

71-8058-250
03/00



Lionel 773 Hudson 4-6-4 steam locomotive Century Club

featuring **TRAINmaster** and *Railsounds*

Congratulations!

You own one of the most sophisticated model trains ever built—the Lionel TrainMaster® Command-equipped 773 Hudson. From its scale details to the

advanced technology present inside, your 773 Hudson is ready for duty on your model railroad layout. Experience the superiority of today's Lionel.

- Powerful Pullmor® motor
- Liontech Command™ R2LC reverse unit for use with the Lionel TrainMaster® Command™ model railroad control system
- Smoke generator that produces clean, safe, and realistic smoke
- 2 Additional Traction Tires included
- Wireless Tether™
- Railsounds™ Hudson digital sound system
- Magne-Traction® and Tire-Traction™
- Directional lighting
- Optional plain center drivers

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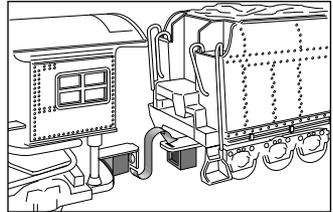
Transformer operations

Running your Lionel 773 Hudson with a Lionel transformer

1

Place your 773 Hudson on Lionel or Lionel-compatible 0 gauge track.

- **Note the pull of Magne-Traction®** between your 773 Hudson and the steel track. Magnetized wheels and axles increase pulling power (more than 25 cars on straight and level track) and keep your 773 Hudson on track while passing swiftly through curves. Your 773 Hudson will negotiate 0-42 and larger curves.
- **With track power OFF**, Connect the draw-bar between locomotive and tender. That's all you have to do with Lionel's new Wireless Tether®, an infrared communication system that eliminates the plugs and wires of the past.



Note! Included with your Lionel 773 Hudson are two plain center drive wheels. You may choose to have these installed.

Because installation requires the removal and reinstallation of some of the linkage, we recommend that you have your local Authorized Lionel Service Center perform this service.

2

Power up your 773 Hudson with your transformer.

- **Your 773 Hudson is designed to operate on 10-18 volts alternating current.** Virtually all Lionel and Lionel-compatible alternating-current transformers are suitable; we recommend the TrainMaster Command model railroad control system.

Note!

- **Do not power your 773 Hudson with direct current (DC).** Damage to sensitive electronic components may occur.
- **When you first power up your track, the 773 Hudson will wait between 3 and 8 seconds** as it “listens” for digital language from the TrainMaster Command Base (available separately). When it's determined that it's on a conventional (nonCommand) railroad, the 773 Hudson's headlight will illuminate and Railsounds will fire up. At this point, the 773 Hudson is in neutral. (This occurs when placing the Hudson on your railroad for the first time. Thereafter, it starts in forward after every three-second power interrupt.)

3

Move 'em out!

- **Get your 773 Hudson moving.** Press the DIR button on your CAB-1 remote or Lionel transformer. This sequences the Liontech Command reverse unit (R2LC) to the next operating state.
- **Adjust track voltage** until your Hudson moves at your desired speed.

Transformer operations

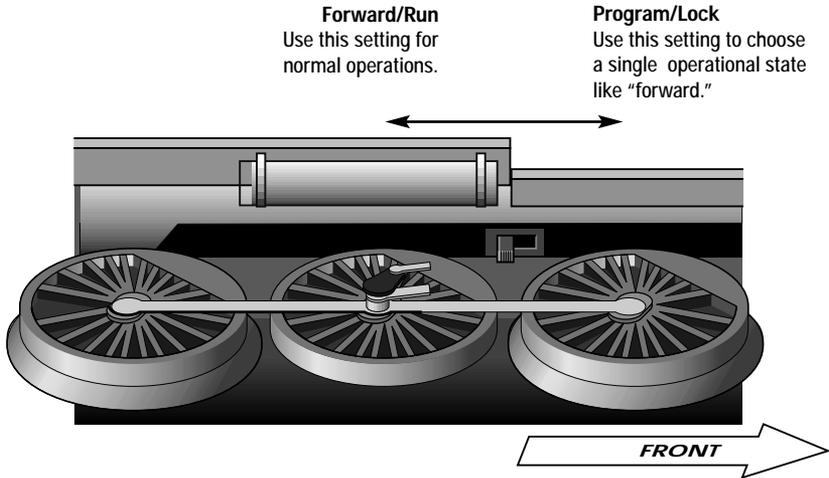
Locking your 773 Hudson into a single operational state

To select a single operational state for your Lionel 773 Hudson (example: forward only), you can deactivate the R2LC's sequencing function with the reverse unit control switch, located between the front and center drivers on the right-hand side, under the boiler casting.

Get your locomotive moving in the

desired direction, then *slow it down without stopping*. Set the reverse unit control switch to PROGRAM/LOCK. The 773 Hudson is now "locked" into your chosen direction.

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

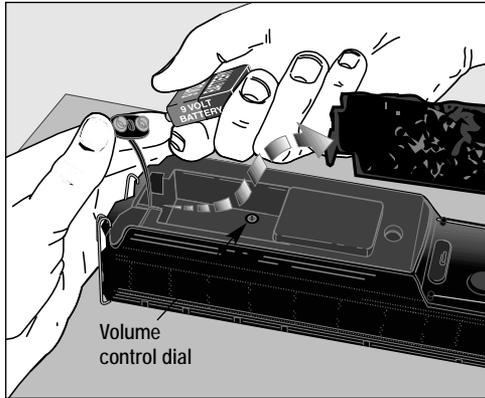


Transformer operations

Your 773 Hudson's Railsounds system—the basics

Lionel RailSounds is the most realistic model railroad sound system in the world. Your 773 Hudson features the Railsounds Hudson digital sound system for the ultimate in realism.

Begin by installing a 9-volt alkaline battery in the tender. This ensures interruption free operation of your Railsounds. The battery compartment is located beneath the tender's removable coal load. Connect the 9-volt alkaline battery to the lead.



Install a 9-volt alkaline battery in your 773 Hudson's tender.

When you first apply track power, the 773 Hudson's Railsounds system produces sounds of a locomotive at rest. As your Hudson moves, chuffing begins, increasing with the locomotive's speed.

To silence the steam chuffing (whistle/bell are unaffected), slide

the Railsounds switch, located under the tender, to the Off position before powering up the locomotive. The whistle is activated by using the lever or button on your transformer or CAB-1.

Notes! Please remove protective cover from battery clip.

Although Railsounds is powered by track voltage, the battery is required for uninterrupted operation. Use only alkaline batteries.

Discontinue locomotive power for 10 seconds before changing the Railsounds on/off switch position.

If Railsounds "drops out" during track power interruptions (direction change), replace the battery.

Transformer operations

Experiencing the range of your 773 Hudson'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. And remember—inside your Lionel 773 Hudson and tender are the sounds of the Railsounds Hudson digital sound system. No other electric train can offer you **authentic** Hudson sounds. *That's* the power of Lionel.

- **Variable chuff rate.** Your 773's speed determines the steam chuff rate.
- **MultiWhistle™.** Different whistles every time—a Railsounds exclusive.
- **Authentic bell.** Press BELL on your CAB-1 or transformer to begin the effect, again to discontinue. Even the final “hit” is muted like the real thing.
- **Reverse unit reset sound.** Power down your track, wait for 3-5 seconds, and listen for the air-release sound—that's the 773 Hudson telling you its Liontech 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 773 Hudson. If you're done with operations, RailSounds will commence with an authentic Hudson shutdown sequence about two seconds after the air-release reset occurs.

Note! Battery must be installed for shutdown sequence

Notes on Railsounds

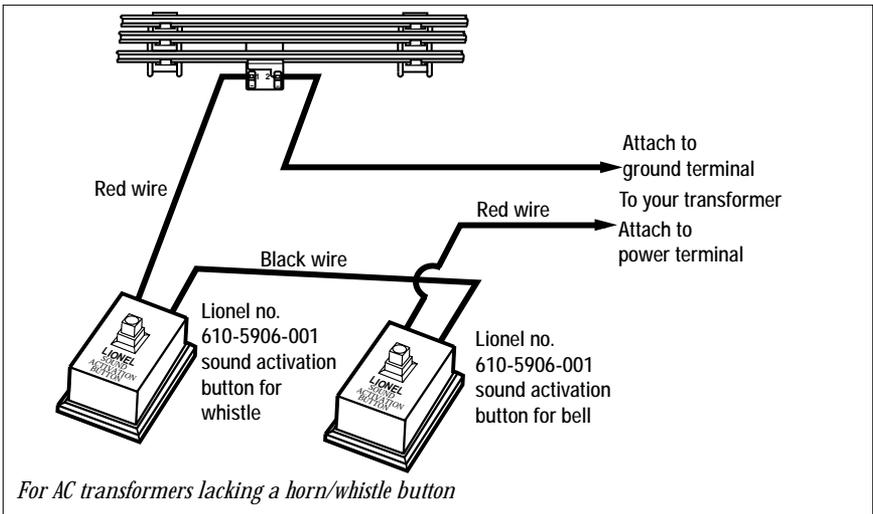
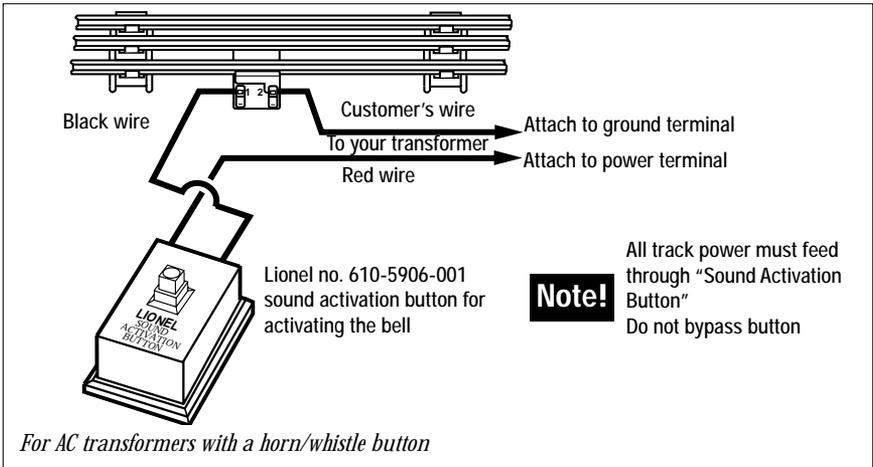
- Use the volume control dial, located in the battery well, to adjust sound output (see page 5).
- Listen for incidental engine sounds during Railsounds operation. They're automatic and, of course, authentic.
- The 9-volt alkaline battery you installed ensures continuous Hudson sounds, even during short track-power interruptions.
- Longer track-power interruptions (including locomotive derailments) cause Rail-sounds to shut down after about 7 seconds.
- For even more authentic Railsounds effects, operate your 773 Hudson in the TrainMaster Command environment. See page 9 for details.

Transformer operations

Installing the Lionel sound activation button

To operate the bell and whistle sounds when operating your 773 Hudson 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! 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.

Transformer operations

Your 773 Hudson in the TrainMaster Command environment

Lionel TrainMaster Command is the fun and sophisticated model railroad control system from Lionel. Your 773 Hudson features the Liontech Command reverse unit, which acts as both a conventional reverse unit as well as the key to unlocking many extra features when you operate in Command mode.

TrainMaster Command gives you the power to operate multiple Command-

equipped locomotives *on the same track, at the same time*. It's the most fun you can have with electric trains, and it's incredibly easy too! Just follow the directions below and you'll be on your way.

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 773 Hudson on Lionel or Lionel-compatible O gauge track.

- **Make sure track power is OFF before placing it on track.**
- **Make sure your Lionel Command Base is ON** and its communications wire is connected to the COMMON post on your Lionel transformer *or* the U on any of your installed PowerMasters.
- Once positioned on the track, **increase track voltage to FULL** (on PowerMaster, slide the CMD/CONV switch to CMD).

2

Address your 773 Hudson with CAB-1.

- **Press ENG and 1** on the numeric keypad of your CAB-1 remote. This command is sent by CAB-1 to the Command Base, which then translates your commands into digital code. That code is sent around your railroad's outside rails in the form of a digital "halo." All Command-equipped Lionels listen to this digital communication, but they *do not respond* until they hear their own ID number.
- The digital language of TrainMaster Command—and not track power—controls the actions of Command-equipped Lionels. 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.
- **All Command-equipped Lionels come factory-programmed with an ID# of "1."** To change your 773 Hudson's ID#, see page 12.

3

Move 'em out!

- **Throttle up or press any command button on CAB-1.** Your 773 Hudson will respond to your *every* command. Read on. The fun is just beginning!

Transformer operations

CAB-1 commands for your 773 Hudson

Hudson RailSounds effects in bold italic

F **Coupler release sounds.**

R Tender rear coupler releases. **Coupler release sounds.**

Y Press AUX2 to turn your 773's headlight on and off.

 Turn the **THROTTLE** to the right to accelerate, left to decelerate. Speed-dependent variable steam chuffing. DynaChuff dynamic chuffing effect.

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



 Press **WSTL/HRN** to activate the 773's whistle, release to discontinue. **Multi-Whistle steam whistle sound.**

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

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

 Press and hold **BOOST** for extra power. Release **BOOST** and return to the locomotive's previous speed. **Labored chuff.**

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

Railsounds in the Command environment

Your 773 Hudson's Railsounds system gives you even more in the TrainMaster Command environment.

- **DynaChuff™.** Real steam locomotive chuffing depends on the locomotive's load. DynaChuff simulates both labored and relaxed chuffing sounds. Highball down the mainline and hear the labored chuffing of a locomotive battling inertia. Reduce your throttle setting, and chuff-

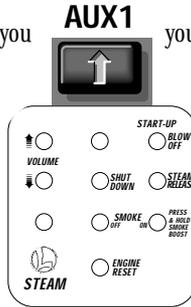
ing relaxes to a more sedate sound, as though the load placed on the 773 Hudson has decreased. Experience DynaChuff on steep grades, at yard crawls, and at speed. Another Railsounds exclusive.

- **Bonus sounds** like squealing brakes with the CAB-1 **BRAKE** command.
- **Incidental sounds** you control with CAB-1 numeric keypad commands, like steam letoff and steam release effects.

TrainMaster Command operations

CAB-1 numeric keypad commands for your 773 Hudson

When you press AUX1 on CAB-1, you turn the numeric keypad into 10 command buttons. The keypad “stays open” and gives you access to extra command features until you press any top-row button (SW, ACC, RTE, TR, or ENG). The CAB-1 keypad overlay included with



your 773 Hudson is designed to help you learn the auxiliary features specific to this classic locomotive.

Hudson Railsounds effects in bold italic.

0 Stops and resets the 773 Hudson to FORWARD. ***Whistle blows. Headlight flickers.***

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

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

3 Starts up RailSounds. Startup sequence commences. ***Steam blowoff sound.***

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

5 Activates the RailSounds steam shutdown sequence. Just like the real thing, *your 773 Hudson must be idle for shutdown to occur.* ***Steam shutdown commences.*** Remember, the whistle and bell will not sound until you restart RailSounds.

6 ***Steam release sound.***

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 off the smoke generator.

9 Turns on the smoke generator. Press and hold 9 (10 seconds maximum) to initiate Smoke Boost™—it superheats the smoke generator and enhances smoke output when you start running your 773 Hudson.

Note! Always keep smoke fluid in your 773 Hudson's smoke generator. Using Smoke Boost with depleted fluid can damage the generator's element.

TrainMaster Command operations

Tuning your 773 Hudson's performance

Momentum

Simulate the labored performance of a locomotive pulling a heavy load with momentum. Press L, M, or H (located under CAB-1's removable panel) for light, medium, or heavy momentum. The R2LC remembers the setting until you change it. For delayed response, use H. For quick response, choose L.

Boosting and Braking

Use the BOOST and BRAKE command buttons for incremental control of speed and a superior method for handling grades, 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.

Stall

Make your 773 Hudson feel more responsive by setting a “stall” voltage. Get your locomotive moving, then press SET; the 773 Hudson will stop. The headlight will flash, indicating it's in the SET mode. Turn the throttle clockwise to get the engine moving, then decrease speed until the locomotive just

stops. Then press SET again; the R2LC remembers the stall setting until you change it. To clear stall, press SET twice, holding it for one second each time.

High Voltage Setting

Press SET, headlight will flash. Get your locomotive moving to the maximum speed you want it to run, press BOOST. Use this to keep your locomotive from accidentally being derailed at high speed. To clear boost, press SET, then BOOST, holding it for one second.

Sound Quality

To achieve your preferred Railsounds master volume level, use the volume control dial located beneath the tender's coal load. Turn the dial left or right to adjust the volume to your liking.

For quick remote-control of volume below the master setting—like muting—use the CAB-1 numeric keypad's volume control. Pressing AUX1 and 4 on the keypad lowers overall Railsounds output.

Maintaining your 773 Hudson's handrail antenna

Your 773 Hudson's handrails are more than just model grab irons—they're the R2LC's antenna for receiving Command Base digital communications. Please handle the 773 Hudson carefully to avoid handrail damage. To ensure optimum reception, both handrails are insulated from the die-cast

shell. If your 773 Hudson experiences difficulty receiving Base communications, check the handrail ends in the cab and pilot for the presence of insulating material. Ensure each stanchion is present and enjoys a proper fit. Finally, prevent the handrails from touching any part of the die-cast locomotive cab.

TrainMaster Command operations

Assigning your 773 Hudson' a new ID#

Example *Assign a new ID# to your 773 Hudson*

Command Base ON

**Place the 773 Hudson on track
PowerMasters set to CMD or tra-
ditional power supplies on full**

**Slide the 773 Hudson's reverse
unit control switch to PRO-
GRAM/LOCK**

**Turn track power on
(PowerMasters):**



Press BOOST

Program the 773 as Engine #53:



Press ENG



Press 53 (the ID#)



Press SET

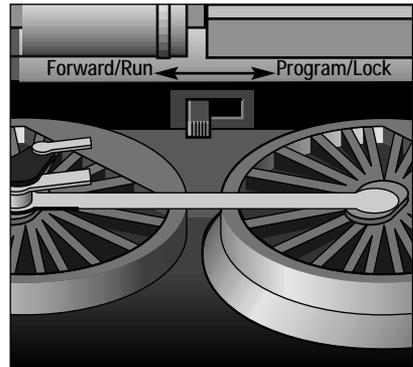
**Hear the whistle sound (or see
the headlight flash if Railsounds
is OFF)**

**Slide the reverse unit control
switch to FORWARD/RUN**

**Your engine remembers its ID#
forever; you can change it any
time by repeating these steps**

As your Lionel Command-equipped fleet grows, you'll want to give your 773 Hudson a more individualized ID#. Choose from any number between 1 and 99. To make things easy, use a portion of your 773 Hudson's cab number (773), for example 77 or 73.

Turn the Command Base ON and place the 773 Hudson on track. Slide the 773 Hudson's reverse unit control switch to PROGRAM (see the illustration), then power up. Using CAB-1, press ENG, the engine ID# (example: 53), then press the SET button located under CAB-1's removable panel. Hear the whistle blow (or see the headlight flash if RailSounds is off); that's the R2LC confirming the new ID#. Slide the R2LC switch to FORWARD/RUN. Your 773 Hudson is ready to run with its all-new ID#.



Slide the 773 Hudson's reverse unit control switch to PROGRAM/ LOCK. When you've finished ID# programming, slide the switch to FORWARD/RUN.

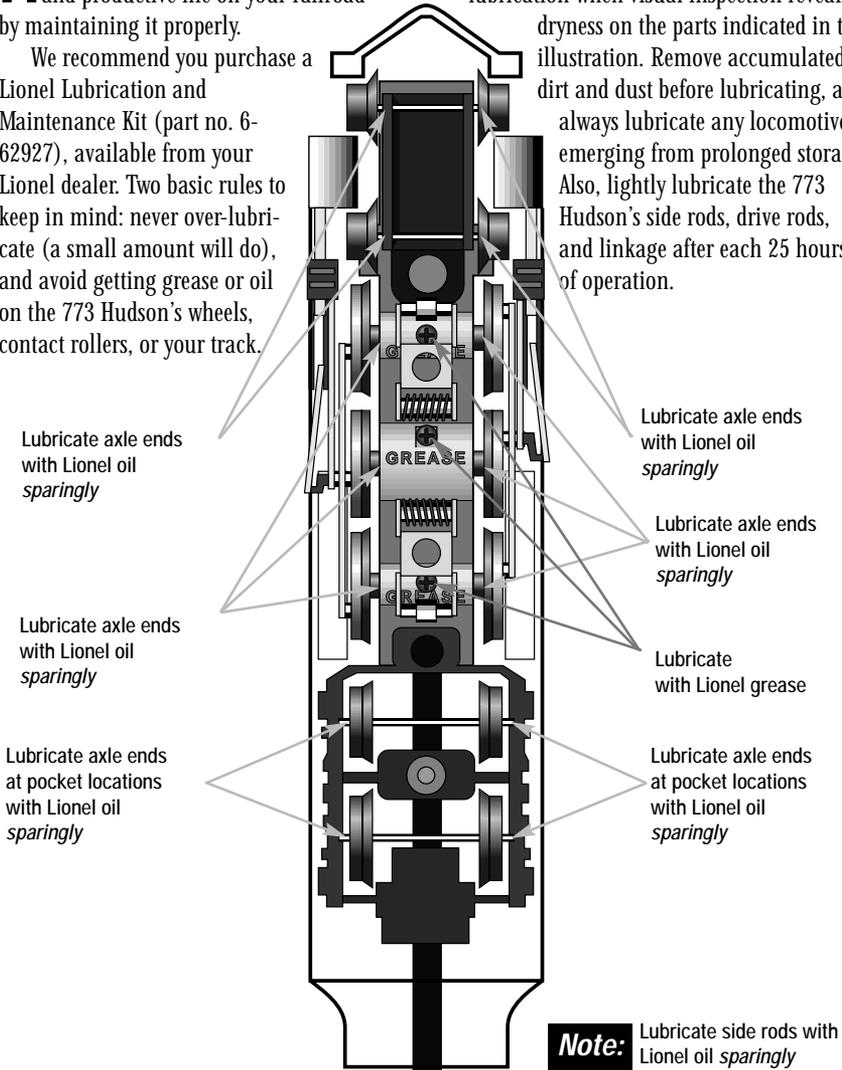
Maintaining and servicing your 773 Hudson

Lubricating your Hudson

Help your Lionel 773 Hudson lead a long and productive life on your railroad by maintaining it properly.

We recommend you purchase a Lionel Lubrication and Maintenance Kit (part 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 773 Hudson's wheels, contact rollers, or your track.

You'll know your 773 Hudson 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. Also, lightly lubricate the 773 Hudson's side rods, drive rods, and linkage after each 25 hours of operation.



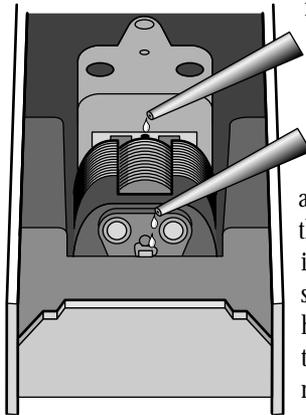
Maintaining and servicing your 773 Hudson

Lubricating your 773 Hudson's Pullmor® motor armature

With typical use, your 773 Hudson will require occasional lubrication of its Pullmor motor armature.

If you hear excess noise during operation, or if the locomotive seems to slow down intermittently, you may need to oil the armature bearings.

Turn the 773 Hudson over and place it on a soft, protective surface. Remove the trail-



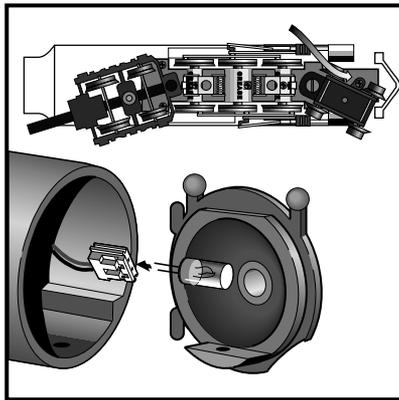
Carefully unplug the infra-red tether leads and remove the trailing truck assembly. Apply a small amount of oil (two drops) at the locations indicated in the illustration. The armature should be oiled after every 20 hours of operation. Reposition the trailing truck assembly and reinstall the screws.

Replacing your 773 Hudson's headlight

Your 773 Hudson is illuminated by a 14-volt lamp located directly behind the boiler face. During the course of normal operation, the lamp may require replacement.

Lamp replacement involves removing the 773 Hudson's boiler face from the front of the locomotive.

Begin by turning the 773 Hudson over on a soft, protective sur-



Replacing the lamp inside the boiler face.

face. Remove the single screw located beneath the front axle on the pilot truck, this will allow the Hudson's boiler face to be removed.

Mounted inside the boiler face is the lamp. Replace the expired lamp with Lionel part no. 610-8049-300, then reinstall the boiler face on the 773 Hudson's boiler, and retighten the screw.

Note: Press Aux2 to make sure headlamp was not accidentally turned off, before replacing bulb

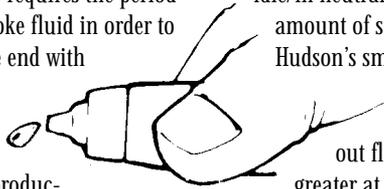
Your Lionel Hudson has firebox glow, this is a small bulb (Lionel part no. 10-8056-009) located by the motor. During the course of normal operation it may require replacement. Because installation requires the soldering of the bulb to the motor, we recommend that you have your local Authorized Lionel Service Center perform this service.

Maintaining and servicing your 773 Hudson

Adding fluid to your 773 Hudson's smoke generator

Your 773 Hudson is equipped with a smoke generator that produces safe, clean white smoke during operation.

The smoke generator requires the periodic addition of Lionel smoke fluid in order to function. Pierce the tube end with a pin, then add four to eight drops of fluid directly into the 773 Hudson's stack. Smoke production will commence momentarily, faster if you run your 773 Hudson at speed. When smoke production wanes, add more fluid (four to eight drops).



An idle 773 Hudson will not smoke; press AUX1 and 9 (press for a maximum of 10 seconds) to engage the smoke generator at idle/in neutral. Always keep a small amount of smoke fluid in the 773 Hudson's smoke generator; the generator's element can become damaged if operated without fluid. Smoke production is greater at higher voltages and when the 773 Hudson is pulling a heavy load or long consist.

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 contacting our Website @ www.Lionel.com

If you prefer to send it back to Lionel L.L.C. for factory repair, you must first call 810-949-4100 or FAX 810-949-5429 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 assure 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 products 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.

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 _____

