

EV Source LLC

695 W 1725 N

Logan, UT 84321

435-512-9978

sales@evsource.com

**Adapter Housing
And
Motor Mount
Installation Instructions**

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2.2 – Motor Installation

Required Hardware/Tools:

- Torque Wrench
- Socket Sets
- Loctite
- Engine Hoist
- Allen Keys

Components:

- Aluminum Housing
- Taper lock Bushing
- Hub (2.2L/2.8L or 2.5L)
- 3/8" Hub Spacer (9" Motor)
- 3/4" Hub Spacer (8" Motor)
- 4 – 3/8"NC x 1" bolts and flat washer (Motor to Bell Housing)
- 3 – 1/4"NC-20 x 1 1/2" socket head bolts (Taper lock Hub)
- 6 – 1/2"NC x 2 1/4" bolts (Bell Housing to Transmission)

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Note:

- ❖ Do you have the transmission reinstalled? If not, reinstalled the transmission before continuing any further.
- ❖ If the engine mount is for a V6 or 2.2L 4 cylinder engine, replace the mount with 2.5L four-cylinder engine mounts.

2.2.1 Motor and Bell Housing Installation

Instructions:

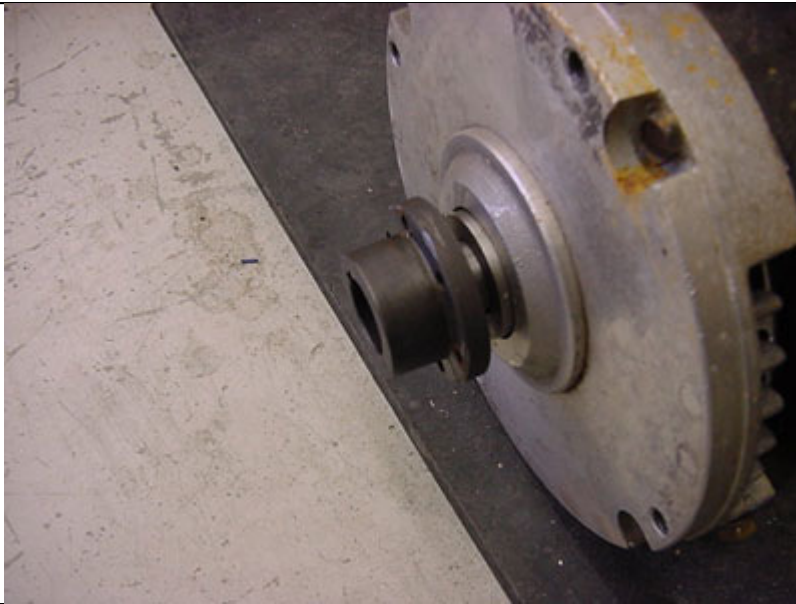
- Use the engine hoist to lift up the motor so you can install the components onto the motor easily.



Step 1: Place the hub spacer onto the motor shaft

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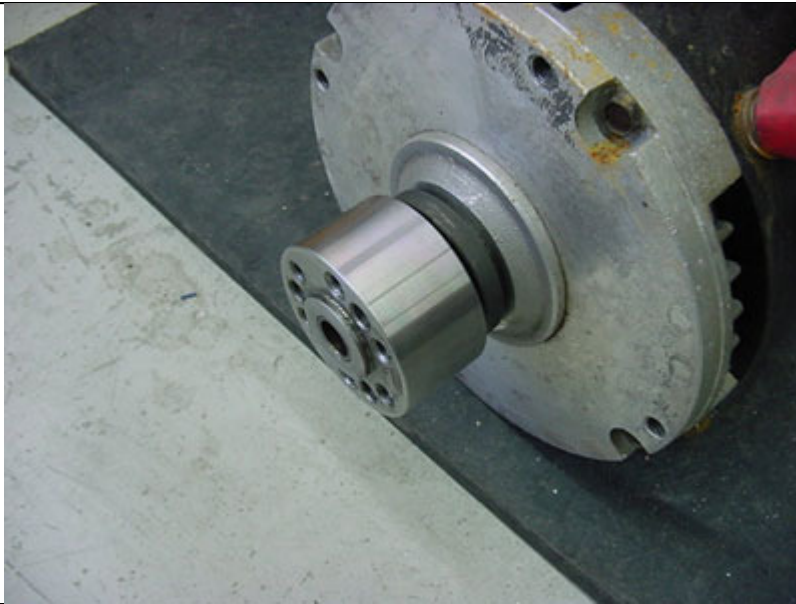
Step 2: Place the taper lock Bushing onto the motor shaft and make sure it seats against the hub spacer.



Step 3: Install $\frac{1}{4}$ " x $\frac{1}{4}$ " key into the keyway to lock the Bushing onto the motor shaft.

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Step 4: Place the hub onto the motor shaft. Apply Loctite on the 1/4"NC-20 socket head bolts and bolt the hub onto the taper lock hub. Make sure the Bushing is up against the spacer while you tighten up the bolts. In addition, tighten the bolts equally a little at a time to slowly pull the hub onto the Bushing.

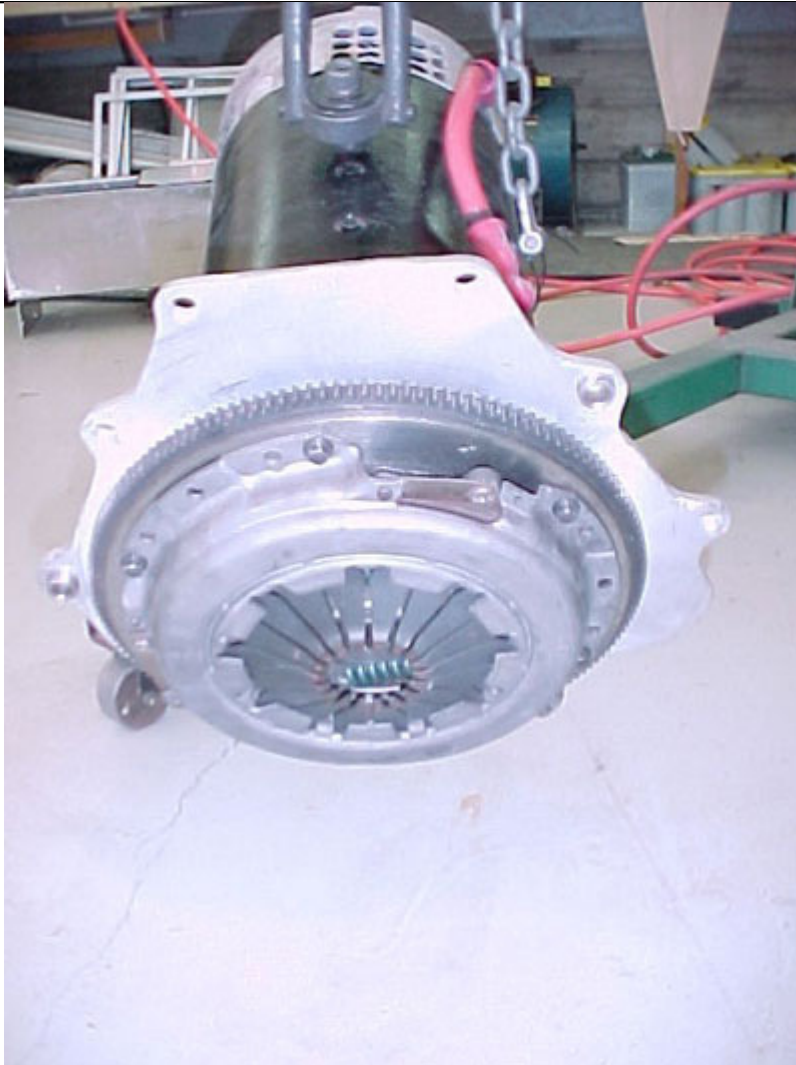


Step 5: Place the bell housing onto the motor and make sure the top of the bell housing is center with the lifting hole on the motor. Apply Loctite on the 3/8 x 1" bolts and tighten the bolts up!!!!!!IMPORTANT!!!!!! Due to varying adapter thickness and motor type, your 3/8 bolts may be too long for your specific motor! After threading one bolt through the adapter and

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into the motor, GENTLY turn the motor shaft and listen. If the shaft is hard to turn or if you can hear some grinding, remove the bolt immediately! This sound or hard turning indicates that the bolt has gone so far into the motor as to be in a position to damage the motor fan when the motor really gets going. Instead, replace the bolts with a shorter one that does not interfere with the fan. EV Source will not be responsible for this error.



Step 6: Place the flywheel onto the hub and using the original flywheel bolts, bolt the flywheel onto the hub. Make sure there is Locktite on the bolts. Tighten the bolts in criss-cross pattern and torque the bolts according to the service manual specification.

Step 7: Place clutch disk and plate onto the flywheel and tighten the bolts according to the service manual specification. Be sure to use a clutch alignment tool to center the disk.

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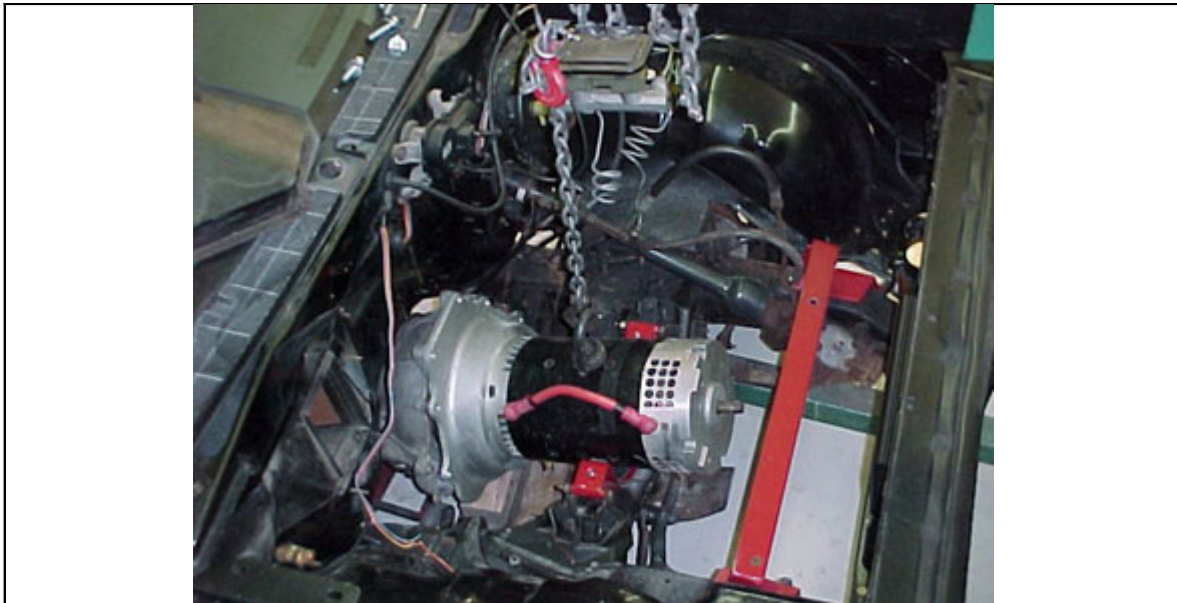
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2.2.2 – Motor Mount and Motor

Components:

- Motor Mount
- 2 – ½”NC x 1 ¼” bolts (Motor Mount)
- 1 – 5/8”NC x 7/8” Grade 8 bolt (Motor to Mount)

Instructions:



Step 1: Place the bottom half of the motor mount between the engine mounts and reuse the two original bolts removed with the engine to lock the motor mount in place.

Step 2: Move the engine hoist with the motor to engine compartment.

Step 3: Lower the motor into the engine compartment until the bell housing is aligned with the transmission.

Step 4: Make sure the shaft from the transmission is aligned with the bore on the clutch plate. Then, slowly push the motor until the bell housing is touching the transmission.

Step 5: Place all 6 of the ½”NC x 2 ¼” bolts and hand tighten the bolts. Then lower the motor into the motor mount until motor rest completely on the motor mount.

Step 6: To test whether the shaft is binding, turn the front shaft on the motor with your hand. The shaft should rotate freely with some resistance. If the shaft does not rotate freely, lift the motor up again and check whether

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the transmission shaft and clutch plate is mating properly.

Step 7: Once step 6 is completed successfully, tighten the bolts up to lock the housing in place.



Step 8: Place the top motor mount over the motor and align the center hole with the lifting hole on the motor.

❖ **Before installing the center bolt makes sure that you include a flat washer and a lock washer, otherwise the bolt may damage the motor.**

Step 9: Place ½”NC x 1” bolt in one end of the motor mount and using an aligning punch line up the second hole and insert the second bolt into the motor mount.

Step 10: Tighten the center bolt first followed by the two side bolts.