TERMINATOR Fan Clutch

Terminator Air Catridge Service Kit: EB0230

TI-010

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This Service Bulletin details the air cartridge replacement in a Terminator T1 or T2 fan clutch. The air cartridge is designed as a wearing component and will require replacement once the plunger length is less than 4mm.

Air Cartridge Replacement: Tools Required

- 5mm Allen Key
- Small Torque Wrench
- Small Circlip Pliers
- Soft Rubber Mallet
- 13mm Spanner
- 9/16” Socket
- Loctite 243 (or equivalent)
- Light Lubricating Oil

1. Air Cartridge Service Kit EB0230 includes the following:

- Air Cartridge QTY 1
- Circlip QTY 1
- Face Seal QTY 1
- M6 Screws QTY 8

2. Remove the fan clutch assembly from the vehicle.

- It is recommended to remove the clutch assembly (clutch, pulley and bracket) as one unit.
- Mount the clutch to a secure work surface.

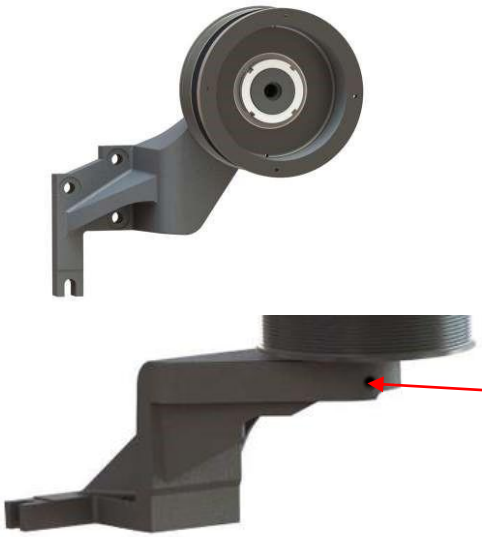
3. Remove the clutch from the pulley.

- To remove the clutch, the through holes in the outer face must align with the mounting screws inside the clutch
- Connect a 90-100 PSI air supply to the nipple fitted on the clutch bracket. This will disengage the clutch and allow rotation so that the bolt holes on the clutch face can be aligned.

- **NOTE:** In the unlikely event the outer face cannot be rotated to align the holes, **DO NOT REMOVE THE 2 X M8 BOLTS ON THE FRONT FACE OF THE CLUTCH**. Call InnoTherm for support.
- Using a 5mm Allen Key – remove the 8 x M6 bolts.
- Remove the clutch from the pulley and place face down on the bench.

4. Remove the air cartridge.

- With the air cartridge now exposed – remove the circlip retaining the air cartridge.
- Using a pair of wide nose pliers – grasp the cartridge by the plunger and remove it from the bracket.
- The used air cartridge and circlip can be discarded.
- **NOTE:** Take care during this process not to damage the surfaces of the bore that houses the air cartridge.



5. Prepare the bracket and pulley for the new air cartridge.

- Thoroughly clean all surfaces.
- Inspect the bore to ensure it is in a serviceable condition.
- Check condition of bearings for signs of wear/play and replace if required. **Terminator Service Kit Part Number KT210231.**

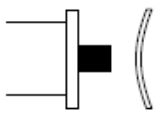
NOTE: Ensure any dried thread sealant has been cleaned away from journal bracket air supply line. Ensure no debris is inside the air supply line or bore.

6. Prepare the bracket and pulley for the new air cartridge.

- The top surface of the plunger is a sealing face, ensure it is clean and free of damage.
- Carefully insert the cartridge into the bore, up to the first o-ring seal.
- Using a 9/16” socket (or similar) to tap the air cartridge all the way into the bore.
- Ensure the circlip groove is visible once the cartridge is seated. If it is not visible, attempt to tap the cartridge further in using the socket.
- If the air cartridge is unable to be seated remove and inspect the bore for any abnormalities.

7. Install the new circlip

- Install the circlip with the beveled edge against the air cartridge.
- **IMPORTANT:**
  Use electrical contact cleaner if needed.



The curve faces the Cartridge

3 TI-010 - Terminator Air Cartridge Service Kit

8 . Replace the face seal nut on rear of clutch

- Use a 13mm spanner to remove and discard the used nut ● Clean the surface and thread on the rear of the clutch and fit the new face seal nut - tighten to 10 Nm.
- **ENSURE FACE SEAL SURFACE IS CLEAN AND FREE OF ANY MARKS/SCRATCHES - AVOID TOUCHING FACE**

9 . Re-install the clutch to the pulley.

- Mount the clutch on the pulley.
- Apply Loctite 243 (or equivalent) to the 8 x M6 bolts.
- Tension bolts to 10Nm.
- **NOTE:** If the 2xM8 bolts were removed, refit using Loctite 243 (or equivalent). Tension bolts to 17Nm.

10. Pre-Installation Check

- With the clutch still mounted on a secure work surface apply air pressure (90-100 PSI) to the inlet nipple and visually confirm the clutch is engaging/disengaging.
- When working correctly the front face of the clutch can rotate independently to the pulley when pressurised. ● While pressurised listen for any audible signs of air leaks. In the event of leaks partially repeat the assembly process from point 6.

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