Lionel
Pennsylvania
Operating Stock Car
Owner’s Manual

Featuring
LEGACY RAIL SOUNDS

LIONEL CONTROL SYSTEM LEGACY
Congratulations!

Congratulations on your purchase of the VISION Line™ Operating Stock Car! On the outside, this car has all the classic Lionel details of our traditional stock car. Inside the body, the stock car is equipped with the latest technology to bring you realistic cow sounds, voices of the Cowboy crew, and true-to-life freight car sounds. Many of the sounds are activated through your cab control unit, and many of them by the actual movement of the stock car on your layout. It also comes equipped with an ElectroCoupler on one end, so you can activate the coupler by your remote control cab unit anywhere on your layout. Enjoy the realistic freight and train brake sounds, and have lots of fun with the “quilling cow” and “Moo Game”!

Features of the Operating Stock Car

- Die-cast metal sprung trucks.
- ElectroCoupler on one end, operating coupler on other end.
- Metal frame.
- LEGACY Command Control operation including volume control, sound activation, ON/OFF control.
- LEGACY Railsounds sound system with Livestock, Cowboy, Freight car, Train brake, and Flat wheel sounds.
- Play sounds in reaction to movement and track layout.
- End of Train (EOT) illuminated light device with ON/OFF control.
- Minimum curve: O-27.

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Lionel®, TrainMaster®, Odyssey®, RailSounds®, CrewTalk®, TowerCom®, DynaChuff®, StationSounds®, Pullmor®, ElectroCoupler®, Magne-Traction®, CAB-1® Remote Controller, PowerMaster®, Lionel ZW®, ZW®, PowerHouse®, TMCC®, Lionelville™, Lockon®, Wireless Tether®, LionMaster®, FatBoy™, American Flyer®, TrainSounds®, PowerMax®, LEGACY®, PowerMax® Plus, Odyssey II®, LEGACY RailSounds™

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Quick Start

Note! Power your operating stock car with an alternating-current (AC) transformer only. Powering your locomotive with a direct-current (DC) transformer, or in excess of 19 volts AC, may result in damage to sensitive electronic components.

LEGACY Control operations

For the finest operating experience, your operating stock car is fully compatible with the new LEGACY Control System.

To operate in LEGACY mode, you need a LEGACY Command Base and LEGACY CAB-2 Remote Controller. Both products are offered together in the LEGACY Command Set (available separately, 6-14295).

1. Turn off track power and plug in the LEGACY Base.
2. Place your operating stock car on any Lionel or Lionel-compatible track and connect to your train consist led by a command control locomotive.
3. Increase track power voltage to full power (no more than 19 volts AC).
4. Press ENG and 1 to address your operating stock car with your LEGACY CAB-2 Remote Controller.
5. Press ENG and the address number of your locomotive to get your engine moving with your CAB-2 Remote Controller (see instruction manual included with your engine for more information).
6. Throttle up and "moov" em out.

Note! If you are operating with v1.2 cab software, make sure to identify your stock car as type "OTHER" (press the CAB-2 INFO button, then select the INFO EDIT screen. Scroll to "OTH" and select). Further, the control system should be set to TMCC and the sound system to LRS.

TrainMaster Command Control operations

You can also operate the cattle stock car in the Command Control environment, but there are a few features that you will not be able to activate. Features you cannot activate include “quilling cow” and Train Brake. To operate the cattle stock car in the Command Control environment you need a Command Base (available separately, 6-12911) and a CAB-1 Remote Controller (available separately, 6-12868).

1. Turn off track power and plug-in the Command Base.
2. Place your operating stock car on any Lionel or Lionel-compatible track and connect to your train consist led by a command control locomotive.
3. Increase track voltage to full power (no more than 19 volts AC).
4. Press ENG and 1 to address your operating stock car with your CAB-1 Remote Controller.
5. Press ENG and the address number of your locomotive to get your engine moving with your CAB-1 Remote Controller (see instruction manual included with your engine for more information).
6. Throttle up and "moov" em out.
Quick Start continued

Transformer operations

You can also operate the cattle stock car in the non-Command Control environment with a traditional transformer, but there are a number of user-activated sounds that you will not be able to operate. Pressing the horn button on your transformer will activate the sound of cow mooing. Additionally, a “short horn” blow when stopped can be used to activate the loading and unloading sound features.

1. Place your operating stock car on any Lionel or Lionel-compatible track and connect to your train consist led by any locomotive.
2. Power your locomotive at 12-18 volts with your alternating current (AC) transformer.
3. Press the DIRECTION button on your controller, then throttle up and "moov" em out
4. Press the horn button to activate the sound of a mooing cow. Additionally, after a recent stop a short horn blow will activate the Unloading Cows announcement. If approximately 15 seconds or more passes after a stop, a short horn blow will instead activate the Loading Cows announcement.
**LEGACY Control System operations**

**Note!** This section is a brief overview of the LEGACY Control System. For a more in depth explanation of the LEGACY Control System features, please see your LEGACY Control System Operations Manual.

**Get Ready to Run**

**Address your cattle car**

First, you must address the cattle car. This "tells" your CAB-2 which car you want to control. This is important when you have more than one command control car or locomotive on your layout.

To address the cattle car:
1. Press ENG.
2. Press 1.
3. Press Start Up. Your cattle stock car sound system will start up

   See Figure 1.

![Figure 1](image)

**Assignment to train**

For the fullest effect of RailSounds, you must add your operating stock car to a train that includes at least one powered locomotive. In particular this will provide the proper configuration for the Train Brake feature to work correctly. The Train Brake Slider will work in concert with the locomotive and your train’s speed. You’ll hear the application of brakes from your operating stock car and the train will slow accordingly. Creating a consist is the only way to experience the full effect of train brake sounds.

**Note!** Always address the locomotive when adjusting the Train Brake Slider on your CAB-2. However, you must address your operating stock car by its own engine number to access all other features. In a future CAB-2 software release, the Train Link button will simplify these operations.

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LEGACY Control System operations

The LEGACY CAB-2 Remote Controller  Version 1.2 software

Select Button Volume Up.

Select Button Volume Down.

Select Button "tower com"
Start the "Moo Game" (sound of bells and cows loading) while stopped.

Select Train Brake Slider Cattle car air brake equipment sounds.

Select Button <R> Reset stock car to initial settings (single cow sound).

Select Button AUX 1 Hoof sound/open keypad.

Select Button "controller"
Flat wheel sounds ON (while running).

Select Button "arrow up" Cowboy Loading Cows announcement while stopped.

Select Button "arrow down" Cowboy Unloading Cows announcement while stopped.

Select Bell/Whistle Slider Cowboy "Heyah!" (up) Cow sounds and "Quilling Cow" sounds (down)

Select Button "solid dot" Shutdown while stopped.

Select Button "R" Coupler Coupler activates, with coupler sounds.

Figure 2
Sounds
See Figure 2 on page 7 for reference.

Cattle and Cowboy Sounds
As you run your cattle car around the track, you will often hear the sounds of the cattle as they moo and shuffle in the stock car. The cattle respond in part to the actual movements of the stock car on your layout. You’ll also hear the cowboy shout when your cattle car is loading or unloading.

You also have personal control of cattle and cowboy sounds with the Whistle Slider. Move the slider up toward the bell icon and hear the “Heyah!” shout of a cowboy. Move the slider down and create your own unique “Quilling Cow” sounds.

Freight Sounds
When your cattle car is running on the track, you will hear a variety of realistic freight car sounds in the background. Listen for an occasional “knock” of the wheels as they clatter over crossing rail junctions, grinding as the car enters a curve, and assorted bumping, groaning, and scraping sounds along the route.

Flat Wheel Sounds
In addition to Freight Sounds, your car also has Flat Wheel sound effects that activate when the stock car is moving. Select button “Controller” while the car is moving to get a simulated “flat spot” sound, just as can happen on the real railroads. The flat wheel sound will increase in volume as the car runs. About 5-7 seconds after the car has stopped, you will hear a workman announce that the wheel is fixed and that you are “good to go!”

Train Brake Sounds
The Train Brake sound effects are only accessible through your LEGACY CAB-2 Remote Controller. For full effect, you must add your operating stock car to a train consist that includes at least one powered locomotive (see the Assignment to Train section on the bottom on page 6 for more information).

While moving at high or medium speeds, pull back on the Train Brake slider (See Figure 2). When the slider is engaged, an intermittent scraping sound will begin. This sound simulates air brakes on the freight car engaging. Pull back further and the brake sounds get louder and louder. Sliding the Train Brake back up will generate various air “let-off” sounds and the authentic sound of brake shoes lifting off of the wheel. Experiment with the Train Brake Slider to get a variety of realistic air brake sounds.

Note! Adjusting the train brake slider while addressing your operating stock car as an engine (ENG) leads to unpredictable results.
The Moo Game

Here’s a fun game you can play with your new operating stock car! To win the game, try to keep your load of cows calm and relaxed by giving them a smooth ride.

1. Select button "Tower Com" to start the game.
2. Pull your train out of the yard. As the cows sense speed changes and curves, they may become agitated. When they do get agitated, they get even more sensitive to a rough ride. To win the game, try and calm the cows by giving them a smooth ride.
3. When you reach your destination, unload the cows by selecting button "Arrow Down". If the ride was too rough, you’ll hear a disgruntled cowboy comment negatively about the agitated cows.

To make things more challenging, there’s a minimum distance you must travel to be able to win the game. On a 4’ by 8’ layout, it’s about six laps. If you haven’t traveled far enough, you get the same unloading sound as usual, with quiet cows shuffling out of the car. But if you’ve gone far enough, and have not angered the cows, you’ll hear a special "Win" sound. You’ll know it when you hear it!
**LEGACY Control System operations**

The LEGACY CAB-2 Remote Controller  Version 1.3 software

- **Select Button Volume Up.**
- **Select Button Volume Down.**
- **Select Button "tower com"**
  Start the "Moo Game" (sound of bells and cows loading) while stopped.
- **Select Train Brake Slider**
  Cattle car air brake equipment sounds.
- **Select Button "A" ON**
  Enable rail clatter sounds.
- **Select Button "A" OFF**
  Disable rail clatter sounds.
- **Select Button <R>**
  Reset stock car to initial settings (single cow sound).
- **Select Button AUX 1**
  Hoof sound/open keypad.
- **Select Button "controller"**
  Flat wheel sounds ON (while running).
- **Select Button "arrow down"**
  Cowboy Loading Cows announcement while stopped.
- **Select Button "arrow up"**
  Cowboy Unloading Cows announcement while stopped.
- **Select Bell/Whistle Slider**
  Cowboy "Heyah!" (up) Cow sounds and "Quilling Cow" sounds (down)
- **Select Button "No Sound"**
  Shutdown while stopped.
- **Select Button "B" ON**
  Enable curve grind sounds.
- **Select Button "B" OFF**
  Disable curve grind sounds.
- **Select Button "R" Coupler**
  Coupler activates, with coupler sounds.

Figure 3
TrainMaster Command Control operations

The CAB-1 Remote Controller commands

Select Button <1>
Volume Up.

Select Button <2>
Volume Down.

Select Button <7>
Start the "Moo Game" (sound of bells and cows loading) while stopped.

Select Button <0>
To reset stock car to initial settings (single cow sound).

Select Button AUX 1
Hoof sound/open keypad.

Select Button <AUX> <2>
Flat wheel sounds ON (while running).

Select Button <AUX> <3>
Cowboy Loading Cows announcement while stopped.

Select Whistle
Cow sounds announcement.

Select Bell
Cowboy "Heyah!" announcement.

Select Button <6>
Cowboy Unloading Cows announcement while stopped.

Select Button <5>
Shutdown while stopped.

Select Button R Coupler
Coupler activates, with coupler sounds.

Figure 4
**Switch Function Overview**

![Diagram of switch function](image)

Bottom view of stock car

Figure 5

**Mode Switch**

Your cattle car is automatically assigned an ID#1 when you first receive it. To assign a new ID # to the cattle car in LEGACY and Command operation follow these steps:

1. Slide the Mode switch to the “PROG” position.
2. Place the cattle car on the track.
3. Connect the Command Base and plug it in.
4. Power up the track.
5. Press ENG on your CAB controller.
6. Enter a unique ID#. Choose any number from 1 to 99 that has not been assigned to another engine or freight car.
7. Press the SET button on your CAB controller.
8. Slide the Mode switch back to the RUN position.

The stock car’s ID# has been set. Be sure to record the new ID# for your reference.
Switch function overview

EOT Light Switch

Your cattle car comes equipped with an End-of-Train (EOT) device box. This box on the end of your cattle car comes equipped with an illuminated light. Like real freight cars on the railroad, it is appropriate to have the EOT light on when it is the designated last car in your consist, but feel free to keep the light on no matter where you place the cattle car in your consist.

If you prefer to turn the stock car EOT light off, slide the EOT switch to the “EOT OFF” position. When you want to turn the light back on, simply slide the switch back to the “EOT ON” position.

Sound Set Switch

For all sounds effects, keep the Sound Set switch in the “MAX” position. If you wish to mute Freight Sounds sound effects from playing (wheel grinding in curves, rail clatter, and coupler sounds), move the switch position to the “MIN” position.

Volume Pot

To adjust the overall volume of sounds, insert a small phillips screwdriver into the Volume Pot adjustment screw and turn. To increase the volume, turn the screw clockwise toward the “+” icon. To decrease the volume, turn the screw counter-clockwise toward the “-” icon.
## The MOO Game

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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-transferable) 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 9105 or FAX Lionel at 586-949-5429 or write to Customer Service, 26750 Twenty Three Mile Road, Chesterfield, MI 48051-2493. 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

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