

Instruction to change the pull style clutch to push style for Subaru WRX GDB

Additional parts required — Nissan clutch bearing 30502-21000 , Subaru slave cylinder 30620AA012
(Usually included in the kit sold in the U.S)

Included in the CARBONETIC clutch kit

- 1 Bearing sleeve (1)
- 2 Reverse Rod (1)
- 3 Support—bracket to be attached to the fork (1)
- 4 Cylinder rod replacement (1)
- 5 Cylinder rod nut (1)
- 6 Support fixing bolt (1)
- 7 Reverse Rod—Fork fixing bolt & nut (1 each)
- 8 Cylinder adjustment washer (5)

Installation procedure

- 1) Install the Nissan bearing to the bearing sleeve in the clutch kit (Diagram 1)
- 2) Attach the fork so that the tip of the fork (flat side) pushes the bearing sleeve (Diagram 2)
- 3) Clean the attachment area, slightly apply grease, then install the bearing sleeve
- 4) Assemble the clutch and clutch case to the engine
- 5) Remove the stock parts indicated in the diagram 4
- 6) Attach the end of clutch hose to the slave cylinder [GC8 slave cylinder - 30620AA012]
- 7) **Important** Install the reverse rod from the side of the flange of the slave cylinder. (Be careful on the direction of the reverse rod—it has the head and tail). Fix the slave cylinder by making sure that the slave cylinder and the reverse rod are parallel. The slave cylinder is attached by the two bolts. Install the washers on the bolt at the engine side (3 & 2 as depicted in the diagram 5 & 6), then tighten the bolt. The washers are to make the reverse rod and the cylinder parallel when the reverse rod connects the fork and the cylinder. However, in a case the washers provided by ATS&ACROSS do not produce the intended effect due to the variable original shape of the Subaru cylinder, either remove several washers or make the original spacer so that the slave cylinder and the reverse rod become parallel. Refer to the diagram 5 & 6
- 8) Remove the cylinder boot and rod. Replace the rod with the one provided by ATS&ACROSS (replacement cylinder rod). In order to protect the cylinder boot from the reverse rod, apply something like a resinous band on the boot — tyrap will do.
- 9) Refill the clutch oil and bleed the system (Remove the air from the system)
- 10) Adjust the master cylinder rod which is between clutch pedal and master cylinder so that the pedal free play is zero or minimum. (Be careful not to make it the negative)

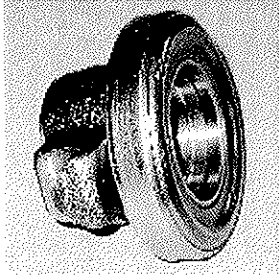


Diagram 1

Insert the bearing fully onto the bearing sleeve in the kit .

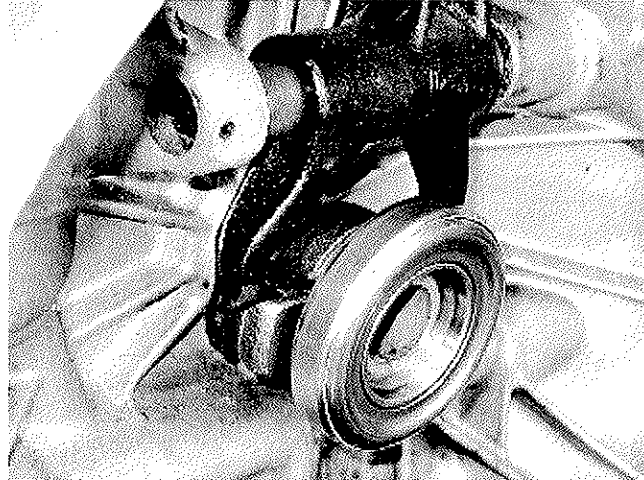


Diagram 3

The picture above is from Subaru GC8. GDB is quite similar to GC8. By referring to the picture, assemble the release fork and bearing sleeve.

Place the tip of fork (flat side) on the bearing sleeve

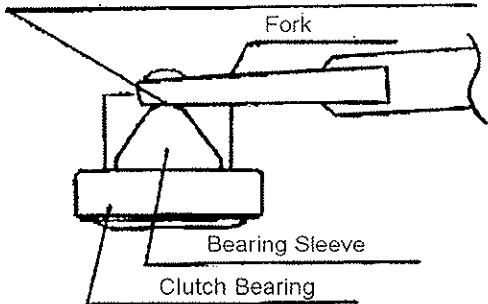


Diagram 2 Release fork & Bearing

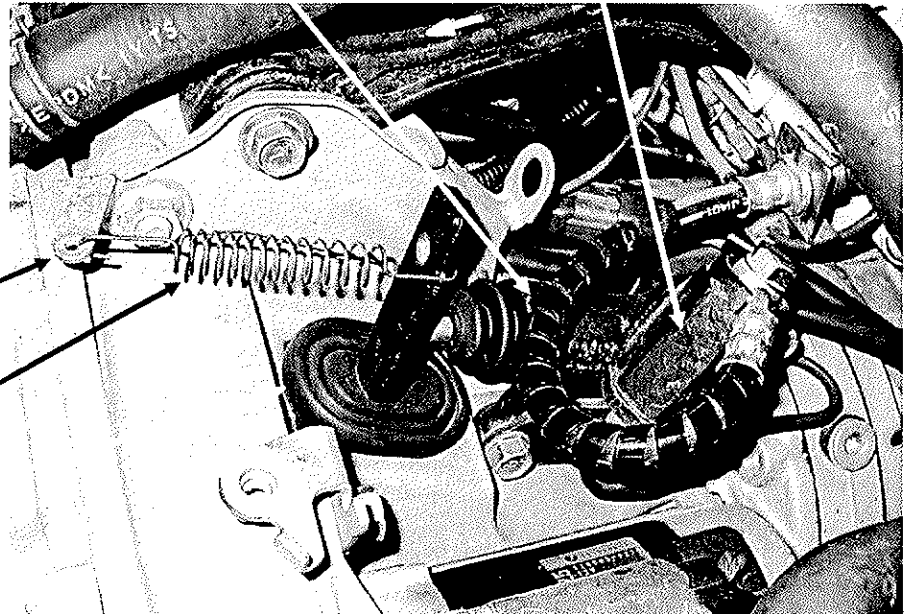
Diagram 4

Removal of the stock parts . The stock parts indicated by the arrows are to be removed in order to install CARBONETIC clutch.

Metal bracket

Spring

Dust boots



Slave cylinder

Orifice

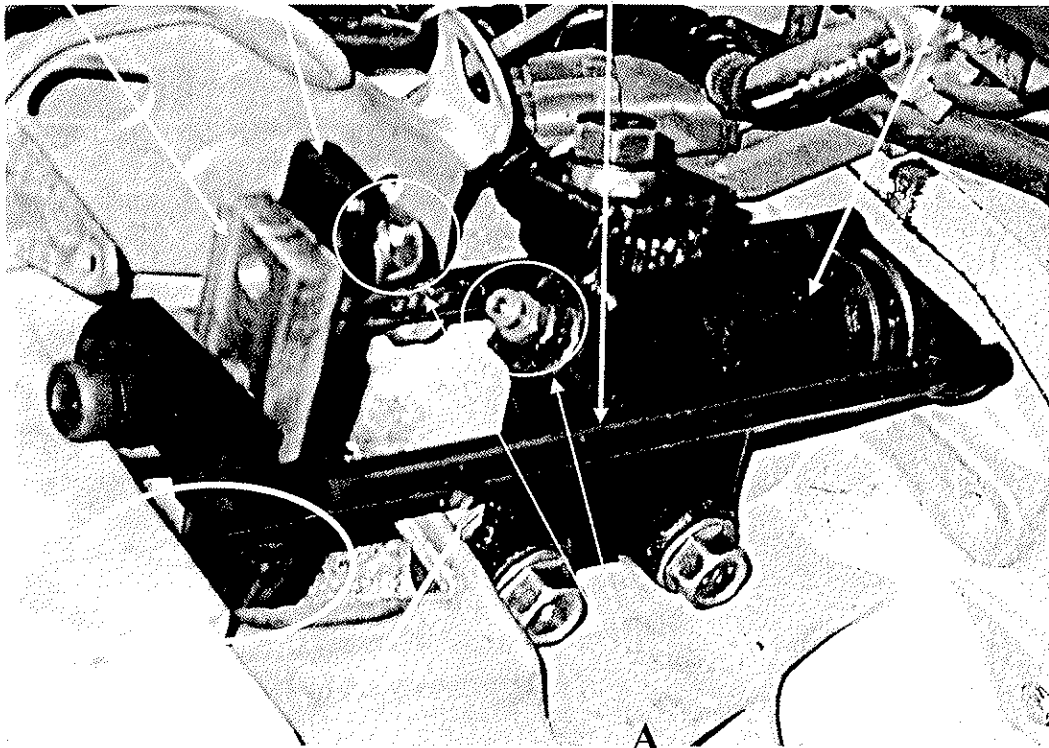
Diagram 5 A picture of completed pull - push conversion

Support

Release fork

Reverse Rod

GC8 slave cylinder attached
in the reversed direction



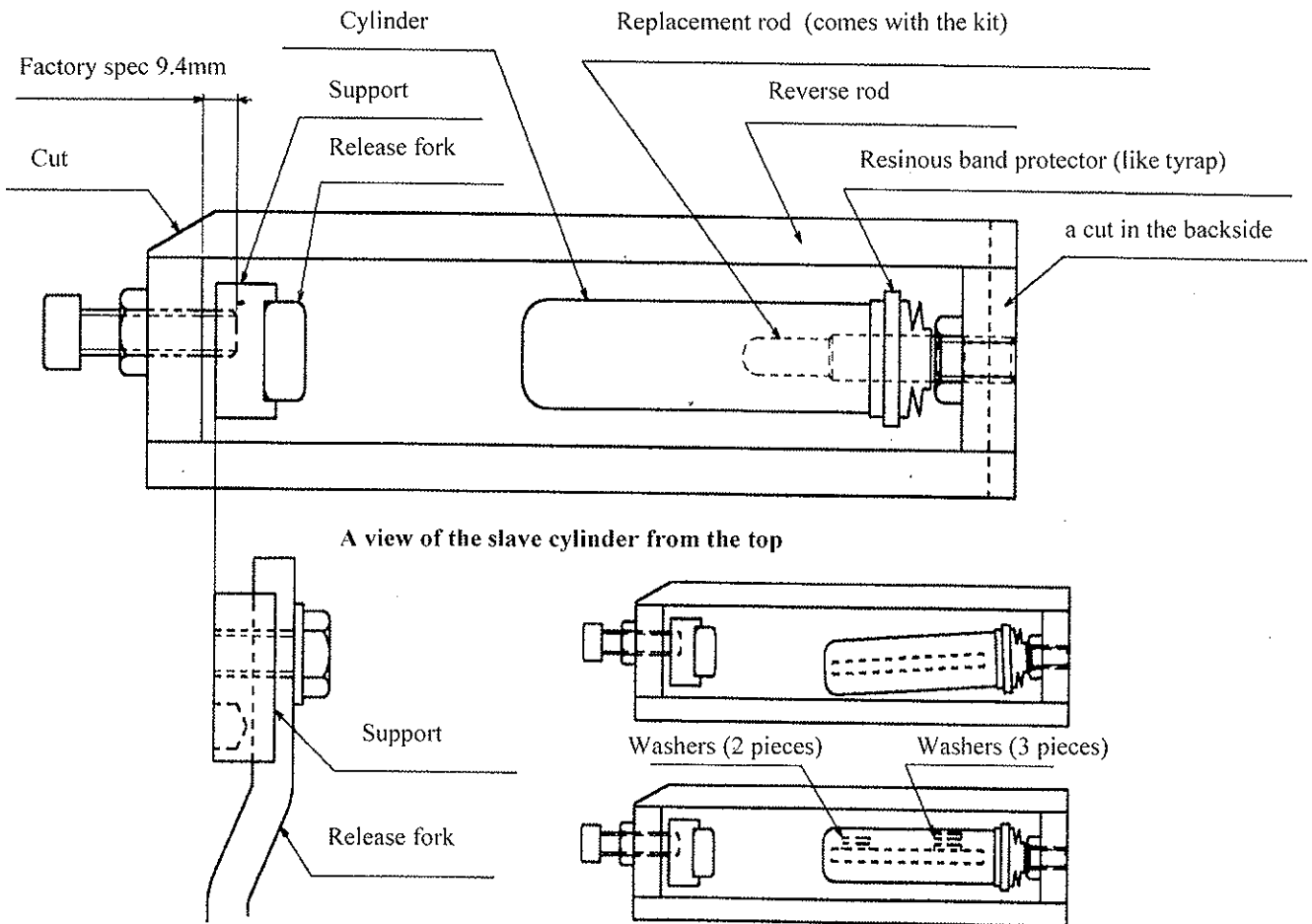
Place 2 washers here and 3 in the other side in order to
adjust the location of the slave cylinder

If this gap between the transmission case and the release fork is less than 7mm, remove one or two spacers inserted between the bearing sleeve and the clutch bearing. (three spacers are inserted at the factory). Set the gap at between 7mm to 9mm. If you remove too many spacers, the tip of the release fork and the nozzle of the slave cylinder (indicated by A in the above diagram) might get too close and reduce the available stroke and cause a disengagement problem.

The reverse rod is shipped out with the bolt and the rod fixed. Refer to the diagram below and assemble the support to the release fork and replace the original cylinder rod with the cylinder rod provided in the kit.

Important—The slave cylinder and the reverse rod have to be placed parallel.

Diagram 6



By using the washers provided (or using custom made ones), place the slave cylinder parallel to the reverse rod

Subaru Imprezza (GDB) flywheel bolts

The flywheel bolts used for Subaru WRX STi after the yearly model code C are shorter than the ones used for the yearly model code A or B by about 3 mm. The diagram below shows the one used for the code C - parts # 800610740 and one used for the code A or B - parts # 800210660.

The thickness of the CARBONETIC flywheel for GDB is 15.3mm. Even though the shorter bolts are used, the bolts engages with the flywheel by 9.4mm and if they are tightened by the proper torque specified by the manual, ATS&ACROSS does not think that the short bolts cause a problem.

However, in order to secure the enough safety margin, please use the longer bolts— 800210660.

