

**EMT**  
ELECTRIC TRAINS<sup>SM</sup>  
HO TRAINS THAT DO MORE



**2017-18**  
HO MODEL TRAINS



# MTH

ELECTRIC TRAINS®

HO TRAINS THAT DO MORE

The M.T.H. HO product line features locomotives sporting the absolute latest in cutting-edge digital electronics for the HO market. Our slogan "HO Trains That Do More" is no understatement. Our sound-equipped locomotives are compatible with all HO operating systems: analog DC, NMRA-standard DCC, and M.T.H.'s Digital Command System (DCS). LED lighting, synchronized puffing smoke output and durable ABS or die-cast metal bodies ensure that M.T.H. HO locomotives and rolling stock are worthy additions to any HO roster.



Not all products depicted in this catalog are production models. In some cases, the items pictured may be models in HO scale, O scale, or another scale that have been altered digitally. Each item's graphic features and content are subject to change after publication. All product features may be verified on their retail packages.

M.T.H. Electric Trains is in no way affiliated with any of the railroads featured in this catalog.

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M.T.H.'s DCS Digital Command System has received U.S. Patent No. 6,457,681. M.T.H.'s Proto-Sound® 2.0 system has received U.S. Patent No's 6,457,681 B1

(sound system), 6,457,681 B1 (Proto-Speed Control™), 6,604,641 (Proto-Coupler™), 7,210,656 (Sound), 6,662,917 (2/3Rail), 7,210,656 (Internet Downloads, Music & Doppler), 6,655,640 (Smoke Synchronization)

HO Coupler 7,694,834 Bi-Directional Communication 8262034

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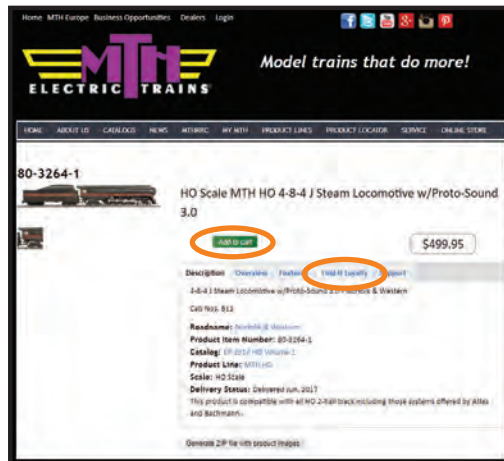
# Contents



Proto-Sound® 3.0 .....	2
DCS Digital Command System .....	4
UP 4-8-8-4 Big Boy .....	8
SP AC-6 4-8-8-2 Cab Forward .....	14
N&W Class J 4-8-4 .....	20
C&O H-8 2-6-6-6 Allegheny.....	24
PRR H10 2-8-0 Consolidation .....	28
PRR K4s 4-6-2 Pacific.....	30
Bavarian Class S 3/6.....	32
GE Dash 9-44CW .....	36
GE ES44AC .....	42
Alco FA-1.....	54
EMD GP38-2 .....	56
New York R-17 Subway .....	66
New York R-21/R-22 Subways .....	70
Rolling Stock .....	72
Passenger Cars.....	86
Six Ways to Operate Proto-Sound Engines .....	92
Track & Accessories .....	94
M.T.H. Railroaders Club .....	95
M.T.H. Online.....	96

## M.T.H. HO Products Are In Stock And Ready To Purchase

Most items featured in this catalog are in-stock and available to buy as this catalog goes to press. You can learn more about them on our website, and purchase them at our online store or at more than 900 M.T.H. Authorized Retailers.



## Finding M.T.H. Products

To find products, go to the M.T.H. website ([www.mthtrains.com](http://www.mthtrains.com)), key in the product item number in our Search box and access the product's landing page. If the item is in stock, it can be purchased directly from M.T.H. by clicking on the Add to Cart button. Or click on the Find It Locally button to locate an M.T.H. Authorized Retailer near you and purchase through them. If your favorite retailer doesn't have the item in stock, let them know M.T.H. does and they'll order it for you.



FIND US ONLINE



[www.mthHOtrains.com](http://www.mthHOtrains.com)

# Proto-Sound® 3.0

## THE RICHEST SET OF FEATURES IN MODEL RAILROADING

Whether you operate with a conventional transformer or in command mode with DCC or DCS™ (M.T.H.'s Digital Command System), the Proto-Sound 3.0 system available in every locomotive in this catalog offers more realism, more fun, and more variety than any other locomotive control system in any scale.

pulled by that particular engine. Freight engines include Freight Yard Proto-Effects, a symphony of freight terminal sounds.

### LIGHTING EFFECTS

Proto-Sound locomotives feature prototypical Rule 17 lighting, including a variety of realistic lighting effects. Depending on the locomotive, these may include constant-brightness headlights, il-



### FULL COMPATIBILITY WITH ALL OPERATING SYSTEMS

Right out of the box, every Proto-Sound 3.0 engine is compatible with all operating systems: conventional DC, DCC, and our own Digital Command System (DCS).

### VIVID ENGINE SOUNDS

Proto-Sound features crystal-clear digital sounds. We strive to make our sounds as authentic as possible, using the characteristic whistle for a particular steam engine, for example, or motor sound for a particular diesel. With the optional DCS system, you can tune each engine to your preference by individually adjusting bell, horn or whistle, and steam chuff or diesel motor volume — and play a steam engine quillable whistle as if you were pulling the whistle cord!

### STATION SOUNDS

Proto-Sound passenger engines offer Passenger Station Proto-Effects™, a complete arrival and departure sequence you can activate from your transformer or DCC or DCS controller. In most cases, the station sequence features an actual name train

### ATMOSPHERIC SOUNDS

Crew conversations, the whoosh of a steam engine opening its cylinder cocks, and a host of other atmospheric sounds play automatically at random when using a conventional transformer — or can be activated manually from a DCC controller or the DCS handheld.

### EXTRAORDINARY SLOW SPEED CAPABILITY

Proto-Sound engines can throttle down as slow as three scale miles per hour, highball down the main line, and maintain any speed in between. With certain DCC controllers, and any DCS controller, you can set engine speed in one-scale-mile-per-hour increments up to 120 smph. Go ahead, get out your stop watch and ruler and see how accurate our scale speeds are.

### UNMATCHED SPEED CONTROL

The Proto-Speed Control™ built into Proto-Sound 3.0 acts like the cruise control on a car, keeping your train moving at the speed you select, regardless of hills and curves. You can even switch off the speed control if you prefer.

luminated number boards, lighted marker lamps, and alternating ditch lights. In DCS operation, many of these lighting effects can be individually controlled.

### MULTIPLE UNIT CAPABILITY

In DCS command mode, all locomotives set to the same throttle setting — 37 scale miles per hour, for example — will move at virtually the same speed. This makes it easy to double or even triple-head nearly any combination of Proto-Sound 3.0 locomotives.

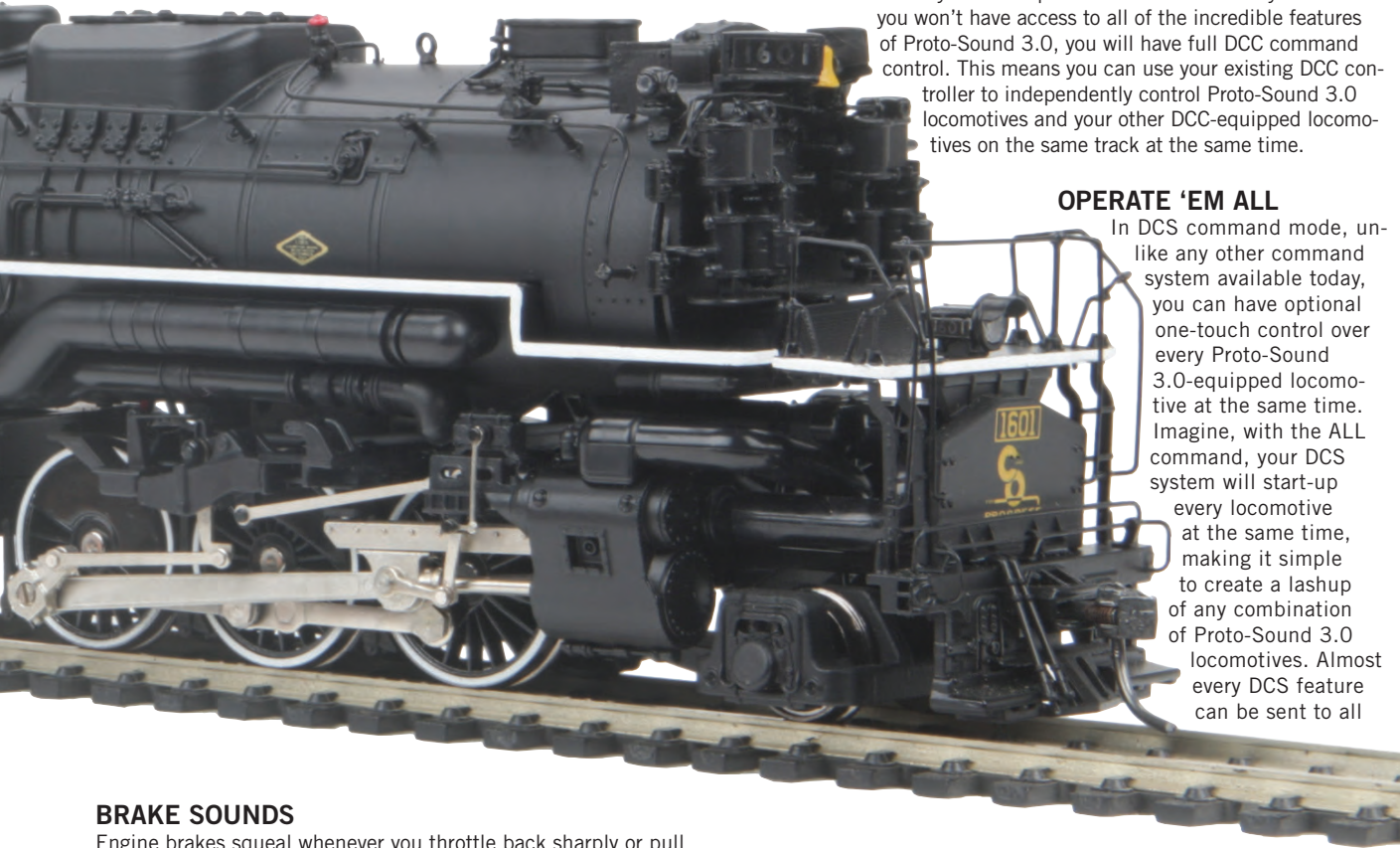
### GREAT SMOKE

Proto-Sound steam engines feature fan-driven ProtoSmoke™, the most powerful smoke system in the hobby. You can vary the intensity with the smoke "volume" control on the locomotive or remotely with any DCC or DCS controller.



## SYNCHRONIZED CHUFF AND PUFF

Like a real steam engine, M.T.H. steamers feature puffs of smoke and steam chuff sounds synchronized with the drive wheels. Better than any other model train, an M.T.H. locomotive portrays the drama of a steam engine slowly chuffing and puffing as it pulls out of a station and gets up to speed.



## BRAKE SOUNDS

Engine brakes squeal whenever you throttle back sharply or pull into a station. In DCS mode, you can trigger the brake sound with the Brake button on the DCS handheld.

## BI-DIRECTIONAL COMMUNICATION

Proto-Sound 3.0 engines not only receive commands from the DCS system, they can report back vital information, trigger other devices to operate, and diagnose your layout's wiring and signal quality. Query a Proto-Sound 3.0 locomotive to find out how many scale miles it's run or how many hours it's been powered up. Check out the strength

of the DCS signal on the track or measure the track voltage at a trouble spot. Measure the length of your track in scale miles. All of this is possible today, but only with a Proto-Sound 3.0-equipped locomotive when operated using the DCS Digital Command System.

## PROTO-SOUND 3.0 DCC FUNCTIONALITY

Proto-Sound 3.0-equipped locomotives can be controlled in command mode with any DCC-compliant command control system. While you won't have access to all of the incredible features of Proto-Sound 3.0, you will have full DCC command control. This means you can use your existing DCC controller to independently control Proto-Sound 3.0 locomotives and your other DCC-equipped locomotives on the same track at the same time.

## OPERATE 'EM ALL

In DCS command mode, unlike any other command system available today, you can have optional one-touch control over every Proto-Sound 3.0-equipped locomotive at the same time. Imagine, with the ALL command, your DCS system will start-up every locomotive at the same time, making it simple to create a lashup of any combination of Proto-Sound 3.0 locomotives. Almost every DCS feature can be sent to all

the active engines at once. Tell 'em to run at 10 scale miles per hour and they'll all start moving at the same time and at the same speed.

## DCC Features

Proto-Sound 3.0-equipped locomotives can be controlled in command mode with any DCC-compliant command control system. This means you can use your existing DCC controller to independently control your other DCC-equipped locomotives in addition to your Proto-Sound 3.0 locomotives on the same track at the same time.

When using a DCC controller, the following Proto-Sound 3.0 locomotive features are accessible:

### Steam Features\*

- Headlight/Backup light
- Bell
- Whistle
- Start-up/Shut-down
- Passenger Station/Freight Yard Sounds
- All Other Lights (On/Off)
- Master Volume
- Front Coupler
- Rear Coupler
- Forward Whistle Signal
- Reverse Whistle Signal
- Grade Crossing Signal
- Smoke On/Off
- Smoke Volume
- Idle Sequence 3
- Idle Sequence 2
- Idle Sequence 1
- Extended Start-up
- Extended Shut-down
- Labored Chuff<sup>1</sup>
- Drift Chuff<sup>1</sup>
- One Shot Doppler
- Coupler Slack
- Coupler Close
- Single Horn Blast
- Engine Sounds
- Brake Sounds
- Cab Chatter
- Feature Reset
- Train Marker<sup>2</sup>
- Train Operation<sup>2</sup>

<sup>1</sup> Not Included On European Steam Locomotives

<sup>2</sup> Found Only On European Steam Locomotives

### Diesel/Electric Features\*

- Head Light/Backup Light
- Bell
- Horn
- Start-up/Shut-down
- Passenger Station/Freight Yard Sounds
- All Other Lights (On/Off)
- Master Volume
- Front Coupler
- Rear Coupler
- Forward Horn Signal
- Reverse Horn Signal
- Grade Crossing Signal
- Clickety Clack (On/Off)
- Idle Sequence<sup>1</sup>
- Idle Sequence<sup>2</sup>
- Idle Sequence<sup>2</sup>
- Idle Sequence<sup>2</sup>
- Idle Sequence<sup>1</sup>
- Extended Start-up
- Extended Shut-down
- Rev Up
- Rev Down
- One Shot Doppler
- Coupler Slack
- Coupler Close
- Single Horn Blast
- Engine Sounds
- Brake Sounds
- Cab Chatter
- Feature Reset
- Smoke On/Off<sup>3</sup>
- Smoke Volume<sup>3</sup>
- Pantograph Auto/Manual<sup>4</sup>
- Front Pantograph Up/Down<sup>4</sup>
- Rear Pantograph Up/Down<sup>4</sup>

<sup>1</sup> Found Only On Diesel Locomotives w/o Smoke

<sup>2</sup> Not Included On Electrics

<sup>3</sup> Found Only On Diesel Locomotives w/Smoke

<sup>4</sup> Found Only On Electric Locomotives

\* Check your DCC Controller's manual to see how many features it can access.





# Simply the Best Way

DCS is **SIMPLE** to use.

It's **ACCESSABLE** from any iOS or Android smart phone, tablet or the included remote.

It can be **UPGRADED FOR FREE** over the Internet.

It can **DO MORE** for less money than other command control systems.

It's why you'll have **MORE FUN** operating your trains than ever before.

DCS can run over 800\* M.T.H. HO Proto-Sound 3.0 and 3E+ locomotives — and run 99 of them at the same time, on the same track, independently, in command mode.

\* Number of different Proto-Sound 3.0 engines cataloged through the 2017-2018 HO Catalog.



**DCS Remote Control System**  
50-1001 \$349.95  
*Includes handheld and TIU*

**DCS Remote Control Handheld Unit**  
50-1002 \$169.95



**DCS Wi-Fi Interface Unit (WIU)**  
50-1034 \$179.95



**DCS Accessory Interface Unit (AIU)**  
50-1004 \$119.95



**DCS Explorer Track Interface Unit**  
50-1035 \$129.95



**DCS Track Interface Unit (TIU)**  
50-1003 \$199.95





# to Run a Railroad™

## Command Control Explained

In conventional operation, an AC or DC transformer varies track voltage to adjust engine speed and direction. Command systems such as DCS, however, put a constant voltage on the track (around 18 volts for DCS) and vary speed by telling each engine how much of that voltage to use. Command control allows different engines to do different things — like run at different speeds, go in different directions, or make different sounds — even when they are on the same track.

In the DCS system, commands such as speed, direction, and sound control are sent as radio signals from the handheld throttle to a TIU (track interface unit). The TIU translates those radio signals into digital information that is sent through the rails and picked up by a receiver in the appropriate engine — telling it to go, for example, 37 miles per hour, blow the whistle, smoke more heavily, or any other command. DCS locomotives can also send information back to the handheld to let the operator know what they're doing.



### Learn More About It

Request a Complimentary DVD on DCS and M.T.H. technology. Log on to the DCS Web site, [www.protosound2.com](http://www.protosound2.com)

**TRY IT** at your local DCS Demo Center

Take your favorite Proto-Sound 2.0 or 3.0 engine to any DCS Demo Center and experience the additional features your engine has with DCS control. To find your nearest demo center or request your complimentary DVD, visit [www.mthtrains.com](http://www.mthtrains.com).

## DCS COMMANDER: *Get into DCS on a budget*

Ideal for small layouts running two or three Proto-Sound 2.0 or 3.0 locomotives. Learn more about it using our online Product Search feature to see more information and read the instruction manual.



**DCS Commander System w/100 Watt Power Supply**  
50-1029      \$259.95

**DCS Commander Controller (without power supply)**  
50-1028      \$179.95



**DCS Remote Commander Set**  
50-1033      \$59.95

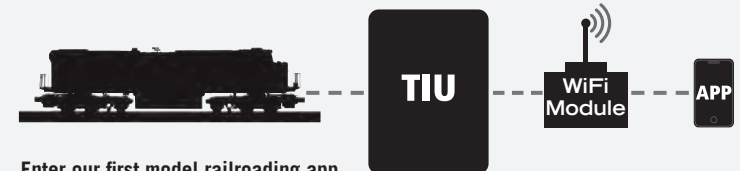
## WHAT CAN YOUR REMOTE DO?

## M.T.H. Railroading App

Technology continues to expand in all aspects of our lives; we believe it must continue to do so in our products and our control systems if we want our hobby to remain relevant in the world of smart phones, tablets and wearable technology.



Why put a remote control in the hands of an operator when he or she probably has an even more powerful device in their pocket? Why shouldn't a modeler control their layout with their phone, when they can already use that phone to run their television, adjust their thermostat, and activate their home alarm system? More importantly, how many new members can we attract into our hobby when we bundle that hobby with technology they use every day?



### Enter our first model railroading app

The M.T.H. smart phone and tablet app allows operators to run their trains from Apple iOS or Android phones or tablets. That means your Apple iPhone or Samsung Galaxy can do one more thing we only dreamed about fifteen years ago when we introduced DCS. Your favorite Android tablet or Apple iPad will bring the DCS Digital Command System to life in a way you never thought possible when you first picked up a DCS remote control. Any of these smart devices can run our new app. That means anybody who visits your layout can run trains — the days of fighting over the remote control are over!

Whether you're running Android or iOS, our DCS app allows you to control your entire layout in command or conventional modes without using a DCS handheld remote. You'll still need a TIU (Track Interface Unit) along with a new, separately sold DCS WiFi module. Simply plug the module into the TIU, search for its WiFi signal on your phone or tablet, and you'll be running your layout in command mode in no time. Everything the DCS handheld remote can do, the app can do — but your experience will be better and in full color!

Our new app isn't limited to just DCS control either. With it, you can access special pages on the M.T.H. website, see the latest catalogs and news articles, and shop for M.T.H. products.



See A Demo At [www.mthtrains.com](http://www.mthtrains.com)

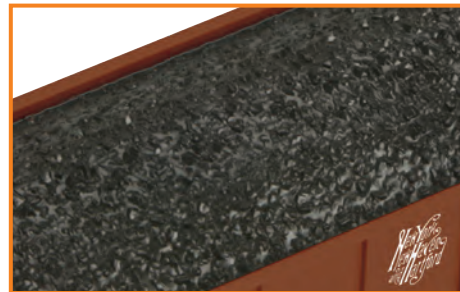


As the preceding pages detail, our Proto-Sound 3.0 locomotives possess the richest set of features in model railroading, and we've taken the same approach with our freight and passenger rolling stock.

Many of our passenger cars possess railroad specific details and are unique in appearance from each other. Our *Daylight* cars, for example, have some of the best operating end-of-car diaphragms found in any scale. All of our passenger cars feature the smoothest rolling passenger trucks available today, and all are outfitted with flicker-free, constant voltage lighting. You won't find better looking and operating HO passenger cars than those from M.T.H.

M.T.H. HO freight cars come in two varieties. Our top-of-the-line models feature industry-leading details like separate grab irons, intricate undercarriage detail and crisp graphics. The Ready-2-Rail series is our durable and value-packed freight car line, with opening box car doors, smooth-rolling trucks and equally crisp and colorful graphics.

Regardless of your choice, all M.T.H. HO freight and passenger car rolling stock comes ready-to-run and features industry-leading Kadee® couplers.







## Proto-Sound 3.0 DCC Upgrades

Like all modern electronics, Proto-Sound 3.0 continues to evolve, thanks to its software-based heritage. All of our latest locomotive models are equipped with upgraded software that enhances their operating characteristics. Improvements include new DCC features such as Advanced Consisting, Feature Mapping and Speed Mapping. Changes also include the ability of the locomotive — in command mode — to immediately start its sounds upon movement of the locomotive, eliminating the previous requirement to press Startup or F-3 to turn on sounds and lighting.

Operators will find these new features on all of our 2016 and later locomotives, including the ES44AC, Dash-9 and GP38-2 diesels featured in this catalog. All of our 2016 and later steam locomotives sport the new features as well, including the Allegheny, 2-8-0 H10, 4-6-2 K4s, Norfolk & Western Class J, Union Pacific Big Boy, Southern Pacific Cab Forward and German S3/6.

Owners of earlier diesel models can upgrade their software using the full DCS Digital Command System. The software is free and is available from [www.mthtrains.com](http://www.mthtrains.com).



See and hear 'em in action: Visit our site to see videos of M.T.H. locomotives in action, locate your nearest dealer, or learn more about our products.

**MTH**  
ELECTRIC TRAINS®

HO TRAINS THAT DO MORE

[www.mthHOtrains.com](http://www.mthHOtrains.com)



# UP 4-8-8-4 Big Boy



## Die-Cast Metal

Just months before Pearl Harbor, the American Locomotive Company delivered the first Big Boy to the Union Pacific Railroad. The UP's Department of Research and Mechanical Standards had designed the locomotive for a specific task: to pull a 3600-ton train unassisted over the Wasatch Mountains in Utah. While the Big Boy is often cited as the biggest steam locomotive ever built, in fact it is not. The Norfolk & Western's Y6 and A, the Duluth Missabe & Iron Range's Yellowstones, and the Chesapeake and Ohio's Alleghenys were all in the same league, and some exceeded the Big Boy's weight and power.

But in the battle for hearts and minds, the Big Boy won. Perhaps it was the name, simple and direct, scrawled on a locomotive under construction by an Alco shop worker. Maybe it was timing, as the Big Boys hit the road just when America needed symbols to rally around. Maybe the UP's publicity

department just did a better job of telling the world what great equipment they had. Whatever the reason, the Big Boy captured the imagination of railfans and the American public over the ensuing years, perhaps more than any other steam engine. In many ways it is the symbolic locomotive of the American West, as big and powerful as the country it sped through.

Writer Henry Comstock beautifully described the Big Boy's place at the apex of steam engine history: "A Union Pacific 'Big Boy' was 604 tons and 19,000 cubic feet of steel and coal and water, poised upon 36 wheels spaced no wider apart than those of an automobile. That it could thunder safely over undulating and curved track at speeds in excess of 70 miles an hour was due in large measure to the efforts of two long-forgotten pioneers. As early as 1836, the basic system that held its wheels in equalized contact with the rails was patented by a Philadelphian named Joseph Harrison; and a French

technical writer, Anatole Mallet, first thought to couple two driving units heel to toe below one boiler in 1874."

This enduring symbol of American railroading returns to the rails for 2017 featuring our industry-leading speed control and synchronized puffing smoke output, as well as authentic articulated chuffing sounds with the front and rear engines drifting in and out of sync. And when the Union Pacific Railroad finishes its restoration of prototype Big Boy No. 4014, which is currently taking place, we'll record No. 4014 in action and issue a free replacement sound set that you can download into any M.T.H. Big Boy.









Union Pacific - 4-8-8-4 Big Boy (Modified), Cab No. 4023  
80-3255-1 Proto-Sound 3.0 \$599.95



Union Pacific - 4-8-8-4 Big Boy (Modified w/Oil Tender), Cab No. 4014  
80-3254-1 Proto-Sound 3.0 \$599.95



Union Pacific - 4-8-8-4 Big Boy Specialty Passenger Set  
80-3258-1 Proto-Sound 3.0 \$749.95  
Set Features: Union Pacific 4-8-8-4 Big Boy Steam Engine (Cab No. 4014),  
Combine, Tavern Car, Coach and Observation



### Features Include:

- Intricately Detailed, Die-Cast Boiler and Chassis
- Intricately Detailed, Die-Cast Tender Body
- Authentic Paint Scheme
- Real Tender Coal Load (Excl. #4014)
- Handpainted Engineer and Fireman Figures
- Metal Handrails, Whistle and Bell
- RP25 Metal Wheels, Metal Axles and Metal Gears
- Interchangeable Drivers With and Without Traction Tires
- Sprung Drivers
- (2) #158 Scale Kadee® Whisker Couplers
- Operating Kadee-Compatible Remote Controlled Proto-Coupler on Tender
- Prototypical Rule 17 Lighting
- Constant Voltage LED Headlight
- LED-Illuminated Cab Interior
- LED-Illuminated Class Lights
- LED-Illuminated Number Boards
- LED-Illuminated Tender Backup Light and Emergency Stop Light
- Powerful 5-Pole Precision Flywheel-Equipped Skew-Wound Motor
- Synchronized Puffing ProtoSmoke System
- Locomotive Speed Control In Scale MPH Increments
- Wireless Drawbar
- 1:87 Scale Dimensions
- Onboard 28-Function DCC/DCS Decoder
- Operates On Code 70, 83 and 100 Track
- Proto-Sound 3.0 with the Digital Command System Featuring Quillable Whistle and Freight Yard Proto-Effects
- Measures: 18 11/16" X 1 9/16" X 2 1/4"
- Operates On 18" Radius Curves



*M.T.H. Electric Trains*  
*Signature Series*

Union Pacific - Signature Series 4-8-8-4 Big Boy (Modified w/Oil Tender), Cab No. 4014  
80-3263-1 Proto-Sound 3.0 \$749.95

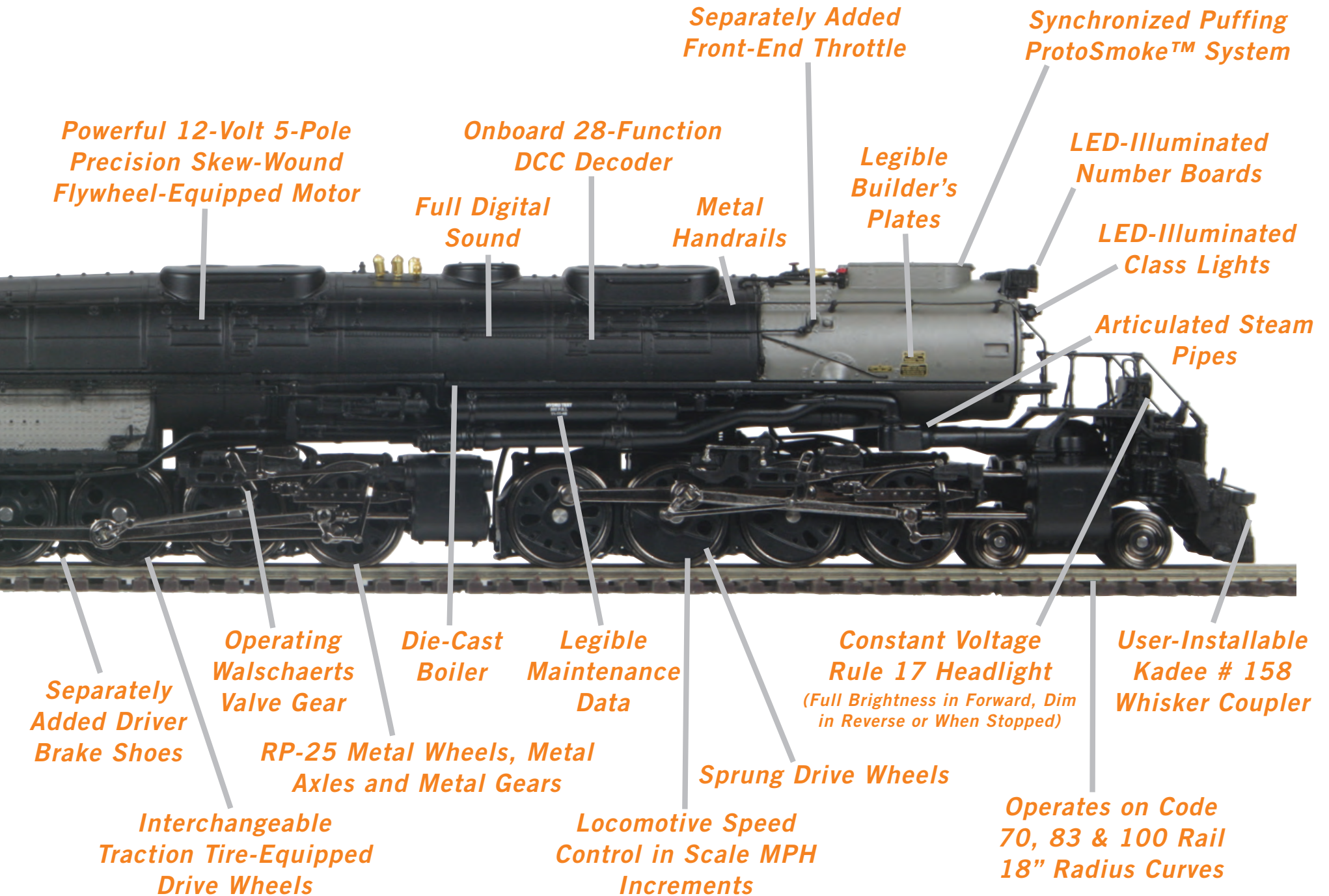
*Like all M.T.H. Signature Series models, each Signature Series Big Boy is individually airbrush-weathered by a master modeler with more than 30 years of professional experience, using proprietary techniques that capture the subtle natural wear and tear produced by road dust, rain, rust, wind and everything else that railroad equipment experiences in real life.*





# Anatomy of a 4-8-8-4 Big Boy





**Powerful 12-Volt 5-Pole Precision Skew-Wound Flywheel-Equipped Motor**

**Onboard 28-Function DCC Decoder**

**Separately Added Front-End Throttle**

**Synchronized Puffing ProtoSmoke™ System**

**Full Digital Sound**

**Metal Handrails**

**Legible Builder's Plates**

**LED-Illuminated Number Boards**

**LED-Illuminated Class Lights**

**Articulated Steam Pipes**

**Operating Walschaerts Valve Gear**

**Die-Cast Boiler**

**Legible Maintenance Data**

**Constant Voltage Rule 17 Headlight**  
*(Full Brightness in Forward, Dim in Reverse or When Stopped)*

**User-Installable Kadee # 158 Whisker Coupler**

**Separately Added Driver Brake Shoes**

**RP-25 Metal Wheels, Metal Axles and Metal Gears**

**Sprung Drive Wheels**

**Interchangeable Traction Tire-Equipped Drive Wheels**

**Locomotive Speed Control in Scale MPH Increments**

**Operates on Code 70, 83 & 100 Rail 18" Radius Curves**



# 4-8-8-2 AC-6 Cab Forward



## Die-Cast Metal

Part of the first transcontinental railroad, the Southern Pacific's passage over the Sierra Nevadas, from Sparks, Nevada to Roseville, California, has always been a challenge for man and machine. Grades in both directions approximate 2.5%. Thirty-nine tunnels and nearly 40 miles of snow sheds protect the track from snowdrifts and avalanches — Sierra Nevada, after all, is Spanish for “snow covered.” Seeking more muscle for this route, the SP took delivery of two Baldwin articulated 2-8-8-2s in 1908. Initial trials, however, revealed that heat and exhaust gases in the tunnels and snowsheds made life nearly unbearable for the engine crew. Although cab forwards had been tried before in Italy and northern California, legend has it the SP cab forwards were inspired by an engineer who turned a Baldwin articulated around and ran it tender-first, putting the smoke behind him so he could breathe while he did his job.

The first true Southern Pacific Cab Forwards were delivered in March of 1910 and proved so successful that the SP eventually bought 254 more in various classes. Because the firebox and tender were at opposite ends of the locomotive, the cab forwards burned oil, piped under pressure from the tender to the firebox. The cab in front gave the engineer the best forward visibility of any steam locomotive.

While many railfans are familiar with the AC-12 Cab Forward preserved at the California State Railroad Museum — the last new steam engine delivered to the Southern Pacific in 1944 — our model depicts the earlier AC-6 with its distinctive flat cab front and rounded Vanderbilt tender. Delivered in 1930-31, the AC-6 class set the pattern for all future Cab Forwards, with higher boiler pressure, more tractive effort, and the air compressors moved

to the boiler front for better weight distribution. Several AC-6s were later modernized with a tapered cab front, and that version is also offered here.

Our Cab Forward showcases all the features that distinguish an M.T.H. steamer: fully die-cast construction for durability, detail and pulling power; Proto-Sound 3.0 with 28-function DCC and articulated sounds, including the front and rear engines going in and out of sync; speed control for smooth, steady speeds from a crawl to full throttle; interchangeable drivers with and without traction tires; puffing smoke synchronized with the drivers; a full complement of LED lighting; and superb detailing right down to legible builder's plates.





## Features

- Die-Cast Boiler and Tender Body
- Die-Cast Metal Chassis
- Authentic Paint Scheme
- Hand-Painted Engineer and Fireman Figures
- Metal Handrails, Whistle and Bell
- RP25 Metal Wheels, Metal Axles and Metal Gears
- Sprung Drivers
- Interchangeable Drivers With and Without Traction Tires
- (2) #158 Scale Kadee Whisker Couplers
- Operating Kadee-Compatible Remote Controlled Proto-Coupler on Tender
- Prototypical Rule 17 Lighting
- Constant Voltage LED Headlight
- LED-Illuminated Number Boards
- LED-Illuminated Class Lights
- LED-Illuminated Cab Interior
- LED-Illuminated Tender Backup Light
- Powerful 5-Pole Precision Flywheel-Equipped Skew-Wound Motor
- Synchronized Puffing ProtoSmoke System
- Locomotive Speed Control In Scale MPH Increments
- Wireless Drawbar w/Close Coupling Option
- 1:87 Scale Proportions
- Onboard 28-Function DCC/DCS Decoder
- Operates On Code 70, 83 and 100 Track
- Proto-Sound 3.0 with the Digital Command System Featuring Quillable Whistle and Freight Yard Proto-Effects
- Measures: 16 3/4" x 1 1/2" x 2 5/16"
- Operates On 18" Radius Curves





Southern Pacific (Silver Face) - 4-8-8-2 AC-6 Cab Forward Steam Engine (Original Cab), Cab No. 4130  
80-3274-1 Proto-Sound 3.0 \$599.95



Southern Pacific - 4-8-8-2 AC-6 Cab Forward Steam Engine (Modern Cab), Cab No. 4138  
80-3271-1 Proto-Sound 3.0 \$599.95  
Southern Pacific - 4-8-8-2 AC-6 Cab Forward Steam Engine (Modern Cab), Cab No. 4131  
80-3272-1 Proto-Sound 3.0 \$599.95



Southern Pacific - 4-8-8-2 AC-6 Cab Forward Steam Engine (Original Cab), Cab No. 4135  
80-3270-1 Proto-Sound 3.0 \$599.95





Southern Pacific Lines - 4-8-8-2 AC-6 Cab Forward Steam Engine (Original Cab), Cab No. 4133  
80-3269-1 Proto-Sound 3.0 \$599.95



Southern Pacific Lines - 4-8-8-2 AC-6 Cab Forward Steam Engine (Original Cab), Cab No. 4129  
80-3273-1 Proto-Sound 3.0 \$599.95





# Anatomy of an AC-6 4-8-8-2 Cab Forward

*Directionally-Activated  
LED Tender  
Backup Light*

*Authentic Paint  
Scheme & Cab  
Number*

*Die-Cast Metal  
Tender Body*

*Metal  
Handrails*

*Synchronized Puffing  
ProtoSmoke System*

*Legible Builder's  
Plates*



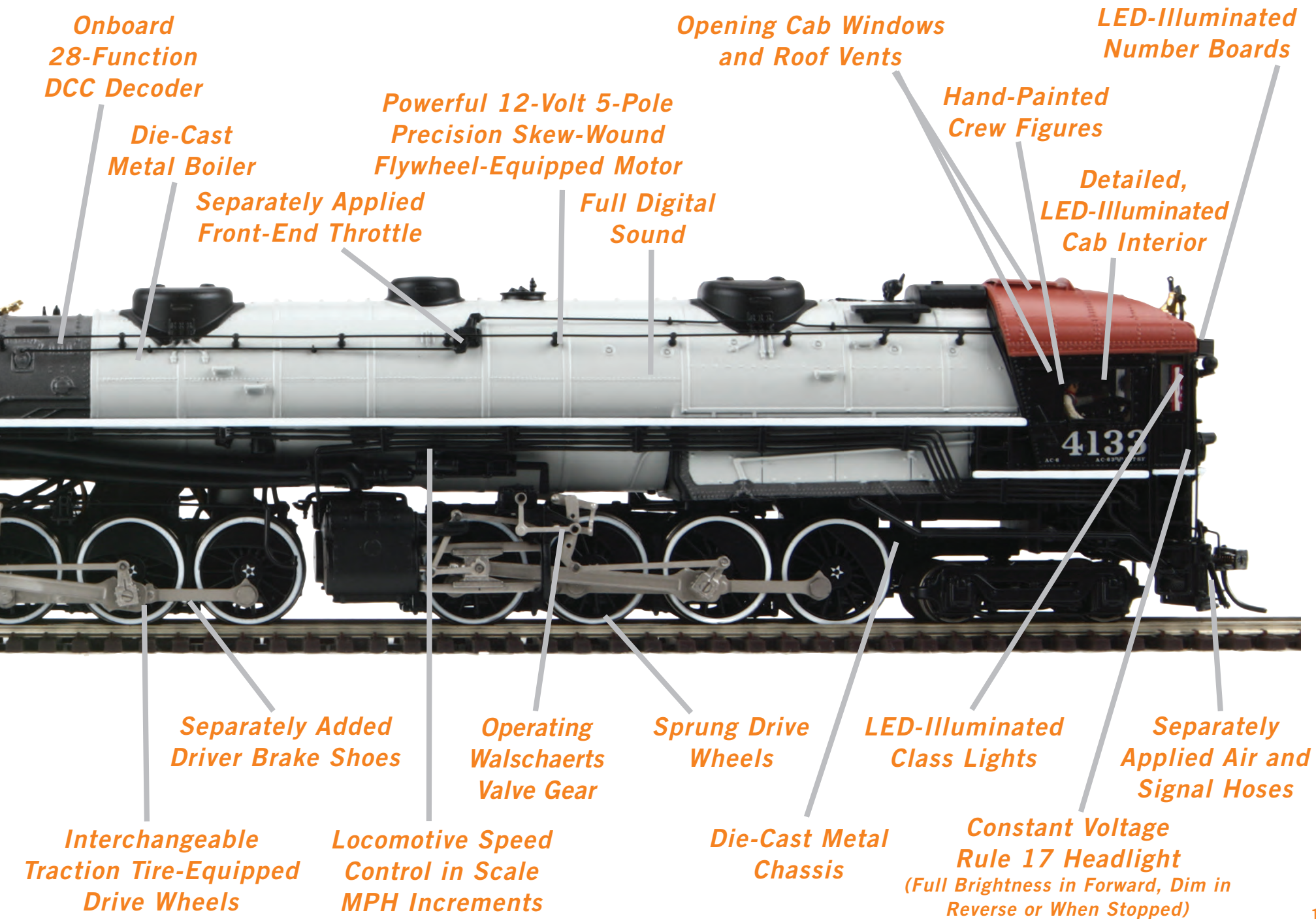
*Detailed Truck Sides*

*Supplied with Remotely  
Controlled Operating  
Proto-Coupler™ and Kadee®  
Scale Coupler*

*Wireless Drawbar with  
Close-Coupling Option*

*Operates on 18" Radius,  
Code 70, 83 and 100 rail*

*RP-25 Metal Wheels,  
Metal Axles and  
Metal Gears*



*Onboard  
28-Function  
DCC Decoder*

*Die-Cast  
Metal Boiler*

*Separately Applied  
Front-End Throttle*

*Powerful 12-Volt 5-Pole  
Precision Skew-Wound  
Flywheel-Equipped Motor*

*Full Digital  
Sound*

*Opening Cab Windows  
and Roof Vents*

*Hand-Painted  
Crew Figures*

*LED-Illuminated  
Number Boards*

*Detailed,  
LED-Illuminated  
Cab Interior*

*Separately Added  
Driver Brake Shoes*

*Operating  
Walschaerts  
Valve Gear*

*Sprung Drive  
Wheels*

*LED-Illuminated  
Class Lights*

*Separately  
Applied Air and  
Signal Hoses*

*Interchangeable  
Traction Tire-Equipped  
Drive Wheels*

*Locomotive Speed  
Control in Scale  
MPH Increments*

*Die-Cast Metal  
Chassis*

*Constant Voltage  
Rule 17 Headlight  
(Full Brightness in Forward, Dim in  
Reverse or When Stopped)*



# N&W Class J 4-8-4 Northern



## Die-Cast Metal

A visit to the Norfolk & Western in the early 1950s was like a scene from *Jurassic Park*: prehistoric beasts romping in their natural mountain habitat. At a time when other roads were letting their remaining steam engines rot away and giving them minimal service in dirty, dingy, soon-to-close facilities, the N&W was still running a first-class steam operation and even building new power. With its main line through some of the nation's richest coalfields, it was still betting on the future of steam; as late as 1955, the N&W didn't roster a single diesel. The majority of traffic was handled by what N&W fans call the "holy trinity of steam": the massive Y6 2-8-8-2; the articulated Greyhound Class A; and the N&W's glamour girl, the streamlined Class J.

The Class J 4-8-4 was an engine of quiet superlatives. Handsome, powerful (5100 hp), and, as a test on the Pennsylvania Railroad proved, capable of hauling 15 cars at 110 mph, it was designed and styled not by one of the big three builders (Alco, Baldwin, and Lima) or a famous designer like Raymond Loewy or Henry Dreyfuss, but by the N&W's home-grown team of designers and craftsmen at the road's Roanoke, Virginia shops. For power and quick acceleration through mountainous territory, and to make room for the largest possible boiler, they equipped the streamlined J with 70" drivers — unusually small for a 4-8-4 and

fully 10" smaller than the Southern Pacific's *Daylight* GS-4 of the same wheel arrangement.

Built in several groups between 1941 and 1950, a mere fourteen J's were able to handle 80% of the N&W's passenger traffic, because their designers addressed one of steam power's key weaknesses: down time for maintenance and repairs. Equipped with Timken roller bearings on all axles and rods, Timken-designed lightweight pistons and rods, and an automatic lubrication system that reached more than 200 points including the bell bearings, the Js were designed to go a quarter-million miles between scheduled shop visits. And like a race car, they were engineered for quick pit stops: in less than an hour, a J could be fully serviced, lubricated, filled with coal and water and ready for its next dash over the road's 676-mile main line between Norfolk and Cincinnati, hauling the deluxe daylight *Powhatan Arrow* or the overnight *Pocahontas*.

Returning in 2017, our N&W J is more fun to operate than any previous version of this magnificent locomotive, with its N&W whistle, passenger station announcements, synchronized chuff and puffing smoke, and speed control so smooth you won't spill the water in the diner.

### Fire Up 611

In 2013, the Virginia Museum of Transportation formed the Fire Up 611 Committee to restore the lone remaining Class J, No. 611, to operation. Thanks to their efforts, today you can ride behind the "Queen of Steam," arguably one of the best steam engines ever designed. To learn more, visit [fireup611.org](http://fireup611.org)





Norfolk & Western - 4-8-4 J Steam Locomotive, Cab No. 611  
80-3264-1 DCC/DCS Proto-Sound 3.0 \$499.95

Norfolk & Western (Spirit of Roanoke) - 4-8-4 J Steam Locomotive, Cab No. 611  
80-3265-1 DCC/DCS Proto-Sound 3.0 \$499.95



Norfolk & Western - 4-8-4 J Steam Locomotive, Cab No. 601  
80-3266-1 DCC/DCS Proto-Sound 3.0 \$499.95

Norfolk & Western - 4-8-4 J Steam Locomotive, Cab No. 607  
80-3268-1 DCC/DCS Proto-Sound 3.0 \$499.95

Norfolk & Western - 4-8-4 J Steam Locomotive, Cab No. 603  
80-3267-1 DCC/DCS Proto-Sound 3.0 \$499.95

## Features

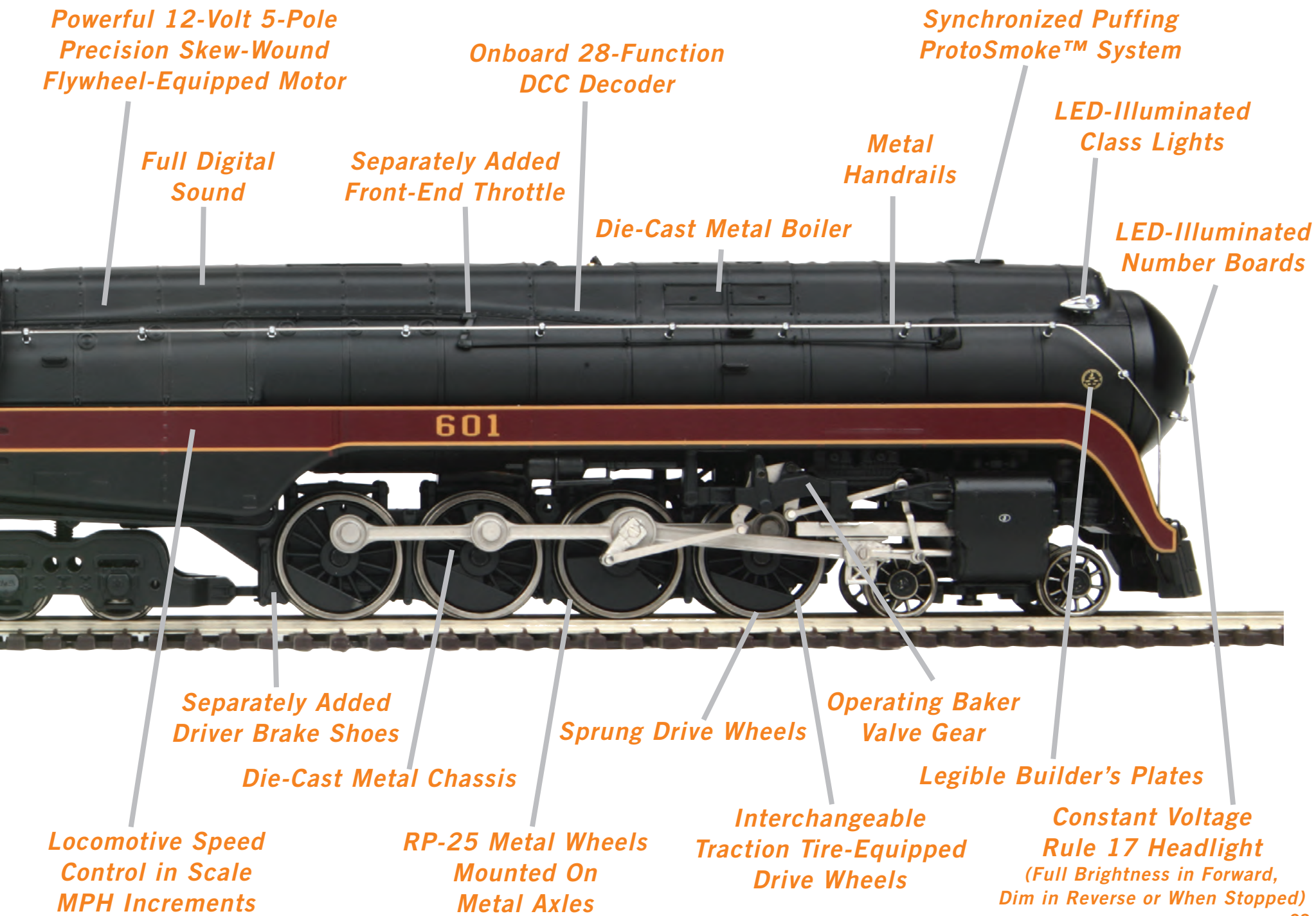
- Intricately Detailed, Die-Cast Boiler and Chassis
- Intricately Detailed, Die-Cast Tender Body
- Authentic Paint Scheme
- Real Tender Coal Load
- Intricately Detailed Locomotive and Tender Trucks
- Handpainted Engineer and Fireman Figures
- Metal Handrails and Whistle
- RP25 Metal Wheels, Metal Axles and Metal Gears
- Sprung Drivers
- Interchangeable Drivers With and Without Traction Tires
- (2) #158 Scale Kadee Whisker Couplers
- Operating Kadee-Compatible Remote Controlled Proto-Coupler on Tender
- Prototypical Rule 17 Lighting
- Constant Voltage LED Headlight
- LED-Illuminated Class Lights
- LED-Illuminated Number Boards
- LED-Illuminated Cab Interior
- LED-Illuminated Tender Backup Light
- Powerful 5-Pole Precision Flywheel-Equipped Skew-Wound Motor
- Synchronized Puffing ProtoSmoke System
- Locomotive Speed Control In Scale MPH Increments
- Wireless Drawbar w/Close Coupling Option
- 1:87 Scale Dimensions
- Onboard DCC/DCS Decoder
- Operates On Code 70, 83 and 100 Track
- Proto-Sound 3.0 with the Digital Command System Featuring Quillable Whistle and Passenger Station Proto-Effects
- Measures: 15 3/8" x 1 1/2" x 2 1/4"
- Operates On 18" Radius Curves





# Anatomy of a Class J 4-8-4





*Powerful 12-Volt 5-Pole Precision Skew-Wound Flywheel-Equipped Motor*

*Onboard 28-Function DCC Decoder*

*Synchronized Puffing ProtoSmoke™ System*

*Full Digital Sound*

*Separately Added Front-End Throttle*

*Metal Handrails*

*LED-Illuminated Class Lights*

*Die-Cast Metal Boiler*

*LED-Illuminated Number Boards*

**601**

*Separately Added Driver Brake Shoes*

*Sprung Drive Wheels*

*Operating Baker Valve Gear*

*Die-Cast Metal Chassis*

*Legible Builder's Plates*

*Locomotive Speed Control in Scale MPH Increments*

*RP-25 Metal Wheels Mounted On Metal Axles*

*Interchangeable Traction Tire-Equipped Drive Wheels*

*Constant Voltage Rule 17 Headlight (Full Brightness in Forward, Dim in Reverse or When Stopped)*



# C&O 2-6-6-6 Allegheny

The biggest engines east of the Mississippi were not rostered by the biggest railroads. There were no legendary articulateds racing along the NYC's Water Level Route or charging over the Pennsy's Horseshoe Curve. It was the smaller, scrappier eastern roads dedicated to wrestling coal out of Appalachia — the C&O, N&W, Virginian, Clinchfield, Western Maryland — that owned articulateds rivaling anything in the West. And the king of them all was the Chesapeake & Ohio's Class H-8 Allegheny.

With four fewer drivers than a Union Pacific Big Boy, an Allegheny could deliver nearly a thousand more horsepower to the rails. Its massive firebox was big enough to host a board meeting — so big it required a unique 6-wheel trailing truck to support it. Its drivers carried the highest axle load of any steam engine, ever. To make the Allegheny fit the C&O's existing 115-foot turntables, its tender was made taller at the rear, to accommodate 25 tons of coal and 25,000 gallons of water. This required a unique 8-wheel rear truck on the tender.

The Allegheny was the brainchild of Lima Locomotive Works, where the superpower steam concept had been invented in the 1920s. Like the Big Boy, it was designed to lift monstrous loads over one specific piece of railroad: the 80 miles between Hinton, West Virginia and Clifton Forge, Virginia, a coal route from the mines over the summit of the Allegheny Mountains toward tidewater ports. The engine took its name from the mountain range it traversed. Delivery of the initial order of 10 locomotives began just days after Pearl Harbor and a few months after the first Big Boy; the C&O was so pleased with the giant engines that it ordered 50 more over the next seven years. Fellow coal hauler Virginian took delivery of eight copies in early 1945, naming them Class AG Blue Ridge types.

Our die-cast model replicates all the features that made the prototype Allegheny as powerful visually as it was physically: high pilot deck for access to its smokebox-mounted air pumps; huge twin sandboxes located fore and aft of the steam dome; massive steam delivery pipes for both front and rear engines; torpedo-like air tanks ahead of the cab; and more. Like all M.T.H. articulateds, our Allegheny features puffing smoke and authentic articulated chuff sounds, with the front and rear engines going in and out of sync. And when operating with DCS, just a few keystrokes will setup two H-8s to operate together as a lashup, with one at the head of your train and one at the rear, just like the prototype heading east over the Alleghenies.



Die-Cast Metal



Chesapeake & Ohio - 2-6-6-6 Allegheny Steam Engine, Cab No. 1601  
80-3249-1 Proto-Sound 3.0 \$599.95



Chesapeake & Ohio - 2-6-6-6 Allegheny Steam Engine,  
Cab No. 1604  
80-3250-1 Proto-Sound 3.0 \$599.95

Chesapeake & Ohio - 2-6-6-6 Allegheny Steam Engine,  
Cab No. 1610  
80-3251-1 Proto-Sound 3.0 \$599.95



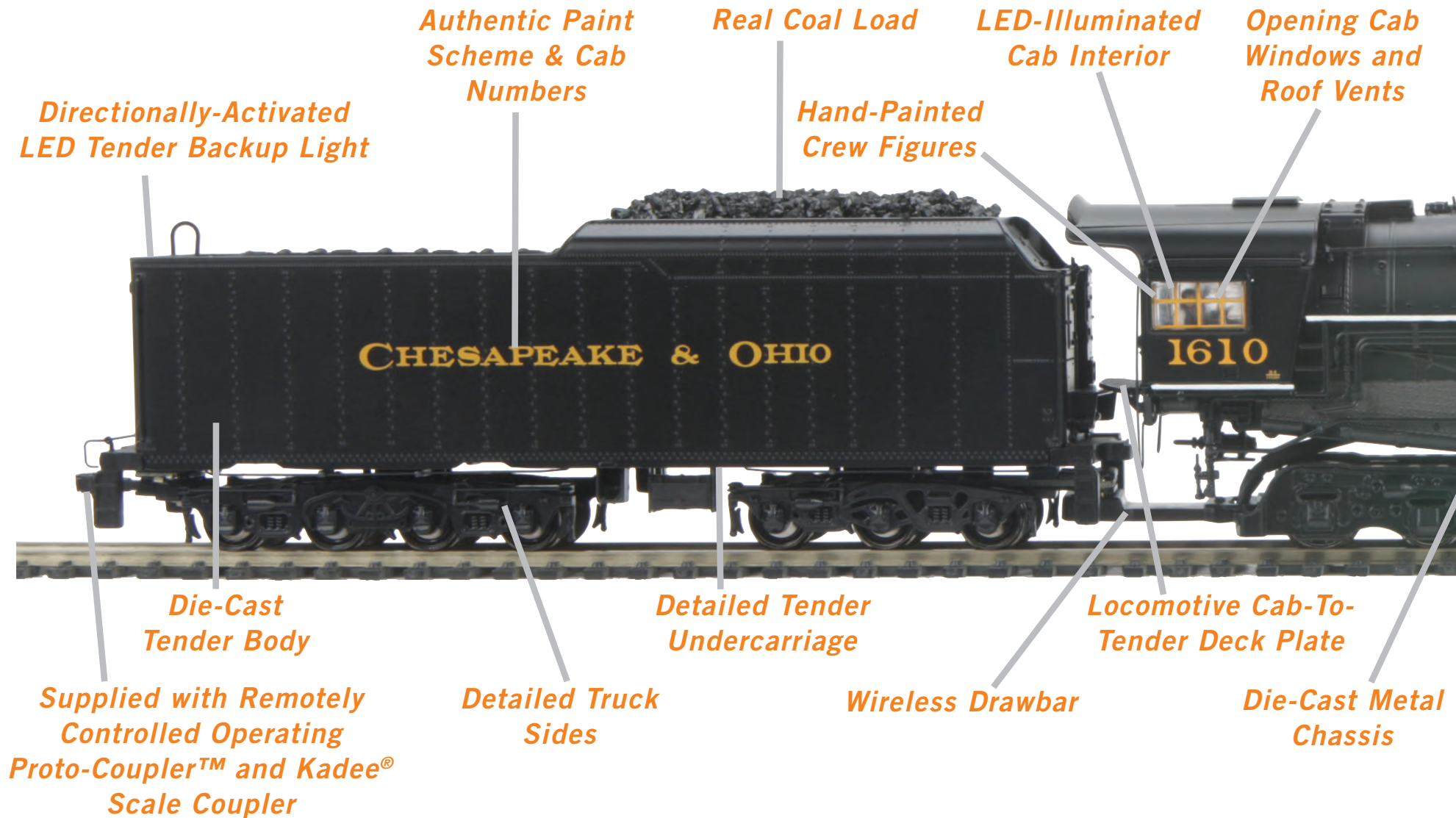
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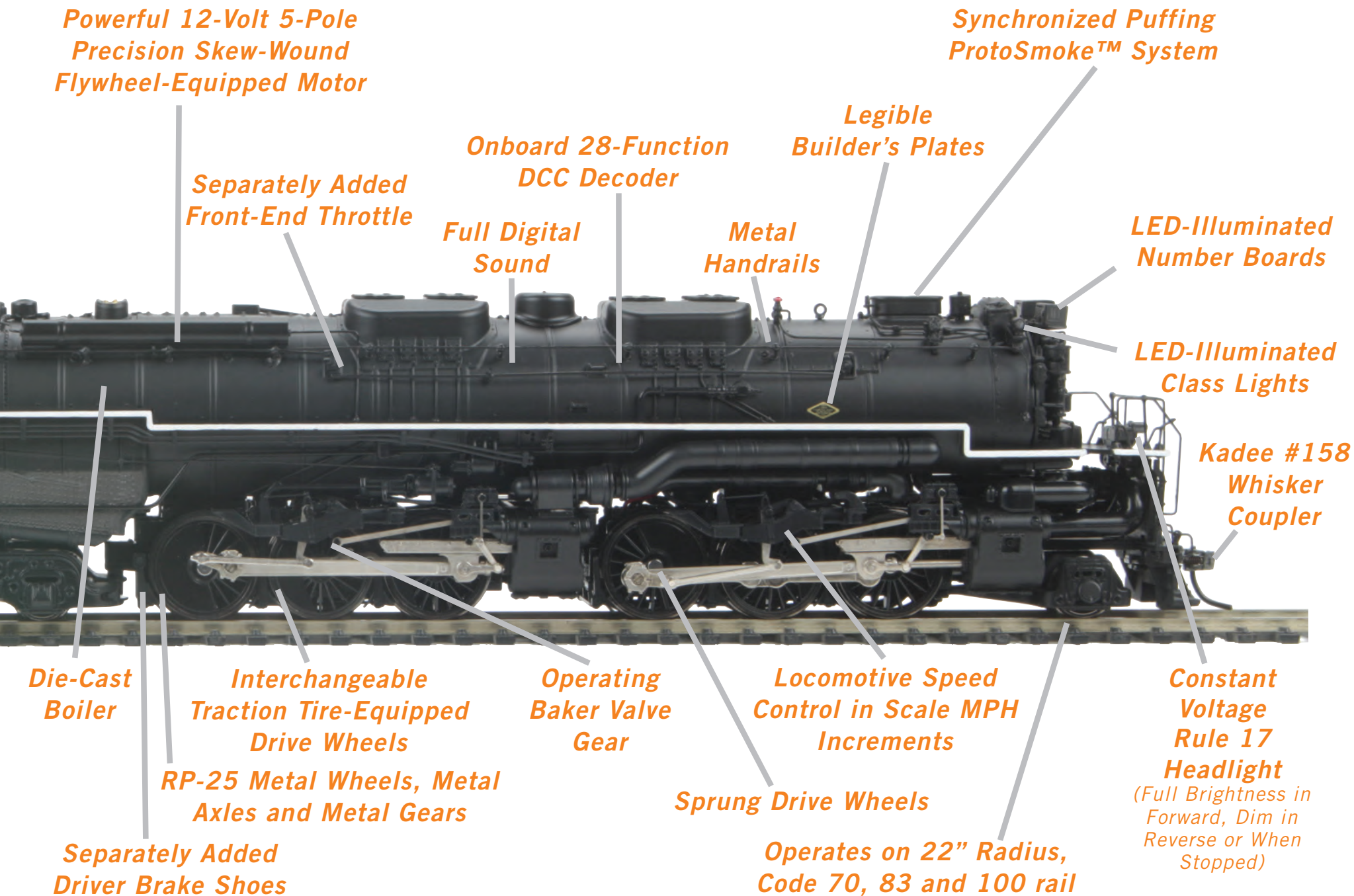
- Die-Cast Boiler and Chassis
- Die-Cast Tender Body
- Authentic Paint Scheme
- Real Tender Coal Load
- Detailed Locomotive and Tender Trucks
- Hand-Painted Crew Figures
- Metal Handrails, Whistle and Bell
- RP-25 Metal Wheels, Metal Axles and Metal Gears
- Interchangeable RP-25 Metal Drive Wheels w/o Traction Tires
- Sprung Drivers
- (2) #158 Scale Kadee Whisker Couplers
- Prototypical Rule 17 Lighting
- Constant Voltage LED Headlight
- LED-Illuminated Cab Interior
- LED-Illuminated Class Lights
- LED-Illuminated Number Boards
- LED-Illuminated Tender Backup Light
- Powerful 5-Pole Precision Flywheel-Equipped Skew-Wound Motor
- Synchronized Puffing ProtoSmoke System
- Locomotive Speed Control In Scale MPH Increments
- Wireless Drawbar
- 1:87 Scale Proportions
- Operates On Code 70, 83 and 100 Track
- Proto-Sound 3.0 with the Digital Command System Featuring Quillable Whistle with Freight Yard Proto-Effects
- Measures: 18" x 1 5/8" x 2 1/4"
- Operates On 22" Radius Curves

Chesapeake & Ohio - 2-6-6-6 Allegheny Steam Engine,  
Cab No. 1618  
80-3252-1 Proto-Sound 3.0 \$599.95



# Anatomy of a 2-6-6-6 Allegheny





**Powerful 12-Volt 5-Pole Precision Skew-Wound Flywheel-Equipped Motor**

**Synchronized Puffing ProtoSmoke™ System**

**Separately Added Front-End Throttle**

**Onboard 28-Function DCC Decoder**

**Legible Builder's Plates**

**Full Digital Sound**

**Metal Handrails**

**LED-Illuminated Number Boards**

**LED-Illuminated Class Lights**

**Kadee #158 Whisker Coupler**

**Die-Cast Boiler**

**Interchangeable Traction Tire-Equipped Drive Wheels**

**RP-25 Metal Wheels, Metal Axles and Metal Gears**

**Operating Baker Valve Gear**

**Locomotive Speed Control in Scale MPH Increments**

**Sprung Drive Wheels**

**Operates on 22" Radius, Code 70, 83 and 100 rail**

**Constant Voltage Rule 17 Headlight**  
(Full Brightness in Forward, Dim in Reverse or When Stopped)

**Separately Added Driver Brake Shoes**



# Pennsylvania H10 2-8-0 Consolidation



## Die-Cast Metal

The H10 was the last and largest in a line of Pennsy Consolidations that stretched back to 1875. Nearly 500 H10s constructed by Alco, Baldwin, Lima, and the railroad's own shops represented Pennsy's premier fast freight power in the era just before World War I. With a good engine crew, an H10 could hustle about 50 cars along level track, or considerably more cars in drag service hauling coal or iron ore.

When the H10 engines were constructed, the Pennsy was still divided into Lines West — all of its affiliated railroads west of Pittsburgh — and Lines East. The H10 was strictly a Lines West phenomenon, built from a standard boiler common to the H8, H9, and H10 classes, but possessing the largest cylinders of any

Pennsy "Consol." When a 1920 reorganization abolished the division between Lines East and West, the railroad owned over three thousand 2-8-0's, a majority of them having a common boiler design. It was a measure of the Pennsylvania Railroad's conservative management that in the early 1920s, its entire front line freight fleet consisted of a wheel arrangement deemed obsolete by other railroads. By the mid- and late-1920s, however, the H10s and their older siblings were pushed into secondary and branch line service by the arrival of larger, more modern power: Mikados, Decapods, and Mountains. Many Consolidations sat out the Depression years in storage, until recalled to service by the crush of World War II traffic. From the war years though the end of steam, H10s could be found all over the Pennsy, the

Long Island Railroad, and the Pennsylvania Reading Seashore Lines in switching, work train, branch line, and occasionally main line service.

Our die-cast H-10 features the extraordinary level of detail you've come to expect in an M.T.H. HO steamer. Virtually all piping and boiler appliances are separate, added-on parts. Rods and valve gear have a prototypically darkened, grimy appearance, and the ProtoSound 3.0 sound and control system features an accurate Pennsy whistle. If you model any period from the Woodrow Wilson era to the Eisenhower years, there's an appropriate chore on your railroad for this rugged, muscular-looking steamer.



Pennsylvania - H10 2-8-0 Steam Engine,  
Cab No. 7103  
80-3240-1 DCC/DCS Proto-Sound 3.0 \$399.95

Pennsylvania - H10 2-8-0 Steam Engine,  
Cab No. 7099  
80-3241-1 DCC/DCS Proto-Sound 3.0 \$399.95

Pennsylvania - H10 2-8-0 Steam Engine,  
Cab No. 7122  
80-3242-1 DCC/DCS Proto-Sound 3.0 \$399.95

## All Models Include Onboard 28-Function DCC Decoder



Long Island - H10 2-8-0 Steam Engine, Cab No. 103  
80-3243-1 DCC/DCS Proto-Sound 3.0 \$399.95

Long Island - H10 2-8-0 Steam Engine, Cab No. 107  
80-3244-1 DCC/DCS Proto-Sound 3.0 \$399.95  
80-3244-5 DCC/DCS/Motorola 1/2 Proto-Sound 3E+ (3-Rail) \$429.95



### Features Include:

- Die-Cast Boiler and Chassis
- Die-Cast Tender Body
- Authentic Paint Scheme
- Real Tender Coal Load
- Hand-Painted Crew Figures
- Metal Handrails, Whistle and Bell
- RP-25 Metal Wheels, Metal Axles and Metal Gears
- Interchangeable RP25 Metal Drive Wheels w/o Traction Tires
- NEM 340 Metal Wheels\*
- Sprung Drivers
- Operating Kadee-Compatible Remote Controlled Proto-Coupler on Tender
- (2) #158 Scale Kadee Whisker Couplers

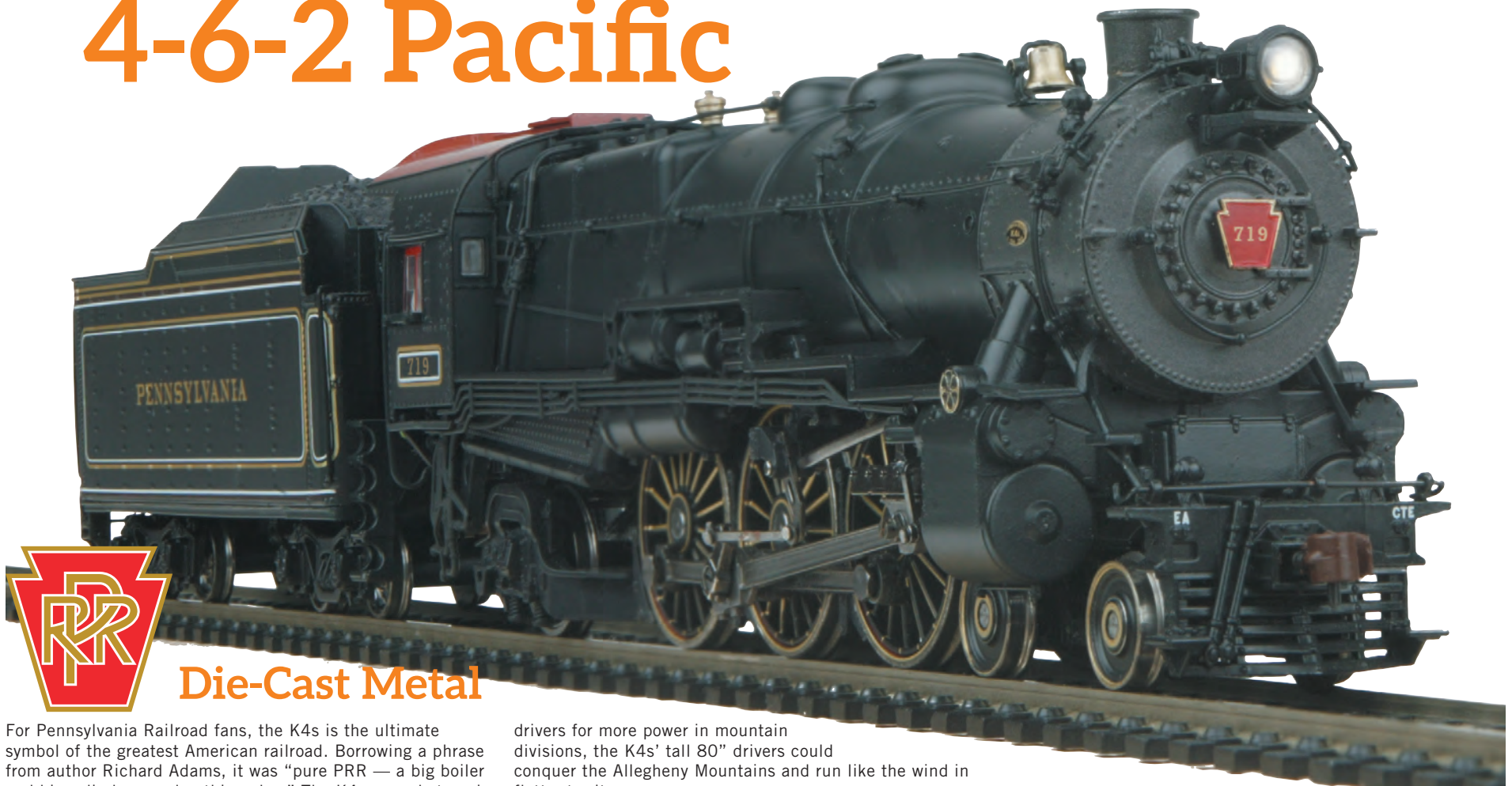
- NEM 360/362 Coupler and Pocket Assembly\*
- #18 U.S. Kadee Coupler Compatible\*
- Prototypical Rule 17 Lighting
- Constant Voltage LED Headlight
- LED-Illuminated Class and Marker Lights
- LED-Illuminated Number Boards
- LED-Illuminated Cab Interior
- LED-Illuminated Tender Backup Light
- Powerful 5-Pole Precision Flywheel-Equipped Skew-Wound Motor
- Synchronized Puffing ProtoSmoke™ System
- Locomotive Speed Control In Scale MPH Increments
- Wireless Drawbar w/Close Coupling Option

- 1:87 Scale Proportions
- Operates On Code 70, 83 and 100 Track
- Proto-Sound 3.0 with the Digital Command System Featuring Quillable Whistle and Freight Yard Proto-Effects
- Unit Measures: 9 1/16" x 1 1/2" x 2"
- Operates On 18" Radius Curves
- 3E+ Model Operates On R1 (360mm) Radius Curves

\*Featured on Proto-Sound 3E+ Models



# Pennsylvania K4s 4-6-2 Pacific



## Die-Cast Metal

For Pennsylvania Railroad fans, the K4s is the ultimate symbol of the greatest American railroad. Borrowing a phrase from author Richard Adams, it was “pure PRR — a big boiler and big cylinders, and nothing else.” The K4s was what engineers admiringly called “free steaming”: no matter what the conditions, the big boiler ensured that the cylinders never ran low on steam.

In full flight, a K4s could hustle an express along at 90 mph. During the winter of 1934, when the design was already two decades old, it still managed to hold down the fastest scheduled steam passenger run in the world: 75.6 mph average speed on the K4s-hauled *Union* between Valparaiso and Plymouth, Indiana. While lesser engines needed smaller

drivers for more power in mountain divisions, the K4s’ tall 80” drivers could conquer the Allegheny Mountains and run like the wind in flatter territory.

In the World War I era, when the Pennsylvania Railroad employed some of the nation’s most talented locomotive designers, the K4s epitomized the Pennsy philosophy: develop a conservative standard design in-house, test it extensively, build it in huge quantities at the railroad’s own Juniata shops, and run it for decades.

In its early years, the K4s eliminated double-heading on most passenger runs, as it was designed to do. But as

schedules accelerated and heavier, air-conditioned cars became the norm, double-heading became commonplace again, with Pacifics often triple-headed on runs over Horseshoe Curve, the Pennsy’s conquest of the Allegheny Mountains. As a testament to their bullet-proof construction, 424 of the original 425 K4s Pacifics were still in service as late as 1946. Finally displaced by diesels on limiteds, the fleet soldiered on in branch line and secondary service until the last K4s fire was dropped in 1958.



Pennsylvania 4-6-2 K4s Steam Locomotive with DCC/DCS Proto-Sound 3.0, Cab No. 719  
80-3236-1 DCC/DCS Proto-Sound 3.0 \$499.95



Learn More about the Pennsy K4s in this article from a recent MTHRC club newsletter. Access the article by searching on the item number of any K4s on this page.



Pennsylvania 4-6-2 K4s Steam Locomotive with DCC/DCS Proto-Sound 3.0, Cab No. 5497  
80-3237-1 DCC/DCS Proto-Sound 3.0 \$499.95



Pennsylvania 4-6-2 K4s Modern Steam Locomotive with DCC/DCS Proto-Sound 3.0, Cab No. 3681  
80-3238-1 DCC/DCS Proto-Sound 3.0 \$499.95

Modern, or Postwar, versions replicate changes made to many K4s' beginning in 1947 — most notably a solid drop-coupler pilot, repositioning of the headlight atop the smokebox and the generator below it, and a new platform on the boiler front for a maintenance man to stand on.



Pennsylvania 4-6-2 K4s Modern Steam Locomotive with DCC/DCS Proto-Sound 3.0, Cab No. 3752  
80-3239-1 DCC/DCS Proto-Sound 3.0 \$499.95

All Models  
Include Onboard  
28-Function  
DCC Decoder



## Features Include:

- Die-Cast Boiler and Chassis
- Die-Cast Tender Body
- Authentic Paint Scheme
- Real Tender Coal Load
- Handpainted Engineer and Fireman Figures
- Metal Handrails, Whistle and Bell
- RP25 Metal Wheels, Metal Axles and Metal Gears
- Sprung Drivers
- Interchangeable Drivers With and Without Traction Tires
- (2) #158 Scale Kadee Whisker Couplers
- Operating Kadee-Compatible Remote Controlled Proto-Coupler On Tender
- Prototypical Rule 17 Lighting
- Constant Voltage LED Headlight
- LED-Illuminated Class Lights
- LED-Illuminated Tender Backup Light
- LED-Illuminated Marker Lights
- Powerful 5-Pole Precision Flywheel-Equipped Skew-Wound Motor
- Synchronized Puffing ProtoSmoke™ System
- Locomotive Speed Control In Scale MPH Increments
- Wireless Drawbar w/Close Coupling Option
- Operates On Code 70, 83 and 100 Track
- 1:87 Scale Proportions
- Proto-Sound 3.0 With The Digital Command System Featuring Quillable Whistle And Passenger Station Proto-Effects
- Unit Measures: 11 1/2" x 1 3/8" x 2 1/8"
- Operates On 18" Radius Curves



# Bavarian Class S 3/6 Express

Die-Cast  
Metal



In 1871, Germany became the last major European country to unify, combining a hodgepodge of kingdoms and duchies. But it would be another 50 years before the 11 provincial railroads were nationalized into the German Imperial Railway Company (DRG, with the logo DR). In the meantime, each road continued to develop its own locomotive designs. One of the best was the Class S 3/6 of the Royal Bavarian State Railways (abbreviated K. Bay. Sts. B. in German).

Regarded by European enthusiasts as one of the most beautiful and successful of all steam locomotives, the Class S 3/6 ("S" for *schnellzugloek*, indicating an express passenger engine, and 3/6 to indicate 3 powered axles, 6 axles total) was built by A G Maffei beginning in 1908 and showcased the talent of that firm's chief designer, Heinrich Leppla. The stylish conical smokebox front of the S 3/6 was complemented by a handsome holly green paint scheme. Two inboard high pressure cylinders and two outboard low pressure cylinders drove the center axle. The S 3/6 was one of the first European engines to follow the American practice of casting the cylinders and smoke box saddle as one huge casting, which gave the engine a distinctive look. The majority of the class were fitted with 74" drivers to conquer Bavaria's mountainous terrain. A smaller group of S 3/6 engines, however, was built with 79" drivers for high-speed service on flatter routes and acquired the nickname "High Steppers."

After nationalization in 1920, the engines were painted in the black and red Deutsche Reichsbahn (DR) scheme and became classes 18.3 through 18.5. While the DR intended to develop new standard engines of its own, the S 3/6 was deemed so good that the DR continued to order new engines of this 1908 design through 1931. The relatively light axle loading of the S 3/6, 18 tons, was also a plus, as the DR was behind schedule in upgrading main lines to its new 20-ton standard. So successful were the Bavarian Pacifics that they were chosen over more modern power to lead the glorious cream and blue *Rheingold Express* on part of its scenic route down the Rhine Valley, both before and after WWII. An S 3/6 could also be seen often on the point of the *Orient Express*.

Even after World War II, the aging engines continued to be great performers. A large number were modernized with new boilers and became the most economical steamers on the Deutsche Bundesbahn (DB), the new name for West Germany's railroad system. By the 1960s however, the S 3/6 class, which originally numbered 159 locomotives, had been retired, with a number of engines preserved in museums or in operating condition. M.T.H. is proud to offer this superbly detailed, smooth running model of one of Europe's favorite steam engines, in original Royal Bavarian paint schemes and post-nationalization black and red.

Each of these locomotives is available in DC-powered 2-rail or AC-powered 3-rail versions. Two-rail versions come equipped with Proto-Sound 3.0, M.T.H.'s full digital sound and command control onboard system capable of operating in analog conventional mode, under DCS command control, or under DCC command control using any DCC controller. The 3-rail versions add additional command control capability under Motorola 1 and 2 command protocols and, like their 2-rail counterparts, can also run conventionally or under DCC or DCS command modes.

Sophisticated sound effects recorded from the real-life S 3/6 prototype and bi-directional running lights ensure that the M.T.H. HO S 3/6 will provide owners with an operating experience unmatched in any model railroad scale.

## Did You Know?

As reparations after World War I, three S 3/6 steamers went to Belgium and 16 were given to France.



K. Bay. Sts. B. - Bavarian S 3/6 Express Steam Locomotive (Era I; Blue with Black Wheels), Cab # 3632  
 80-3215-1 DCC/DCS Proto-Sound 3.0 \$529.95  
 80-3215-5 DCC/DCS/Motorola 1/2 Proto-Sound 3E+ (3-Rail) \$529.95



K. Bay. Sts. B. - Bavarian S 3/6 Express Steam Locomotive (Era I; Green with Red Wheels), Cab # 3641  
 80-3216-1 DCC/DCS Proto-Sound 3.0 \$529.95  
 80-3216-5 DCC/DCS/Motorola 1/2 Proto-Sound 3E+ (3-Rail) \$529.95



Deutsche Bundesbahn - Class 18.4 Steam Locomotive (Era III; Black with Red Wheels), Cab # 18451  
 80-3217-1 DCC/DCS Proto-Sound 3.0 \$529.95  
 80-3217-5 DCC/DCS/Motorola 1/2 Proto-Sound 3E+ (3-Rail) \$529.95



Deutsche Reichsbahn Class 18.4 Steam Locomotive (Era II; Black with Red Wheels), cab # 18447  
 80-3218-1 DCC/DCS Proto-Sound 3.0 \$529.95  
 80-3218-5 DCC/DCS/Motorola 1/2 Proto-Sound 3E+ (3-Rail) \$529.95



### Features Include:

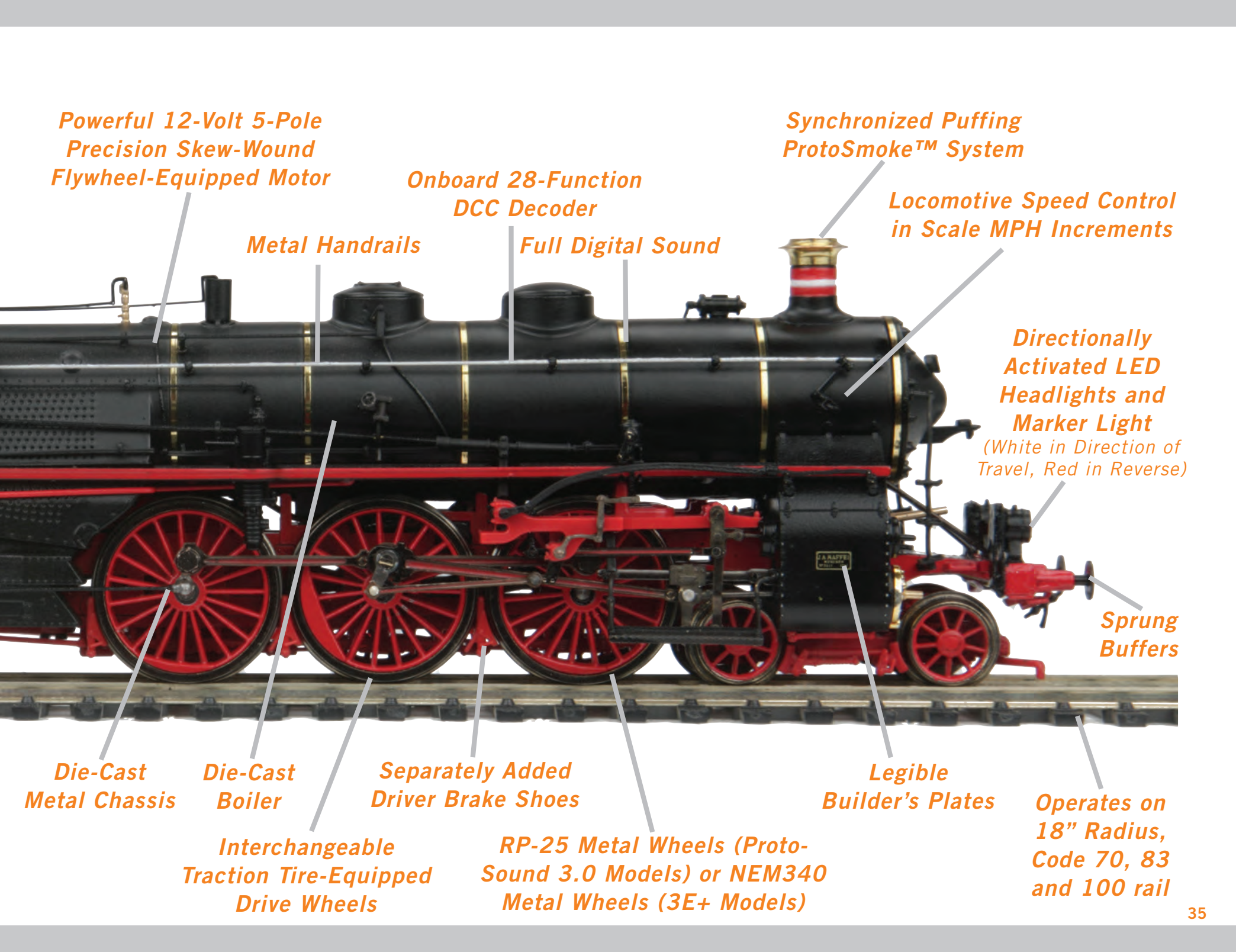
- Die-Cast Boiler and Chassis
- Die-Cast Tender Body
- Authentic Paint Scheme
- Real Tender Coal Load
- Metal Handrails and Whistle
- Sprung Buffers
- NEM 340\* or RP-25 Metal Wheels, Metal Axles and Metal Gears
- #18 U.S. Kadee® Coupler Compatible
- (2) NEM 360/362 Coupler & Pocket Assemblies
- (2) Hook & Chain Coupler Assemblies
- Directional, LED-Illuminated White Headlights and Red Marker on Engine and Tender
- Additional Front and Rear LED Beacon Lights on Era 1 Models
- Synchronized Puffing ProtoSmoke System
- LED-Illuminated Cab Interior
- Powerful 5-Pole Precision Flywheel-Equipped Skew-Wound Motor
- Locomotive Speed Control
- Wireless Drawbar w/Close Coupling Option
- 1:87 Scale Proportions
- CE Rated
- Proto-Sound 3.0 With The Digital Command System Featuring Quillable Whistle With Passenger Station Proto-Effects
- Unit Measures: 264.2mm x 38.2mm x 52.7mm
- Operates On 18" Radius Curves
- 3E+ Model Operates On R1 (360mm) Radius Curves

\*Proto-Sound 3E+ Models Only



# Anatomy of an S 3/6 Express





**Powerful 12-Volt 5-Pole Precision Skew-Wound Flywheel-Equipped Motor**

**Onboard 28-Function DCC Decoder**

**Synchronized Puffing ProtoSmoke™ System**

**Locomotive Speed Control in Scale MPH Increments**

**Metal Handrails**

**Full Digital Sound**

**Directionally Activated LED Headlights and Marker Light  
(White in Direction of Travel, Red in Reverse)**

**Sprung Buffers**

**Die-Cast Metal Chassis**

**Die-Cast Boiler**

**Separately Added Driver Brake Shoes**

**Legible Builder's Plates**

**Operates on 18" Radius, Code 70, 83 and 100 rail**

**Interchangeable Traction Tire-Equipped Drive Wheels**

**RP-25 Metal Wheels (Proto-Sound 3.0 Models) or NEM340 Metal Wheels (3E+ Models)**



# General Electric Dash 9-44CW

Flexible mold design  
allows for 10 different  
road-specific body  
configurations



For the first six decades of the diesel era, the main goal of locomotive design was higher horsepower. Introduced in 1993, GE's 4400 hp Dash 9 and its AC-motored sibling, the AC4400CW, were three times as powerful as a typical first-generation diesel and had 10% more horsepower than their immediate predecessor, the Dash 8. A couple years later, GE and then EMD introduced 6000 hp engines, the first single-unit diesels to equal the power of the last and best steamers.

But what was thought to be a breakthrough turned out to be a flop. By the late 1990s, North American railroads had rejected the 6000 hp concept and concluded that the 4300-4400 hp diesel was the Goldilocks locomotive — not too big, not too small, but a versatile, just-right building block for multiple-unit lashups. The horsepower race was over.

The Dash 9, accordingly, turned out to be a best-seller. More than 3600 engines were sold by the end of production in 2004, and most are still hauling freight today. The Dash 9 was the last

and best of GE's third-generation diesels, the generation in which computers were integrated into nearly every locomotive function, from engine management to traction control to spotting and reporting maintenance issues. Instead of looking at dials and gauges, a modern engineer monitors computer screens. The Dash 9's successor, today's GE Evolution Series, helped usher in the diesel era's fourth generation: still 4400 hp, but a 21st century "green machine" with a much smaller carbon footprint.

The Dash 9 exemplified the modern locomotive at the turn of the 20th century, with microprocessors ensuring that its 4400 horses were working as efficiently and as often as possible. It rode on GE's brand-new HiAd™ trucks (for high adhesion), with computerized wheelslip control. Also new was a split cooling system that reduced temperatures and prolonged engine life. The Dash 9's wide-nosed North American cab, an option on earlier diesels, was standard equipment, solidifying the new look in road diesels.

While this new model is not the first HO replica of the Dash 9, we believe it is the best. From the shock absorbers and brake lines on its HiAd trucks, to its windshield wipers, MU hoses, and metal grilles, our Dash 9 is loaded with accurate, added-on detail parts. Proto-Sound 3 models include flashing ditch lights; smooth performance from a three-scale-mile-per-hour crawl to full throttle; "cruise control" for steady speeds regardless of curves, switches and grades; built-in decoders for DCC and the M.T.H. Digital Command System (DCS); remote uncoupling anywhere on the layout; and a full range of sounds recorded from actual prototype engines. Our Proto-Sound models are more fun to operate than any other HO locomotives.



BNSF (Swoosh) - Dash 9 Diesel Engine, Cab No. 796\*  
80-2286-1 DCC/DCS Proto-Sound 3.0 \$299.95

BNSF (Swoosh) - Dash 9 Diesel Engine, Cab No. 4484  
80-2345-0 DCC-Ready \$199.95

\* Before its merger into BNSF in 1995, the Santa Fe specified a unique notch on the side of its Dash 9 cab roofs for clearance reasons, particularly at its York Canyon, New Mexico coal loadout. Known as a gull wing cab roof, this feature was carried over into subsequent BNSF Dash 9 orders, and is accurately rendered on our Santa Fe, transition period, and BNSF models.



BNSF (Warbonnet) - Dash 9 Diesel Engine,  
Cab No. 4704\*  
80-2287-1 DCC/DCS Proto-Sound 3.0 \$299.95  
80-2287-0 DCC-Ready \$199.95

BNSF (Warbonnet) - Dash 9 Diesel Engine,  
Cab No. 4719\*  
80-2288-1 DCC/DCS Proto-Sound 3.0 \$299.95  
80-2288-0 DCC-Ready \$199.95

BNSF (Warbonnet) - Dash 9 Diesel Engine,  
Cab No. 4707\*  
80-2289-1 DCC/DCS Proto-Sound 3.0 \$299.95  
80-2289-0 DCC-Ready \$199.95



## Features Include:

- Intricately Detailed ABS Body
- Die-Cast Metal Chassis
- Metal Handrails and Horn
- Metal Body Side Grilles
- Detachable Snow Plow
- (2) Engineer Cab Figures
- Authentic Paint Scheme
- RP-25 Metal Wheels, Metal Axles and Metal Gears
- (2) Operating Kadee-Compatible Remote Controlled Proto-Couplers\*\*
- (2) #158 Scale Kadee Whisker Couplers
- Prototypical Rule 17 Lighting
- Directionally Controlled Constant Voltage LED Headlights
- LED-Illuminated Number Boards
- Flashing LED Ditch Lights
- Powerful 5-Pole Precision Flywheel-Equipped Skew-Wound Balanced Motor
- Locomotive Speed Control In Scale MPH Increments
- Onboard 28-Function DCC Receiver
- 7-Pin DCC Decoder Plug\*
- Operates On Code 70, 83 and 100 Track
- 1:87 Scale Proportions
- Proto-Sound 3.0 With The Digital Command System Featuring Freight Yard Proto-Effects\*\*
- Unit Measures: 10 9/16" x 1 7/16" x 2 3/16"
- Operates On 18" Radius Curves

\* DCC-Ready Model Only  
\*\* Proto-Sound 3.0 Models Only







Canadian National - Dash 9 Diesel Engine, Cab No. 2604  
 80-2290-1 DCC/DCS Proto-Sound 3.0 \$299.95  
 80-2290-0 DCC-Ready \$199.95

Canadian National - Dash 9 Diesel Engine, Cab No. 2610  
 80-2291-1 DCC/DCS Proto-Sound 3.0 \$299.95  
 80-2291-0 DCC-Ready \$199.95

Canadian National - Dash 9 Diesel Engine, Cab No. 2617  
 80-2292-1 DCC/DCS Proto-Sound 3.0 \$299.95  
 80-2292-0 DCC-Ready \$199.95



*\*Features prototypical notched "gull wing" cab roof unique to Santa Fe and BNSF Dash 9s (See previous page for more detail.)*

Santa Fe - Dash 9 Diesel Engine, Cab No. 620\*  
 80-2302-1 DCC/DCS Proto-Sound 3.0 \$299.95  
 80-2302-0 DCC-Ready \$199.95

Santa Fe - Dash 9 Diesel Engine, Cab No. 624\*  
 80-2303-1 DCC/DCS Proto-Sound 3.0 \$299.95  
 80-2303-0 DCC-Ready \$199.95

Santa Fe - Dash 9 Diesel Engine, Cab No. 629\*  
 80-2304-1 DCC/DCS Proto-Sound 3.0 \$299.95  
 80-2304-0 DCC-Ready \$199.95



Chicago & North Western - Dash 9 Diesel Engine, Cab No. 8669 Chicago & North Western - Dash 9 Diesel Engine, Cab No. 8672 Chicago & North Western - Dash 9 Diesel Engine, Cab No. 8676  
 80-2294-1 DCC/DCS Proto-Sound 3.0 \$299.95 80-2295-1 DCC/DCS Proto-Sound 3.0 \$299.95 80-2296-1 DCC/DCS Proto-Sound 3.0 \$299.95  
 80-2294-0 DCC-Ready \$199.95 80-2295-0 DCC-Ready \$199.95 80-2296-0 DCC-Ready \$199.95



Chicago & North Western (OPLS logo) - Dash 9 Diesel Engine, Cab No. 8727  
 80-2293-1 DCC/DCS Proto-Sound 3.0 \$299.95  
 80-2293-0 DCC-Ready \$199.95



Southern Pacific - Dash 9 Diesel Engine, Cab No. 8101 Southern Pacific - Dash 9 Diesel Engine, Cab No. 8116 Southern Pacific - Dash 9 Diesel Engine, Cab No. 8121  
 80-2305-1 DCC/DCS Proto-Sound 3.0 \$299.95 80-2306-1 DCC/DCS Proto-Sound 3.0 \$299.95 80-2307-1 DCC/DCS Proto-Sound 3.0 \$299.95  
 80-2305-0 DCC-Ready \$199.95 80-2306-0 DCC-Ready \$199.95 80-2307-0 DCC-Ready \$199.95





Union Pacific (Red Stripe) - Dash 9 Diesel Engine, Cab No. 9800	Union Pacific (Red Stripe) - Dash 9 Diesel Engine, Cab No. 9812	Union Pacific (Red Stripe) - Dash 9 Diesel Engine, Cab No. 9820
80-2309-1 DCC/DCS Proto-Sound 3.0 \$299.95	80-2310-1 DCC/DCS Proto-Sound 3.0 \$299.95	80-2311-1 DCC/DCS Proto-Sound 3.0 \$299.95
80-2309-0 DCC-Ready \$199.95	80-2310-0 DCC-Ready \$199.95	80-2311-0 DCC-Ready \$199.95



Union Pacific (CNW Flag logo) - Dash 9 Diesel Engine, Cab No. 9807
80-2308-1 DCC/DCS Proto-Sound 3.0 \$299.95
80-2308-0 DCC-Ready \$199.95

(Models an ex-Chicago & North Western unit acquired in the UP takeover.)



Norfolk Southern - Dash 9 Diesel Engine, Cab No. 9197	Norfolk Southern - Dash 9 Diesel Engine, Cab No. 9156	Norfolk Southern - Dash 9 Diesel Engine, Cab No. 9183
80-2299-1 DCC/DCS Proto-Sound 3.0	80-2300-1 DCC/DCS Proto-Sound 3.0	80-2301-1 DCC/DCS Proto-Sound 3.0
\$299.95	\$299.95	\$299.95



Norfolk Southern (Black Horse logo) - Dash 9 Diesel Engine, Cab No. 9171  
 80-2298-1 DCC/DCS Proto-Sound 3.0 \$299.95



Norfolk Southern (Black OPLS logo) - Dash 9 Diesel Engine, Cab No. 9250  
 80-2297-1 DCC/DCS Proto-Sound 3.0 \$299.95  
 80-2297-0 DCC-Ready \$199.95

#### Did You Know?

Norfolk Southern Dash 9s have software that downrates their motors to 4000 hp to reduce engine wear and fuel consumption. If needed, the extra 400 horses can be accessed with the flip of a key switch.



# General Electric ES44AC



## Flexible mold design allows for 4 different road-specific body configurations

With a wave of consolidation behind it, North American railroading is once again a good business to be in — despite a recent downturn in coal and oil traffic. The horsepower race that characterized much of the diesel era is over, with 4300-4400 hp now the standard for main line power. Over the past decade, much of the locomotive fleet has been replaced with so-called fourth generation diesels, computer-controlled and built to the latest Environmental Protection Agency emissions requirements. And the two remaining diesel builders are locked in a battle to become *the* locomotive supplier for the 21st century. Caterpillar®- owned EMD, no longer a division of General Motors, is represented by the SD70ACe. General Electric's standard bearer is the Evolution Series ES44AC.

GE claims the EVOs are “the most fuel-efficient, most environmentally friendly diesel locomotives in history... If every freight train in North America were pulled by an Evolution Series Locomotive,

the reduction of smog-producing pollutants would be like removing 48 million cars from the road each year.” Everything about these locomotives has been examined, questioned, and re-thought, generating 25 new U.S. patents in the process. Before they went on sale in 2005, 52 preproduction units were tested in revenue service across the continent for more than a year. Every U.S. Class 1 railroad has ponied up to buy the ES44, with the BNSF rostering the largest EVO fleet. Around the world, over 3,700 Evolution Series diesels are operating in 10 countries.

Like all M.T.H. locomotives, our ES44AC offers HO scale's finest combination of detail, realism, and performance. Listen to the chant of an authentic GEVO-12 motor in the Proto-Sound 3 versions, and throttle down as low as three scale miles per hour so you can admire the details as the Evolution Series glides by: see-through fans and grilles, walkways with safety tread, flashing ditch lights, windshield wipers,

body and truck air brake piping, and a host of other separately applied details. Activate the couplers from anywhere on the layout using any DCC controller or the DCS Digital Command System. For the ultimate in power and sound, operate these diesels in multiple-unit lashups under DCC or DCS digital command control. If you're running under the M.T.H. DCS system, you can double- or even triple-head the ES44AC with virtually any combination of Proto-Sound 3.0 locomotives.

### Prototypical Charging Lights Explained

The real life GEVO Hybrid was an experimental engine equipped with batteries to store energy normally dissipated as heat during dynamic braking. That stored energy could be used for short bursts of “free” power, to lower fuel consumption and emissions. Chase lights below the walkways flashed in sequence and changed direction to indicate charging or discharging activity, a feature portrayed in our model.



G.E. Evolution - ES44AC Diesel Engine, Cab No. 2010  
 80-2350-1 DCC/DCS Proto-Sound 3.0 \$319.95

Features Prototypical Flashing Underbody Charging Lights



CSX - ES44AC Diesel Engine, Cab No. 3020  
 80-2359-1 DCC/DCS Proto-Sound 3.0 \$299.95  
 80-2359-0 DCC-Ready \$199.95

CSX - ES44AC Diesel Engine, Cab No. 3027  
 80-2360-1 DCC/DCS Proto-Sound 3.0 \$299.95  
 80-2360-0 DCC-Ready \$199.95

CSX - ES44AC Diesel Engine, Cab No. 3017  
 80-2361-1 DCC/DCS Proto-Sound 3.0 \$299.95  
 80-2361-0 DCC-Ready \$199.95

## Features Include:

- Intricately Detailed, Durable ABS Body
- Die-Cast Metal Chassis
- Metal Handrails and Horn
- Metal Body Side Grilles
- Detachable Snow Plow
- (2) Hand-Painted Crew Figures
- Authentic Paint Scheme
- RP-25 Metal Wheels, Metal Axles and Metal Gears
- (2) Operating Kadee-Compatible Remote Controlled Proto-Couplers\*\*\*
- (2) #158 Scale Kadee Whisker Couplers
- Prototypical Rule 17 Lighting
- Directionally Controlled Constant Voltage LED Headlights
- LED-Illuminated Number Boards
- Flashing LED Ditch Lights
- Flashing Underbody LED Charging Lights\*\*
- Powerful 5-Pole Precision Flywheel-Equipped Skew-Wound Balanced Motor
- Locomotive Speed Control In Scale MPH Increments
- Onboard 28-Function DCC Receiver
- NMRA-Compliant 7-Pin DCC Decoder Plug\*
- Operates On Code 70, 83 and 100 Track
- 1:87 Scale Proportions
- Proto-Sound 3.0 With The Digital Command System Featuring Freight Yard Proto-Effects\*\*\*
- Unit Measures: 10 9/16" x 1 7/16" x 2 3/16"
- Operates On 18" Radius Curves

\* DCC-Ready Model Only \*\* Evolution Hybrid, Christmas and Halloween Models Only \*\*\* Proto-Sound 3.0 Models Only





Florida East Coast - ES44AC Diesel Engine, Cab No. 803  
 80-2353-1 DCC/DCS Proto-Sound 3.0 \$299.95  
 80-2353-0 DCC-Ready \$199.95

Florida East Coast - ES44AC Diesel Engine, Cab No. 804  
 80-2354-1 DCC/DCS Proto-Sound 3.0 \$299.95  
 80-2354-0 DCC-Ready \$199.95

Florida East Coast - ES44AC Diesel Engine, Cab No. 820  
 80-2355-1 DCC/DCS Proto-Sound 3.0 \$299.95  
 80-2355-0 DCC-Ready \$199.95



Union Pacific - ES44AC Diesel Engine, Cab No. 8180  
 80-2356-1 DCC/DCS Proto-Sound 3.0 \$299.95  
 80-2356-0 DCC-Ready \$199.95  
 Union Pacific - ES44AC Diesel Engine, Cab No. 8023  
 80-2357-1 DCC/DCS Proto-Sound 3.0 \$299.95  
 80-2357-0 DCC-Ready \$199.95

Union Pacific - ES44AC Diesel Engine, Cab No. 7964  
 80-2358-1 DCC/DCS Proto-Sound 3.0 \$299.95  
 80-2358-0 DCC-Ready \$199.95





BNSF - ES44AC Diesel Engine, Cab No. 7023

80-2365-1	DCC/DCS Proto-Sound 3.0	\$299.95
80-2365-0	DCC-Ready	\$199.95

BNSF - ES44AC Diesel Engine, Cab No. 7025

80-2366-1	DCC/DCS Proto-Sound 3.0	\$299.95
80-2366-0	DCC-Ready	\$199.95

BNSF - ES44AC Diesel Engine, Cab No. 7039

80-2367-1	DCC/DCS Proto-Sound 3.0	\$299.95
80-2367-0	DCC-Ready	\$199.95



Norfolk Southern - ES44AC Diesel Engine, Cab No. 8127

80-2362-1	DCC/DCS Proto-Sound 3.0	\$299.95
80-2362-0	DCC-Ready	\$199.95

Norfolk Southern - ES44AC Diesel Engine, Cab No. 8113

80-2363-1	DCC/DCS Proto-Sound 3.0	\$299.95
80-2363-0	DCC-Ready	\$199.95

Norfolk Southern - ES44AC Diesel Engine, Cab No. 8120

80-2364-1	DCC/DCS Proto-Sound 3.0	\$299.95
80-2364-0	DCC-Ready	\$199.95





Canadian Pacific - ES44AC Diesel Engine, Cab No. 9362  
 80-2324-1 DCC/DCS Proto-Sound 3.0 \$299.95  
 80-2324-0 DCC-Ready \$199.95

Canadian Pacific - ES44AC Diesel Engine, Cab No. 9366  
 80-2325-1 DCC/DCS Proto-Sound 3.0 \$299.95  
 80-2325-0 DCC-Ready \$199.95

Canadian Pacific - ES44AC Diesel Engine, Cab No. 9372  
 80-2326-0 DCC-Ready \$199.95



Ferrosur - ES44AC Diesel Engine, Cab No. 4706  
 80-2330-1 DCC/DCS Proto-Sound 3.0 \$299.95

Ferrosur - ES44AC Diesel Engine, Cab No. 4714  
 80-2331-1 DCC/DCS Proto-Sound 3.0 \$299.95  
 80-2331-0 DCC-Ready \$199.95

Ferrosur - ES44AC Diesel Engine, Cab No. 4722  
 80-2332-1 DCC/DCS Proto-Sound 3.0 \$299.95  
 80-2332-0 DCC-Ready \$199.95



Kansas City Southern - ES44AC Diesel Engine, Cab No. 4770  
 80-2316-1 DCC/DCS Proto-Sound 3.0 \$299.95  
 80-2316-0 DCC-Ready \$199.95



Christmas - ES44AC Diesel Engine, Cab No. 1225  
80-2351-1 DCC/DCS Proto-Sound 3.0 \$319.95

Features Flashing Red Underbody Charging Lights  
and Christmas Sounds



Halloween - ES44AC Diesel Engine, Cab No. 1031  
80-2352-1 DCC/DCS Proto-Sound 3.0 \$319.95

Features Flashing Orange Underbody Charging Lights  
and Halloween Sounds





Interstate - ES44AC Diesel Engine, Cab No. 8105  
 80-2338-1 DCC/DCS Proto-Sound 3.0 \$299.95  
 80-2338-0 DCC-Ready \$199.95

To celebrate its 30th anniversary in 2012, the Norfolk Southern Railway painted 20 freight diesels in paint schemes honoring its predecessor railroads. Half of the prototype schemes were applied to General Electric ES-44AC diesels by Norfolk Southern employees at its Chattanooga, TN and Altoona, PA shops, and are replicated by the models on these pages. The remaining heritage schemes were painted on EMD SD70ACe locomotives at Progress Rail Services' shops in Muncie, IN.



Central of Georgia - ES44AC Diesel Engine, Cab No. 8101  
 80-2337-1 DCC/DCS Proto-Sound 3.0 \$299.95  
 80-2337-0 DCC-Ready \$199.95

# NORFOLK SOUTHERN

## HERITAGE SERIES



Monongahela - ES44AC Diesel Engine, Cab No. 8025  
 80-2340-1 DCC/DCS Proto-Sound 3.0 \$299.95  
 80-2340-0 DCC-Ready \$199.95

Conrail - ES44AC Diesel Engine, Cab No. 8098  
 80-2336-0 DCC-Ready \$199.95



Lehigh Valley - ES44AC Diesel Engine, Cab No. 8104  
 80-2339-1 DCC/DCS Proto-Sound 3.0 \$299.95  
 80-2339-0 DCC-Ready \$199.95





# NORFOLK SOUTHERN

HERITAGE SERIES



Southern - ES44AC Diesel Engine, Cab No. 8099  
80-2335-0 DCC-Ready \$199.95



Pennsylvania - ES44AC Diesel Engine, Cab No. 8102  
80-2334-0 DCC-Ready \$199.95



Norfolk Southern - ES44AC Diesel Engine, Cab No. 8114  
 80-2342-0 DCC-Ready \$199.95



Nickel Plate Road - ES44AC Diesel Engine, Cab No. 8100  
 80-2341-1 DCC/DCS Proto-Sound 3.0 \$299.95  
 80-2341-0 DCC-Ready \$199.95

Norfolk & Western - ES44AC Diesel Engine, Cab No. 8103  
 80-2343-1 DCC/DCS Proto-Sound 3.0 \$299.95  
 80-2343-0 DCC-Ready \$199.95





# Anatomy of an ES44AC



*See-Through Fan Housing*

*Authentic Paint Scheme & Cab Numbers*

*Metal Multi-Chime Horn*

*Metal Handrails*

*Constant Voltage LED Rule 17 Rear Headlights*

*(Full Brightness in Reverse, Dim in Forward or When Stopped)*

*Legible Warning Placards*

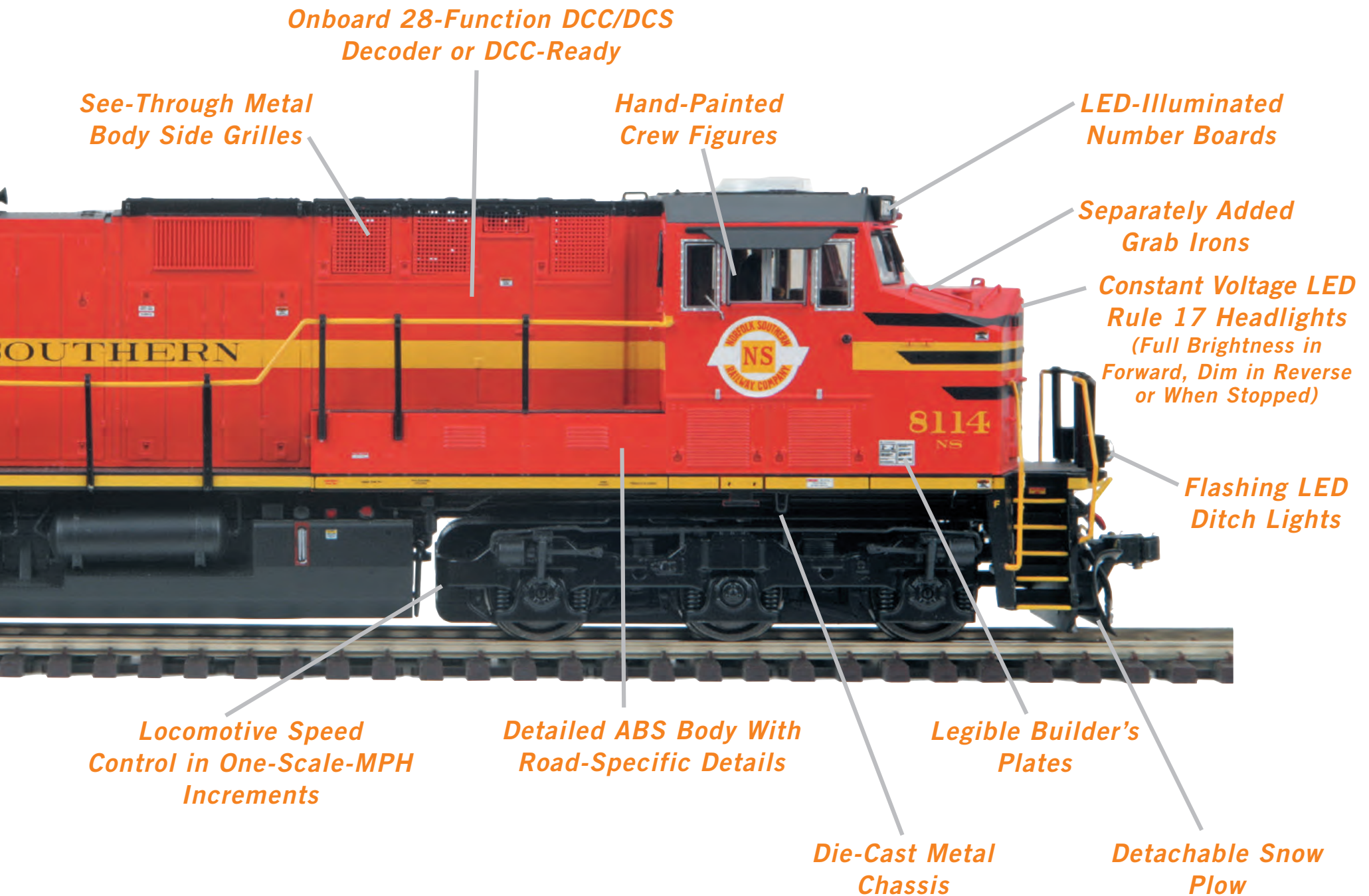
*Supplied with Remotely Controlled Operating Proto-Couplers and # 158 Scale Kadee Whisker Couplers*

*Detailed MU Lines and Brake Hoses*

*Detailed Truck Sides With Air Brake Piping*

*RP-25 Metal Wheels Mounted On Metal Axles*

*Powerful 12-Volt 5-Pole Precision Flywheel-Equipped Skew-Wound Balanced Motor*





# Alco FA/FB-1



## All Proto-Sound Models Include Onboard DCC Receiver

The American Locomotive Company, one of the nation's premier steam locomotive builders, joined forces with Schenectady, New York neighbor General Electric to build the first standardized diesel-electric locomotives in the 1920s. But when the diesel revolution began in earnest after World War II, Alco seemed doomed to forever playing second fiddle to industry leader EMD.

Observers frequently point to reliability problems with Alco's 1600 hp model 244 diesel motor as the cause. But one wonders today if Alco's problem was really its motor, or EMD's commanding sales

lead. During World War II, EMD had been the only company permitted to manufacture road diesels, and shop crews nationwide had learned to service the EMD 567 prime mover. Perhaps a lack of familiarity led to lesser-quality maintenance of Alco motors; as evidence, Alco fans today point to the New Haven, an all-Alco railroad that got great service from its Alco fleet while others complained.

In any case, the brawny good looks of Alco's FA and PA cab units have endeared them to railfans and modelers for more than half a century. Both were styled by Ray Patten, General Electric's head

of industrial design, who a decade earlier had received a Lord and Taylor award for a cooking range design "as slightly as a grand piano." Many would argue that Alco's FA-1, built from 1946-50, and successor FA-2 diesels were both handsomer and more powerful-looking than their major competitors, EMD's F3 and F7 "covered wagons." A signature feature of Alco cab units was the striking ribbed grille surrounding the headlight. While Alco FAs were sold primarily as freight haulers, they did have room for an optional passenger-service steam generator at the rear of the engine compartment.

### Features Include:

- Intricately Detailed, Durable ABS Body
- Metal Chassis
- Moveable Roof Fans
- Metal Body Side Grilles
- (2) Engineer Cab Figures
- Authentic Paint Scheme
- RP-25 Metal Wheels, Metal Axles and Metal Gears
- (2) Operating Kadee Compatible Remote Controlled Proto-Couplers
- Directionally Controlled Constant Voltage LED Headlight
- LED-Illuminated MARS Light\*
- LED-Illuminated Class Lights
- LED-Illuminated Number Boards
- LED-Illuminated Cab Interior
- Powerful 5-Pole Precision Flywheel-Equipped Skew-Wound Balanced Motor
- Locomotive Speed Control In Scale MPH Increments
- Operates On Code 70, 83 and 100 Track
- 1:87 Scale Proportions
- Proto-Sound 3.0 with the Digital Command System Featuring Freight Yard Proto-Effects
- Unit Measures: 7 1/16" x 1 3/8" x 2 1/16"
- Operates On 18" Radius Curves

\* Where Prototypical



Soo Line - Alco FB-1 B Unit, Cab No. 2222B  
80-2202-1 DCC/DCS Proto-Sound 3.0 \$269.95

Soo Line - Alco FA-1 A Unit, Cab No. 2222A  
80-2201-1 DCC/DCS Proto-Sound 3.0 \$269.95



Erie - Alco FB-1 B Unit, Cab No. 729B  
80-2214-1 DCC/DCS Proto-Sound 3.0 \$269.95

Erie - Alco FA-1 A Unit, Cab No. 729A  
80-2213-1 DCC/DCS Proto-Sound 3.0 \$269.95



Canadian Pacific - Alco FB-1 B Unit, Cab No. 4410  
80-2208-1 DCC/DCS Proto-Sound 3.0 \$269.95

Canadian Pacific - Alco FA-1 A Unit, Cab No. 4016  
80-2207-1 DCC/DCS Proto-Sound 3.0 \$269.95





# EMD GP38-2



Produced from 1972 to 1986, the GP38-2 helped inaugurate Electro-Motive's "Dash-2" series of locomotives and became one of EMD's all-time best sellers. With over 2200 engines sold throughout North America, rare was the railroad that did not roster these reliable, second-generation EMD workhorses.

Building on the success of the GP38 introduced in 1966, the Dash-2 model looked almost identical on the outside but incorporated a host of internal upgrades that lowered exhaust emissions and improved reliability, ease of maintenance, and tractive effort. Most significant was the replacement of the maze of hard-wired circuits, switches, interlocks, and relays — which had characterized first-generation diesels and had been the source of many of their service issues — with modular, solid-state electronics. Other improvements toughened the pistons, rings, and bearings of the 2000-horsepower, non-turbocharged model 645 prime mover.

The result was an engine so hard working and dependable that it became as common on American railroads as the F-unit was in the 1950s and '60s. *Trains* magazine recognized this in 1982 by designating B&O GP38 #3802 (a pre-Dash-2 model) as the All American Diesel; the engine now resides at the Baltimore & Ohio Railroad Museum, repainted in its 1982 Chessie System colors. While today many GP38-2s have moved on to second careers on short line and regional railroads, others have soldiered on for more than three decades with their original owners. As of late 2013, for example, Union Pacific and Norfolk Southern still rostered more than 500 GP38-2s apiece.

This accurately modeled GP38-2 joins our economically priced Ready2Rail lineup in 17 prototypical paint schemes. Our versatile tooling includes provisions for inclusion of dynamic brakes where prototypical. All Proto-Sound 3.0 versions feature the prototypical sounds and 28-function DCC capability found in

every Proto-Sound 3.0 engine in the M.T.H. lineup. DCC-Ready versions feature an NMRA 7-pin DCC socket.

In command mode, you can operate this second-generation stalwart with any other DCC or M.T.H. DCS-equipped models. With the DCS system, you can create a lashup with just a few keystrokes, combining one or more GP38-2s with other Proto-Sound 3.0 first-, second-, or third-generation diesels — and run them all from a single throttle just like the prototype.



Norfolk Southern (First Responders) - GP38-2 Diesel, Cab No. 5642  
 85-2054-1 DCC/DCS Proto-Sound 3.0 \$199.95  
 85-2054-0 DCC-Ready \$129.95



- Features Include:**
- Intricately Detailed Durable ABS Body
  - Detailed Truck Sides & Pilots
  - Metal Chassis
  - Metal Handrails and Horn
  - Authentic Paint Scheme
  - Hand-Painted Crew Figures
  - With or Without Dynamic Brakes, Per Prototype
  - Large or Small Fuel Tank, Per Prototype
  - RP-25 Metal Wheels, Metal Axles and Metal Gears
  - (2) #158 Scale Kadee Whisker Couplers
  - Prototypical Rule 17 Lighting
  - Directionally Controlled Constant Voltage LED Headlights
  - LED-Illuminated Class and Marker Lights
  - Powerful 5-Pole Precision Flywheel-Equipped Skew-Wound Balanced Motor
  - Onboard DCC/DCS Decoder
  - Locomotive Speed Control In Scale MPH Increments
  - Operates On Code 70, 83 and 100 Track
  - 1:87 Scale Proportions
  - Proto-Sound 3.0 with the Digital Command System
  - Featuring: Freight Yard Proto-Effects
  - NMRA 7-Pin DCC Socket (DCC-Ready Versions Only)
  - Measures: 8" x 1 3/8" x 2.5"
  - Operates On 18" Radius Curves





Canadian National - GP38-2 Diesel, Cab No. 4704

85-2039-1	DCC/DCS Proto-Sound 3.0	\$199.95
85-2039-0	DCC-Ready	\$129.95

Canadian National - GP38-2 Diesel, Cab No. 4715

85-2040-1	DCC/DCS Proto-Sound 3.0	\$199.95
85-2040-0	DCC-Ready	\$129.95

Canadian National - GP38-2 Diesel, Cab No. 7507

85-2041-1	DCC/DCS Proto-Sound 3.0	\$199.95
85-2041-0	DCC-Ready	\$129.95



CSX - GP38-2 Diesel, Cab No. 2651

85-2055-1	DCC/DCS Proto-Sound 3.0	\$199.95
85-2055-0	DCC-Ready	\$129.95

CSX - GP38-2 Diesel, Cab No. 2653

85-2056-1	DCC/DCS Proto-Sound 3.0	\$199.95
85-2056-0	DCC-Ready	\$129.95

CSX - GP38-2 Diesel, Cab No. 2656

85-2057-1	DCC/DCS Proto-Sound 3.0	\$199.95
85-2057-0	DCC-Ready	\$129.95

CP Rail - GP38-2 Diesel, Cab No. 4404  
 85-2058-1 DCC/DCS Proto-Sound 3.0 \$199.95  
 85-2058-0 DCC-Ready \$129.95

CP Rail - GP38-2 Diesel, Cab No. 4406  
 85-2059-1 DCC/DCS Proto-Sound 3.0 \$199.95  
 85-2059-0 DCC-Ready \$129.95

CP Rail - GP38-2 Diesel, Cab No. 4437  
 85-2060-1 DCC/DCS Proto-Sound 3.0 \$199.95  
 85-2060-0 DCC-Ready \$129.95



Florida East Coast - GP38-2 Diesel, Cab No. 510  
 85-2061-1 DCC/DCS Proto-Sound 3.0 \$199.95  
 85-2061-0 DCC-Ready \$129.95

Florida East Coast - GP38-2 Diesel, Cab No. 505  
 85-2062-1 DCC/DCS Proto-Sound 3.0 \$199.95  
 85-2062-0 DCC-Ready \$129.95

Florida East Coast - GP38-2 Diesel, Cab No. 502  
 85-2063-1 DCC/DCS Proto-Sound 3.0 \$199.95  
 85-2063-0 DCC-Ready \$129.95

BNSF - GP38-2 Diesel, Cab No. 2007  
 85-2016-1 DCC/DCS Proto-Sound 3.0 \$199.95  
 85-2016-0 DCC-Ready \$129.95

BNSF - GP38-2 Diesel, Cab No. 2015  
 85-2017-1 DCC/DCS Proto-Sound 3.0 \$199.95  
 85-2017-0 DCC-Ready \$129.95

BNSF - GP38-2 Diesel, Cab No. 2019  
 85-2018-1 DCC/DCS Proto-Sound 3.0 \$199.95  
 85-2018-0 DCC-Ready \$129.95







Chessie - GP38-2 Diesel, Cab No. 4801  
 85-2042-1 DCC/DCS Proto-Sound 3.0  
 85-2042-0 DCC-Ready

\$199.95  
 \$129.95

Chessie - GP38-2 Diesel, Cab No. 4804  
 85-2043-1 DCC/DCS Proto-Sound 3.0  
 85-2043-0 DCC-Ready

\$199.95  
 \$129.95

Chessie - GP38-2 Diesel, Cab No. 4817  
 85-2044-1 DCC/DCS Proto-Sound 3.0  
 85-2044-0 DCC-Ready

\$199.95  
 \$129.95



Conrail - GP38-2 Diesel, Cab No. 8042  
 85-2045-1 DCC/DCS Proto-Sound 3.0  
 85-2045-0 DCC-Ready

\$199.95  
 \$129.95

Conrail - GP38-2 Diesel, Cab No. 8044  
 85-2046-1 DCC/DCS Proto-Sound 3.0  
 85-2046-0 DCC-Ready

\$199.95  
 \$129.95

Conrail - GP38-2 Diesel, Cab No. 8056  
 85-2047-1 DCC/DCS Proto-Sound 3.0  
 85-2047-0 DCC-Ready

\$199.95  
 \$129.95



CSX - GP38-2 Diesel, Cab No. 2722		
85-2019-1	DCC/DCS Proto-Sound 3.0	\$199.95
85-2019-0	DCC-Ready	\$129.95
CSX - GP38-2 Diesel, Cab No. 2736		
85-2020-1	DCC/DCS Proto-Sound 3.0	\$199.95
85-2020-0	DCC-Ready	\$129.95
CSX - GP38-2 Diesel, Cab No. 2729		
85-2021-1	DCC/DCS Proto-Sound 3.0	\$199.95
85-2021-0	DCC-Ready	\$129.95

Indiana Rail Road - GP38-2 Diesel, Cab No. 3806		
85-2022-1	DCC/DCS Proto-Sound 3.0	\$199.95
85-2022-0	DCC-Ready	\$129.95
Indiana Rail Road - GP38-2 Diesel, Cab No. 3802		
85-2023-1	DCC/DCS Proto-Sound 3.0	\$199.95
85-2023-0	DCC-Ready	\$129.95
Indiana Rail Road - GP38-2 Diesel, Cab No. 3803		
85-2024-1	DCC/DCS Proto-Sound 3.0	\$199.95
85-2024-0	DCC-Ready	\$129.95



Long Island - GP38-2 Diesel, Cab No. 254		
85-2048-1	DCC/DCS Proto-Sound 3.0	\$199.95
85-2048-0	DCC-Ready	\$129.95
Long Island - GP38-2 Diesel, Cab No. 255		
85-2049-1	DCC/DCS Proto-Sound 3.0	\$199.95
85-2049-0	DCC-Ready	\$129.95
Long Island - GP38-2 Diesel, Cab No. 256		
85-2050-1	DCC/DCS Proto-Sound 3.0	\$199.95
85-2050-0	DCC-Ready	\$129.95





Maryland Midland - GP38-2 Diesel, Cab No. 301  
 85-2025-1 DCC/DCS Proto-Sound 3.0 \$199.95  
 85-2025-0 DCC-Ready \$129.95

Maryland Midland - GP38-2 Diesel, Cab No. 305  
 85-2026-1 DCC/DCS Proto-Sound 3.0 \$199.95  
 85-2026-0 DCC-Ready \$129.95

Maryland Midland - GP38-2 Diesel, Cab No. 303  
 85-2027-1 DCC/DCS Proto-Sound 3.0 \$199.95  
 85-2027-0 DCC-Ready \$129.95

Norfolk Southern - GP38-2 Diesel, Cab No. 5304  
 85-2030-1 DCC/DCS Proto-Sound 3.0 \$199.95  
 85-2030-0 DCC-Ready \$129.95

Norfolk Southern - GP38-2 Diesel, Cab No. 5296  
 85-2031-1 DCC/DCS Proto-Sound 3.0 \$199.95  
 85-2031-0 DCC-Ready \$129.95

Norfolk Southern - GP38-2 Diesel, Cab No. 5291  
 85-2032-1 DCC/DCS Proto-Sound 3.0 \$199.95  
 85-2032-0 DCC-Ready \$129.95



New York & Atlantic - GP38-2 Diesel, Cab No. 270  
 85-2028-0 DCC-Ready \$129.95

New York & Atlantic - GP38-2 Diesel, Cab No. 271  
 85-2029-1 DCC/DCS Proto-Sound 3.0 \$199.95  
 85-2029-0 DCC-Ready \$129.95

Pittsburgh & Lake Erie - GP38-2 Diesel, Cab No. 2057  
 85-2033-1 DCC/DCS Proto-Sound 3.0 \$199.95  
 85-2033-0 DCC-Ready \$129.95

Pittsburgh & Lake Erie - GP38-2 Diesel, Cab No. 2059  
 85-2034-1 DCC/DCS Proto-Sound 3.0 \$199.95  
 85-2034-0 DCC-Ready \$129.95

Pittsburgh & Lake Erie - GP38-2 Diesel, Cab No. 2060  
 85-2035-1 DCC/DCS Proto-Sound 3.0 \$199.95  
 85-2035-0 DCC-Ready \$129.95



Southern Pacific - GP38-2 Diesel, Cab No. 4850  
 85-2051-1 DCC/DCS Proto-Sound 3.0 \$199.95  
 85-2051-0 DCC-Ready \$129.95

Southern Pacific - GP38-2 Diesel, Cab No. 4848  
 85-2052-1 DCC/DCS Proto-Sound 3.0 \$199.95  
 85-2052-0 DCC-Ready \$129.95

Southern Pacific - GP38-2 Diesel, Cab No. 4846  
 85-2053-1 DCC/DCS Proto-Sound 3.0 \$199.95  
 85-2053-0 DCC-Ready \$129.95

Union Pacific - GP38-2 Diesel, Cab No. 307  
 85-2036-1 DCC/DCS Proto-Sound 3.0 \$199.95  
 85-2036-0 DCC-Ready \$129.95

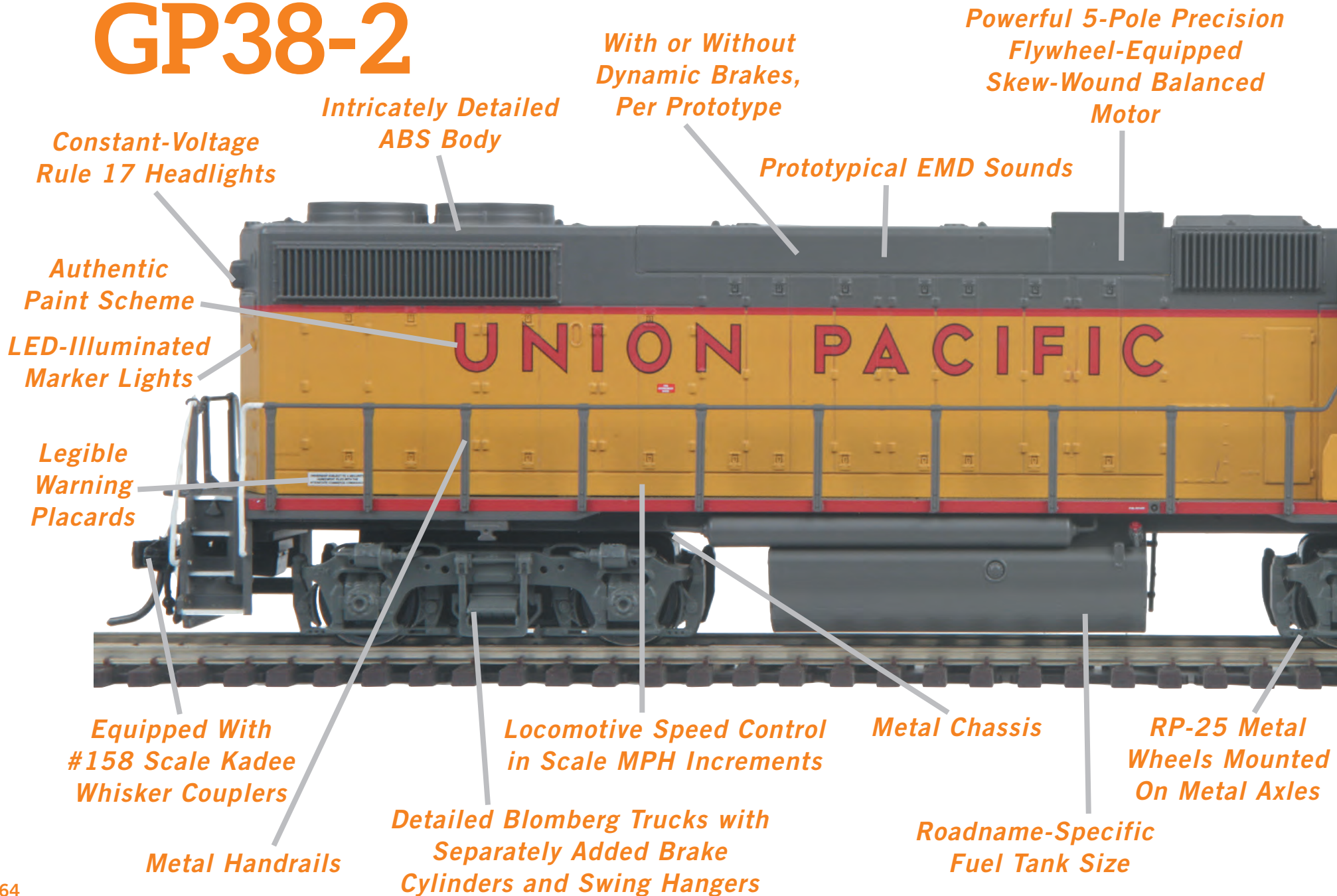
Union Pacific - GP38-2 Diesel, Cab No. 315  
 85-2037-1 DCC/DCS Proto-Sound 3.0 \$199.95  
 85-2037-0 DCC-Ready \$129.95

Union Pacific - GP38-2 Diesel, Cab No. 322  
 85-2038-1 DCC/DCS Proto-Sound 3.0 \$199.95  
 85-2038-0 DCC-Ready \$129.95





# Anatomy of a GP38-2



**28-Function DCC/DCS Decoder with Advanced Consisting, Feature Mapping and Speed Mapping**



**Metal Horn**

**Constant-Voltage LED Rule 17 Headlights**  
(Full Brightness in Forward, Dim in Reverse or When Stopped)

**LED-Illuminated Class Lights**

**Crew Figures**

**Operates on 18" Radius Code 70, 83 or 100 Track**

**1:87 Scale Proportions**





# NYC R-17 Subway



On June 1, 1940, the City of New York acquired the two subway systems it didn't already own — the IRT (Interborough Rapid Transit Co.) and the BMT (Brooklyn-Manhattan Transit Corp.) — and consolidated them with the city-owned IND (Independent Subway System). It was readily apparent that the city's fleet of aging subway cars was desperately in need of replacement, and immediately after World War II, management began to develop a new car that would be standard throughout the system and incorporate the latest advances in subway design. This effort was complicated by the fact that portions of the IRT had tighter clearances than the IND and BMT, so all future designs would incorporate a shorter, narrower IRT version.

Beginning with contract R-10, and IRT-sized contract R-12 delivered in 1948, the new cars featured welded steel bodies, fluorescent lighting that made them considerably brighter than prewar cars, and seating made of foam rubber covered with velon, a new plastic material that replaced the rattan seating of older cars. A major improvement was a new type of brake system known as Straight Air Motor Car Electric-Pneumatic Emergency (SMEE), which combined ordinary air brakes with dynamic braking, in which a car's electric motors, by having their polarities reversed, were converted to generators in order to slow the car. This significantly reduced brake shoe wear and maintenance costs. Beginning with the R-12, the postwar IRT cars were known as the SMEE fleet.

The 400 cars built under contract R-17 were part of the 1950s expansion of the SMEE fleet, which also included the similar-looking R-15, R-21 and R-22 cars. As was normal practice at the time, the 400 R-17 cars delivered by St. Louis Car Co. in 1955-1956 were evenly split between General Electric and Westinghouse electrical gear, with each company equipping half the cars. The R-17s could be operated independently or with any other SMEE cars, and various SMEE types were often intermixed in trains. Ten of the R-17s were delivered with factory-installed air conditioning. The experiment proved unsuccessful, however, and the AC was later removed. Also removed were the comfortable velon seats, which proved an easy mark for vandals and were replaced by hard fiberglass benches.

Delivered in a maroon paint scheme, the R-17s were repainted in the MTA's new blue and silver colors in the 1970s. A less-than-successful white scheme, intended to discourage taggers, followed in the 1980s. And just a few years before their retirement in 1988, 16 cars were painted in the "fox red" used on the Redbird cars, although the R-17s were never officially part of the Redbird fleet.

## Preservation and Movie Roles

You can still ride an R-17 today in New York and Connecticut. Both the New York Transit Museum in Brooklyn and the Shore Line Trolley Museum in East Haven, Connecticut have a restored, operational R-17. In fact, the Shore Line's Car 6688 appears in the movie *The Amazing Spider Man 2*. Other film appearances by R-17s include *The French Connection*, Ron Howard's *Night Shift*, and an interior shot in the opening credits of Oliver Stone's *Wall Street*.



Metropolitan Transportation Authority (Blue & Silver) - R-17 4-Car Subway Set,  
 Car Nos. 6518, 6648, 6562, 6513  
 80-2346-1 Southbound Express Proto-Sound 3.0 \$379.95  
 Metropolitan Transportation Authority (Blue & Silver) - R-17 2-Car Subway Add-On Set,  
 Car Nos. 6508, 6617  
 80-2346-3 Southbound Non-Powered \$119.95

Metropolitan Transportation Authority (Blue & Silver) - R-17 4-Car Subway Set,  
 Car Nos. 6512, 6579, 6531, 6692  
 80-2347-1 Northbound Express Proto-Sound 3.0 \$379.95



Metropolitan Transportation Authority (Maroon) - R-17 4-Car Subway Set,  
 Car Nos. 6688, 6621, 6550, 6510  
 80-2348-1 Southbound Local Proto-Sound 3.0 \$379.95

Metropolitan Transportation Authority (Maroon) - R-17 4-Car Subway Set,  
 Car Nos. 6691, 6637, 6581, 6666  
 80-2349-1 Northbound Local Proto-Sound 3.0 \$379.95



Metropolitan Transportation Authority (Red) - R-17 4-Car Subway Set,  
 Car Nos. 6643, 6505, 6679, 6553  
 80-2369-1 Southbound Express Proto-Sound 3.0 \$379.95  
 80-2369-0 Southbound Express DCC-Ready \$279.95  
 Metropolitan Transportation Authority (Red) - R-17 2-Car Subway Add-On Set, Car Nos. 6511, 6652  
 80-2369-3 Southbound Non Powered \$119.95

Metropolitan Transportation Authority (Red) - R-17 4-Car Subway Set,  
 Car Nos. 6634, 6509, 6580, 6674  
 80-2370-1 Northbound Express Proto-Sound 3.0 \$379.95  
 80-2370-0 Northbound Express DCC-Ready \$279.95



Metropolitan Transportation Authority (MOW) - R-17 4-Car Subway Set,  
 Car Nos. 36740, 36895, 36618, 36741  
 80-2371-1 Proto-Sound 3.0 \$379.95  
 80-2371-0 DCC-Ready \$279.95

Metropolitan Transportation Authority (MOW) - R-17 2-Car Subway Add-On Set,  
 Car Nos 36725, 36742  
 80-2371-3 Non Powered \$119.95

## Features

### Set Includes:

- 4-Car Consist with (1) Powered Car, (3) Non-Powered Cars

### Powered Car Features:

- Intricately Detailed, Durable ABS Body
- Detailed Car Undercarriage
- Metal Chassis
- Authentic Paint Scheme
- Detailed 4-Wheel Trucks
- RP25 Metal Wheels, Metal Axles and Metal Gears

- (2) Remote Controlled Proto-Couplers™
- (2) #158 Scale Kadee® Whisker Couplers
- Directionally Controlled Constant-Voltage LED Headlights and Rear Markers
- LED-Illuminated Local or Express Signs
- LED-Illuminated Route and Destination Signs
- LED-Illuminated Side Destination Signs
- Powerful 5-Pole Precision Flywheel-Equipped Skew-Wound Balanced Motor
- Locomotive Speed Control in Scale MPH Increments

- Operates On 18" Radius Code 70, 83 or 100 Track
- 1:87 Scale Proportions
- Onboard DCC Receiver or DCC-Ready with 7-Pin Socket
- Equipped With Proto-Sound® 3.0 Featuring Station Stop Proto-Effects™ (Proto-Sound Version Only)

### Non-Powered Car Features:

- Intricately Detailed, Durable ABS Body
- Detailed Car Undercarriage
- Metal Chassis
- Authentic Paint Scheme
- Detailed Interior with Constant-Voltage Overhead LED Lighting
- LED-Illuminated Side Destination Signs
- Detailed 4-Wheel Trucks
- RP25 Metal Wheels on Metal Axles
- (2) #158 Scale Kadee Whisker Couplers



# Anatomy of an R-17 Subway

Supplied with (2) Remote Controlled Proto-Couplers and (2) #158 Scale Kadee Whisker Couplers

Intricately Detailed, Durable ABS Body

Authentic Paint Scheme

Locomotive Speed Control in Scale MPH Increments

Proto-Sound 3.0 with DCC and DCS Receivers and Station Stop Proto-Effects\*

Powered Unit Features 5-Pole Precision Flywheel-Equipped Skew-Wound Balanced Motor

LED-Illuminated Side Destination Signs



Directionally Controlled Constant-Voltage LED Rear Markers

Directionally Controlled Constant-Voltage LED Headlights



LED-Illuminated Route and Destination Signs

LED-Illuminated Local or Express Signs

Detailed Car Undercarriage

Metal Chassis

RP25 Metal Wheels, Metal Axles and Metal Gears

Operates On 18" Radius Code 70, 83 or 100 Track

Enjoy Station Stop Proto-Effects available only from M.T.H.

Program the Proto-Sound version of the R-17 to stop automatically at designated station stops, broadcasting the name of the stop and the hustle and bustle of passengers coming and going. When configured to run on automatic, the R-17 will stop itself at locations you define and call out prototypical station names from a northbound or southbound route; the train will essentially run itself.

And for a full prototypical 10-car R-17 train, combine a northbound and southbound set with a 2-car add-on set. Depending on the direction of travel, your train will broadcast correct northbound or southbound station announcements.

***Non-Powered Unit Features  
Detailed Interior with Constant-  
Voltage Overhead LED Lighting***

***Intricately Detailed,  
Durable ABS Body***

***1:87 Scale  
Proportions***

***LED-Illuminated Side  
Destination Signs***



***Metal Chassis***

***Detailed 4-Wheel Trucks***

***RP25 Metal Wheels  
on Metal Axles***

***Authentic Paint  
Scheme***

***Detailed Car Undercarriage***

***(2) #158 Scale Kadee  
Whisker Couplers***



# NYC R-21 / R-22 Subways

All-New for 2017



Delivered from 1956–1958, the cars built to contracts R-21 and R-22 were near-identical copies of the R-17s that immediately preceded them on the assembly line at St. Louis Car Co. Like the earlier cars, the R-21s and R-22s were sized for the smaller clearances of the former Interborough Rapid Transit (IRT) lines of New York City's subway system.

The main visual differences between the later cars and the R-17s were a rectangular drop-sash window in the end doors, compared with a round window in the R-17s, and a new delivery color of kale green, replacing the maroon used on the earlier cars. All three classes accommodated 44 seated riders and had a top speed of 55 mph, and

all three could be found intermixed in IRT trains. They were among the last single-unit cars that New York would purchase, with most later classes being permanently married pairs or sets. As with the R-17s, a few R-21s and R-22s would eventually become movie stars, appearing in *The Taking of Pelham One Two Three* (1974) and *Money Train* (1995).

## Features

### Set Includes:

- 4-Car Consist with (1) Powered Car, (3) Non-Powered Cars

### Powered Car Features:

- Intricately Detailed, Durable ABS Body
- Detailed Car Undercarriage
- Metal Chassis
- Authentic Paint Scheme
- Detailed 4-Wheel Trucks
- RP25 Metal Wheels, Metal Axles and Metal Gears

- (2) Remote Controlled Proto-Couplers™
- (2) #158 Scale Kadee® Whisker Couplers
- Directionally Controlled Constant-Voltage LED Headlights and Rear Markers
- LED-Illuminated Local or Express Signs
- LED-Illuminated Route and Destination Signs
- LED-Illuminated Side Destination Signs
- Powerful 5-Pole Precision Flywheel-Equipped Skew-Wound Balanced Motor
- Locomotive Speed Control in Scale MPH Increments

- Operates On 18" Radius Code 70, 83 or 100 Track
- 1:87 Scale Proportions
- Onboard DCC Receiver or DCC-Ready with 7-Pin Socket
- Equipped With Proto-Sound® 3.0 Featuring Station Stop Proto-Effects™ (Proto-Sound Version Only)

### Non-Powered Car Features:

- Intricately Detailed, Durable ABS Body
- Detailed Car Undercarriage
- Metal Chassis
- Authentic Paint Scheme
- Detailed Interior with Constant-Voltage Overhead LED Lighting
- LED-Illuminated Side Destination Signs
- Detailed 4-Wheel Trucks
- RP25 Metal Wheels on Metal Axles
- (2) #158 Scale Kadee Whisker Couplers



Metropolitan Transportation Authority (Green) - R-22 4-Car Subway Set,  
Car Nos. 7581, 7662, 7701, 754

80-2378-1 Southbound Express Proto-Sound 3.0 \$379.95

80-2378-0 Southbound Express DCC-Ready \$279.95

Metropolitan Transportation Authority (Green) - R-21 2-Car Subway Add-On Set ,  
Car Nos. 7525, 7749

80-2378-3 Southbound Non-Powered \$119.95

Metropolitan Transportation Authority (Green) - R-22 4-Car Subway Set,  
Car Nos. 7556, 7559, 7610, 7737

80-2379-1 Northbound Express Proto-Sound 3.0 \$379.95

80-2379-0 Northbound Express DCC-Ready \$279.95



Metropolitan Transportation Authority (Red w/Silver Roof) - R-21 4-Car Subway Set,  
Car Nos. 7053, 7064, 7102, 7157

80-2374-1 Southbound Express Proto-Sound 3.0 \$379.95

80-2374-0 Southbound Express DCC-Ready \$279.95

Metropolitan Transportation Authority (Red w/Silver Roof) - R-21 2-Car Subway Add-On Set,  
Car Nos. 7052, 7114

80-2374-3 Southbound Non-Powered \$119.95

Metropolitan Transportation Authority (Red w/Silver Roof) - R-21 4-Car Subway Set,  
Car Nos. 7062, 7063, 7125, 7126

80-2375-1 Northbound Express Proto-Sound 3.0 \$379.95

80-2375-0 Northbound Express DCC-Ready \$279.95



Metropolitan Transportation Authority (Green w/Silver Roof) - R-21 4-Car Subway Set,  
Car Nos. 7155, 7160, 7169, 7172

80-2372-1 Southbound Express Proto-Sound 3.0 \$379.95

80-2372-0 Southbound Express DCC-Ready \$279.95

Metropolitan Transportation Authority (Green w/Silver Roof) - R-21 2-Car Subway Add-On Set,  
Car Nos. 7099, 7048

80-2372-3 Southbound Non-Powered \$119.95

Metropolitan Transportation Authority (Green w/Silver Roof) - R-21 4-Car Subway Set,  
Car Nos 7161, 7075, 7095, 7110

80-2373-1 Northbound Express Proto-Sound 3.0 \$379.95

80-2373-0 Northbound Express DCC-Ready \$279.95



Metropolitan Transportation Authority (Silver & Blue) - R-21 4-Car Subway Set,  
Car Nos. 7150, 7087, 7112, 7094

80-2376-1 Southbound Express Proto-Sound 3.0 \$379.95

80-2376-0 Southbound Express DCC-Ready \$279.95

Metropolitan Transportation Authority (Silver & Blue) - R-21 2-Car Subway Add-On Set,  
Car Nos. 7050, 7174

80-2376-3 Southbound Non-Powered \$119.95

Metropolitan Transportation Authority (Silver & Blue) - R-21 4-Car Subway Set,  
Car Nos. 7166, 7070, 7138, 7085

80-2377-1 Northbound Express Proto-Sound 3.0 \$379.95

80-2377-0 Northbound Express DCC-Ready \$279.95



# Rolling Stock



M.T.H. Electric Trains has a long history of developing expansive offerings throughout our product line categories, and HO rolling stock — both freight and passenger — is certainly no exception.

Our selection of premium freight and passenger cars is certain to appeal to the most serious HO modeler. As expected, our HO premium cars are true 1/87 scale models of North American freight cars. Abundantly detailed with separate grab irons, steps, hatches and brake wheels, these models will hold up to even the most discriminating eye. Outfitted with smooth rolling trucks and Kadee couplers, they are a favorite of operators who enjoy long consists of colorful liveries, each available in multiple car numbers.

Sporting crisp graphics in prototypical and colorful liveries, M.T.H. HO premium rolling stock is offered in multiple car numbers so that modelers can recreate real-life consists. Many of the same paint schemes are also offered in six car sets in up to 12 car numbers making it easy and affordable to build really long trains.

Passenger car fans have long known that it is hard to match the excitement and beauty of a long, sleek passenger train speeding down the rails. M.T.H.'s HO scale streamlined passenger cars and sets bring exactly the right look to your model railroad with features and pricing unmatched in the HO marketplace.

No other manufacturer matches the quality and value found inside and outside an M.T.H. HO passenger car. Using an intricately detailed, yet durable ABS body atop smooth rolling trucks results in a lightweight car that won't bog down a locomotive struggling to pull heavy passenger cars. What's more, each HO passenger car features a detailed car interior, flashing end lights (on observation cars), flexible end-of-car diaphragms, Kadee couplers and overhead, constant voltage flicker-free LED lighting for a realistic and authentic appearance.





Ready 2 Rail™ rolling stock from M.T.H. Electric Trains provides the superior quality and detailing you've come to expect from M.T.H. HO rolling stock, coupled with a competitive price point for the entry-level HO hobbyist. These cars offer the same construction and body detailing as their more expensive M.T.H. HO counterparts but are designed for the budget-minded model railroader. It's the perfect way to expand a Ready-To-Run set or to introduce someone new to the hobby.

And what would model railroading be without a little fun? Our HO operating action and aquarium cars take their inspiration from popular O gauge cars issued in the 1950s. There were in fact a number of prototype cars built to carry live fish, perhaps the most famous being the *Nautilus* owned by Chicago's John G. Shedd Aquarium — but of course none had glass sides! M.T.H HO Operating Action cars feature LED powered backlit scenes that move as the car rolls by. The aquatic-themed cars feature wavy glass to simulate water, while the action cars utilize clear glass for an unobstructed view of the moving scene.

Each unique car features a backlit moving animation strip visible through each of the car's four large viewing windows. Utilizing a quiet and efficient motorized player and bright LED lighting, the animated action really shines bright and is often the star attraction on an HO layout.

Whether you're a freight or passenger fan, or both, M.T.H. Electric Trains has the HO rolling stock for your model railroad.





# R40-2 Woodside Reefer



Brookside Fresh Milk - R40-2 Woodside Reefer  
 80-94054 No. 1834 \$34.99  
 80-94055 No. 1836 \$34.99



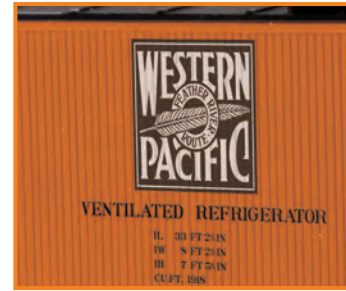
Hummel Brothers - R40-2 Woodside Reefer  
 80-94060 No. 65151 \$34.99  
 80-94061 No. 65152 \$34.99



Columbia Soups - R40-2 Woodside Reefer  
 80-94056 No. 7502 \$34.99  
 80-94057 No. 7501 \$34.99

## Features Include:

- Intricately Detailed Durable ABS Body
- (2) #158 Scale Kadee Whisker Couplers
- RP-25 Metal Wheels Mounted on Metal Axles
- Detailed Undercarriage
- Detailed Brake Wheel
- Detailed 4-Wheel Trucks
- Separate Metal Grab Irons
- Measures: 6 1/4" x 1 1/2" x 2 1/8"
- Operates On 18" Radius Curves
- 1:87 Scale Dimensions



Opposite Side Logo

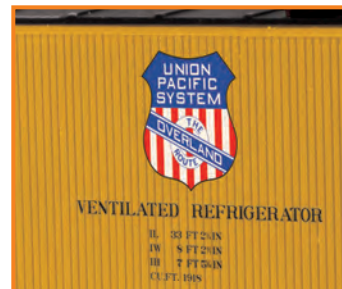
Pacific Fruit Express - R40-2 Woodside Reefer  
 80-94058 No. 38552 \$34.99  
 80-94059 No. 38540 \$34.99



Ralston Purina - R40-2 Woodside Reefer  
 80-94064 No. 5590 \$34.99  
 80-94065 No. 5592 \$34.99



Monarch - R40-2 Woodside Reefer  
 80-94062 No. 14292 \$34.99  
 80-94063 No. 14294 \$34.99



Opposite Side Logo



Pacific Fruit Express - R40-2 Woodside Reefer  
 80-94066 No. 37565 \$34.99  
 80-94067 No. 37569 \$34.99



# USRA 55-Ton Steel Twin Hopper



Chesapeake & Ohio - USRA 55-Ton Steel Twin Hopper

80-97086	No. 300520	\$34.95
80-97087	No. 300522	\$34.95
80-97088	No. 300526	\$34.95



Pennsylvania - USRA 55-Ton Steel Twin Hopper

80-97098	No. 220220	\$34.95
80-97099	No. 220236	\$34.95
80-97100	No. 220242	\$34.95

Pennsylvania - 6-Car USRA 55-Ton Steel Twin Hopper Set

80-90107	No. 220225, 220229, 220227, 220222, 220234, 220238	\$199.95
80-90108	No. 220223, 220228, 220224, 220230, 220235, 220237	\$199.95

**All Cars Feature  
(2) #158 Die-Cast Scale  
Kadee® Whisker Couplers**



Chesapeake & Ohio - 6-Car USRA 55-Ton Steel Twin Hopper Set

80-90099	No. 300521, 300524, 300528, 300533, 300535, 300538	\$199.95
80-90100	No. 300525, 300527, 300529, 300532, 300530, 300534	\$199.95

## Features Include:

- Intricately Detailed Durable ABS Body
- RP-25 Metal Wheels Mounted on Metal Axles
- Detailed Brake Wheel
- Separate Metal Grab Irons
- 1:87 Scale Dimensions
- (2) #158 Scale Kadee Whisker Couplers
- Detailed Undercarriage
- Detailed 4-Wheel Trucks
- Unit Measures: 4 3/4" x 1 3/8" x 1 1/2"
- Operates On 18" Radius Curves



Keystone - USRA 55-Ton Steel Twin Hopper

80-97089	No. 1588	\$34.95
80-97090	No. 1501	\$34.95
80-97091	No. 1520	\$34.95

Keystone - 6-Car USRA 55-Ton Steel Twin Hopper Set

80-90101	No. 1550, 1542, 1533, 1528, 1515, 1504	\$199.95
80-90102	No. 1558, 1545, 1536, 1524, 1519, 1503	\$199.95



Norfolk & Western - USRA 55-Ton Steel Twin Hopper

80-97095	No. 87280	\$34.95
80-97096	No. 87285	\$34.95
80-97097	No. 87289	\$34.95

Norfolk & Western - 6-Car USRA 55-Ton Steel Twin Hopper Set

80-90105	No. 87288, 87273, 87275, 87267, 87269, 87262	\$199.95
80-90106	No. 87282, 87272, 87270, 87263, 87265, 87268	\$199.95



Southern Pacific - USRA 55-Ton Steel Twin Hopper

80-97092	No. 91331	\$34.95
80-97093	No. 91342	\$34.95
80-97094	No. 91350	\$34.95

Southern Pacific - 6-Car USRA 55-Ton Steel Twin Hopper Set

80-90103	No. 91332, 91336, 91348, 91343, 91355, 91357	\$199.95
80-90104	No. 91333, 91338, 91349, 91345, 91352, 91354	\$199.95



# USRA 55-Ton Steel Twin Hopper



Virginian - USRA 55-Ton Steel Twin Hopper

80-97068	No. 23633	\$34.95
80-97069	No. 23644	\$34.95



Western Maryland - USRA 55-Ton Steel Twin Hopper Car

80-97050	No. 15530	\$34.95
80-97051	No. 15542	\$34.95

## Features Include:

- Intricately Detailed Durable ABS Body
- RP-25 Metal Wheels Mounted on Metal Axles
- Detailed Brake Wheel
- Separate Metal Grab Irons
- 1:87 Scale Dimensions
- (2) #158 Scale Kadee Whisker Couplers
- Detailed Undercarriage
- Detailed 4-Wheel Trucks
- Unit Measures: 4 3/4" x 1 3/8" x 1 1/2"
- Operates On 18" Radius Curves



Pittsburgh & Lake Erie - USRA 55-Ton Steel Twin Hopper  
 80-97053 No. 37848 \$34.95  
 80-97054 No. 37852 \$34.95



Chesapeake & Ohio - USRA 55-Ton Steel Twin Hopper Car  
 80-97047 No. 300511 \$34.95  
 80-97048 No. 300500 \$34.95



Baltimore & Ohio - USRA 55-Ton Steel Twin Hopper Car  
 80-97062 No. 324122 \$34.95  
 80-97063 No. 324135 \$34.95



Canadian National - USRA 55-Ton Steel Twin Hopper Car  
 80-97064 No. 116508 \$34.95  
 80-97065 No. 116522 \$34.95  
 80-97066 No. 116539 \$34.95



# 40' PS-1 Box Car



Norfolk Southern (Veterans) - 40' PS-1 Box Car  
85-74151 No. 490011 \$24.95



Norfolk Southern (First Responders) - 40' PS-1 Box Car  
85-74152 No. 490411 \$24.95



Delaware & Hudson - 40' PS-1 Box Car  
85-74153 No. 50074 \$24.95  
85-74154 No. 50000 \$24.95  
85-74155 No. 50045 \$24.95



Pullman Standard - PS-1 - 40' PS-1 Box Car  
85-74138 No. PSX-1 \$24.95

Pullman had been making freight cars for more than half a century when it hit a home run with the PS-1 box car. Introduced in 1947, its welded construction set the standard for post-WWII American freight cars. In 1953, Pullman celebrated its 50,000<sup>th</sup> car order with the demo car pictured above, boasting that PS-1's were at work for 56 U.S. railroads and four branches of the armed forces.

Turn to page 95 for our model of the initial 1947 PS-1 demonstrator, offered for the first time in any scale and available exclusively to members of the M.T.H. Railroaders Club. Look for an article on these cars in a future issue of our Club magazine, *The CrossingGate*.





Southern Pacific - 40' PS-1 Box Car

85-74139	No. 97650	\$24.95
85-74140	No. 97663	\$24.95
85-74141	No. 97684	\$24.95



Chesapeake & Ohio - 40' PS-1 Box Car

85-74145	No. 4229	\$24.95
85-74146	No. 4246	\$24.95
85-74147	No. 4254	\$24.95

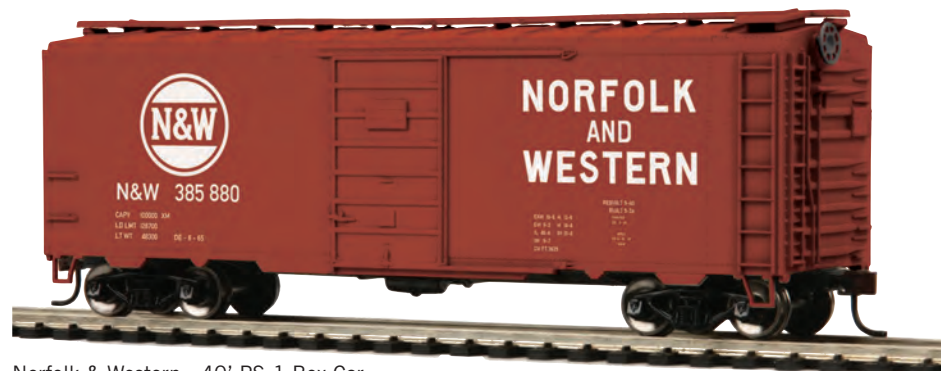
### Features Include:

- Intricately Detailed Durable ABS Body
- RP-25 Metal Wheels Mounted on Metal Axles
- Detailed Brake Wheel
- 1:87 Scale Dimensions
- (2) #158 Scale Kadee Whisker Couplers
- Detailed Undercarriage
- Detailed 4-Wheel Trucks
- Sliding Car Doors
- Unit Measures: 6 1/4" x 1 1/2" x 2 1/8"
- Operates On 18" Radius Curves



Pennsylvania - 40' PS-1 Box Car

85-74142	No. 105020	\$24.95
85-74143	No. 105023	\$24.95
85-74144	No. 105028	\$24.95



Norfolk & Western - 40' PS-1 Box Car

85-74148	No. 385880	\$24.95
85-74149	No. 385888	\$24.95
85-74150	No. 385895	\$24.95



# 70-Ton Center Discharge Ore Car



Union Pacific - 70-Ton Center Discharge Ore Car

80-97043	No. 27045	\$34.95
80-97044	No. 27052	\$34.95
80-97045	No. 27068	\$34.95



Bessemer & Lake Erie - 70-Ton Center Discharge Ore Car

80-97028	No. 20069	\$34.95
80-97029	No. 20090	\$34.95
80-97030	No. 20093	\$34.95



Milwaukee Road - 70-Ton Center Discharge Ore Car

80-97037	No. 75565	\$34.95
80-97038	No. 75568	\$34.95
80-97039	No. 75570	\$34.95



Great Northern - 70-Ton Center Discharge Ore Car

80-97034	No. 89401	\$34.95
80-97035	No. 89405	\$34.95
80-97036	No. 89420	\$34.95



Canadian Pacific - 70-Ton Center Discharge Ore Car

80-97031	No. 377120	\$34.95
80-97032	No. 377135	\$34.95
80-97033	No. 377142	\$34.95



Long Island - 70-Ton Center Discharge High Extension Ore Car

80-97026	No. 4062	\$34.95
80-97027	No. 4044	\$34.95



Soo Line - 70-Ton Center Discharge Ore Car

80-97040	No. 81950	\$34.95
80-97041	No. 81956	\$34.95
80-97042	No. 81968	\$34.95



Burlington Northern - 70-Ton Center Discharge High Extension Ore Car

80-97022	No. 95590	\$34.95
80-97023	No. 95595	\$34.95
80-97024	No. 95583	\$34.95

## Features Include:

- Intricately Detailed Durable ABS Body
- RP-25 Metal Wheels Mounted on Metal Axles
- Detailed Brake Wheel
- 1:87 Scale Dimensions
- (2) #158 Scale Kadee Whisker Couplers
- Separate Metal Grab Irons
- Detailed Undercarriage
- Detailed 4-Wheel Trucks
- Unit Measures: 6 1/4" x 1 1/2" x 2 1/8"
- Operates On 18" Radius Curves



# 60' Wood Deck Flat Car



CSX - 60' Wood Deck Flat Car  
 80-98037      No. 603540      \$29.95  
 80-98038      No. 603547      \$29.95



CSX - 60' Wood Deck Flat Car with Pipe Load (Green Pipes)  
 80-98043      No. 603544      \$34.95  
 80-98044      No. 603542      \$34.95



CSX - 60' Wood Deck Flat Car with Pipe Load (Maroon Pipes)  
 80-98049      No. 603550      \$34.95  
 80-98050      No. 603556      \$34.95

## Features Include:

- Intricately Detailed, Durable ABS Body
- RP-25 Metal Wheels Mounted on Metal Axles
- Detailed Brake Wheel
- Separate Metal Grab Irons
- 1:87 Scale Dimensions
- Simulated Wood Decking
- (2) #158 Scale Kadee Whisker Couplers
- Detailed Undercarriage
- Detailed 4-Wheel Roller Bearing Trucks with Rotating Axle End Caps
- Unit Measures: 8 7/8" x 1 1/2" x 3/4"
- Operates On 18" Radius Curves



TTX - 60' Wood Deck Flat Car  
 80-98039 No. HTTX 90279 \$29.95  
 80-98040 No. HTTX 90450 \$29.95



TTX - 60' Wood Deck Flat Car with Pipe Load (Green Pipes)  
 80-98045 No. HTTX 90371 \$34.95  
 80-98046 No. HTTX 90278 \$34.95



TTX - 60' Wood Deck Flat Car with Pipe Load (Maroon Pipes)  
 80-98047 No. HTTX 90280 \$34.95  
 80-98048 No. HTTX 90282 \$34.95



Norfolk Southern - 60' Wood Deck Flat Car  
 80-98035 No. 101571 \$29.95  
 80-98036 No. 101502 \$29.95



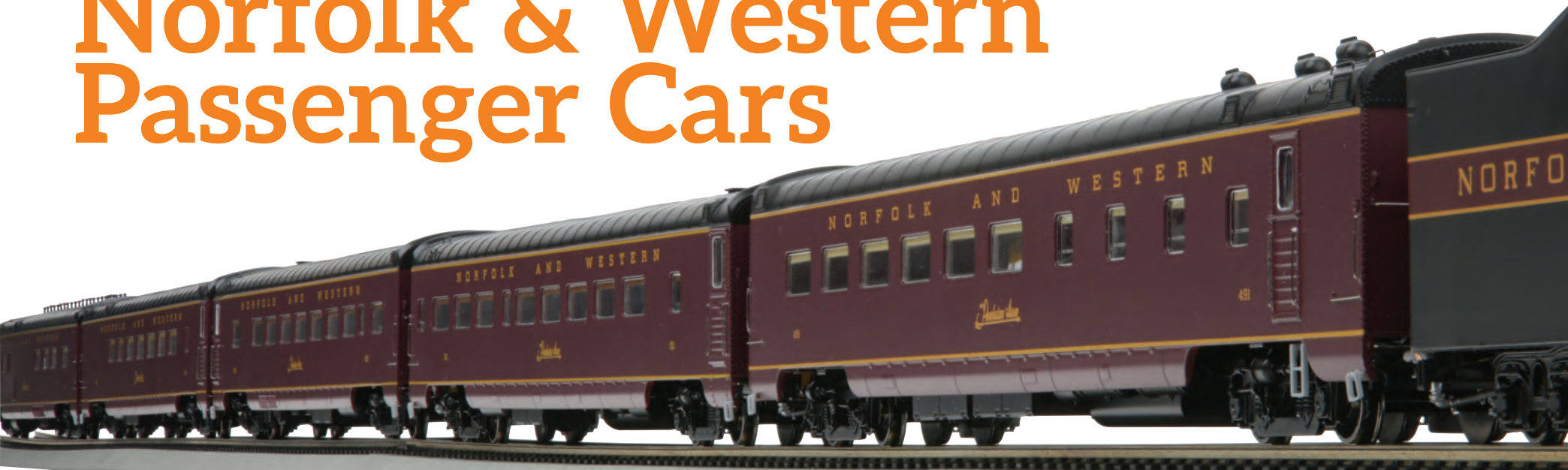
Norfolk Southern - 60' Wood Deck Flat Car with Pipe Load (Green Pipes)  
 80-98041 No. 101104 \$34.95  
 80-98042 No. 101157 \$34.95



Norfolk Southern - 60' Wood Deck Flat Car with Pipe Load (Maroon Pipes)  
 80-98051 No. 101170 \$34.95  
 80-98052 No. 101155 \$34.95



# Norfolk & Western Passenger Cars



## Features Include:

- Intricately Detailed, Durable ABS Body
- Metal Wheels and Axles
- Constant Voltage Overhead LED Interior Lighting
- Detailed 4-Wheel Trucks
- Authentic Paint Scheme
- Separate Metal Handrails
- Detailed Car Interiors
- Kadee Couplers
- Detailed Car Undercarriage
- Each Car Measures: 11 3/4" x 1 3/8" x 2"
- Operates On 22" Radius Curves

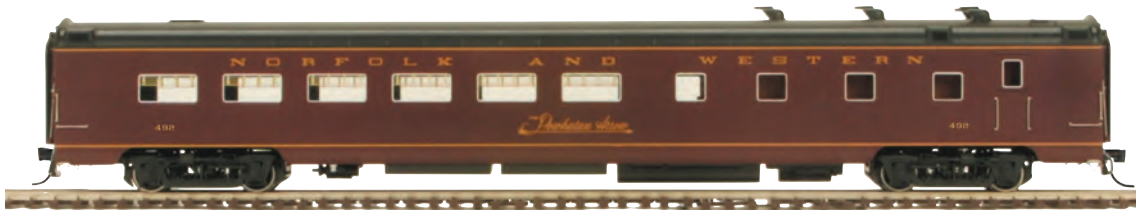
All Cars Feature (2) #158 Die-Cast Scale Kadee® Whisker Couplers



Norfolk & Western - 5-Car Passenger Set (Includes 2 Coaches, No.'s 534 and 535, Divided Coach No. 511, Diner No. 494, Observation No. 582)  
80-60058 \$469.95



Norfolk Southern - 5-Car Passenger Set (Includes 3 Coaches, No.'s NS 28 Powhatan Arrow, NS 46 New Jersey and NS 47 Louisiana, Diner No. NS 18 New Orleans, Observation No. NS 7 Pennsylvania)  
80-60062 \$469.95



Norfolk & Western - Diner, Car No. 493  
80-60061 \$94.95



**All HO Passenger Cars Feature Constant Voltage Overhead LED Lighting**



Norfolk & Western - Coach, Car No. 536  
80-60059 \$94.95



Norfolk & Western - Coach, Car No. 537  
80-60060 \$94.95



Norfolk Southern - Coach, No. NS 29 Powhatan Arrow (Not Shown)  
80-60063 \$94.95

Norfolk Southern - Diner, No. NS 19 Kentucky (Not Shown)  
80-60064 \$94.95



# Streamlined Passenger Cars



Missouri Pacific - 5-Car Passenger Set (Smooth-Sided)  
80-60052 \$469.95



Missouri Pacific - 2-Car Parlor Passenger Set (Smooth-Sided)  
80-60053 \$189.95



Lehigh Valley - 2-Car Parlor Passenger Set (Smooth-Sided)  
80-60047 \$189.95



Lehigh Valley - 5-Car Passenger Set (Smooth-Sided)  
80-60046 \$469.95



Union Pacific - 5-Car Passenger Set (Smooth-Sided)  
80-60054 \$469.95



Union Pacific - 2-Car Parlor Passenger Set (Smooth-Sided)  
80-60055 \$189.95



Pennsylvania - 2-Car Parlor Passenger Set (Smooth-Sided)  
80-60049 \$189.95



Pennsylvania - 5-Car Passenger Set (Smooth-Sided)  
80-60048 \$469.95





Southern Pacific - 5-Car De-skirted Passenger Set (Includes Baggage-Coach, Parlor Car, Tavern Car, Chair Car and Observation)  
80-60035 \$469.95



Southern Pacific - Chair/Chair De-skirted Passenger Set  
80-60043 \$189.95



Southern Pacific - Chair Car  
80-60005 \$95.95  
80-60037 \$95.95



Southern Pacific Lines - 3-Car Diner/Kitchen/Coffee Passenger Set  
80-60042 \$279.95

**All Cars Feature (2) #158 Die-Cast Scale  
Kadee® Whisker Couplers**

### Features Include:

- Intricately Detailed, Durable ABS Body
- RP-25 Metal Wheels Mounted on Metal Axles
- Detailed Car Interior
- Overhead Interior LED Lighting
- Detailed 4-Wheel Trucks
- Authentic Paint Scheme
- Operating End-of-Car Diaphragms
- Separate Metal Handrails
- (2) #158 Scale Kadee Whisker Couplers
- Detailed Car Undercarriage
- 5-Car Sets (Except SP) Feature:
  - (1) Combine, (1) Coach, (1) Tavern Car,
  - (1) Parlor Car, (1) Observation Car
- Each Car Measures:
  - 11 1/2" x 1 7/16" x 1 7/8"
- Operates On 22" Radius Curves



Southern Pacific Lines - Articulated Chair/Chair Passenger Car Set  
80-60010 Car No. 2458, 2457 \$189.95  
80-60011 Car No. 2460, 2459 \$189.95



Southern Pacific Lines - Articulated Chair/Chair Passenger Car Set w/Antenna  
80-60009 Car No. 2474, 2473 \$189.95  
80-60008 Car No. 2462, 2461 \$189.95



Southern Pacific Lines - 5-Car Passenger Set (Includes Baggage-Coach, Parlor Car, Tavern Car, Chair Car and Observation)  
80-60041 \$469.95



# Heavyweight Passenger Cars



Pennsylvania - 5-Car Heavyweight Passenger Set  
80-40001 \$469.95

All Cars Feature (2) #158 Die-Cast Scale  
Kadee® Whisker Couplers



Pennsylvania - 2-Car Heavyweight Baggage/Sleeper Passenger Set  
80-40002 \$189.95



Pennsylvania - 2-Car Heavyweight Sleeper/Sleeper Passenger Set  
80-40003 \$189.95



Union Pacific - 5-Car Heavyweight Passenger Set  
80-40004 \$469.95

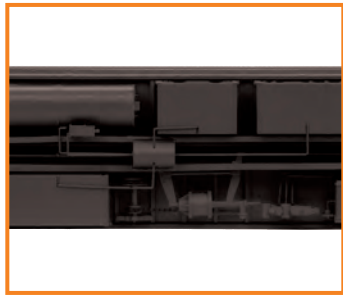


Union Pacific - 2-Car Heavyweight Sleeper/Sleeper Passenger Set  
80-40006 \$189.95



Union Pacific - 2-Car Heavyweight Baggage/Sleeper Passenger Set  
80-40005 \$189.95





## All HO Passenger Cars Feature Constant Voltage Overhead LED Lighting



Pullman - 2-Car Heavyweight Baggage/Sleeper Passenger Set  
80-40008 \$189.95



Pullman - 2-Car Heavyweight Sleeper/Sleeper Passenger Set  
80-40009 \$189.95



Milwaukee Road - 2-Car Heavyweight Baggage/Sleeper Passenger Set  
80-40011 \$189.95



Milwaukee Road - 2-Car Heavyweight Sleeper/Sleeper Passenger Set  
80-40012 \$189.95

### Features Include:

- Intricately Detailed, Durable ABS Body
- RP-25 Metal Wheels Mounted on Metal Axles
- Detailed Car Interior
- Constant Voltage Overhead LED Interior Lighting
- Detailed 6-Wheel Trucks
- Authentic Paint Scheme
- Separate Metal Handrails
- (2) #158 Scale Kadee Whisker Couplers
- Detailed Car Undercarriage
- 5-Car Sets Feature: (1) Baggage Car, (3) Sleeper Cars, (1) Observation Car
- 2-Car Sets Features: (1) Baggage Car, (1) Sleeper Car or (2) Sleepers
- Each Car Measures: 11 3/4" x 1 3/8" x 2"
- Operates On 22" Radius Curves



Milwaukee Road - 5-Car Heavyweight Passenger Set  
80-40010 \$469.95



# No Matter How You Run It

Your new Proto-Sound® 3.0 locomotive has more features than any engine you've ever owned

## Analog DC

With just an ordinary DC transformer, you get operating features unmatched by any other HO locomotives:

- Synchronized puffing smoke and chuffing sounds: billowing smoke correctly synchronized with the drivers at four puffs per revolution; at rest, smoke wafts out of the stack steadily, just like the prototype. As with smoke, chuffs are correctly timed, in sync with smoke puffs at four per driver revolution
- Squealing brakes: slow down quickly and hear the squeal of a brake application
- Idle sounds: at track voltages between about 6-8 volts, your engine idles and plays random maintenance sounds — like the whoosh of steam cocks being opened
- Prototypical Rule 17 lighting: the headlight dims automatically when the engine comes to a stop, and the tender light illuminates for backup moves
- Speed control: set any speed and your engine maintains it, regardless of load, hills, or curves
- Automatically smooth reversing: flip your transformer's reversing switch at any speed and watch your engine gradually come to a stop, turn on the appropriate directional lighting, and smoothly accelerate up to speed in the opposite direction

Z-DC300 30 Watt  
DC Transformer  
40-300 \$79.95



## DCC

If you operate with Digital Command Control (DCC), you'll find Proto-Sound 3.0 locomotives take full advantage of the capabilities of DCC and are completely compatible with all DCC motive power. In fact, Proto-Sound engines are already equipped to use DCC functions 0 through 28, to take full advantage of newer DCC controllers that use the full range of NMRA standard functions.

With today's standard DCC controllers, your Proto-Sound 3.0 engine has all the features available with analog DC and these additional functions activated by your controller:

- Full command control
- Bell: listen for the realistic last half ring when you release the bell button
- Whistle/Horn: depending on how long you blow the whistle or horn, you'll hear one of several different end signatures
- PFA (Passenger and Freight Announcements): passenger engines offer a complete passenger station arrival and departure sequence that you can activate on command; freight engines allow you to play a symphony of freight terminal sounds
- Startup and shut down sounds
- Volume control
- Sound mute
- Smoke on/off
- Lighting on/off
- Plus 19 others



(see page 3 for the complete list)

## DCS Commander

Insert a DCS Commander in the wires from your existing DCC system to the track and you can switch back and forth between DCC and DCS with the push of a button. Or use the Commander alone with your own DC power supply.

The DCS Commander offers intuitive control of multiple Proto-Sound engines; for each locomotive, more than 32 functions are available at the touch of a single, clearly-labeled button, including:

- Speed adjustment in one-scale-mile-per-hour steps
- Independent feature control: tune your engines' sound, lights, smoke and acceleration/deceleration settings
- Smoke on/off
- Doppler sounds: simulate the classic sound effect of a train approaching and then whizzing past
- Accent sounds: activate any one of 7 individual sounds, including forward and reverse signal sounds and more
- Activate Passenger Station and Freight Yard Sounds
- Individual locomotive control: control up to 10 Proto-Sound 3.0 engines at the same time, on the same track
- Selectable control configurations: choose between analog DC, DCC\* and DCS modes

\* Customer-supplied DCC system required



In DCS mode, the large LCD screen identifies your locomotive's number and provides readouts for scale speed and active features.

In conventional mode, the LCD provides track voltage and amperage level readouts, making the Commander a full-featured DC controller.



DCS Commander Controller  
50-1028 \$179.95

DCS Commander Controller  
w/ 100 watt power supply  
50-1029 \$259.95



DCS Remote Commander Set  
50-1033 \$59.95

# DCS Remote Control System

Choose to run your entire layout from a wireless handheld — or several or even your smart phone or tablet. There are three different DCS Remote Control configurations to choose from, any of which will unlock a wide range of exclusive and fun Proto-Sound 3.0 functions found in your M.T.H. HO locomotives. With a DCS Remote Control System, you can operate up to 99 Proto-Sound

## DCS

Run your entire layout from one wireless handheld — or several. With a DCS Remote Control System, you can operate up to 99 Proto-Sound 3.0 engines in DCS command mode\*\* at the same time, with full access to all locomotive functions. Add an optional Accessory Interface Unit (AIU) and the same handheld controls hundreds of switches or accessories. For group operating sessions, equip each guest with their own full-featured handheld.

\* requires separate DC power supply

\*\* DCS cannot operate DCC features. Locomotives must be equipped with Proto-Sound 3.0 or 3E+ in order to operate in command mode using DCS.



DCS Remote Control System  
50-1001 \$349.95  
(requires separate power supply)

DCS Accessory Interface Unit (AIU)  
50-1004 \$119.95

3.0 engines in command mode at the same time on the same track. Build lashups, access Proto-Sound Proto Effects and customize locomotive settings with just a touch of a button or a swipe of a touch screen. Add an optional Accessory Interface Unit (AIU) and the same handheld or smart device can control hundreds of switches or accessories. For group operating ses-

## DCS Wi-Fi

Use your smart phone or tablet to control your model railroad. Just connect the DCS WIU to the DCS TIU, download the free app and you're running your layout with modern day wireless control. Take advantage of your smart device's full color, touch screen and see how easy it is to run trains using a device you operate every day. Connect as many smart devices as you want. Operate in stand-alone wifi or home network modes.

\* requires separate DC power supply



DCS Track Interface Unit (TIU)  
50-1003 \$199.95

DCS Wi-Fi Interface Unit (WIU)  
50-1034 \$179.95

sions, equip each guest with their own full-featured handheld or let them attach to your layout's wifi interface unit.

\*\*Unlike the DCS Commander, the DCS Remote Control System is not compatible with DCC systems.

## DCS Wi-Fi Explorer

Use your smart phone or tablet to control your model railroad. Just connect the DCS Explorer to your track, plug in a separately sold DC power supply, download the free app and you're running your layout with a limited set of DCS functions and features found in the more expensive DCS Remote Control System and the DCS WiFi Interface Unit. Connect as many smart devices as you want. Operate in stand-alone wifi or home network modes.

\* requires separate DC power supply



DCS Explorer  
Track Interface Unit  
50-1035 \$129.95

**FREE DCS APP**  
Download the free DCS app for your smart phone or tablet

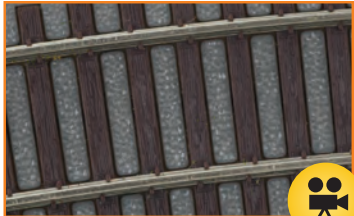
Get it on iTunes

GET IT ON Google play



# Track & Accessories

**REALTRAX**  
BY M.T.H. ELECTRIC TRAINS



At M.T.H. Electric Trains, we believe a track system should allow your model railroad empire to grow. The RealTrax system includes 18" and 22" curves as well as 9" straight lengths that make a perfect solution for your first model railroad empire. And every piece of RealTrax is rugged, realistic, and reliable so you can have fun running your trains.



Compatible with Atlas® HO Track using 81-1011 Adapters



Z-DC300 30 Watt DC Transformer  
40-300 \$79.95

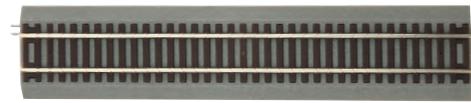
**30 Watts**



HO RealTrax 22" Radius Curve Code 83 Track w/Roadbed - 4 Pack  
81-1022 \$7.29



HO RealTrax 9" Straight Code 83 Track Rerailer with Terminal Joiner Wire Harness  
81-1015 \$7.99



HO RealTrax 9" Straight Code 83 Track w/Roadbed - 4 Pack  
81-1001 \$7.29



HO RealTrax 18" Radius Curve Code 83 Track w/Roadbed - 4 Pack  
81-1018 \$7.29



HO RealTrax Track Adapter Pack (24 Ct)  
81-1011 \$7.99



HO RealTrax Track Terminal Pack (2 Ct)  
81-1003 \$3.99



HO RealTrax Track Railjoiner Pack (48 Ct)  
81-1014 \$2.99

**SCALETRAX**  
BY M.T.H. ELECTRIC TRAINS



HO ScaleTrax 36" Code 83 Flex Track  
80-1036 \$6.49

HO ScaleTrax 9" Straight Code 83 Track Rerailer (3 Pack) (Not Shown)  
80-1003 \$8.50



HO ScaleTrax 22" Code 83 Radius Curve Track  
80-1022 \$1.40  
HO ScaleTrax 22" Radius Code 83 Curve Track (6 Pack)  
80-1023 \$8.50

HO ScaleTrax 18" Radius Curve Code 83 Track  
80-1018 \$1.40

HO ScaleTrax 18" Radius Curve Code 83 Track (6 Pack)  
80-1019 \$8.50



HO ScaleTrax 9" Straight Code 83 Track  
80-1001 \$1.40  
HO ScaleTrax 9" Straight Code 83 Track (6 Pack)  
80-1002 \$8.50

**Compatible With All Code 83  
HO Non-Roadbed Track**

# Operating Crossing Signal



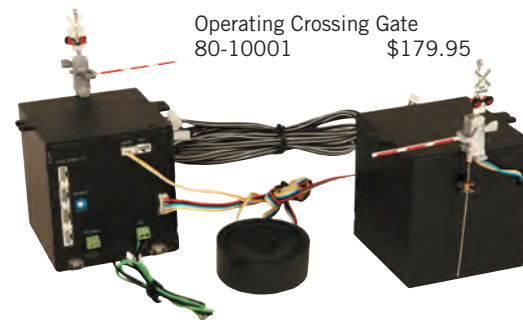
For the first time, operating crossing signals come to the HO marketplace in an easy-to-install package that can be up and running in short order! Each die-cast crossing signal features flashing LED warning lights and the set includes warning bell sounds.

Each crossing signal is fully decorated and ready-to-install with just two mounting screws. The signals are controlled by a modular harness and activation lever that extend down through the base of the layout to easily installed control boxes. Like the signals themselves, each control box attaches to the underside of the platform with just two

screws and features modular plugs to accept the harness from the signal.

Activation of the signals is handled through two sensors for each track. The crossing signal set can handle up to four tracks at once. The sensors are installed in the base of each track before and after the grade crossing by drilling a small hole through the track and platform. Insert the sensors up through the underside of the platform, plug in each sensor set to the master control box and you're ready to run!

- Die-Cast Construction
- Fully Assembled
- Fully Painted
- Motorized Under-Table Control Boxes
- Controls 1 to 4 Tracks
- Multi-Direction Functionality
- Easily Installed In-Track Train Sensors
- Operating Bell with Volume Adjustment
- Flashing LED Warning Lights
- Modular Plug Connections for Easy Setup
- Installs on Benchwork Up to 1 1/2 Inches Thick
- Includes User-Installed Track Signs For 1 to 4 Tracks
- Signal Measures: 2 1/8" High

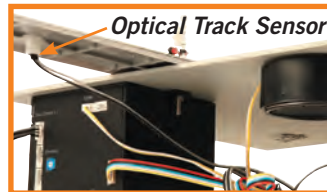


Operating Crossing Gate  
80-10001 \$179.95

- Flashing warning lights
- Smooth operating motorized gates
- Ringing warning bell
- Guards up to four tracks



Optical Track Sensor



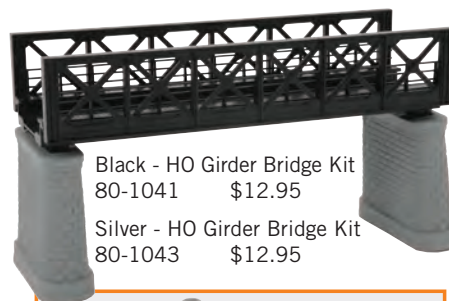
Optical Track Sensor

# Bridge Kits

These easy-to-assemble bridge kits make layout expansion easy. Molded in black or silver and mounted atop molded gray stone pillars, the ABS components can be painted in a color of your choice and are ready to install in minutes.

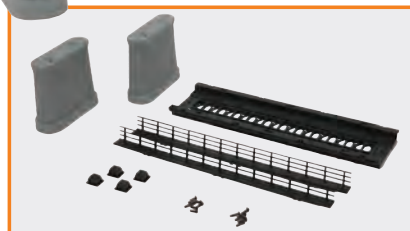
Snap-together design and screw-based mounts ensure that these kits go together easily and last a lifetime. Track can be quickly integrated via the slide channels in the roadbed. The roadbed accepts both regular tie track and roadbed-equipped track from Atlas®, Bachmann® or M.T.H.

- Intricately Detailed ABS Construction
- Easy-to-Assemble Kit
- Includes Two Molded Gray Stone Pillars, Molded Black or Silver Bridge Sides, and Molded Black or Silver Track Base
- Accepts Roadbed-Equipped Track and Regular Tie Track
- Arch and Girder Bridges Mate Easily to Model Longer Spans
- Arch Bridge Accepts Optional Flashing Red LED Beacon (powered by separately sold AC or DC power supply)
- Arch Bridge Measures: 18" x 2 5/8" x 9 1/2"
- Girder Bridge Measures: 9" x 2 5/8" x 6 3/4"



Black - HO Girder Bridge Kit  
80-1041 \$12.95

Silver - HO Girder Bridge Kit  
80-1043 \$12.95



Flashing Warning Beacon Kit  
80-1044 \$12.95

This easy to install operating beacon light will quickly bring your M.T.H. HO Arch Bridge to life. The flashing LED is powered by a small circuit board that quickly wires up to any AC or DC power source.



Black - HO Arch Bridge Kit  
80-1040 \$32.95

Silver - HO Arch Bridge Kit  
80-1042 \$32.95





# MTH Railroaders Club

Join The M.T.H. Railroaders Club



To our knowledge, this is the first model in any scale of the 1947 demonstrator for the first PS-1 box car. The prototype appears never to have been captured on color film, and this accurate paint scheme is the product of extensive research into archival Pullman literature.

85-74157 Pullman Standard  
40' PS-1 Box Car  
**HO Membership is \$30.00**

60-1000 - The Basic Club Membership does not include a club car  
**Basic Membership is \$25.00**

As a member of the M.T.H. RailRoders Club you'll receive:

## Limited-Edition Club Car



Each year we produce beautifully decorated cars exclusively for our Club members. Members automatically receive the car that matches their Club membership (HO gauge, S gauge, RailKing, Premier, Tinplate Traditions or One Gauge) and have the option to collect other Club cars as well.

## The CrossingGate™ Club Magazine

You will receive our full-color Club magazines, jam-packed with product news, ideas from other members, rail history, & step-by-step articles explaining how M.T.H. technology can bring your railroad to life.

## 1st Class Mailing of M.T.H. Catalogs

Club Members get all M.T.H. catalogs earlier than other mailing list members, via First-Class mailings, so they can order from their local train store before the best items are sold out.



## Club Card & Lapel Pin



Show the world your membership in this elite group of model railroaders with your high-quality embossed membership card & beautiful enameled lapel pin.

## Proto-Sound 3.0 Upgrade Kits

Club members can save an additional 15% on these O Gauge kits by visiting the MTHRC web page.

## Club Web Site

Visit [www.mthtrains.com](http://www.mthtrains.com) and type in your member number to gain access to the Club web site. Here you can exchange messages with other Club members, keep up with the latest news, and even build your own homepage.

## CARRY ON THE M.T.H. TRADITION WITH MEMORABILIA AND COLLECTIBLES

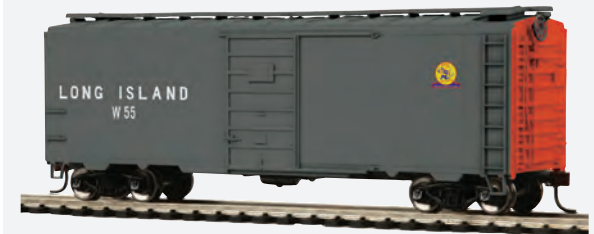
### MTH Promotional DVD

This interactive DVD is packed full of sights & sounds guaranteed to make you rethink how far the hobby of model railroading has come. You'll learn about some of the most innovative products ever produced & marvel at the sophistication of a product line unmatched by other model train manufacturers.



### Previous Year Club Cars

MTHRC members can still obtain earlier produced MTHRC cars by visiting the MTHRC pages on the web-site. Only MTHRC members can get these cars!



### A Toy Train Story

This comprehensive book is a must for collectors & other lovers of toy trains. 350 pages & 1900 color photos, hard cover. Add this book to your membership for only \$25.00 (50% off the \$49.95 cover price)!



GET THE MOST FROM MODEL RAILROADING

JOIN ONLINE! IT'S EASY — JUST GO TO [WWW.MTHTRAINS.COM](http://WWW.MTHTRAINS.COM)

# M.T.H. Online

We don't think we're exaggerating when we say M.T.H. has the most useful train manufacturer's site on the Internet. Here's just a sample of the answers you can find online.



## WHAT'S NEW?

New arrivals and other news are posted frequently on our home page.

## WHAT'S THE LATEST INFO ON ...?

Use Product Search to find the latest info on new products before they're delivered — sound sets, cab numbers, feature and paint scheme updates, and other information that arrived after the catalog was published.

## DID YOU EVER MAKE ...?

Use Product Search to search through nearly all of the 15,000 items we've made in the past 33 years, for your favorite road name, engine, or type of rolling stock.

## WHEN IS IT COMING?

Our online Shipping schedule is updated frequently to let you know what's coming soon to your hobby shop.

## ARE YOU GOING TO MAKE ...?

View the last several M.T.H. Catalogs online. Or click on Video to see M.T.H. products in action.

To get the news as it happens, sign up for our free weekly electronic newsletter, with information on new M.T.H. products, industry news, and sneak peeks at upcoming specials!

**Just go to [mthtrains.com](http://mthtrains.com) and click on Newsletter Signup.**

## HOW CAN I FIX...?

The Service area of our site allows you to email a question to our factory technicians or find which of our 150+ local service centers is closest to you.

## WHAT REPAIR PART DO I NEED?

Use Product Search to find exploded diagrams and parts lists for M.T.H. locomotives and accessories, and then order the parts online or by phone.



## DOES ANY DEALER STILL HAVE ...?

Locate hard-to-find items with our Product Locator, which searches the inventories of M.T.H. dealers across the country.

## HOW DOES IT WORK?

Misplaced an instruction manual or just want to know how a product works? Use Product Search to look up the item and view its instruction manual.



## HOW CAN I LEARN MORE ABOUT DCS?

Follow the link to the protosound2.com Web site for DCS and Proto-Sound information — and a list of Authorized DCS Demo Centers where you can try DCS hands-on.

## HOW CAN I UPDATE MY DCS SYSTEM OR CHANGE A SOUND SET?

Only M.T.H. allows you to update your control system or change an engine's sound set right over the Internet. Follow the link to the protosound2.com Web site for DCS and Proto-Sound 2.0 downloads.

[www.mthHOTrains.com](http://www.mthHOTrains.com)





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