

1

DURA CLUTCH INSTALLATION

15-551 DC-RANGER 1000 SECONDARY UPGRADE KIT

SVI, LLC 23SEP2022

KIT PART #: 15-551

MODEL: K- DC-RANGER 1000 SOHC SECONDARY UPGRADE KIT

DESCRIPTION:

MY20-23 RANGER 1000 MY20-23 RANGER CREW 1000 (Non-XP models) that currently has the DC 15-521 kit installed already. This model has the Polaris P190X Clutch.

PURPOSE: This new calibration improves overall performance, especially the transition from clutch pack engagement to CVT low ratio. It also improves clutch pack and belt life and in most driving conditions and provides better fuel economy.

KIT CONTENTS:

1. 10-241 QTY 3, ASM-WEIGHT BUSHED RG-95 TIP REST
2. 35-057 BELT (SUBSTITUTE 3211196)
3. 7541906 QTY 3, NUT-10-24-FLEX LOC-Z Weight pin nut
4. 7512266 QTY 3, SCR-SH SHLDR 1/4X2 10-24 OIL Weight pin
5. 10-253 SECONDARY CLUTCH 9.5 PREM ROLL
6. 75-088 SCR-HXFL-M8X1.25X75 10.9 ZPC 7519948
7. 90-011 WASHER-5/16 SPRING LK-MED ZY 7552901
8. 90-059 WSHR-DOMED SMALL 0.338X1.190X0.080 ZY 5250562
9. 99-023 LOCTITE 243 0.5 CAPSULE
10. 97-059 DECAL-PRIMARY CLUTCH 10-255
11. 97-058 DECAL-DC CLUTCH HOUSING DASH 35-057
12. 30-091 TOOL-BELT INSTALL 2877408
13. 98-079 INSTRUCTION- INSTALL 15-551 SECONDARY UPGRADE (THESE INSTRUCTIONS)

DURA CLUTCH REMOVAL

1. Remove the clutch housing cover.
2. Remove Primary clutch bolt. Remove the Primary clutch with puller SVI 99-012 (PII 28772085). Greasing the end of the puller slightly will aid in removal. Do not get grease on any clutch components.
3. Remove belt then Secondary clutch using an impact. If secondary is stuck on shaft thread secondary bolt back into shaft so head is ½ inch away from clutch, hit the head of the bolt squarely with a small hammer while you pull out on the clutch. The vibration will break the secondary clutch loose so you can pull it off. Remove secondary clutch.

Tools needed for disassembly of clutch: 3/8-inch thin wall socket, ratchet, 1/8-inch hex wrench. NOTE: light duty ¼" or 3/8" drive power tools may be used. DO NOT use heavy duty impact power tools for disassembly or assembling primary clutch components.

4. Loosen 6 clutch cover bolts with 3/8-inch socket in an alternating pattern so cover comes up evenly. Mark clutch cover and spider like picture below for reassembly later in step 8. Remove cover bolts and cover.



5. Remove weight pins, weight pin nuts, weights and primary spring.



6. Install new 10-241 RG-95 weights into clutch, install the 3 new weight pins in the same direction and weight pin nuts provided in kit.
With 3/8" thin wall socket and 1/8" hex wrench, tighten weight pins and nuts. Nut will bottom out on shoulder of weight pin.



7. Install primary spring.
8. Install clutch cover making sure that the X markings line up on cover and spider. Pull sheave up, push cover down compressing spring to get cover bolts started. Tighten bolts in an alternating pattern. Tighten all screws firmly. Torque spec is 7-11 ft-lbf.

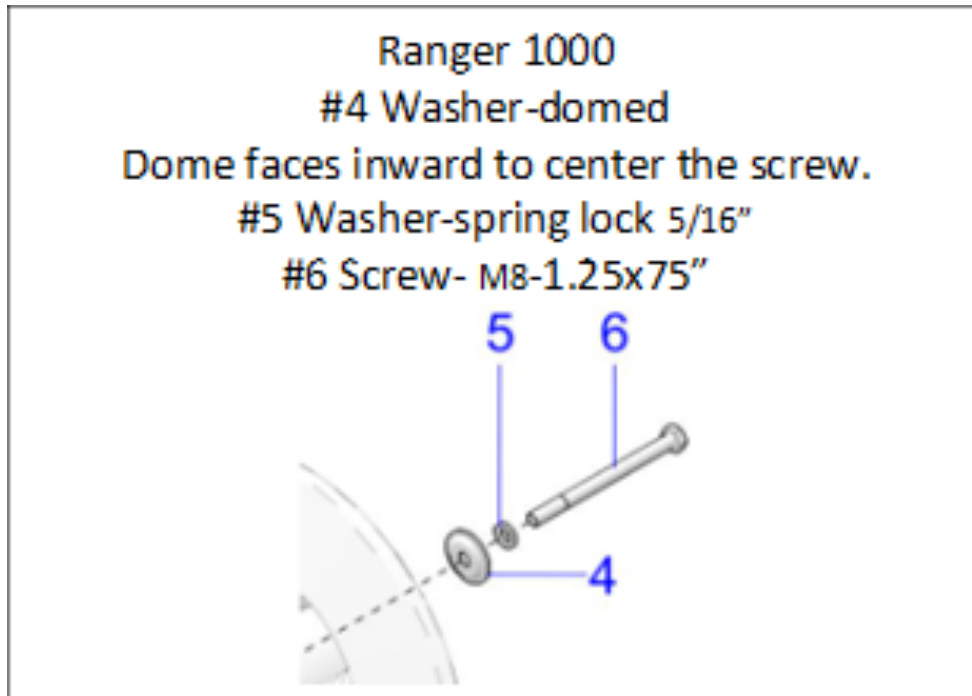


9. Install new 97-059 DECAL-PRIMARY CLUTCH 10-255 on clutch cover.



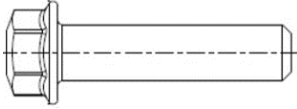
DURACLUTCH INSTALLATION

1. Install DURACLUTCH Secondary using new bolt, spring lock and domed washer provided with kit. Stock shim washers are not used. (see pic below) Place blue Loctite on secondary bolt threads and tighten bolt to 27 ft-lbs.



1. Clean the engine tapered shaft and Primary clutch bore with alcohol or degreaser. Do not lubricate.
2. Install NEW Belt supplied with Upgrade Kit & DURACLUTCH Primary.
3. Using Belt Install Tool open secondary so belt will seat down into clutch. Sometimes a screwdriver is needed to seat lower into clutch.
4. Place belt into primary and install onto the shaft. Tighten primary bolt to 60 ft-lbs.
5. With transmission in PARK, spin secondary clutch back & forth a few times to allow belt back to top of secondary.
6. Install outer clutch housing. Ensure seal is good or replace with new seal. The DURACLUTCH primary is slightly larger than the original equipment primary. To ensure the primary does not rub against the cover push up and back on the housing while lightly snugging the bottom screws. Then tighten the top rear screw followed by the other top screws. Then tighten all remaining screws including the bottom screws evenly. After starting the engine if you hear the primary rubbing, push on the cover while the engine is running in different directions to see which way will eliminate the rubbing. Stop the engine and loosen the housing screws and retighten using the above sequence while pushing on the cover in the direction that eliminated the rubbing. If this does not eliminate the rubbing, try installing a new gasket and go through the bolt tightening sequence again. If you cannot eliminate the rubbing the cover is heat warped and you may have to install a new cover and perhaps a new back plate. You may also try using a heat gun to remove heat sag in the cover.

- Note: The clutch cover screws are 6mm screws (8mm hex head) that are easy to cross thread and strip out.



Torque spec: 100 in-lbs (8 ft-lbs). This is like a screwdriver torque. Use a hand wrench or a clutch screw gun at a low setting.

- Drive vehicle for 5 miles to break-in DURACLUTCH kit components.

DECALS

- Remove clutch cover housing decal and apply new decal provided in kit as shown. Clean surface with alcohol or similar solvent. Decal application is important to alert service technicians that the standard Polaris clutches have been replaced.

