

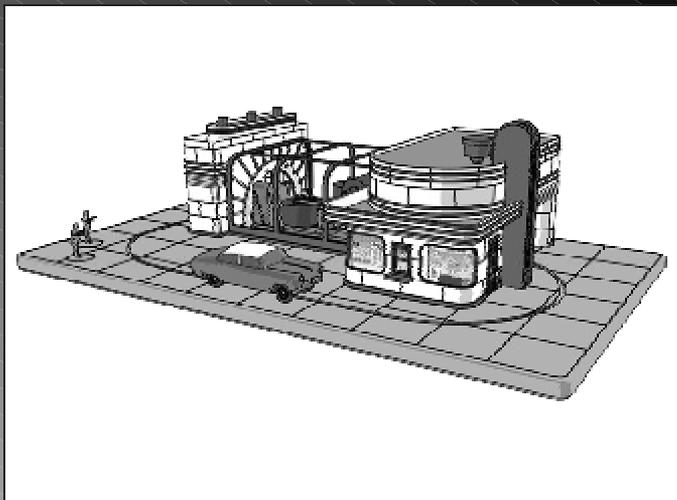


M.T.H.

ELECTRIC TRAINS

7020 Columbia Gateway Drive
Columbia, MD 21046-1532

www.mth-railking.com



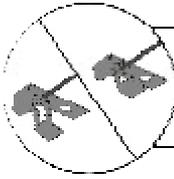
The RailKing® Operating Car Wash is sure to add fun and authenticity to any layout. With moving car and figures, digital conversations, and even a smoke unit to replicate the mist inside the car wash, this operating building really comes alive.

As complex as the car wash seems, it is easy to run and maintain when you follow the easy operating instructions inside.

Operating Car Wash

WIRING INSTRUCTIONS

The RailKing Car Wash is made up of three components: the car wash building and base, the car, and the activation button. Before you place the car wash on the layout, you must wire the car wash to the activation button and power source. In order to connect power to each component, the six (6) enclosed wires must be connected to the wiring posts located on the underside of the car wash and the activation button. Wires from ports A-C control the car operation. Wires from ports D-E control the lights. Follow the diagram (Fig 1) shown to make the correct connections.



Strip Z-wire cable harness insulation to reveal 1/4" of bare wire.

- A)** Connect Red wire to transformer AC and connect Black wire to activation button
- B)** Connect Black wire to transformer ground
- C)** Connect Black wire to activation button
- D)** Connect Red wire to transformer AC
- E)** Connect Black wire to transformer ground

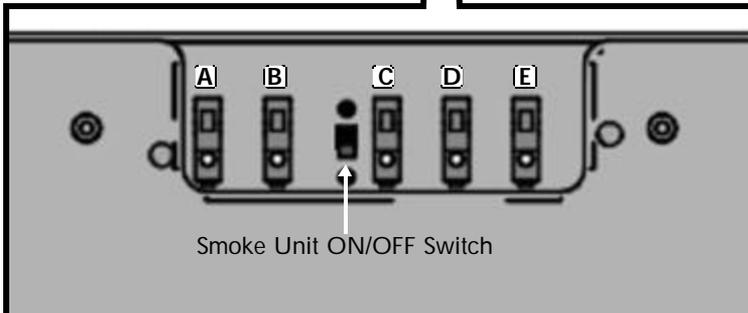
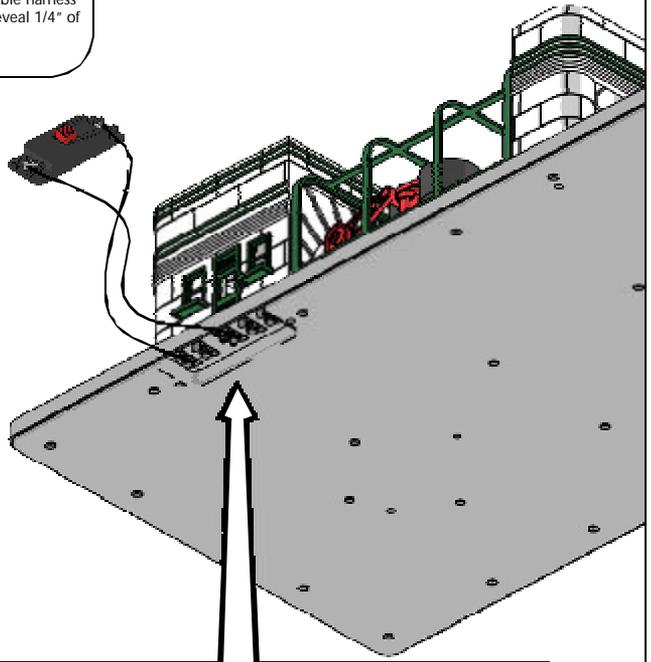


Fig 1. Wiring Diagram and Location of Smoke Unit ON/OFF Switch

Priming the Smoke Unit

Priming the Smoke Unit: The smoke unit is essentially a small heating element and wick. The wick soaks up a mineral oil-based fluid, which is then "cooked" by the heating element to emit a harmless smoke. It is forced into the car wash by a small electric fan that runs at a constant speed. It is essential that you either prime the smoke unit or turn the smoke unit off before you operate the car wash. Failure to do so could result in a charred wick and damaged mechanisms.

1. To prime the unit, remove the cap of the smoke stack on top of the car wash (Fig. 2) and add 15-20 drops of ProtoSmoke (included is a small pipette of ProtoSmoke fluid), Seuthe, LGB, or LVTS smoke fluid through the hole. Then gently blow into the hole to eliminate bubbles. Do not overfill the unit, as that can cause the fluid to leak out and coat other interior components. When smoke output begins to diminish, add another 10-15 drops of fluid.

2. If you choose not to prime the smoke unit, turn it off using the switch located on the bottom of the car wash base, next to the wiring post (Fig 1).

3. When storing the car wash for long periods of time, you should add at least 15 drops of fluid to prevent the wick from drying out. After removing it from storage, add another 25 drops of fluid, letting the wick soak for 15 minutes prior to operation.

Failure to keep enough oil on the wick while operating the car wash can cause the wick to become black, hard, and un-absorbent around the heating element. See page 7 to check the condition of the wick.

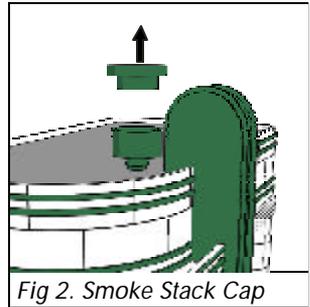


Fig 2. Smoke Stack Cap

Operating Instructions

Operating Instructions: Before operating the car wash, you must first place the two drying figures and the car on the base. Insert the tabs on the bottoms of the drying figures into their slots in the following order: The man wearing the white shirt goes in the slot nearest the car wash exit, and the man in the gray shirt goes in the slot farther from the car wash exit. Place the car on the tab in its track. See the diagram on page 5 for the figure and car placement.

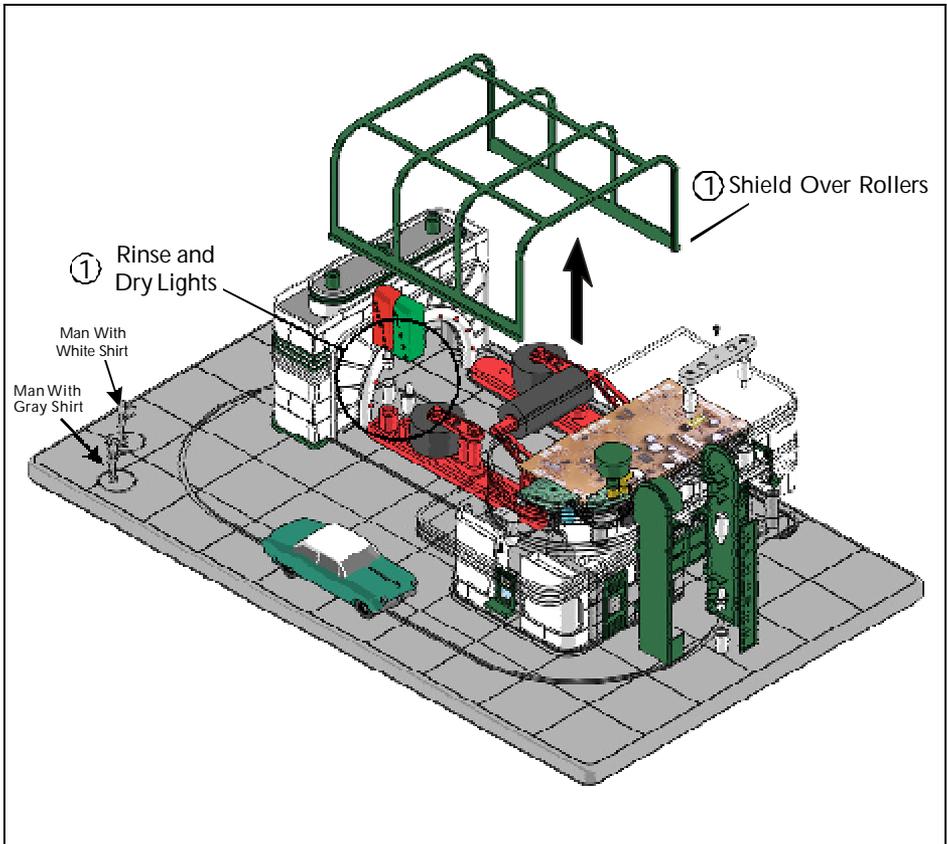
Once the car wash is wired to receive at least a 14-20 volt power supply from the transformer and the transformer is turned on, simply press the activation button to begin the car wash sequence.

The car starts, pulls forward to the window to talk to the attendant and pay for the car wash, and pulls around to the car wash doors. The doors open to allow the car to enter. The car spends about 15 seconds in the car wash, during which time the smoke unit will supply car wash "mist" and the "Rinse" light will activate. The car pulls out through the rollers and stops at the red light for a dry. Finally it pulls around to the two figures who buff the car, then pulls away. The car wash doors shut after the car has cleared the car wash. The car wash completes all of these actions by itself, with just the initial press of the activation button.

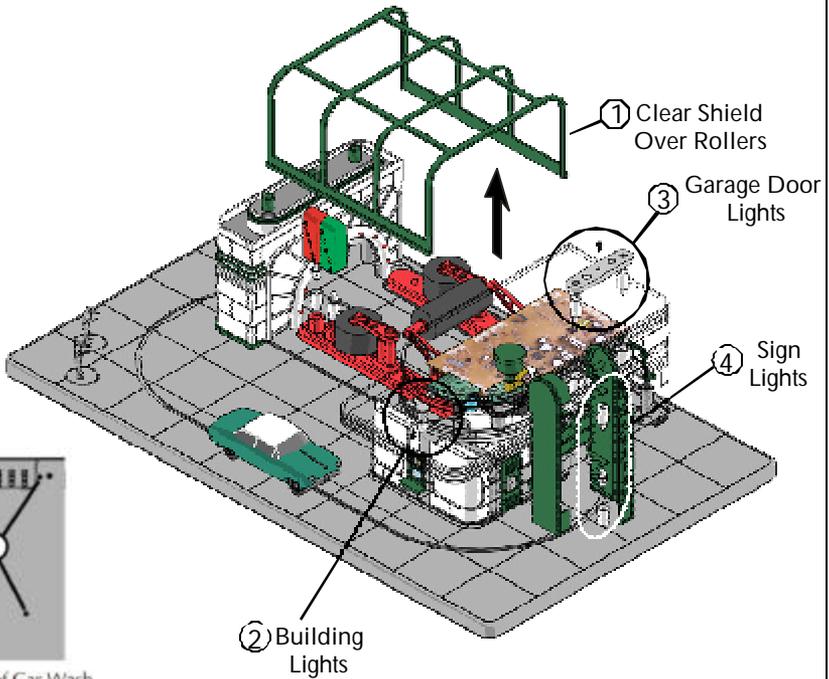
The motion and sound can be stopped at any time by turning the power off or by pressing the transformer's "Direction" button. Once the power is returned, the car will return to its starting position without sound effects.

Changing the Lights

You can obtain replacement bulbs directly from the M.T.H. parts department (phone: 410-381-2580; e-mail: parts@mth-railking.com; mail: 7020 Columbia Gateway Drive, Columbia MD 21046-1532).



- ① **Rinse and Dry Lights:** Remove the clear shield over the rollers and gently pop the green and red rinse and dry sign off the base of the car wash. Pull the lights out and push the new ones in to replace them (like Christmas tree lights).



① To access and change the other lights: Remove the clear shield over the rollers. Remove the four (4) recessed screws from the bottom of the car wash, turn it back over, and tilt the car wash housing to reveal the lights. You will also need to unplug some of the connections from the PCB to remove the housing. Refer to the PCB Diagram on page 8.

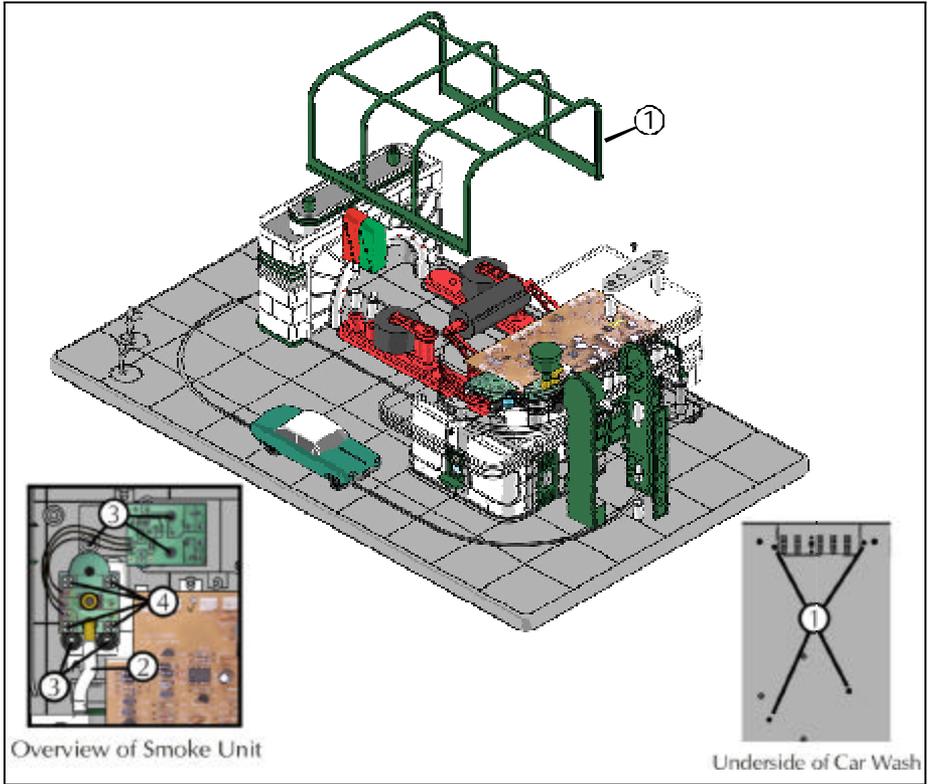
1. Smoke Unit wiring is red and white and connects into port SD
2. Garage Door Light wiring is gray and white and connects into port SL
3. Building Light wiring is green and white and connects into port CL
4. "Speedee" Sign Light wiring is gray and white and connects into port ADL

② **Building Light:** Twist the light bulb counterclockwise to remove it. Push the replacement bulb in and twist it clockwise.

③ **Garage Door Light:** Gently pull out the light. To replace it, simply push the new light in, just like the rinse and dry lights.

④ **Sign Lights:** Gently pull the sign down and out. Pull the side off the sign to expose the lights. Pull the lights out and push the new ones in to replace them, just like the garage door lights.

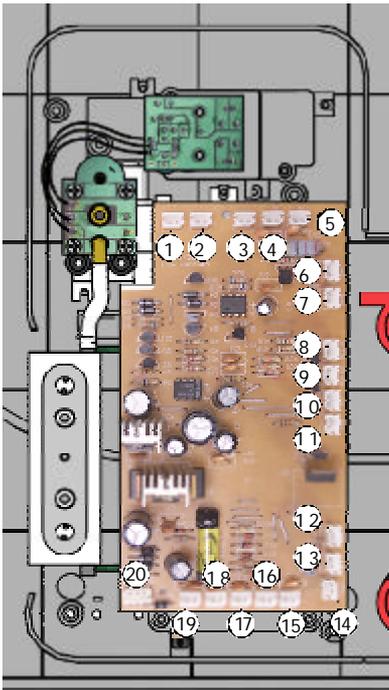
Inspecting the Smoke Unit



To check the condition of the wick, do as follows.

- ① Remove the clear shield over the rollers. Remove the four (4) recessed screws from the bottom of the car wash, turn it back over, and tilt the car wash housing to reveal the smoke unit. You will also need to unplug some of the connections from the PCB to remove the housing. Refer to the PCB Diagram on page 8.
 1. Smoke Unit wiring is red and white and connects into port SD
 2. Garage Door Light wiring is gray and white and connects into port SL
 3. Building Light wiring is green and white and connects into port CL
 4. "Speedee" Sign Light wiring is gray and white and connects into port ADL
- ② Disconnect the tube that connects the smoke unit to the pipe in the bay door
- ③ Remove the five mounting screws that hold the smoke unit to the under side of the roof of the car wash housing
- ④ Remove the four screws from the top of the smoke unit to reveal the wick
- ⑤ Inspect the wick , if the wick is darkly discolored and hard, it should be replaced.

Wiring Diagram of the PCB (Printed Circuit Board)



PCB Board Diagram

1. Interior Light (DE)
2. Sign Light (ADL)
3. Cashier Light to PCB (CL)
4. Door Motor to PCB (DM)
5. Car Motor to PCB (CM)
6. Door Opening micro switch to PCB (DO)
7. Door Closing micro switch to PCB (DC)
8. Rinse Light (RINSE)
9. Warming Light (WARN)
10. Garage Door Light (SL)
11. Smoke Unit to PCB (SD)
12. Smoke Activation micro switch to PCB (SMOKE ON/OFF)
13. LED to PCB (9LED)
14. Speaker to PCB (SPK)
15. Micro Switch E
16. Micro Switch D
17. Micro Switch C
18. Micro Switch B
19. Micro Switch A
20. AC Power (AC POWER)

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 M.T.H. Electric Trains, 7020 Columbia Gateway Drive, Columbia, MD 21046, (Tel: 410-381-2580; FAX : 410-423-0009; e-mail: service@mth-railking.com), 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, e-mail address (if available), 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 M.T.H. 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

All M.T.H. products purchased from an Authorized M.T.H. Train Merchant are covered by this warranty.

See our website at www.mth-railking.com or call 1-888-640-3700 to identify an Authorized M.T.H. Train Merchant near you.

M.T.H. products are warranted for one year from the date of purchase against defects in material or workmanship, excluding light bulbs and traction tires. We will repair or replace (at our option) the defective part without charge for the parts or labor, if the item is returned to M.T.H. Electric Trains within one year of the original date of purchase. This warranty does not cover damages caused by improper care, handling, or use. Transportation costs incurred by the customer are not covered under this warranty.

Items sent for repair must be accompanied by a return authorization number, a description of the problem, and the **original sales receipt from an Authorized M.T.H. Train Merchant**, which gives the date of purchase. Call 410-381-2580, fax 410-423-0009, or e-mail the Service Department at service@mth-railking.com to obtain a return authorization number.

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

Service Department
M.T.H. Electric Trains
7020 Columbia Gateway Drive
Columbia MD 21046-1532