

TECHNICAL SUPPORT

T-REX™ TOTAL ROTARY EXTRACTOR



General Troubleshooting

Problem:	Possible Causes:	Solutions:
Motor fan is spinning but cleaning head is not.	Pinion gear has broken.	Replace the pinion gear. (Part # H129. See next page.)

IMPORTANT: Do not plug the motor into power directly. Serious damage to the motor will result. The machine should only be powered through the lighted pigtail coming off the handle.



How to Replace Pinion Gear for T-REX™ with 1/2 HP Motor

Does not apply to T-REX™ Jr.

Step 1: Remove the four bolts holding the transmission and motor together.

Step 2: Pull the motor off the transmission. You can use a rubber mallet to loosen the seal if necessary (**Figure A**).

Step 3: Use a Phillips head screwdriver to unscrew the 6 screws on the transmission cap (**Figure B**). Remove the transmission cap.

Step 4: Remove the broken pinion gear.

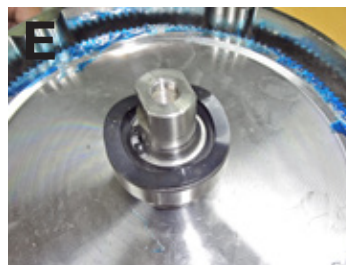
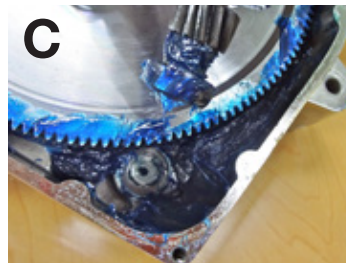
Step 5: Install the new pinion gear (Part # **H129**) by inserting the gear side into the space beside the large transmission gear. Use the existing grease inside the transmission to lube the pinion gear (**Figure C**). Twist the pinion gear to make sure the gears are aligned. You should see the large gear spin a little (**Figure D**).

Step 6: Make sure the wave washer is centered on the bearing for the large gear (**Figure E**). Line up the pins on the transmission casing with the holes on the transmission cap and tap the cap into place (**Figure F**). The transmission should be on a surface that allows the threaded shaft on the bottom to hang free so that it doesn't push back up against the cap as you're trying to tap the cap back on (**Figure G**).

Step 7: Replace the screws with a Phillips screwdriver. The longer screw goes in the hole in the motor cavity.

Step 8: Twist the pinion gear by hand to make sure it is aligned properly. You will see the bearing for the main gear spin slightly.

Step 9: Match the locking key on the motor shaft to the key slot on the transmission and slide the motor back in place (**Figure H**). Line up the bolt holes and make sure the power cord is coming out the back.



T-REX™ JR. TOTAL ROTARY EXTRACTOR



General Troubleshooting

Problem:	Possible Causes:	Solutions:
Gear box is making loud grinding noise while running. (When gears are properly working, the motor will run quietly.)	Offset gear is damaged.	Replace the gear. (Part # H237 . See next page.)

How to Replace the Gears on T-REX™ Jr. Gearbox

Does not apply to T-REX™.

Step 1: Remove the screws holding the bottom transmission plate and gearbox together (**Figure A**).

Step 2: Remove the plate off the transmission. If it binds up on the shaft, gently rock the plate as you pull it off (**Figure B**).

Step 3: Remove rubber gasket from gearbox - set aside for reassembly (**Figure C**).

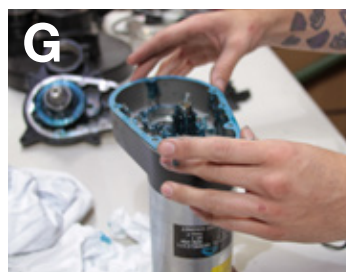
Step 4: Remove the offset gear (smaller gear) - it should lift straight out (**Figure D**).

Step 5: Before installing the new offset gear, fully coat the new offset gear with blue lube from the motorbox (**Figure E**).

Step 6: Install the new gear by pressing back into place by hand. To ensure that gears are straight and engage with one another, twist the gear by hand to make sure teeth are aligned properly. (**Figure F**).

Step 7: Replace rubber gasket. Make sure holes are aligned (**Figure G**).

Step 8: Re-install plate. You can tap down with a mallet if needed. Replace the screws with a Phillips head screwdriver (**Figure H**).



Switching the T-REX™ to New Style Power Cord Between Motor and Handle

If you are switching your T-REX™ to the new style motor with the black transmission, you will need to replace the power cord running through the handle since the new motor has a different style plug. *Does not apply to the T-REX™ Jr.*

Step 1: Remove back cover by unscrewing the 4 screws.

Step 2: Remove front cover by unscrewing the 3 screws.

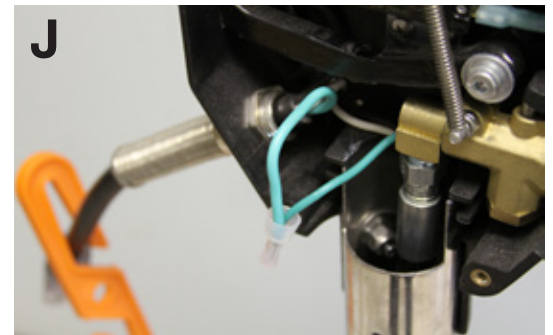
Step 3: Clip off the black and white wires that are connected to the blue and red wires on the front board (**Figure I**).

Step 4: Clip the green ground wire on the back of the handle (**Figure J**).

Step 5: Pull the the old power cord out through the hole at the bottom of the handle.

Step 6: Snake the new power cord up the handle to the swtich box.

Step 7: Wire the new power cord to the same terminals as the old power cord (*black to blue, white to red, green to green*).



If O-Ring on the Bottom of the Transmission Shaft Goes Bad

Mytee carries a replacement O-Ring (Part # **G107**).

It is available at www.mytee.com.



Lubricating Felt Seal

Make sure to keep your felt seal (Part # **G014**) lubricated. To do this, saturate the felt seal thoroughly with included Super Lube® (Part # **PH648**).

Adjusting the Board to Factory Settings on T-REX™ and T-REX™ Jr.

Follow these troubleshooting instructions to ensure your T-REX™ is running optimally.

Step 1: Remove back cover by unscrewing the 4 screws.

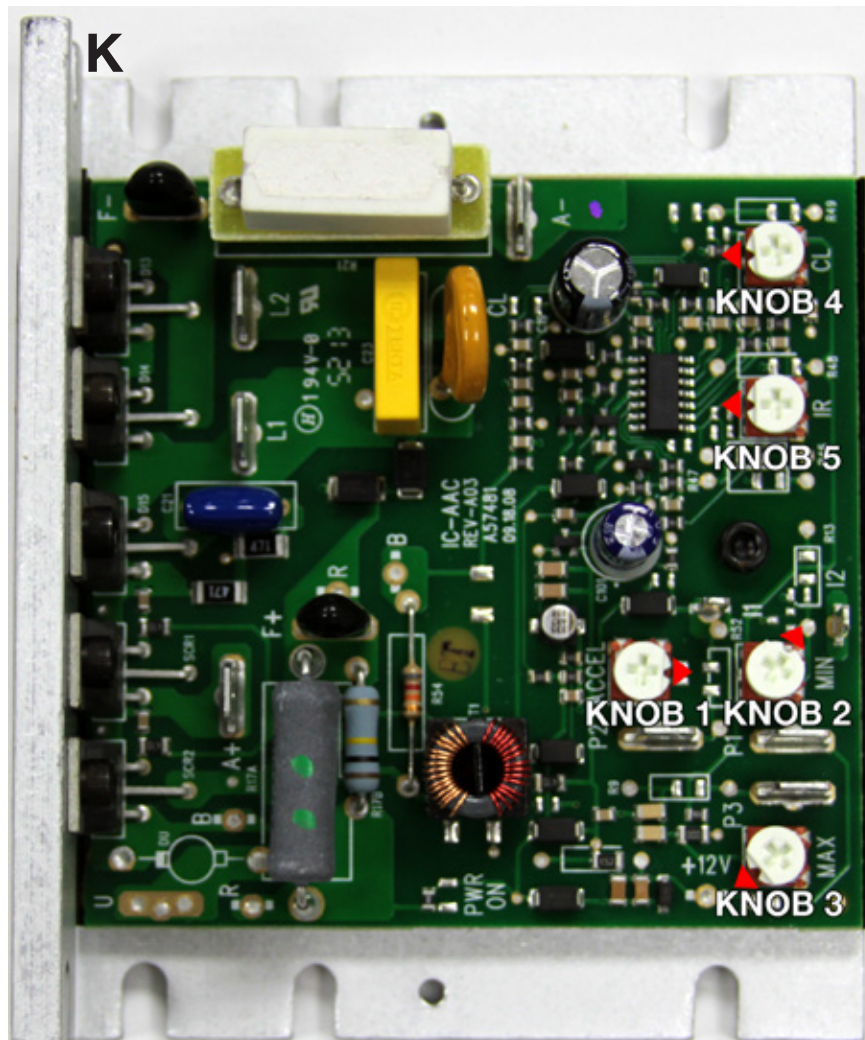
Step 2: Remove front cover by unscrewing the 3 screws.

Step 3: The board should look like the one in **Figure K**. The notches on the knobs should be set to the following positions:

- *Knob 1:* 3 o'clock
- *Knob 2:* 2 o'clock
- *Knob 3:* 8 o'clock
- *Knob 4:* 9 o'clock
- *Knob 5:* 9 o'clock

If your board does not match this, use a Philips screwdriver to adjust the knobs to these settings.

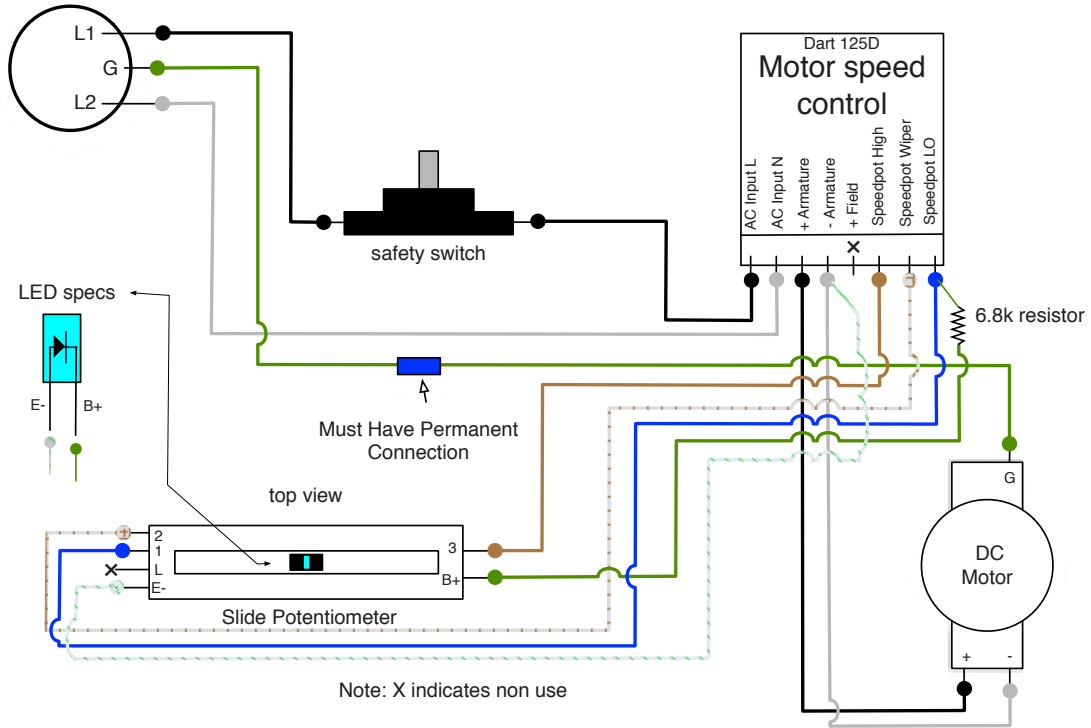
Step 4: Put the front and back covers back on.



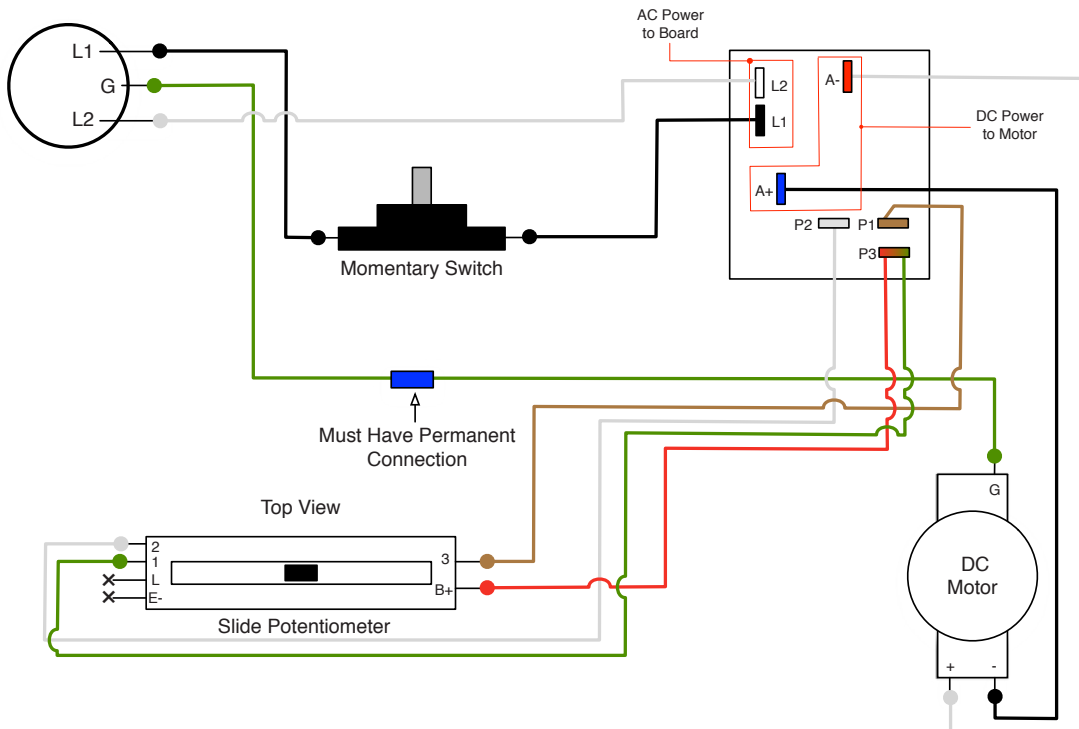
Upgrading Speed Control Board on T-REX™

If your old style speed control board is broken and irreparable, it must be replaced with the new style control board. Follow these diagrams to rewire your speed control from old style to new style. *Does not apply to T-REX™ Jr.*

Old Style Control Board



New Style Control Board



Note: X indicates non use

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Jet Information

	T-REX™	T-REX™ Jr.	Flexstar
Jet part number	B183	B183	B114A
Jet size	1/8K-1.0	1/8K-1.0	11002
Flow	0.2 GPM	0.2 GPM	0.2 GPM

Installing Optional 7th Jet on T-REX™

Optional 7th jet can be added on to the T-REX™ only.

To install, simply unscrew the hex screw in the center of the brass spray manifold and screw in the jet.



	Info
Jet part number	B114A
Jet size	11002
Flow	0.2 GPM

Motor Carbon Brushes

The DC motors on the T-REX™, and T-REX™ Jr. models have carbon brushes. These carbon brushes will wear with time and usage. It is important that the brushes be replaced at the first signs of wear. If the brushes wear out and let the commutator and armature come in contact, it can cause costly damage to the speed control board used in the machine.

Signs of Brush Wear

- On-and-off cycling. If motor begins to cycle, as if turning on-and-off rapidly, the brushes are likely worn.
- Shaking, banging, or slapping sound from motor.
- Sparks and/or smoke from motor.
- Marked decrease in power of motor.

In any of these cases, replace the brushes immediately.

Replacement Carbon Brushes

- T-REX™: Part # **C311-BMK**
- T-REX™ Jr.: Part # **C311B-BMK**