Lionel

LionChief®

Universal Remote 

Owner’s Manual
Thank you for your purchase of the LionChief Universal Remote! This remote is designed to allow you to control up to 3 separate LionChief and/or LionChief Plus locomotives under one remote. This Universal Remote is equipped with both RF as well as Bluetooth®, which makes it compatible with most all existing LionChief and LionChief Plus locomotives released up to 2016 as well as all LionChief and LionChief Plus locomotives released in 2017 and beyond! This remote will also control any Bluetooth-equipped Legacy locomotive!
LionChief® Remote control
The LionChief remote control is used to operate the locomotive. Easy to use, and with many enhanced features including a wider range of realistic sounds, such as chuff sounds and three buttons on the control to activate user-controllable announcements and engine sounds. Long-distance control and multi-engine operation on one layout are in your grasp with the LionChief remote control system.

LionChief® Plus Remote Control
Using the same remote system of the basic LionChief, LionChief Plus locomotives feature everything described in basic LionChief, PLUS many additional hi-tech features that increase the realism of your operations. Additional features include fan-driven smoke, ElectroCouplers, flickering firebox on steam engines, RailSounds RC, speed control, higher detail, and the ability to operate with either a remote controller or a traditional transformer at the flip of a switch on your locomotive.

LionChief® Plus 2.0 Remote Control
A step-up from our traditional set locomotives, these locomotives include improved sounds, additional light and smoke features, speed control and the ability to be run via conventional transformer or TMCC Command Control in addition to Bluetooth.

FlyerChief™ Remote Control
The FlyerChief™ engines offer enhanced sound, long-distance control, AC/DC compatibility, and allow you to run multiple engines at one time.

With the flip of a switch you can dictate whether the engine is controlled via transformer control or remote. Easy to use, with many features including chuff sounds that are in sync with your engine, and a three-buttoned remote to activate user-controlled announcements and engine sounds.

Legacy Bluetooth Remote Control
Legacy engines are Lionel’s top-of-the-line offering! These engines offer the best in motor performance, sounds, smoke, lighting, and more! The Universal Remote can now control these engines if they’re Bluetooth-equipped!

Note! The Universal Remote will only control basic functions on a Legacy engine. Use the Legacy Control System to access all advanced Legacy features.
Installing batteries in the Universal Remote

For safety purposes, you must use a Phillips screwdriver to access the battery compartment. Use a Phillips screwdriver to remove the screw that secures the battery compartment hatch and lift the hatch to access the battery compartment (as shown in Figure 1). Insert three AAA alkaline batteries orienting the +/- as shown in the bottom of the battery compartment. Replace the battery door and tighten the Philips head screw. Be careful to avoid overtightening the screw.

**Important!** Use only Alkaline AAA batteries. Use only new batteries. Never mix new and used batteries or use different types together.

![Figure 1. Opening and closing the battery compartment](image)

**Important!**

REMOVE ALL BATTERIES WHEN THE TRAIN WILL NOT BE USED FOR AN EXTENDED PERIOD OF TIME. LIONEL'S LIMITED WARRANTY DOES NOT COVER DAMAGE TO YOUR REMOTE CAUSED FROM LEAKING BATTERIES.

**Important!**

When you are not operating the train, flip the On/Off switch to the Off position to conserve the batteries.
Installing batteries in the Universal Remote continued

**IMPORTANT: BATTERY INFORMATION**

Please retain this information for future reference. Batteries should be replaced by an adult.

⚠️ **CAUTION:**

- Do not mix alkaline, standard (carbon-zinc), or rechargeable (nickle-cadmium) batteries.
- Different types of batteries or new and used batteries are not to be mixed.
- Only batteries of the same or equivalent type as recommended are to be used.
- Batteries are to be inserted with correct polarity.
- Exhausted batteries are to be removed from the toy.
- The supply terminals are not to be short-circuited.
- Dispose of battery(ies) safely.
- Do not dispose of this product in a fire. The batteries inside may explode or leak.
- Non-rechargeable batteries are not to be recharged.
- Rechargeable batteries are to be removed from the toy before being charged.
- Rechargeable batteries are only to be used under adult supervision.
Familiarize yourself with the Universal Remote

**POWER INDICATOR LED**

When solidly illuminated, this red LED indicates the remote is turned on. When the remote pairs with a locomotive it will visually reflect the speed on the locomotive; solidly illuminated for idle, slow to fast blink, based on the speed of the locomotive. If the LED does not illuminate when the remote is switched on, the batteries need to be replaced.

**ANNOUNCEMENT / SHIFT BUTTON**

Press and release the announcement button to activate the locomotive’s announcements. Press and hold the Announcement button for it to function as a “shift key”.

**ON/OFF SWITCH**

Use this switch to turn the Universal Remote on and off. We recommend you turn the remote off when not in use to conserve battery life.
Familiarize yourself with the Universal Remote (continued)

WHISTLE / HORN / FRONT COUPLER BUTTON

Press the Whistle / Horn button to activate the horn / whistle. To activate the front coil coupler on the locomotive press and hold the Announcement button down and, using another finger, press and release the Whistle/Horn button to activate the front coupler. Then release the Announcement/Shift button.

BELL BUTTON / REAR COUPLER BUTTON

To turn the bell on, press the bell button one time. To turn the bell off press the button again. To activate the rear coil coupler on the locomotive press and hold the Announcement button and, using another finger, press and release the Bell button to activate the rear coupler. Then release the Announcement/Shift button.

ENGINE SELECTION

1, 2, 3

Each Engine Selection button represents a channel for controlling one LionChief or LionChief Plus locomotive. Each of these buttons may be “paired” with a different locomotive. Once paired, you can control multiple locomotives from one remote by pressing an Engine Selection button, then using the throttle, horn, bell, etc.

Note! Your remote will remember all locomotive pairings when you turn everything back on for your next operating session.

THROTTLE

Turn the throttle clockwise slowly to increase speed in the forward direction. Returning the throttle to the top dead center position will bring the locomotive to a stop. Moving the throttle counterclockwise will increase the speed of the locomotive in reverse. The Throttle also functions as the volume control for LionChief Plus locomotives. Refer to “Adjusting the locomotive volume” section in this manual for more detailed information.
Pairing locomotives to the Universal Remote

Your Universal Remote can connect or “pair” to one, two or three different locomotives at a time. Each “target” locomotive will be associated with one Engine Selection Button. Once you’ve paired with a locomotive, you can run it.

However, only “available” locomotives can be paired with the Universal Remote. “Available” means “not currently controlled by any other remote.” An available locomotive will be powered up and beeping or chirping (older LionChief locomotives will play locomotive background sounds when available).

To Pair a Locomotive to Engine Selection button #1

1. Turn on power to your Universal Remote
2. Press and hold Engine Selection button #1 until it blinks rapidly. This will clear any previously stored pairing information so you can connect to the new target locomotive.
3. Release the button. It should flash slowly, indicating it is not connected to a locomotive.
4. Place the target locomotive on the track and apply track power.
5. Tap and release Engine Selection button #1. The remote will now seek and connect to the first available locomotive it finds.
6. Engine Selection button #1 should now be on (no flashing) and if the locomotive was beeping or chirping, it should now be playing engine background sounds.
7. Run the locomotive!

This locomotive pairing is now stored in your Universal Remote. The next time this engine and remote are powered on, the connection will be automatically re-established.

To Pair a Locomotive to Engine Selection buttons 2 or 3, simply follow the same steps with the other two Engine Selection Buttons.

Note! Locomotives cannot be operated by the Universal Remote if they are already under control of another remote. To use the Universal Remote, the basic remote that was included with each LionChief / LionChief Plus locomotive must be turned off. Similarly, if multiple Universal Remotes are in use, only one Universal Remote can control a given locomotive.
Pairing locomotives to the Universal Remote
continued

Note! Legacy and LionChief Plus 2.0 engines will play the whistle/horn once when connecting or disconnecting from the Universal Remote. They do not flash their lights or play the chirping sound that LionChief engines do.

To reconnect to a previously paired locomotive on Engine Selection button #1

1. Turn on power to your Universal Remote
2. Place the previously paired locomotive on the track and apply track power.
3. Tap and release Engine Selection button #1.
4. Run the locomotive!

To Clear one or more previously stored pairings

1. Turn on power to your Universal Remote.
2. Press and hold the Engine Selection button you wish to clear.
3. Once the button begins flashing rapidly, release it.
4. Repeat this process with any other Engine Selection buttons you want to clear.
The Wild Card method of connecting locomotives

If you're feeling lucky and want to have some fun with the Universal remote there is an alternative method that can be used to connect the Universal Remote to your LionChief / LionChief Plus locomotives. Begin by clearing all channels on the remote (as described on page 10).

Turn the universal remote off using the power switch on the side of the remote. Place three or more LionChief and / or LionChief Plus locomotives on the track and power them all up at one time.

Now turn on the Universal Remote using the power switch on the side. Now, press the Engine Selection 1 button and the remote will pair with the first engine it sees.

Now press the Engine Selection 2 button, the remote will automatically pair with the next locomotive it sees.

Finally, press the Engine Selection 3 button and the remote will pair with the next locomotive it sees.

To determine which locomotive has paired with each channel simply press the Engine Selection button and press the whistle button. The locomotive will sound its whistle / horn, telling you which engine it is paired with.

Now each time you power up the remote it will automatically connect to those three engines! This approach is a little less organized, but will create some fun operation if there are more than one Universal Remotes in play at one time!
Operating locomotives with the Universal Remote

Now that you have paired locomotives with the Universal Remote, it’s time to run some trains!

Operation with the Universal Remote is very similar to using the basic remote included with your locomotive. Switch between the locomotives you want to control by pressing different Engine Selection buttons.

Using the Throttle with multiple locomotives

Familiarize yourself with the Universal Remote by putting just one locomotive in motion at a time. Once you are comfortable as to which button is paired to what locomotive, try putting multiple locomotives in motion using the Universal Remote.

As soon as you press a different Engine Selection button, you can command the newly selected engine to blow its whistle, ring the bell or trigger dialog. However, throttle control does not automatically switch!

To take throttle-control of the selected engine, you have two choices: You can make the locomotive match the remote’s current throttle position—or—you can change your remote’s throttle position to match the engine’s current speed and direction.

To immediately force the engine to match the throttle, just press that Engine Selection button a second time. The locomotive will immediately honor the current position of your throttle. This may result in an abrupt change in speed and/or direction.

Option two will avoid the possibility of an abrupt speed change. After pressing the Engine Selection button once, manually turn your throttle knob until it matches the locomotive’s current speed and direction. Once you’ve matched the knob position, the main red LED will begin flashing at a rate proportional to the engine’s speed. From this point on, further throttle rotation will change the engine’s speed and/or direction.

Here’s an example showing the “throttle matching” option in action.

Engine #1 (above) is a diesel with throttle set for forward direction, medium speed.
Operating locomotives with the Universal Remote continued

Engine 2 (above) is a steamer at stop. Press Engine Selection button #2 and turn the throttle counter-clockwise through the 12 o’clock (stop) position and continue to put this loco in reverse at slow speed. Meanwhile, notice that engine #1 is still moving forward as before.

Now, switch back to engine #1, the diesel. Note that even though the throttle is in the reverse/slow speed position, the diesel continues moving forward at medium speed.

To regain speed and direction control over diesel locomotive #1, you must match the throttle position to the engine’s current speed and direction. Turn the throttle clockwise. Once you’ve matched the throttle position, additional throttle adjustments will again cause speed and direction changes of the currently selected engine.
Adjusting the locomotive volume with the Universal Remote

To adjust the overall volume of the locomotive’s sound system begin by placing the throttle in the top dead center position (so the red LED is solidly illuminated and the locomotive is stopped). Press and hold the Announcement button then turn the throttle to the left and/or right, this will increase and decrease the overall locomotive volume. Continue holding the Announcement button when turning the throttle, you can stay in this mode until the volume is at the level you desire. Once the volume level is set to the level you want, release the Announcement button and return the locomotive throttle to the top dead center position again. (The new volume level will remain until you change it in the future, even after power has been cycled.) If, after running the locomotive, you decide to change the volume, simply follow the steps above to do so.

Note! If the throttle is not in the top dead center position before or after the volume adjustment process undesired operation will occur. Always start and finish the volume adjustment process with the throttle in the top dead center position!

Note! LionChief RF engines are not capable of volume adjustments.

Remote sleep function

To conserve battery life the Universal Remote will enter a “sleep mode” when the power switch is in the on position and not connected to a locomotive for an extended period of time. When this “sleep mode” occurs the red LED at the top of the remote will dim. To wake up from “sleep mode” simply cycle the power on the remote or press and hold any button until the LED gets bright again.

Use of multiple Universal Remotes

You can use as many Universal Remotes as you choose on any one layout. You will be able to connect any three LionChief / LionChief Plus locomotives using the instructions above. Any time you power up the Universal Remote (after connecting to 3 specific locomotives) it will automatically connect to those three locomotives and you’re ready to run trains.
Connecting the Universal Remote to more than one device per channel

There are instances where more than one locomotive or device can be connected to an Engine Selection channel. This includes instances such as AA and ABA sets. For instance, let’s use a D&RGW FT AA set along with the matching D&RGW powered FT B unit. When the matched set of units (ABA) are placed on the track and powered up and the Universal Remote pairs with the powered A unit it will automatically connect to the powered B unit and the non-powered A unit, just the same as it did with the dedicated remote the AA set of FT’s came with.

It is possible to connect up to 3 of the same exact LionChief / LionChief Plus products to one channel on the Universal Remote. To do this the locomotives must be the exact same product number. For instance, if you have three 6-38819 D&RGW LionChief Plus RS-3’s on the same track, coupled to one another the Universal remote will pair with all 3 of the same locomotives automatically.

**Note!** The Universal Remote cannot connect to more than 3 devices per channel. For example, if you have a Legacy F7 ABBA set, the remote will only be able to connect to three of the four engines. When connecting, remove the engine you do not need to connect to (I.E. a dummy engine), connect to the three, and then place the fourth back on the track.

It is not recommended to run more than 6 total engines with one Universal Remote at once. That means if you are running an ABA set on one channel and another ABA set on a second channel, you may experience issues with running an additional locomotive on the last channel.
Updating Universal Remote Firmware

The Engineering Team at Lionel is constantly working on ways to improve and enhance your experience! Occasionally, there will be a new version of the Universal Remote firmware. Firmware is the software that is programmed into the Universal Remote's circuit board. The updates can do many things such as fixing bugs, expand the type of engines that can be controlled, and add other exciting features!

The Universal Remote can be updated using an App that can be downloaded on compatible smart devices. The app can be found on Android devices in the Play Store or on Apple devices in the App Store. Follow these instructions to install the app, and update your remote:

1. In your respective app store, search for “LionChief U Remote Updater”. Install the app. If the device prompts for it, allow access to location settings.

2. Enable the device's Bluetooth. This can typically be done in the device’s settings menu.
3. Open the updater app.
4. The home screen of the over-the-air updating app shows the current version of firmware available for the Universal Remote. See page 17.
   a. V1.0 is the original version.
   b. V1.1 fixes many known bugs and greatly expands the list of available engines.
   c. V1.2 completes the list of compatible engines and fixes more bugs.
   d. V1.3 adds the HotSpot mode and has additional bug fixes.
It is not advisable to return the remote to an earlier version of the firmware.

5. Follow the on-screen prompts to update the firmware. While the remote is off, hold down the three numeric buttons on your remote, turn the remote on, and then release the buttons. The three buttons on the remote should be lit and the app will say that it is connected and what version of the firmware is currently on the remote.

6. If a newer version of the firmware is available, tap on the continue button. This will begin the updating process. The “1” key on the remote should be the only numeric key lit. During this time, do not close the app or turn off the remote. The app will display a percentage out of 100% to show the progress. It will take approximately 5 minutes on Apple devices and 30 minutes on Android devices to update. This time will vary depending upon the device. If the process fails during the update, restart from step 5 and try again. Multiple attempts may be needed.

7. Once the percentage reaches 100%, wait for the “2” and then “3” keys to light up. Turn your Universal Remote off and then back on again. You’re all set! Your remote now has the latest firmware.

**Note!** If the remote doesn’t seem to work right, try running the firmware installation again. Occasionally the update will not install correctly.

**Note!** Alternately, you can send in your Universal Remote to Lionel Customer Service to have the update done. Just contact Lionel to set this up. There will be a service fee to perform the update.
Hotspot Mode

Have you ever wanted to control your Radio Frequency (RF) LionChief and LionChief Plus engines from your phone? The Universal Remote now includes Hotspot mode that allows you to control Radio Frequency (RF) engines using the Bluetooth LionChief App that can be downloaded to your smart device.

1. Start with the Universal Remote in the “OFF” position.

2. Press and Hold the three audio buttons (Bell, Announcements, Whistle/Horn).

3. While holding the three buttons turn the Universal Remote “ON.”

4. The LED’s will cycle from 1, 2, 3, and repeat. While the lights are cycling the Universal Remote is in Hotspot mode.

To turn off Hotspot mode cycle the power of the Universal Remote to “OFF” and back to “ON”.

If you have not installed the LionChief App, navigate to your device’s App Store (Apple) or Play Store (Android) and search for “Lionel LionChief”. Install the app. If the device prompts for it, allow access to Bluetooth and location settings.

Note! Make sure to apply track power to the RF engines.
5. Open the Lionel LionChief App.

6. Tap the locomotive image or number to enter the engine select menu. If your device is an Apple, skip ahead to step 9. For Android devices, go to step 7.

7. **ANDROID ONLY.** Select the Universal Remote Hotspot button at the bottom left. You will see a message “Connecting to Hotspot”. Once connected, the App will automatically go back to the home screen.
Hotspot Mode continued

The icon at the top right of the home screen indicates which mode the App is in. Hotspot mode will show the icon for the Universal Remote.

Once back at the home screen, re-enter the engine select menu by tapping the locomotive image or number.

8. **ANDROID ONLY.** Once connected to the Universal Remote Hotspot you will be able to select your Radio Frequency (RF) LionChief or LionChief Plus engine and control it from your smart device.

To return to controlling your Bluetooth LionChief or LionChief Plus engines, return to the engine select menu shown in step 7 and press the Bluetooth mode button.
9. **APPLE ONLY.** Once connected to the Hotspot mode, the engine select menu will display both Bluetooth and RF LionChief and LionChief Plus locomotives. As long as the Universal Remote remains on and in hotspot mode, the App will continue to scan and occasionally refresh the engine select menu to look for newly advertising engines. To turn off hotspot mode, simply turn off the Universal Remote’s power.
FCC and RSS Statements

Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user authority to operate the equipment.

Notes: 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 and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation.

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

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.
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

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 1-800-4-LIONEL (1-800-454-6655) or write to Lionel Customer Service, 6301 Performance Drive, Concord, NC 28027. 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.)

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