# Full Function Engineering 1993-1995 Mazda RX-7 (FD3S) Engine Mounts

# FULL FUNCTION

#### Notice of Performance

Many of the parts that we sell are of a high performance nature and may cause additional stress on your vehicle. We cannot guarantee the integrity of your automobile. Full Function Engineering shall not be responsible for damages due to neglect or damages caused by products we sell. Some parts we sell are intended for off-highway use and may not be smog legal or D.O.T approved. Federal and State laws may prohibit use of said products on your vehicle; we recommend consulting your local authorities.

Be safe during installation and use your head on the road.

Always use secondary safety devices such as jack stands.

Please contact us for questions, comments or feedback.

### **Parts List**

If an oil pan/engine brace is installed, extended hardware is REQUIRED!
10mm Hex Bit Socket (x1) 10mm hex, 3/8" Drive
Long Pan Mount Bolt (x1) M6 x 1.0 x 35
Pan Mount Bolt (x4) M6 x 1.0 x 20
Mount Bolt (x6) M12 x 1.25 x 30
Bracket Nut (x2) 3/8"-16
Shoulder Nut (x2)
Shoulder Bolt (x2) 2.75" x 5/16" x 1/4-20
Sub-frame Brackets (x2) 3/8"-16 welded stud
Engine Mounts (x2) bushings (x2/ea), sleeves (x1/ea)

# **Required Tools:**

Torque Wrench - Range of approximately 5 lbf-ft to 90 lbf-ft.

**Sealant** - We recommend only using Permatex® Right Stuff®.

Razor Blades - Aids in complete removal of old sealant.

Cleaning Solvent – Aids in old sealant residue, grease and oil removal.

Lubricant- Aids in mount to bracket insertion.

## **Warning**

- Clean threaded holes out with dry compressed air as liquid can split the iron end plate and/or cause corrosion.
- Hot or unshielded exhaust components shall not touch or rest near the aluminum mount.
- Bolts shall not bottom out and have at least one and a half times the diameter of thread engagement.
- Oil pans with bent/deformed edges or scratched surfaces shall be repaired or replaced.
- Take your time and ensure no sealant gaps or old sealant/grease/oil remains which may cause leaks.
- Make a continuous bead around the pan and specifically around bolts and under mount area.

### Installation

- Follow the Factory Service Manual (FSM) for engine mount and oil pan removal. Upon installation of new mounts reference the attached torque and sequence specifications.
- When inserting the mount brackets into the subframe, ensure the threads are not damaged.
- Apply lubricant and gently pry when inserting the mount into the bracket.
- The mounts are side universal (no left or right specific pieces).
- The oil pan may require one hole be drilled on the driver side long bolt. (Many oil pans are either already drilled or dimpled)
- Prior to inserting mount into mount bracket, lightly lubricate to ease assembly.

#### **Torque Sequence (Each Side)**

- 1. Start all bolts by hand.
- 2. Run all bolts down as far as possible by hand (no torque).
- 3. Ensure mount is straight as possible (perpendicular to side of motor).
- 4. Starting with 10-20 lb-ft, torque 12mm bolts by beginning with the most inboard and continuing with a circular pattern until all three bolts are torqued. Ensure no gaps exist between bolt heads and mount.
- 5. Repeat step 4 three times, increasing torque each time until 60-85 lb-ft is reached.
- 6. Run all remaining 6mm bolts down as far as possible by hand (no torque).
- 7. Torque 6mm bolts to 6-12 lb-ft in two steps. Ensure no gaps exist between bolt heads and mount.
- 8. Repeat steps 4-7 on remaining mount.
- 9. Clean all exposed sealant and allow complete drying before returning to service.
- 10. After engine install, torque mount bracket nut to 20-25 lb-ft.

#### **DO NOT OVER-TIGHTEN.**

11. Double check all fasteners for security.



