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2-8-0 Steam Passenger Set Operation Manual





Thank you for purchasing this RailKing product. PLEASE READ BEFORE USE AND SAVE

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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.

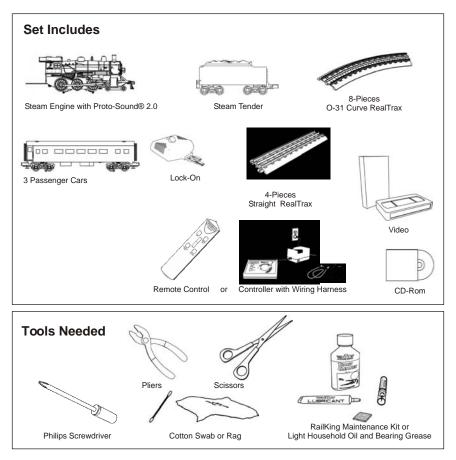
- M.T.H. recommends that all users and persons supervising use examine the hobby transformer and other electronic equipment
 periodically for conditions that may result in the risk of fire, electric shock, or injury to persons, such as damage to the primary
 cord, plug blades, housing, output jacks or 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.
- The transformer was designed to operate on regular US household current (120 volt, 50-60 Hertz). Do not connect to any other source of power.
- To avoid the risk of electrical shock, do not disassemble the transformer unit. There are no user-serviceable parts inside. If the
 unit is damaged contact M.T.H. Service for instructions.
- The transformer is equipped with an internal circuit protector. If the circuit protector trips, unplug the power cord from the electrical wall outlet, check your layout for any short circuits. The circuit breaker will reset automatically when the short is removed from the circuit.
- Unplug the transformer from the electrical wall outlet when not in use.
- Do not use this transformer for other than its intended purpose.

Transformer Ratings:

Input: 120 VAC, 60 Hz Only, Output: 21VAC, 3.75A78VA

Set Up Checklist

- Assemble RealTrax[®]
- Connect the transformer
- Lubricate the engine
- Prime the Smoke Unit
- Place the engine and cars on the track and couple them together
 - Position remote lock-on lens
 - Apply power to run as described in the Basic Operation section of these instructions.



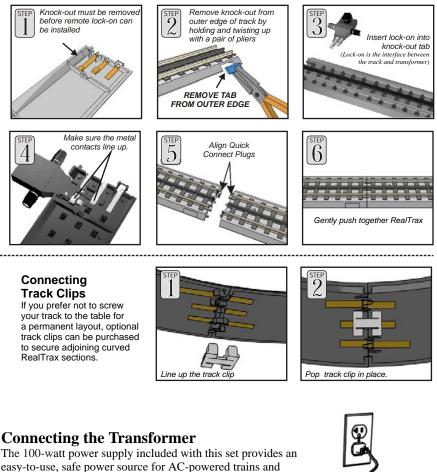
You can obtain replacement parts and replacement instructions from the M.T.H. Parts Department

e-mail: parts@mth-railking.com phone: 410-381-2580 mail: 7020 Columbia Gateway Drive, Columbia MD 21046-1532

Getting Started

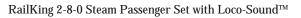
Assembling RealTrax[®]

The quick connectors and built-in roadbed allow you to set up RealTrax anywhere, including carpeted surfaces.



easy-to-use, safe power source accessories.

- Plug the wire from the transformer into the controller or the remote lock-on's center port, then plug the transformer into the wall outlet.
- Unplug when not in use.



RailKing 2-8-0 Steam Passenger Set with Loco-Sound™

Lubricating the Engine

Lubricate all exposed moving parts before operating using a multi-purpose, plastic-compatible oil (available with M.T.H.'s Maintenance Kit, sold separately) or a light household oil. Follow the lubrication points.

Pick-Up Rollers)

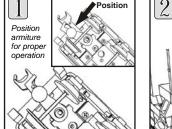


You should prime the smoke unit with smoke fluid before operating. Add 15-20 drops of smoke fluid from the included pipette through the smokestack, then gently blow into the stack to eliminate any air bubbles in the fluid.

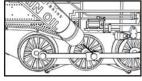
If you choose not to prime the unit with fluid, turn the smoke unit switch located under the engine to the OFF position. Running the engine without a primed smoke unit may cause damage. See the "ProtoSmoke Unit Operation" section of this book for more information on smoke unit maintenance.

Coupling the Engine and Cars

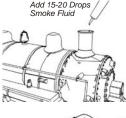
Incorrect

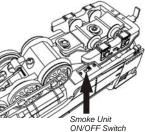


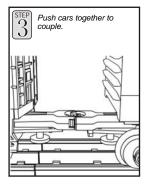




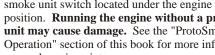
Lubricate Side Rods



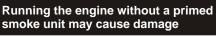




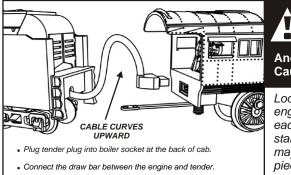




Lubricate Valve Gear





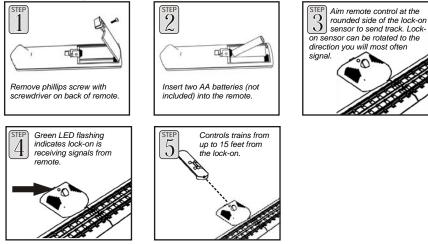


DO NOT CONNECT This Engine To A Tender From Another Engine; It May Cause Serious Damage.

Look at the bottom of the engine and tender where each will have a color-coded stamp. If they match you may connect those two pieces; if not, don't.

Remote Control

If your set is so equipped, the remote and lock-on are designed for use with moderate power supplies such as the one included with this set. It is compatible with virtually any manufacturer's engines.



Note: The RailKing[®] Remote Control and Remote Lock-on will not operate engines equipped with pre-1997 versions of Proto-Sound[®] or with Proto-One,^m Proto-Plus,^m Proto-Plux,^m aftermarket systems.

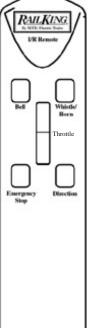
Basic Operation

Operation Buttons

Throttle Up Throttle up the power to your track by turning the throttle on the controller or (if so equipped) by pressing the top end of the Throttle Control Rocker Switch on the remote control firmly for about 5 seconds, until the engine's headlight and lighted cars burn bright. Then put the engine into motion by firmly pressing the Direction button (hold it for approximately 1 second) on your remote once. 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. Press the throttle up for a few more seconds until the train begins to move. To increase or decrease track voltage, and therefore train speed, press the throttle control rocker switch. Pressing the top end of the throttle will increase voltage and speed. The engine will maintain the speed you set after you release the throttle until you press it again to change the voltage and speed.

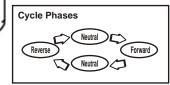
Bell - To sound the bell, firmly press and release the Bell button. To turn the bell off, press and release the Bell button again. The bell will continue to ring from the time you turn it on until you press and release the button again to turn it off.

Emergency Stop Press the Emergency Stop button and all trains on the track controlled by the remote will stop until you reapply voltage. This is an easy way to shut down your trains at the end of a session or to stop suddenly if the train's path becomes obstructed.



Horn/Whistle - To sound the horn, firmly press the Horn/Whistle button. The horn will sound for as long as you continue to depress the button. It will stop when you release the button.

Direction Your train is programmed to start in neutral. The train will always cycle neutral-forward-neutral-reverse with each press and release of the direction button. The engine is programmed to restart in neutral each time the track voltage is turned off for 25 seconds or more.



CAUTION: Do not mix old and new batteries. Do not mix alkaline, standard (carbon-zinc), or rechargeable (nickel-cadnium) batteries.

Speed Control

M.T.H. engines equipped with Loco-Sound have speed control capabilities that allow the engine to maintain a constant speed up and down grades and around curves, much like an automobile cruise control. You can add or drop cars on the run, and the engine will maintain the speed you set.

The engine is programmed to start with the speed control feature activated, you can opt to turn it off. This means the engine's speed will fall as it labors up a hill and increase as it travels downward. It is also affected by the addition or releasing of cars while on the run. Because the engine will run more slowly at a given throttle voltage when speed control is on than when it is off, you should adjust the throttle to a lower power level for operation with speed control off to avoid high-speed derailments.

To turn speed control on and off, put the engine in neutral, then quickly tap the transformer's Whistle button one time then quickly tap the Bell button two times, allowing approximately ¹/₂ second to lapse between each quick button press. Repeat the 1 whistle, 2 bells code to return it to the other condition. You will want to do this during the initial neutral upon start-up if you ever couple this engine to another engine that is not equipped with speed control to avoid damaging the motors in either engine. Each time you shut down the engine completely, it will automatically turn speed control on.

Timing Chart				
Press Whistle Short & Firm		Press Bell Short & Firm	½ Sec. Pause	Press Bell Short & Firm
Total Time Lapse: 1 ¹ / ₂ Seconds				



Engine into Neutral



Direction Lock

You can lock your engine into a direction (forward, neutral, or reverse) so that it will not change directions. To do this, put the engine into the direction you want or into neutral, to lock it into neutral, run it at a very slow crawl (as slowly as it will move without halting), and quickly but firmly tap the Whistle button once followed by three quick taps of the Bell button, allowing approximately ½ second to lapse between each quick button press. The engine will not change direction (including going into neutral) until you repeat the 1 whistle, 3 bells code to return the engine to its normal condition, even if the engine is kept without power for extended periods of time.



Proto-Cast and Proto-Dispatch:

When used with the remote lock-on included in this set, Loco-Sound-equipped engines gain Proto-Cast[™] and Proto-Dispatch[™] features.

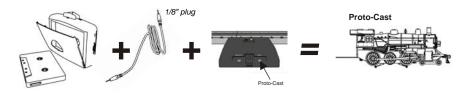
Proto-Cast:



Allows you to play audio recordings through your engine's speakers. You must supply the audio source (a small portable CD/tape player is sufficient) and a male-to-male mini cable (1/8" plug, like that used for the headset with a portable CD/tape player) to connect your audio source to the remote lock-on.

To use Proto-Cast

- Plug the mini-cable *first* into your audio source (usually into the headphone jack)
- Plug Cable into the "Audio" port on the right side of the remote lock-on.
- Adjust the volume. If engine sounds keep breaking through the recorded sounds, increase the volume on the audio source.



Proto-Dispatch: This feature allows you to broadcast your own voice through your engine's speakers. You must supply the microphone and a mini cable (1/8" plug, like that used for the headset with a portable CD/tape player) to connect your microphone to the remote lock-on.

To use Proto-Dispatch

- Mini-cable attached to the microphone must be an 1/8" plug.
- Plug the "Mic" into the proto-dispatch port on the left side of the remote lock-on and speak into the microphone.



When these features are in use, the locomotive's own sounds (engine sounds and bells, whistles, and horns) will be muted so that only the sounds you broadcast will be heard. Because these two features are voice activated, there will be a several second delay after you stop speaking into the microphone or turn off the audio source before the engine sounds resume. To stop using the feature and return to normal operation, unplug the cable from the lock-on jack.

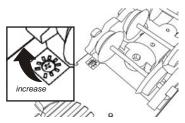
If using parallel tracks with multiple Loco-Sound-equipped engines, Proto-Cast and Proto-Dispatch transmissions from one track may be picked up by the other nearby engines.

If you experience popping and interference when using Proto-Cast or Proto-Dispatch, try cleaning the track with denatured alcohol as described in the "Cleaning the Wheels, Tires and Track" section of this booklet.

NOTE: M.T.H. does not recommend using Proto-Cast and Proto-Dispatch at the same time.

Manual Volume Control

To adjust the volume of all sounds made by this engine, turn the master volume control knob located under the tender clockwise to increase the volume and counter-clockwise to decrease the volume.



Maintenance

Care of the Remote Control

If your set is equipped with a RailKing Remote Control System, it should offer years of trouble-free service. There are a few things you can do to ensure trouble-free operation:

- Do not drop the remote. It can damage the delicate electronics inside.
- Remove batteries before storing for extended periods.
- Any attempt by anyone other than an authorized M.T.H. repair person to open and repair the handheld transmitter or lock-on may result in damage and the loss of warranty protection.
- If your train responds inconsistently, replace old batteries with fresh ones. Do not mix old and new batteries.

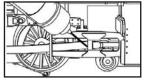
Lubrication Instructions

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

Regularly lubricate all side rods 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.

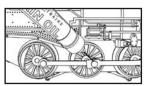
Pick-Up Rollers)





Lubricate Valve Gear

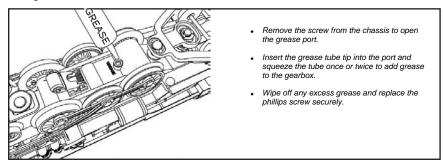




Lubricate Side Rods

Greasing Instructions

The locomotive's internal gearing was greased at the factory and should not need additional grease until after 50 hours of operation or one year, whichever comes first. To add grease, remove the grease screw located on the bottom of the chassis and insert through hole as shown below.



Cleaning the Wheels, Tires and Track

Periodically check the locomotive wheels and pickups for dirt and buildup, which can cause poor electrical contact and traction and prematurely wear out the neoprene traction tires. Wheels and tires 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. Because the manufacturing process leaves a coating on RealTrax center rail, you should clean the rails after the first 30 minutes of use (you may notice an electrical smell during initial use as the coating wears off; this is normal). 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.

Traction Tire Replacement Instructions

Your locomotive is equipped with two neoprene rubber traction tires on the rear set of flanged drivers. While these tires are extremely durable, you may need to replace them at some point.

	•	Remove the side rods (the rods that connect each drive wheel to the other) from the wheels in order to slip the new tire over the grooved drive wheel. These bolts can be loosened with a 5mm nutdriver. Clean the groove using a cotton swab and denatured alcohol.
2	•	Make sure the old tire has been completely removed from the groove in the drive wheel, using a razor blade or small flathead screwdriver to pry away any remains. Clean the groove using a cotton swab and denatured alcohol. Slip the new tire onto the wheel. You may find it useful to use two small flathead screwdrivers to stretch the tire over the wheel.

- screwarvers to stretch the tire over the wheel. If you twist the tire while stretching it over the wheel, you will need to remove and reinstall the tire. Otherwise your engine will wobble while operating.
- Make sure the tire is fully seated inside the groove. Use a razor blade to trim away
 any excess tire that doesn't seat itself inside the groove properly.

ProtoSmoke[®] Unit Operation

This steam locomotive contains a smoke unit that outputs smoke through the smokestack on the boiler of the engine. The smoke unit is essentially a small heating element and wick that soaks up and then heats a mineral oil-based fluid that emits a harmless smoke. The smoke is then forced out of the stack by a small electric fan.

With a few easy maintenance steps, you should enjoy trouble-free smoke unit operation for years.

• When preparing to run this engine, add 15-20 drops of smoke fluid through the smokestack. We recommend M.T.H. ProtoSmoke, Seuthe, LGB, or LVTS fluids (a

small pipette of ProtoSmoke fluid is included). Do not overfill the unit or the fluid may leak out and coat the interior engine components.

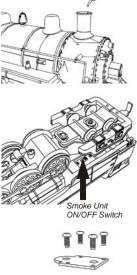
• If you choose not to add the fluid (or have already added the fluid but choose to run smoke-free), turn off the smoke unit switch located under the engine body. Failure either to add fluid to the unit or to turn it off may damage the smoke unit heating element and/or wicking material.

Running the engine without a primed smoke unit may cause damage

- When the smoke output while running the engine begins to diminish, add another 10-15 drops of smoke fluid or turn the smoke unit off.
- When storing the unit for long periods of time, you may want to add about 15 drops of fluid to prevent the wick from drying out.
- After removing the engine from storage, add another 25 drops of fluid, letting the wick soak up the fluid for 15 minutes prior to operation.

If you experience poor or no smoke output when the smoke unit is on and has fluid, check the wick to see if it has become hard, blackened, and unabsorbent around the heating element. Remove the boiler as shown in Figure A on page 7. Remove the smoke unit inspection cover from the locomotive's body (see right). After removing the chassis and inspection cover screws, lift the inspection plate away and inspect the wick. If it is darkly discolored and hard, it should be replaced.

Locomotive Light Bulb Replacement



Add 15-20 Drops Smoke Fluid



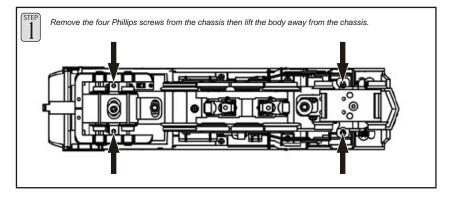
Smoke Unit Cover

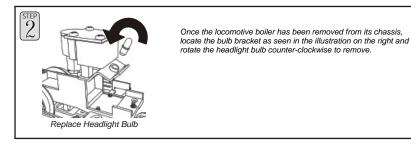


Wick in Poor Condition

Wick in Good Condition

To replace the light bulb in the locomotive, follow the boiler removal instructions below.

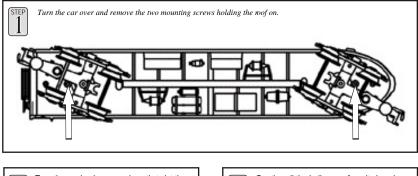


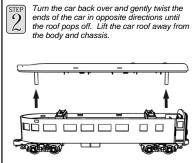


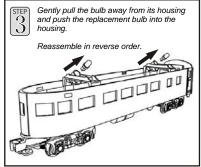
Passenger Car Light Bulb Replacement

To replace the interior light bulbs follow these instructions and see the diagrams

You can obtain replacement bulbs directly from the M.T.H. Parts Department.







Quick-Start Video

The included VHS Quick-Start video demonstrates the start-up and basic operation of this set as well as other information about model railroading. You may find it helpful to view the video before operating this set.

RailWare Interactive CD ROM

M.T.H. provides a free RailWare CD ROM in each Ready-To-Run set. It is full of helpful information on M.T.H. product history, track planning software, a dealer finder, and information and video clips on Loco-Sound and Proto-Sound 2.0. Follow the directions below to use the CD ROM.

Minimum System Requirements: Pentium 100, 16MB RAM, Windows 95 or later, CD ROM drive, Sound Card, display properties set to greater than 256 colors. The CD will not work on a Mac OS unless you run VirtualPC[®].

Running RR-Track Software

You may run the RR-Track software directly off of the CD ROM or you may install the software to your hard drive.

- 1. On the Desktop, click on the icon that says My Computer.
- 2. Find your CD ROM drive.
- 3. With the M.T.H. CD ROM in the drive, double click on the icon for the CD ROM drive.
- 4. Find the folder on the CD ROM entitled INSTALLATION.
- 5. Choose the folder inside entitled RRTRAXSETUP.
- 6. Run the file in that folder called SETUP.EXE and follow the directions it provides.

The program may ask you for a registration code. If it does type in "M.T.H." and it will run.

Additional track libraries can be obtained directly from RR-Track. See their website for more information <u>www.rrtrack.com</u>.

Installing Adobe Acrobat Software

To read some of the electronic documents included on the CD ROM, you will need to install the Adobe Acrobat Reader[®] if it is not already on your computer. To install the software:

- 1. On the Desktop, click on the icon that says My Computer.
- 2. Find your CD ROM drive.
- 3. With the MTH CD ROM in the drive, double click on the icon for the CD ROM drive.
- 4. Find the folder on the CD ROM entitled INSTALLATION.
- 5. Choose the folder inside entitled ACROBAT READER.

*If you are running Windows 95, 98 or NT choose the folder 32 BIT. Run the file AR32E301.EXE and follow the directions it provides.

If you have problems you cannot resolve by using these directions, contact custserv@mth-railking.com or call 410-381-2580 for further help.

Troubleshooting Loco-Sound[™] Problems

Although Loco-Sound has been designed and engineered for ease of use, you may have some questions during initial operation. The following table should answer most questions. If your problem cannot be resolved with this table, contact M.T.H. for assistance (e-mail: service@mth-railking.com; telephone: 410-381-2580; fax: 410-423-0009; mail: 7020 Columbia Gateway Drive, Columbia MD 21046-1532).

	Demode
Starting Up	Remedy
When I first turn the power on, the engine will not begin to run. The engine will not start after I press the Direction button.	This is normal behavior. To prevent accidental high-speed start-ups, Loco-Sound is programmed to start up in neutral anytime track power has been turned off for several seconds. See the "Basic Operation" section for more details. You may not be sending enough power to the track to power the engine. Press the throttle up for a few more seconds to increase track power.
Whistle	Remedy
I can't get the whistle to blow when I press the whistle button.	You may be pressing the button too quickly. Try pressing the whistle button more slowly, taking approximately one full second to fully depress the button.
Bell	Remedy
I can't get the bell to ring when I press the bell button.	You may be pressing the button too quickly. Try pressing the bell button more slowly, taking approximately one full second to fully depress the button.
Lock-out	Remedy
I can't get the engine to run after I power up the transformer. It sits still with the engine sounds running. The engine won't lock into forward, neutral, or reverse.	The engine may be locked into the neutral position. Follow the procedure in the "Lock into a Direction" section to unlock the engine's direction. Engine speed must be below 10 scale mph (approx. 10 volts or less in conventional mode).
Volume	Remedy
The sounds seem distorted, especially when the Horn or bell is activated. No sound.	Loco-Sound volume is set too high. Turn the volume control knob on the bottom of the chassis counter-clockwise to reduce the volume. Volume is set too low, adjust volume control knob on the bottom of the chassis clockwise to increase the volume or check connector to speaker.
Proto-Cast and -Dispatch	Remedy
When I try to play music or my voice through my engine's speakers, there is popping and interference. My Proto-Cast sounds play too quietly or unclearly. When I try to play Proto-Cast, the engine's sounds keep breaking in on my recording.	Clean the track with denatured alcohol, as described in the "Cleaning the Wheels, Tires, and Track" section of this book. Unplug the cable between the audio source and the remote lock-on. Re-plug it into the audio source first, then into the lock-on, pushing firmly to make sure it is fully installed. Your recording may be playing too quietly to trigger the engine to stop playing its own sound set. Turn up the wolume of the audio source you are using
My recording. When I run two Loco-Sound engines on tracks near each other, the Proto-Cast and Dispatch sounds play from both engines, not just from the one connected to the audio source or microphone.	volume of the audio source you are using. This is normal behavior. Because Loco-Sound uses radio waves to transmit the sound to the engine, other Loco- Sound engines in the same range will also pick up the sound. Try moving one of the sets.

Compatibility

While this Ready-To-Run set is equipped with everything you need to operate it, the design allows flexibility. The train will operate on any traditional O-31 or larger O Gauge track system, including the RealTrax[®] included with this set or traditional tubular track. It is also compatible with most standard AC transformers, including the hobby transformer packaged with your set.

Transformer Compatibility and Wiring Chart

Note that many of the operational commands described in these instructions require a bell button, so if you are using a transformer other than the one included in this set and your transformer does not have its own bell button, you should consider adding one to get the full benefit of the system.

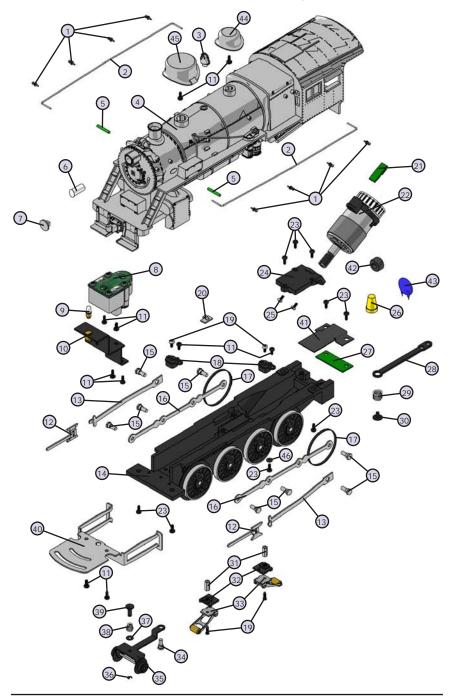
Transformer Model	Center Rail	Outside Rail	Min/Max. Voltage	Power Rating	Transformer Type
MTH Z-500	Red Terminal	Black Terminal	0-18v	50-Watt	Electronic
MTH Z-750	Red Terminal	Black Terminal	0-21v	75-Watt	Electronic
MTH Z-4000	Red Terminal	Black Terminal	0-22v	390-Watt	Electronic
Lionel 1032	U	A	5-16v	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	Α	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	А	Unknown	130-Watt	Standard
Lionel TW	U	А	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

2-8-0 Steam Locomotive Engine Parts

Name and Number	Part #
1.) Stanchion (black)	FB-1200242
(plastic)(3.0mm long)	
2.) Handrail (nickel)(boiler)	FB-1200099
3.) Bell (nickel)	FB-1200101
4.) Shell (black)(CNW)(# 1761)	FB-1200239
5.) Lens (green)(marker)	FA-1230025
6.) Lens (clear)(headlight)	FA-1230022
7.) Number board (black)	FB-1200178
8.) Smoke unit	AA-0000029
(7.0x8.0x2.0x3.7mm brass cup)(7.5mm long posts	
(Proto-Sound 2.0® & Loco Sound [™])	
9.) Bulb (clear)(headlight)	CA-000038
(6V)(small globe)(screw base)	011 0000000
10.) Bracket (black)	IH-0000085
(smoke unit / headlight)	
11.) Screw	IA-000003
(4/40x6.0mm)(roundhead)	111 0000000
12.) Crosshead (nickel)	EC-1250016
(38.8mm long)	20 1200010
13.) Drive rod (nickel)	EC-1250015
14.) Drive block (black)(4 axle)	DF-1200018
15.) Bolt (nickel)	IA-0000253
(hex head 5.0mm)(M3x9.5mm long)	1110000200
(4.0x2.5mm shoulder)	
16.) Side rod (nickel)	EC-1250017
(116.0mm long)(4 holes)	20 1200017
17.) Traction tires	DE-0000023
18.) Insulator (black)	BD-0000026
(top)(square)(pick-up)	
19.) Screw (nickel)	IA-0000015
(M3x6.0mm)(roundhead)	
20.) Wire strap (white)	IH-0000103
(metal)(tab bends over wires)	
21.) Tach board	AG-0000048
(no spacer between board and optical sensor)	
(has a tiny resister on backside of tach board)	
22.) Motor (RS-365SH)	BE-0000076
(8.0x21.0mm gear shaft) (13.0mm gear threads)	
(9.0x30.0mm white flywheel w/ black stripes)	
(tach board mounting strap)	
23.) Screw	IA-0000050
(6/32x8.0mm)(roundhead)	111 0000000
24.) Motor mount (black)	BI-000034
25.) Screw (yellow Zink)	IA-0000089
(M2.5x6.0mm)(roundhead w/ lock washer)	1/1 0000007

	Wire nut (yellow) PC board (green)	BI-4500003 AG-0000039
28.)	(w/ 10 pin female plug) Draw bar (black) (67.5mm long)	FB-1200079
29.)	Spring	IE-0000061
30.)	(6.5x10.0mm)(w/ 0.6mm thick wire) Screw (4/40x6.0mm)(washer head)	IA-0000028
	Nut (nickel)(2.5x5.0x10.0mm) Insulator (black)	IC-0000005 BD-0000024
33.)	(pick-up)(bottom)(flat)(square) Pick-up	BD-0000050
34.)	(8.0x11.0mm roller)(24.0mm long) Bolt (nickel) (M3x9.5mm long)(4.0x2.5mm shoulder)	IA-0000253
36.) 37.)	(5.0mm hex head) Truck (lead)(single axle) E-clip (2.5x6.0x0.5mm) Washer (3.0x7.0x0.4mm) Spring (6.5x11.0mm)(w/ 0.4mm thick wire)	DA-1230013 IF-0000004 ID-0000028 IE-0000007
39.)	Pin	IG-0000007
40.)	(3.0x9.0mm)(flathead)(1 e-clip groove) Pivot plate (nickel) (for lead truck)	IH-0000021
41.)	Bracket (black) (metal)(18.6x32.4x40.5mm)(T shaped)	IH-0000211
	Ferrite bead Capacitor (blue)(.01 uF)	AI-0000030 AI-0000031
45.)	(16.0x2.0mm)(w/ 2 wires) Steam dome (black) Sand dome (black) Washer (black) (3.0x6.0x0.4mm)(fiber)	FB-1200247 FB-1200246 ID-0000040

2-8-0 Steam Locomotive Engine Parts

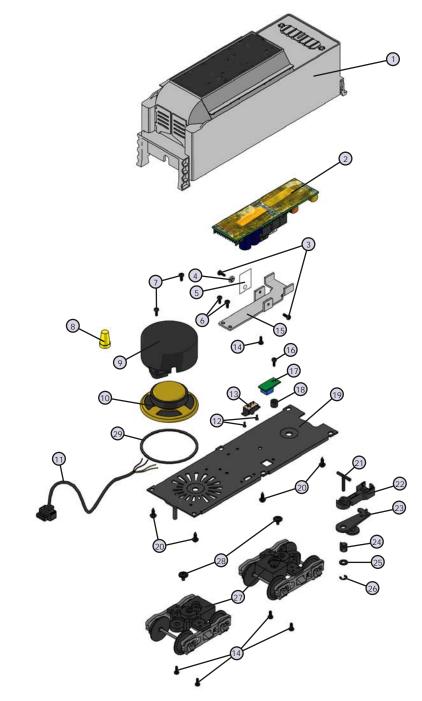


2-8-0 Steam Engine Tender Parts

Name and Number	Part #
1.) Shell (black)	GA-1200094
(tender)(plastic)(CNW)(# 1761)	
 Board (Loco-Sound[™])(steam/turbine) 	AE-000003
3.) Screw	IA-0000011
(4/40x8.0mm)(roundhead)	
4.) Insulator (white)	ID-000025
(washer)(3.0x6.0x3.0mm)(plastic)	
5.) Insulator (clear)	ID-000024
(13.0x19.0x0.1mm)(single hole)	14.0000010
 Screw (M3x4.0mm)(roundhead) 	IA-0000010
7.) Screw	IA-000016
(M3x6.0mm)(roundhead)	
8.) Wire nut (yellow)	BI-4500003
9.) Speaker cone (black)	BF-0000020
(44.0x48.3x37.0mm)(plastic)(2 screw hole tab	
10.) Speaker	BF-0000015
(Cuistack) (GF0501, 8 ohms, 0.25 watt)	DC 1000100
 Wire harness (black) Screw 	BC-1200103 IA-0000058
(M2x4.0mm)(roundhead)	IA-0000030
13.) Switch (small)	BB-000009
14.) Screw	IA-000003
(4/40x6.0mm)(roundhead)	
15.) Bracket (Aluminum)	IH-0000212
(for Loco-Sound™ board)	
(14.0x76.0x24.7mm)(5.0mm step) 16.) Screw	IA-000035
(M3x8.0mm)(roundhead)	IA-0000033
17.) Volume pot (small)	BI-0000040
(blue w/ green board)	
18.) Spacer (black)	ID-0000071
(3.0x6.0x4.0mm)(plastic)	
19.) Chassis (black)	GB-1200047
(58.0x175.0mm)(has new hole for battery jack 20.) Screw) IA-000025
(M3x16.0mm) (washer head) (self-drilling threa	
21.) T-bar	IG-000001
22.) Coupler (black)	DD-0000039
(mechanical)(51.5mm long)	
23.) Armature (black)	DD-0000040
(45.0mm long)	
24.) Spring (6.5x11.0mm)(w/0.4mm thick wire)	IE-000007
(0.3XTT.UHIHI)(W/0.4HIHI HILK WIE)	

25.)	Washer (black)(plastic)	ID-0000060
	(4.6x8.6x2.0mm)(inside 7.0x1.0mm)(cup shaped)	
26.)	E-clip (3.0x8.0x0.5mm)	IF-0000002
27.)	Truck (black)	DA-1250012
	(tender)(2 axle)	
28.)	Screw	IA-0000214
	(6/32x6.0mm)(washer head)	
29.)	Gasket (black)	IB-0000009
	(speaker ring)(43.8x49.8x3.0mm)(foam)	
NS.)	Wire harness	BC-1200104
	(12 pin black male plug)	

2-8-0 Steam Engine Tender Parts



RailKing 2-8-0 Steam Passenger Set with Loco-Sound™

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.mthrailking.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 <u>www.mth-railking.com</u> 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 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



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PARTICIPATING N.A.S.C. RETAILER LIST

CANADA

TOY TRAIN WORKSHOP CUMBERLAND 613-833-8331

THE TRAIN ROOM FERGUS 519-787-3280

CALIFORNIA TIN PLATE JUNCTION OAKLAND 510-444-4780

COLORADO

MIZELL TRAINS INC WESTMINSTER 303-429-4811

CONNECTICUT

NEW ENGLAND HOBBY SUPPLY MANCHESTER 860-646-0610

FLORIDA ROUNDHOUSE SOUTH PORT ORANGE 386-304-7002

MARYLAND

PLAZA HOBBY CUMBERLAND 301-729-6424

ENGINE HOUSE HOBBIES GAITHERSBURG 301-590-0816 CATOCTIN MOUNTAIN TRAINS & HOBBIES THURMONT 301-694-8331

MICHIGAN MICHIGAN MODEL TRAIN CENTER PINCKNEY 734-426-1651

BRASSEUR ELECTRIC TRAINS INC. SAGINAW 989-793-4753

NEW HAMPSHIRE

TREASURED TOYS SALEM 603-898-7224

NEW YORK AURORA RAILS & HOBBIES EAST AURORA 716-652-5718

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LOCUST GROVE TRAINS LOCUST GROVE 540-854-8955

DAVIS HOBBY SUPPLIES PORTSMOUTH 757-397-1983

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RON'S WORLD SAN CLEMENTE 949-361-5596

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FLORIDA HOLLYWOOD STATION HOLLYWOOD 954-921-2700

DEPOT HOBBY SHOP LAKE WORTH 561-585-1982

READY TO ROLL MIAMI 305-688-8868 FRANK'S TRAINS & HOBBIES OLDSMAR 813-855-1041

COLONIAL PHOTO & HOBBY ORLANDO 407-841-1485

WARRICK CUSTOM HOBBIES PLANTATION 954-370-0708

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ILLINOIS BIKE & CHOO CHOO CONNECTION SCHAUMBURG 847-882-7728

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TOY TRAIN STATION FEASTERVILLE TREV 215-322-5182

THE CABOOSE LEHIGHTON 570-386-5352

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