



73-7156-250
7/13



***Lionel
BASE-1L
Owner's Manual***

Table of contents

Introduction

Welcome to LEGACY command Command Control	3
Preparing your railroad for LEGACY Command Control	3

Command Base

Installing the Command Base	4
-----------------------------	---

Command-equipped locomotives

CAB-1L & Base-1L radio channel selection	5-6
FCC Statement	7
Lionel Limited Warranty Policy & Service	8

The following Lionel marks are used throughout this Owner's Manual and are protected under law. All rights reserved.

Lionel® , LEGACY™ , FasTrack® , TrainMaster® , Odyssey® , RailSounds® , CrewTalk™ , TowerCom™ , DynaChuff™ , StationSounds™ , Pullmor® , ElectroCoupler™ , Magne-Traction® , CAB-1® Remote Controller, American Flyer® , Lionel ZW® , ZW® , MagniVision® , TMCC® , Lionelville® , Wireless Tether™ , Powerhouse™ , LionMaster® , Conventional Classics™ , Postwar Celebration Series™ , TruRail™ , PH-1 Powerhouse® , Powermaster® , Powerstation-Powerhouse® , Accessory Motor Controller™ , AMC™ , Accessory Switch Controller™ , ASC™ , Action Recorder Controller™ , ARC™ , Track Power Controller 300™ , TPC 300™ , Track Power Controller 400™ , TPC 400™ , Block Power Controller™ , BPC™ , Operating Track Controller™ , OTC™ , FatBoy™ , Lionel Lines® , Joshua Lionel Cowen Series™ , Lockon® , TrainSounds™ , MultiHorn™ , MultiWhistle™ , Choo-Choo™

Introduction

Welcome to LEGACY Command Control

The Base-1L is the simple way to start operating in the LIONEL LEGACY Command Control environment – and an economical way to add operators when running trains with friends! Whether you want to access the basic features of the LEGACY control or operate our older TrainMaster command control (TMCC1) equipment, the CAB-1L remote controller allows you to walk around your layout while controlling your trains. The Base-1L receives signals from the remote and sends your commands across the layout.

If you already have a LEGACY Base (6-14295), you can simply add one or more CAB-1L remotes to your existing LEGACY layout—no need for the Base-1L. If you are looking to get started with the LEGACY Control System, the combination of CAB-1L and Base-1L is an affordable way to start unlocking many of Lionel's celebrated features. Only one Base (either the LEGACY Base or the Base-1L) should be used on a layout.

You may use a combination of LEGACY CAB-2 and CAB-1L remotes with a single LEGACY Base. However, only CAB-1Ls may be used with the Base-1L.

Important!

For complete instructions for the CAB-1L and Base-1L, visit www.lionel.com and download manual 73-7147-250 from the Customer Service Section.

Preparing your railroad for LEGACY Command Control

Any three-rail O-gauge or two-rail S-gauge, alternating current-powered model railroad can become a LEGACY railroad. Before you install the Base-1L, do these things.

First, make sure there are no short circuits *anywhere* on your railroad. Second, make sure all power supplies are in phase. Finally, consider the power requirements for everything connected to the track: switches, bulbs, operating cars, illuminated cars, and more.

The LEGACY Control System operates on constant, high voltage, so some bulbs may burn out prematurely. If they do, replace them with 18-volt bulbs. Remove or disconnect items you believe may not benefit from constant voltage.

Command Base

Installing the Command Base



Plug the power supply's cable into the Base-1L's power input, then plug the power supply into a properly grounded wall outlet (110 volts, 50/60 cycles).



Connect a wire between the Command Base's binding post and the common (U) terminal on all transformers powering your track. You can also connect the wire between the Base-1L and the outside rail of your track. (Connect the wire to both outside rails if you use hi-rail track.)

You need a CAB-1L remote to operate the Command Base-1L. (The CAB-2 won't work with Base-1L.)

To install the Base-1L, plug the power supply power cable into the BASE PWR input. Plug the power supply into a standard wall outlet (110 volts, 50 or 60 cycles). The outlet must be properly grounded. The Base-1L's top-mounted green light will illuminate. The Base-1L doesn't have an on/off switch, so you may leave it on at all times. If you prefer to turn it off after operating sessions, use a power strip with a circuit breaker and on/off switch. Doing so lets you electrify all transformers and the Command Base at once.

Note!

COMMAND BASE POWER SUPPLY. Do not use the Command Base's power supply to power any other device. Its three-prong plug is unique.

Next, connect a wire between the TRACK U binding post and the common (U) terminal on all transformers powering your track. Or, connect the wire to your track's outside rail at any convenient location. *You've just installed The LEGACY Control System on your railroad.*

Be sure the outside (common) rail is electrically continuous throughout your entire layout—this enables unimpeded communication around the track plan. If your layout has block control, make sure only the center (or "hot") rail is insulated with insulating pins at block boundaries. Insulating both outside rails at block boundaries will obstruct the Command Base's signals.

Hint!

Be sure the Base-1L is ON before you place your Command Control-equipped locomotive on track. Then bring up track power. When the Base-1L is ON, your Command-equipped Lionel locomotives instantly know they're on a LEGACY railroad. If the Base-1L is OFF, the locomotive will operate like an ordinary engine when power is applied.

Setting the communication channel

CAB-1L & Base-1L radio channel selection

The CAB-1L communicates with the Base-1L at a frequency of 2.4 GHz. Within this band, there are nine distinct channels available for your use, the default channel is 1. Chances are, channel 1 will be fine for your layout and you'll have no need to change channels on your system.

However, the 2.4 GHz frequency spectrum is also used by WiFi, cordless phones, and various other devices you may have near your layout. If you are having trouble maintaining reliable communication between your Lionel remote and layout, experiment with different channels following the instructions shown here.

Note!

Remember that all your remotes must be set to the same channel number as your Base (this is true for Base-1L as well as the LEGACY Base).

Hint!

When changing channels, first change your BASE-1L to the desired channel, then change the CAB-1L to match.

Start by selecting the radio channel for Base-1L:

1. Press the CHANNEL SELECT button on the side of the Base-1L once. The Base's green LED will blink up to nine times, which indicates the current channel number. After a pause the blink pattern repeats. It will do this for a couple of minutes, and then return to normal operating mode unless the button is pressed again.
2. While the Base-1L is blinking its channel number, pressing the button a second time changes the current radio channel to the next higher frequency. Keep pressing the button until the desired radio channel is reached, as indicated by the blink pattern. Immediately proceed to the next step (see next page), and change the radio channel selection for your CAB-1L. Once that is done, the channel blinking pattern on your Base-1L will cease.



Setting the communication channel

CAB-1L & Base-1L radio channel selection (continued)

Then Select the radio channel for CAB-1L:

1. Remove the sliding cover over the SET key at the bottom front of the CAB-1L.
2. Hold down the **SET** key and press a number key (**1 - 9**) to pick the radio channel to transmit on.
3. The speaker will beep to give feedback when the channel is configured, either one beep if a base responds, or three beeps if no base responds. The new channel number will be saved.

Both types of beeps mean that a channel has been configured, but if there happens to be a base in range when the channel is set, then the one beep signal means that communication has been established with the base. Three beeps means that no base responded when test commands were transmitted by the CAB-1L during channel configuration. If this happens when a base is within range, then it may be that the Base is set to a different channel than the one you just selected for your CAB-1L (see the previous page).

Once you've heard the "single-beep" confirming your CAB-1L has connected to a Base (either Base-1L or LEGACY Base) you're all set. You can further confirm communication is working by turning the throttle or pressing a button on your remote. The red LED on your base should illuminate in response to incoming commands.

Note!

Once you start this process, make sure to change all remotes to the new channel assignment!



FCC Statement

The Lionel CAB-1L and Base-1L are covered by FCC rules for a Class B computing device. As required by FCC regulations, the following is provided for the information and guidance of the user.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy. If not installed and used in accordance with the instructions, it may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. To determine if the equipment does cause interference to radio or television reception turn the equipment off and on. The user is encouraged to try to correct the interference by one or more of the following measures: (1) Where it can be done safely, reorient or relocate the receiving antenna; (2) Increase the separation between the equipment and receiver; (3) Connect the equipment into an outlet on a circuit different from that to which the receiver is connected; and (4) Consult your Lionel dealer or an experienced radio/ TV technician for help.

Changes or modifications not expressly approved by Lionel L.L.C. could void the user's authority to operate the equipment.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Lionel Limited Warranty Policy & Service

This Lionel product, including all mechanical and electrical components, moving parts, motors and structural components, with the exception of **LIGHT BULBS, LED's & TRACTION TIRES** are warranted to the original owner-purchaser for a period of **one year from the original date of purchase** against original defects in materials or workmanship when purchased through a **Lionel Authorized Retailer***.

This warranty does **NOT** cover the following:

- Normal wear and tear
- Light bulbs or LED's
- Defects appearing in the course of commercial use
- Damage resulting from abuse/misuse of the product

Transfer of this product by the original owner-purchaser to another person voids this warranty in its entirety. Modification of this product in any way; visually mechanically or electronically, voids the warranty in its entirety.

Any warranted product which is defective in original materials or workmanship and is delivered by the **original owner-purchaser** (this warranty is non-transferrable) to Lionel LLC or any Lionel Authorized Service Station **MUST** be accompanied by the original receipt for purchase (or copy) from an **Authorized Lionel Retailer***, will at the discretion of Lionel LLC, be repaired or replaced, without charge for parts or labor. In the event the defective product cannot be repaired, and a suitable replacement is not available, Lionel will offer to replace the product with a comparable model (**determined by Lionel LLC**), if available. In the event a comparable model is not available the customer will be refunded the original purchase price (requires proof of purchase from the **Authorized Lionel Retailer*** it was originally purchased). Any products on which warranty service is sought must be sent freight or postage prepaid (Lionel will refuse any package when postage is due). **Transportation and shipping charges are not covered as part of this warranty.**

NOTE: Products that require service that do not have a receipt from an LIONEL AUTHORIZED RETAILER* will be required to pay for all parts required to repair the product (labor will not incur a charge) providing the product is not older than 3 years from date of manufacture and is within 1 year from date of purchase. A copy of the original sales receipt is required.

In no event shall Lionel LLC be held 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 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 LLC product is required; bring the item, along with your DATED sales receipt and completed warranty information (at the bottom of this page) to the nearest Lionel Authorized Service Station. Your nearest Lionel Service Station can be found by calling 1-800-4-LIONEL or by accessing the website at www.lionel.com.

If you prefer to send your Lionel product directly to Lionel, for repair you must FIRST call 586-949-4100 extension 2 or FAX Lionel at 586-949-5429 or write to Lionel Customer Service, 6655 Seville Drive, Canfield, OH 44406. Please have the 6-digit Lionel product number, the date of original purchase, the dealer where the item was purchased and what seems to be the problem. You will receive a return authorization (RA) number to ensure your merchandise will be properly tracked and handled upon receipt at Lionel LLC.

Once you have your Return Authorization (RA) number, make sure the item is packed in its original Styrofoam inner container which is placed inside the original outer display box (this will help prevent damage during shipping and handling). This shipment **MUST** be prepaid and we recommend that it be insured with the carrier of your choice.

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 Lionel LLC's Authorized Service Stations after its warranty has expired. A reasonable service fee should be expected once the product warranty has expired.

Warranty Information

Please complete the information below and keep it, along with your **DATED ORIGINAL SALES RECEIPT**. You **MUST** present this form **AND** your **DATED SALES RECEIPT** when requesting warranty service.

*A complete listing of Lionel Authorized retailers can be found by calling 1-800-4-LIONEL or by visiting our website at www.lionel.com.

Products that are more than 3 years old, from date of manufacture, are not applicable for warranty coverage, even if they have never been sold prior to this date. (Under no circumstance shall any components or labor be provided free of charge.)

Name _____

Address _____

Place of Purchase _____

Date of Purchase _____

Product Number _____

Product Description _____



©2013 LIONEL L.L.C., CONCORD, NC 28027
UNITED STATES OF AMERICA
PRINTED IN CHINA