



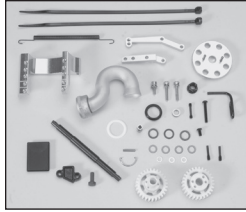
## Big Block Installation Instructions

Covers Part #5360X

**Important:** The following technical notes and installation instructions are for O.S.™ style big block engines (with an SG style crankshaft).

### Engines That Will Fit:

- The big block conversion kit is designed to fit engines that have the following crankshafts:
- SG style crankshaft - "standard big block engines"
  - TRX IPS style crankshaft - "mid-block engines"



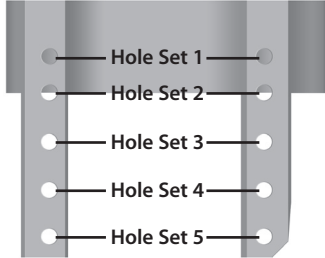
Most engines can be secured with one of the following sets of holes:

- Hole sets 2 & 5 - for standard big block engines
- Hole sets 1 & 3 or Hole sets 1 & 4 for mid-block engines

### Engines That Will Not Fit:

The big block conversion kit is known to be incompatible with these engines:

- Thunder Tiger Magnum Pro 21
- Associated Pro 21 R
- OS RG
- OS RZ



### Important Technical Notes Before Installation:

The forward-only conversion kit and the steel forward-only output shaft (included) must be installed into the transmission for certain models. The forward-only kit removes reverse and allows increased torque handling for large displacement engines. Before installing the forward-only kit, carefully review the instructions below for your specific application:

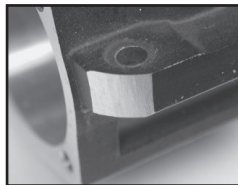
**For Revo models with reverse transmission and OptiDrive (Model 5310 & 5309):** You must install the forward-only conversion and steel forward-only output shaft included with this kit. Follow the instructions on the included instruction sheet for installing the forward-only kit.

**For Revo model with forward-only transmission (Model 5308):** Do not install the forward-only conversion. Your Revo already has the forward-only conversion and steel forward-only output shaft installed. Proceed with the big block installation instructions.

**For Revo model with center differential (Model 5304):** Installing the forward-only conversion is optional. The center differential in your Revo is compatible with the big block installation kit. Use the forward-only conversion only if you want to change the handling characteristics of your Revo. Proceed with the big block installation instructions.

**For Slayer (Model 5908):** Do not install the forward-only conversion. Proceed with the big block installation instructions. **Note:** The forward-only conversion kit included with this package is not compatible with the Slayer transmission. The Slayer uses different internal gearing than the Revo. Installing the included forward-only conversion may result in over-revving and damage to your big block engine.

No modification (to the engine mount or inner engine mounting ear) is necessary when the stock 15/38 or 16/38 clutch bell/spur gear combination is used. If using a 15/36 or 16/36 clutch bell/spur gear combination, modification to the inner engine mounting ear on the crankcase (by filing the area where there is interference with the chassis) may be required.



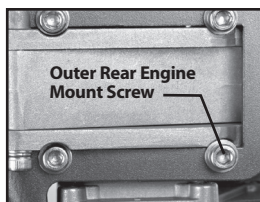
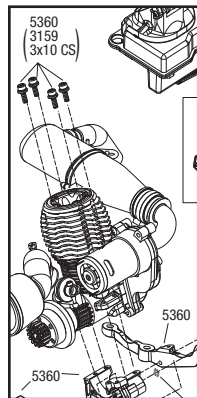
- The 70/30 setting should be used on all transmitters that do not have an end point adjustment.
- The stock Revo air filter base does not work well on the O.S.™ style big block engines. The T-Maxx air filter (part #5260, sold separately), the air filter included with the big block engine, or an aftermarket air filter can be used in its place. If using the Revo or T-Maxx air filter, it must be tightly secured to the carburetor using the included wire tie. When using the T-Maxx air filter, the "ears" on the radio box should be trimmed to allow for the best fit.
- This kit requires a bump starter to start an O.S.™ style big block engine.
- The stock Revo body will need to be trimmed for clearance around the cylinder head.



- **Suspension tuning recommendations:** Due to the extra weight of most big block engines, it may be necessary to install firmer springs on the Revo GTR shocks and/or higher progressive rate rockers (P2/P3) to maintain stock handling.

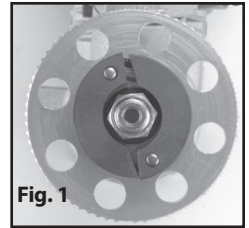
### Installing an O.S.™ Style Big Block Engine into Revo:

1. Remove the TRX 2.5R Racing Engine™ and exhaust system by removing the four 3x10CS screws that secure the engine to the engine mount. The EZ-Start wiring harness will also need to be removed from the chassis and the rear body mount. **Note:** When removing the TRX 2.5R Racing Engine, cut/remove only the wire tie that secures the exhaust coupler to the header. Carefully remove the header from the coupler. The coupler and tuned pipe will be reused.
2. The following parts need to be removed from your existing TRX 2.5R Racing Engine and used on your big block engine:
  - Clutch bell
  - Clutch shoes (with spring)
  - Two 5x10x4 bearings on the clutch bell
  - Split bevel cone (remove flywheel on TRX 2.5R Racing Engine to access it)
  - Engine mounting screws (qty. 2)
3. Remove the throttle bellcrank from the engine mount cradle, and leave the bellcrank attached to the linkage. Remove the stock TRX 2.5R engine mount cradle by removing the two horizontal 3x28 CS screws (see image), and replace it with the big block cradle supplied in the kit. Be careful not to lose the washers (shaped like a star, "External Lock Washer or ELW") that go between the cradle and the two engine mount side plates. The ELW washers will be reused with the new engine mount cradle. Replace the outer rear engine mount screw with the supplied 3x10CS with split and flat washers.

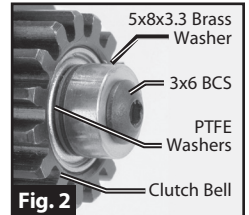


4. Install the provided 40mm flywheel and the original clutch assembly using the sequence below. Refer to the exploded-view diagram for additional reference.

- a. Slide two (2) 7x10x1.0 washers onto the crankshaft so it rests against the engine bearing.
- b. Slide the split bevel cone onto the crankshaft (this was removed from your TRX 2.5R engine)
- c. Slide the 40mm lightweight flywheel onto the crankshaft (provided).
- d. Secure the flywheel to the crankshaft with the flywheel nut. Use a pair of channel lock pliers to grasp the flywheel while tightening the flywheel nut with a socket driver. **Tip:** Use a small amount of medium compound (blue) thread lock on the crankshaft threads to keep the flywheel nut from loosening.

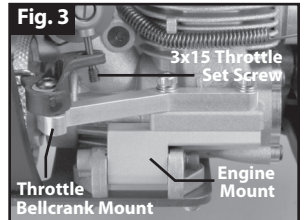


- e. Install the clutch shoes as shown in Fig. 1.
- f. Slide the clutch bell (with both bearings installed) onto the crankshaft.
- g. Install the PTFE washers. There are four washers provided (0.5 mm thick). Install as many washers as needed to minimize end play of the clutch bell (without binding). The clutch bell should rotate freely. The PTFE washers may also be placed inside the clutch bell (as a shim) to align the clutch bell with the spur gear or to prevent the clutch bell from contacting the flywheel. Follow the washers with the 5x8x2.8 brass washer (see Fig. 2).



- h. Secure the above parts by threading the 3x6 BCS onto the end of the shaft. Use medium thread lock compound to secure the screw.

5. On the throttle arm of the carburetor, replace the existing set screw with the included 3x15 throttle set screw that has a reduced center section (shown below). Rotate the throttle arm on the carburetor so the installed throttle set screw points downward (near vertical).



**Note:** After final assembly, an adjustment may need to be made to the set screw to seat into the middle of the bell crank slot.

6. Set the engine into the engine cradle. Thread in two 3x10CS into the two inner mounting holes. Do not tighten.

7. Install the long throttle bellcrank mount on top of the outer engine mounting flange, as shown in Fig. 3.

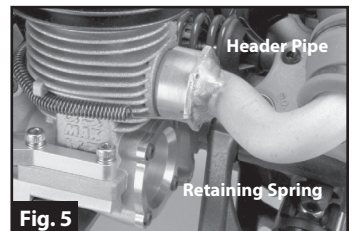
8. Use the two 3x15 CS provided on the outer engine mount holes to secure the engine and throttle bellcrank mount to the cradle. Secure the engine to the engine mount by tightening all four engine mounting cap-head screws.

9. Insert the white header flange PTFE gasket into the header flange.



10. Install the header gasket/seal provided with your big block engine to the exhaust port on the engine. If the header doesn't fit over the gasket, then use the O-ring provided in the kit to replace the O-ring that came with your big block engine (see Fig. 4).

11. Install the header onto the engine and secure it with the provided spring (see Fig. 5).



12. Install the exhaust coupler onto the other end of the header and secure it with the provided wire tie. Replace the stock tuned pipe hanger with the included black tuned pipe hanger. Adjust the tuned pipe hanger to a position that works the best and tighten the 4x10 BCS that fastens the hanger to the rear body mount.

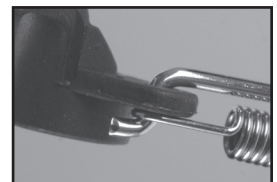
13. Remove the (left rear) screw that secures the throttle/brake servo. Remove the 3x6 BCS that secures the throttle return spring to the electronics box. Slide the end of the throttle return spring over the supplied 3x20 BCS followed by the tall hollow ball (supplied). Secure the throttle return spring to the left rear servo mount hole with the 3x20 BCS (see Fig. 6).



14. Secure the throttle bellcrank in one of the two holes on the bellcrank mount so it provides the best possible operation (see Fig. 3). Use medium thread lock compound to secure the screw. The throttle arm of the carburetor and/or the carburetor should be rotated (as necessary) to ensure smooth operation of the carburetor slide with the throttle bellcrank.

15. Hook the throttle return spring to the throttle linkage wire that is connected to the throttle bell crank just under the bell crank.

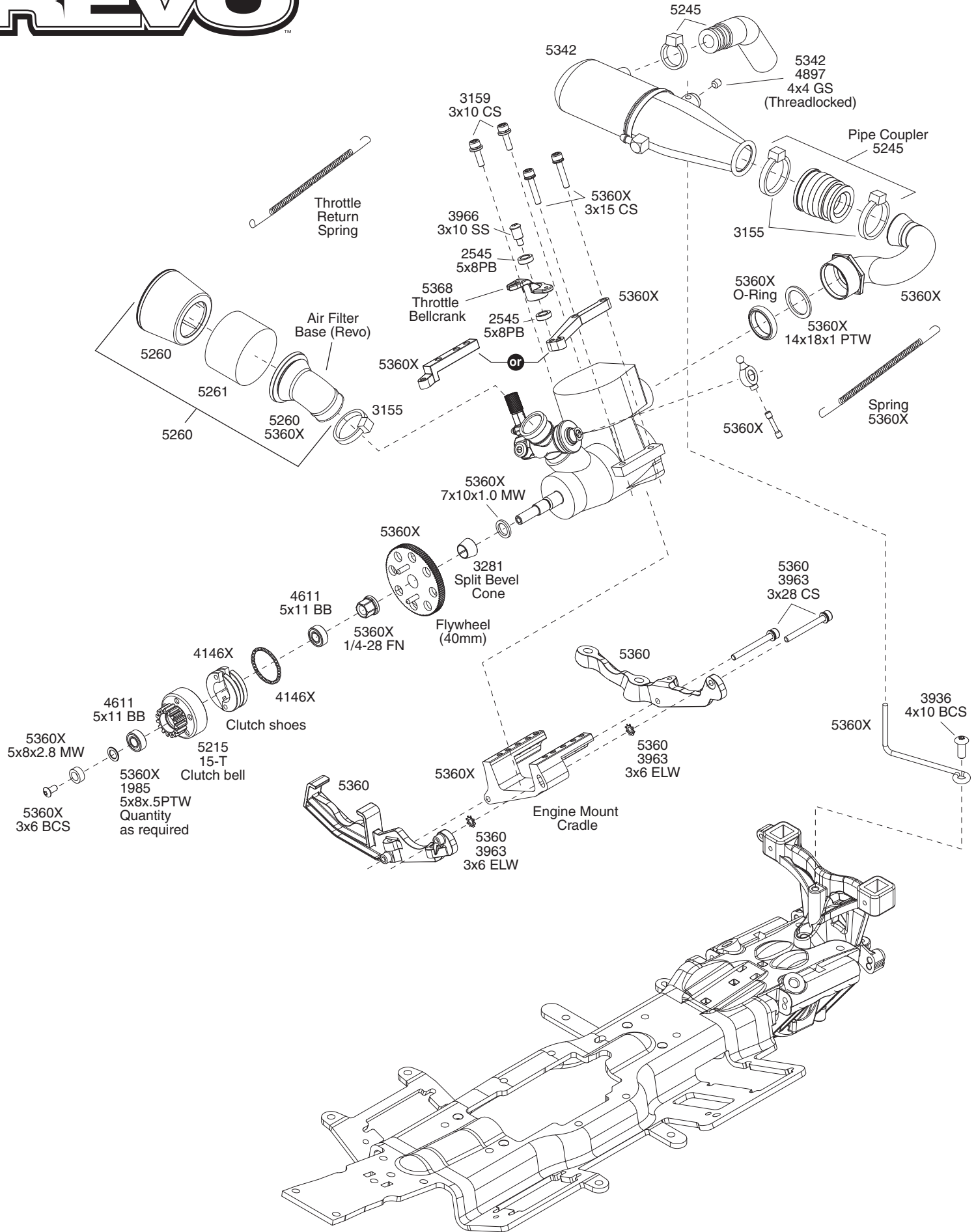
16. Adjust the spur gear/clutch bell mesh per the instructions in the Revo operating instructions that came with your model.



If you have questions or need technical assistance, call Traxxas at

# 1-888-TRAXXAS

(1-888-872-9927) (U.S. residents only)



### List of Parts Included in the Kit:

- Big block engine mount cradle (1)
- Throttle bell crank mount - long (1)
- Throttle bell crank mount - short (1)
- Flywheel 40mm (1)
- Flywheel Nut 1/4-28 thread (for big blocks with SG shafts) (1)
- 3x15 Throttle set screw (1)
- 7x10x1.0 Washer (black steel, for flywheel spacing) (2)
- 7x10x0.5 Washer (black steel, for flywheel spacing) (1)
- 5x8x2.8 Washer (brass, for clutch bell spacing) (1)
- 5x8x0.5 PTFE washer (for clutch bell spacing) (4)
- 3x15 CS with split and flat washers (for engine mount cradle) (2)
- 3x10 CS with split and flat washers (for engine mount base) (1)
- 3x6 BCS (for end of SG shaft) (1)

- 3x6x0.5 Washer (to space 3x15 CS) (3)
- 3X20 BCS (for throttle return spring) (1)
- Tall rod end ball (for throttle return spring) (1)
- Header (1)
- Header spring (1)
- Exhaust header flange gasket (white) (1)
- Exhaust header flange O-ring (1)
- Zip tie, 180mm (one for air filter, one for exhaust coupler) (2)
- Tuned pipe hanger - black (1)
- Big block kit instructions (1)
- Forward-only conversion kit (with steel output shaft) (1)
- Forward-only conversion kit instructions (1)

### Replacement Parts

- 5394 Forward-only shaft, steel (Revo)(use with big block engines)..... \$10.00
- 5394X Forward-only conversion kit (eliminates reverse)..... \$12.50
- 5420 Engine mount (Revo Big Block kit)..... \$28.00
- 5422 Flywheel Nut 1/4-28 thread (for big blocks with SG shafts)..... \$3.00
- 5423 Hanger, Revo big block kit (black)..... \$1.50
- 5419 Set screw, throttle 3x15 (1)..... \$5.00
- 5424 Spring, header (for Revo Big Block header)/O-ring (1) & gasket (1) (for exhaust header flange)..... \$3.00
- 5426 Washer, 7x10x1.0 (2), 7x10x0.5 (1) black steel (shims for flywheel spacing), Washer, 5x8x2.8 (1) brass (shim for clutch bell spacing) for Revo Big Block Kit..... \$2.00