



AUXILIARY TENDER PROTOCOUPLER® INSTALLATION INSTRUCTIONS FOR RAILKING BIG BOY TENDERS EQUIPPED WITH PROTO-SOUND®

Your RailKing Big Boy steam locomotive may be equipped with the state-of-the-art Proto-Sound® train control system that controls a variety of remote controlled functions. One of those functions is remote control uncoupling anywhere on your layout without the need for a mechanical uncoupling track section. In order to take advantage of the remote uncoupling feature, you need to install a ProtoCoupler® in place of the mechanical coupler on your auxiliary tender. The following instructions explain how to install the ProtoCoupler® onto the auxiliary tender and wire up the Big Boy tender for ProtoCoupler® use in the auxiliary tender.

Upgrading the Auxiliary Tender For ProtoCoupler® Use

Before the ProtoCoupler can be installed, you must remove and replace the mechanical coupler mounted on the auxiliary tender trailing truck. To remove the mechanical coupler, you will need to disassemble the chassis from the tender shell. The shell is attached to the chassis via six phillips screws. The trailing truck is attached to the chassis by one screw which can be accessed when the shell is removed. See Figure 1 for the screws' locations.



Figure 1: Removing The Auxiliary Tender Chassis

Next you need to remove the mechanical coupler from the trailing truck. Turn the truck over to reveal the bottom of the mechanical coupler and armature. You will see that the coupler and armature are sitting on a "T" Bar post that rides in the truck frame. The coupler, armature and T-Bar are all held in place by a spring and "C" Clip. The "C" Clip connects to the post and must be removed to allow the spring, armature and coupler to slide off the T-Bar. (See Figure 2) Use a small needle-point pair of pliers to grasp the "C" Clip and pull it away from the T-Bar post. Be careful to gently pull the "C" Clip off the post, keeping you

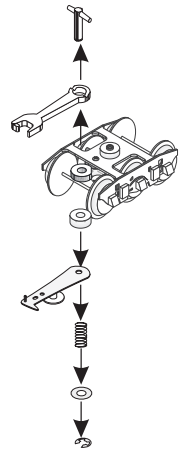


Figure 2: Removing the mechanical coupler and armature;

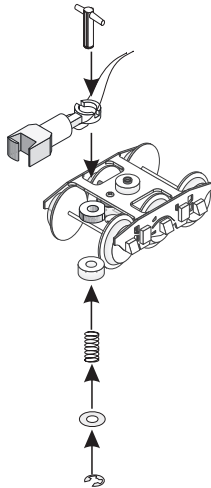


Figure 3: Installing the ProtoCoupler

hand over the post as the spring is under pressure and may fly off the post and could become lost.

Once the mechanical coupler has been removed, the ProtoCoupler can be installed by sliding the coupler over the T-Bar and replacing the spring and C-Clip as seen if Figure 3. Note that the mechanical coupler armature is no longer needed for the ProtoCoupler. Reattach the trailing truck to the chassis.

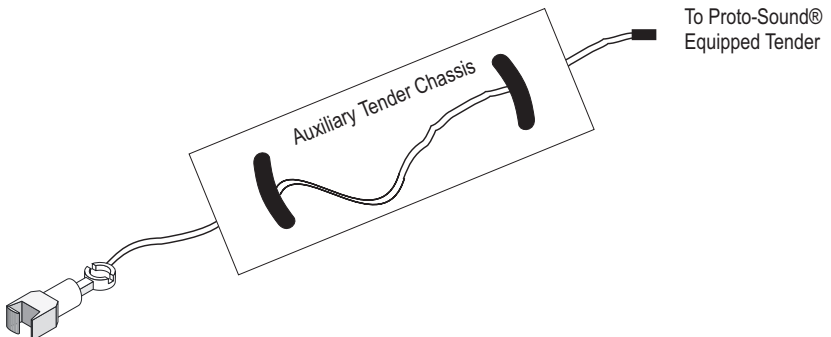


Figure 4: Feeding the ProtoCoupler harness up and into and out of the auxiliary tender chassis.

WIRING UP THE AUXILIARY TENDER PROTO-COUPLER® WIRE HARNESS KIT INSIDE A RAILKING BIG BOY TENDER

1. Remove the tender shell on the Big Boy tender by unscrewing the six screws on the tender chassis as seen in Figure 5.
2. Remove the trailing truck on the Big Boy tender by unscrewing its mounting screw located on the bottom of the tender chassis.
3. Remove the existing ProtoCoupler® on the Big Boy tender by following the instructions in Figure 2 utilizing the same removal steps as on the auxiliary tender.
4. Install the new ProtoCoupler® found in the kit to the Big Boy trailing truck as seen in Figure 3. Once installed, feed the ProtoCoupler® harness up into the tender and insert the blue plug into the ProtoSound® circuit board as seen in Figure 6.
5. Screw the ProtoCoupler® selector switch onto the Big Boy tender floor. This switch allows the operator to choose which ProtoCoupler® will function, the Big Boy or the auxiliary tender.

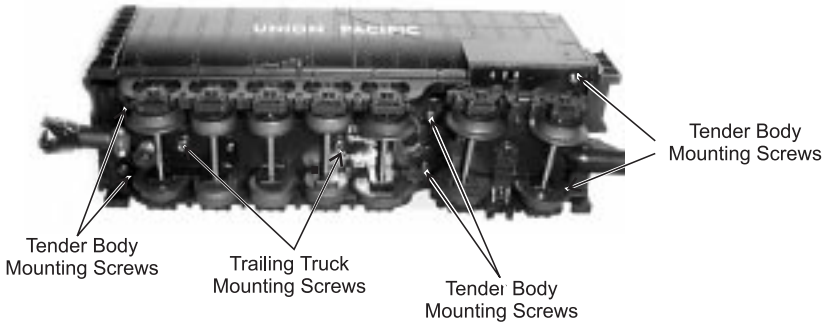


Figure 5: Removing the Big Boy Tender Shell

6. Once the new ProtoCoupler® has been installed, the selector switch mounted and the blue plug on the new ProtoCoupler® harness plugged into the Proto-Sound® board, slide the black 2-wire female connector on the ProtoCoupler® harness out the slot on the tender floor (just above the rear trailing truck where the ProtoCoupler®

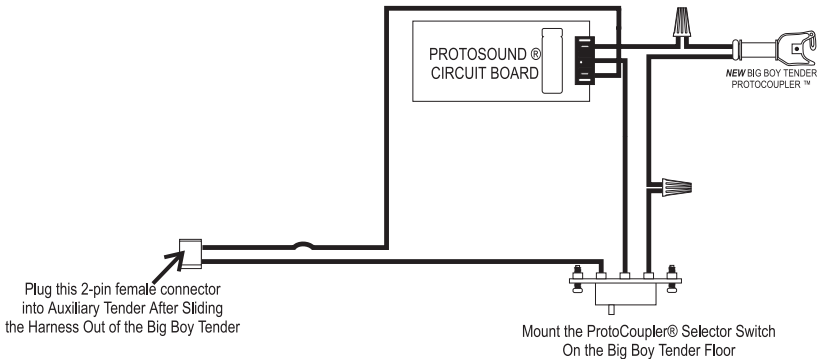


Figure 6: Wiring up the Auxiliary Tender ProtoCoupler® Harness to the Proto-Sound® Board.

harness is inserted into the chassis. This 2-wire plug will mate up with the 2-wire plug extending out of the auxiliary tender when the ProtoCoupler® for the auxiliary tender was installed.

Testing And Operating The ProtoCouplers

Plug the locomotive ProtoCoupler harness into the tender ProtoCoupler harness (which extends out of the front of the tender chassis. Then plug in the ProtoSound reverse unit harness into the back of the locomotive and place the engine and tender chassis onto the track for testing. Once both harnesses are connected and the engine is on the track, advance the throttle setting to activate ProtoSounds. The engine will enter the RESET phase and power must be interrupted again to enter the Forward phase causing the engine to move out in forward. Turn the throttle off and then back on again to enter Neutral. Once in Neutral, set the throttle setting at 14 volts or higher so that you can arm the coupler. Once the coupler is armed, you will be able to fire the coupler at anytime, anywhere and in any direction state.

To arm and fire the coupler (after entering neutral and setting the throttle at 14 volts or higher), press the transformer whistle button. This action will arm the coupler and is indicated by a “ka-klunk” sound. Once armed, the coupler will fire open the next time you press the whistle button. You can press the button in any direction, including neutral. When pressed, the coupler coil will be energized and the knuckle will open, followed by the “pusheee” sound of the air release sounds. In order to fire the coupler again, you will have to rearm the coupler by reentering neutral and pressing the whistle button at 14 volts or higher.

WARNING:

When using electrical products, basic safety precautions should be followed including the following:

-- Read this and all related manuals (transformer/power supply, locomotive, etc.) thoroughly before using this device.

--Figure— This device is not recommended for children under ten years of age without adult supervision.

-- MTH recommends parents examine the toy transformer used to power this device periodically for conditions that may result in the risk of fire, electric shock, or injury to persons, such as damage to the primary or output cord, plug blades, housing or other parts (including proper functioning of the circuit breaker), and that, in an event such conditions exist, the transformer should not be used until properly repaired.

RAIINKING

SERVICE & WARRANTY INFORMATION

HOW TO GET SERVICE UNDER THE TERMS OF THE LIMITED ONE YEAR WARRANTY

For warranty repair, do not return your product to the place of purchase. Instead, follow the instructions below to obtain warranty service as our dealer network is not prepared to service the product under the terms of this warranty.

1. First, write, call or FAX RailKing, 7020 Columbia Gateway Drive, Columbia, MD 21046, 410-381-2580 (FAX No. 410-381-6122), stating when it was purchased and what seems to be the problem. You will be given a return authorization number to assure that your merchandise will be properly handled upon its receipt.

2. CAUTION: Make sure the product is packed in its original factory packaging including its foam and plastic wrapping material so as to prevent damage to the merchandise. The shipment must be prepaid and we recommend that it be insured. ***A cover letter, including your name, address, daytime phone number, Return Authorization number, a copy of your sales receipt and a full description of the problem, must be included to facilitate the repairs. Please include the description regardless of whether you discussed the problem with one of our service technicians when contacting MTH for your Return Authorization number.***

3. Please make sure you have followed the instructions carefully before returning any merchandise for service.

LIMITED ONE YEAR WARRANTY

This item is warranted for one year from the date of purchase against defects in material or workmanship. We will repair or replace (at our option) the defective part without charge for parts or labor, if the item is returned to the address below within one year of the original date of purchase. This warranty does not cover items that have been abused or damaged by careless handling. Transportation costs incurred by the customer are not covered under this warranty.

This warranty gives you specific legal rights and you may have other rights which vary from state to state.

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