

TECHNICAL SUPPORT

ROTARY EXTRACTORS

T-Rex™ Troubleshooting

Problem:	Possible Causes:	Solutions:
Machine keeps shutting off.	Speed slide potentiometer is faulty.	Remove the potentiometer and the speed control board. Replace with single speed rectifier. (Part #E397. See page 5.)
Motor fan is spinning but cleaning head is not.	Pinion gear has broken.	Replace the pinion gear. (Part #H129. See page 7.)
Machine power is powering the control board, but unit will not run.	A power cord could be disconnected.	Check all cord connections, including the cord plug connections at the motor.
	Activation microswitch (Part #H167) is faulty, or out of adjustment.	See “How To Check and Replace Activation Microswitch”
	Speed slide potentiometer is faulty.	Remove the potentiometer and the speed control board. Replace with single speed rectifier. (Part #E397. See page 5.)
On a new unit: The release lever for adjusting the handle angle seems “stuck”.	Handle plunger gear may stick to the gear rack. This is due to the texture of each mating part causing friction. With use, the textures are smoothed.	Shake the handle, while pulling the release lever. Light application of dry lubricant afterward may be helpful. This situation happens rarely, and usually only once or twice, when unit is new.
Cleaning unit head seems to rotate slower than normal.	Felt vacuum seal ring in head is not properly lubricated.	Saturate felt vacuum seal with included SuperLube® (Part #PH648) or 30 wt SAE motor oil. Apply oil until near saturated, but not dripping.
The drive motor seems to be getting overly warm or hot.		
Perceptible loss of vacuum.	Check that the felt vacuum seal in head is not worn, crushed, or dry.	Replace felt vacuum seal (Part #G014). Lubricate new seal before installation.
Motor is to cycling, as if turning on-and-off rapidly.	Motor carbon brushes are likely worn.	Replace motor carbon brushes immediately (Part #C311-BMK).
Sparks and/or smoke from motor.		
Marked decrease in power of motor.		

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.



T-Rex™ Jr. Troubleshooting

Problem:	Possible Causes:	Solutions:
Machine keeps shutting off.	Speed slide potentiometer is faulty.	Remove the potentiometer and the speed control board. Replace with single speed rectifier. (Part #E397. See page 5.)
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 page 8.)
Machine power is powering the control board, but unit will not run.	A power cord could be disconnected.	Check all cord connections, including the cord plug connections at the motor.
	Activation microswitch (Part #H167) is faulty, or out of adjustment.	See “How To Check and Replace Activation Microswitch”
	Speed slide potentiometer is faulty.	Remove the potentiometer and the speed control board. Replace with single speed rectifier. (Part #E397. See page 5.)
On a new unit: The release lever for adjusting the handle angle seems “stuck”.	Handle plunger gear may stick to the gear rack. This is due to the texture of each mating part causing friction. With use, the textures are smoothed.	Shake the handle, while pulling the release lever. Light application of dry lubricant afterward may be helpful. This situation happens rarely, and usually only once or twice, when unit is new.
Cleaning unit head seems to rotate slower than normal.	Felt vacuum seal ring in head is not properly lubricated.	Saturate felt vacuum seal with included SuperLube® (Part #PH648) or 30 wt SAE motor oil. Apply oil until near saturated, but not dripping.
The drive motor seems to be getting overly warm or hot.		
Perceptible loss of vacuum.	Check that the felt vacuum seal in head is not worn, crushed, or dry.	Replace felt vacuum seal (Part #G014). Lubricate new seal before installation.
Motor is to cycling, as if turning on-and-off rapidly.	Motor carbon brushes are likely worn.	Replace motor carbon brushes immediately (Part #C311B-BMK).
Sparks and/or smoke from motor.		
Marked decrease in power of motor.		

Jet Information

	T-REX™	T-REX™ Jr.	Flexstar
Jet part number	B183	B183	B183
Jet size	1/8K-1.0	1/8K-1.0	1/8K-1.0
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	B183
Jet size	1/8K-1.0
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.

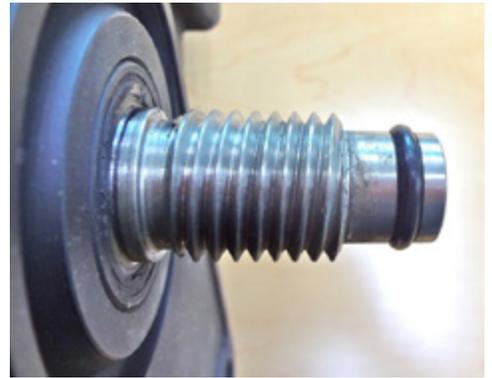
Replacement Carbon Brushes

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

If The Transmission Shaft O-Ring 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**).

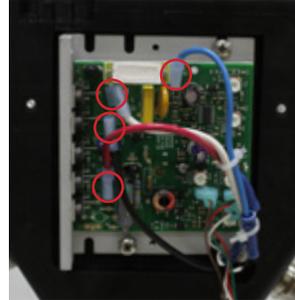
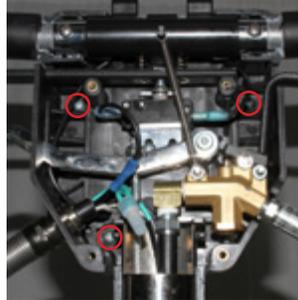
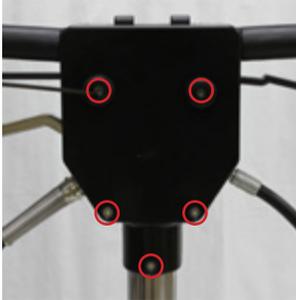
Replacing T-Rex Speed Control Board with Single Speed Rectifier

Tools Needed:

- 1/8" Allen wrench
- Phillips head screwdriver

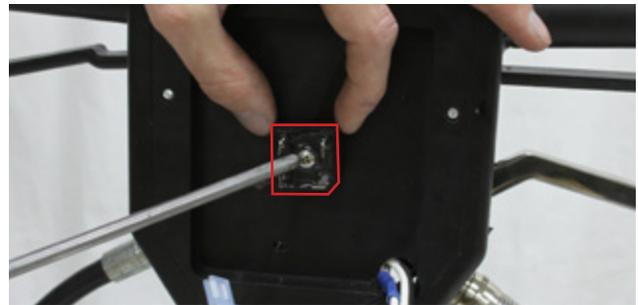
Kit Includes:

- E397 Rectifier
- Self-tapping Phillips screw



1. Remove black rear panel cover with 1/8" Allen wrench. Using a Philips screwdriver, loosen screws pictured above to remove blue front panel.

2. Disconnect all four wires attached to the circuit board beneath the blue front panel.

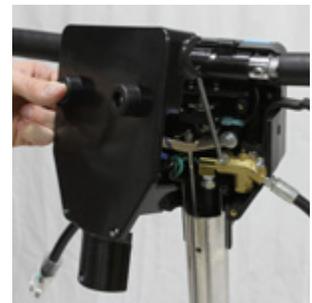


3. Remove the circuit board using the Phillips screwdriver.

4. Place new rectifier on the center of the panel where the circuit board was. Use the self-tapping screw included in the rectifier kit to attach it.
NOTE: Position the rectifier oriented the same direction as shown in the diagram, with the flat corner in the bottom right.



5. Reattach all four wires to the posts of the rectifier in the positions shown. **NOTE:** Position of the red and blue wires is dependent on the T-Rex model you own, depicted above.



6. Replace and secure the front panel, followed by the back panel.

How To Check and Replace Activation Microswitch

IMPORTANT: Make sure the unit is **UNPLUGGED** before beginning this procedure.

Tools Required:

- 1/8" Allen wrench
- 1/2" open-end wrench
- Multimeter



How To Check:

Step 1: Remove the rear cover by undoing the five Allen screws holding the rear cover in place on the handle assembly. (Figure A)

Step 2: Check to see if the microswitch is being depressed by the hand lever or is loose. Tighten the microswitch in the mounting bracket if necessary using the wrench.

Step 3: Test if the microswitch is functioning by using a multimeter set for resistance values. Remove the leads from each switch terminal using needle-nose pliers (Figure B). Touch the prongs from the multimeter to the microswitch terminals and activate the unit's switch (Figure C). It helps to temporarily remove one end of the safety lockout spring, so that the safety lockout stays in the deactivated position. **If the multimeter is not showing zero resistance when the switch is activated, replace the microswitch** (Part # H167).

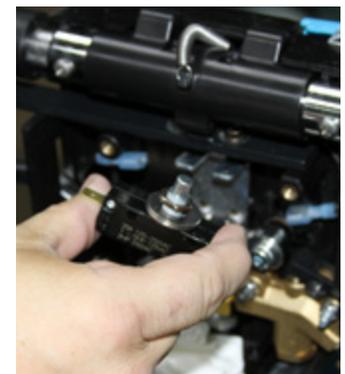
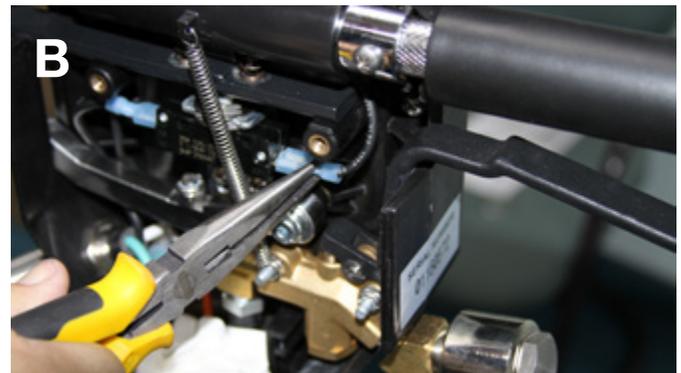
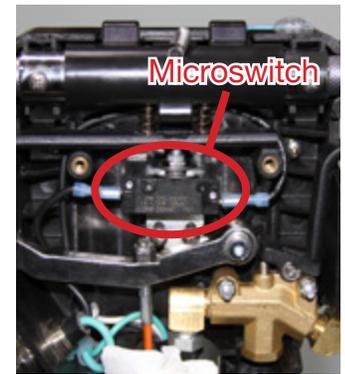
How To Replace:

Step 1: Loosen the microswitch nut and slide it out from the mounting bracket (Figure D).

Step 2: Remove and reuse mounting hardware on the new microswitch.

Step 3: Slide the new microswitch into the mounting bracket, tighten, reattach leads to the terminals, and replace the safety lockout spring.

Step 4: Replace the rear cover and test the unit.



How to Replace Pinion Gear for T-REX™ with 1 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.

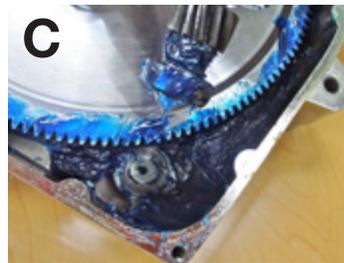
Step 5: Install the new pinion gear (Part # **H129**) by inserting the gear side into the space beside the large transmission gear. Use the existing grease inside the transmission to lube the pinion gear (**Figure C**). Twist the pinion gear to make sure the gears are aligned. You should see the large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



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**).

