TRX 2.5 Racing Engine Conversion

Part #4900 T-Maxx Conversion Instructions

The TRX 2.5 engine model #5207 with pull starter is required to complete this conversion.

- 1. Remove Engine: Disconnect all EZ-Start wires from the EZ-Start motor and the engine. Note: The yellow wire from the wire harness will be accessible after the engine is lifted from the chassis. If using a TRX 2.5 engine with pull start, remove the EZ-Start wiring harness from the chassis completely. Disconnect the fuel line from the carburetor and disconnect the pressure line from the exhaust pipe. Remove the throttle and brake linkage (*including the throttle servo horn and brake lever*) completely from the chassis by removing the 3x6RST screw from the throttle servo and loosening the 3x3GS at the top of the brake cam. Remove the engine and exhaust system from the chassis by removing the four 3x10CS engine mount screws from the bottom of the chassis and the 3x10CM screw with 3.0NL nut that fastens the pipe hanger to the chassis. Keep the screws, they will be reused with the new pipe hanger.
- 2. Transfer Components: Remove the engine mount and the clutch assembly from the TRX Pro.15 engine and reinstall them onto the TRX 2.5 engine. (*see diagram for parts sequence and orientation*). Note: The clutch adapter nut from the TRX Pro.15 engine will not be reused. Use the flywheel nut (*included with the TRX 2.5 engine*) to secure the flywheel to the crankshaft.
- **3. Exhaust:** Join the header and exhaust pipe (*included*) together with the blue silicone pipe coupler and secure with two 120mm tie wraps. Make sure that there is (one) 12.2x1.0mm orange o-ring mounted onto the exhaust outlet of the TRX 2.5 engine case (*for engines without the o-ring, use the o-ring included in the package*). Install the header and exhaust pipe assembly onto the TRX 2.5 with the two 3x15CS header bolts (*see diagram*). Tighten the header bolts to 6.2 ft-lb of torque, being careful not to over tighten. **Note:** If using the EZ-Start 2 starting system (*optional*), remove the pull starter from the engine and install the EZ-Start 2 system onto the engine. **Note:** On older style fuel tanks, replace the straight pressure fitting on top of the tank with the 90 degree pressure fitting (*included*) to clear the EZ-Start 2 starter motor.]
- **4. Drill Holes for Throttle Bellcrank:** Disconnect the shift linkage from the shift fork shaft. Disconnect the rear drive shaft from the transmission output shaft by removing the 4x5yoke pin. Slide the drive shaft back toward the rear and leave the shaft attached to the rear differential. Remove the eight 3x12RM screws (located in the chassis braces) that secures the transmission to the chassis (*see diagram*). Lift the transmission from the chassis to make room to drill the holes for the throttle bellcrank assembly. Cut out and place the included throttle bellcrank post template onto the chassis (*see diagram for orientation*) and mark the indicated bellcrank post holes onto the chassis. Drill holes into the chassis, where marked, with a 3.0mm (1/8") drill bit (*included*). Make sure that the front differential drive shaft is keyed into the front transmission drive shaft and set the transmission back into the chassis. Secure the transmission to the chassis with the eight 3x12RM screws. Reconnect the rear drive shaft to the output shaft of the transmission with the 4x5 yoke pin. Reconnect the shift linkage ball cup to the shift fork shaft.
- 5. Linkage: Locate the carburetor bellcrank post and the throttle/brake linkage assembly. Mount the carburetor bellcrank post onto the chassis and secure it with the 3x10WM screw. Note: The 3x10WM screw enters through the center hole that was drilled in step #4. Connect the throttle link into the upper bellcrank arm. Connect the carburetor link into the lower bellcrank arm. Slide the brake lever into the brake cam, with the eyelet pointing up, and secure it by tightening the 3x3GS (see diagram for orientation). Note: The throttle servo reversing switch (CH2) on the transmitter must be switched opposite of the stock position for proper rotation of the servo output shaft. Turn on the radio system, center the throttle tring, and attach the new servo horn onto the throttle servo. Note: Mount the servo horn onto the servo so that when the throttle trigger is at neutral, the carburetor is at the idle position.
- **6. Installation:** Install the engine (with the exhaust system and clutch assembly) onto the chassis leaving the engine mount screws just loose enough to adjust the gear mesh. Adjust the gear mesh by sliding the clutch bell gear all the way up to the spur gear and then back off just slightly until the gears spin freely together. Secure the assembly by tightening the four 3x10CS screws. Attach the ball cup from the carburetor link onto the throttle arm of the carburetor. Reattach the fuel and pressure lines to the carburetor and exhaust pipe (*shorten the fuel line from the tank to the carburetor if needed*). **Note:** If using the EZ-Start 2 system (*optional*), connect the wiring harness to the appropriate contacts on the EZ-Start motor and engine. Install the new pipe hanger onto the chassis using the existing hardware (3x10CM and 3.0NL) saved from **Step 1**. Secure the exhaust pipe to the pipe hanger with the 3x10WM screw.
- 7. Airfilter: Install the air filter onto the carburetor and secure it with a zip-tie. Turn on the radio system and adjust the throttle trim and brake linkage for proper operation. Follow the proper break-in procedure per instructions for the new TRX 2.5 engine. This completes the conversion.

Important: Due to the high power output of the new TRX 2.5 engine, the two speed transmission may now shift too early.

Follow the instructions in the T-Maxx manual for proper shift adjustment.





Part #4900 Conversion Kit Assembly Chassis Drilling Template

