

EMT
ELECTRIC TRAINS®
HO TRAINS THAT DO MORE



2008 No. 2

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 found in every locomotive in this catalog offers more realism, more fun, and more variety than any other locomotive control system in any scale.

VIVID ENGINE SOUNDS

Proto-Sound features digital recordings with CD-quality playback. We strive to make our sounds as authentic as possible, using the characteristic whistle for a particular steam engine, for example. With the optional DCS system, you can tune each engine to your preference by individually adjusting bell, horn or whistle, and chuff.

STATION SOUNDS

Proto-Sound passenger engines offer Passenger Station Proto-Effects™, a complete arrival and departure sequence that you can activate from your DCC or DCS controller. In most cases, the station sequence features an actual name train pulled by that particular engine. Freight engines include Freight Yard Proto-Effects, a symphony of freight terminal sounds.

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 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.

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.

MULTIPLE UNIT CAPABILITY

In DCS command mode, all locomotives set to the same speed — 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.

LIGHTING EFFECTS

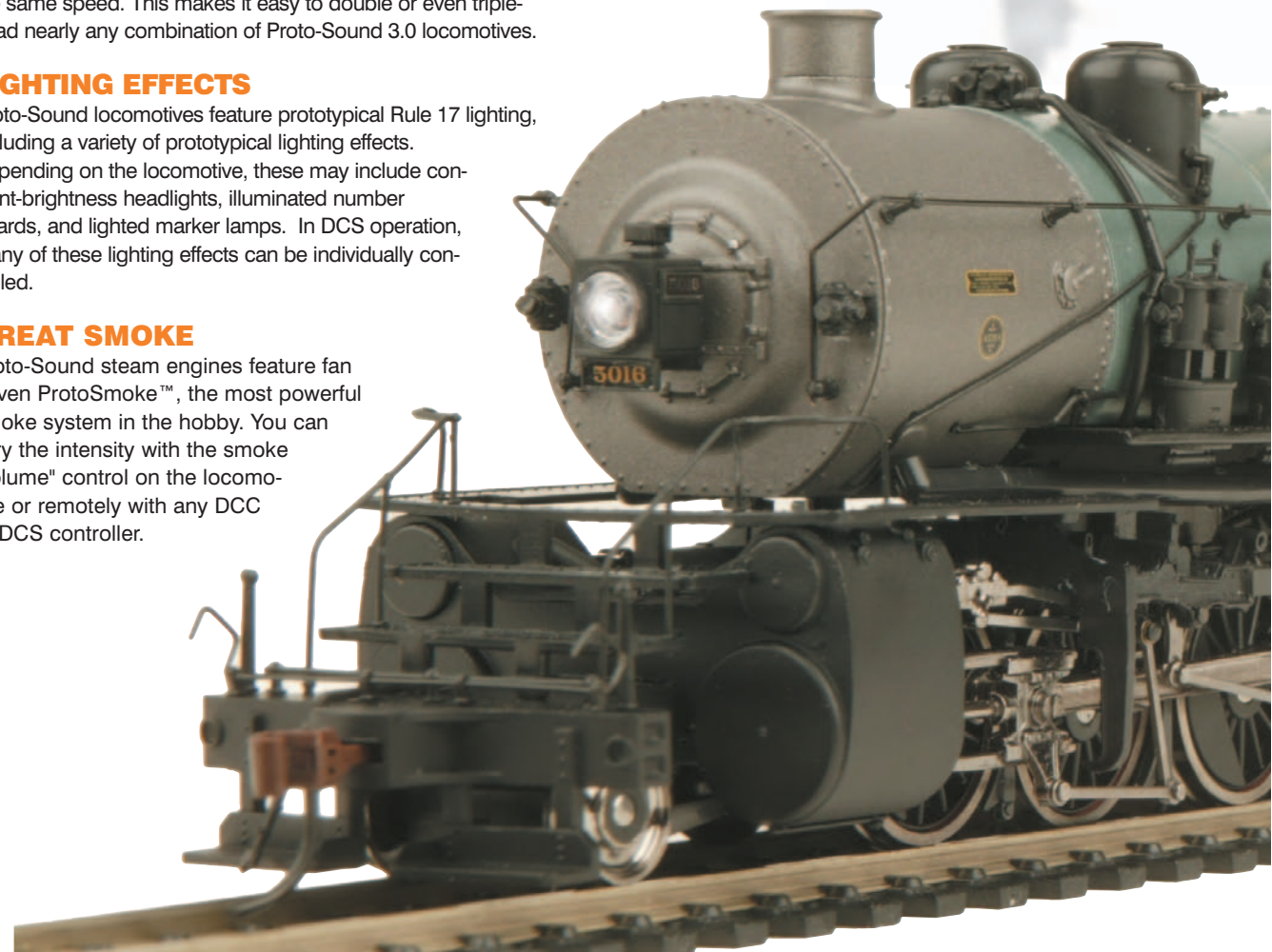
Proto-Sound locomotives feature prototypical Rule 17 lighting, including a variety of prototypical lighting effects. Depending on the locomotive, these may include constant-brightness headlights, illuminated number boards, and lighted marker lamps. In DCS operation, many of these lighting effects can be individually controlled.

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.

OPERATE 'EM ALL

In DCS command mode, unlike any other command system available today, you'll have 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! 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. Blow all their whistles at once, turn on or off their smoke, stop and reverse every active engine all at the same time.

UPDATED ENGINE FEATURES

Using a DCS system, any Proto-Sound 3.0 engine can be updated with new sounds or features without ever taking the engine apart or even off the track. Simple downloads of new Proto-Sound sound sets from the M.T.H. website mean your engine will never be obsolete. It can change from a passenger train to a freight train or get a new sound set in just minutes.

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 model railroad layout's wiring and signal quality. Imagine querying 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. How about checking out the strength of the DCS signal on the track or measuring the track voltage at a trouble spot? What about learning how long your track is 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.



Who is M.T.H.?

While our name may be new to HO model railroaders, M.T.H. Electric Trains is a seasoned model train manufacturer with a long history of innovation. In little more than a quarter century, M.T.H. has grown from a tiny business operated out of a spare bedroom to an 80+ employee company headquartered in its own sprawling building in a suburb of Washington, D.C.

Over the past 27 years, we have cataloged over 14,000 different items in four scales: O gauge, One Gauge, HO gauge, and tinplate Standard Gauge. We are co-owners of two overseas facilities that make nothing but M.T.H. trains, and we use three other factories that are dedicated solely to our product line. This gives us more control of our manufacturing process and quality than many other train companies, whose products are often made in the same factories used by their competitors.

Our research and development team has received more than 10 patents on innovations in model railroading. We believe the Proto-Sound sound and control system found in every M.T.H. locomotive, in combination with our optional Digital Command System (DCS), makes our trains more realistic and more fun to operate than any other trains in model railroading.

www.mthHOtrains.com

4-8-4 GS-4



In 1937 the Southern Pacific trumpeted a new train in full-page magazine ads:

Let us stand by the tracks of Southern Pacific's Coast Line, as thousands now do every day and listen... Suddenly from far off comes a musical note, rising. Round a curve flashes a streak of color. Here comes the Daylight, the most beautiful train in the West!

The Daylights linked Los Angeles and San Francisco "in a glorious daylight trip, streaking along the Pacific Ocean for more than a hundred breathless miles." Travelers were invited to "Step

inside the Daylight and see the beauty and luxury that have already won the West. Notice the wide, soft seats in the coaches. They are cushioned with sponge rubber and turn to face the extraordinarily large windows." Presenting a glorious streak of orange and red from locomotive to observation car, the Daylights were a sharp departure from the SP's normal dark olive passenger cars.

Leading the trains were the Southern Pacific's class GS (for "Golden State") Northern, arguably among the handsomest steam engines ever built. Constructed by Lima Locomotive Works, inventor of the super-power concept, the Daylight 4-8-4s had the

combination of power and speed that characterized steam power at its zenith. Class GS-4 engines, delivered in 1941 and 1942, were among the last and best-looking of the breed, with tall 80" drivers and enclosed all-weather cabs. In addition to handling premier passenger trains, the Golden State 4-8-4s were regularly used in high-speed freight service on the San Francisco-Los Angeles Overnight.

A lone GS-4, No. 4449, was saved from the scrap-heap and restored in 1975 to pull the American Freedom Train in celebration of our nation's 200th anniversary. Repainted in Daylight colors, engine 4449 operates today in excursion service.

Features

- Die-Cast Boiler and Tender Body
- Die-Cast Metal Chassis
- Authentic Paint Schemes & Cab Numbers
- RP-25 Metal Wheels Mounted On Metal Axles
- Constant Voltage Headlight
- Prototypical Rule 17 Lighting
- Detailed Truck Sides
- Detailed Cab Interior
- Powerful 5-Pole Precision Flywheel Equipped Motor
- (2) Scale Kadee® Compatible Couplers
- Metal Handrails and Bell
- Metal Whistle
- Sprung Drive Wheels
- Synchronized Puffing ProtoSmoke™ System
- Locomotive Speed Control In Scale MPH Increments

- Detailed Tender Undercarriage
- Interchangeable Traction Tire-Equipped Drive Wheels
- On-Board DCC Receiver
- Operates On Code 70, 83, & 100 Track
- Wireless Drawbar
- Engineer and Fireman Figures
- Operating Marker Lights*
- Proto-Sound® 3.0 With The Digital Command System Featuring: Passenger Station Proto-Effects™
- Unit Measures: 15 3/4" x 2 1/4" x 1 1/2"
- Operates On 22" Radius Curves

*Patent Pending

See a List of DCC Features on Page 5



Southern Pacific - 4-8-4 GS-4 Steam Engine
80-3117-1 w/Proto-Sound 3.0 \$449.95
Daylight - Small Tender Lettering, Cab Number 4449



Southern Pacific - 4-8-4 GS-4 Steam Engine
80-3115-1 w/Proto-Sound 3.0 \$449.95
Black, Cab Number 4437



Southern Pacific - 4-8-4 GS-4 Steam Engine
80-3114-1 w/Proto-Sound 3.0 \$449.95
Daylight - Small Tender Lettering, Cab Number 4453



Southern Pacific - 4-8-4 GS-4 Steam Engine
80-3116-1 w/Proto-Sound 3.0 \$449.95
Large Tender Lettering, Cab Number 4449

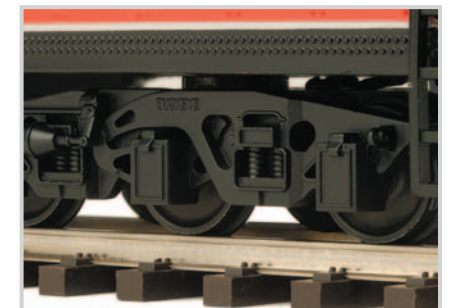


BNSF - 4-8-4 GS-4 Steam Engine
80-3118-1 w/Proto-Sound 3.0 \$449.95
Cab Number 4449



American Freedom Train - 4-8-4 GS-4 Steam Engine
80-3119-1 w/Proto-Sound 3.0 \$449.95
Cab Number 4449

Matching Passenger Cars Coming Soon!



4-8-4 GS-6



The GS-6 was a first cousin to the more famous and colorful GS-4. Like most American railroads, the Southern Pacific needed extra motive power to handle the crush of traffic during World War II. But when the Espée tried to order more of its highly successful Golden States 4-8-4s, the War Production Board turned down the request, reasoning that streamlined passenger engines were an unnecessary extravagance in wartime. So the railroad revised its request to define "GS" as General Service and specified that the new engines would be used in both freight and passenger service, and this time the request was approved.

Lima Locomotive Works delivered 16 class GS-6 locomotives in 1943, painted plain black except for a sliver smokebox front, and devoid of the streamlined side skirting that had characterized earlier GS engines. The government, however, diverted 6 of the engines to the power-starved Western Pacific, where they served until 1953, when the WP became one of the first Western roads to full dieselize. On the SP, the GS-6's worked alongside other GS Northerns, often pulling the San Joaquin Daylight as well as freight traffic and San Jose-San Francisco commuter trains. When the Western Pacific dieselized, its GS-6s came back to the SP as parts engines.

The first GS-6, No. 4460, hauled the final steam train on the Southern Pacific in 1958. Donated to the Museum of Transportation in St. Louis, it survives today, one of the only two remaining GS class locomotives.



Southern Pacific - 4-8-4 GS-6 Steam Engine
80-3121-1 w/Proto-Sound 3.0 \$449.95
Black - Large Tender Lettering, Cab Number 4460

Features

- Die-Cast Boiler and Tender Body
- Die-Cast Metal Chassis
- Authentic Paint Scheme & Cab Numbers
- RP-25 Metal Wheels Mounted On Metal Axles
- Constant Voltage Headlight
- Prototypical Rule 17 Lighting
- Detailed Truck Sides
- Detailed Cab Interior
- Powerful 5-Pole Precision Flywheel Equipped Motor
- (2) Scale Kadee® Compatible Couplers
- Metal Handrails and Bell
- Metal Whistle
- Sprung Drive Wheels
- Synchronized Puffing ProtoSmoke™ System
- Locomotive Speed Control In Scale MPH Increments
- Detailed Tender Undercarriage
- Interchangeable Traction Tire-Equipped Drive Wheels
- On-Board DCC Receiver
- Operates On Code 70, 83, & 100 Track
- Wireless Drawbar
- Engineer and Fireman Figures
- Operating Marker Lights*
- Proto-Sound® 3.0 With The Digital Command System Featuring: Passenger Station Proto-Effects™
- Unit Measures: 15 3/4" x 2 1/4" x 1 1/2"
- Operates On 22" Radius Curves

*Patent Pending

DCC Features

- (F0) Headlight on/off
- (F1) Bell on/off
- (F2) Whistle/Horn on/off
- (F3) Start-up/Shut-down
- (F4) PFA initiate and advance
- (F5) Cab Light on/off
- (F6) Engine Sounds on/off
- (F7) Volume low, med, high, off
- (F8) Smoke on/off
- (F9) Forward Signal Sound
- (F10) Reverse Signal Sound
- (F11) Coupler Slack Sound
- (F12) Crossing Signal
- (F13) Extended Start Up
- (F14) Extended Shut Down
- (F15) Labor Chuff
- (F16) Drift Chuff
- (F17) Smoke Volume low, med, high
- (F18) Single short whistle toot
- (F19) Coupler Close
- (F20) Feature Reset
- (F21) Idle Sequence 1
- (F22) Idle Sequence 2
- (F23) Idle Sequence 3
- (F24) Idle Sequence 4
- (F25) Brakes auto/off
- (F26) Cab Chatter auto/off
- (F27) Clickety-Clack auto/off
- (F28) Train Wreck



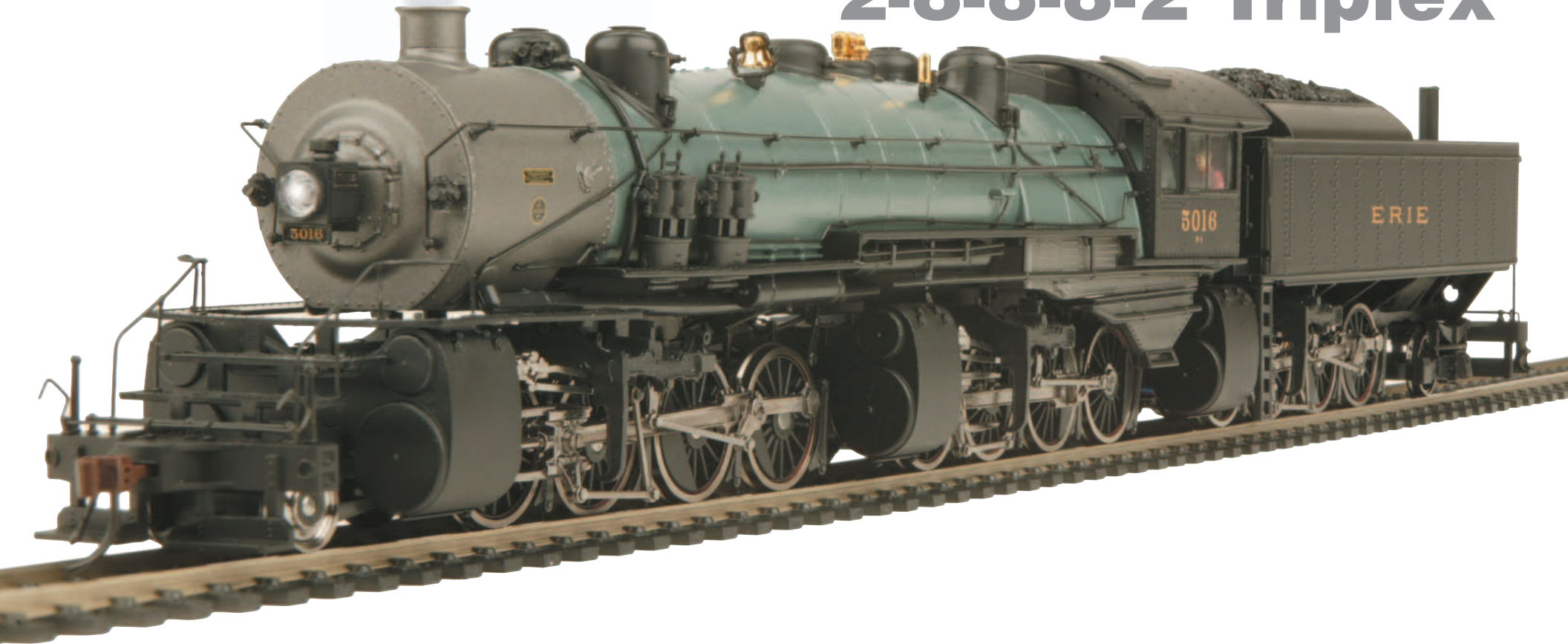
Southern Pacific - 4-8-4 GS-6 Steam Engine
80-3122-1 w/Proto-Sound 3.0 \$449.95
Black - Small Tender Lettering, Cab Number 4466



Western Pacific - 4-8-4 GS-6 Steam Engine
80-3120-1 w/Proto-Sound 3.0 \$449.95
Cab Number 483



2-8-8-8-2 Triplex



P. T. Barnum would have loved the Triplex. It was an engine of superlatives: more drivers than anything before or since, too big for the shops of its owner, the Erie Railroad, powerful enough to pull a train nearly five miles long. Ninety years ago, in the days before multiple-unit control allowed one throttle to control several locomotives, the Triplex was the ultimate attempt to put as much power as possible in the hands of a single engineer. In the end, it proved a noble, flamboyant, but less-than-successful experiment.

Baldwin Locomotive Works built three triplexes between 1914 and 1916 for pusher service on the Erie Railroad's daunting Susquehanna Hill (also known as Gulf Summit) near Deposit, N.Y. The cylinders of the Triplex's middle engine were powered by high pres-

sure steam direct from the boiler, while the front and rear engines used low pressure steam exhausted from the middle cylinders.

Each triplex replaced three ordinary helper engines, and the new locomotives worked well enough to stay on the Erie roster for more than a decade. But the design proved a bit over the top and only one more Triplex was ever built, for the Virginian Railway. Even with their huge boilers, the locomotives could only make enough steam to go 10 mph. One reason was poor draft in the firebox, because only the front cylinders exhausted through the smokebox and created draft; the rear cylinders exhausted through a separate smokestack on the tender. Another inherent problem with the design was that traction from the rear engine

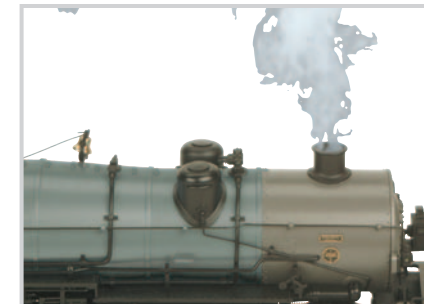
decreased as the boiler used coal and water and the tender got lighter.

The M.T.H. Triplex recreates the flamboyance of the original design but runs much better than the prototype ever did. Only MTH engineering could make such a complex model run smoothly and steadily at speeds from a barely perceptible crawl to wide-open throttle - just ask any modeler who owns an M.T.H. O scale or One Gauge Triplex. For 2007 the Triplex debuts in our HO lineup, complete with a full range of engine sounds, puffing smoke, speed control, full Rule 17 lighting, and ready to run under conventional, DCC, or M.T.H. Digital Command System (DCS) control.

Features

- Die-Cast Boiler and Tender Body
- Die-Cast Metal Chassis
- Authentic Paint Scheme & Cab Numbers
- RP-25 Metal Wheels Mounted On Metal Axles
- Operating Lighted Marker Lights
- Constant Voltage Headlight
- Prototypical Rule 17 Lighting
- Detailed Truck Sides
- Detailed Cab Interior
- Engineer and Fireman Figures
- Powerful 5-Pole Precision Flywheel Equipped Motor
- (2) Scale Kadee® Compatible Couplers
- Metal Handrails and Decorative Bell
- Decorative Metal Whistle

- Sprung Drive Wheels
- Synchronized Puffing ProtoSmoke™ System
- Locomotive Speed Control
- Locomotive Cab To Tender Deck Plate
- Detailed Tender Undercarriage
- Interchangeable Traction Tire-Equipped Drive Wheels
- Proto-Sound® 3.0 With The Digital Command System Featuring: Freight Yard Proto-Effects™
- On-Board DCC Receiver
- Operates On Code 70, 83, & 100 Track
- Unit Measures: 15 1/4" x 1 9/16" x 2 1/4"
- Operates On 22" Radius Curves



Erie 2-8-8-2 Triplex Steam Engine w/Proto-Sound 3.0
 80-3107-1 Cab # 5015 Russian Iron \$499.95
 80-3108-1 Cab # 5016 Russian Iron \$499.95
 80-3109-1 Cab # 5014 Russian Iron \$499.95



Erie 2-8-8-2 Triplex Steam Engine w/Proto-Sound 3.0
 80-3111-1 Cab # 5015 Black \$499.95
 80-3112-1 Cab # 5016 Black \$499.95
 80-3113-1 Cab # 5014 Black \$499.95



Virginian 2-8-8-2 Triplex Steam Engine w/Proto-Sound 3.0
 80-3110-1 Cab # 700 \$499.95

Did You Know?

The Triplex was engineered to haul 640 fifty-ton cars in a train almost five miles long. But the couplers and draft gear of the early twentieth century could not have handled such a load, so the 2-8-8-2 was used as a pusher and never put to a full test.



K4s



On perhaps the greatest railroad ever, no steam locomotive was more revered than the legendary Pennsylvania K4s Pacific. Evolving from a program begun in 1914 to develop heavy freight and passenger classes utilizing common boiler designs, the K4s was an instant success. From 1917 to 1928, a total of 425 units were built at the Juanita and Baldwin Shops.

The 4-6-2 K4s became the Pennsylvania's principal passenger hauler, possessing a consummate blend of speed and power. Often double headed on east coast limiteds in front of a Pullman consist, the K4s was a common and beautiful sight on the

Pennsylvania's rails, and became synonymous with that railroad's steam power.

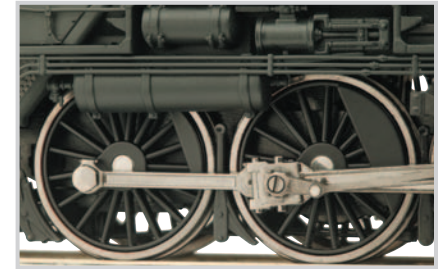
Later, after World War II concluded, the Pennsy's needs changed and the K-4's appearance underwent a series of changes to better serve those needs. The most apparent changes showed up on the 1947 Postwar or Modern version of the K-4 and included a solid drop-coupler pilot, repositioned boiler front headlight and the addition of a steam generator below the headlight.

M.T.H. Electric Trains is proud to return the Prewar 1927 version and an all-new 1947 Postwar rendition

of this magnificent steam locomotive to life in all die-cast construction. Featuring all of the craftsmanship and detail that make an M.T.H. steam locomotive the industry's best value, your K4s will quickly find a home on your layout or in your collection for years to come.

Did You Know?

No. 1737 was the first K-4 produced for the Pennsylvania Railroad. No. 1361, formerly displayed at Horseshoe Curve currently resides in Scranton, Pennsylvania and is being rebuilt at Steamtown.



Features

- Die-Cast Boiler and Tender Body
- Die-Cast Metal Chassis
- Authentic Paint Scheme & Cab Numbers
- RP-25 Metal Wheels Mounted On Metal Axles
- Constant Voltage Headlight
- Prototypical Rule 17 Lighting
- Detailed Truck Sides
- Detailed Cab Interior
- Powerful 5-Pole Precision Flywheel Equipped Motor
- (2) Scale Couplers
- Metal Handrails and Decorative Bell
- Decorative Metal Whistle
- Sprung Drive Wheels
- Synchronized Puffing ProtoSmoke™ System
- Operating, Directionally Controlled Tender Back-up Light
- Locomotive Speed Control
- Locomotive Cab To Tender Deck Plate
- Detailed Tender Undercarriage
- Interchangeable Traction Tire-Equipped Drive Wheels
- On-Board DCC Receiver
- Operates On Code 70, 83, & 100 Track
- Proto-Sound® 3.0 With The Digital Command System Featuring: Passenger Station Proto-Effects™
- Unit Measures: 11 1/2" x 1 3/8" x 2 1/8"
- Operates On 18" Radius Curves

Pre-War Version

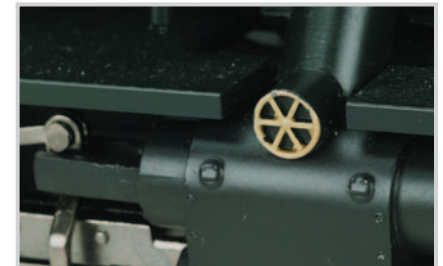


Pennsylvania 4-6-2 K4s Steam Locomotive w/Proto-Sound 3.0
80-3102-1 Cab # 1546 \$399.95

Post-War Version



Pennsylvania 4-6-2 K4s Modern Steam Locomotive w/Proto-Sound 3.0
80-3104-1 Cab # 1361 \$399.95
Pennsylvania 4-6-2 K4s Modern Steam Locomotive w/Proto-Sound 3.0
80-3105-1 Cab # 518 \$399.95
Unlettered 4-6-2 K4s Modern Steam Locomotive w/Proto-Sound 3.0
80-3106-1 \$399.95



Flat Cars

Between 1964 and 1975, Trailer Train (now known as TTX Co.) acquired a fleet of 5,000 modern 60' flat cars. Similar cars are rostered by most major U.S. railroads. Built by ACF, Thrall, and Pullman Standard, the TTX cars were assigned to various classes to handle loads as diverse as auto frames, logs, military vehicles, farm equipment, and construction equipment. Some were even modified to handle TTX's bread and butter, intermodal containers. Our model is based on the TTX class F60GH cars built in the mid-1970s by Pullman Standard. Equipped with four rows of tie-down tracks, two astride the center sill and one along each side, these wooden-decked cars are assigned to heavy-duty equipment service. Our model replicates the prototype's intricate details and is offered with several appropriate loads of heavy machinery.



TTX
60' Wood Deck Flat Car w/163H Motor Grader
80-98023 \$34.95

Also Available:
60' Wood Deck Flat Car w/315C Hydraulic Excavator
80-98031 \$34.95
60' Wood Deck Flat Car w/950G Wheel Loader
80-98015 \$34.95
60' Wood Deck Flat Car
80-98007 \$29.95



Santa Fe
60' Wood Deck Flat Car w/315C Hydraulic Excavator
80-98029 \$34.95

Also Available:
60' Wood Deck Flat Car w/163H Motor Grader
80-98021 \$34.95
60' Wood Deck Flat Car w/950G Wheel Loader
80-98013 \$34.95
60' Wood Deck Flat Car
80-98005 \$29.95



Southern
60' Wood Deck Flat Car
80-98006 \$29.95

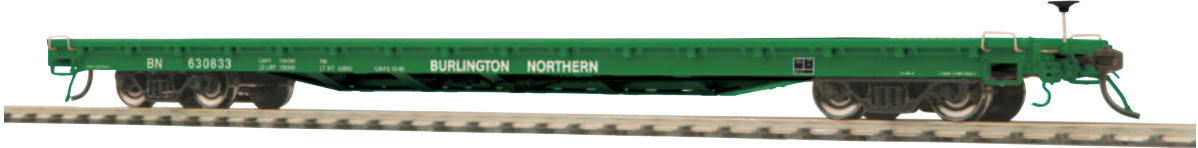
Also Available:
60' Wood Deck Flat Car w/163H Motor Grader
80-98022 \$34.95
60' Wood Deck Flat Car w/315C Hydraulic Excavator
80-98030 \$34.95
60' Wood Deck Flat Car w/950G Wheel Loader
80-98014 \$34.95



BNSF
60' Wood Deck Flat Car w/950G Wheel Loader
80-98009 \$34.95

Also Available:
60' Wood Deck Flat Car w/163H Motor Grader
80-98017 \$34.95
60' Wood Deck Flat Car w/315C Hydraulic Excavator
80-98025 \$34.95
60' Wood Deck Flat Car
80-98001 \$29.95

Each Item Number is Available in SIX Different Road Numbers



Burlington Northern
60' Wood Deck Flat Car
80-98002 \$29.95

- Also Available:
- 60' Wood Deck Flat Car w/163H Motor Grader
80-98018 \$34.95
 - 60' Wood Deck Flat Car w/315C Hydraulic Excavator
80-98026 \$34.95
 - 60' Wood Deck Flat Car w/950G Wheel Loader
80-98010 \$34.95



Canadian National
60' Wood Deck Flat Car w/163H Motor Grader
80-98019 \$34.95

- Also Available:
- 60' Wood Deck Flat Car w/315C Hydraulic Excavator
80-98027 \$34.95
 - 60' Wood Deck Flat Car w/950G Wheel Loader
80-98011 \$34.95
 - 60' Wood Deck Flat Car
80-98003 \$29.95



Union Pacific
60' Wood Deck Flat Car w/950G Wheel Loader
80-98016 \$34.95

- Also Available:
- 60' Wood Deck Flat Car w/163H Motor Grader
80-98024 \$34.95
 - 60' Wood Deck Flat Car w/315C Hydraulic Excavator
80-98032 \$34.95
 - 60' Wood Deck Flat Car
80-98008 \$29.95



Great Northern
60' Wood Deck Flat Car w/315C Hydraulic Excavator
80-98028 \$34.95

- Also Available:
- 60' Wood Deck Flat Car w/163H Motor Grader
80-98020 \$34.95
 - 60' Wood Deck Flat Car w/950G Wheel Loader
80-98012 \$34.95
 - 60' Wood Deck Flat Car
80-98004 \$29.95

Features

- Intricately Detailed Durable ABS Body
- Metal Wheels and Axles
- Fully Sprung Die-Cast Metal Trucks
- Decorative Brake Wheels
- Separate Metal Handrails
- 1:87 Scale Dimensions
- Simulated Wood Decking
- Kadee® Compatible Couplers
- Detailed Undercarriage
- Unit Measures:
- Operates On 18" Radius Curves

© 2008 Caterpillar
CAT, CATERPILLAR, their respective logos, "Caterpillar Yellow" and the POWER EDGE trade dress, as well as corporate and product identity used herein, are trademarks of Caterpillar and may not be used without permission.

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 head-light 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



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 13 through 28, even though controllers that access these NMRA standard functions are not yet available.

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:** depending on how long you blow the whistle, 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 www.mthHOtrains.com for the complete list)

DCS Commander

MTH's Digital Command System (DCS™) unlocks the full sound and operating potential of Proto-Sound 3.0. 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. In addition to the features available with DCC and analog DC, the DCS Commander unlocks a long list of Proto-Sound operating possibilities, 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 signal for ward and reverse sounds, coupler slack, engine start-up and shut-down, engine labor and drift
- **Activate Passenger Station and Freight Yard Sounds**
- **Individual locomotive control:** select up to 99 Proto-Sound 3.0 engines
- **Selectable control configurations:** choose between analog DC, DCC and DCS modes

DCS Remote Control System

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 command mode, with full access to all locomotive functions. The same handheld controls hundreds of switches or accessories. For group operating sessions, equip each guest with their own full-featured handheld. You can also have wireless control of analog DC locomotives in separate DC-only blocks. Unfold the page for more details on the best way to run a railroad.

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

Two Choices of DCS



DCS Commander Controller
50-1028 \$149.95

DCS Commander System
w/100 watt power supply
50-1029 \$229.95



DCS Remote Control System
50-1001 \$299.95

More Features Than Analog DC or DCC Command Control

SMOKE - Turns Smoke Unit on & off
HDLT - Turns Headlights on & off
ENGINE SOUND - Silences Engine Sounds
DOPPLER - Activates Proto-Doppler™
PFA - Activates Passenger/Freight Sounds

SFS - Plays Forward Signal Sound
SRS - Plays Reverse Signal Sound
VOL+ - Globally increases all sounds
START UP - Activates sound, smoke & lights
VOL- - Globally decreases all sounds
SHUT DOWN - Deactivates all sound, smoke & lights

CONV - Activates Conventional Mode
DCS - Activates Command Mode
MOM - Adjusts Engine Momentum
ADD - Adds PS 3 engines

LCD DISPLAY

SCS - Plays coupler slack sound
LIGHTS - Turns loco lights on & off
ALL - Selects all engines
STA MODE - Selects Station Mode
STA SEL - Activates Station Stop sounds
STW - Plays Train Wreck sound

EDIT
Edits engine addresses
DEL
Deletes engines
RESET
Resets PS 3 engines
PASS THRU
Sends DCC signals to track from DCC system**

AUX 1-3
Auxiliary buttons
CPLR-F/CPLR-R*
Fires front & rear couplers
BOOST/BRAKE
Temporarily raises or lowers speed
LABOR/REV UP OR DRIFT/REV DN
Makes an engine sound like it's working harder (labored steam chuff or higher revving diesel) or easier (drifting chuff or lower revving diesel)

E STOP - Cuts power to all tracks

BELL - Rings Bell

ENG - Engine Menu (To Select and Control Engines)

SEL - Selects or activates a setting

THUMBWHEEL
Sets throttle speed & voltage setting

W/H - Whistle/Horn

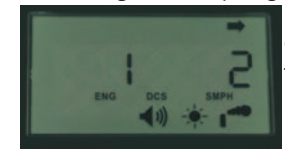
DIR - Changes locomotive direction

The DCS Commander is the easiest way to access the dozens of command control functions already programmed into your M.T.H. HO locomotive. The Commander features clearly-labeled, one-button control of more than 32 engine functions; no function keys or special codes to remember, and more features than any DCC system made today. Use the engine menu to select and control up to 99 different DCS engines from a single Commander - or switch back to DCC or analog DC operation with the push of a button.

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 power supply.



Adding a DCS Commander to your existing layout is simple: just insert it into the wires that connect your DC transformer or DCC system to the track. The Commander can accept any power input (AC, DC or DCC) and output analog DC with volt and current display. The Commander also acts as a passive conduit for your DCC signal until you press the button to switch to DCS or conventional operation.

* Operating couplers are not available on HO locomotives at this time.
 ** Customer supplied DCC system Required



...SIMPLY THE BEST WAY TO RUN A RAILROAD™



TRY IT at your local DCS Demo Center or learn more with a complimentary DVD on DCS & M.T.H. technology.

Take your favorite Proto-Sound® 2.0 or later Locomotive to any demo center and experience the additional features your engine has with DCS Control.

To Find Your Nearest DCS Demo Center or Request Your Complimentary DVD Visit

WWW.MTHTRAINS.COM

©2008 M.T.H. Electric Trains
7020 Columbia Gateway Drive
Columbia, Maryland 21046

TMCC, TrainMaster® CAB-1® Remote Controller and Lionel® are all registered trademarks owned by Lionel L.L.C. All Rights Reserved. MRC and MRC Prodigy are registered trademarks of Model Rectifier Corporation.

