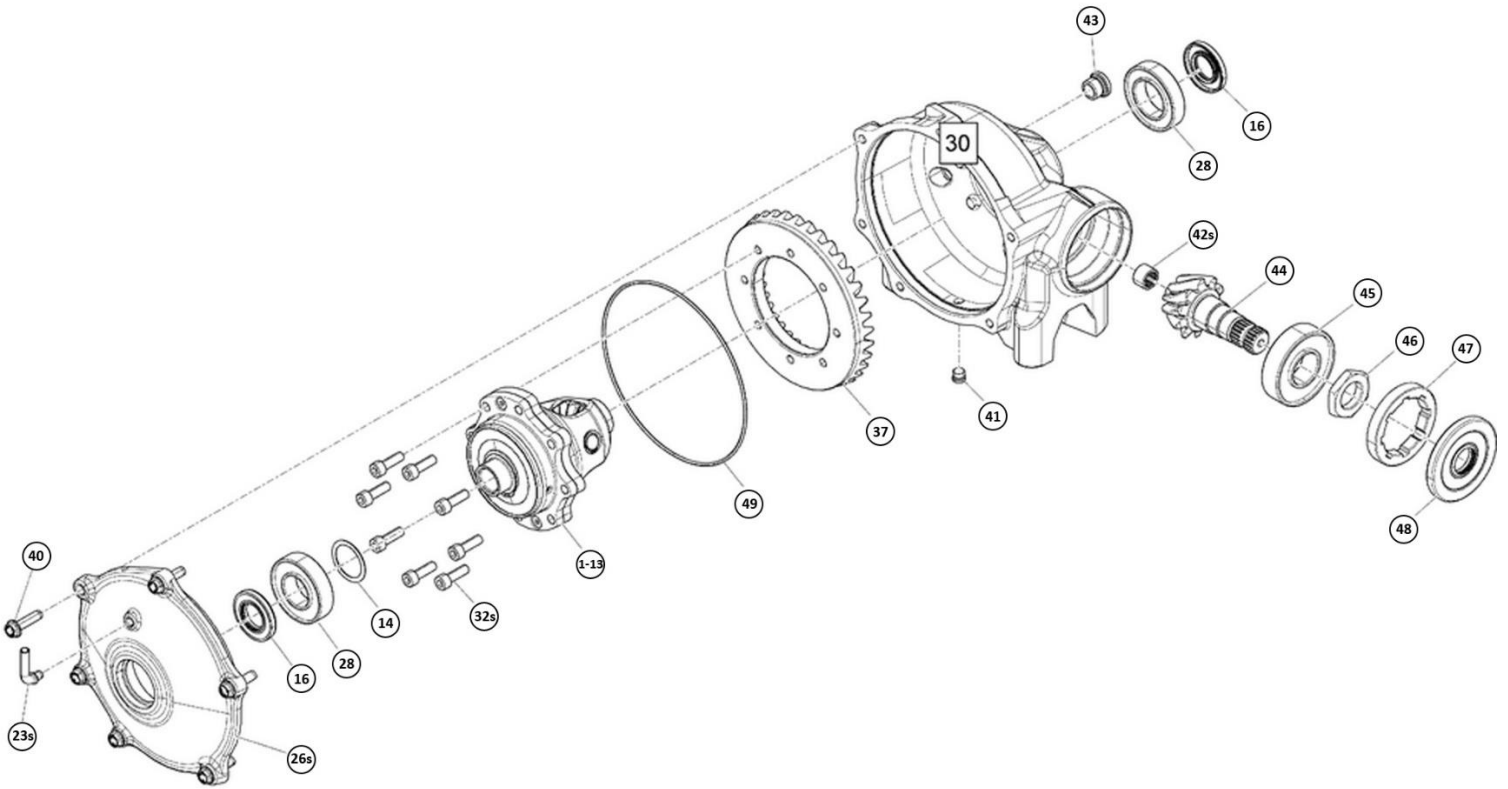


Figure 1

1. Remove front differential from vehicle per manufactures instructions.
2. Clean differential to keep debris from getting inside.
3. Remove case lid (26s) and save hardware (40) and O ring (49) for reassembly.
4. Shim (14) will likely be on the bearing journal of the carrier but it can get stuck to the bearing (28) when removed. Save this shim for reassembly.

**Note:** This shim (14) sets the gear backlash and will need to be reinstalled in the same spot during reassembly.

5. Remove carrier and ring gear assembly from case and remove ring gear (37) from carrier (1-13).
6. Use Figure 2 to prepare carrier for reinstall.

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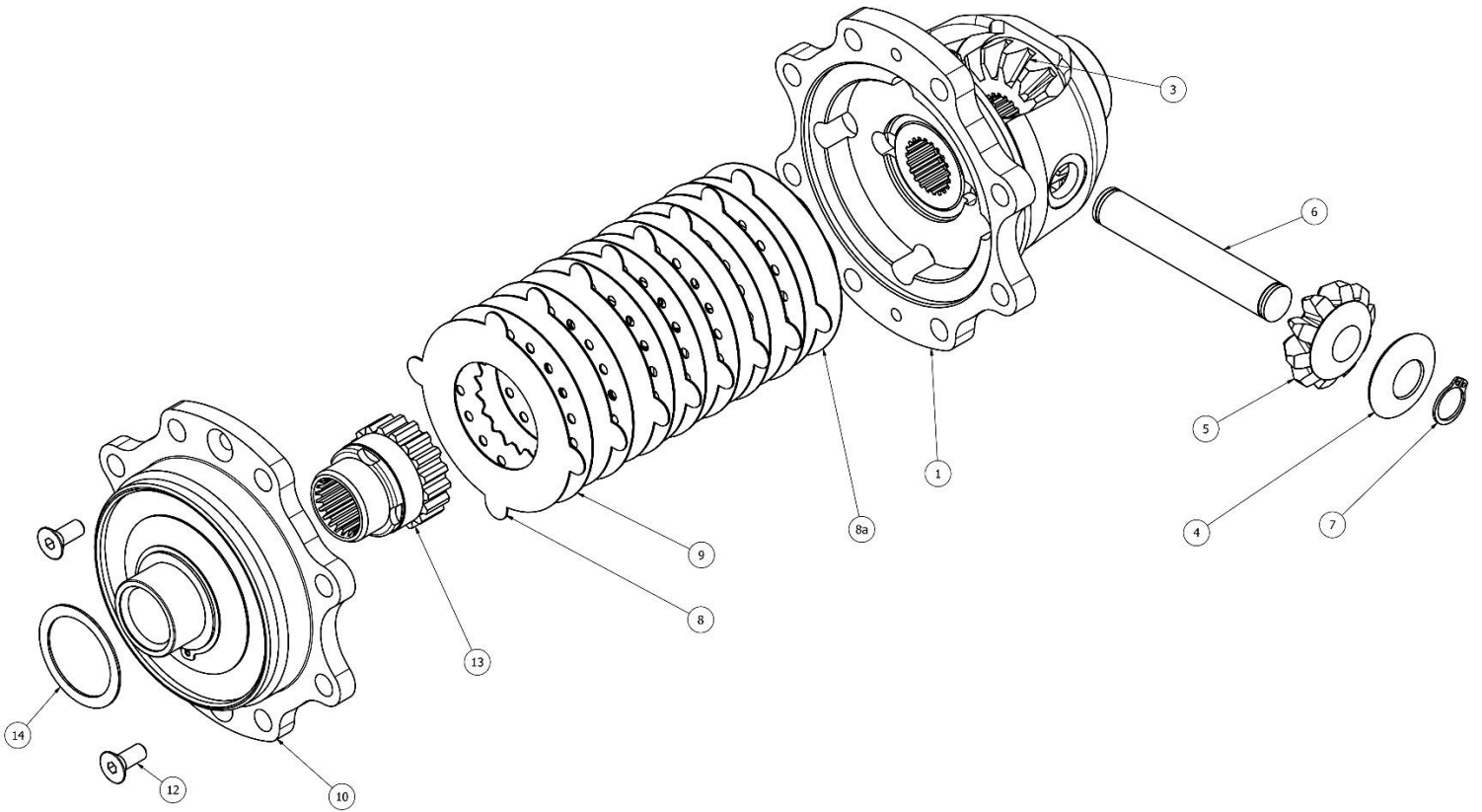


Figure 2

7. Remove screws (12) and remove carrier cap (10) from carrier (1). Screws (12) will not be used for reassembly, they are now unnecessary and could loosen/come out and causing damage.
8. Visco gear (13) will be stuck in cap (10), remove Visco gear (pry out with flat screwdriver if needed) and save for reinstallation later.
9. Remove all clutch plates and discs (8), (8a), (9) from carrier (1). Be sure to remove all clutch plates/discs it is common to miss one.
10. Prior to 2018 many differentials used plastic conical thrust washer (4) they should be replaced in step 11. If your carrier already has steel conical thrust washers you can skip step 11.
11. Remove cross shaft clip (7) and cross shaft (6) being careful not to misplace any shims behind axle shaft gears (3). Replace conical thrust washer (4) with the ones supplied in kit and reinstall shaft (6) and clip (7).
12. Use Figure 3 to reassemble differential with locker kit.

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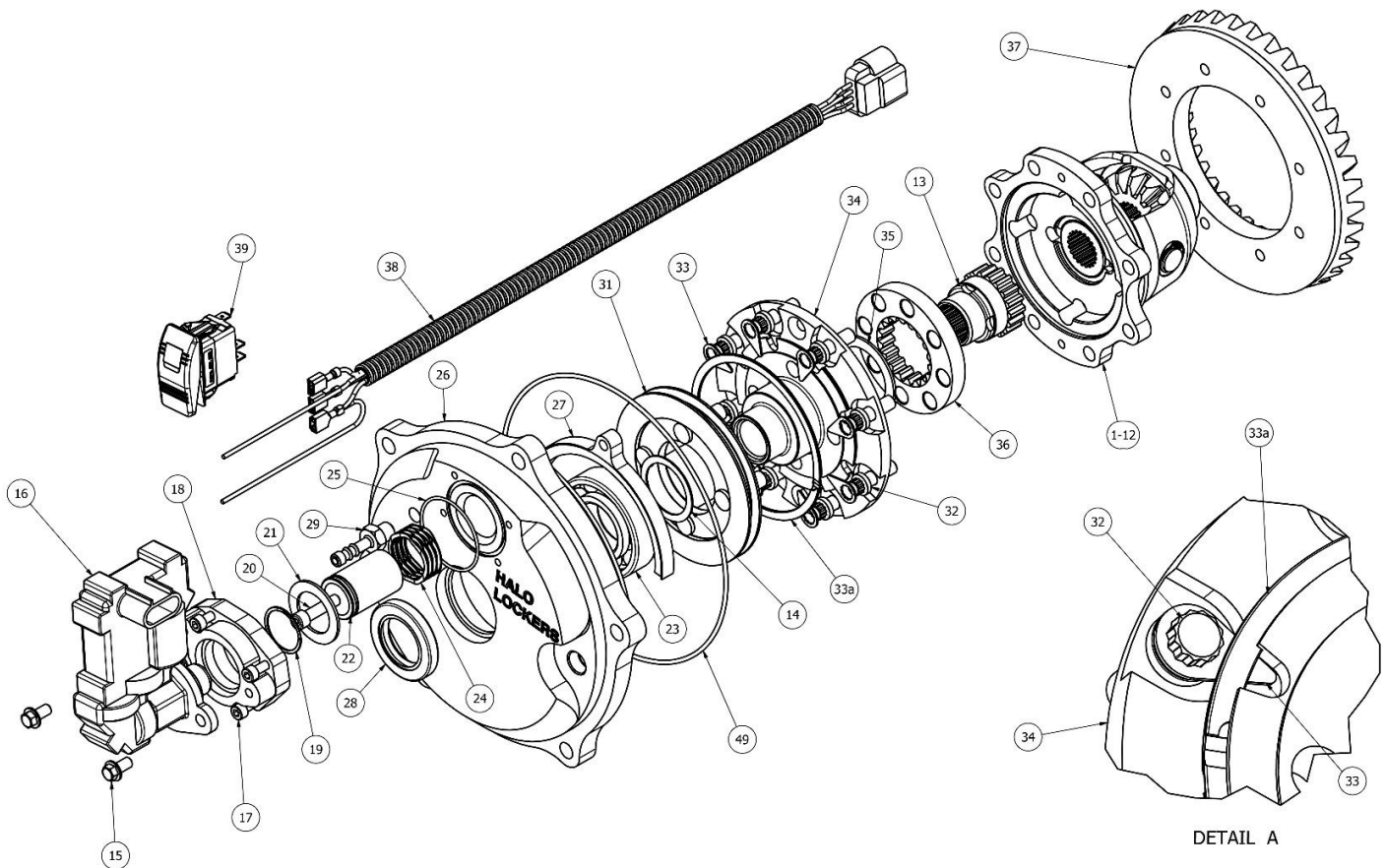


Figure 3

13. Install Visco gear (13), locking gear (36), and shim (35) into carrier assembly (1-12)
  14. Install cap (34) and ring gear (37) on carrier assembly, using bolts (32) and torque to 33 ft-lb. Install lock tabs (33) on bolt (32) (flip tab for more lock positions) Secure lock tabs (33) with retaining ring (33a) by installing retaining ring into groove on cap (34) . Do not reinstall screws (12) from figure 2.
  15. Place carrier assembly back in housing assembly (30) then place shim (14 removed in step 4) back on carrier cap bearing journal
  16. Assemble the Halo case lid shifting mechanism. Some components are pre-assembled. Place the fork and piston assembly (27), (22), (20) in case lid (26). Install spring (24) and washer (21) on piston (22), compress spring and washer enough to install and retaining clip (19) onto piston groove.
  17. Place O ring (25) in position and install motor adaptor (18) with bolts (17).
  18. Clean and lube O ring (49) removed in step 2 and install onto lid assembly (26)
  19. Slip locking ring and pin assembly (31) onto fork (27).
  20. Place lid assembly (26) onto carrier and case assembly (30) while aligning the 4 pins on the lock ring assembly (31) into the 4 holes in the carrier cap (34).
  21. Align bolt holes in lid assembly (26) with blot holes in case (30) and using your hand or a soft mallet force lid to seat in case. And install bolts (40) removed in step 2. Torque to 17 ft-lb.
  22. For clearance and easier installation, install motor actuator (16) with bolts (15) and breather fitting (29). After Installing differential assembly back in vehicle and before reinstalling the left axle shaft.
  23. Service differential with oil per manufacturer instructions for both oil type and fill level.
- Note:** The oil capacity with the Halo locker kit is a little higher however the fill level procedure is the same.
24. Install switch (39) and harness assembly (38) in desired location, being careful to wire switch correctly as shown in figure 4.

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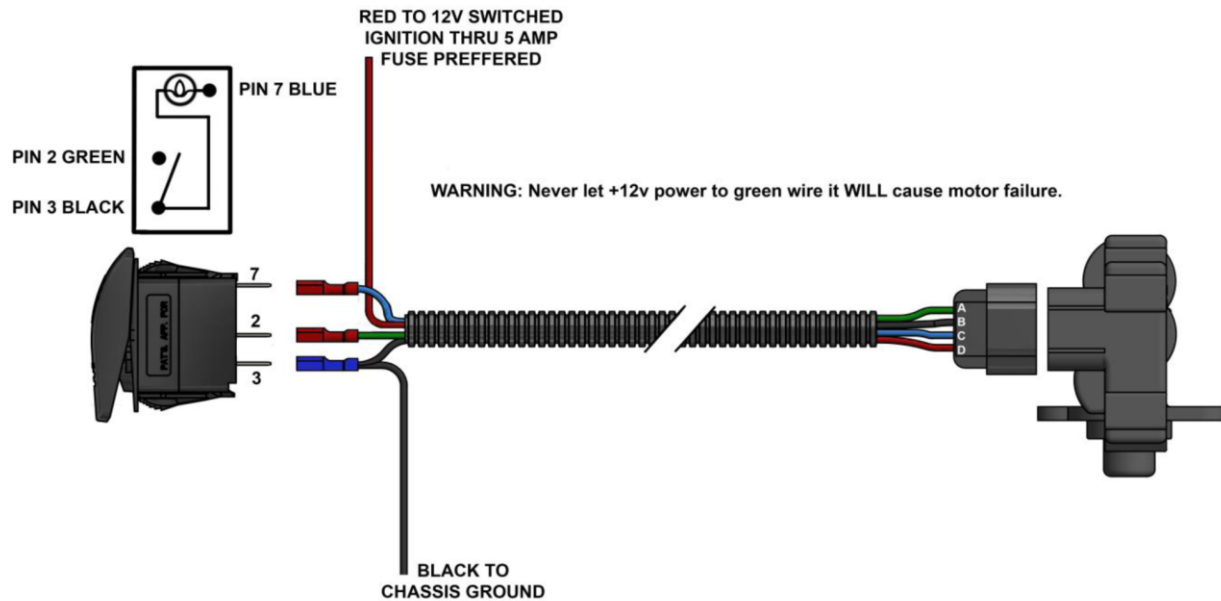


Figure 4

**Note:** It is a common mistake to install the blue crimp connector to the switch terminal that should be connected to the blue wire. When we say blue to pin 7 we mean wire color not connector color.

## Actuator Operation and Custom Wiring Information

### Wiring:

Blue wire connected to terminal/pin 7 is feedback from the motor for the light in the switch.

Green wire connected to terminal/pin 2 on the switch, this is the motor control.

Black wire connected to ground and terminal/pin 3 on the switch, this is ground for the motor and control for the switch.

Red wire to 12-volt ignition switched power source. This is power for the motor to operate not control. It is recommended to fuse at 5 amps.

### Operation:

When the motor is powered and there is no ground on the green wire to the motor, the motor will drive to the unlock position.

When the motor is powered and there is a ground placed on the green wire to the motor, the motor will drive to the locked position.

When the motor reaches full travel (extend), it will feed 12 volts to the blue wire for the light in the switch.

Once the motor has driven to lock or unlock it does not need or use power to stay there.

The actuator motor has overload protection, if it trips power must be removed from actuator for it to rese