

71-4521-250
12/01



Lionel E-6 AA Diesel Locomotive Owner's Manual

featuring

TRAINmaster
C·O·M·M·A·N·D

*Rail Sounds*TM

and

ODYSSEYTM
SYSTEM

Congratulations!

You purchased a tough, durable locomotive—the E-6 diesel locomotive set built by Lionel. From the crisp detail and expert decoration on the outside, to the

brute power under the hood, the Lionel E-6 set is ready for duty on your model railroad. Experience the superiority of today's Lionel.

Features of your E-6 AA Diesel Locomotive Set

- Odyssey System Speed Control
- Two powerful flywheel-equipped can motors (in powered unit)
- Digital TrainMaster Command Control system
- RailSounds digital sound system
- Tire-Traction
- Die-cast ElectroCouplers
- Illuminated headlights/interior light
- CrewTalk (in Command)
- TowerCom (in Command)
- Diesel smoke generator
- Directional lighting

Table of contents

Transformer operations

Running your E-6 set with a Lionel transformer	3
Locking your E-6 into a single operational state	4
Using your E-6's ElectroCouplers in the non-Command environment	5
Installing the Lionel no. 610-5906-001 Sound Activation Button	6

Maintaining and servicing your E-6

Lubricating your E-6 set	7-8
Adding fluid to your locomotive's smoke generator	9
Servicing your E-6's lamps	9

Odyssey System operations

Odyssey System operations	10
---------------------------	----

RailSounds operations

Your E-6's RailSounds system—the basics	11
Experiencing the range of your E-6's RailSounds system	12
Notes on RailSounds	12

TrainMaster Command operations

The Command Control environment	13
Running your E-6 set in the TrainMaster Command environment	14
CAB-1 commands for your E-6	14
CAB-1 numeric keypad commands for your E-6	15
Tuning your E-6's performance	16
Assigning your Powered and Non-Powered E-6 units new ID#s	17
Reprogramming the Command reverse unit circuit board to restore features	17

Advanced TrainMaster operations

Building a Lash-Up	18-19
Lionel Service	20

The following Lionel marks may be used throughout this instruction manual and are protected under law. All rights reserved.

Lionel®, TrainMaster®, Odyssey™, RailSounds™, CrewTalk™, TowerCom™, DynaChuff™, StationSounds™, Pullmor®, ElectroCoupler™, Magne-Traction®, CAB-1 Remote Controller®, Powermaster®, Lionel ZW®, ZW®

Transformer operations

Running your Lionel E-6 set with a Lionel transformer

1

Place your E-6 set on Lionel or Lionel-compatible 0 gauge track.

2

Power up your E-6 set with your transformer.

- **Your E-6 set is designed to operate on 8-18 volts alternating current.** Virtually all Lionel and Lionel-compatible alternating-current transformers are suitable.

Note!

- **Do not power your E-6 set with direct current (DC).** Damage to sensitive electronic components may occur.

Note!

- **When you first power up your track,** the E-6 will pause between three and eight seconds. After this pause, RailSounds in the powered E-6 unit will fire up, the headlight of the powered E-6 unit will turn on, and the cab lights in both units will illuminate. At this point, your E-6 set is in neutral. This occurs only when placing your E-6 set on the track for the first time. Thereafter, they start in forward after every three-second interruption of power.

3

Move 'em out!

- **Get your E-6 set moving.** Press the DIR button on your CAB-1 remote or Lionel transformer. This sequences the Lionel reverse unit to the next operating state.
- **Adjust track voltage** until your E-6 set moves at your desired speed. To increase speed, increase track voltage. To decrease speed, reduce voltage. To stop the locomotive, turn-off track power.
- **See page 4 for information on locking your E-6 in a single operating state.**

Transformer operations

Locking your E-6 into a single operational state

To select a single operational state for your Lionel E-6 set (example: forward only), you can deactivate the reverse unit's sequencing function with the reverse unit control switch.

Get your locomotive moving in the desired direction, then *slow it down without stopping*. Set the reverse unit control switch on the Powered E-6's underside to PRG. The

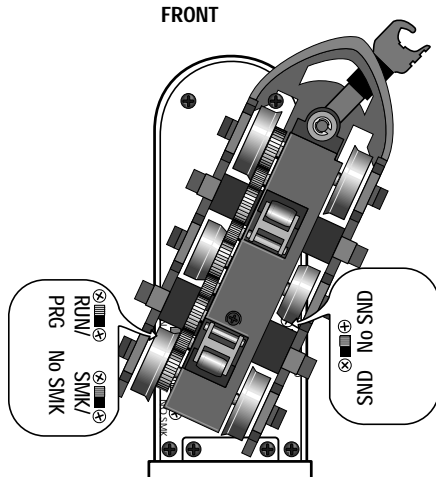
E-6 is now "locked" into your chosen direction.

When you no longer want single-direction operation, just slide the reverse unit control switch back to RUN.

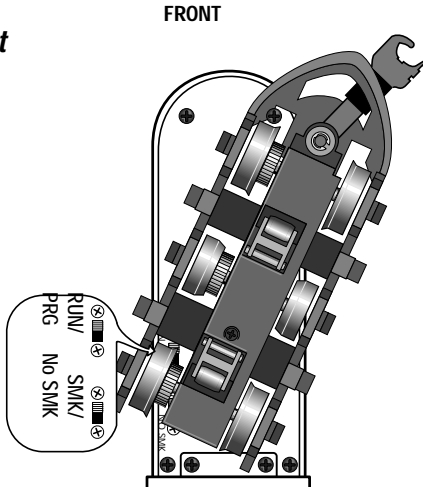
Note! Your locomotive's reverse unit will "reset" to forward after any five second or longer power interruption, regardless of original locked-out direction.

Powered Unit

Smoke Unit
(see page 9 for details)



Non-Powered Unit

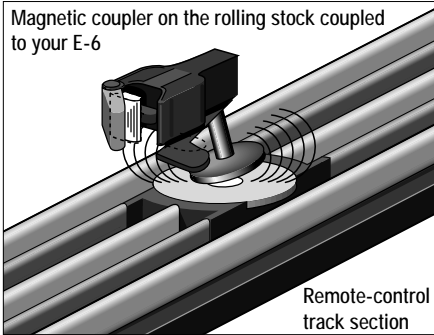


Transformer operations

Using your Powered and Non-Powered E-6 Set's ElectroCouplers in the non-Command environment

The front of each E-6 unit features an ElectroCoupler that responds to commands from your CAB-1 remote in Command Control.

To use the ElectroCoupler on your Powered and Non-Powered E-6 set in the



non-Command environment, you must couple a piece of rolling stock equipped with Lionel magnetic couplers directly to your E-6 set's ElectroCouplers. The magnetic coupler on the rolling stock—not the ElectroCouplers on the engines—will then react to the magnetic field generated by a Lionel remote-control track section (available separately). Place your rolling stock's coupler "trigger disc" over the central coil of a remote-control track section (available separately) and press UNCOUPLE on the controller. The magnetic field pulls the disc downward, and the coupler opens.

Note! Your E-6's ElectroCouplers will NOT open manually or by using a remote-control track section.

Transformer operations

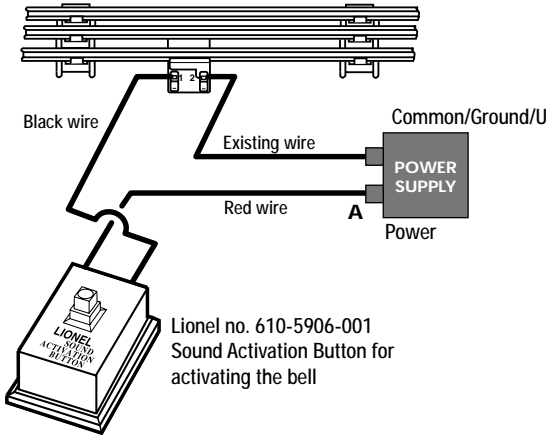
Installing the Lionel Sound Activation Button

To operate the bell and horn sounds when operating your locomotive with conventional transformers, you'll need to install the Lionel no. 610-5906-001 Sound Activation Button (available separately). Connect the

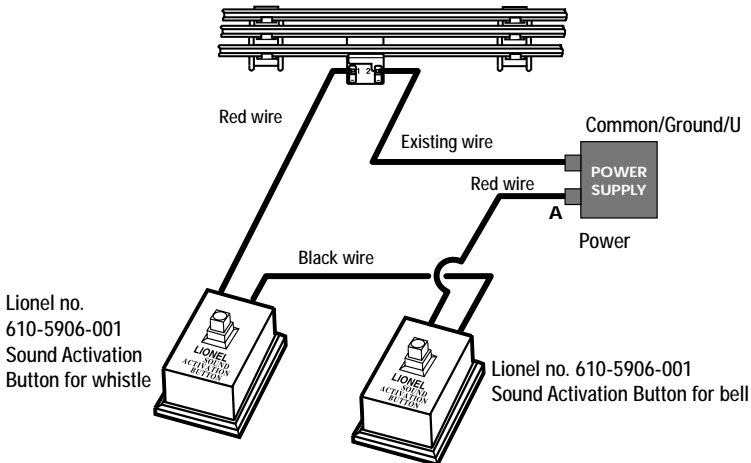
button(s) as shown below.

Note! All track power must feed through the Sound Activation Button. Do not bypass the button.

For AC transformers with a horn/whistle button



For AC transformers lacking a horn/whistle button



Note!

The no. 610-5906-001 button works with any Lionel AC transformer except no. 6-4690 Type MW. Transformers made by other manufacturers may not be compatible with RailSounds.

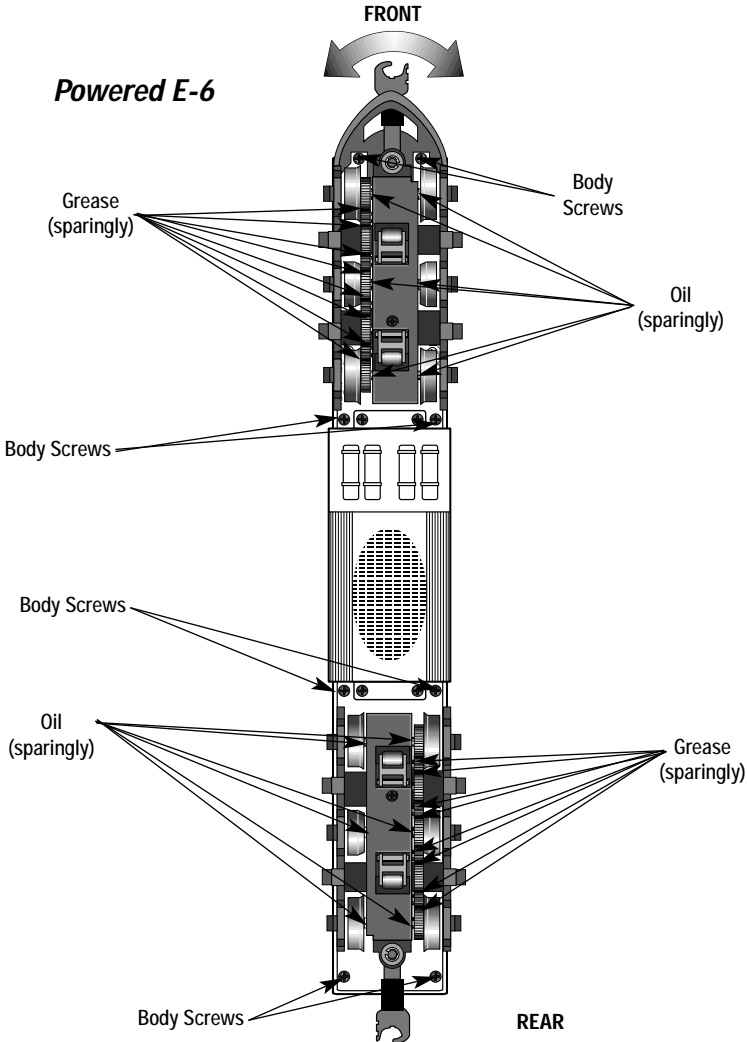
Maintaining and servicing your E-6

Lubricating your Powered and Non-Powered E-6 Set

Help your Lionel E-6 set lead a long and productive life on your railroad by maintaining it properly.

We recommend that you purchase a Lionel Lubrication and Maintenance Kit (no. 6-62927), available from your Lionel dealer. Two basic rules to keep in mind: never over-lubricate (a small amount will

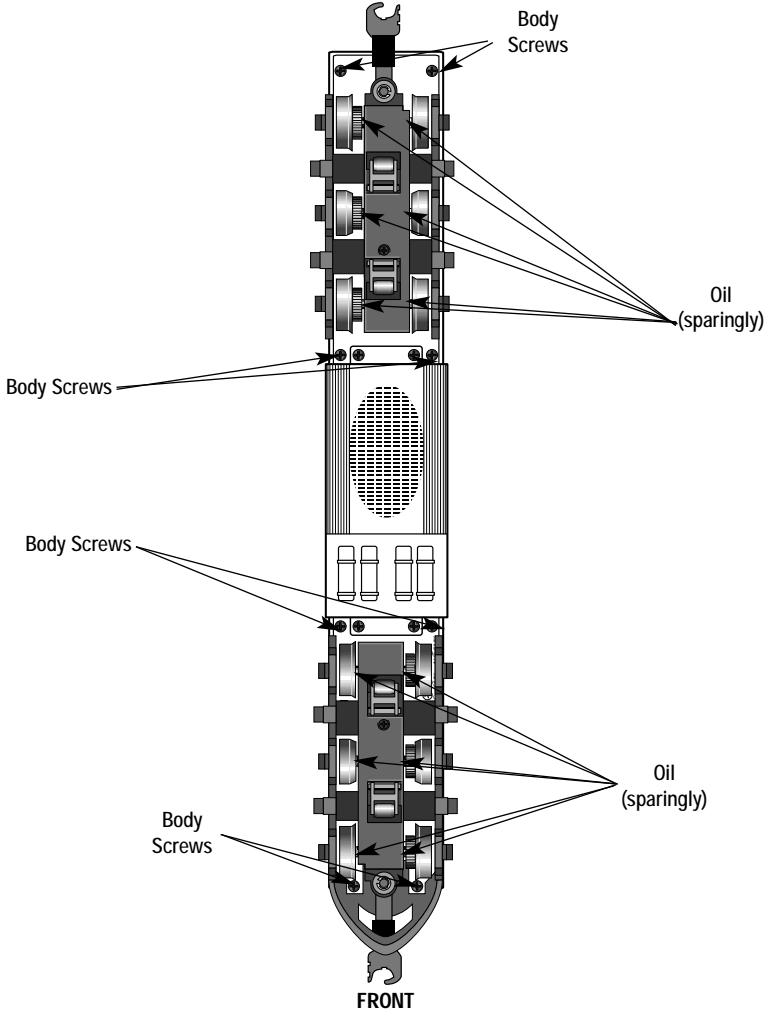
do), and avoid getting grease or oil on the E-6's wheels or your track. You'll know your E-6 requires lubrication when visual inspection reveals dryness on the parts indicated in the illustration. Remove accumulated dirt and dust before lubricating, and always lubricate any locomotive emerging from prolonged storage.



Maintaining and servicing your E-6

Lubricating your Powered and Non-Powered E-6 Set (continued)

Non-Powered E-6



Maintaining and servicing your E-6 Set

Adding smoke fluid to your locomotive's smoke generator

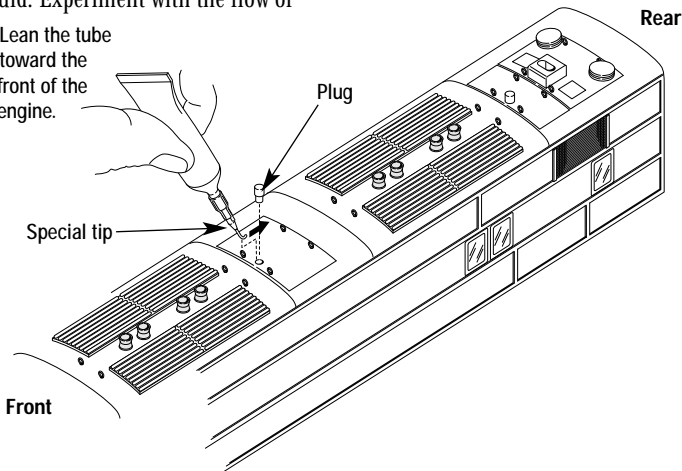
Both "A" units are equipped with a smoke generator that produces safe, clean, white smoke during operation. Periodically, you will need to add smoke fluid to the locomotives; a small tube of smoke fluid and a special tip are included with this set.

To add smoke fluid, pierce the end of the tube with a pin, then apply the special tip. Before you begin, be sure that your locomotive is on a level surface with the smoke generator off. Twist and pull off the plug at the center of the locomotive, then insert the tip into the hole. *The tip must point to the rear of the locomotive.* Lean the tube toward the front of the engine, then add 4-8 drops of fluid. Experiment with the flow of

the smoke fluid to prevent overfilling the smoke generator. When smoke production wanes, add 4-8 drops of smoke fluid in the same manner. Additional smoke fluid (no. 6-62909) is available from your Lionel dealer. Save the tube and the special tip for use with this set.

To turn off the smoke generators, slide the SMK/NO SMK switch at the bottom of each locomotive to the NO SMK position (see page 4 for the location of this switch). When the smoke generator is on, be sure that there is smoke fluid in the smoke generator to avoid damage. Smoke production is greater when the locomotive is pulling a heavy load and at higher voltages.

Note! Lean the tube toward the front of the engine.



WARNING: Never operate the smoke unit when dry. This will cause the smoke unit to over-heat and may damage your engine.

Servicing your E-6's lamps

Your E-6 units are illuminated by an L.E.D. circuit board and several small lamps. During the course of normal operation, the L.E.D. and lamps may require replacement.

Due to the delicate wiring and soldering operations, we recommend that you have the replacement done at a Lionel Service Station. See the Lionel Service section on page 20 for more information.

Odyssey™ System operations

Odyssey System operations

Odysey System is a “cruise control” for your engine. Once the speed is set (see below), your engine will maintain a constant speed, no matter what loads or grades

you have on your layout. This digitally-controlled system also allows for extremely slow movement that will amaze any “scale” enthusiasts.

Odyssey System operations

Conventional Operation

- Setting Speed Control
 1. Run the engine at the desired speed for approximately five seconds.
 2. Press and hold the horn button on your transformer or CAB-1.
 3. While holding the horn button, increase the track voltage by at least three volts (at least 1/4 turn on CAB-1).
 4. Speed control is set. (NOTE: Engine speed will increase slightly, then will return to the set speed.)
- Turning Off Speed Control:
 1. While the engine is in neutral, turn your transformer or CAB-1 up to the maximum power (no more than 20 volts), wait one second, then press and hold the horn button.
 2. While holding the horn button, slowly reduce track voltage to 1/4 the full power.
 3. Release the horn button.
 4. Cycle the engine to forward/reverse. The engine is now out of speed control mode.

Caution! In conventional operation, the smoke unit and lights are connected directly to track power. Do not exceed 14-16 volts for extended periods. Doing so will cause damage to the locomotive.

Command Operation

While in the Command Control environment, the speed control feature of the Odyssey System is always on. When turning the throttle, the speed of the engine will respond to each signal from the Command Base. Example: Address the engine and slowly turn the throttle. The first red light flash on the Command Base corresponds to the first speed step. This is the slowest speed of the locomotive.

RailSounds operations

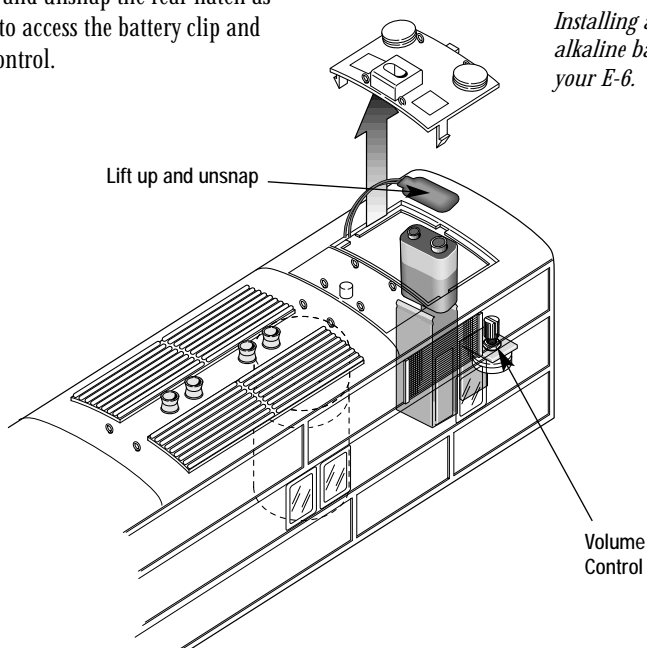
Your E-6's RailSounds system—the basics

Lionel RailSounds is the most realistic model railroad sound system in the world. Your E-6 features digital samples from real-life diesel locomotives for the *ultimate* in realism.

You may choose to install a 9-volt *alkaline* battery in your powered E-6 unit. This ensures interruption-free operation of RailSounds. The battery clip is located at the rear of the engine beneath the rear hatch. Gently lift up and unsnap the rear hatch as shown below to access the battery clip and the volume control.

When you first apply track power, the E-6's RailSounds system produces sounds of the locomotive at idle. As the E-6 moves, the R.P.M. sounds begin increasing with the locomotive's speed.

To silence the diesel roar (horn and bell remain unaffected), slide the RailSounds switch on the underside of the locomotive to NO SND (see page 4) *before powering up the locomotive*.



Installing a 9-volt alkaline battery in your E-6.

Note! Please remove the protective cover from the battery clip.

Note! Although RailSounds is powered by track voltage, *the battery is required* for uninterrupted operation and shutdown sequences. Use only alkaline batteries.

Note! Discontinue locomotive power *for 10 seconds* before changing the RailSounds SND/No SND switch position.

Note! If RailSounds “drops out” during track power interruptions (direction change), replace the battery.

RailSounds operations

Experiencing the range of your E-6's RailSounds system

With RailSounds, you experience the sounds of real railroading like never before. Simply put, it's the most sophisticated, authentic model railroad sound system in the world.

- **Four diesel-roar levels.** Your E-6's speed determines the level of diesel RPM roar—*automatically, if you prefer*: idle, half throttle, three quarters or full-speed output.
- **MultiHorn.** A different horn sound at different speeds—a RailSounds exclusive.
- **Mechanical bell.** Press BELL on your CAB-1 or transformer to begin the effect, again to discontinue.
- **Reverse unit reset sound.** Power down your track, wait for 3-5 seconds,

and listen for the air-release sound—that's the E-6 set telling you the Lionel Command reverse unit has just *reset to forward operation*.

- **Shutdown sequence.** No other model railroad sound system shuts down like RailSounds. Turn off track power, and, after the air-release reset sound, you have two seconds to restart your E-6. If you're done with operations, RailSounds will commence with a realistic diesel shutdown sequence about two seconds after the air-release reset occurs.

Note! 9-volt alkaline battery installation is required for RailSounds shutdown operation.

Notes on RailSounds

- Turn the volume control knob (location shown on page 11) clockwise or counter clockwise to adjust sound output.
- Listen for incidental locomotive sounds during RailSounds operation. They're automatic and, of course, authentic.
- The 9-volt alkaline battery you installed ensures *continuous* E-6 diesel roar.
- Longer track-power interruptions (including locomotive derailments) cause RailSounds to shut down after about seven seconds.
- For even *more* authentic RailSounds effects, operate in the TrainMaster Command environment.

TrainMaster Command operations

The Command control environment

Lionel TrainMaster Command Control is the advanced model railroad control system from Lionel. Your E-6 is equipped with a Command reverse unit.

TrainMaster Command Control gives you the power to operate multiple Command-

equipped locomotives *on the same track, at the same time.*

To operate in Command, you need a Command Base and a CAB-1 remote. Find them both at your authorized Lionel retailer.

1

Place your E-6 set on Lionel or Lionel-compatible 0 gauge track.

- **Make sure track power is OFF before placing on the track.**
- **Make sure your Lionel Command Base is plugged-in** and the communications wire is connected to the COMMON post on your Lionel transformer *or* the U terminal on any of your installed PowerMasters.
- Once positioned on the track, **increase track voltage to FULL (no more than 20 volts).** On any PowerMaster units, slide the CMD/CONV switch to CMD.

2

Address your E-6 set using CAB-1.

- **To operate your engines together as a lash-up,** press TR and 9 on your CAB-1 Remote Controller. Be sure that the powered unit is in the lead. Refer to page 18 for information about TrainMaster Command Control lash-ups.
- **To operate your engines individually,** address the powered unit by pressing ENG and 1 on your CAB-1 unit. Address the non-powered unit by pressing ENG and 2 on your CAB-1 unit.
- **The digital language of TrainMaster Command—and not track power—controls the actions of Command-equipped Lionel engines.** Track power is simply like gasoline in the tank of your car—it gives you the power to go places, but it doesn't tell you where to go or how fast to get there.

Note!

Your powered engine was assigned ENG 1 and your non-powered engine was assigned ENG 2 at the factory. They have already been programmed as a lash-up, TR 9. You may change these settings at any time with the help from the following sections in this manual.

3

Move 'em out!

- Throttle up or press any command button on CAB-1. Your E-6 set will respond to your every command. Read on.

TrainMaster Command operations

CAB-1 commands for your E-6 set

COUPLER Front coupler releases.



Coupler release sounds, powered unit only.

COUPLER Rear coupler releases.



Coupler release sounds, powered unit only.

AUX 1



Activates keypad.

AUX 2



Press AUX2 to turn your E-6's headlights on and off.



Turn the **THROTTLE** to the right to accelerate, left to decelerate.



Press **HALT** to shut down *all* PowerMaster electrical output on your railroad. Stops *all* Command-equipped Lionels in operation.

Note!

Use "Halt" only in *emergency* situations.



Press **WSTL/HRN** to activate the E-6 horn, release it to discontinue. **MultiHorn diesel horn sound.**



Press **BELL** once to activate the bell, again to discontinue. **Diesel mechanical bell sound.**



Press **DIR**—the locomotive decelerates to a complete stop; turn the throttle up, and the locomotive will accelerate in the new, opposite direction. There is no neutral state. **Diesel air-release sound.**



Press and hold **BOOST** for extra power. Release **BOOST** and return to the E-6's previous speed.



Press and hold **BRAKE** to slow down or stop. Release **BRAKE** and return to the previous speed. **Squealing brake sounds.**



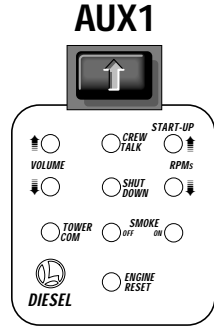
Beneath this panel



TrainMaster Command operations

CAB-1 numeric keypad commands for your E-6

When you press AUX1 on CAB-1, you turn the numeric keypad into 10 command buttons. The keypad lets you control extra command features (until you press any top-row button like SW, ACC, RTE, TR, or ENG). **RailSounds sounds in bold italic.**



Note! AUX1-9 works only if the smoke unit switch is in the ON position.

0 Stops and resets the E-6. Resets the E-6's direction to FORWARD. Resets RailSounds to automatic RPM operation. **Horn blows, and the headlight will flicker. RPMs return to automatic.**

1 Raises the volume of RailSounds. **Sound volume increases.**

2 CrewTalk™ is the sound of unintelligible walkie-talkie communication.

3 Raises the RailSounds RPM level. Starts-up RailSounds. **RPMs increase. Start-up sequence commences.**

4 Lowers the volume of RailSounds. **Sound volume decreases.**

5 Activates the RailSounds shutdown sequence. Just like the real thing, *your E-6's RPMs must be at idle for shutdown to occur.* Press 6 repeatedly to lower RPMs until they won't descend further. Your locomotive is now at idle. Press 5 to initiate the shutdown

sequence, following the CrewTalk sound. **CrewTalk sounds, Diesel shutdown commences.**

Remember, the horn, bell, and RPMs will not sound until you *restart* RailSounds.

6 Lowers RailSounds RPM level. **RPMs decrease.**

7 TowerCom™ is an audible announcement that includes that engine's road number and/or name. *There is a four second delay in this function.*

8 Turns smoke off. **Air release sounds.**

9 Turns on the smoke generator. Press and hold 9 (10 seconds maximum) to initiate Smoke Boost™ — this superheats the smoke generator and enhances smoke output when you start running your diesel engine. See notes on filling or turning off the smoke generator on page 9. **Air release sounds.**

TrainMaster Command operations

Tuning your E-6's performance

MOMENTUM

TrainMaster Command's momentum feature simulates the labored performance of a locomotive pulling a heavy load. Press L, M, or H (located under CAB-1's removable panel) for light, medium, or heavy momentum. The E-6's Command reverse unit remembers this setting until you change it. For quick locomotive response, choose L.

BRAKING AND BOOSTING

There's more to starting and stopping than just turning the CAB-1 throttle. Use the BOOST and BRAKE command buttons—they give you incremental control of speed *and* are the superior way to handle gradual stops and starts, and more. Plus, using BRAKE in the Command environment gives you a bonus RailSounds effect—the ultra-realistic sound of squealing brakes.

SOUND QUALITY

To achieve your preferred RailSounds master volume level, we recommend you adjust your E-6 volume control knob (see page 11 for location). Turn the knob left or right to reach the desired volume level.

For quick remote-control of volume *below* the master setting—for example, muting—use the CAB-1 numeric keypad's volume control. Press AUX1 and then 4 on the numeric keypad to lower overall RailSounds output.

HIGH VOLTAGE SETTING

Press SET, and the locomotive's headlight will flash. Get your locomotive moving to the maximum speed you want it to run, then press BOOST. Use this to keep your locomotive from derailing at excess speed. Turn off the high voltage setting by pressing SET, then BOOST, holding each for one second.

STALL

Make your E-6 feel more responsive by setting a "stall" voltage. Get your locomotive moving, then press SET; the E-6 will stop. Turn the throttle clockwise to get the locomotive moving, then decrease speed until the locomotive just stops. Press SET again; the Command reverse unit remembers the stall setting until you change it. To clear the stall setting, press SET twice, holding it for one second each time.

Note! These settings will be lost when you assign a new engine ID number.

TrainMaster Command operations

Assigning your Powered and Non-Powered E-6 units a new ID#

Example Assign a new ID# to your Command-equipped E-6

Set the Powered or Non-Powered E-6 reverse unit control switch to PROGRAM

Command Base plugged in

Place the E-6 engine on track

PowerMasters set to CMD or traditional power supplies ON FULL (no more than 20 volts)

Turn track power on (PowerMasters):



Press BOOST

Program the E-6 engine with a new ID#:



Press ENG



Press a number you choose (the ID#)



Press SET

Set the reverse unit control switch to FORWARD/RUN

Your E-6 set remembers its ID# forever; change it any time with these steps

As your fleet of Command-equipped E-6 units grows, you'll want to give your E-6 units more individualized numbers. Choose from any between 1 and 99. To make things easy, use a portion of your E-6's cab number.

Set the Powered or Non-Powered E-6's Command reverse unit switch to PGM (see the illustration on page 4). Plug-in the Command Base and place the E-6 engine on track. Then, power up. Using CAB-1, press ENG, the locomotive ID# that you select, then press the SET button located under CAB-1's removable panel. Hear the horn blow (or see the headlight flash if RailSounds is off); that's the Command reverse unit confirming the new ID#. Set the reverse unit control switches to RUN.

Note! Do not assign powered and non-powered E-6 ID#'s at the same time.

We recommend that you choose an easy to remember ID# for your engine. Some possibilities are part of the engine road number, your age, or any two digit number that is not used by another engine. Write the number on a small piece of tape and put this on the bottom of the fuel tank to aid in remembering.

Reprogramming Command reverse unit circuit boards to restore features

Due to the inevitable derailments and static, it is possible that your Command reverse unit could someday lose its setup program.

The symptoms of this condition would be unresponsiveness in Command mode. This can be easily remedied by "reprogramming" your Command reverse unit using the following steps.

STEP 1: Move the switch on your locomotive from RUN to PROGRAM.

STEP 2: Plug in your Command Base.

STEP 3: Place the locomotive on track, then turn on power to your track.

STEP 4: Press "ENG" then input the locomotive's ID#. Press "SET".

STEP 5: Press "ENG", then the ID#, "AUX1", then press **8** for your locomotive.

STEP 6: Turn off power to your track and wait ten seconds.

STEP 7: Remove the locomotive from your track, move the switch from PROGRAM to RUN.

STEP 8: Place the locomotive back on track, then turn power on to track.

STEP 9: Press "ENG" and the ID#, then operate as normal.

Advanced TrainMaster operations

Building Lash-Ups

Note! Your E-6 A-A set has been factory programmed as a lash-up and will respond to TR #9. The following procedure will explain how to build a lash-up or change the train ID# of your E-6 A-A set.

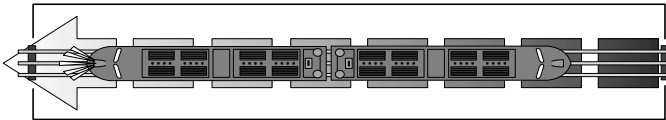
When real railroads operate two, three, or even four locomotives together, they call it a “lash-up”. A lash-up is railroading’s answer to steep grades, long trains, and extra-heavy loads.

In the TrainMaster Command system, lash-ups are addressed as “TRAINS” —the TR button on CAB-1. When you build lash-ups with TrainMaster Command, several engines are grouped under a single TR ID#. Lash-up building should be attempted only after you’ve mastered ordinary TrainMaster Command operations.

Pick the locomotives in your lash-up and move them together (but don’t couple them) using ENG and each one’s ID#.

Because CAB-1’s TR button also means “TRACK” for PowerMaster control, select a TRAIN (TR) ID# that is NOT a number identifying PowerMaster TRACKS. For example, if you’re using four PowerMasters and have named their TRACKS 1,2,3, and 4, choose a number between 5 and 9 for your TRAIN ID#.

Finally, make certain that all the locomotive’s direction switches are set to FORWARD/RUN. Perform a locomotive reset (AUX1,0) to see what the locomotive’s first-start direction is. It’s possible to have a “contrary” locomotive that’s simply following the direction of the reverse unit control switch.



Note! “Wrong” Entries: If you press a wrong button while building a lash-up, start over with that particular locomotive assignment at the TR command; the assignment isn’t sent until you press SET.

Note! It’s still an ENGINE. Whenever a locomotive is in a lash-up, you can still individually address it (using its ENG ID#) to adjust lighting, open individual couplers, and tune performance.

Note! The ElectroCouplers on the rear of both E-6 units will not respond when your E-6 set is addressed as a lash-up.

Advanced TrainMaster operations

Note!

The powered E-6 unit has been factory programmed as engine #1 and the non-powered E-6 unit has been factory programmed as engine #2, to make lash-up programming easier.

Example

Assign a New Train ID# to your E-6 A-A lash-up.

Build Train #7 with Engines #1 & #2.

Both locomotives' reverse unit control switches set to FORWARD/RUN

Address both engines individually with its engine ID#

Move each engine into position; do not couple them

"Front" locomotive should be positioned in the forward direction (headlight in front), the second locomotives can face in either direction.

In Train #7, assign the lash-up's front engine (Engine #1) E-6 powered unit



Press TR



Press 7 (the Train #)



Press 1 (the lead locomotive's ID#)



Press F (for front unit)



Press SET

Assign the lash-up's rear locomotive (Engine #2) E-6 Non-powered unit



Press TR



Press 7 (the Train #)



Press 2 (the rear locomotive's ID#)



Press R (for rear unit)



Press DIR, if unit is facing rearward



Press SET



Press TR, 7, AUX1, 0 (To reset the engines in the lash-up)

Now all engines respond together when you address them as Train #7.

If an engine is out of sync after a TR reset, read "Lash-up troubleshooting on page 26 of your TrainMaster Instruction Manual.

Note!

You may establish momentum, high voltage or stall settings for the entire "TRAIN" similarly to an individual engine (see page 16). Setting momentum, high voltage or stall settings in "TRAIN" mode overrides any previous individual "ENGINE" settings. Conversely any "ENGINE" settings will remain present even in "train" mode unless they are overridden. For best results and fewer required steps, these settings should be done in "TRAIN" mode if you intend to run the units as a lash-up.

The powered E-6 front ElectroCoupler will respond to the TR, ID# (number you selected) Front Coupler button if programmed cor-

rectly. The rear E-6 non-powered front ElectroCoupler will respond to the TR, ID# (number you selected) rear coupler button if programmed correctly. All engines will also still respond to the coupler buttons if addressed by their engine ID#.

The lights on your E-6 set will respond as follows: The front E-6 engine headlight is ON in FORWARD, while the headlight on the rear engine is OFF.

In REVERSE, the front E-6 engine headlight is OFF, while headlight on the rear engine is ON.

Note!

In conventional transformer operation, the lights in both units are ON in neutral.

Limited Warranty/Lionel Service

This Lionel product, including all mechanical and electrical components, moving parts, motors and structural components, except for light bulbs, is warranted to the original consumer-purchaser, for one year against original defects in materials or workmanship when purchased through an authorized Lionel merchant.

This warranty does NOT cover normal wear and tear, light bulbs, defects appearing in the course of commercial use, or damage resulting from abuse or misuse of the product by the purchaser. Transfer of this product by the original consumer-purchaser to another person voids this warranty. Modification of this product voids this warranty.

Any warranted product which is defective in original materials or workmanship and is delivered by the original consumer-purchaser to Lionel L.L.C. or an authorized Lionel L.L.C. Service Center, together with proof of original purchase will, at the option of Lionel L.L.C., be repaired or replaced, without charge for parts or labor. In the event the defective product cannot be repaired, and a replacement is not available, a refund of the original purchase price will be granted. Any products on which warranty service is sought must be sent freight or postage prepaid, as transportation and shipping charges are not covered by the warranty.

In no event shall Lionel L.L.C. be liable for incidental or consequential damages.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusion may not apply to you.

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

Instructions for Obtaining Service

If service for this Lionel L.L.C. product is required, bring the item, along with your dated sales receipt and completed warranty information

to the nearest Authorized Lionel Service Center. Your nearest Lionel Service Center can be found by calling 1-800-4-Lionel, or by accessing our Website at www.lionel.com.

If you prefer to send your product back to Lionel L.L.C. for repair in Michigan, you must first call 586-949-4100 or FAX 586-949-5429, or write to Customer Service, P.O. Box 748, New Baltimore, MI 48047-0748, stating what the item is, when it was purchased and what seems to be the problem. You will be sent a return authorization letter and label to ensure your merchandise will be properly handled upon receipt.

Once you have received your return authorization and label, make sure that the item is packed to prevent damage during shipping and handling. We suggest that you use the product's original packaging. This shipment must be prepaid and we recommend that it be insured.

Please make sure you have followed all of the above instructions carefully before returning any merchandise for service. You may choose to have your product repaired by one of our Authorized Lionel Service Centers after its warranty has expired. A reasonable service fee will be charged.

Warranty Information

Please complete the information below and keep it, along with your dated sales receipt. You must present this and your dated sales receipt when requesting warranty service.

Name _____

Address _____

Place of Purchase _____

Date of Purchase _____

Product Number _____

Product Description _____

