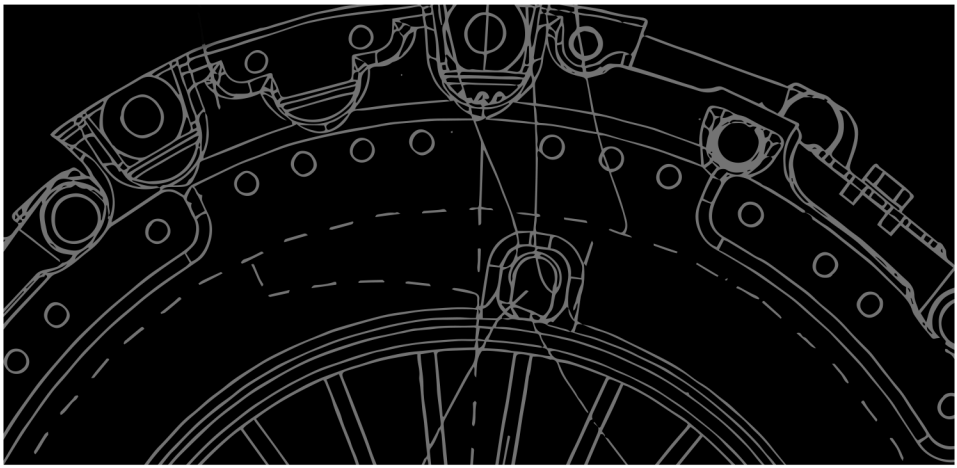


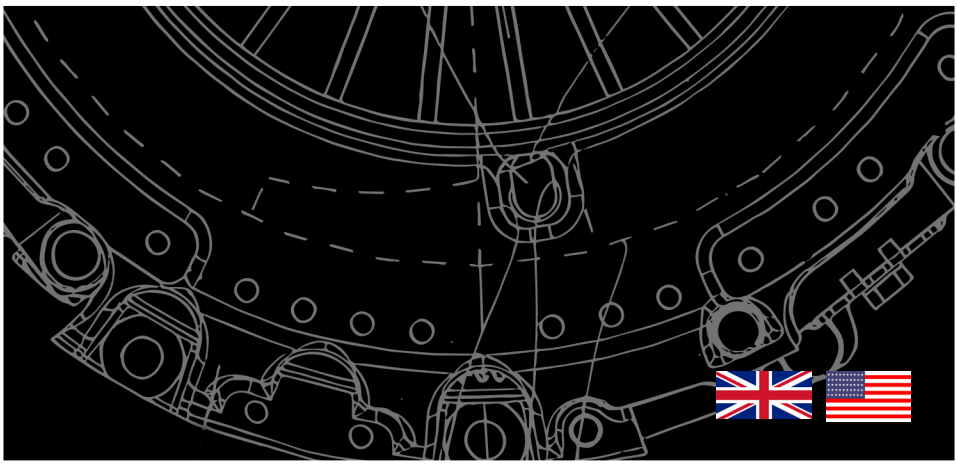
DER KUPPLUNGS MEISTER

DKM

PERFORMANCE
CLUTCH KITS & FLYWHEELS

Instructions

MS-006-054




Schleswig-
Holstein
Hamburg
Mecklenburg-Vorpommern
Bremen
Lower Saxony
Brandenburg
Berlin
Saxony-Anhalt
North Rhine-Westphalia
Saxony
DKM
Thuringia
Hesse
Rhineland-
Palatinate
Saarland
Bavaria
Baden-Württemberg

Der Kupplungs Meister Installation Instructions

Special Features & Benefits

- Complete clutch assembly that replaces the factory dual mass flywheel (DMF) clutch unit.
- Flywheel and pressure plate are not compatible with the OEM units.
- Available with 240mm organic disc configurations.
- Smooth, factory engagement feel.
- Torque rating of (599 N•m, 442 lb•ft)

Before Install:

1. Confirm that all parts listed on the bill-of-materials are included in the package, and call the DKM Technical Help Line immediately if any parts are missing.

   DKM Technical Help Line: +49(0)37204603230 (Europe)
   or 678-806-3461 (USA)

2. • Carefully review all the installation instructions included.
   • Instructions should be used by the installer and saved by the purchaser for future reference.

3. Call DKM if you have any questions or concerns before finishing the installation.

Parts / Kit Components:

Part #	Description	Quantity
5-03054	BEARING Kit E46	1
98140-M2-DKM	BMW 240MM PRESSURE PLATE	1
99219-0150-M2	STREET PERFORMANCE DISC	1
99219-2150-M2	STREET PERFORMANCE DISC	1
AT83	ALIGNMENT TOOL - 1-3/8" X 10T	1
LT-243-CAP	LOCTITE 243 .02OZ CAPSULE - BLUE	1
LT-262-CAP	LOCTITE 262 .02OZ CAPSULE - RED	1
M12-1.5x25HHCS10.9	HEX HEAD CAP SCREW-M12-1.5X25-10.9	8
M8-1.25x16SHCS12.9	SOCKET HEAD CAP SCREW-M8-1.25X16-12.9	6
N3742	THROW OUT BEARING	1
PUB-MS-006-054-1	INSTALL INSTRUCTIONS FOR MS-006-054	1
TM1-3054-M2	M2 TWIN FLYWHEEL - BMW 6CYL M2	1
TM4-PP-WASH	WASHER, 5/16" SS AN	6
TM7-MID-240	240MM M2 MID PLATE	1

Der Kupplungs Meister Limited Warranty

The "Authorized Dealer" is a wholesale or retail seller who is properly trained and authorized by DKM to sell DKM products. The "Customer" is the most recent person or entity to purchase the DKM product. The "Installer" is the person or entity responsible for the installation of the DKM product. The "Consumer" is the owner of the vehicle onto which the DKM products are installed.

Der Kupplungs Meister, Inc. (DKM) ensures all warrantable items to be free from defects in material and workmanship for one year from the date of purchase from an Authorized Dealer. DKM's responsibility is limited to repair, replacement, or customer account credit for DKM products. Credit will never exceed the invoice total of the original sale. DKM is not responsible for any labor, transportation or vehicle storage costs; nor shall DKM be liable for property damages or personal injury due to the improper installation or misuse of its products.

What is covered by this warranty?

- Conventional clutch and flywheel assemblies purchased through an Authorized Dealer.
- Partial conventional clutch kits that are used to replace worn DKM components.

What is not covered by this warranty?

- "MR" Series racing clutches.
- Any parts modified by the installer or consumer.
- Wear and tear, misuse, neglect, improper installation or improper break-in.
- Partial conventional clutch kits that are used with non-DKM components.

Limitations to the warranty

DKM products are available only through an Authorized Dealer Network. All warranties and returns must be processed through an Authorized Dealer before contacting DKM directly. Warranties and returns cannot be processed without proper proof-of-purchase from an Authorized Dealer. Credit for items which satisfy the warranty process will be issued to the Authorized Dealer from which the parts were originally purchased. The Authorized Dealer will then replace the parts or refund the customer per the return policy of the Authorized Dealer.

If replacement parts are required by the customer before the original warranty parts are returned to DKM during a warranty claim process, the customer will be charged for the replacement parts and will be issued credit once the warranty parts are received and processed by DKM. Be advised that credit will not be issued If the warranty parts are not returned to DKM, are determined to be "not defective," or are damaged in a manner that is not covered by the warranty.

All product returns require a Return Goods Authorization (RGA) number which will be issued to the Authorized Dealer after the Authorized Dealer has contacted DKM at +49(0)37204603230 (Europe) or 678-806-3461(USA) with the following information:

- Proof of purchase with date (no return will be accepted without this document).
- Proof of flywheel resurfacing or replacement if the return is for a partial kit.

An RGA number and RGA Submission Form will be issued to the Authorized Dealer by DKM once the RGA is approved. The return will be handled by either the Authorized Dealer or by the consumer per the return policy of the Authorized Dealer.

DKM reserves the right to inspect any and all parts returned for warranty to determine the reason for failure. In order to obtain warranty consideration, the entire clutch assembly including the pressure plate, clutch disc, flywheel, release bearing, and the pilot bearing or bushing (if applicable) must be returned to DKM along with a completed RGA Submission Form. If the warranty claim is for a partial clutch kit (pressure plate and disc without the flywheel), the RGA Submission Form must also include proof of flywheel resurfacing or the purchase of a separate DKM replacement flywheel.
Merchandise returned for inspection or repair must be sent by prepaid freight, insured for the full value of the components sent, and properly packaged per the requirements and regulations of the carrier used. **The RGA number must be attached to the outside of the package.** All freight charges (inbound and outbound) for returned products are the sole responsibility of the consumer. Parts received by DKM without an RGA number and completed RGA Submission Form will be returned-to-sender postage due, or, in the event that the item is unreturnable; DKM will dispose of the parts.

DKM makes no other warranties, expressed or implied.

Fitting & Installation Instructions

The following general installation instructions are to be considered as a supplement to the Factory Service Manual for your particular model of engine and transmission. Engine and transmission combinations may vary by model year and country of origin. **Failure to observe and carefully follow these instructions when installing your new clutch will void the warranty.**

1. It is vital to diagnose the cause of the failure of the old clutch before replacing it with a new unit. Any premature failure, other than overpowering of the old unit, must be properly remedied before replacement. Failure to remedy the cause of premature failure of a clutch unit will also cause the new unit to fail prematurely. Be sure, if the old clutch failed due to overpowering, that the replacement clutch is designed to handle the torque, vehicle weight, and driving style that it will be used for. Contact the DKM Technical Help Line if you cannot diagnose the reason for the failure of the old clutch or if you have questions about the capacity of the new clutch unit. Common causes of premature failure include:
   Improperly-followed installation procedures.
   Kinked, bent, obstructed, or constricted clutch hydraulic lines and damaged or worn linkage.
   Improper setting of clutch pedal free-play which causes slipping and rapid wear.
   Worn bearings or bearing sliding surfaces which cause binding of components.
   Engine oil leaks that contaminate the friction material.
   Overuse of clutch spline lubricant that contaminates the friction material.
   Dirty, sloppy, unorganized installation area which leads to:
   Capturing of debris or material between mating surfaces which cause misalignment of the clutch or transmission.

2. **Carefully read the entire Factory Service Manual** for your particular model of engine and transmission to ensure that all of the proper tools and consumable parts are on-hand before scheduling the installation. Research should also be done to identify common failures of non-clutch components that must be removed during clutch replacement (such as axle seals or retaining clips that may be damaged during removal). Consideration should also be given to items that are commonly replaced during clutch replacement due to ease of access (such as rear-main-seals and transmission tailshaft seals).

3. **Make sure you have the correct parts for your application**. After disassembly and cleaning, you should pre-fit the components as much as possible to assure compatibility between the splines, linkage, bearings, and hydraulic fittings before beginning reassembly. Consult DKM if you have any questions or if you are missing parts in your kit as soon as possible.

4. This DKM kit is not compatible with any flywheel, disc, or pressure plate not manufactured by DKM unless explicitly stated on the included bill-of-materials.

5. The flywheel and pressure plate are coated with rust inhibitors or preservative oil. The mating surfaces and friction surfaces of these parts must be thoroughly cleaned before reassembly. Use a residue-free brake and clutch parts cleaner to thoroughly clean the mating surfaces and friction surfaces of the components just before installation. Failure to remove the rust preventative and oil from the mating surfaces of the components can cause improper torqueing of the assembly hardware and cause the clutch or flywheel to \ detach after installation. Failure to remove the rust preventative and oil from the friction surfaces of the clutch components will cause premature wear and failure of the clutch unit. Only clean the mating surfaces and the flywheel and pressure plate friction surfaces as overuse of degreaser could wash away grease from the pilot bearing or other critical areas.

6. Clean the old grease from the gear box input shaft splines and check that the new clutch disc slides freely on the shaft. Lightly grease the input shaft with high temperature "disc brake grease." Lack of proper spline lubrication will cause binding, failure to disengage, and clutch drag. Over-application of grease will contaminate the friction material, causing clutch slip and premature failure.

7. Remove and replace the pilot bearing (if applicable). Remove and replace the release bearing or the concentric slave cylinder (CSC) (where applicable).

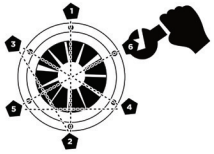
   a. For vehicles equipped with a separate release bearing and fork, be sure that the fork pivot points and the bearing guide tube are in good condition and properly lubricated. Replace the guide tube, pivot ball, or any linkage that is excessively worn.

   b. For vehicles equipped with a concentric slave cylinder (CSC), observe any special installation instructions or bleeding procedures in the Factory Service Manual. Many CSC systems will not work properly if

bleeding instructions are not followed exactly. Some CSCs are not reusable and must be replaced each time the transmission is removed, regardless of wear.

8. When fitting the flywheel to the engine, it is critical that the mating surface of the crankshaft and the flywheel are clean, flat, and free of burrs. Consult the Factory Service Manual for proper bolt torqueing procedures and ratings. Many vehicles require special crankshaft bolt sealing techniques to prevent oil leakage from around the bolts.

9. Observe the proper Friction Disc orientation when fitting it to the flywheel. The pressure plate bolts should be tightened in a diagonal, crisscross pattern in several steps. Failure to use the proper torque sequence can cause damage to the pressure plate. Never use air tools to install the pressure plate bolts. Apply Thread Locking Compound to the pressure plate bolts and tighten to 38 N•m (28 Lb•Ft).



10. When refitting the gearbox, be sure to fully support the weight of the gearbox until it has been securely attached to the engine. Never allow the weight of the gearbox to be supported by the input shaft or the friction disc. Do not force the input shaft through the friction disc and never apply twisting or bending motion to the disc by the input shaft. Care must be taken not to bend the disc or damage the splines as this is the most common type of installation error that results in a faulty, nonfunctional clutch.

11. Check all bell housing dowels to be sure that they are in the correct position before tightening bell housing bolts. Make sure there is no dirt or material between the mating surfaces of the engine and bell housing. Refer to the Factory Service Manual for proper torque procedures.

12. Refer to the Factory Service Manual for clutch adjustment unless alternative specifications are provided.

Dual Mass Flywheel Replacement (If applicable):

This DKM Clutch Kit is a solid flywheel conversion kit that replaces the factory dual mass flywheel. Although this clutch kit has been engineered to minimize the effects of using the stronger solid flywheel, you may experience the following changes:

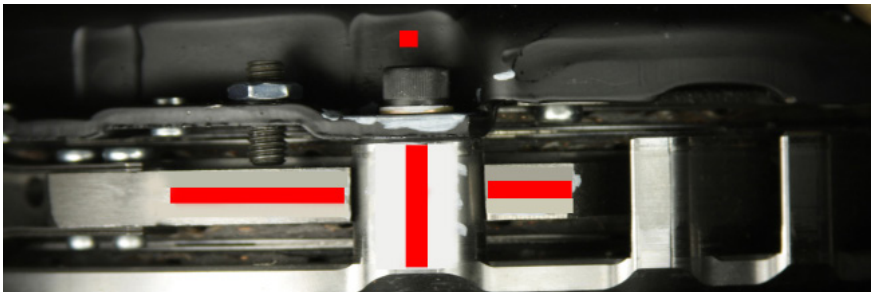
- The clutch pedal free play may need to be adjusted (if applicable) for proper operation
- There may be more free play in the pedal than a stock kit (1" to 2")
- There may be audible gear rattle caused by engine harmonics while in neutral or engine braking.
- The clutch engagement point may differ from the stock clutch
- The clutch pedal may have a different feel from the stock clutch

Should you have any questions about the above changes, please call our technical help line for advice before fitting this DKM clutch kit.

Der Kupplungsmeister Einbauanleitung

Parts / Kit Components

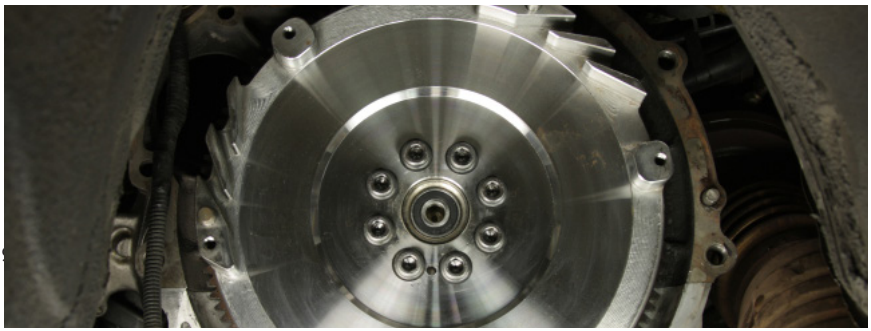
1. Remove clutch assembly and flywheel.
2. Remove pilot bearing.
3. Clean rear of engine with brake and clutch parts cleaner.
4. Install pilot bearing onto back of crankshaft.
5. Remove pressure plate from clutch pack assembly.
   **Take note of the orientation markers on the side of the clutch assembly. Upon reassembly, make sure the markers are aligned.



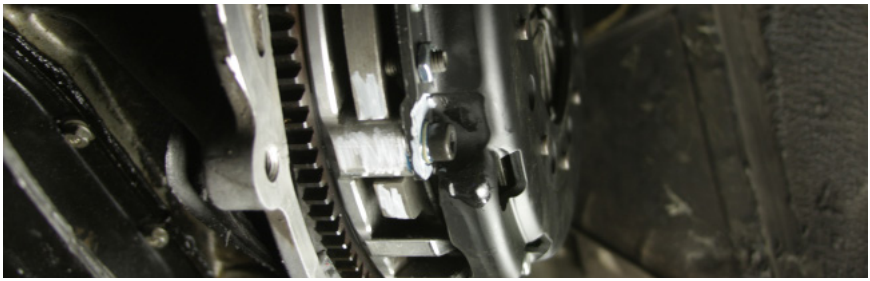
6. Place a few drops of the Loctite 262 on the crankshaft bolts.

7. Install flywheel onto crankshaft using provided crankshaft bolts. Screw the bolts in hand-tight using a criss-cross method. Torque to 70ftlbs.

8. Clean friction surface of flywheel with brake and clutch parts cleaner.



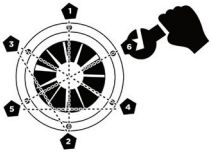
9. Using the alignment tool provided, reinstall the upper and lower disc and the mid-plate. **Note the orientation markers.
**All markers must be lined up before final installation

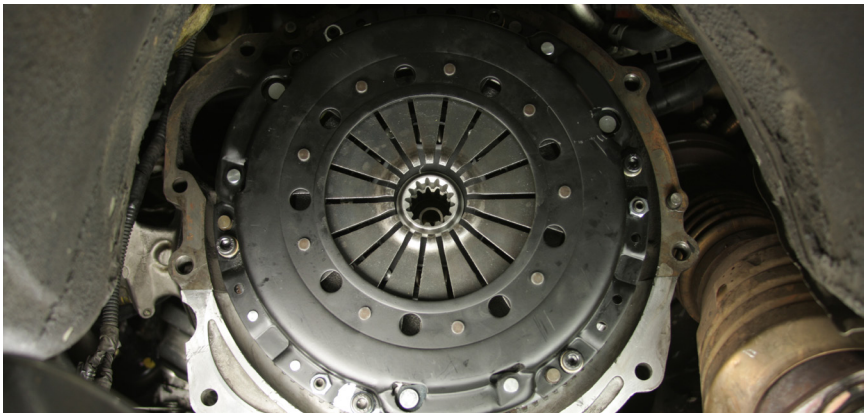


10. Place a few drops of Loctite 243 on the pressure plate bolts.

11. Route hydraulic line to factory hard line.

12. Reinstall the pressure plate using a criss-cross method. Torque to 20ftlbs



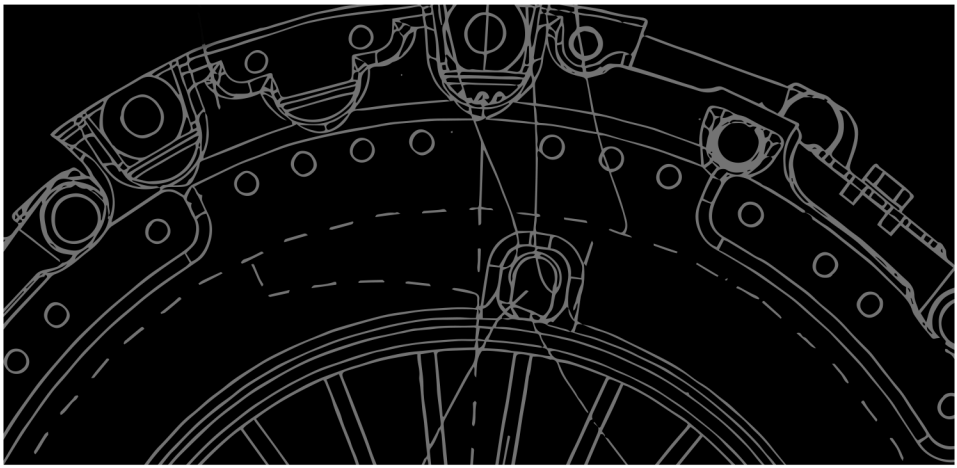


13. Remove alignment tool.

14. Reinstall transmission.

15. Bleed clutch.

NOTES



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