

Power Pick-Up Truck**INSTRUCTION SHEET**

Thank you for purchasing this Power Pick-Up Truck by Ring Engineering. We take pride in the products that we produce and hope you find this product to be a great addition to your model train layout.

Please read all warnings and instructions before installation and use. For the latest information from Ring Engineering, please visit us on the web at www.RingEngineering.com.

WARNINGS

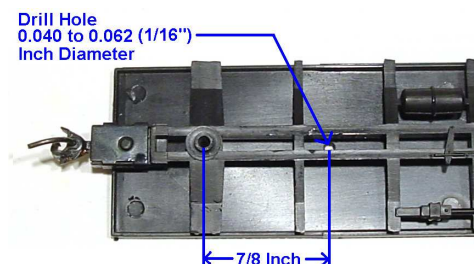
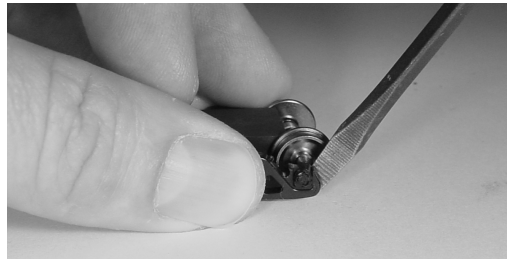
- This product is not a toy and should only be used by adults.
- This product should only be used by a person with an understanding of connecting electrical circuits and is familiar with the dangers involved. Improperly connected circuits can cause a fire.
- Always wear safety glasses when drilling.
- After installation, be sure that both wires are properly insulated so no short circuits can occur.
- This product contains a chemical known to the state of California to cause cancer and birth defects (or other reproductive harm).

Description

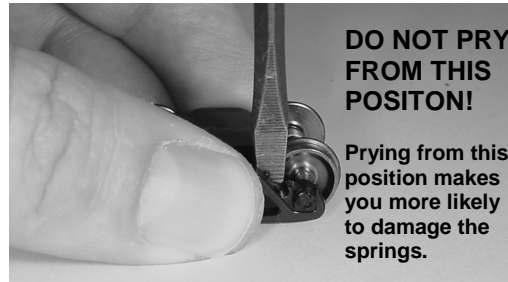
The Power Pick-Up truck can be used to power your custom electronics. Some uses would include powering up caboose lights, sound decoders, cameras and more! Ring Engineering's Power Pick-Up Truck's use our End of Train Device electrical pick up system. Our four-wheel design has a truly dependable connection to the track. All four wheels have independent suspension to allow proper connection on slightly uneven track. All four wheels are also used for electrical connection to further enhance dependability!

Technical Support

Ring Engineering will provide technical support on the Power Pick-Up truck. However, Ring Engineering cannot provide technical support on electrical circuit design for the product that you are attaching to our Power Pick-Up Truck. Technical support on electrical circuit design is not included in the price of this product.

Installation Instructions**STEP 1 Drill a Hole to Pass the Wires Through****STEP 2 Free the Circuit Board to get access to the Truck Mounting Screw**

Use 1/8 inch Flat Blade Screw Driver and free axle on the opposite side that the wire exits the circuit box.
Important: See next picture. Gently, pry each side frame out just far enough to free the axle from the side frame pocket.



CAUTION: The axles are attached to the circuit board by a light gauge wire that can be damaged if care is not taken during this step and step 4. Physical damage will be considered abuse and will not be covered under the limited warranty!

STEP 3 Attach the Truck to the Freight Car**STEP 4 Re-Attach the Circuit Board and Secure the Wires**

Set the wire slack so the truck can rotate enough to accommodate your tightest radius turn but be sure the wire does not hang down below the railhead of the track. Once the wire slack is correct, put some white glue or silicon sealant in the hole the wires pass through to hold their position. Do not use glue that will dissolve the insulation on the wire.

STEP 5 Connect Your Electronics

TIP: Using a capacitor or Super Capacitor is recommended to prevent short interruptions in power caused by dirty track. **NOTE:** A polarized capacitor needs to be installed after a bridge rectifier.

Maintenance

To keep your Power Pick-Up truck working well you will need to lubricate the bushings. Use 30W motor oil. This is the oil that is commonly used for lawn mower engines. Every 50 hours of operating or at least once a year you should put one small drop of oil on each bushing. You can use a toothpick to accomplish this task. Dip the toothpick into the oil, then touch the bushing axle interface. Remove any excess oil when finished.

Trouble Shooting

Symptom: Power is intermittent.
Action: Clean the wheels and the track.

Symptom: No Power
Action: The output wires are shorted. Remove the short and wait several minutes for the onboard short circuit protection to reset.

Symptom: Train Car derails.
Action: Be sure there is enough slack in the wire from the circuit board box to the hole in the bottom of the freight car to allow the wheels to rotate far enough to accommodate your tightest radius turn.
Action: The wire is hanging down too far and catching on the track. Set the proper wire slack as shown in step 4.

Limited One Year Warranty

Ring Engineering, Inc. (Ring Engineering) warrants that for a period of one year from the date of purchase, this product will be free from defects in material and workmanship. Ring Engineering, at its option, will repair or replace this product or any component of the product found to be defective during the warranty period. Replacement will be made with new or remanufactured product or component. If the product is no longer available, replacement may be made with a similar product of equal or greater value. This is your exclusive warranty.

This warranty is valid for the original retail purchaser from the date of initial retail purchase and is not transferable. Ring Engineering dealers, distributors, or retail stores selling Ring Engineering products do not have the right to alter, modify, or any way change the terms and conditions of this warranty.

The warranty does not cover normal wear of parts or damage resulting from negligent misuse of the product. Further, the warranty does not cover Acts of God, such as fire, flood, hurricanes, and tornadoes.

Ring Engineering shall not be liable for any incidental or consequential damages caused by the breach of any express or implied warranty or condition. Except to the extent prohibited by applicable law, any implied warranty of merchantability or fitness for a particular purpose is limited in duration to the duration of the above warranty. Ring Engineering disclaims all other warranties or conditions, express or implied statutory or otherwise. Some states or jurisdictions do not allow the exclusion or limitation of incidental or consequential damages or limitation on how long an implied warranty lasts, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights that vary from state to state.

How to Obtain Warranty Service

Send the product with a copy of the original sales receipt included by UPS or Parcel Post with insurance prepaid to:

Ring Engineering, Inc.
228 W. Lincoln Hwy. #167
Schererville, IN 46375

Make certain that your Ring Engineering product is properly packed to avoid damage in transit to the factory. Please allow four to six weeks for service. Please also make sure to include return and contact information (Your name, address, phone number and e-mail address if you have one).

If your Ring Engineering product is not covered by warranty, or has been damaged, an estimate of repair costs or replacement costs will be provided to you for approval prior to servicing or replacement.