

Tinplate Traditions® Traditional 408E Electric Engine Operating Instructions



Thank you for purchasing the M.T.H. Tinplate Traditions 408E Locomotive. This locomotive runs on Standard Gauge three-rail track and can handle a 72" curve. It runs on 14-20 volts AC (Alternating Current).

**Warning:** Do not lift this engine by its handrails. They cannot support the weight of the engine.

## CAUTION:

# THIS LOCOMOTIVE WEIGHTS 20LBS. USE CARE WHEN LIFTING OR MOVING THIS LOCOMOTIVE.

# **Mechanical Reversing Unit**

The locomotive is stopped, started, and reversed by means of the reversing "E-Unit" located inside the locomotive. The E-Unit is a four-position sequence relay that cycles whenever current to the locomotive is interrupted. The engine may come up in forward, neutral or reverse.

Firmly press and release the Direction button on the transformer or quickly drop and restore the throttle to allow the engine to change direction. Just as you must stop your automobile between forward and reverse, this engine will not go directly from forward to reverse; it goes into neutral between directions. If the train has been moving forward, the first press of the Direction button will put the train from forward into neutral, the second press into reverse, the third press back into neutral, and the fourth back into forward.

If you want to operate the train in one direction only, which is necessary if you have automatic stations or insulated blocks in your layout, you must "lock out" the E-Unit.

1. Make sure the locomotive is moving in the desired direction, then turn off the track power.

2. Move the E-Unit lever to the "OFF" position.

If the E-Unit is locked out while it is in the Neutral position, the locomotive will not run at all. Because the E-Unit worked partially by gravity, it may not operate properly if the locomotive is held on its side or upside down.

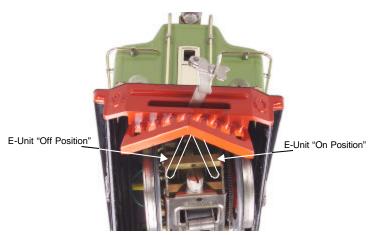


Figure 1. Positioning the E-Unit Switch to Lock or Un-Lock the Direction

# Lubricating the Locomotive

Use motor oil (10W-40 or 10W-30) for lubrication. Apply oil sparingly, using a toothpick or similar applicator. Before beginning, please be sure to have several toothpicks and cotton swabs handy to apply oil and clean up the excess. Familiarize yourself with the location of the oiling points (see Fig. 2 on page 4) before beginning. Apply oil before operating and after every seven hours of operation.

### Lubricating the Wheel Gears (Fig. 2, #1)

Slowly turn the drive wheels by hand an apply oil to the wheel gears until all teeth on all four gears are moist. Wipe away excess oil with a cotton swab.

### Lubricating the Intermediate Gears (Fig. 2, #2)

Slowly turn the drive wheels by hand and oil the six intermediate gears until all gear teeth are moist. Note: Four gears are double-gears: both sets of teeth should be oiled. Wipe away excess oil with a cotton swab.

### Lubricating the Ends of the Armature Shafts (Fig. 2, #3)

On the geared end of the armature shafts: place a single drop of oil at the point where the shafts just protrude through the bearings.

On the other end of the armature shafts: place a single drop of oil where the shafts extend through the insulating plate between the brass brush holders. Dc not put oil on the brush holders.

Wipe away excess oil with a cotton swab.

### Lubricating the Drive Axles (Fig. 2, #4)

Position one end of the locomotive downward so that you can see one of the drive axles on each motor. Using a toothpick or length of wire, carefully apply two drops of oil to the axles at all four bronze bearings

Turn the locomotive around so that you can see the other two drive axles. Carefully apply two drops of oil on the axles at the bronze bearings.

### Lubricating the Pickup Rollers (Fig. 2, #5)

Apply a small drop of oil at the axles of the pickup rollers. Wipe away excess oil with a cotton swab. The rolling surface should be free of oil.

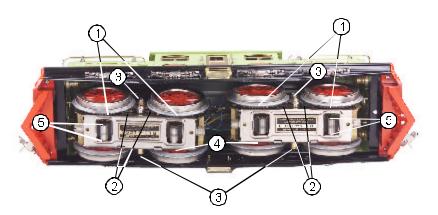


Figure 2. Lubrication Diagram

# **Replacing the Lamps**

The 408E uses three types of bulbs (red, green & clear) all are 18v screwbase bulbs.

To replace a burned out bulb, twist the bulb counter clockwise until the bulb comes out, then screw in the replacement bulb.

Replace the clear headlamps with M.T.H. MS-0000016 clear lamps.

Replace the red marker lamps with M.T.H. MS-0000017 red lamps.

Replace the green marker lamps with M.T.H. MS-0000006 green lamps.

Replacement bulbs are available 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).

# CAUTION: Electrically Operated Product:

Not recommended for children under 10 years of age. M.T.H. recommends adult supervision with children ages 10 - 16. As with all electric products, precautions should be observed during handling and use to reduce the risk of electric shock.

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

- Read this manual thoroughly before using this device.

- M.T.H. recommends that all users and persons supervising use examine the hobby transformer periodically for conditions that may result in the risk of fire, electric shock, or injury to persons, such as damage to the primary cord plug blades, housing, output jacks or other parts. In the event such conditions exist, the transformer should not be used until properly repaired.

- As with all electrical appliances, this product should not be left in operation when unattended

# 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 M.T.H. Electric Trains, 7020 Columbia Gateway Drive, Columbia, MD 21046, (Tel 410-381-2580; FAX No.: 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 warrantied 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 a copy of 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 t o state.

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



# PARTICIPATING RETAILER LIST

#### ALABAMA

SOUTHERLAND STATION HUNTSVILLE 256-533-4720 railway@bellsouth.net

### ARIZONA

ARIZONA TRAIN DEPOT MESA 480-833-9486 sales@arizonatraindepot.com/ www.arizonatraindepot.com/

### CALIFORNIA

DOLLHOUSES, TRAINS & MORE NOVATO 415-883-0388 kbecker@cmc.net

TIN PLATE JUNCTION OAKLAND 510-444-4780 TOYTRAINS@email.msn.com

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BRASSEUR ELECTRIC TRAINS INC. SAGINAW 517-793-4753 bob@traindoctor.com www.traindoctor.com

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