



Tinplate Mountaineere Electric Locomotive

OPERATOR'S MANUAL



TRADITIONAL MODEL

Compatibility

This engine will operate on any traditional Standard Gauge tubular track system, including M.T.H.'s tubular track. It is also compatible with most standard AC transformers. (See page 18 for a complete list of compatible transformers and wiring instructions.)

PLEASE READ BEFORE USE AND SAVE

Table of Contents

Set Up Checklist	3
Lubrication.....	3
Basic Operation	4
Maintenance	5
Lubricating and Greasing Instructions.....	5
Cleaning The Wheels and Track.....	6
Headlight Replacement Instructions.....	6
Transformer Compatibility and Wiring Chart.....	7
Service & Warranty Information.....	8
Limited One-Year Warranty.....	8

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 observed, 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 and other electronic equipment 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 train set should not be used until properly repaired.
- Do not operate your layout unattended. Obstructed accessories or stalled trains may overheat, resulting in damage to your layout.
- This train set is intended for indoor use. Do not use if water is present. Serious injury or fatality may result.
- Do not operate the hobby transformer with damaged cord, plug, switches, buttons or case.

Set Up Checklist

- Lubricate the locomotive
- Apply power to run as described in the Basic Operating Section of this manual
- Headlight bulbs and Couplers need to be installed by operator. Included, packaged separately

Lubrication

You should lubricate the engine to prevent it from squeaking. Use light household oil and follow the lubrication points marked “L” in Fig. 1. Do not over-oil. Use only a drop or two on each pivot point.

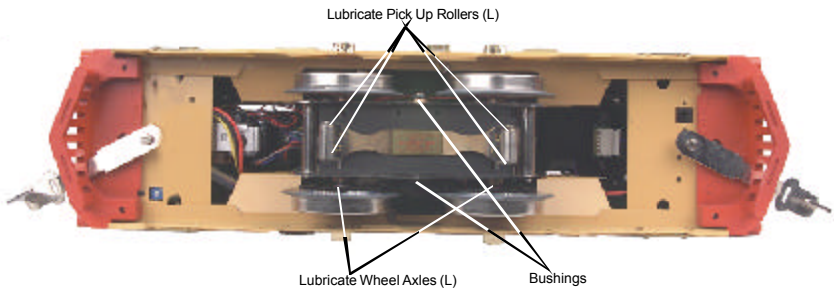


Figure 1. Lubrication Points on the Locomotive

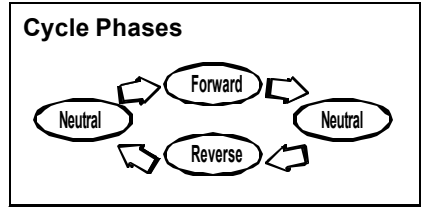
Basic Operation

The Throttle knob controls how fast your train will travel.

Turn the throttle knob up ½-way, until the engine and caboose lights shine bright.

Put the engine into motion by pressing the Direction button on your transformer once. (hold it for approximately 1 second)

If the engine does not begin to move as soon as you firmly press the Direction button, you may not have sent enough voltage to the track to make the train move. Turn the throttle up a bit higher until the train begins to move.



Maintenance

Lubricating and Greasing Instructions

The engine should be well oiled and greased in order to run properly.

Regularly lubricate all axles and linkage components and pickup rollers to prevent squeaking. Use light household oil, such as that found in M.T.H.'s maintenance kit. Do not over oil. Use only a drop or two on each pivot point.

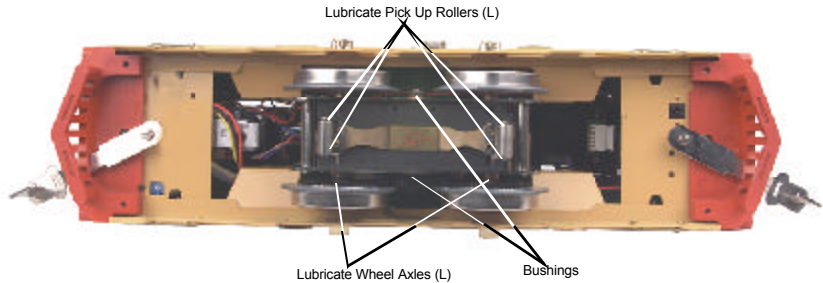


Figure 3

The locomotive's internal gearing was greased at the factory and should not need additional grease. However, it will be necessary to lubricate the idler gears located next to the drive wheels with grease every 25 hours of operation. Follow the greasing points illustrated in Figure 4.

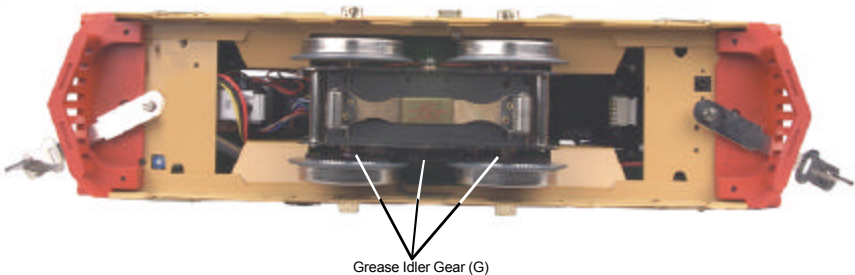


Figure 4

Cleaning The Wheels and Track

Periodically check the locomotive wheels and pickups for dirt and buildup, which can cause poor electrical contact and traction. Wheels can be cleaned using denatured (not rubbing) alcohol applied with a cotton swab.

To clean the track, use RailKing Track Cleaning Fluid and a clean rag or denatured (not rubbing) alcohol. Unplug the transformer and wipe the rails of the track, turning the rag frequently to ensure that you are using clean cloth on the rails. Thereafter, keep an eye on the track and clean it when it gets dirty to ensure good electrical contact and to lengthen the life of the tires.



Headlight Replacement Instructions

The locomotive's headlights are controlled by a constant voltage circuit in the engine. The headlight is easy to remove and replace when it burns out. The bulb(s) simply unscrew from their sockets. Replacement bulbs are available directly from the M.T.H. Parts Department.



Transformer Compatibility and Wiring Chart

Proto-Sound 2.0 is designed to work with most standard AC transformers. The chart below lists the many compatible transformers. Note the chart details how the terminals on these transformers should be attached to your layout.

Transformer Model	Center Rail	Outside Rail	Min/Max. Voltage	Power Rating	Transformer Type
MTH Z-500	Red Terminal	Black Terminal	0-18v	50-Watt	Electronic
MTH Z-750	Red Terminal	Black Terminal	0-21v	75-Watt	Electronic
MTH Z-4000	Red Terminal	Black Terminal	0-22v	390-Watt	Electronic
Lionel 1032	U	A	5-16v	90-Watt	Standard
Lionel 1032M	U	A	5-16v	90-Watt	Standard
Lionel 1033	U	A	5-16v	90-Watt	Standard
Lionel 1043	U	A	5-16v	90-Watt	Standard
Lionel 1043M	U	A	5-16v	90-Watt	Standard
Lionel 1044	U	A	5-16v	90-Watt	Standard
Lionel 1053	U	A	8-17v	60-Watt	Standard
Lionel 1063	U	A	8-17v	60-Watt	Standard
All-Trol	Left Terminal	Right Terminal	0-24v	300-Watt	Electronic
Dallee Hostler	Left Terminal	Right Terminal			Electronic
Lionel LW	A	U	8-18v	75-Watt	Standard
Lionel KW	A or B	U	6-20v	190-Watt	Standard
Lionel MW	Outside Track Terminal	Inside Track Terminal	5-16v	50V.A.	Electronic
Lionel RS-1	Red Terminal	Black Terminal	0-18v	50V.A.	Electronic
Lionel RW	U	A	9-19v	110-Watt	Standard
Lionel SW	U	A	Unknown	130-Watt	Standard
Lionel TW	U	A	8-18v	175-Watt	Standard
Lionel ZW	A,B,C or D	U	8-20v	275-Watt	Standard
Lionel Post-War Celebration Series ZW	A,B,C or D	Common	0-20v	135/190 Watt	Electronic

* Conventional Mode Only

Service & Warranty Information

How to Get Service Under the Terms of the Limited One-Year Warranty

For warranty repair, follow the instructions below to obtain warranty service.

First, e-mail, write, call or fax an Authorized M.T.H. Service Center in your area or M.T.H. Electric Trains to obtain Repair Authorization. You can find the list of Authorized Service Centers on the M.T.H. website, www.mth-railking.com. Authorized Service Centers are required only to make warranty repairs on items sold from that store; all other repairs may or may not be done at the store's own discretion. Otherwise, contact M.T.H. (fill out the Service Contact form in the Service Section of www.mth-railking.com; send US mail to the address listed below; tel: 410-381-2580; fax: 410-423-0009), stating when the item was purchased and describing the problem. If you contact M.T.H., you will be given a return authorization number to assure that your merchandise will be properly handled upon its receipt.

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 a service technician when contacting the Service Center or M.T.H. for your Return Authorization.*

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 wear items such as light bulbs, pick-up rollers, batteries, smoke unit wicks, 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 an Authorized M.T.H. Service Center or 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. If you are sending the item to M.T.H., fill out the Service Contact form in the Service Section of www.mth-railking.com; send US mail to the address listed below; call 410-381-2580, or fax 410-423-0009 to obtain a return authorization number. If you are sending this product to an Authorized Service Center, contact that Center for their return authorization.

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



PARTICIPATING RETAILER LIST

ALABAMA

SOUTHERLAND STATION
HUNTSVILLE
256-533-4720
ailway@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

COLORADO

MIZELL TRAINS Inc
WESTMINSTER
303-429-4811
mizelltrains@cs.com
www.mizelltrains.com

CONNECTICUT

SHELTON RAILROAD SYSTEMS
SHELTON
203-924-8761
adriani@clearlight.com
NEW ENGLAND HOBBY SUPPLY
MANCHESTER
860-646-0610
bobbell@nehobby.com

DELAWARE

K R R B MODEL TRAINS IN C.
NEWARK
302-292-2779
info@krb.com
www.krb.com

FLORIDA

DEPOT HOBBY SHOP
LAKE WORTH
561-585-1982
jimmy11982@aol.com
www.depot hobbies.com

COLONIAL PHOTO & HOBBY

ORLANDO
407-841-1485
trains@colonialphotoandhobby.com

WARRICK CUSTOM HOBBIES

PLANTATION
954-370-0708
info@warrickcustomhobbies.com
www.warrickcustomhobbies.com

FRANK'S TRAINS & HOBBIES INC.

OLDSMAR
813-855-1041
FTH@allhobbies.com
www.allhobbies.com

READY TO ROLL

MIAMI
305-688-8868
rttrains@aol.com
www.readytorolltrains.com

ILLINOIS

BIKE & CHOO CHOO CONNECTION
SCHAUMBURG
847-882-7728
trainconnection@aol.com

INDIANA

Y. O. R. K. TRAINS
MUNSTER
219-838-9999
yorktrains@aol.com

SAMUELSON'S TRAIN SHOP

VALPARAISO
219-462-2708

LOUISIANA

AMERICA'S TRAIN YARD
BATON ROUGE
225-926-5592

MAINE

WHEELS, WINGS & THINGS
LUDLOW
207-532-6277
iro44@javanet.com

MARYLAND

ENGINE HOUSE HOBBIES
GAIHERSBURG
301-590-0816
luciecerise@aol.com

J & B TRAINS

HAGERSTOWN
240-420-4930

HOBBYTOWN U S A

FREDERICK
301-694-7395

PURKEY'S TOY TRAINS

SYKESVILLE
410-549-6061
wiley@oldmainline.com

THE TRAIN ROOM

HAGERSTOWN
301-745-6681

MASSACHUSETTS

NORTHEAST TRAINS
PEABODY
978-532-1615
www.netrains.com

MICHIGAN

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

MISSOURI

SWITCH STAND
SAINT LOUIS
314-781-4458
r41877@earthlink.com

MARK TWAIN HOBBY CENTER
ST. CHARLES
636-946-2816
webmaster@hobby1.com
www.hobby1.com

NEW HAMPSHIRE

TREASURED TOYS
SALEM
603-898-7224
ttoys@treasured-toys.com
www.treasured-toys.com

RAILROAD SPECIALTIES
HUDSON
603-882-5566
crew@electric-trains.com
www.electric-trains.com

NEW JERSEY

TRAINS & THINGS
TRENTON
609-883-8790
trainsanthings@aol.com

GRAND CENTRAL STATION
KEARNY
201-955-6200
228gene@gateway.com

HOBBYMASTERS, INC
RED BANK
732-842-6020
hobbymasters@hobbymasters.com

HOLLY BEACH TRAIN DEPOT
WILDWOOD
609-522-2379
larry@pro-usa.net

COAST TRAINS AND COLLECTIBLES
WALL
732-556-9005
coasttrain@aol.com
www.coasttrains.com

J & B TRAINS, INC.
MAPLESHADE
856-414-0092
BASE1130@aol.com

HOBBY SHOP
MATAWAN
732-583-0505
hobbyshopnj.com

ATLANTIC RAILS
HAMMONTON
609-567-8490
bobcap@pics.com
www.atlanticrails.com

COUNTRY AND STUFF
ANDOVER
973-786-7086
stuff@crystal.palace.net

RIDGEFIELD HOBBY
RIDGEFIELD
201-943-2636

COLUMBUS TRAIN STATION
COLUMBUS
609-518-1800

NEW YORK

AURORA RAILS & HOBBIES
EAST AURORA
716-652-5718
rk82141@aol.com

AMERICANA STORE
TIVOLI
845-757-4246
mthdepot@valstar.net

NASSAU HOBBY CENTER, INC.
FREEPORT
516-378-9594
Charlienassau@aol.com

KROSSHARDWARE
WEST BABYLON
631-669-3069
t989@aol.com

CITY DEPOT, INC.
NEW HAMPTON
845-374-3010
citydepot@frontier.net
www.citydepot.com

NORTHCAROLINA
DRYBRIDGE STATION
MOUNT AIRY
336-786-9811
mikek@drybridgestation.com
www.drybridgestation.com

THE FREIGHTYARD
SMITHFIELD
919-934-6229
disbissette@aol.com

TRAINSLTD.
CHARLOTTE
704-566-9070
modelrns@bellsouth.net
www.trainsltd.com

THE ROUNDHOUSE & BACKSHOP
CARY
919-465-0810

OHIO
DIXIE UNION STATION
MASON
513-459-0460
rockylane@core.net
www.dixieunionstation.com

RICK'S TOY TRAINS
TOLEDO
419-478-0171

T & K HOBBY SHOP
BRIDGEPORT
740-633-6607
salea@tkhobbies.com
www.tkhobbies.com

TRAINS-N- THINGS
CANTON
330-499-1666
trains@sssn.net

PARMA HOBBY
CLEVELAND
216-741-6440
info@parmahobby.com

GLEN'S TRAIN SHOP
AKRON
330-253-6527

E & S TRAINS
AKRON
330-745-0785

GRAND PACIFIC JUNCTION
OLMSTEAD FALLS
440-235-4777
gpmir@juno.com
HUDSON TOY, TRAIN & HOBBY
HUDSON
330-653-2997
ejpickens@aol.com

DAVIS ELECTRONICS
MILFORD
513-831-6425
davistrains@fuse.net
www.davistrains.com

SANDY'S HOBBY'S & COLLECTIBLES
ELYRIA
440-365-9999
sandyshobb@aol.com

ERIE RAILWAY DEPOT
TROY
937-440-9972
orville@gte.net

CLEARVIEW TRAIN & HOBBY
LORAIN
440-277-4488
klogar@erienet.net
www.clearviewtrainandhobby.com

PENNSYLVANIA
FAIRCHANCE PHARMACY
FAIRCHANCE
724-564-7817
mthdealer@aol.com
www.hhs.net/fairchance

THE STATION
NEW CUMBERLAND
717-774-7096
station@paonline.com
BUSSINGER TRAINS
AMBLER
215-628-2366
choochoos@icdc.com
www.icdc.com/~btrains

CHARLEROI SWEEPER CENTER
CHARLEROI
724-483-3397

AMERICAN HOBBY CENTER
ALQUIPPA
724-378-3930
american@icubed.com

CRANBERRY HOBBY DEPOT
CRANBERRY TWP
724-776-3640
JAdams6113@aol.com

ALLENTOWN TOY TRAIN SERVICE
ALLENTOWN
610-821-0740

ON THE RIGHT TRACK
ALTOONA
814-942-4345

JIM'S TRAIN SHOP
HOMER CITY
724-479-2026
sudsy@stargate.net

YE OLDE TRAIN & CHRISTMAS
SHOPPE
BOYERTOWN
610-369-0755
www.ye oldetrain.com

TOBY TYLER'S HOBBY CENTER
PITTSBURGH
412-653-5030
tobytyler111@cs.com

BUSTLETON TRAIN SHOP
PHILADELPHIA
215-698-7266

CHESTNUT TOYBOX
PHILADELPHIA
215-545-0455
chestnuttoy@earthlink.net

THE CABOOSE
LEHIGHTON
570-386-5352
www.thecaboosehobbies.com
victen@ptd.net

SOUTH CAROLINA
EMERALD TRAIN & HOBBY
GREENWOOD
864-223-2247

TENNESSEE
MODEL RAILROAD & HOBBY SHOP
MEMPHIS
901-384-6500
mrhs99@earthlink.net
www.modelrailroadandhobby.com

TEXAS
HOBBY TIME
AMARILLO
806.352.9660
don.l.harris.@hobby-time.com

VIRGINIA
TRAIN DEPOT
MANASSAS
703-335-2216

NORGE STATION
WILLIAMSBURG
757-564-7623
norgetrains@cs.com

NUTBUSH EXPRESS
VICTORIA
804-696-1902
thenutbushexp@meckcom.net

TOY TRAIN CENTER
RICHMOND
804-288-4475

T S G HOBBIES
WARRENTON
540-347-9212
tripl@mnsinc.com
www.mnsinc.com/tripl/tsg.htm

CHESTERFIELD HOBBIES
MIDLOTHIAN
804-379-9091
chsthobb@erols.com
www.chesterfieldhobbies.com

DAVIS HOBBY SUPPLIES
PORTSMOUTH
757-397-1983
alph@davishobby.com
www.davishobby.com

LOCUST GROVE TRAINS
LOCUST GROVE
540-854-8955
lgrains@aol.com
www.locustgrovetrains.com

WEST VIRGINIA
PATRICK'S TRAINS
WHEELING
304-232-0714
trains@patstrains.com
www.patstrains.com

WISCONSIN
SOMMERFELD'S TRAINS
BUTLER
262-783-7797
questions@sommerfelds.com
www.sommerfelds.com

G B T V & TRAINS
GREEN BAY
920-496-9697
rttycoon@netnet.net

GRAMPA'S TRAIN SHOP
RICE LAKE
715-234-2996
grampastrainshop@yahoo.com

THE TRAIN STORE
WAUKESHA
262-650-6675

HOBBY OUTLET
FOND DU LAC
920-924-3770
hobby_outlet@hotmail.com

CANADA
ONTARIO
CREDIT VALLEY RAILWAY COMPANY
STREETSVILLE
905-826-1306
CVRCO@globalserve.net
www.cvrc.com

TOY TRAIN WORKSHOP
CUMBERLAND
613-833-3125
info@toytrainworkshop.com
www.toytrainworkshop.com

THE TRAIN ROOM
FERGUS
519-787-3280