

UNICLUTCH

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4TERRAIN

Torque Capacity

up to 2000 Nm/1450 Ft Lb

FEATURES + BENEFITS

- Twin Disc, Dual Core Clutch System
- Silent Shift Technology
- Forged and Billet
 Internals
- SGI Vented Intermediate Plate Technology
- 4x4 Pedal Tune
- Forged Internals
- Active Intercooler Technology



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CONGRATULATIONS ON PURCHASING YOUR NEW UNICLUTCH

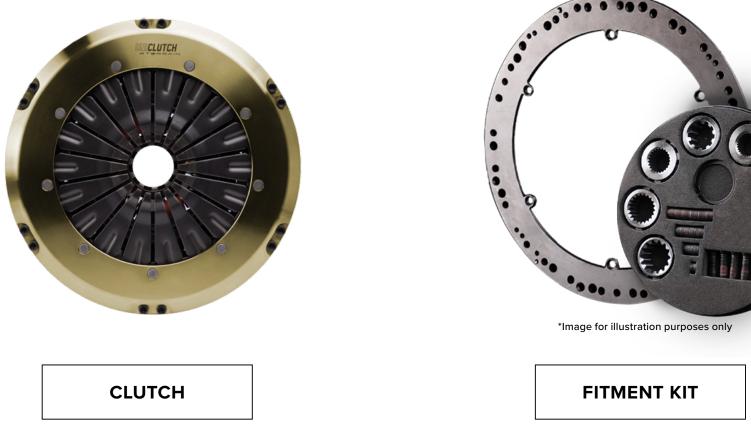
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THIS DOCUMENT CONTAINS IMPORTANT INSTALLATION GUIDELINES WHICH MUST BE FOLLOWED TO ENSURE CORRECT FUNCTION AND PERFORMANCE OF YOUR NEW UNICLUTCH

UNICLUTCH™ SYSTEM

BEFORE YOU START

Before you start, make sure you have a UniClutch and a Vehicle Fitment Kit to suit your specific vehicle. Visit <u>www.uniclutch.com/catalogue</u> if you are unsure if the parts you have are correct for your vehicle.



WARNING:

Step 2 & 3 of this installation guide applies only to Vehicle Fitment Kits which include a UniClutch Flywheel Mount. Some Vehicle Fitment Kits are designed to suit deep recessed flywheels, and therefore have a set of Mounting Tabs instead of a Flywheel Mount. Fitment Kits with Mounting Tabs will include special installation instructions which should be followed instead of Step 2 & 3 in this guide.

1. INSTALL SPLINE

2. SET HEIGHT

3. BOLT TO FLYWHEEL

A. Choose and test

Choose the correct spline for your vehicle. Test fit spline onto input shaft.





B. Insert Insert spline into UniClutch.



C. Lock in Spline

Insert circlip into clutch disc. Make sure circlip has fully expanded in clutch disc and is holding the spline securely before proceeding.



A. Set height

Install spacers in correct order. Scan QR code for vehicle specific instructions.





C. Tighten Bolts

Then install supplied countersunk bolts to secure flywheel mount to UniClutch, torque to 22 Ft lbs / 30 Nm.



A. Locate

Locate the correct dowel holes for your vehicle. Scan QR code for vehicle specific instructions.



B. Flywheel Match holes to vehicle flywheel dowels



C. Secure to flywheel

Secure UniClutch to flywheel using existing clutch cover bolts and torque to OEM spec



WARNING: Step 2 & 3 applies only to Vehicle Fitment Kits which include a UniClutch Flywheel Mount. Please refer to the first panel; UniClutch™ System for more information.

4. FINAL ASSEMBLY

Please note

Whilst changing your clutch, you may wish to replace other worn items.

A . Flywheel

Whilst UniClutch doesn't use the flywheel as a friction surface, you may wish to change your flywheel if it is damaged or out of balance. Scan the QR code below to find replacement flywheel options for your vehicle if available.

B . Bearings

Replace any worn out bearings. Scan the QR code to find vehicle specific bearings.

SCAN QR CODE BELOW

C. Transmission Input Shaft

Ensure Transmission Input Shaft is clean and lubricated *lightly* using the grease included with your new UniClutch.

D. Vehicle Specific Troubleshooting

Scan the QR code to check if any vehicle specific troubleshooting notes apply. For example; concentric slave cylinder bleeding procedures, etc.

SCAN QR CODE BELOW

PLEASE SCAN THE QR CODE TO FIND VEHICLE SPECIFIC INFORMATION





WWW.UNICLUTCH.COM/CATALOGUE

SCAN QR CODE FOR VEHICLE SPECIFIC INSTRUCTIONS REQUIRED FOR STEPS 2, 3 & 4

PREPARATION & HANDLING

Before commencing installation of your new UniCluch, it's important to diagnose any issues with the vehicle that may have lead to premature failure of the previous clutch.

Checklist:

- Is the hydraulic system properly functioning?
- -When the old clutch is being removed are there oil leaks and any signs of red dust?
- -Are cracks on the clutch release fork or excessive pivot ball wear?
- -Are there any stretch signs on the clutch cable?
- Any wearing on release bearing guide tube?
- -Anything wrong with the spigot bearing or the pilot brush?
- Any shipping damage on the clutch?

When fitting the clutch, mind the shaft splines, clutch disk and bell housing:

- Clean the gearbox main drive shaft splines and ensure that the clutch disc slides freely on the shaft.
- Clean the bell housing: degrease, dust off and remove worn clutch fibres.
- LIGHTLY grease the shaft splines with high temperature grease. Using too much grease may contaminate the clutch plate/disc.

Driveline Misalignment:

What causes misalignment?

The most common causes are:

- Missing or damaged dowel pins allowing the transmission to be bolted off centre.
- Mislocated front bearing retainer.
- Foreign matter between the engine block and the transmission mounting faces.
- Missing or worn pilot bearing.
- Missing or worn pliot bearing
- Broken block flange.

What are the symptoms of misalignment?

- Pedal graunch with the engine running.
- Deterioration of the clutch until non-release occurs.
- Failed drive plate.
- Red dust covering clutch and/or groove worn in the diaphragm by the release bearing.

How do I prevent misalignment?

Whenever you are replacing a clutch, inspect the old components. If misalignment is present you will need to find the cause.

- Inspect all dowels and dowel holes for condition.
- Inspect release bearing guide and replace if necessary.
- Clean all mating surfaces.
- Inspect block flange for damage.

REMEMBER: IF MISALIGNMENT IS PRESENT, FITTING A NEW CLUTCH KIT WILL NOT FIX THE CAUSE OF THE PROBLEM AND THE MISALIGNMENT WILL QUICKLY DESTROY THE NEW CLUTCH.

How to check for engine/transmission misalignment



STEP 1 Mount indicator to flywheel and determine concentricity of bell housing bore to centre line of crank rotation, SPECIFICATION: 0.015mm max, T.I.R.

STEP 2

With indicater still mounted to flywheel ensure rear surface of housing is square. SPECIFICATION: 0.15mm maz, T.I.R.

BEDDING IN PROCEDURE

This product is a specially engineered Clutch designed to offer an increase in torque capacity while still maintaining a level of drivability often not associated with products of this type. As a result you must ensure that the product is appropriately "broken-In" before heavy or spirited driving. The breaking-in process allows the friction surfaces to mate with each other in order to create full contact and allows the clutch to operate at its intended performance. During the initial bedding in phase, the co-efficient of friction of the clutch discs will drop, and then slowly increase over time to a stable level.

Failure to appropriately break-in the clutch may result in glazing or crumbling of the friction surfaces resulting in shudder, slippage and noise during operation and not allow the clutch to transmit the torque to its maximum ability.

To correctly break-in your new UniClutch we recommend operating the vehicle in normal driving conditions such as regular city driving. The clutch must be actuated regularly at low RPM such as take-off and normal shifting for at least the first 500kms. During break-in if the vehicle RPM increases at a rate not proportionate with the normal rotation of the wheels you must back off the throttle to ensure you do not generate excessive heat. Excessive heat will prevent UniClutch from reaching its full potential.

Warning: Failure to comply with the bedding in procedure will void the warranty of your UniClutch.

TROUBLESHOOTING

Difficulty Changing Gears

Difficulty changing gears

Cause

 The transmission was forced into position damaging the splines of the disc hub.

Repair

- Install new clutch and carefully control the position and allignment during installation.
- Use a transmission jack and possibly install temporary guide pins to assist in aligning the transmission to the engine.

Cause

- Faulty linkage or hydraulics.
- Damaged fork.

Repair

- Replace faulty component.

Cause

- Incorrect spline selected for vehicle.

Repair

Reinstall correct spline for vehicle.

Cause

 Incorrect height set (finger height too high/too low).

Repair

 Reassemble spacers to achieve correct height.

Cause

 Release Bearing or Concentric Slave Cylinder fitted to vehicle not compatible with UniClutch.

Action

Contact UniClutch technical support.

Cause

 Clutch is unable to rotate due to interference with clutch fork, bell housing, etc.

Action

- Contact UniClutch technical support.

Cause

 Incorrect release travel. The clutch operating system is badly adjusted, defective or outside the operating range of the UniClutch.

Repair

 Adjust the clutch operating system (pedal height, self adjusting system, clutch linkage..) check the pre-load on the release bearing.

Action

- Contact UniClutch technical support.

Noise

Noise when bearing contacted

Cause

- Seal torn.
- Overheating during slipage.
- Leakage of the grease.
- Incorrect free travel adjustment.

Repair

- Check diaphragm for damage

Rattle/Release Issue

Cause

 Retaining clip not correctly installed on fork.

Repair

Install new bearing ensuring bearing is secure to the fork.

Noise when in neutral

Cause

 Lack of care during installation, splines have been damaged by the gear box main shaft.

Repair

- Repair the main shaft.
- Replace the clutch disc.

Caution

- Make sure that the splines properly match up.
- Lubricate with a proper quantity of grease.

Other

Too much grease

Cause

 Excess of lubrication grease on the nose of the release bearing.

Repair

- Clean the release bearing.
- Apply the correct quantity of lubricant.

Difficulty shifting

Cause

- Incorrect release bearing travel.
- The clutch operating system is badly adjusted or defective.
- The level of pre-load on the release bearing is incorrect.

Repair

 Adjust the clutch operating system (pedal height, self adjusting system, clutch linkage..) check the pre-load on the release bearing.

Clutch pedal binding

Cause

- the fork is out of shape.
- The release bearing guide tube is worn or the release arm/fork is bent/worn.

Repair

- Replace by a genuine release fork.
- Install new clutch and guide system components and repair or replace as needed.

The contact point of the fork is worn out, the fork is off-centered

Cause

- The fork is out of shape.

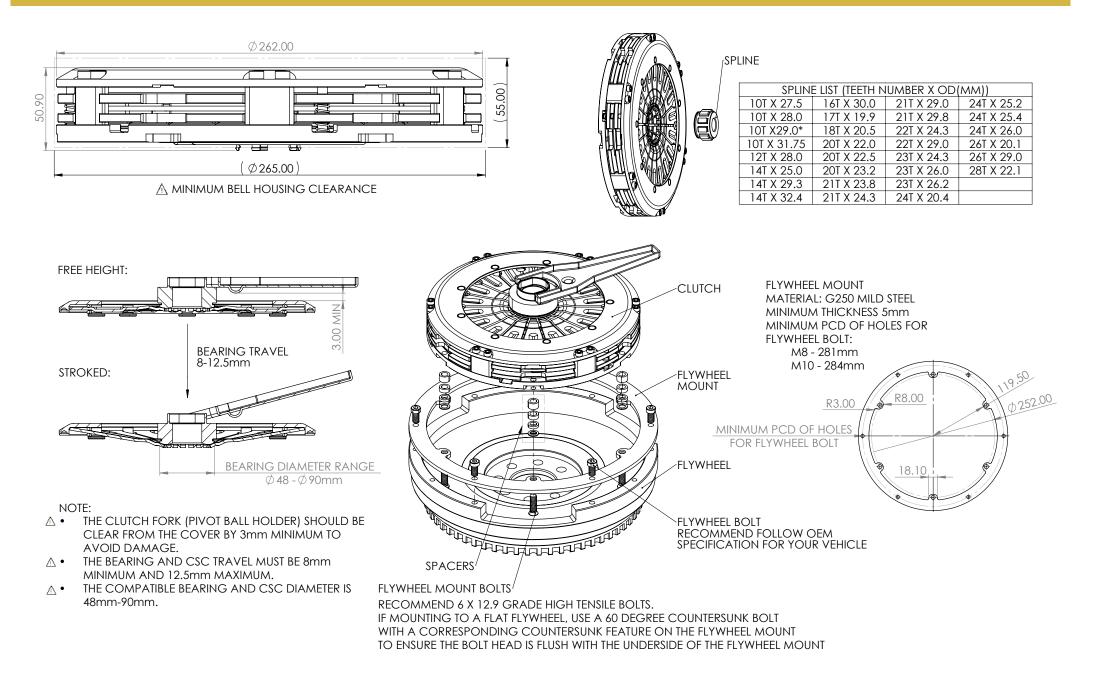
Repair

- Replace by a genuine release fork.

SCAN OR CODE FOR VEHICLE SPECIFIC INSTRUCTIONS



CUSTOM INSTALLATION

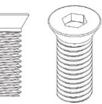


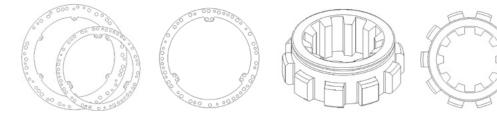
SPARE PARTS + TECH SUPPORT

Contact UniClutch Technical Support for any assistance with your installation, including Spare Parts.

techsupport@uniclutch.com







LEGAL

Guarantee

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entilted to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

Warning

DO NOT USE ANY CI PRODUCT IN VEHICLES WHICH HAVE BEEN MODIFIED TO EXCEED THE MAXIMUM ENGINE RPM(S) BEYOND THAT WHICH WAS SPECIFIED BY THE ORIGINAL VEHICLE MANUFACTURER WITHOUT FIRST INSTALLING APPROPRIATE SAFETY EQUIPMENT, INCLUDING BUT NOT LIMITED TO TRANSMISSION GUARDS, AS SUCH USE MAY CAUSE THE PRODUCT TO EXPLODE UNEXPECTEDLY CAUSING SERIOUS INJURY AND OR/DEATH.

Check in to your new UniClutch

Each UniClutch is 100% tested and marked with a unique QR code. Scan code on the base of the clutch to see the specifications of your unit, including manufacturing date.

WARRANTY

Still having difficulty?

If you are still having difficulty with installation and use of your UniClutch, or are unsatisfied with your experience, please contact our technical support team techsupport@uniclutch.com

Wish to return your product?

If you wish to submit a warranty claim, please contact your place of purchase. Warranty Terms & Conditions can be found at <u>www.uniclutch.com/warranty</u>

CARING FOR THE ENVIRONMENT

Dispose old or unused parts and packaging in a responsible manner. UniClutch packaging is recyclable.



URI**CLUTCH**