



## Turbo Trac Installation

### Step 1: Engine Block Preparation

- Disconnect battery
- Remove all existing OEM components front the front of your engine, including the harmonic balancer and timing cover.
- Remove oil pan hardware and drop oil pan

**If you are unable to remove the oil pan: remove the first three bolts from the oil pan on each side and loosen the remaining bolts enough to allow the front of the oil pan to drop 3/8" to 1/2".**

- Remove all traces of gasket and sealer with gasket scraper and Scotch-Brite® pad
- Clean crank snout with Scotch-Brite® pad
- Clean threads in block by chasing with a 5/16"-18 thread chaser

**Important:** Remove fuel pump eccentric from cam gear; replace bolt & washer.

### Step 2: Prepare Timing Cover For Installation

Install oil pan end seal with a thin film of RTV silicone. If you were unable to remove the oil pan install new corner gaskets at this time too.

### Step 3: Install Timing Cover & Gasket

Apply a thin film of RTV silicone to back of timing cover and engine block surface.

Align and install timing cover gasket to block.

Apply a thin coating of motor oil or grease on the crank seal to protect seal at startup.

Thread four (4) 5/16"-18 x 2-1/4" bolts, with washers, into bottom side of timing cover and finger tighten.

**If you did not remove the oil pan** install two (2) 5/16"-18 x 1/2" hex cap screw through the holes nearest the crankshaft and into the timing cover. Thread the two (2) remaining 1/4"-20 x 1/2" hex head cap screws through the corner holes of the oil pan into the timing cover. Make sure corner gaskets line up with holes. Corner gaskets may need to be trimmed to allow gaskets to sit flush with engine and timing cover.



### Step 4: Install Water Pump:

Apply gasket and sealer (if needed) to both sides of the water pump gasket. Place water pump gasket onto timing cover and align. Install water pump with two (2) 5/16-18 x 1" hex cap screws with AN washers into timing cover and one (1) 5/16-18 x 2 1/4" hex cap with AN washer into timing cover right above harmonic balancer and finger tighten.



### Step 5: Install Main Plate:

Using two (2) 5/16-18 x 6" bolts with washers, feed them thru the top two (2) holes in the main plate. While holding them there, feed the round spacers thru the bolt onto the back of the main plate. With this all together now place onto water pump and finger tighten.

**Step 6: Passenger side spacers and mounts:**

Using two (2) 5/16-18 x 6" bolts with washers, feed them into main plate enough to just stick thru then add the spacer and compressor support arm while feeding bolts thru into engine block and finger tighten.



**Step 7: Driver's side spacers and mounts:**

Using two (2) 5/16-18 x 6" bolts with washers, feed them into main plate enough to just stick thru then add small spacer and alternator support arm while feeding bolts thru into engine block and finger tighten.

**Step 8: Install A/C Compressor**

Place the A/C compressor onto the main plate with the ports facing upward.

Install the two (2) 8mm x 25 with AN washers thru the main plate and thread into compressor and install one (1) 5/16-18 x 3/4" with AN washer thru the support arm and into compressor bushing. Finger tight only. Allow the compressor to slowly swing down and rest.

**Step 9: Install Alternator:**

Place alternator between main bracket and support arm. Install one (1) 3/8-16 x 3 1/4" bolt with AN washer thru main bracket then thru alternator, then thru support arm. Install AN washer and 3/8 lock nut to back side. Install one (1) 5/16-18 x 1 1/4" bolt with washer thru main plate and thread into alternator. Finger tight only. Allow the alternator to slowly swing down and rest.

**Note: Charging system must be properly wired to operate with a one-wire internally regulated alternator.**

**Step 10: Install Harmonic Balancer:**

Install harmonic balancer and tighten with one (1) 5/8-18 x 2 1/4" bolt with washer into crankshaft.

**Important: Place oil upon harmonic balancer seal and balancer to prevent a dry startup.**

**Step 11: Install Crankshaft Pulley**

Install crank pulley with four (4) 3/8-16 x 3/4" bolts with AN washers and tighten firmly.

**Step 12: Tighten water pump and timing cover:**

At this time go back and tighten the three (3) bolts that holds the water pump to the timing cover, then tighten the six (6) bolts that holds the main plate to the timing cover.

**Step 13: Install Water pump pulley**

Install water pump pulley with four (4) 5/16-24 x 5/8" bolts and AN washers and tighten firmly.

**Step 14: Belt Installation**

Route the belt as shown.



Pull adequate tension on the belt with the Compressor and Alternator and tighten bolts.

**Step 15: Double Check:**

Reinstall radiator and fan ( if needed). Remember to re-check all bolts for tightness and all fluids.

**Step 16: Compressor pads and completing compressor:**

Remove the 2 bolts securing the pad connection cover from the compressor. Leave O'Ring in place. Install compressor pads using the two (2) 8mm x 20 Flat head bolts.

Install hoses, connect clutch wire and charge system.

*If you are NOT installing hoses and charging the system at this time, place compressor pads and hardware in a safe place and leave cover plate on compressor at this time. **Do not connect clutch wire or apply power to clutch wire without the hoses connected and system charged – Serious damage will occur to compressor.***

**Compressor Oil**

Although the compressor is supplied with oil, the level may not be correct for the entire system. Consult the instruction manual of the air conditioning unit for proper levels and system charging procedures.