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***Lionel
TrainMaster Command
Control Crane Car
Owner's Manual***

Congratulations on your purchase of the Lionel TrainMaster Command Control Crane Car! The Crane Car is designed for use with a TMCC Command Base (available separately, 6-12911) and a CAB-1 Remote Controller (available separately, 6-12868).

Caution! To prevent damage, disengage the gears before you rotate the cab by hand. Refer to page 7 to disengage the gears.

Features of the Crane Car

- **TrainMaster Command Control equipped**
- **360-degree cab rotation**
- **Up and down operation of the boom**
- **Independent control of the main and auxiliary hooks**
- **Deployment of all six outriggers**
- **Dual ElectroCouplers**
- **Four powerful maintenance-free motors**
- **Operating front and rear work lights**
- **Opening cab doors**
- **Six outrigger supports for 0-27 track**
- **Six outrigger supports for 0 gauge and FasTrack track**

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The name FasTrack® is used with permission from Pitsco, Inc.

Capabilities of the Crane Car

Your Crane Car was designed to hoist objects when properly supported by the outrigger supports from a stationary position. When the boom is raised to its highest point, the main hook is capable of hoisting about 19 oz (1-1/5 lb) and the auxiliary hook is capable of hoisting about 14 oz (7/8 lb). When the boom is lowered to its lowest point, the main hook is capable of lifting about 12 oz (3/4 lb) and the auxiliary hook is capable of lifting about 7 oz (7/16 lb). Avoid lifting heavier objects to prevent damage to the Crane Car.

Operating the Crane Car

To operate the Crane Car, you will need to use the TMCC Command Base (available separately, 6-12911) and a CAB-1 Remote Controller (available separately, 6-12868).

1. With track power off, place the Crane Car on the track. Be sure that the RUN/PROGRAM switch is in the RUN position. See Figure 1 on page 5.
2. Make sure that the Command Base is plugged in and connected.
3. Power up the track. After five seconds, the front and rear work lights will illuminate. The Crane Car begins searching for the Command Control signal sent automatically by the Command Base. After another five seconds, the Crane Car will be ready for operation.
4. Address your Crane Car using your CAB-1 Remote Controller. Press **ENG** and **1** on the numeric keypad of your CAB-1 Remote Controller.

Note! Your Crane Car is factory programmed with an ID# of "1." To change the ID#, see page 5.

5. Use your CAB-1 Remote Controller to operate the Crane Car. Refer to page 4 for the CAB-1 Remote Controller commands.

CAB-1 Remote Controller Commands for your Crane Car



Use the red throttle knob to rotate the cab in either direction. The cab will rotate only while you are manipulating the knob.

Note!

You can operate the hooks or the boom while the cab is rotating.



Releases the front ElectroCoupler.



Releases the rear ElectroCoupler.



Lowers the boom.



Raises the boom.



Lowers the main hook.



Raises the main hook.

Caution!

Do not allow the hook to go all the way down and then start to ascend again. If you notice that the hook begins to ascend when it reaches its lowest point, press and hold the BOOST (up arrow) button immediately to avoid reversing the controls.



Lowers the auxiliary hook.



Raises the auxiliary hook.

Note!

We recommend that you keep a light weight on the auxiliary hook for optimal performance.



Toggles the front work lights on and off.



Toggles the rear work light on and off.



Launches the outriggers. The outriggers launch sequentially—front, center, and then rear. Press the outriggers back in by hand.

Note!

The front and rear work lights always turn on when the Crane Car is powered up. Use **AUX1, 4** and **AUX1, 5** to turn off the lights.

Note!

When you launch the outriggers or release an ElectroCoupler, these features will become inactive for ten seconds to prevent overloading the electronics.



Using the outrigger supports

Your Crane Car includes six shorter outrigger supports for O-27 gauge track and six higher outrigger supports for O gauge and FasTrack track. Launch the outriggers, then position the appropriate supports beneath them.

Note! When the outriggers are launched, you may find that any locomotive in operation briefly slows and the headlights and interior lights momentarily flicker. If a battery is not installed, the RailSounds sound system will restart. For optimal performance, we recommend using a transformer capable of seven to ten amps.

Assigning a new ID# to your Crane Car

As your fleet of TrainMaster Command Control equipped locomotives and equipment grows, you will want to assign each unit a unique ID#. Use your CAB-1 Remote Controller.

1. With track power off, place the Crane Car on the track.
2. Make sure that the Command Base is plugged in, then power up the track.
3. Slide open the small door on the left-hand side of the cab and slide the RUN/PROGRAM switch towards the top of the car. Refer to Figure 1.
4. Press **ENG**.
5. Enter the unique ID# for the Crane using the numeric keypad on the CAB-1 Remote Controller. Select any number between 1 and 99.
6. Press **SET**.

Note! The lights do not flash when you are assigning the ID#.

7. Slide the RUN/PROGRAM switch towards the bottom of the car.

At this point, the new ID# has been set. When you power up, be sure to address the Crane Car using the new ID#.

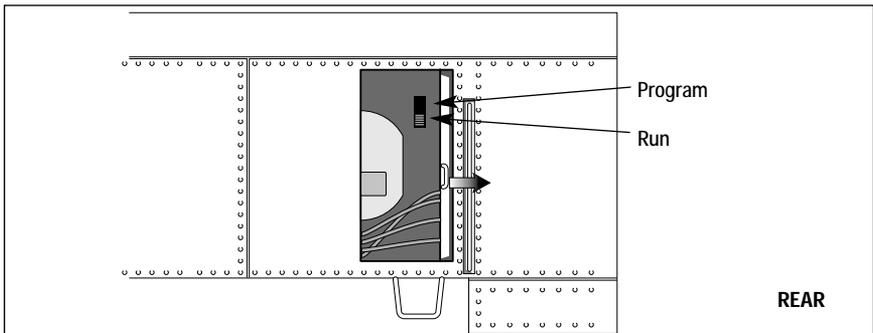


Figure 1. RUN/PROGRAM switch location

Placing the Crane Car on a conventional layout

Your Crane Car was designed for operation on a TrainMaster Command Control layout. Each feature is accessed through the CAB-1 Remote Controller.

If you choose to place the Crane Car on a conventional (non-Command) layout, be sure to slide the RUN/PROGRAM switch to the PROGRAM position. Operating the unit with the switch in the RUN position will cause sporadic operation of the motors.

To couple your Crane Car to a locomotive or other rolling stock in the conventional environment, you will need to rely on the magnetic couplers on the other equipment. The ElectroCouplers will not open by hand or with a Remote-Control Track section.

Installing the cab locking pins

You may choose to install the cab locking pins to simulate these details found on prototypical cranes. As illustrated in Figure 2, insert the pins into the channels on the cab and through the eyelets on the frame.

Caution! The pins are aesthetic detail pieces only. Do not attempt to rotate the cab with the pins in place. The pins should not be used to secure the cab.

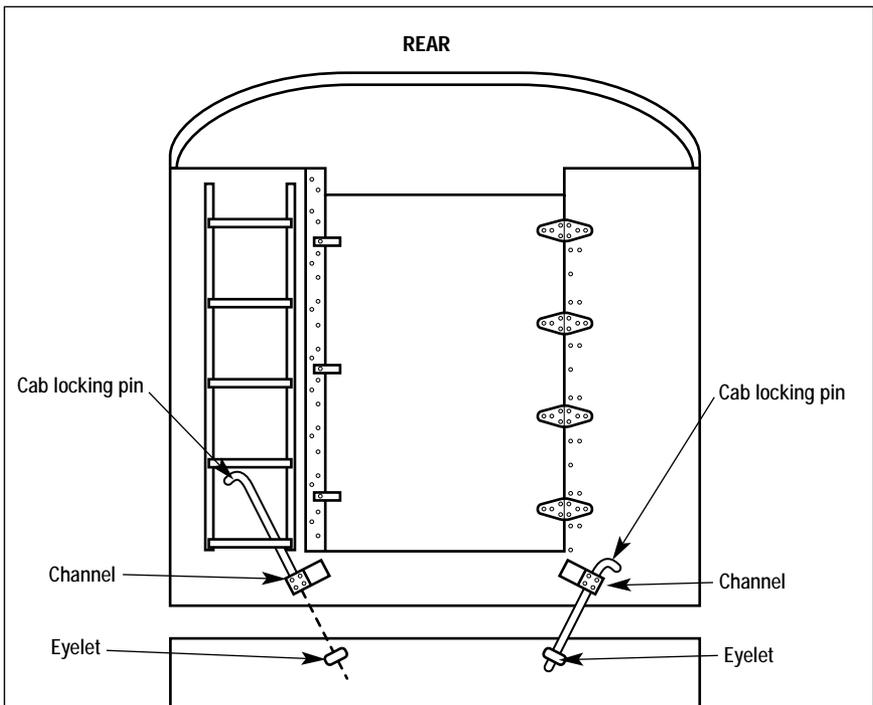


Figure 2. Cab locking pins

Storing the Crane Car

When you are ready to store your Crane Car, be sure to use rubber bands to keep tension on the hook lines. Use your remote to position the boom to fit in the foam cavity. As illustrated in Figure 3, open the front right-hand cab door and slide the lever towards the boom to disengage the cab rotation gears.

To engage the gears, press the small gear back into position, gently swiveling the cab until the teeth align. Slide the lever back towards the gears to lock the gears in position.

Note! Always keep light tension on the hooks when the Crane Car is off the track.

Caution! To prevent damage, disengage the gears before you rotate the cab by hand.

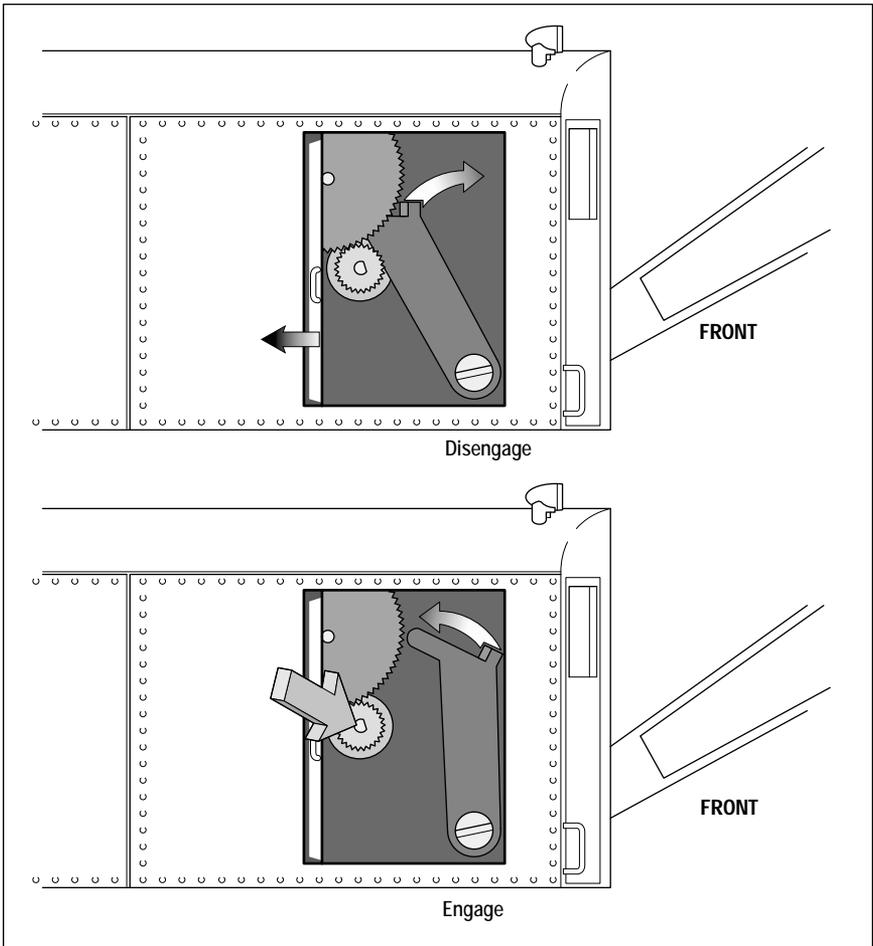


Figure 3. Disengaging the cab rotation gears

Restranging the Crane Car

To keep the strings running through the pulleys, it is important to keep the hooks under a small amount of tension. In the event that the strings slip out of the pulleys, you may use tweezers and a pin to reposition the strings. Be sure to position the strings as discussed in this section to prevent the strings from breaking.

Note! If a string breaks, do not attempt to knot the string. See your authorized Lionel Service Center for a non-warranty repair.

Auxiliary hook

The auxiliary hook is operated using a single string, which is approximately 48 inches long. This string originates on the spool at the rear of the cab, travels over two pulleys, inside the cab, under the pulley at the base of the boom, over a pulley at the top of the boom, and terminates at the hook. Refer to Figure 4 on page 9.

Restranging the Crane Car (continued)

Main Hook

The main hook is operated using a single string, which is approximately 96 inches long. This string originates on the second spool from the rear of the cab. Refer to Figure 4 to route the string. Please note that the string travels through only the two center pulleys on the hook and the two left-hand pulleys on the boom.

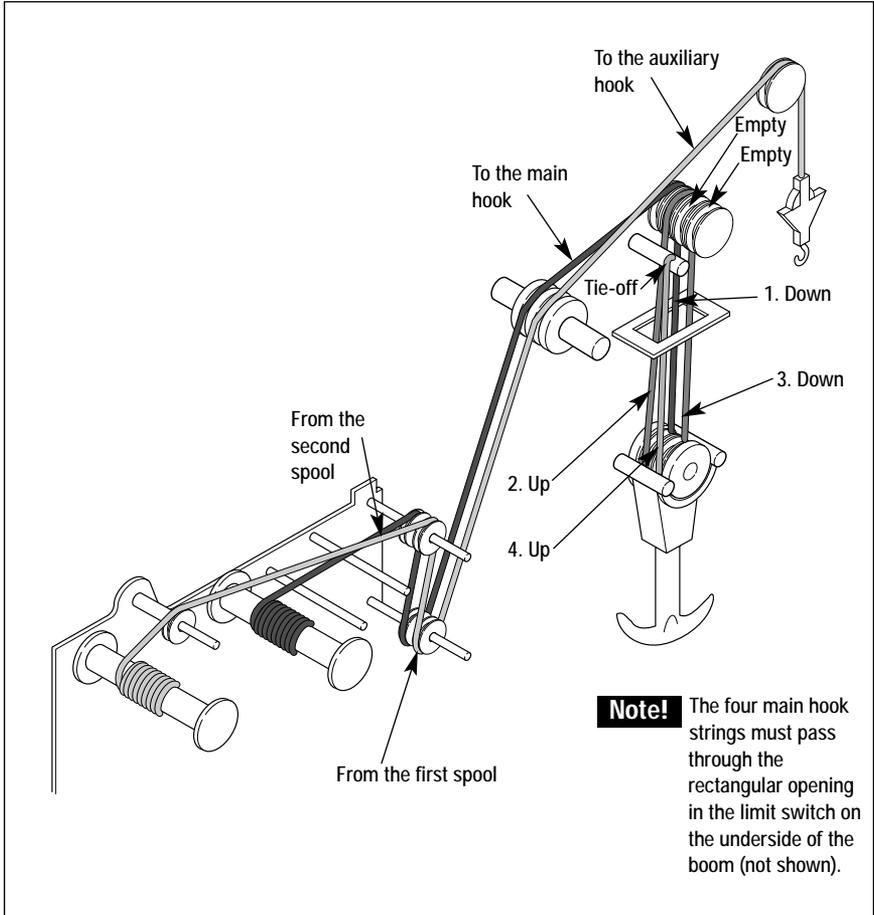


Figure 4. Routing the main hook string

Restraining the Crane Car (continued)

Boom

The boom is operated using a single string with both of its ends attached to the same spool, which is approximately 96 inches long. This loop of string passes through a pulley system on the right and left sides. Refer to Figure 5 to route the string.

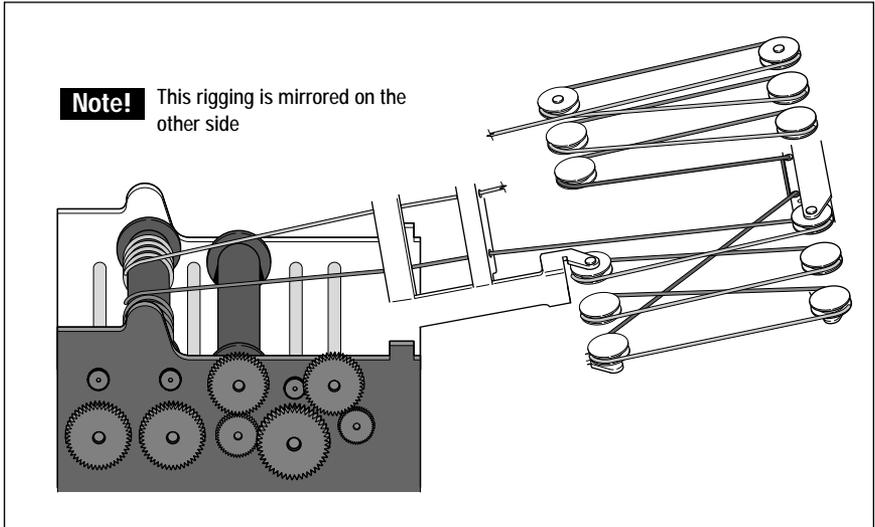


Figure 5. Routing the boom string

Replacing the lamps

Your Crane Car is illuminated by several LEDs. The LEDs are expected to last for the life of this product. Service should be performed only by an authorized Lionel Service Center.

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 _____



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Preparing the TMCC Crane Car for operation

To preparing the Crane Car for operation, press the small gear back into position, gently swiveling the cab until the teeth align. Slide the lever back towards the gears to lock the gears in position. See Figure 1.

When you are ready to store your Crane Car, be sure to use rubber bands to keep tension on the hook lines. Use your remote to position the boom to fit in the foam cavity. As illustrated in Figure 1, open the front right-hand cab door and slide the lever towards the boom to disengage the cab rotation gears.

Note! Always keep light tension on the hooks when the Crane Car is off the track.

Caution! To prevent damage, disengage the gears before you rotate the cab by hand.

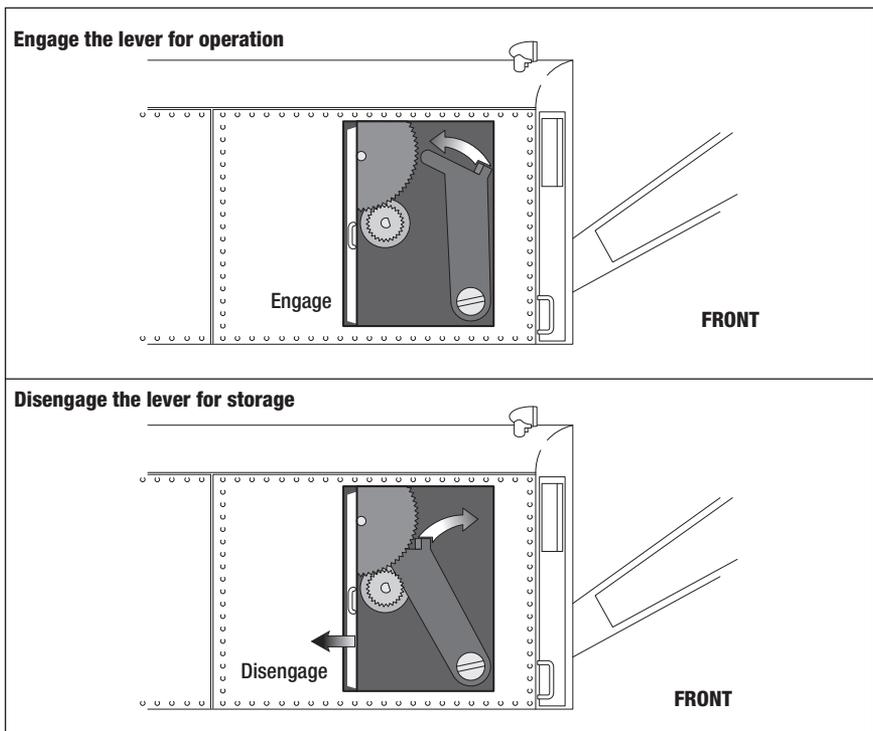


Figure 1. Preparing the Crane Car for operation and storage