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Find us on ...
Trains and scenery are often the stars of any layout, but any seasoned model railroader will tell you that good track and power is the key to years of trouble-free fun. Lionel’s track lines are designed to be easily assembled into an infinite number of designs and provide reliable performance for your trains. From rugged transformers to cutting-edge control systems, Lionel has everything you need to run your trains the way you want. For the first time, we’ve grouped all of these track and power essentials into one reference catalog along with inspirational plans to help you get the most out of your trains. If you can dream it, you can build it with Lionel track and power!
Big and rugged, Lionel’s big G-Gauge trains are designed for little hands. Our line of G-Gauge track is expanding, allowing young minds to explore and learn with even larger and more complex track plans. Use expansion packs and switches to go beyond the oval of track which comes with a set.

Lionel’s G-Gauge track is easy to assemble, and battery-powered G-Gauge trains are remote controlled with no wires to connect. You can even build a larger layout and run multiple trains on the same track. The simple yet reliable design fosters creativity and rewards imaginative young “empire builders” with an endless variety of new layouts to build and enjoy.

Put your young engineers on the fast track learning with Lionel G-Gauge trains.

See our Ready-to-Run catalog for great NEW Licensed G-Gauge Sets!

PA FLYER G-GAUGE SET
7-11140
A. G-GAUGE ADD-ON TRACK PACK - STRAIGHT
7-11039
- Durable plastic track
- Pack includes four straight track pieces
- Length: 8 1/2"

B. G-GAUGE ADD-ON TRACK PACK - CURVED
7-11040
- Durable plastic track
- Pack includes six curved track pieces
- Creates a half-circle

NEW!
G-GAUGE MANUAL SWITCHES
- Durable plastic track
- Manual operation
- Compatible with G-Gauge track

C. 7-11110 Manual Switch - RH
D. 7-11111 Manual Switch - LH

E. NEW!
G-GAUGE INNER LOOP
7-11112
Inner Loop Track Pack includes:
- Durable plastic track
- Manual operation switches
- Compatible with Lionel battery-powered G-Gauge locomotives and cars

F. NEW!
G-GAUGE OUTER LOOP
7-11113
Outer Loop Track Pack includes:
- Durable plastic track
- Manual operation switches
- Compatible with Lionel battery-powered G-Gauge locomotives and cars
With a tradition dating back nearly 100 years, American Flyer is the historic leader in S-Gauge model trains. Sized at 1:64 scale, S is the perfect middle ground between the hefty size of O-Gauge and scale miniatures of HO. Small enough to build a large railroad at home, large enough to appreciate all the fine details – today’s American Flyer is a world of new opportunities.

Whether your interest is in the classic look of a by-gone era or today’s S-Scale models, Lionel has the track and power options you need to build the layout you want. Our growing line of AF FasTrack™ provides a sturdy track base with a realistic look that will accommodate both traditional and scale trains. We’re adding more track sizes and special sections to control couplers, operating cars, and more.

How do you want to run your trains? Of course the conventional transformer is always an option. 2014 will see the introduction of Lionel’s LionChief™ Remote control in the American Flyer line for easy walk-around control with plug-and-play wiring. For advanced operations, Lionel’s LEGACY™ system offers amazing options. All LEGACY™ equipped American Flyer locomotives will work with DCC systems as well. All of these options are designed to allow your control system to grow with your layout and interest.

What will you build? Lionel Track and Power has everything you need to make your layout “S”pecial.
A. NEW!  
**FIGURE 8 TRACK PACK**  
6-49889  
Figure 8 Track Pack Includes:  
- 6 Pieces Of AF FasTrack™ R20 Curve Track  
- 4 Pieces Of AF FasTrack™ 5" Straight Track  
- 1 AF FasTrack™ 90-Degree Crossover Track

B. NEW!  
**INNER PASSING LOOP TRACK PACK**  
6-49890  
Inner Passing Loop Track Pack Includes:  
- 1 Left Hand Manual AF FasTrack R20 Switch  
- 1 Right Hand Manual AF FasTrack R20 Switch  
- 4 Pieces of AF FasTrack R20 Curve Track

C. NEW!  
**OUTER PASSING LOOP TRACK PACK**  
6-49990  
Pack Includes:  
- 1 Left Hand R20 Manual Switch  
- 1 Right Hand R20 Manual Switch  
- 4 Pieces of AF FasTrack R20 Curve Track  
- 5 Pieces of AF FasTrack 10" Straight Track

D. NEW!  
**SIDING TRACK PACK**  
6-49991  
Pack Includes:  
- 1 Left Hand R20 Manual Switch  
- 3 Pieces of AF FasTrack 10" Straight Track  
- 1 5" AF FasTrack Lighted Bumper
More track options for your layout! Expand your empire with crossings, crossovers, bumpers, switches, and more straight and curve options.

**Straight Track**

A. 5” HALF STRAIGHT TRACK  
   6-49867

B. 10” STRAIGHT TRACK  
   6-49852

C. 30” EXTRA LONG STRAIGHT TRACK  
   6-49862

**Crossovers**

D. 45-DEGREE CROSSOVER  
   6-49863  
   • Length: Approx. 9” x 9”

E. 90-DEGREE CROSSOVER  
   6-49864  
   • Dimensions: 7.89” x 7.89”
F. TRANSITION TRACK
6-49858
• Connect with traditional AF tubular track
• Length: 5"

G. 10" TERMINAL TRACK
Use this terminal track to connect a transformer to power your layout.
6-49854

H. NEW!
UNCOUPLING FASTRACK SECTION
6-49895
• Includes Remote Control activator button
• Compatible with ASC & ASC2 for LEGACY™ operation
• Length 10"

I. NEW!
ACTIVATOR RAIL
Use this special section to operate dump cars, unloading cars or launching cars!
6-49085
• Includes Remote Control activator button
• Compatible with ASC & ASC2 for LEGACY™ operation
• Length 10"
Curved Track

A. R20 CURVE TRACK
   6-49853
   • 12 sections per circle
   • 20” radius or 40” diameter from outside tie to outside tie

B. R20 HALF CURVE TRACK
   6-49878
   • 20” radius or 40” diameter

C. R27 WIDE RADIUS CURVE TRACK
   6-49859
   • 27” radius or 54” diameter

D. NEW!
   R27 HALF CURVE TRACK
   6-49892
   • 27” radius (54” diameter)

NEW!

Switches

Bulletproof switches are the foundation of any track system. They allow you to grow and expand your layout. American Flyer® switches are second to none when it comes to durability and innovative features. Manual, Remote, and Command switches are all available for each type of switch offered.

E. R20 REMOTE SWITCH - LH
   6-49857

Switches Not Shown:
6-49856 R20 REMOTE SWITCH - RH
6-49868 R20 MANUAL SWITCH - LH
6-49869 R20 MANUAL SWITCH - RH
6-49870 AF FASTRACK R20 COMMAND CONTROL SWITCH-LH
6-49871 AF FASTRACK R20 COMMAND CONTROL SWITCH-RH
Crossings and Bumpers

F. **NEW!**
GRADE CROSSING
6-49891
- Length: 10”

G. GRADE CROSSING
WITH FLASHERS AND GATES
6-49899
- Includes 2 NEW 5” Block Detection Sections for realistic automated action
- Operating crossing gates, flashers, and bell sounds
- Length: 10”

H. **NEW!**
EARTHEN BUMPER
6-49893
- With real wood bumper
- 2 per package
- Length: Approx. 3 5/8”

LIGHTED BUMPERS
(SET OF 2)
6-49866 (not shown)
- Illuminated by long lasting LED
- Two per package
- Length: 6.4”
Offering innovation, variety, ease-of-use, and a fantastic prototypical look, the FasTrack™ track system brings your Lionel layout to life like never before. Its flawless performance and endless flexibility make it appealing to first-timers and seasoned pros alike.

**Accessory Hook-ups and Operation — with FasTrack™, it’s Simple!**

**HOOK-UPS**
- Under the roadbed of all straight and curved sections are electrical terminals. You can hook up to these terminals in different ways.
  - If you already have wire for your accessories, or you have pre-wired accessories, contact our Lionel Customer Service department and purchase the FasTrack™ terminal connectors (Item #6SPFTWTBLU or 6SPFTWTRED). Strip wires back approximately 1/4", insert wire into the quick connector, and crimp it into place under any section of track!

**OPERATION**
Use a 153IR controller. The 153IR works the same way it does for O-27 and O-Gauge operation, with the power Lockon connector removed. Follow the instructions to hook up the accessory, and power your accessory as explained earlier.

Use the FasTrack™ Accessory Activator Pack, which includes one insulated 10" straight track section and two 5" isolated track sections. The isolated 5" sections feature an electrical isolation gap on one outside rail. As the train passes over the electrically isolated outside rail the wheels of the train complete the circuit and send power to your accessory, acting like an on/off switch controlled by the train’s presence. To increase the length of time over which the accessory operates, simply add more insulated track sections between the two isolated sections. This technique is the equivalent of using Lionel insulated track sections in O/O-27, and is used only with accessories that perform one function in an on/off manner (e.g., Crossing Gate, Auto Gateman, etc.)
A. FASTRACK INNER PASSING LOOP EXPANSION PACK
6-12028
Layout dimensions: 39 1/2” x 70 1/2”
Inner Passing Loop Track Pack includes:
- 1 LH FasTrack O36 Manual Switch
- 1 RH FasTrack O36 Manual Switch
- 2 Pieces of O36 Curve Track

B. FASTRACK FIGURE 8 EXPANSION PACK
6-12030
Layout dimensions: 39 1/2” x 90 1/2”
Figure 8 Track Pack includes:
- 4 Pieces of FasTrack O36 Curve Track
- 4 Pieces of FasTrack 5” Straight Track
- 1 FasTrack 90-Degree Crossover

C. FASTRACK OUTER PASSING LOOP EXPANSION PACK
6-12031
Layout dimensions: 49 1/2” x 70 1/2”
Outer Passing Loop Track Pack Includes:
- 1 Left Hand FasTrack O36 Manual Switch
- 1 Right Hand FasTrack O36 Manual Switch
- 2 Pieces of FasTrack O36 Curve Track
- 5 Pieces of FasTrack 10” Straight Track

D. FASTRACK SIDING EXPANSION PACK
6-12044
Siding Track Pack includes:
- 1 Left Hand FasTrack O36 Manual Switch
- 3 Pieces of FasTrack 10” Straight Track
- 1 FasTrack Uncoupling Track
- 1 Earthen Bumper

OVAL TRACK & POWER PACK
6-81734 (not shown)
Pack includes:
- 1 FasTrack 10” Straight Terminal Track
- 3 Pieces of FasTrack 10” Straight Track
- 8 Pieces of FasTrack O36 Curve Track
- CW-80 Transformer

FIGURE 8 TRACK & POWER PACK
6-81735 (not shown)
Pack includes:
- 1 FasTrack 10” Straight Terminal Track
- 3 Pieces of FasTrack 10” Straight
- 4 Pieces of FasTrack 5” Straight
- 12 Pieces of FasTrack O36 Curve Track
- 1 Piece of FasTrack 90-Degree Crossover Track
- CW-80 Transformer
A. 1 3/8" FASTRACK STRAIGHT
   W/ ROADBED
   6-12073
   • Includes electrically isolated center rail option for power blocks

B. 1 3/8" FASTRACK STRAIGHT
   W/OUT ROADBED
   6-12074
   • Includes electrically isolated center rail option for power blocks

C. 1 3/4" FASTRACK STRAIGHT
   6-12026

D. 4 1/2" FASTRACK STRAIGHT
   6-12025

E. 5" FASTRACK STRAIGHT
   6-12024

F. 10" FASTRACK STRAIGHT
   6-12014

G. 10" FASTRACK STRAIGHT 4 PACK
   6-12032

H. 30" FASTRACK EXTRA LONG STRAIGHT
   6-12042

Associated Track

I. NEW!
   LIONCHIEF TERMINAL FASTRACK
   6-37110

   NEW!
   LIONCHIEF
   36-WATT POWER SUPPLY (2 AMP)
   6-37191

   NEW!
   LIONCHIEF
   72-WATT POWER SUPPLY (4 AMP)
   6-81603 (not shown)

Start adding to your layouts today!
When designing and building your FasTrack™ layout, there is often a need to make specific lengths made up of several FasTrack sections. This layout designer’s table provides a handy guide to all lengths from 1 3/8 to 10 inches that can be made up from available FasTrack sections.

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**Fastrack Specialty Track**

**A. Fastrack Accessory Activation Pack**  
6-12029  
- Includes one 10” Insulated section and two 5” isolated sections

**B. Fastrack 5” Insulated Block Section**  
6-12060  
- Used to make an isolated track block  
- All three rails have a gap and jumper wire  
- Removable wires jump the breaks in the track on the underside of the roadbed

**C. Fastrack Accessory Activator Extender**  
6-12027  
- Length: 10”  
- Outside rails are electrically isolated

**D. Fastrack 5” Straight O-Gauge Transition Track**  
6-12040  
- Connects with Tubular O  
- Length: 5”

**E. Fastrack Uncoupling Section**  
6-12020  
- Central magnet is activated by uncoupling activator button (included)  
- Includes a Half Straight Track section  
- Length of each section: 5”

**F. Fastrack 10” Straight Terminal Track**  
6-12016  
- Includes wires that connect the track to your transformer  
- Length: 10”

**G. Fastrack 10” Straight Operating Uncoupling Track**  
6-12054  
- Central magnet & control rails are activated by uncoupling/unloading activator buttons (included)  
- Length: 10”

**Fastrack Crossovers**

**H. Fastrack 22 1/2-Degree Crossover**  
6-12050  
- Includes 4 removable 1 3/8” half roadbed straight sections.  
- Length: 17” X 17”

**I. Fastrack 45-Degree Crossover**  
6-12051  
- Length: 10” X 10”

**J. Fastrack 90-Degree Crossover**  
6-12019  
- Length: 6” X 6”
Curved Fastrack

Fastrack 031 Curve
6-37103
- 8 pieces per circle
- 15-Degree section

NEW!
Fastrack 031 Quarter Curve
6-81662
- 11 1/4-Degree section

Fastrack 031 Curve 4-Pack
6-81862

Fastrack 036 Curve
6-12015
- 8 pieces per circle
- 45-Degree section

Fastrack 036 Half Curve
6-12022
- 22 1/2-Degree section

Fastrack 036 Quarter Curve
6-12023
- 11 1/4-Degree section

Fastrack 036 Curve 4-Pack
6-12033
- 32 pieces per circle
- 11 1/4-Degree section

Fastrack 048 Curve
6-12043
- 12 pieces per circle
- 30-Degree section

Fastrack 048 Half Curve
6-16834
- 15-Degree section

Fastrack 048 Quarter Curve
6-16835
- 7 1/2-Degree section

Fastrack 060 Curve
6-12056
- 16 pieces per circle
- 22 1/2-Degree section

Fastrack 072 Curve
6-12041
- 16 pieces per circle
- 22 1/2-Degree section

Fastrack 072 Half Curve
6-12055
- 11 1/4-Degree section

Fastrack 084 Curve
6-12061
- 32 pieces per circle
- 11 1/4-Degree section

NEW!
Fastrack 096 Curve
6-81250
- 32 pieces per circle
- 11 1/4-Degree section
Switches

FasTrack™ switches raise the bar in performance and features for maximum enjoyment of your trains. Build the layout of your dreams!

Reliable switches are the foundation of any track system. They allow you to grow and expand your layout. Lionel FasTrack™ switches are second to none when it comes to durability and innovative, industry-leading features:
- Flawless, non-derailing function allows trains to keep running regardless of switch position
- Auxiliary power and TMCC™ (ASC and SC-2) terminals are conveniently located under the roadbed base, making all connections invisible from above
- Realistic illuminated switch lantern
- Lantern base is interchangeable, can move to the right or left side

031 FASTRACK SWITCHES FEATURE:
- 33 3/4-Degree turnout
- Includes 1/4 curve to complete 0-31 45-Degree curve
- Length: 10” straight
NEWI 6-81252 Manual Switch-LH
NEWI 6-81251 Manual Switch-RH
NEWI 6-81254 Remote/Command Switch-LH
NEWI 6-81253 Remote/Command Switch-RH

036 FASTRACK SWITCHES FEATURE:
- 33 3/4-Degree turnout
- Includes 1 036 1/4 curve to complete a 45-Degree curve
- Length: 10” straight
NEWI 6-81947 Remote/Command Switch-LH
NEWI 6-81946 Remote/Command Switch-RH
6-12017 Manual Switch-LH
6-12018 Manual Switch-RH
6-12045 Remote Switch-LH
6-12046 Remote Switch-RH
6-16824 Command Control Switch-LH
6-16825 Command Control Switch-RH

048 FASTRACK SWITCHES FEATURE:
- 30-Degree turnout
- Length: 15” straight
NEWI 6-81949 Remote/Command Switch-LH
NEWI 6-81948 Remote/Command Switch-RH
6-12065 Remote Switch-LH
6-12066 Remote Switch-RH
6-16830 Command Control Switch-LH
6-16831 Command Control Switch-RH

060 FASTRACK SWITCHES FEATURE:
- 22 1/2-Degree turnout
- Removable 1 3/8” extensions
- Length: 14 1/2” straight
NEWI 6-81950 Remote/Command Switch-LH
NEWI 6-81951 Remote/Command Switch-RH
6-12058 Remote Switch-LH
6-12057 Remote Switch-RH
6-16828 Command Control Switch-LH
6-16829 Command Control Switch-RH

072 FASTRACK SWITCHES FEATURE:
- 22 1/2-Degree turnout
- Removable 1 3/8” extensions
- Length: 15 5/8” straight
C. NEWI 6-81953 Remote/Command Switch-LH
NEWI 6-81952 Remote/Command Switch-RH
6-12048 Remote Switch-LH
6-12049 Remote Switch-RH
6-16826 Command Control Switch-LH
6-16827 Command Control Switch-RH

072 FASTRACK WYE SWITCHES FEATURE:
- 22 1/2-Degree Wye
- Removable 1 3/8” extensions
- Length: 12”
D. NEWI 6-81954 Remote/Command WYE Switch
6-12047 Remote WYE Switch
6-16832 Command Control WYE Switch

LIONEL REMOTE/CMD CONTROL FASTRACK™ SWITCHES!

With the same proven design and realistic appearance as our standard FasTrack™ switches, these can be activated with your CAB-1, CAB-1L, or CAB-2 remote controller. Also, multiple command control switches can be programmed to activate in sequence for easy route operation. No ASC or SC-2 controller are necessary.

With the use of a CAB-1 or CAB-2 remote you gain ultimate control over where your trains are headed and the routes they take to get there.

All Command Control Switches Feature
- Switches activated with a Command Control CAB-1 or CAB-2 (sold separately)
- Can also be activated by remote switch controller (included)
- Same solid construction, appearance, dimensions as FasTrack remote switches
LANTERN BASE IS INTERCHANGEABLE, CAN MOVE TO THE RIGHT OR LEFT SIDE

Realistic switch lantern
Choose one or more of the following track configurations using FasTrack™ switches in designing your FasTrack™ layout.

WYEs allow your train to turnaround and were often used by real railroads when a turntable was not available. Passing sidings allow multiple train operation and make great locations for trackside accessories while crossings add more action to your layout in the least amount of space.

**O36 Corner Crossing**

- **A.** 036 Left Hand Switch with 036 1/4" Curve (1)
- **B.** 036 Right Hand Switch with 036 1/4" Curve (1)
- **C.** 5" Straight Track (2)
- **D.** 90-Degree Crossover (1)

**036 Corner Crossing Track Requirements**

<table>
<thead>
<tr>
<th>Track Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. 036 Left Hand Switch with 036 1/4&quot; Curve (1)</td>
</tr>
<tr>
<td>B. 036 Right Hand Switch with 036 1/4&quot; Curve (1)</td>
</tr>
<tr>
<td>C. 5&quot; Straight Track (2)</td>
</tr>
<tr>
<td>D. 90-Degree Crossover (1)</td>
</tr>
</tbody>
</table>

**O48 Corner Crossing**

- **A.** 048 Left Hand Switch (1)
- **B.** 048 Right Hand Switch (1)
- **C.** 048 Half Curve Sections (2)
- **D.** 4 1/2" Straight Track (2)
- **E.** 1 3/4" Straight Track (1)
- **F.** 1 3/8" Straight Track (4)
- **G.** 90-Degree Crossover (1)

**O48 Corner Crossing Track Requirements**

<table>
<thead>
<tr>
<th>Track Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. 048 Left Hand Switch (1)</td>
</tr>
<tr>
<td>B. 048 Right Hand Switch (1)</td>
</tr>
<tr>
<td>C. 048 Half Curve Sections (2)</td>
</tr>
<tr>
<td>D. 4 1/2&quot; Straight Track (2)</td>
</tr>
<tr>
<td>E. 1 3/4&quot; Straight Track (1)</td>
</tr>
<tr>
<td>F. 1 3/8&quot; Straight Track (4)</td>
</tr>
<tr>
<td>G. 90-Degree Crossover (1)</td>
</tr>
</tbody>
</table>

**O60 Corner Crossing**

- **A.** 060 Left Hand Switch with 1 3/8" Extensions (1)
- **B.** 060 Right Hand Switch with 1 3/8" Extensions (1)
- **C.** 5" Straight Track (2)
- **D.** 4 1/2" Straight Track (4)
- **E.** 1 3/4" Straight Track (2)
- **F.** 90-Degree Crossover (1)
- **G.** 060 Full Curve (2)

**O60 Corner Crossing Track Requirements**

<table>
<thead>
<tr>
<th>Track Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. 060 Left Hand Switch with 1 3/8&quot; Extensions (1)</td>
</tr>
<tr>
<td>B. 060 Right Hand Switch with 1 3/8&quot; Extensions (1)</td>
</tr>
<tr>
<td>C. 5&quot; Straight Track (2)</td>
</tr>
<tr>
<td>D. 4 1/2&quot; Straight Track (4)</td>
</tr>
<tr>
<td>E. 1 3/4&quot; Straight Track (2)</td>
</tr>
<tr>
<td>F. 90-Degree Crossover (1)</td>
</tr>
<tr>
<td>G. 060 Full Curve (2)</td>
</tr>
</tbody>
</table>

**O72 Corner Crossing**

- **A.** 072 Left Hand Switch with 1 3/8" Extensions (1)
- **B.** 072 Right Hand Switch with 1 3/8" Extensions (1)
- **C.** 072 Full Curve (2)
- **D.** 10" Straight Track (2)
- **E.** 5" Straight Track (2)
- **F.** 1 3/8" Straight Track (6)
- **G.** 90-Degree Crossover (1)

**O72 Corner Crossing Track Requirements**

<table>
<thead>
<tr>
<th>Track Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. 072 Left Hand Switch with 1 3/8&quot; Extensions (1)</td>
</tr>
<tr>
<td>B. 072 Right Hand Switch with 1 3/8&quot; Extensions (1)</td>
</tr>
<tr>
<td>C. 072 Full Curve (2)</td>
</tr>
<tr>
<td>D. 10&quot; Straight Track (2)</td>
</tr>
<tr>
<td>E. 5&quot; Straight Track (2)</td>
</tr>
<tr>
<td>F. 1 3/8&quot; Straight Track (6)</td>
</tr>
<tr>
<td>G. 90-Degree Crossover (1)</td>
</tr>
</tbody>
</table>
**O36 PASSING SIDING**

- **A.** 036 Left Hand Switch (2)
- **B.** 036 Right Hand Switch (2)
- **C.** 10” Straight Track (4)

Add additional straight sections to both lines between the switches for an extended passing siding. *Tracks are 6 inches center rail to center rail.*

**TRACK REQUIREMENTS:**

- **A.** 036 Left Hand Switch (2)
- **B.** 036 Right Hand Switch (2)
- **C.** 10” Straight Track (4)

**O48 PASSING SIDING**

- **A.** 048 Left Hand Switch (2)
- **B.** 048 Right Hand Switch (2)
- **C.** 10” Straight Track (1)

Add additional straight sections to both lines between the switches for an extended passing siding. *Tracks are 6 7/16 inches center rail to center rail.*

**TRACK REQUIREMENTS:**

- **A.** 048 Left Hand Switch (2)
- **B.** 048 Right Hand Switch (2)
- **C.** 10” Straight Track (1)

**O60 PASSING SIDING**

- **A.** 060 Left Hand Switch (2) w/No Roadbed 1 3/8” between switches
- **B.** 060 Right Hand Switch (2) w/No Roadbed 1 3/8” between switches
- **C.** 10” Straight Track (1)

Add additional straight sections to both lines between the switches for an extended passing siding. Both switches supplied with 1 3/8” extenders. *Tracks are 6 inches center rail to center rail.*

**TRACK REQUIREMENTS:**

- **A.** 060 Left Hand Switch (2) w/No Roadbed 1 3/8” between switches
- **B.** 060 Right Hand Switch (2) w/No Roadbed 1 3/8” between switches
- **C.** 10” Straight Track (1)

**O72 PASSING SIDING**

- **A.** 072 Left Hand Switch with 1 3/8” Extensions (2)
- **B.** 072 Right Hand Switch with 1 3/8” Extensions (2)
- **C.** 10” Straight Track (2)

Add additional straight sections to both lines between the switches for an extended passing siding. Both switches supplied with 1 3/8” extenders. *Tracks are 6 inches center rail to center rail.*

**TRACK REQUIREMENTS:**

- **A.** 072 Left Hand Switch with 1 3/8” Extensions (2)
- **B.** 072 Right Hand Switch with 1 3/8” Extensions (2)
- **C.** 10” Straight Track (2)
WYE Configurations

O36 WYE

TRACK REQUIREMENTS:
A. 036 Left Hand Switch (1)
B. 036 Right Hand Switch (1)
C. 072 WYE with 1 3/8” Extensions (1)
D. 036 Curve Track (2)
E. 10” Straight Track (1)
F. 4 1/2” Straight Track (1)
G. 1 3/8” Straight Track (3)

O48 WYE

TRACK REQUIREMENTS:
A. 048 Left Hand Switch (1)
B. 048 Right Hand Switch (1)
C. 072 WYE with 1 3/8” Extensions (1)
D. 072 Half Curve Track (2)
E. 048 Curve Track (4)
F. 10” Straight Track (2)
G. 1 3/8” Straight Track (2)

O60 WYE

TRACK REQUIREMENTS:
A. 060 Left Hand Switch with 1 3/8” Extensions (1)
B. 060 Right Hand Switch with 1 3/8” Extensions (1)
C. 072 WYE with 1 3/8” Extensions (1)
D. 060 Curve Track (4)
E. 036 Quarter Curve Track (2)
F. 10” Straight Track (3)
G. 5” Straight Track (1)

O72 WYE

TRACK REQUIREMENTS:
A. 072 Left Hand Switch with 1 3/8” Extensions (1)
B. 072 Right Hand Switch with 1 3/8” Extensions (1)
C. 072 WYE with 1 3/8” Extensions (1)
D. 072 Full Curve Track (4)
E. 072 Half Curve Track (2)
F. 10” Straight Track (4)
G. 1 3/4” Straight Track (3)
A. FASTRACK GRADE CROSSING WITH FLASHING CROSSBUCKS
6-12052
- Features two flashing signals & bell sounds
- Includes two 5” insulated straights for automatic operation
- Length: 20” track section, 6 1/4” road sect.

B. FASTRACK 10” GRADE CROSSING
6-12036
- Length: 10” track section, 6 1/4” road sect.
- 2 per package

C. FASTRACK GRADE CROSSING WITH FLASHING CROSSBUCKS & OPERATING HIGHWAY CROSSING GATES
6-12062
- Features operating crossing gates, flashers, and bell sounds
- Includes two 5” insulated straights for automatic operation
- Length: 20” track section, 6 1/4” road sect.

D. FASTRACK RAILER
6-12039
- Length: 10”
- Also compatible with tubular 0 gauge and O-27 gauge track

E. FASTRACK GRADUATED TRESTLE SET
6-12037
- Incremental height grading
- For use with FastTrack™ track sections
- Set of 22
- Height: 5 1/2” (tallest trestle)

F. FASTRACK ELEVATED TRESTLE SET
6-12038
- Create realistic raised-graded sections
- For use with FastTrack™ track sections
- Set of 10
- Height: 5 1/2”

G. FASTRACK ILLUMINATED BUMPER 2-PACK
6-12035
- Length: 5”
- Illuminated by long lasting LED’s

H. FASTRACK EARTHEEN BUMPER
6-12059
- Length: 3 5/8”
- Real wood bumper
- 2 per package

I. FASTRACK GIRDER BRIDGE
6-81248
- Length: 10”
- Metal base

J. POWER WIRE
6-12053
- Compatible with all FastTrack™ sections!
Here's a selection of layout ideas that can be used as shown or easily expanded by adding additional straight sections of track. Use them as is or as the basis for a larger more complex layout.

**4 1/2' X 8'**

**TRACK REQUIREMENTS:**
- **A.** 10" Straight Track (26)
- **B.** 5" Straight Track (4)
- **C.** 30" Straight Track (4)
- **D.** 1 3/8" Straight Track (1)
- **E.** 036 Curve Track (20)
- **F.** 10" Straight Track (4)

**5' X 10 1/2'**

**TRACK REQUIREMENTS:**
- **A.** 10" Straight Track (26)
- **B.** 5" Straight Track (4)
- **C.** 3 3/4" Straight Track (1)
- **D.** 1 3/8" Straight Track (1)
- **E.** 90-Degree Crossover (2)
- **F.** 036 Curve Track (20)
**TRACK REQUIREMENTS:**

**4 1/2' X 8'**

A. 036 Right Hand Switch (2)
B. 036 Left Hand Switch (2)
C. 036 Curve Track (16)
D. 1 3/4" Straight Track (8)
E. 5" Straight Track (4)
F. 10" Straight Track (13)

**5' X 9'**

A. 036 Left Hand Switch (3)
B. 036 Right Hand Switch (2)
C. 036 Curve (14)
D. 036 Quarter Curve (5)
E. 10" Straight Track (17)
F. 5" Straight Track (8)
G. 4.5" Straight Track (2)
H. 1 3/4" Straight Track (2)
I. 90-Degree Crossover (1)
J. Bumper (1)
**TRACK REQUIREMENTS:**

A. 036 Right Hand Switch (2)
B. 036 Left Hand Switch (2)
C. 036 Curve Track (22)
D. 036 Quarter Curve Track (4)
E. 30” Straight Track (2)
F. 10” Straight Track (7)
G. 5” Straight Track (11)
H. 4 1/2” Straight Track (2)
I. 1 3/4” Straight Track (14)
J. 10” Operating Track (1)
K. Blocking Section (2)
L. Uncoupling Track (2)
M. 90-Degree Crossing (1)
N. Grade Crossing with Flashers (1)
O. Light Bumpers (2)
P. Earthen Bumpers (2)
Layout Options

TRACK REQUIREMENTS:

A. 036 Right Hand Switch (2)
B. 036 Left Hand Switch (2)
C. 036 Curve Track (28)
D. 036 Half Curve Track (2)
E. 036 Quarter Curve Track (4)

F. 30" Extra Long Straight Track (7)
G. 10" Straight Track (14)
H. 5" Straight Track (3)
I. 4 1/2" Straight Track (12)
J. 1 3/4" Straight Track (6)

* Elevated Trestles
* Graduated Trestles

10' X 7'
**O-27 Track System**

**STRAIGHT TRACK**
- **O-27 FULL STRAIGHT TRACK**
  - 6-65038
  - Length: 8 3/4”
- **O-27 HALF STRAIGHT TRACK**
  - 6-65019
  - Length: 4 7/8”
- **O-27 EXTRA-LONG STRAIGHT TRACK**
  - 6-65024
  - Length: 35”

**CURVED TRACK**
- **O-27 27” DIAMETER HALF CURVE**
  - 6-65014
  - Length: 5 7/16”
  - (16 pieces per circle)
- **O-27 27” DIAMETER CURVE TRACK**
  - 6-65033
  - Length: 9 5/8”
  - (8 pieces per circle)
- **O-27 54” DIAMETER CURVE TRACK**
  - 6-65049
  - Length: 10 7/8”
  - (12 pieces per circle)
- **O-27 42” DIAMETER CURVE TRACK**
  - 6-65049
  - Length: 10 7/8”
  - (12 pieces per circle)
- **O-27 90-DEGREE CROSSOVER**
  - 6-65020
  - Length: 7 3/8” x 7 3/8”
- **O-27 45-DEGREE CROSSOVER**
  - 6-65023
  - Length: 10 1/4” x 10 1/4”
- **O-27 INSULATED TRACK**
  - 6-12841
  - Length: 8 3/4”
- **O-27 45-DEGREE CROSSOVER**
  - 6-65023
  - Length: 10 1/4” x 10 1/4”
- **O-27 UNCOPLING TRACK**
  - 6-65149
  - Length: 8 3/4”
  - Includes momentary contact button
- **O-27 REMOTE OPERATING UNCOUPLING TRACK**
  - 6-12746
  - Length: 8 3/4”
  - Includes uncouple/unload button controller (shown)

**SPECIALTY TRACK**
- **O-27 27” PATH REMOTE-CONTROL SWITCH**
  - 6-65167
  - Left Hand
  - Length: 13 5/8” straight
  - Includes non-derailing functionality
- **O-27 27” PATH REMOTE-CONTROL SWITCH**
  - 6-65121
  - Left Hand
  - Length: 8 3/4” straight
  - Includes non-derailing functionality
- **O-27 27” PATH MANUAL SWITCH**
  - 6-65021
  - Left Hand
  - Length: 8 3/4” straight
  - Includes non-derailing functionality
- **O-27 27” PATH MANUAL SWITCH**
  - 6-65019
  - Right Hand
  - Length: 8 3/4” straight
  - Includes non-derailing functionality

**SWITCHES**
- **Limited Items! Get yours today!**
**ADD-ON TRACK PACKS**

**O-27 FIGURE 8 EXPANSION PACK**
6-22966
Add this track to your oval to create a figure 8 layout. Requires an existing starter set oval of track.
Figure 8 Track Pack Includes:
- 4 Pieces of O-27 Curve Track
- 1 O-27 90-Degree Crossover

**O-27 DOUBLE-LOOP EXPANSION PACK**
6-22967
Add this track to your oval to create a double loop, an oval with two inside sidings, or a double oval. Requires an existing starter set oval of track.
Track Pack Includes:
- 1 Left Handed O-27 Switch
- 1 Right Handed O-27 Switch
- 10 Pieces of O-27 Straight Track
- 2 Pieces of O-27 Curve Track

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**A. O-27 GAUGE TRACK CLIPS**
6-62901
- Keep your O-27 track sections together with these easy-to-use, slide-on clips
- Perfect for keeping temporary or floor layouts together
- Box of 12

**B. LOCKON WITH WIRES**
6-24213
- Works with O, O-27, and S-Gauge traditional tubular track

**TRACK PINS:** (both not shown)
- O-27 STEEL
  6-65042 • Box of 12
- O-27 FIBRE INSULATING
  6-65041

**C. DIE-CAST ILLUMINATED BUMPERS**
(SET OF 2)
6-62283
- Die-cast metal construction
- Illuminated red lights
- Easily screws into place between outside rails of tubular O and O-27 track
- Dimensions: 3" x 1 7/8" x 2"

**D. VEHICLE GRADE CROSSING**
6-12839
- Tubular O or Traditional O-Gauge or O-27 track fits in molded grooves
- Set of two
- Dimensions: 3 1/4" x 7"
### Straight Track

<table>
<thead>
<tr>
<th>O-Gauge Half Straight Track 6-65505</th>
<th>• Length: 5 ⅛”</th>
</tr>
</thead>
<tbody>
<tr>
<td>O-Gauge Straight Track 6-65500</td>
<td>• Length: 10”</td>
</tr>
<tr>
<td>O-Gauge Extra-Long Straight Track 6-65523</td>
<td>• Length: 40”</td>
</tr>
</tbody>
</table>

### Curved Track

<table>
<thead>
<tr>
<th>O-Gauge 031 Curve Track 6-65501</th>
<th>(8 pieces per circle)</th>
<th>• Length: 10 5/8”</th>
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</thead>
<tbody>
<tr>
<td>O-Gauge 031 Half Curve Track 6-65504</td>
<td>• Length: 6”</td>
<td></td>
</tr>
<tr>
<td>O-Gauge 042 Curve Track 6-12925</td>
<td>(12 pieces per circle)</td>
<td>• Length: 10 5/8”</td>
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### Specialty Track

<table>
<thead>
<tr>
<th>O-Gauge Insulated Straight Track 6-12840</th>
<th>• Length: 10”</th>
</tr>
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<tbody>
<tr>
<td>O-Gauge Remote Control Track 6-65530</td>
<td>• Includes uncouple/unload button controller (not shown)</td>
</tr>
<tr>
<td>O-Gauge 45-Degree Crossover 6-65545</td>
<td>• Length: 11 3/4” x 11 3/4”</td>
</tr>
<tr>
<td>O-Gauge 90-Degree Crossover 6-65540</td>
<td>• Length: 8 5/16” x 8 5/16”</td>
</tr>
</tbody>
</table>

### Deluxe Complete O-Gauge Track Pack

![Diagram of Deluxe Complete O-Gauge Track Pack]

### O-Gauge Track Extras

<table>
<thead>
<tr>
<th>O-Gauge Track Clips 6-12743</th>
<th>• Keep your O-Gauge track sections together with these easy-to-use, slide-on clips</th>
</tr>
</thead>
<tbody>
<tr>
<td>O-Gauge Steel Pins 6-65551</td>
<td>• Only compatible for O27 &amp; O Tubular Track</td>
</tr>
<tr>
<td>O-Gauge Fibre Pins 6-65543</td>
<td>• Only compatible for O27 &amp; O Tubular Track</td>
</tr>
<tr>
<td>Lighted Lockon 6-14112</td>
<td>• Only compatible for O27 &amp; O Tubular Track</td>
</tr>
<tr>
<td>Lockon &amp; Wire Blister Pack 6-62905</td>
<td>• Only compatible for O27 &amp; O Tubular Track</td>
</tr>
</tbody>
</table>

### Die-Cast Illuminated Bumpers (Set of 2) 6-62283

- Die-cast metal construction
- Illuminated red lights
- Easily screws into place between outside rails of traditional 0 and 0-27 track
- Dimensions: 3” x 1 ⅛” x 2”

### Switches

<table>
<thead>
<tr>
<th>31” Path Remote-Control Switch 6-14062 LH and 6-14063 RH</th>
<th>• Includes illuminated Switch Control Lever (not shown)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Features illuminated switch lantern</td>
<td>• Optional constant voltage power plug</td>
</tr>
<tr>
<td>• Optional constant voltage power plug</td>
<td>• Automatic Non-Derailling Feature</td>
</tr>
<tr>
<td>• Automatic Non-Derailling Feature</td>
<td>• Length: 10” straight</td>
</tr>
<tr>
<td>72” Path Remote-Control Switch 6-65166 LH and 6-65165 RH</td>
<td>• Includes illuminated Switch Control Lever (not shown)</td>
</tr>
<tr>
<td>• Features illuminated switch lantern</td>
<td>• Optional constant voltage power plug</td>
</tr>
<tr>
<td>• Optional constant voltage power plug</td>
<td>• Automatic Non-Derailling Feature</td>
</tr>
<tr>
<td>• Automatic Non-Derailling Feature</td>
<td>• Length: 14 ⅛” straight</td>
</tr>
</tbody>
</table>
LIONEL FasTrack™ Modular Railroad

BUILD YOUR RAILROAD EMPIRE ONE SECTION AT A TIME!

Lionel has created a fun and easy way to get started. The Modular Railroad will open the doorway to the lay-out of your dreams!

Friends and family can bring their sections together to create an impressive layout.

Or maybe you’re an experienced model railroader. You’ve got plenty of trains to run on your home layout, but you’d love to share your hobby with fellow Lionel fans.

Young or old, at home or with a club, Lionel modular layouts are a great way to enjoy your trains.

• A module is a 30” x 45” table section that is designed to connect with other sections to create a large layout. You could put a few sections together to make a complete layout in your home, or you could bring it to a club meet and join with other modelers to create a layout that can fill a convention center!

• Each module is designed to be portable, and the theme of your section is entirely up to you. You choose the look and theme for your section, and then add scenery and accessories to bring it to life.


Follow our Social Media Channels for updates, convention schedules and more!

Build and enhance with paint and scenery details! You can get lots of great scenery tips on our blog, www.lionelllc.wordpress.com.

Top photo: The first trial set up of a Lionel FasTrack™ Modular Railroad at the 2013 LCCA Convention in July with four scenic modules by Roger Farkash

Lower Right photo: A finished straight section, with the kit components and template displayed on top.

Lionel FasTrack™ Modular Railroad Template (6-31750) precisely positions the track and locks for connecting the modules.

Demonstration modules built by Roger Farkash
LCS SensorTrack™

Communicate with your locomotives and pre-program their actions!

Introducing the LCS SensorTrack, a new section of straight track that transfers information to and from passing locomotives to create an intelligent “web” of interactivity between YOU, your layout and your locomotives!

TAKE CONTROL OF YOUR LAYOUT LIKE NEVER BEFORE WITH THE LEGACY LAYOUT CONTROL SYSTEM

LCS SensorTrack™ is a 5” straight track section equipped with an infra-red receiver that reads data beamed out of all LEGACY locomotives that are equipped with an infra-red transmitter. It is a simple hookup with pre-made LCS PDI Cables available in a variety of lengths. It automatically programs LEGACY CAB-2 remotes with vital engine information, including road names and road numbers from any transmitter-equipped engine, replacing the orange locomotive modules.

LCS SensorTrack™ also replaces the TMCC Action Recorder Controller (6-14181), letting you record and then execute custom track actions and layout scenarios you create, such as customized stops, direction changes, throwing switches, and uncoupling. Actions are easily programmed via CAB-1L, CAB-2, or LCS App and each SensorTrack can store two custom recordings—one for each direction of travel.

WITH LIONEL’S NEW LCS SENSORTRACK™ YOU CAN ADD AUTOMATED ACTION TO YOUR LAYOUT!

Use any of the eight pre-programmed actions or create your own automated routines that your locomotives will follow each time they pass the LCS SensorTrack™. Record a series of up to 250 commands from your Legacy CAB-1L, CAB-2, or LCS App. These commands will then be played back automatically each time an IR-compatible locomotive passes over the track. Your recordings can even be locomotive specific so that only the locomotive you choose will activate your recorded commands.

LCS SensorTrack™ can be easily programmed using your CAB-1L or CAB-2 remote to perform one of eight pre-programmed functions each time a Vision or infra-red transmitter (IR) equipped Legacy engine passes over it. Pre-programmed actions include whistle and horn blows, engineer dialog, CrewTalk, and bell ringing. LCS SensorTrack™ even knows which direction your locomotives is going and performs dialog actions such as arrival and departure announcements accordingly. Basic operation requires one LCS SensorTrack™ and the LCS DB9 Cable with Power Supply. Additional LCS SensorTrack™ can be added using LCS PDI cables. The LCS SensorTrack™ is compatible with the Lionel Command Base-IL; full functionality requires a CAB-2 and LEGACY Base.
CAPABILITIES AND FEATURES:

- Set the LCS SensorTrack™ to automatically perform one of eight pre-programmed actions every time an IR equipped locomotive passes over it.
- Pre-programmed actions include whistle and horn blows, CrewTalk, and bell ringing.
- Arrival and departure announcements vary according to the engine’s direction of travel.
- The LCS SensorTrack™ gathers all information directly from the locomotive without the need to use the orange module. This feature is especially useful when your layout hosts visiting locomotives (LEGACY Command Set required).
- Locomotive information and ID automatically load into all of your LEGACY™ CAB-2 remotes as they pass over the LCS SensorTrack™.

Pre-recorded actions are only the beginning of the excitement possible with the LCS SensorTrack™!
- Create your own custom actions by recording commands made with your CAB remote or LCS App.
- Actions you record can include opening couplers, activating switch tracks, or any command made with the CAB remote or LCS App.
- Your custom action can include up to 250 time-stamped commands.
- Your custom recordings can be activated by all IR engines passing over the LCS SensorTrack™ or limited to just the locomotive that was used to create the recording.
- Each LCS SensorTrack™ holds two custom recordings—one for each direction of travel for each IR equipped locomotive.

NOTE:
The LCS SensorTrack™ works only with IR equipped engines. All Legacy locos made after November 2011 and ALL Vision locos are IR equipped. For a complete list of IR equipped locomotives, check out our website at Lionel.com/LCS. A LEGACY™ CAB 1L or CAB 2 is required.

ASSOCIATE LCS SENSORTRACK™ PRODUCTS:

6-14295 #990 LEGACY Command Set
6-37147 LEGACY CAB-1L/Base-1L Command Set
6-81499 LCS DB9 cable with Power Supply

LCS PDI Cable:
6-81500 1ft, 6-81501 3ft, 6-81502 10ft or 6-81503 20ft

6-81325 LCS Wi-Fi Module
(optional device for use with LCS app only)
LCS Wi-Fi is an optional part of the Layout Control System

With LCS Wi-Fi, you can operate your model railroad using devices such as the smart tablets, computers, smart phones or other Wi-Fi devices. LCS Wi-Fi can create its own independent Wi-Fi network or join an existing one. Up to 15 Wi-Fi devices can be connected at once. Each connected device requires software written specifically for the LCS system. Lionel’s LCS App (see screen image below) is available as a free download for the iPad. In addition, Lionel has made the LEGACY & LCS protocol codes available to third party developers. LCS Wi-Fi gets its operating power on the same LCS PDI cables used for data transmission. One LCS DB9 Cable with Power Supply is required per LCS installation.
The Engine Roster lets you store and edit the road name, number, and keypad operating options for each of your locomotives. You can even attach your own photo to each engine.

Control locomotive speed two ways—with a slider-based throttle similar to your CAB-2, or the unique patented “Yard Mode,” combining speed and direction in a single slider that returns to center/stop when you let go.

Custom Control Panels can model different sections of your layout and throw switches or power up blocks with a tap of the finger.
CREATE YOUR LCS SYSTEM

Your layout has always been more than the sum of its parts. But until now, combining those parts into a complete system could be a challenge. Lionel's new Layout Control System, or "LCS" fulfills the LEGACY promise of integrated locomotive and layout control.

LCS is a modular system. The parts you need are driven by your choice of Controller(s) and the actions you want to create on your layout. All that you need to get started is one LCS DB9 Cable with Power Supply. This cable provides power to multiple LCS modules and links them to your Lionel command base. Additional modules are interconnected using LCS PDI Cables.

CHOOSE YOUR LCS OPERATING ENVIRONMENT

The two most common ways to run an LCS system is with individual Lionel handheld remotes, or a combination of handheld remotes plus Wi-Fi devices such as an Apple iPad. The LCS Wi-Fi module and Lionel’s free iPad LCS App are not required for LCS—they just make it more fun!

To run LCS using only your hand-held remotes, you need a Lionel command base. This could be either the CAB/Base-1L, or for full functionality, the LEGACY 990 base with CAB-2 remote. Then, when you’re ready to combine the power of your hand-held remotes with the flexibility of the LCS App, add the LCS Wi-Fi module and download the FREE app for your iPad.

TIME FOR ACTION

Once you’ve chosen your LCS operating environment you’re ready for action. Pick features from the table below and see which LCS modules you need. Check out the next page for a full-blown LCS example, but remember—LCS is modular. Start with just the components you need today, knowing you can expand your LCS system as your layout grows.

<table>
<thead>
<tr>
<th>Feature</th>
<th>LCS Product</th>
</tr>
</thead>
<tbody>
<tr>
<td>On/off control of 1-8 lights, uncoupling tracks or basic accessories</td>
<td>ASC2 running in Accessory mode</td>
</tr>
<tr>
<td>Thru/Out control over 4 remote switches, Lionel, Ross and other switch manufacturers supported.</td>
<td>ASC2 running in Switch mode</td>
</tr>
<tr>
<td>Control up to 8 track power blocks</td>
<td>BPC2</td>
</tr>
<tr>
<td>Operate wired TMCC™ accessories such as 24114 Gantry crane</td>
<td>SER2</td>
</tr>
<tr>
<td>Control first generation devices such as TPC, ASC, BPC, ARC, AVC and other older Lionel serial devices.</td>
<td>SER2</td>
</tr>
<tr>
<td>Update CAB-2 remotes with info from passing locomotives</td>
<td>SensorTrack, LEGACY base, CAB-2 remote</td>
</tr>
<tr>
<td>Trigger preset or custom action on passing locomotives</td>
<td>SensorTrack</td>
</tr>
<tr>
<td>See real-time location of compatible engines on your layout</td>
<td>SensorTrack, LCS Wi-Fi, free LCS App</td>
</tr>
</tbody>
</table>

Enhance your layout experience!

6-81325 - LCS Wi-Fi Module
LCS Wi-Fi is an optional part of the Layout Control System. With LCS Wi-Fi, you can operate your model railroad using devices such as smart phones and tablets with Wi-Fi. LCS Wi-Fi can create its own independent Wi-Fi network or join an existing one.

Up to 15 Wi-Fi devices can be connected at once. Each connected device requires software written specifically for the LCS system. Lionel’s LCS App (see screen image above) is available as a free download at the app store. In addition, Lionel has made the LEGACY & LCS protocol codes available to third party developers.

LCS Wi-Fi gets its operating power on the same cables used for data transmission. One LCS DB9 Cable with Power Supply (6-81499) is required per LCS installation.

Associated LCS System Products

6-81640  LCS Block Power Controller 2 (BPC2)
6-81639  LCS Accessory Switch Controller 2 (ASC2)
6-81326  LCS Serial Converter 2 (SER2)
6-81499  LCS DB9 Cable with Power Supply

LCS PDI Cable:
6-81500 1ft, 6-81501 3ft, 6-81502 10ft or 6-81503 20ft
Up to four remotely operated switches from Lionel and other manufacturers can be controlled by one ASC2. Switches can be thrown via Lionel hand-held remotes, LCS App or 3rd party products.

Up to eight lights, uncoupling tracks or basic on/off accessories can be controlled by one LCS ASC2.

TMCC switches get their commands via RF TrackLink. They can be thrown via Lionel remote, LCS App or 3rd party products.

Each LCS SensorTrack™ receives information from compatible LEGACY locomotives and transmits this info back over the LCS Bus to LEGACY base. This in turn updates info on CAB-2 remote, LCS App and 3rd Party software.

LCS App is Lionel's free iPad application (requires LCS WiFi). Create custom control panels, view and edit your locomotive roster and received real-time updates when compatible locomotives cross over LCS SensorTracks™. LCS APP can run TMCC and LEGACY locomotives, command-controlled switches and accessories.

Lionel hand-held remotes (CAB-1L and CAB-2) communicate with the command base. All commands from the remotes are echoed to the LCS bus. CAB-2 remotes require LEGACY Base and offer two-way communication to base as well as the LCS bus.

LCS hand-held remotes communicate with the command base. All commands from the remotes are echoed to the LCS bus. CAB-2 remotes require LEGACY Base and offer two-way communication to base as well as the LCS bus.

LEGACY Base holds your engine roster and status of all locomotives. It sends commands via TrackLink and sends and receives commands via a 9-pin serial port to the LCS bus.

The LCS BPC2 switches up to 8 AC track power blocks (connections and transformer not shown)

PC or Laptop with 9-pin Serial

The LCS SER2 connects the LCS bus to older Lionel serial devices like the TPC or ASC (right). It also boosts the available serial data drive current, so you can connect all your existing 9-pin devices without problems.

You can connect multiple SER2 modules if desired, add an extra DB9. This would let you connect a PC to run the Lionel LEGACY System Utility program or 3rd party LCS compatible software. Third party developers' code can be fully LEGACY compatible, including the Quilling Whistle and other LEGACY-only features.

LCS PDI BUS

The Layout Control System bus (blue line) is a bi-directional system. A single LCS PDI Cable links LCS modules, carrying commands and status info in both directions. The LCS PDI cable also carries operating power for each module.

RF TrackLink

LEGEND

LCS Bus

Standard Wi-Fi

Old 9-pin Serial

Remote/Base Radio

hook-up wire

This diagram shows a very elaborate LCS system. But you don’t need to start big! The only required components is the LCS DB9 Cable with Power Supply plus one LCS device. Your system could start out as simple as a LEGACY base, the LCS DB9 Cable with Power Supply and a single LCS module, such as a LCS SensorTrack™.
LEGACY™ Control System

So Easy, So Precise, So Much Fun!

The harder your trains work, the more you hear and feel the effort. You sense and control every aspect of starting up your locomotive, climbing a hill, rounding a turn or expecting an emergency stop. You control the speed, acceleration, momentum, braking, routes, lash-ups – even your own “signature” warning horn or whistle.

LEGACY™ Control Systems offer you two great choices to operate your layout like an engineer operates his train.

The CAB-1L Control Systems simplifies the way you run your LEGACY™ layout. If you already have a LEGACY Base, you can simply add one or more CAB-1L remotes to your existing LEGACY layout. If you are looking to get started with LEGACY Control System, the CAB-1L is a very affordable option to start unlocking many of Lionel’s celebrated LEGACY features.

If you want the most advanced way to run your LEGACY layout, check out our CAB-2 Control System. This system will allow you to unlock all the highest end features LEGACY has to offer. Features including backlit LCD Screen, vibration feedback, train brake and boost controllers all work together to provide the fullest and most realistic train operation ever.

LEGACY™ CONTROL SYSTEM BUYER’S GUIDE

Operating Conventional Locomotives Only
Operating conventional locomotives from your CAB-1L or CAB-2 Remote Controller is very simple. Forget about rewiring your trains or spending the day making track connections – installing the LEGACY™ Control System is much easier than that!

What You Need
• PowerHouse Power Supply 6-22983 (or any 3-Rail AC transformer with 7.5 to 10 Amps of current)
• LEGACY PowerMaster 6-31746
• Choose One:
  - #990 LEGACY Command Set 6-14295, OR
  - CAB-1L/Base-1L Command Set 6-31747

Operating Both Conventional and Command-Equipped Locomotives
Want to operate both conventional and Command-equipped locomotives? No problem! While they can’t share the same block of track at once, both types of locomotives can operate on your layout.

What You Need
• Choose One:
  - ZW-L 6-37921 to run up to four track blocks, OR
  - PowerHouse Power Supply 6-22983 AND LEGACY PowerMaster 6-31746, one pair per block
  - Choose One:
    - #990 LEGACY Command Set 6-14295, OR
    - CAB-1L/Base-1L Command Set 6-31747

Operating Command-Equipped Locomotives Only
Operating only Command-equipped locomotives is very simple. With a Command Set, power supply, and optional extra remotes, you are ready to take control!

What You Need
• Choose One:
  - #990 LEGACY Command Set 6-14295, OR
  - CAB-1L/Base-1L Command Set 6-31747
  • Choose One:
    - ZW-L to run up to four track blocks, OR
    - PowerHouse Power Supply 6-22983 + LEGACY PowerMaster 6-31746, one pair per block, OR
    - PowerHouse Power Supply 6-22983 + TMCC Direct Lockon 6-34120, one pair per block
• Optional – Add additional remotes to share the fun!
  - CAB-1L 6-31749
  - CAB-2 #993 Expansion Set 6-14294 if using #990 LEGACY Command Set 6-14295

Controlling Entire Layout from the CAB-1L or CAB-2 Remote: Switches, Routes & Accessories
• One or more FasTrack™ Remote/Command Switches (eg. 6-16830)
• SC-2 Switch and Accessory Controller 6-17620 – Controls up to twelve accessories or six switches, or four switches and two accessories.
• LCS Accessories Switch Controller(ASC2) 6-81639 - Controls four switches or 8 accessories
The LEGACY™ CAB-2 Remote Controller
The Most Advanced Way to Run Your Trains!

D. RECORD FEATURE
Record any action that you want to see repeated. Up to 5 minutes of recording space available!

E. VELOCITY THROTTLE
The velocity throttle changes speed steps faster as it is rotated faster. For example, turning the throttle slowly results in the highest resolution—with 200 speed steps. The train can go from a complete stop to full throttle in either one rotation of the knob or in five rotations, depending on how fast the throttle is turned.

F. BACK-LIT LCD DISPLAY
Simple icons represent a wide variety of control functions, route set-ups, and train lash-ups. Easy to read graphs illustrate numerous speed, acceleration, and brake settings.

G. ADDRESSING FUNCTIONS
Select any object on your layout by scrolling through names alphabetically or by entering the multiple digit road number painted on the side of your engine. For accessories, use the LIONEL two- and three-digit numbers if you like. (For older engines, a simple method of adding the information manually can be used and traditional TMCC addressing is still available.)

H. VARIABLE HORN CONTROL
As the whistle/horn control is pulled, the horn is played with increasing intensity. Develop your own whistle/horn signature and control the warning sound in real time!

I. LCD TOUCHSCREEN KEYPAD
Control complicated model railroad layouts with ease. When addressing, the numbers are visible; during operation, control icons are automatically displayed.

J. FEEDBACK/VIBRATION
The remote rumbles as your locomotive accelerates and brakes! This unique control feature reinforces the sense of weight and momentum of the locomotive.

K. GRAPHIC ADJUSTABLE MOMENTUM
Set the momentum of the train or engine to low, medium, or high. The value of each momentum setting is adjustable and unique to that engine or train.

A. ICONIC AND GRAPHIC CONTROL MONITORING
Icons and graphs represent most control functions. Icons are large and easy to view. Graphs are bold and easy to understand.

- Speed Graphing
  Operators can access a large graph in the remote display window that illustrates target speed, command speed, rate of acceleration, and train brake settings.

- Iconic Route Set-Up
  In route set-up, animated icons form a line across the screen that illustrates the route as it is set up. Switches become animated when the route is thrown.

- Iconic Train Lash-Up
  Using icons, engines are displayed in the order that they are assigned to a lash-up. Engine icons can be manipulated to automatically make changes in direction or in engine order.

B. TRAIN BRAKE
Provides more realistic and precise brake control than any other system available.

C. MULTI-CONTROLLER BOOST BRAKE AND DIRECTION
Get braking and boosting from any given speed!

- Push up to boost...back off a little to hold the new “boosted” speed...release to return to throttle set speed.

- Pull down to brake...back off a little to hold the new “brake” speed...release to return to throttle set speed.

- In the center or “released” position, press down for a direction change.

- If you wish, set the direction function to stall your moving train without changing direction. In this mode, pressing the direction control while your train is stopped will provide a direction change.
A. LEGACY CAB-1L / BASE-1L COMMAND SET
6-37147

Here is everything you need to start operating in the Lionel® LEGACY 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 System or operate our older TrainMaster Command Control (TMCC) 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.

CAB-1L Features:
- Operates many LEGACY features and TMCC equipment
- Operates LEGACY “Real-Time Quilling Whistle/Horn” feature in LEGACY Control System equipped locomotives
- Works with either the #992 LEGACY Base or the Base-1L (only one base allowed per layout)
- Addresses 99 Engines, Tracks, Switches, Accessories (up to 9 routes)

Base-1L Features:
- Only one required per layout, unless there is a #992 LEGACY Base already installed
- Simple one-wire connection to your layout
- Serial-port for system expansion

B. LEGACY CAB-1L REMOTE CONTROLLER
6-37155
(separate sale)
- Work with all LEGACY bases

C. LEGACY BASE-1L
6-37156
(separate sale)

D. LEGACY POWERMASTER®
6-37146

Lionel’s LEGACY PowerMaster provides superior AC track-voltage control for your command-equipped layout. Use it with any Lionel remote to remotely adjust track power from a Lionel PowerHouse or other external AC transformer (sold separately) from the CAB-1L or CAB-2. The PowerMaster lets you restore track power from your remote. Stop searching for tripped breakers hidden under your layout!
- Works with all Lionel Command Remotes
- Control conventional locomotives remotely: control speed, direction, whistle/horn, and bell
- Vary track power to fine-tune lighting, accessories, and command-equipped engines
- Remotely restore power after shorts
- Controls up to 180 watts of external power
- Receive commands wirelessly, no serial cable required
- Use one LEGACY PowerMaster per track loop to operate conventional locomotives independently
- Control one or more powered accessories as a group
The #990 LEGACY Command Set features a #991 LEGACY CAB-2 Remote Controller and a #992 LEGACY Command Base/Charger, the two components you need to get started. Only one LEGACY Command Base/Charger is required per layout. Like traditional TMCC, the LEGACY Command Base/Charger receives information from the Remote Controller and sends it out to the track via a simple one-wire connection. But that’s not all. The LEGACY Command Base/Charger remembers information about your layout, enabling the CAB-2 Remote Controller to display road names and numbers on the LCD screen.

**CAB-2 Remote Controller Features:**
- Back-lit LCD screen—the largest on the market
- Back-lit LCD keypad displays numbers or icons for ease of use
- Built-in rechargeable batteries
- Feedback mode—the remote vibrates to reinforce the effort and momentum of your locomotive

**CAB-2 Remote Control Features:**
- Only one LEGACY Command Base/Charger required per layout
- Simple one-wire connection to your layout
- Built-in dock for recharging CAB-2 Remote Controller
- Stores operating information and settings about your layout

The #993 LEGACY Expansion Pack set includes:
- #991 LEGACY CAB-2 Remote Controller
- #994 LEGACY Charger Base

**Charger Base Features:**
- Built-in dock for recharging additional CAB-2 Remote Controllers
- Add as many as you like to charge remotes simultaneously

**LEGACY Writable Memory Module**
- Multi-purpose writable module
- LEGACY Base and CAB-2 operating system upgrades require a computer and a FREE downloadable "LSU" (LEGACY System Utility) program.
- Eliminates the need to buy blue upgrade modules when operating system updates become available
- Ability to create custom engine modules
- Upgrade information available online

**TMCC SC-2 Switch Controller**
- Programmable to control four switches AND two accessories together OR 6 switches OR 12 Accessories.
- Controls up to nine programmed routes Toggles accessories ON and OFF - Controls switches from several manufacturers
- Power supply included
- Communicates with the LEGACY or Base 1L without the need for wires
Power Options

A. TMCC™ DIRECT LOCK ON
6-34120
Connect your PowerHouse Power Supply directly to the track with the TMCC Direct Lockon. Featuring a selectable current setting for the 135-Watt or 180-Watt PowerHouses, the Direct Lockon eliminates the need for a PowerMaster if you run only TMCC™- or LEGACY-equipped locomotives. For added safety, the Direct Lockon provides over-current protection and an automatic reset. It is compatible with both Lionel FasTrack™ and O/027 track systems. Includes power wire with FasTrack connectors and one standard Lionel Lockon.

B. 180-WATT POWERHOUSE (10 AMP)
6-22983
Power your railroad empire with an advanced 180-Watt PowerHouse Power Supply. UL®- listed for safe operation, this mighty power supply is perfect for your LEGACY Powermaster or Direct Lockon.

C. 36-WATT TRANSFORMER (1.8 AMP)
6-32923
Power your Lionel accessories with the 1.8 Amp Accessory Transformer. This affordable power supply features variable AC voltage so you can supply the right amount of power to your accessories.

D. 80-WATT TRANSFORMER - CW80 (5 AMP)
6-14198
Enjoy operating your favorite locomotives, train sets, and accessories with the 80-Watt CW-80 Transformer. From the handsomely designed controller, reminiscent of the famous Lionel ZW, you control speed and power by raising and lowering the engineer handle. Operate your favorite features with the bell, whistle/horn, and direction buttons. On the rear of the unit, you will find a 0-18 volt variable AC output, that provides up to 18 volts, as well as a programmable AC output for accessory operation. Simply set the accessory voltage to your desired output, and your accessory operates at that output until you turn the unit off—evey when you stop the train! Perfect for train sets and small- to medium-sized layouts, the CW-80 provides the power you need to enjoy all your Lionel favorites.

E. 180-WATT TRANSFORMER - GW180 (10 AMP)
6-37947
From the Postwar-inspired styling of the controller, to the mighty PowerHouse power supply that provides a circuit breaker and on/off switch, this transformer has all the power you need, plus electronic overcurrent protection to help save your sensitive electronics in the event of a short circuit. Use the throttle lever to control speed and power. Operate your favorite features with the bell, whistle/horn, and direction buttons. Two outputs are available on the rear of the unit. The 0-18 volt variable AC output serves as your main track power source. The other programmable AC output is perfect for accessory operation from the same transformer. On the accessory output, simply set the accessory voltage to your desired level for continuous operation until you turn the unit off, completely independent of the train’s operation.
The ZW-L Transformer is designed to give you smoother operation and more realistic control of your engines and accessories. Operation of the four handles now allows for fine control of up to 200 speed steps. It also provides a wider range of control at the minimum and maximum extensions of handle dial motion, and comes equipped with a smoother, more durable handle gearing system. Voltage and current from each of the four channels of the ZW-L Transformer are cleanly displayed in four easy-to-read, analog ammeter/voltmeter dials that are housed in the “dashboard” face. With 620-Watts of power built inside the unit, there’s no need for separate power bricks. To keep your controller operating safely, the ZW-L also comes equipped with an automatic temperature controlled cooling fan, a circuit breaker for each channel output, and an on/off switch on the front. Additionally, LIONEL letters light up in blue on the front face of the unit when the ZW-L is turned on.

Whether you run vintage or state of the art locomotives and accessories, the new Lionel ZW-L Transformer provides more realistic conventional control of your layout operations than ever before!

NEW!

LIONCHIEF 36-WATT POWER SUPPLY (2 AMP)
6-37191

LIONCHIEF 72-WATT POWER SUPPLY (4 AMP)
6-81603
(not shown)

Connect the LionChief™ 72-Watt Wall Pack Power Supply (or the 36-Watt version found in LionChief™ RTR sets) directly to the LionChief™ Terminal FasTrack™ to power any LionChief™ FasTrack™ Layout. Now you are ready to run any LionChief™ or LionChief™ Plus locomotive, with enough power to expand.

See page 14 for FasTrack™ Specialty pieces like 6-37710 LionChief™ Terminal FasTrack™
All New Railsounds Commander™ —
Half the size. Superior sound.

The latest version of the Railsounds Commander™ is the smallest, most full featured, highest performance Railsounds® upgrade available for your locomotives. This innovative technology utilizes Lionel Railsounds® technology with integrated power supply, so it all fits on one circuit board, with no separate power supply/motherboard required! This reduced size means narrower diesels and smaller tenders are now candidates for a sound upgrade!

A. Railsounds Commander™
The latest Railsounds Commander™ is a giant upgrade from its predecessor. It’s packed with features from the Lionel Railsounds line, including eight prototypical diesel run levels, continuously variable DynaChuff for steam, intelligible CrewTalk and TowerComm and improved fidelity and detail on all sound elements.

The Railsounds Commander™ supports command and conventional mode with battery backup. It operates standalone, or in conjunction with the full product line of Electric Railroad’s TMCC™ upgrades. The small size is unparalleled in the marketplace, so just about every locomotive can have a high performance sound system!

The Railsounds Commander™ comes as a complete kit, including a high performance speaker, speaker baffle, mounting supplies, comprehensive installation manual, and connection cables for conventional and command operation.

Cool Features:
- Conventional and Command mode operation
- Command mode volume control
- On-board volume control for conventional operation
- Expanded variety of sound sets
- Diesel: Alco PA/PB, Alco 420, F3/F7, E8/9, GP7/9, Dash 9, FM, SD
- Steam: Small, Medium, Large, Articulated, Steam w/Air Horn
- Electric: GG1, EP5
- Battery (9v) supports convention mode operation
- Easily interfaces with entire Electric Railroad Company line of products
- Fully compliant with TMCC™ protocol standards
- Dimensions: 1.75” L x 1.25” W x 0.50” H

B. Mini Commander™

**ACCESSORY VERSION**
The Mini Commander™ ACC is the only command control receiver that has configurable voltage and pulse durations for controlling your accessories. All selection of the voltage and pulse settings are accomplished from your Lionel remote controller during the configuration phase. And our exclusive “Soft Set Technology” lets you change the unit ID (1 to 99) and the voltage/pulse settings without installing a program/run switch! Its small size permits installation into many operating cars. No more operating tracks needed!

Cool Features
- Built in Antenna
- Small—only 1” x 2” in size
- Four Outputs: 2 high current (2.0A pulsed - 0.8A continuous) outputs and 2 low current (0.8A pulsed - 0.4A continuous) outputs are provided
- Flexible outputs are capable of pulse, toggle, and strobe functionality
- Responds to ENG and ACC commands. When ENG is selected, uni-directional or bi-directional can motors are supported

C. Mini Commander2™
The Mini Commander2™ kit is designed specifically for operating vehicles and such as “Speeders”, Lionel's Inspection vehicles, or small locos such as the RMT Beep™. The upgrade features front and rear LED outputs for directional lighting, coil coupler support (may be repurposed for front and rear incandescent lamps), and TMCC™ serial data for sound upgrades.

Cool Features
- Command and Conventional operation
- True Full wave DC driver, 2-amp continuous, 4-amp peak
- Triac outputs for Coil Couplers or Lamps (not concurrently)
- Directly drives LED’s lighting without complex “load” resistor wiring
- Serial Data for Sound Commander2™ or Railsounds Commander™
- Integrated Receiver fully compliant with TMCC™ 1 standards
- Dimensions: 2.0” L x 1.00” W x 0.65” H
For Modular TMCC™ locomotives, upgrade your speed control with Cruise Commander “M”. Imagine how many locos without flywheels that can now have cruise functionality! The Cruise Commander “M” replaces the Lionel modular motor driver. It is plug compatible, and a minimal install only requires the addition of a single wire to the serial data for operation.

**Features:**
- Simple Tach-Less installation and operation
- High Frequency (20kHz) PWM for silent drive
- Operates in command and conventional modes
- CAB-1 selectable 32 or 100 (default) speed steps
- Serial data out for configuration acknowledgment
- Directly drives LED’s lighting without complex “load” resistor wiring
- LED’s lighting features include markers and oscillating ditch lamps
- On-board micro-controller provides future enhancement capabilities
- Dimensions: 2.4” L x 1.63” W x 0.8” H

Take command of locomotive speed with Cruise Commander™, a patented breakthrough in speed control technology. The Cruise Commander™ provides constant speed and ultra-slow operation of your locomotives, and it’s simple to install. While in operation, information about your locomotive’s velocity is monitored from the motor directly. If dual-motored, each motor is balanced to the other, synchronizing the motors for smooth and quiet operation. Lash-ups are also possible when locomotives are aligned using the exclusive “nudge” feature.

**Features:**
- Simple Tach-Less installation and operation
- High Frequency (20kHz) PWM for silent motor operation
- Operates in command and conventional modes
- CAB-1 selectable 32 or 100 (default) speed steps
- Uses R2LC to be fully compliant with TMCC™ standards
- Horn pulse to control modern-era and post-war horns/whistles
- Directly drives LED’s lighting without complex “load” resistor wiring
- On-board micro-controller provides future enhancement capabilities
- Splice-free connections make installation simple and quick
- Heat Sink has “PemNut”, no more stripped heat-sink mounting holes!
- Horn pulse output controls modern-era and post-war horns/whistles
- Dimensions: 2.75” L x 1.25” W x 1.2” H

The patented (#7,132,807) AC/DC Commander with SMS* Technology™ is the perfect engine upgrade for those who desire more speed steps than the usual 32. The AC/DC Commander is capable of operating in 32 speed step mode for speed profile compatibility with existing engines. When desired, the AC/DC Commander can be switched to operate with 100 speed steps. The low end speed control performance is noticeably improved in this mode of operation. Even AC motors can be set to “creep” down the rails! Specify AC or DC version when ordering.

**Features:**
- Dual AC or DC motor capability (8 Amps)
- CAB-1 selectable 32 (default) or 100 speed steps
- Horn pulse output controls modern-era and post-war horns/whistles
- Directly drives LED’s lighting without complex “load” resistor wiring
- On-board micro-controller provides future enhancement capabilities
- Splice-free connections make installation simple and quick
- Heat Sink has “PemNut”, no more stripped heat-sink mounting holes!
- Uses R2LC to be fully compliant with TMCC™ standards
- Dimensions: 2.75” L x 1.25” W x 1.2” H

**Speed Selection:**
- 32 speed step activation: AUX1 + 0 + AUX1 + 0 + BRAKE
- 100 speed step activation: AUX1 + 0 + AUX1 + 0 + BOOST
- “SMS - Speed Management System"
Cleaning and Maintenance

Why is it important to clean my track on a regular basis?

The constant operation of trains on any layout will create a carbon dust build up on the wheels of the trains and also the rails of the track. This carbon build up must be managed by frequent cleaning of both the rails of the track as well as the wheels on the train cars and locomotives. The frequency is dependent on the amount of time the trains are in operation. We recommend doing a weekly inspection of the track to determine the rate of the carbon dust build up which will help you establish maintenance and cleaning schedule that is right for your layout.

What might the result be if I don’t establish a maintenance and cleaning schedule for my layout?

If the carbon dust is not cleaned frequently the performance of the trains on the track will suffer. The buildup of carbon will ultimately prevent the locomotive from smooth operation, by interrupting the power collection from the outside wheels (AC ground) and the center rail collectors (AC hot). When the buildup of carbon is not addressed, undesirable operation may occur, where trains will stall out on the track and cease to operate.

What type of cleaning agents do you recommend for cleaning your layout?

We recommend using an all-purpose cleaner with a citric base. We recommend a citric based cleaner because it does not degrade the metal rails nor does it cause poor electrical connectivity between the rails and the wheels of the train. Alcohol based cleaners should be avoided since they tend to degrade the electrical connectivity of your trains.

Since I now know what type of cleaner is recommended, what are my next steps to successfully clean my layout?

- Saturate a rag with your desired multi-purpose cleaner (preferably a citric based cleaning product)
- Wipe down your layout, focusing on the rails.
- Once the cleaner has been applied, follow by wiping the rails again with a clean, dry rag to absorb the excess cleaning solution and carbon deposits from the rails.

We recommend that you establish the same cleaning intervals for your cars and locomotives as you establish for your track. The easiest way to clean the carbon from freight car wheels is to use cotton swabs.

- Saturate one end of the cotton swab with the same cleaner and wipe the entire rolling surface (and flange face) of the wheel with the saturated end.
- Repeat the process with a couple cotton swabs with dry cotton to absorb excess cleaner and carbon deposits from the wheel.

For additional general tips, video tutorials and FAQ’s, please visit our Customer Service section of Lionel.com.
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