



Sunset Models 3rd Rail

Operations & Maintenance of O Scale 3 Rail EMD E8/9's

Congratulations on your purchase of the finest example of artwork in model railroading today, the highly detailed and accurate scale model of the EMD E8 and EMD E9 Diesel locomotive.

This scale model has been designed to have the freedom of movement necessary to operate on O54 Simple Curves. Test run the model slowly when running for the first time on a layout.

Unpacking: Save all packing boxes and material.

Carefully remove the decorated box from the packing box. Lift the foam cover and lift the model out. **Do not discard this material** as it may be needed later for returning parts for repair or replacement. Check for loose or broken parts. Check for parts that may have been bent during shipping, that will interfere with the operation of any moving parts. There should be a small parts bag with some spare screws and rubber tires, smoke fluid fill tool. Loose or broken parts can easily be re-attached using JB Weld which is a two part epoxy glue or super glue (AC).

Conventional Operation First Time Test:

1. Check the battery/plug it in if not PROG/RUN switch on the roof. **Set to: (RUN)**
2. Check the Volume Control on the roof. **Turn Clockwise**
3. Check the Smoke Unit Switch on the roof. **Set to: (OFF)**
4. Place the model on the track.

You are now ready to put the scale model on your test track. Your model comes with a Lionel TMCC and **RAILSOUNDS IMPROVED OEM** Sound and Electric Railroad Constant Speed Control (Cruise) designed to work with Lionel ZW or equivalent transformers. (NOT MTH Z750 or Z1000 Transformers). Do not exceed 18 V AC on the track or you may damage electronics.

9V Battery is Factory Installed: REMOVE IF OPERATING TMCC

Your model will run fine under Conventional Operation with a battery. To remove the battery for TMCC mode, remove the rear exhaust hatch on the roof. Pull the 9V Plug out and make sure nothing is down inside to interfere with installing the battery.

Conventional Operation:

Unplug TMCC Command Base

Using your ZW or equivalent transformer, turn the power on 18V maximum on the track. The engine headlight and classification lights should turn on. You should begin to hear sounds. Interrupt the power to command the engine to move forward slowly. The engine should move forward smoothly, starting from a crawl and then gaining speed. If the engine operates erratically, it could be that the battery installed in model that needs unplugging. needs replacing. Contact us if you need assistance.

Bells and Horns:

With the engine running forward, you should now begin to hear revving diesel sounds. The bell and horn can be operated independently with the engine running or in neutral.

TMCC Operation: (SET TO CAB-1 in LEGACY REMOTE)

Your engine is equipped with a TMCC receiver and ready to run with Lionel's Cab-1 Remote and Command Base. We recommend that you only put 18 V on the track to operate this locomotive in TMCC mode. Refer to your CAB-1 Operating Instructions to use the numerous features to control your model.

1. Check the program switch on the roof. **Set to: (RUN)**
2. Check the volume master control. **Turn Clockwise**
3. Check the Smoke Switch on the roof. **Set to: (OFF)**

Place the locomotive on the TMCC equipped track with the power off. With the Command Base plugged in to the layout per Lionel's instructions and recommendations, increase the voltage on the track to no higher than 18 V. Note: This is full power for the Lionel ZW style transformers. (IN LEGACY, SELECT ENGINE AS A CAB-1).

The engine should make no sound at this point. If it does, that means the receiver is not picking up the TMCC signal, check your command base. The headlight, class and marker lights should be illuminated. Press the whistle button on the CAB-1 remote control. If the whistle does not blow, use the following button sequence to set the CAB-1 for engine number 1. Press: [ENG], [0] ,[1]. Then press the whistle button again. If there is no response please check with your Lionel TMCC guide for resetting the engine. If the whistle blows when you depress the whistle button then you are in business. Command the engine to move forward slowly by turning the red nob. Your model is equipped with a TMCC remote controlled coupler in the front and rear.

Electric Railroad Cruise Commander Guide:

Your model is equipped with a Electric Railroad's Cruise Commander. All features of the speed control can be accessed through entering commands using the CAB-1 remote. Enter the commands slowly as it takes time for the signal to be received by the circuitry. With this system you can operate your model in 2 modes, 32 Speed Step compatible with Lionel, 100 Speed Step. Enter the following commands slowly, pressing each button and waiting 1/2 second before pressing the next.

[AUX1],[o], [AUX1], [o], [BRAKE] - 32 Step Speed Control

[AUX1],[o], [AUX1], [o], [BOOST] - 100 Step Speed Control

[AUX1], [o], [AUX1], [BRAKE], [7], [BRAKE]- Speed Control Turned OFF

[AUX1], [o], [AUX1], [BRAKE], [9], [BRAKE]- Speed Control Turned ON

For more information on Electric Railroad: www.electricrr.com

Lubrication:

Once your locomotive checks out, it is time to lubricate it. Use light machine oil (3 in 1 or sewing machine oil). The rule of thumb is, oil any metal to metal moving parts. This includes journal boxes in the frame, journal and driver axle. The gear boxes are factory lubricated with grease and should be lubricated every 20 hours of operation. Use automotive or marine grade lithium greases. To lubricate the gearbox, turn the model over on a soft surface and remove the two screws holding the gearbox cover to the gear box. Remove the old grease and any debris. Lubricate the gearbox with grease, liberally.

Smoke Generation:

Note: Use the smoke fluid cup or syringe to fill the smoke system. Start slowly. Use only 5 drops and let it go down one of the 2 smoke fluid holes. The smoke chamber tapers down to the smoke unit so the fluid will drop into the smoke unit. To facilitate this, gently raise and lower the attitude of the model to get the fluid to flow down the chamber. Gently blow air into the holes if they become clogged with bubbling fluid. **DO NOT DROP FLUID IN THE STACK. PUT THE FLUID IN THE BRASS SLOT INSIDE.**

Your model comes equipped with a power regulated smoke generator. This system operates in two modes, TMCC and Conventional. A switch under the model can select either TMCC, OFF or CONV. In TMCC mode the smoke system is powered by the Radio Board electronics, in CONV mode the smoke system is connected to track power. Beware that **you may not return the model for a REFUND once you have used the smoke unit.** We suggest that you **not use** the smoke unit and keep your model in pristine condition. Also, be aware that breathing in impurities in the smoke can be potentially hazardous. **We are not responsible for any consequences as a result of using the smoke generators.** If the smoke unit becomes dry, turn it off to prevent from burning the material inside the smoke unit. Keep your track voltage below 18V AC.

TMCC Command Guide:

Use the Auxiliary commands [AUX1] [#] Here are a list of the commands and their functions.

- [1] - Volume UP
- [4] - Volume DOWN
- [8] - Smoke Off
- [9] - Smoke On (Hold for Boost Smoke)
- [3] - Prime Mv. Sound Start
- [5] - Prime Mover Sound Shutdown
- [7] - Tower Communications [AUX2] - Light ON/OFF

[R] - Rear Coupler Operation [F] - Front Coupler Operation

Resetting Your Locomotive:

1. Turn the power off and wait 20 sec.
2. Slide the PRG/RUN switch forward to PRG under the model.
3. Turn the power on.
4. On the CAB-1 Press [ENG] [1] [SET] (Whistle blows)
5. Press [ENG] [1] [AUX1] [8] [3] (Whistle Blows)
6. Turn power off Slide Switch to RUN.

Electrical Systems:

Head Light 3mm LED. Smoke Unit: Synchronized and Temperature Regulated Classification and Marker Lights: LED DC Motor Sound and Control System: Lionel TMCC with Railsounds New OEM Electric Railroad Cruise Commander 4.5 Cruise System

Rubber Tires:

Your model is equipped with rubber tires for SUPER pulling power. If a rubber tire breaks you can replace it by removing the screws that hold the journal to the truck side frame. Slip the new rubber tire over the end of the axle and replace the screws. Take care as these screws are tiny.

Customer Service: FOR FASTEST SERVICE USE EMAIL.

EMAIL: cs@thirdandtownsendmodels.com

If you have any questions or comments please don't hesitate to email or **call us at 720-786-3602.** **Our friendly staff is ready to assist you. We appreciate your business and welcome any comments that may better serve our customers on future projects. Please feel free to bend our ear.**

Lash Ups in Conventional and TMCC Mode:

In conventional mode you can perform lashups in 2 ways. You can lock your model in one direction by using the Program / Run switch under the hatch. To do this, command your model to move either in forward or reverse and then switch the program / run switch to Program. The model will then only run in that direction. The second way is to synchronize the direction of your front engine to be reverse of the rear engine. Locking both of them in opposite directions will then allow them to run in sync back to back. Once power is turned off, this setting is lost. In TMCC mode you can set a Lashup between two or more different engine numbers. Set each engine to a unique engine number, for example you have set the first engine to be ENG #1 and the second rear facing engine to be ENG #2.

The lash up command on a CAB-1 works like this:

PRESS TR BUTTON and a digit to create a TRAIN #. Lets use, TR #5.

To build the train TR #5 with the first engine running forward:

<TR> <5> <1> <SET> - the horn blows in the first engine.

To add 2nd engine #2 running backward: (Press the R and Direction Button Before the Set Button:

<TR> <5> <2> <R> <DIR> <SET> -the horn blows eng #2.

To select the Train #5 in the Cab-1 Remote: First Press <TR> <5>. Now when you use your CAB-1, the engines will respond in sync.

To reset your CAB-1 and remove the settings for Train #5 and go back to the way the CAB-1 was before, enter the following:

<TR> <5> <AUX1> <0>

Opening up your Model:

Place your model on a soft surface to support it upside down. Remove the 4 screws holding the fuel tank to the chassis. Remove the 8 larger screws along the sides of the chassis. Then lift the chassis from the body. If you have any questions, don't hesitate to contact us.

INSTRUCTION DETAILS

Use Smoke Fluid Fill Cup Or Syringe Not Included



Smoke - CONV/OFF/TMCC PROG/RUN and VOLUME Are Under Exhaust Hatch along with battery.



MAKE SURE TO UNPLUG BATTERY IF NOT OPERATING CONVENTIONAL

CONTACT Third & Townsend Models Before Authorization

BEFORE RETURNING YOUR MODEL

EMAIL: cs@thirdandtowntsendmodels.com OR CALL 1-720-786-3602

- Sunset Models/3rd Rail Models come with a 3 month, original owner warranty for parts, labor and shipping costs. Second party owners may purchase parts and/or labor through Sunset Models/3rd Rail.
- If unsatisfied with your your NEW model, you may return it for a refund of the model price paid, within 30 days of receipt, if bought directly from Third & Townsend Models. The return policies of our authorized dealers may vary.
- The model must be in the same condition as received. Smoke unit residue voids the return policy. Shipping costs are NOT paid for by Third & Townsend Models on models returned for refund or outside the 30 day Warranty period.
- Models must be packed in the original shipping containers in the same manner it was received. Steam Engine and Tender must be wrapped in tissue paper then strapped with 2" wide, plastic packing tape to the wooden board so as not to move during shipping. Diesels should be wrapped in the original materials and placed in the foam cradle.
- Contact Third & Townsend Models **before you ship**. You will only be issued a UPS Label by email to use to return your item for 30 Day Warranty Repair.
- HI, AK and International return shipments will be arranged with us on an individual basis.

**IF THESE INSTRUCTIONS ARE NOT FOLLOWED,
THE CUSTOMER IS LIABLE FOR SHIPPING DAMAGE**

Third & Townsend Models

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