RADICAL SPORTSCARS

RADICAL PERFORMANCE ENGINES

RADICAL

RADICAL SPIN-SAFE CLUTCH MANUAL V3 2020-02-10



Tools Needed:

1/4 Drive Allen Key Socket4mm, 5mm3/8 Drive Socket8mm, 10mm

Pliers Side Cutters, Lockwire Pliers

Spanners 1/2"

Other 2x Right Angle Pick, Lockwire

Parts Needed:

SR1 Spin Safe Clutch Kit EK0007 SR3 Spin Safe Clutch Kit EK0005

CONVERSION:

Firstly, the oil must be drained from the engine via the sump bung, once drained re-fit the bung and Lockwire it to the oil pressure sender.
Remove the 12 M6x30 bolts to remove the clutch cover, the Lockwire going through the top bolt will need to be cut and removed. You can then tap the clutch cover lightly and remove it from the engine bay. Discard the gasket and make sure both dowels are retained.



 Remove the 6 clutch spring bolts and place aside, the springs can also be removed. Pull the clutch pressure plate away from the basket and place aside.



 Remove all the clutch plates, there should be 9 steel plates and 10 material clutch plates. The two washers at the bottom of the stack can stay in the clutch basket.



4. Fit the clutch plate adapter tabs in the main slots. Soak the plates in oil for 5 minutes prior to fitment. Fit the first material plate ensuring the washers are fitted correctly (flat washer then concave face up) The first plate has a larger inside diameter to cater for the Suzuki washers. The plate order is shown in detail on the following page.



5. All clutch plates should be fitted in the main slots, unlike the standard clutch. The steel plates must be fitted flat edge upwards. Fit the centrifugal clutch plates as shown below:

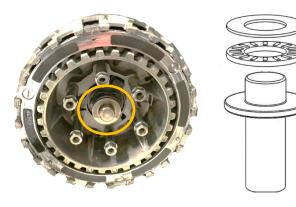


TOP (Clutch Cover End)

- 1. Rekluse Centrifugal Steel Drive Plate.
- 2. Steel Plate
- 3. Material Plate
- 4. Steel Plate
- Material Plate
- 6. Steel Plate
- 7. Material Plate
- 8. Steel Plate
- 9. Material Plate
- 10. Steel Plate
- 11. Material Plate
- 12. Steel Plate
- Material Plate
- 14. Steel Plate
- 15. Material Plate
- 16. Steel Plate
- 17. Material Plate
- 18. Steel Plate
- 19. Material Plate (Larger ID for Suzuki Washers)

BOTTOM (Gearbox End)

6. Fit the Suzuki clutch pressure plate, ensuring the pushrod, washer and roller bearing are fitted below the cover as shown.



7. Fit the clutch springs and bolts and torque the bolts to 90in/lbs.



8. Fit the slave cylinder with the correct pushrod (82.3mm) and tighten the bolts up to 90 in/lbs.



Ensure the dowels are fitted, then apply silicone to the black areas shown below.



10. Fit the new gasket and the clutch cover, tighten the bolts up to 90 in/lbs. Lockwire should be fitted to the caphead bolt retaining the clutch



11. Re-fill the car with oil then check the oil level. Lower the car on to the floor.



SETUP

Check the clutch pedal travel, it MUST NOT exceed 15mm, this could cause damage to the clutch.

- When adjusting the slave as a starting point you should wind the adjuster flush with the body then wind the adjuster in 2-3mm.
- 2. The car should be started in neutral then shifted into first gear with someone in the car ready to press the clutch. Adjust the slave cylinder anticlockwise until the clutch starts to drag on idle (1200-1500rpm) then wind the adjuster in 1/8th of a turn (2 Lines) until it is no longer dragging. DO NOT adjust the throw on the clutch pedal does not need to be adjusted providing it is less than 15mm.
- Once engaged the car shouldn't feel any different from a car with a conventional clutch. If any clutch slip is felt the slave cylinder must be adjusted anti-clockwise to avoid accelerated clutch plate wear.

Radical advises checking the adjustment of the clutch at the start of each day prior to going out on track.

DRIVING NOTES

- 1. Don't sit stationary with the car in gear unless you are pulling away
- 2. Don't pull away in any other gear other than first
- 3. Pull away gently if possible
- 4. Use first gear at low speeds ensuring RPM is in excess of 4000rpm IF POSSIBLE, to ensure full engagement

If you have any questions on any element of the clutch, please don't hesitate to contact the engine department.

engines@radicalsportscars.com