



Twin Disk Flywheel/Clutch installation

*applies to all E39 M5 and Z8 with manual transmission
part numbers UUC-TD-B11M5-PO and UUC-TD-B11M5-FM*

PARTS INCLUDED:

Assembled twin disk package consisting of:

flywheel
two (2) clutch disks
intermediate plate
pressure plate
six assembly nuts
release bearing
alignment tool

Hardware kit bag consisting of:

gall plate
nine (9) crank bolts
tube of red loc-tite
timing sensor shim



Professional installation by experienced BMW technician recommended!

VERY IMPORTANT: It is still critically important that these few installation specs are followed carefully.

REVIEW COMPLETELY BEFORE BEGINNING WORK.

The new Twin Disk set of components will need to be disassembled for installation. The components are to be re-assembled in the exact order as they were delivered. **PLEASE NOTE ORIENTATION OF BOTH DISKS BEFORE DISASSEMBLY.** See picture on page 3 for reference.

Note that all flywheel and pressure plate components are marked with "XX" at a point along the circumference and that all components are lined up with the "XX" mark. When re-assembling, make sure that the "XX" orientation reference is followed.

Begin by removing exhaust, driveshaft, transmission, and original flywheel/clutch package following standard service procedures.

REMOVAL OF ORIGINAL SLAVE CYLINDER: DO NOT REMOVE THE SLAVE CYLINDER WITHOUT DE-PRESSURIZING. Open bleeder valve before loosening the two retaining nuts. Leaving even the small amount of residual pressure in the slave can cause the pin seal to hyper extend and damage the unit.

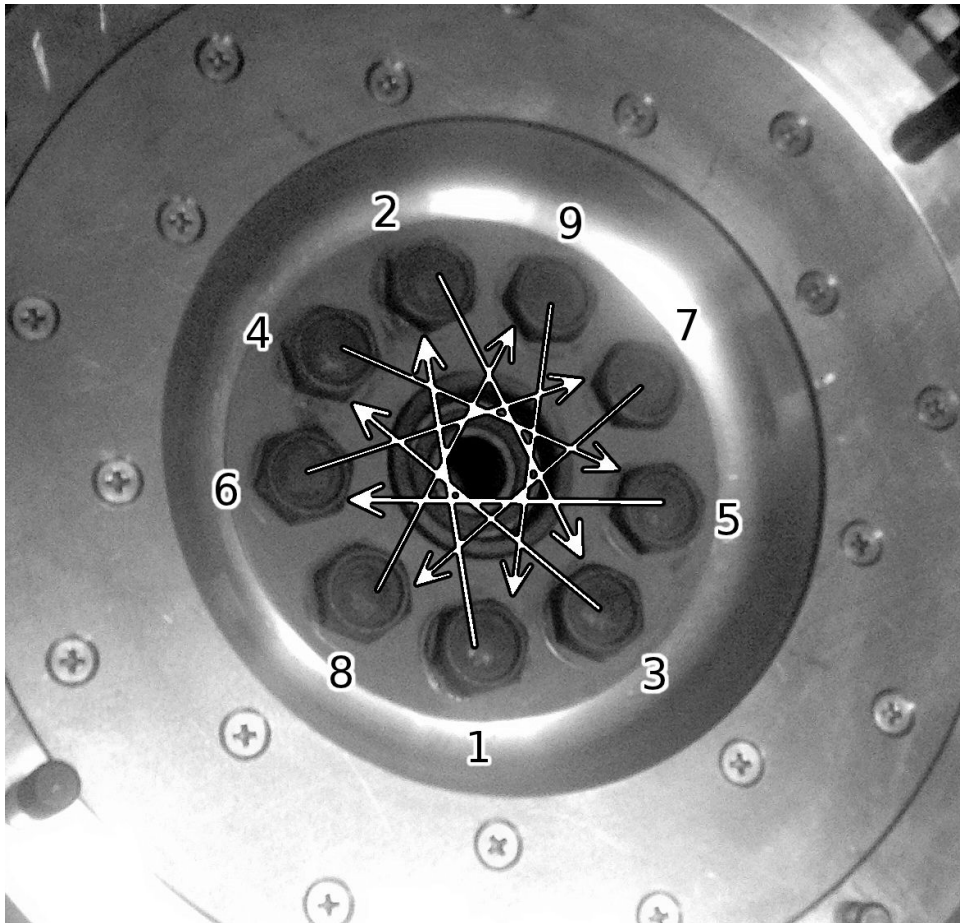
Install new flywheel to crank. Note that one bolt hole on the flywheel is larger and matches the collared hole on the crankshaft.

Carefully follow tightening procedure on following page.



TIGHTENING FLYWHEEL-TO-CRANK BOLTS

- 1) Install steel gall plate on clutch side of flywheel surface, crankshaft bolts go through gall plate.
- 2) Apply RED loc-tite to all nine bolts.
- 3) Make all bolts finger-tight.
- 4) Tighten all bolts in a CROSS-STAR pattern order as shown to 40lb-ft:

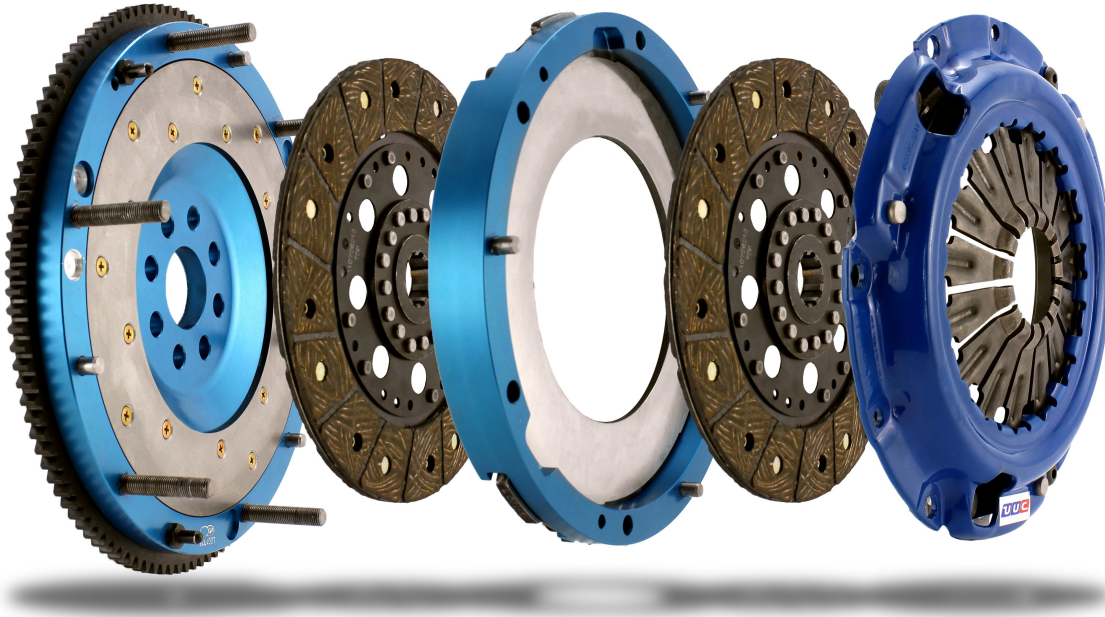


- 5) Complete tightening all bolts in a second cross-star pattern to **80lb-ft**

It does not matter which bolt is "1" as long as the same pattern is followed.

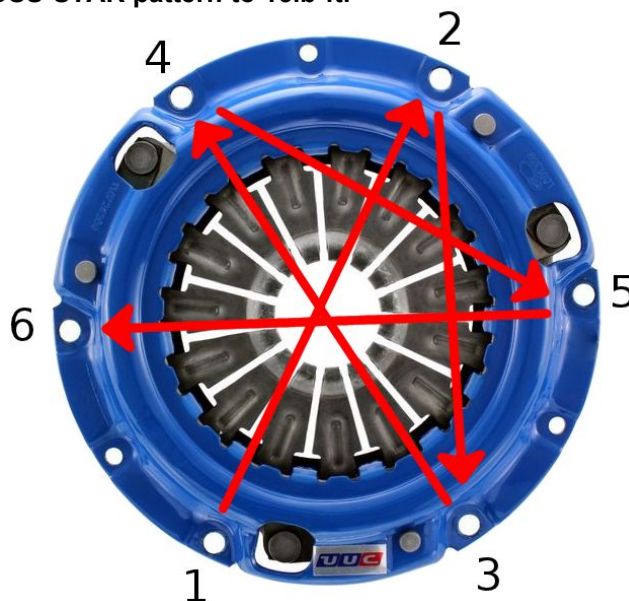


COMPONENT ASSEMBLY ORDER:



TIGHTENING PRESSURE PLATE-TO-FLYWHEEL BOLTS

- 1) Install clutch disks (*note "THIS SIDE TOWARD FLYWHEEL" orientation sticker*) and intermediate plate and pressure plate on flywheel dowels as shown above.
- 2) Apply RED loc-tite to all nuts.
- 3) Make all nuts finger-tight.
- 4) Use alignment tool to center clutch disk.
- 5) Tighten all bolts in a CROSS-STAR pattern to 15lb-ft.



- 6) Complete tightening all bolts in a second cross-star pattern to **30lb-ft.**



Complete re-installation of fork, release bearing, and transmission in normal manner.

Bleed slave cylinder (it is recommended to bleed brake system at the same time).

Complete re-installation of driveshaft and exhaust system.

Re-shim ignition timing sensor if necessary using included shim.

Optimal break-in is accomplished by driving the car in a normal manner, avoiding excessive clutch slippage. You do want to slip the clutch a normal amount, not rev-match each shift perfectly. Clutch break-in is a process of controlled wear, letting clutch disks and flywheel surfaces mate to each other. Depending on how you drive, this may take as little as 100 miles or as much as 500 miles... it's the number of shifts that is important, not the miles.

Some amount of smell during this initial break-in process should be expected.

Unsatisfactory operation or product damage resulting from failure to follow these standard installation points will not be considered as a defect or warranty issue.