

MTHE
ELECTRIC TRAINS[®]
HO TRAINS THAT DO MORE



2011
HO MODEL TRAINS

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 volume.

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.

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



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 a DCC controller or the DCS handheld.

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.

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.

GREAT SMOKE

Proto-Sound 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.

FULL COMPATIBILITY WITH ALL HO OPERATING SYSTEMS

Right out of the box, every Proto-Sound 3.0 M.T.H. engine is compatible with all HO operating systems: conventional DC, DCC, and our own Digital Command System (DCS). No switches to flip or adjustments to make. Your Proto-Sound engine senses what kind of power is on the rails; just set it on the track and run it.

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.

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.

Easy Lashups and Helper Engines

Want to run lashups of locomotives like the prototype, with double- or triple-headed diesels or steam engines — or even steamers and diesels working together? No other command control system does this as easily or reliably as the M.T.H. Digital Command System (DCS). With the DCS handheld controller, you can operate any combination of M.T.H. locomotives together as a lashup. They'll run in perfect synchronization with each other at any speed. You can even set your lashup so only the lead engine's bell and whistle will sound, as in real life multiple-unit operation.

DCC Features

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 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 steam locomotive features are accessible:

Steam Features*

- Headlight on/off
- Bell on/off
- Whistle/Horn on/off
- Start-up/Shut-down
- PFA initiate and advance
- Cab Light on/off
- Engine Sounds on/off
- Volume low, med, high, off
- Smoke on/off
- Forward Signal Sound
- Reverse Signal Sound
- Coupler Slack Sound
- Grade Crossing
- One-Shot Doppler on/off
- Extended Start Up
- Extended Shut Down
- Labor Chuff
- Drift Chuff
- Smoke Volume
- Single short whistle toot
- Coupler Close
- Feature Reset
- Idle Sequence 1
- Idle Sequence 2
- Idle Sequence 3
- Idle Sequence 4
- Brakes auto/off
- Cab Chatter auto/off
- Clickety-Clack auto/off

Diesel Features*

- Headlight
- Bell
- Whistle/Horn
- Start Up/Shut Down
- Rear Coupler
- Front Coupler
- Engine Sounds On/Off
- Sound Volume
- Ditch Lights Auto/On/Off
- Forward Signal
- Reverse Signal
- Grade Crossing Signal
- Cab Light On/Off
- Extended Start Up
- Extended Shut Down
- Rev Up
- Rev Down
- Coupler Slack Sound
- Coupler Close
- One-Shot Doppler
- Feature Reset
- Idle Sequence 1
- Idle Sequence 2
- Idle Sequence 3
- Ditch Lights Auto/On/Off
- Brakes Auto/Off
- Cab Chatter Auto/Off
- Clickety-Clack Auto/Off
- Coupler Slack Sou

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

Proto-Sound 3E+

For those who have operated Marklin HO AC 3-rail trains in the past, choosing any of the Proto-Sound 3E+ models featured in this catalog will give you an opportunity to run sound-equipped North American prototypes on your railroad with your Marklin DCC command control system.

Outfitted with NEM 311 wheels and NEM 365 couplers, each of these engines feature an all-new version of Proto-Sound 3.0, contain a third rail sliding shoe for use with Marklin HO stud rail and can operate on AC power. Like their 3.0 counterparts, Proto-Sound 3E+ locomotives feature full digital sound, synchronized puffing smoke timed to the locomotive's drive wheel' revolutions, speed control, 28 DCC functions*, hundreds of DCS sounds and features** and a command control receiver for use with Marklin DCC control systems.

Each die-cast steam locomotive is intricately detailed to reflect the prototype's unique look. The balanced 12-volt, 5-pole precision skewed flywheel equipped motor ensures that these locomotives will be the smoothest running engines on your roster. And now, thanks to Proto-Sound 3E+, they'll be the most fun to hear and control as well.

* Requires any DCC controller with 28 function capability

** Requires DCS System



HO TRAINS THAT DO MORE

www.mthHotrains.com



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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.

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.

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Norfolk & Western Class 4-8-4 J



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. 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*.

Our N&W J will be 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. For more information on our superbly detailed model and its prototype, including surviving J No. 611, visit www.mthHOTrains.com.



Norfolk & Western - 4-8-4 J Steam Locomotive w/Proto-Sound 3.0

80-3145-1	Cab No. 613	\$449.95
80-3146-1	Cab No. 611	\$449.95
80-3147-1	Cab No. 612	\$449.95



Norfolk & Western - 4-8-4 J Steam Locomotive w/ DCC/DCS Proto-Sound 3.0

80-3148-1	Cab No. 600	\$449.95
80-3149-1	Cab No. 603	\$449.95
80-3150-1	Cab No. 604	\$449.95



M.T.H. Electric Trains Signature Series Norfolk & Western - Signature Series 4-8-4 J Steam Locomotive w/ DCC/DCS Proto-Sound 3.0

80-3225-1	Cab No. 611	\$549.95
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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
- Powerful Balanced 12-Volt 5-Pole Precision Skewed Flywheel Equipped Motor
- (2) Kadee Compatible Scale 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
- Real Coal Load
- Operating Tender Back-up Light
- Interchangeable Traction Tire-Equipped Drive Wheels
- On-Board DCC Receiver
- Operates On Code 70, 83, & 100 Rail Curves
- Proto-Sound 3.0 With The Digital Command System
- Featuring Quillable Whistle With Passenger Station Proto-Effects
- Unit Measures: 15 3/8" x 1 1/2" x 2 1/4"
- Operates On 18" Radius Curves

Professionally Weathered!



Norfolk & Western - 4-8-4 J-Class Steam Passenger Set w/ DCC/DCS Proto-Sound 3.0

80-3219-1	Cab No. 611	\$779.95
80-3220-1	Cab No. 612	\$779.95
80-3221-1	Cab No. 613	\$779.95

Set Contains N&W J-Class Steam Engine, (3) Coach Passenger Cars, (1) Diner Passenger Car, (1) Observation Passenger Car

4-6-4 Empire State Express



Before it was eclipsed by the Twentieth Century Limited, the Empire State Express was the New York Central's flagship passenger run. In 1893, it was the Empire State Express, led by a hot-rod 4-4-0 with outlandishly large drivers, that became the first man-made vehicle to exceed 100 mph and made the New York Central famous around the world. Beyond the record-setting run, the Empire State Express gained recognition as a pioneer in high-speed rail service on its New York-Buffalo-Cleveland route. Scientific American noted in 1898 that the Empire State Express "opened the present remarkable era of fast, long distance express trains. [It] will always figure conspicuously in the annals of the world's railroads as being the first to maintain a regular schedule speed of over 52 miles an hour for an unprecedented distance and for runs of unprecedented length between stops."

But by the Roaring Twenties, most high-class rail travel was by Pullman, and coach trains on daytime runs, like the Empire

State Express, were often seen as a less desirable way to travel. High-quality coach travel made a comeback during the Depression, however, as railroads sought to attract customers by offering less-expensive fares combined with upgraded amenities. So it was that on December 7, 1941, with much fanfare, the New York Central launched a newly equipped Empire State Express with two Henry-Dreyfus-styled Hudsons and gleaming, streamlined Budd-built train sets. Passengers on the inaugural run were surprised at the scarcity of trackside observers - until they heard about the event halfway around the world that had overshadowed all other news that December Sunday.

The 1941 ESE was a train with one foot in the past and the other in the future. Its reserved-seat, stainless steel Budd coaches and parlor cars presaged the postwar streamliners, America's last hurrah of luxury passenger travel. But its two specially styled Hudsons, Nos. 5426 and 5429, were clearly a bridge - albeit a beautiful one - between a dying technology and cars

that belonged behind a diesel. Designer Henry Dreyfus blended the stainless fluting of Budd's streamliners with his design for the 1938 Twentieth Century Hudsons, arguably among the best-looking streamlined steamers ever built. After the war, however, more powerful Niagaras bumped the ESE Hudsons to lesser trains, and by 1949 their streamlining had been removed.

Relive the brief but glorious era of streamlined steam on the Water Level Route with these superbly detailed locomotives. With their fully featured sound systems, Empire State Express passenger station announcements, and ability to start your train so smoothly you won't spill a drop of water in the diner, we believe these are surely the best HO models of these Hudsons ever built.



New York Central - 4-6-4 Empire State Express Steam Engine w/ DCC/DCS Proto-Sound 3.0
80-3170-1 Cab No. 5429 \$449.95



Features

- Die-Cast Boiler and Tender Body
- Die-Cast Metal Chassis
- Die-Cast Truck Sides
- 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 Balanced 12-Volt 5-Pole Precision Skew-Wound Flywheel Equipped Motor
- Wireless Drawbar w/Close Coupling Option
- (2) Kadee Compatible Scale Couplers
- Metal Handrails
- Decorative Metal Whistle
- Sprung Drive Wheels
- Synchronized Puffing ProtoSmoke® System
- Locomotive Speed Control
- Locomotive Cab To Tender Deck Plate
- Detailed Tender Undercarriage
- Real Coal Load
- Operating Tender Back-up Light
- Interchangeable Traction Tire-Equipped Drive Wheels
- On-Board DCC Receiver
- Operates On Code 70, 83, & 100 Rail Curves
- Proto-Sound 3.0 With The Digital Command System Featuring Passenger Station Proto-Effects
- Unit Measures: 13 1/2" x 1 1/2" x 2 1/8"
- Operates On 18" Radius Curves

GG-1

Automatic Directionally Controlled Pantographs



For more than two decades, the Pennsylvania Railroad experimented with locomotive designs in search of a high-speed, mainline passenger electric. That search ended in 1934 with the GG1, a cooperative effort by the PRR, Baldwin, Westinghouse, and General Electric, based largely on neighbor New Haven's successful EP3 juice jack. Industrial designer Raymond Loewy cleaned up the original riveted body to create a design that looked contemporary for half a century.

The GG1 fleet hustled passenger traffic of all types along the Pennsy's multi-track raceway from New York to Washington and west to Harrisburg, including the famed Congressional and Broadway Limited. With 18 Pullmans in tow, a GG1 could hit 100 mph. Regearred for freight service and run as double-head-ers, a pair of GG1s delivered about the same tractive effort as a Union Pacific Big Boy, with virtually no noise, no smoke, much less wear on the track, and significantly less maintenance. Many GG1s racked up more than five million miles of service, outlast-

ing the railroad that built them and serving its two successors, the Penn Central and Conrail. If there were a Locomotive Hall of Fame, the Pennsylvania Railroad GG1 would surely be one of the first inductees.

Add this fully die-cast Hall of Famer to your layout as a complete set or in one or more authentic PRR liveries, featuring station sounds for Pennsy name trains, smooth performance at any speed from a crawl to full throttle, a powerful 12-Volt 5-Pole precision skew-Wound flywheel equipped motor to rival the prototype, and pantographs that automatically raise and lower according to the direction of travel.

Automatic Pantograph Operation Explained

Users operating the GG-1 in conventional mode will find that by depressing the transformer's direction button to stop the locomotive, the rear pantograph will remain in the up position while

the lead pantograph slowly rises up. Once the lead pantograph is in its up position, the rear pantograph will slowly lower into the down position. At this point another press of the direction button will cause the locomotive to reverse making the lead pantograph now the rear pantograph and in the up position.

In command operation two operating modes will be offered; auto and manual. Auto mode will behave similar to conventional mode with the rear pantograph in the up position when moving. The up and down movement of the pantograph will be direction controlled using the DCS Digital Command Control System. In Manual mode, the user will have to raise and lower both pantographs via the DCS System or any 28-Function DCC system as they wish regardless of directional state.



Pennsylvania (Tuscan 5-Stripe) - GG-1 Electric, Cab No. 4911
 80-2147-1 DCC/DCS Proto-Sound 3.0 \$419.95
 80-2147-5 DCC/DCS Proto-Sound 3E+ \$419.95



Pennsylvania (Tuscan Single-Stripe) - GG-1 Electric, Cab No. 4916
 80-2148-1 DCC/DCS Proto-Sound 3.0 \$419.95
 80-2148-5 DCC/DCS Proto-Sound 3E+ \$419.95



Pennsylvania (Brunswick Green 5-Stripe) - GG-1 Electric, Cab No. 4842
 80-2149-1 DCC/DCS Proto-Sound 3.0 \$419.95
 80-2149-5 DCC/DCS Proto-Sound 3E+ \$419.95



Pennsylvania (Brunswick Green Single-Stripe) GG-1 Electric, Cab No. 4900
 80-2150-1 DCC/DCS Proto-Sound 3.0 \$419.95
 80-2150-5 DCC/DCS Proto-Sound 3E+ \$419.95



Pennsylvania (Silver) - GG-1 Electric, Cab No. 4866
 80-2151-1 DCC/DCS Proto-Sound 3.0 \$419.95
 80-2151-5 DCC/DCS Proto-Sound 3E+ \$419.95



Penn Central - GG-1 Electric, Cab No. 4893
 80-2154-1 DCC/DCS Proto-Sound 3.0 \$419.95
 80-2154-5 DCC/DCS Proto-Sound 3E+ \$419.95



Conrail - GG-1 Electric, Cab No. 489
 80-2153-1 DCC/DCS Proto-Sound 3.0 \$419.95
 80-2153-5 DCC/DCS Proto-Sound 3E+ \$419.95



Amtrak - GG-1 Electric, Cab No. 924
 80-2152-1 DCC/DCS Proto-Sound 3.0 \$419.95
 80-2152-5 DCC/DCS Proto-Sound 3E+ \$419.95

Features

- Die-Cast Body
- Authentic Paint Scheme & Cab Numbers
- RP-25 Metal Wheels Mounted On Metal Axles
- Constant Voltage, Directional Headlights
- Remotely Controlled, Directionally Activated Operating Pantographs
- Prototypical Rule 17 Lighting
- Detailed Truck Sides
- Powerful 12-Volt 5-Pole Precision Skew-Wound Flywheel Equipped Motor
- (2) Scale Kadee Compatible Remotely Controlled Proto-Couplers
- Detailed Cab Interior
- (2) User-Installed Kadee Magnetic Couplers
- Decorative Metal Horn
- Locomotive Speed Control In Scale MPH Increments
- On-Board DCC Receiver
- Operates On Code 70, 83, & 100 Rail Curves
- Proto-Sound 3.0 With The Digital Command System Featuring Passenger Station Proto-Effects
- Unit Measures: 11 5/16" x 1 3/8" x 2 7/16"
- Operates On 18" Radius Curves

GP35



Produced from 1963 to 1966, the GP35, along with its six-axle SD35 sibling, marked both an end and a beginning. They were the last road diesels to use the EMD 567 motor that had powered switchers, F-units, and Geeps since 1939 (so named because each cylinder displaced 567 cubic inches). For the horsepower race of the 1960s, EMD tweaked the 567 to a turbocharged V-16 delivering 2500 hp. That was it for the 567, however, and in 1966 the baton was passed to the more powerful model 645. But while the “35 line” diesels ushered out an old motor, they inaugurated a new look. Their angled cab roofs and the clean, squared-off lines of their car bodies established the look of EMD power for the next three decades.

Introduced to compete with General Electric’s landmark U25B, which had ushered in the second generation of diesel power,

the GP35 outsold the “U-Boat” nearly three to one. There was a strong market for new power in the mid-1960s because the first-generation diesels that had vanquished steam were wearing out. While first-generation rosters had often been a hodgepodge of manufacturers and models as railroads experimented with the new technology, by 1960 Alco, EMD, and GE were the only manufacturers left standing - and Alco would soon throw in the towel. As a result, virtually every major U.S. railroad became a GP35 customer and over 1300 engines were sold in the United States, Canada, and Mexico.

In what we believe is the finest, ready-to-run HO GP-35 diesel to ever be produced, HO modelers will find the best combination of detail, realism, and performance of any 1/87 scale GP35. Added-on detail parts include windshield wipers, metal see-thru

body grilles, lift rings, metal grab irons and handrails, see-thru rooftop fan housings, and brake cylinders, air pipes, and swing hangers on our super-detailed Blomberg trucks.

Our highly detailed model includes a broader range of features than you’ll find on any other HO scale diesel, including lighted number boards; 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. DCS Digital Command System; and a full range of sounds recorded from a prototype GP35. If you’re looking for durable motive power that’s accurately detailed, smooth running, and a great deal of fun to operate, it doesn’t get any better than this.



Baltimore & Ohio GP-35 Diesel with DCC/DCS Proto-Sound 3.0			Baltimore & Ohio GP-35 Diesel with DCC/DCS Proto-Sound 3E+			Baltimore & Ohio GP-35 Diesel DCC-Ready		
80-2157-1	Cab Number 3541	\$279.95	80-2157-5	Cab Number 3541	\$299.95	80-2157-0	Cab Number 3541	\$179.95
80-2158-1	Cab Number 3544	\$279.95	80-2158-5	Cab Number 3544	\$299.95	80-2158-0	Cab Number 3544	\$179.95
80-2159-1	Cab Number 3555	\$279.95	80-2159-5	Cab Number 3555	\$299.95	80-2159-0	Cab Number 3555	\$179.95



Erie Lackawanna GP-35 Diesel with DCC/DCS Proto-Sound 3.0			Erie Lackawanna GP-35 Diesel with DCC/DCS Proto-Sound 3E+			Erie Lackawanna GP-35 Diesel DCC-Ready		
80-2169-1	Cab Number 2551	\$279.95	80-2169-5	Cab Number 2551	\$299.95	80-2169-0	Cab Number 2551	\$179.95
80-2170-1	Cab Number 2552	\$279.95	80-2170-5	Cab Number 2552	\$299.95	80-2170-0	Cab Number 2552	\$179.95
80-2171-1	Cab Number 2554	\$279.95	80-2171-5	Cab Number 2554	\$299.95	80-2171-0	Cab Number 2554	\$179.95

Features

- Intricately Detailed ABS Body
- Authentic Paint Scheme & Cab Numbers
- RP-25 Metal Wheels Mounted On Metal Axles
- Constant Voltage, Directional Headlights
- Prototypical Rule 17 Lighting
- Detailed Truck Sides
- Detailed Cab Interior
- Powerful 12-Volt 5-Pole Precision Skew-Wound Flywheel Equipped Motor
- (2) Scale Kadee Compatible Remotely Controlled Proto-Couplers
- (2) User-Installed Kadee Magnetic Couplers
- Decorative Metal Horn
- Locomotive Speed Control In Scale MPH Increments
- On-Board DCC Receiver
- Operates On Code 70, 83, & 100 Rail Curves
- Proto-Sound 3.0 With The Digital Command System Featuring Freight Yard Proto-Effects
- Unit Measures:
 - 2-Rail Operates On 18" Radius Curves
 - Proto-Sound 3E+ 3-Rail Operates On R-1 Track

GP35

New York Central GP-35 Diesel with DCC/DCS Proto-Sound 3.0

80-2163-1	Cab Number 6131	\$279.95
80-2164-1	Cab Number 6133	\$279.95
80-2165-1	Cab Number 6142	\$279.95

New York Central GP-35 Diesel with DCC/DCS Proto-Sound 3E+

80-2163-5	Cab Number 6131	\$299.95
80-2164-5	Cab Number 6133	\$299.95
80-2165-5	Cab Number 6142	\$299.95

New York Central GP-35 Diesel DCC-Ready

80-2163-0	Cab Number 6580	\$179.95
80-2164-0	Cab Number 6133	\$179.95
80-2165-0	Cab Number 6142	\$179.95



Union Pacific GP-35 Diesel with DCC/DCS Proto-Sound 3.0

80-2172-1	Cab Number 750	\$279.95
80-2173-1	Cab Number 756	\$279.95
80-2174-1	Cab Number 759	\$279.95

Union Pacific GP-35 Diesel with DCC/DCS Proto-Sound 3E+

80-2172-5	Cab Number 750	\$299.95
80-2173-5	Cab Number 756	\$299.95
80-2174-5	Cab Number 759	\$299.95

Union Pacific GP-35 Diesel DCC-Ready

80-2172-0	Cab Number 750	\$179.95
80-2173-0	Cab Number 756	\$179.95
80-2174-0	Cab Number 759	\$179.95

Pennsylvania GP-35 Diesel with DCC/DCS Proto-Sound 3.0

80-2160-1	Cab Number 2258	\$279.95
80-2161-1	Cab Number 2268	\$279.95
80-2162-1	Cab Number 2273	\$279.95

Pennsylvania GP-35 Diesel with DCC/DCS Proto-Sound 3E+

80-2160-5	Cab Number 2258	\$299.95
80-2161-5	Cab Number 2268	\$299.95
80-2162-5	Cab Number 2273	\$299.95

Pennsylvania GP-35 Diesel DCC-Ready

80-2160-0	Cab Number 2258	\$179.95
80-2161-0	Cab Number 2268	\$179.95
80-2162-0	Cab Number 2273	\$179.95





Southern Pacific GP-35 Diesel with DCC/DCS Proto-Sound 3.0
 80-2175-1 Cab Number 6580 \$279.95
 80-2176-1 Cab Number 6582 \$279.95
 80-2177-1 Cab Number 6587 \$279.95

Southern Pacific GP-35 Diesel with DCC/DCS Proto-Sound 3E+
 80-2175-5 Cab Number 6580 \$299.95
 80-2176-5 Cab Number 6582 \$299.95
 80-2177-5 Cab Number 6587 \$299.95

Southern Pacific GP-35 Diesel DCC-Ready
 80-2175-0 Cab Number 6580 \$179.95
 80-2176-0 Cab Number 6582 \$179.95
 80-2177-0 Cab Number 6587 \$179.95

Norfolk & Western GP-35 Diesel with DCC/DCS Proto-Sound 3.0

80-2166-1 Cab Number 1304 \$279.95
 80-2167-1 Cab Number 1305 \$279.95
 80-2168-1 Cab Number 1307 \$279.95

Norfolk & Western GP-35 Diesel with DCC/DCS Proto-Sound 3E+

80-2166-5 Cab Number 1304 \$299.95
 80-2167-5 Cab Number 1305 \$299.95
 80-2168-5 Cab Number 1307 \$299.95

Norfolk & Western GP-35 Diesel DCC-Ready

80-2166-0 Cab Number 1304 \$179.95
 80-2167-0 Cab Number 1305 \$179.95
 80-2168-0 Cab Number 1307 \$179.95



Santa Fe GP-35 Diesel with DCC/DCS Proto-Sound 3.0
 80-2178-1 Cab Number 1438 \$279.95
 80-2179-1 Cab Number 1441 \$279.95
 80-2180-1 Cab Number 1449 \$279.95

Santa Fe GP-35 Diesel with DCC/DCS Proto-Sound 3E+
 80-2178-5 Cab Number 1438 \$299.95
 80-2179-5 Cab Number 1441 \$299.95
 80-2180-5 Cab Number 1449 \$299.95

Santa Fe GP-35 Diesel DCC-Ready
 80-2178-0 Cab Number 1438 \$179.95
 80-2179-0 Cab Number 1441 \$179.95
 80-2180-0 Cab Number 1449 \$179.95

4500hp Gas Turbine & Tender



MTH is proud to introduce the UP "Baby" 4500 turbine locomotives, with all the same detailing and features of its bigger brother, the Veranda. Variable intensity smoke, a broad range of sounds, turbine crew conversations, remotely controlled couplers, operating Mars light, built in DCC decoder and die-cast metal construction, twin flywheel-equipped motors, and four traction tires to provide pulling power all cumulate in a model that rivals the prototype.

In the late 1940s, even as it was building diesels in partnership with Alco, General Electric was experimenting with ways to apply its aircraft jet engine technology to railroading. Its gas turbine electric (GTTEL) was basically a diesel engine with a large turbine replacing the diesel as the prime mover. In a turbine, intake air is compressed by spinning turbine blades and fed into combustion chambers, where fuel is added and ignited, as in a jet engine. The hot exhaust gases spin the blades of another turbine that powers one or more generators, which produce electricity to power diesel-type traction motors. Compared with diesels of the period, GE's GTTEL put three times as much power (4500hp) in one locomotive, had significantly fewer moving parts, and did not vibrate like a diesel. The major drawback was a voracious appetite for fuel.

Undeterred by the failure of its steam turbine prototypes, GE perused the development of a gas turbine engine, and in June of 1949 UP added the prototype to their roster for further testing. Locomotives #51-60 were then ordered by UP in March of 1951. In their first year of operation the locomotives averaged approximately 4.2 gallons of total fuel per 1,000 gross ton-miles. Union Pacific's president A.E. (Art) Stoddard referred to the locomotives as "jet propulsion on wheels", claiming the turbine gas engines "might well revolutionize American railroading". The Baby's 4500hp turbines demonstrated the locomotives ability to go faster than diesel engines and appeared, at the time, to be the more economical choice.

While not intended for passenger use, on occasion the gas turbine 4500 locomotive pulled in a streamlined passenger train after a diesel engine would break down. Although the locomotive was not designed for multiple unit operation, they were occasionally double loaded, even through long tunnel routes where recalculation of exhaust gasses could pose problems. After two years of testing GE's prototype, the Union Pacific ordered its first ten GTTEs in 1951. The engines were designed to burn Bunker C oil, a byproduct of petroleum distillation that was almost considered waste material. The low cost of Bunker C more than compensated for the turbines' high consumption,

although the oil was so thick it had to be heated to 240 degrees Fahrenheit to flow through the fuel system.

In 1955 auxiliary fuel tenders were added to the locomotives, this additionally 24,000 gallons of oil allowed the train to make longer runs, increasing monthly mileage.

Averaging around 10,000 miles a month (400 turbine operating hours), the locomotive also contained a 250hp diesel engine, which was used to bring the turbine engine up to its firing speed of 700RPM. This allowed the engine to then run fans, pumps, cooling motors, auxiliaries, and allowed the locomotive to move around terminals when running light. Unfortunately, by the early 1960s, the turbines' use of Bunker C fuel had changed from an advantage to a problem. The plastics industry had found new uses for the former waste product and its price skyrocketed. At the same time, the corrosive nature of the fuel led many of the turbines to develop engine problems. The Verandas were retired in 1963-64 in favor of newer 8500hp Big Blows, and the UP's entire turbine program was finished by 1970.



Union Pacific - 4500hp Gas Turbine & Tender Set (DCC Ready)

80-2130-0 Cab Numbers 52 \$419.95

Union Pacific - 4500hp Gas Turbine & Tender Set With DCC/DCS Proto-Sound 3.0

80-2131-1 Cab Numbers 57 \$499.95

Union Pacific - 4500hp Gas Turbine & Tender Set With DCC/DCS Proto-Sound 3.0

80-2133-1 Cab Numbers 55 \$499.95



Union Pacific - 4500hp Gas Turbine With DCC/DCS Proto-Sound 3.0

80-2126-1 Cab Numbers 52 \$429.95

Union Pacific - 4500hp Gas Turbine With DCC/DCS Proto-Sound 3.0

80-2127-1 Cab Numbers 57 \$429.95



Union Pacific - 4500hp Gas Turbine With DCC/DCS Proto-Sound 3.0

80-2128-1 Cab Numbers 59 \$429.95

Union Pacific - 4500hp Gas Turbine With DCC/DCS Proto-Sound 3.0

80-2129-1 Cab Numbers 55 \$429.95



M.T.H. Electric Trains
Signature Series Union Pacific - Signature Series 4500hp Gas Turbine & Tender Set With DCC/DCS Proto-Sound 3.0
80-2156-1 Cab No. 55 \$599.95

Features

- Die-Cast Metal Body
- Die-Cast Metal Chassis
- Authentic Paint Scheme & Cab Numbers
- RP-25 Metal Wheels Mounted On Metal Axles
- Constant Voltage, Directional Headlights
- Prototypical Rule 17 Lighting
- Remotely Controlled, Directionally Activated Operating Pantographs
- Detailed Truck Sides
- Detailed Cab Interior
- Powerful 12-Volt 5-Pole Precision Skew-Wound Flywheel-Equipped Motor
- (1) Scale Kadee-Compatible Remotely Controlled Proto-Coupler
- (1) User-Installable Kadee-Compatible Magnetic Coupler
- Metal Handrails and Bell
- Metal Horn
- Locomotive Speed Control In Scale MPH Increments
- Interchangeable Traction Tire-Equipped Drive Wheels
- (2) Cab Figures
- On-Board DCC Receiver
- Operates On Code 70, 83, & 100 Rail
- Proto-Sound® 3.0 With The Digital Command System Featuring Passenger Station or Freight Yard Proto-Effects™
- Unit Measures: 12 3/4" x 1 3/8" x 2 7/16"
- Operates On 18" Radius Curves

**Professionally
Weathered**

Alco FA-1



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, dependability problems with Alco's model 244 prime mover doomed the company to forever playing second fiddle to industry leader EMD.

The brawny good looks of Alco's FA and PA cab units, however, have endeared them to railfans and modelers for more than half a century. Designed to compete with EMD's FT four axle freight locomotive, the FA-1 contained many of the same design elements but used a new 12-cylinder 244 engine. With its distinctive flatnose cab and ribbed grille enclosed headlight, the FA-2's were considered by many rail fans to be more handsome and powerful looking than its F-3 and F-7 competitors. By pairing up with General Electric in the 1920's Alco inevitably condemned itself to ride on the coattails of EMD's F-series line.

Built by Alco and EMD in New York between 1946 and 1959, the FA-1 was designed primarily to haul freight, as they did not have the space at the rear of the engine compartment to accommodate a passenger-service steam generator. Externally as well as mechanically the FA-1, designed by Ray Patten, appeared very similar to the ALCO PA models built around the same time period. Distinguishable from the FA-2, the FA-1's shutters were at the far end of the carbody, this was later changed to accommodate the steam generator that would be placed behind the radiator.

M.T.H. is proud to present the HO FA-2 in the unmistakable colors of Great Northern, Reading, Union Pacific, Pennsylvania and Lehigh Valley. These streamlined diesels will bring beauty and power to any HO layout. The HO Alco FA-1 A/B diesel set includes one twin-motored A unit and one twin-motored B unit. The A unit has full directional lighting and 2 Scale Operating Kadee Compatible Coupler. Like all HO diesel locomotives, the set is equipped with the legendary power and performance of Proto-Sound 3.0.

Features

- Directionally Controlled Headlights
- Intricately Detailed ABS Bodies
- 1:87 Scale Proportions
- Metal Wheels and Axles
- (2) Scale Operating Kadee Compatible Coupler
- Detailed Truck Sides, Pilots and Fuel Tank
- Powerful 12-Volt 5-Pole Skew-Wound Precision Flywheel-Equipped Motor In Both A & B Units
- Locomotive Speed Control In Scale MPH Increments
- Lighted Cab Interior
- Illuminated Number Boards
- Lighted Marker Lights
- (2) Engineer Cab Figures
- Moveable Spinning Roof Fan Blades
- On-Board DCC Receiver
- Operating MARS Light (Where Prototypical)
- Operates On Code 70, 83, & 100 Rail Curves
- Proto-Sound 3.0 With The Digital Command System Featuring Freight Yard Proto-Effects
- A-Unit Measures: 7 1/16" x 1 3/8" x 2 1/16"
- B-Unit Measures: 6 15/16" x 1 3/8" x 2 1/16"
- Operates On 18" Radius Curves



Pennsylvania- Alco FA-1 A/B Set With DCC/DCS Proto-Sound 3.0
 80-2092-1 Cab Numbers 9600-A & 9600-B \$439.95
 Pennsylvania - Alco FA-1 A Unit With DCC/DCS Proto-Sound 3.0
 80-2093-1 Cab Number 9601-A \$229.95
 Pennsylvania - Alco FB-1 B Unit With DCC/DCS Proto-Sound 3.0
 80-2094-1 Cab Number 9601-B \$219.95
 Pennsylvania - Alco FA-1 A/B Set (DCC Ready)
 80-2092-0 Cab Numbers 9600-A & 9600-B \$299.95
 Pennsylvania - Alco FA-1 A Unit (DCC Ready)
 80-2093-0 Cab Number 9601-A \$159.95
 Pennsylvania - Alco FB-1 B Unit (DCC Ready)
 80-2094-0 Cab Number 9601-B \$149.95

Union Pacific- Alco FA-1 A/B Set With DCC/DCS Proto-Sound 3.0
 80-2103-1 Cab Numbers 1501A & 1525B \$439.95
 Union Pacific - Alco FA-1 A Unit With DCC/DCS Proto-Sound 3.0
 80-2104-1 Cab Number 1500A \$229.95
 Union Pacific - Alco FB-1 B Unit With DCC/DCS Proto-Sound 3.0
 80-2105-1 Cab Number 1524B \$219.95
 Union Pacific - Alco FA-1 A/B Set (DCC Ready)
 80-2103-0 Cab Numbers 1501A & 1525B \$299.95
 Union Pacific - Alco FA-1 A Unit (DCC Ready)
 80-2104-0 Cab Number 1500A \$159.95
 Union Pacific - Alco FB-1 B Unit (DCC Ready)
 80-2105-0 Cab Number 1524B \$149.95



Lehigh Valley - Alco FA-1 A/B Set With DCC/DCS Proto-Sound 3.0
 80-2098-1 Cab Numbers 530 & 531 \$439.95
 Lehigh Valley - Alco FA-1 A Unit With DCC/DCS Proto-Sound 3.0
 80-2099-1 Cab Number 542 \$229.95
 Lehigh Valley - Alco FB-1 B Unit With DCC/DCS Proto-Sound 3.0
 80-2100-1 Cab Number 543 \$219.95
 Lehigh Valley - Alco FA-1 A/B Set (DCC Ready)
 80-2098-0 Cab Numbers 530 & 531 \$299.95
 Lehigh Valley - Alco FA-1 A Unit (DCC Ready)
 80-2099-0 Cab Number 542 \$159.95
 Lehigh Valley - Alco FB-1 B Unit (DCC Ready)
 80-2100-0 Cab Number 543 \$149.95

Great Northern- Alco FA-1 A/B Set With DCC/DCS Proto-Sound 3.0
 80-2101-1 Cab Numbers 310A & 310B \$439.95
 Great Northern - Alco FA-1 A Unit With DCC/DCS Proto-Sound 3.0
 80-2102-1 Cab Number 310C \$229.95
 Great Northern - Alco FA-2 A/B Set (DCC Ready)
 80-2101-0 Cab Numbers 310A & 310B \$299.95
 Canadian National - Alco FA-2 A Unit (DCC Ready)
 80-2102-0 Cab Number 310C \$159.95



Reading - Alco FA-1 A/B Set With DCC/DCS Proto-Sound 3.0
 80-2095-1 Cab Numbers 300A & 300B \$439.95
 Reading - Alco FA-1 A Unit With DCC/DCS Proto-Sound 3.0
 80-2096-1 Cab Number 301A \$229.95
 Reading - Alco FB-1 B Unit With DCC/DCS Proto-Sound 3.0
 80-2097-1 Cab Number 301B \$219.95
 Reading - Alco FA-1 A/B Set (DCC Ready)
 80-2095-0 Cab Numbers 300A & 300B \$299.95
 Reading - Alco FA-1 A Unit (DCC Ready)
 80-2096-0 Cab Number 301A \$159.95
 Reading - Alco FB-1 B Unit (DCC Ready)
 80-2097-0 Cab Number 301B \$149.95

Bi-Polar Electric

*Directionally
Controlled Operating
Pantographs!*



Dubbed the 'silent locomotive', General Electric's E-2 Bi-Polar ushered in a new dawn of electrification for Milwaukee Road, in 1919. While the engine produced 3,200hp and 1,00 volts to each of its traction motors, the Bi-Polar made no whine or gear tooth growl. At 76' in length and weighing 265 tons, the Bi-Polar would come to revolutionize the industry.

Briefly tabbed as 'the mightiest electric locomotives in the world', the EM-2 Bi-Polar arrived at Milwaukee Road in December of 1919. Numbered 10250-10254 these engines were designed to pull any normal passenger train in the railroads roster, singly, and were therefore built without multiple-unit controls. At the staggering cost of \$200,000 an engine, many railroads found it too expensive to own an entire fleet of Bi-Polar's. Milwaukee Road however, closely identified with the Bi-Polar, making the engine the backbone of the railroads passenger service, powering the trains over the railroads mountainous western routes.

The Bi-Polar's speed was also something of note, as mentioned in Noel T. Holley's *The Milwaukee Electrics*, Ralph Edwards reminisced about the engines, stating, "They were quick. If you reached out and grabbed a handful of notches, those babies would get right out and move. The acceleration was much quicker than a diesel and much quicker than E22 and E23. They moved out in a hurry, and they were absolutely silent".

Appearing for the first time in the M.T.H. HO lineup for 2010, this scale replica of Milwaukee Roads Bi-Polar fleet is sure to look just as stunning as the original. With prototypical rule 17 lighting, remotely controlled directionally activated operating pantographs and the excitement of Proto-Sound 3.0, this locomotive is certain to make a realistic addition to any collection.

***All Models Include On Board
DCC Receiver***

Features

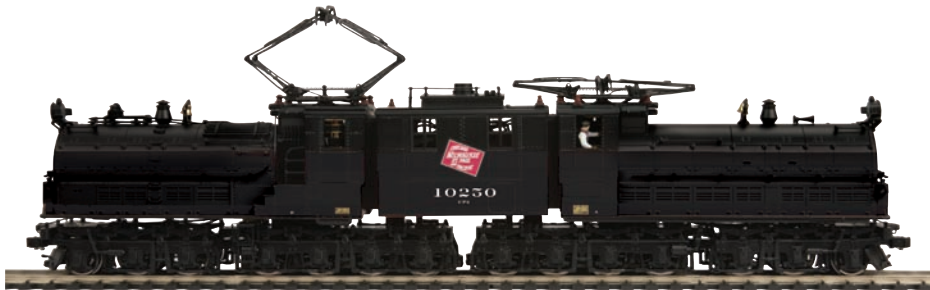
- Die-Cast Body
- Authentic Paint Scheme & Cab Numbers
- RP-25 Metal Wheels Mounted On Metal Axles
- Constant Voltage, Directional Headlights
- Prototypical Rule 17 Lighting
- Remotely Controlled, Directionally Activated Operating Pantographs
- Detailed Truck Sides
- Detailed Cab Interior
- Powerful 12-Volt 5-Pole Precision Skew-Wound Flywheel Equipped Motor
- (2) Scale Kadee® Compatible Remotely Controlled Proto-Couplers
- (2) User-Installed Kadee® Compatible Magnetic Couplers
- Metal Handrails and Decorative Bell
- Decorative Metal Horn
- Locomotive Speed Control In Scale MPH Increments
- Interchangeable Traction Tire-Equipped Drive Wheels
- On-Board DCC Receiver
- Operates On Code 70, 83, & 100 Rail Curves
- Proto-Sound 3.0 With The Digital Command System Featuring Freight Yard Proto-Effects™
- Unit Measures (Pantograph Up): 11 5/16" x 1 3/8" x 3 9/16"
- Operates On 18" Radius Curves



Milwaukee Road (Cat Whiskers - 5 Silver stripes) - Bi-Polar Electric With DCC/DCS Proto-Sound 3.0
 80-2143-1 Cab Number E-4 \$449.95



Milwaukee Road (1948 Olympian) - Bi-Polar Electric With DCC/DCS Proto-Sound 3.0
 80-2141-1 Cab Number E-1 \$449.95



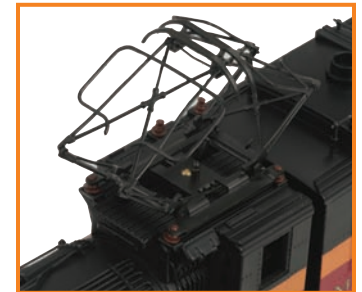
Milwaukee Road (Black) - Bi-Polar Electric With DCC/DCS Proto-Sound 3.0
 80-2144-1 Cab Number 10250 \$449.95
 Milwaukee Road (Black) - Bi-Polar Electric With DCC/DCS Proto-Sound 3.0
 80-2145-1 Cab Number 10251 \$449.95



Milwaukee Road (Cat Whiskers - 6 Silver stripes) - Bi-Polar Electric With DCC/DCS Proto-Sound 3.0
 80-2142-1 Cab Number E-3 \$449.95



Milwaukee Road (Yellow & Gray) - Bi-Polar Electric With DCC/DCS Proto-Sound 3.0
 81-2007-1 Cab Number E-4 \$449.95
 Milwaukee Road (Yellow & Gray) - Bi-Polar Electric With DCC/DCS Proto-Sound 3.0
 81-2008-1 Cab Number E-5 \$449.95



Alco PA



The PA was Alco's glamour girl. While Electro-Motive's E-units easily outsold Alco's passenger engine, the PA is widely regarded as the most beautiful first-generation diesel — period. Perhaps no other locomotive looked so right at the head of the streamlined trains of the late forties and fifties that were the last hurrah of American long-distance passenger service. The 294 PA's and cabless PB's built between 1946 and 1953 powered some of America's most famous name trains, from the Southern Pacific's Daylight to the New York Central's Empire State Express.

The muscular PA profile and its elegant nose, with the characteristic grille around the headlight, were designed by Ray Patten, General Electric's head of industrial design. At the time, GE and Alco were partners in the locomotive business, with GE making the electrical equipment for all Alco diesels. Patten's design was described as "a locomotive so distinctive and so powerful looking that it actually helps railroads sell their services

to passengers and shippers." While Alco would later fall by the wayside, GE went on to become America's largest locomotive builder by the early 1990's.

Under the hood of the PA beat a 16-cylinder model 244 prime mover that developed 2000 hp. Depending on their gearing, PA's could hustle a passenger consist along at up to 100 mph. Railfans gave the PAs and other Alcos the tongue-in-cheek title of "honorary steam locomotives" in recognition of the black smoke they produced when starting or accelerating, until the turbocharger came up to speed.

Long after all other PA's had gone to scrap, four restored ex-Santa Fe units remained in service on the Delaware & Hudson into the late 1970's. Sold to the Ferrocarriles Nacionales de Mexico (FNM) in 1978, most of the units eventually deteriorated to junk status, although one remained operational. But in April of 2000, Doyle McCormack — who also happens to be the engi-

neer of No. 4449, the restored Southern Pacific Daylight — and the Smithsonian Institution repatriated two of the junked units for rebuilding. One of the units will be restored to Santa Fe livery for static display, while Doyle is bringing the other PA back to life in the Nickel Plate Road "Bluebird" scheme. You can follow the progress of Doyle's labor on the Web site www.nkp190.com.

Recreate the excitement of first-class passenger travel in the middle of the last century, with these Alco PA locomotives and matching passenger sets. Our ProtoSound 3.0 sound and control system brings you the authentic sounds of an Alco prime mover and station announcements for name trains of the 1940s and '50s — along with the ability to start your train so gently you won't spill the water in the diner and then accelerate up to scale speeds of over 100 mph, just like the prototype.



New York Central - Alco PA A-B Set With DCC/DCS Proto-Sound 3.0
 80-2046-1 Cab Number 4200 & 4300 \$449.95
 New York Central - Alco PA A Unit With DCC/DCS Proto-Sound 3.0
 80-2047-1 Cab Number 4202 \$249.95
 New York Central - Alco PA B Unit With DCC/DCS Proto-Sound 3.0
 80-2048-1 Cab Number 4302 \$229.95

New York Central - Alco PA A-B Set (DCC Ready)
 80-2046-0 Cab Number 4200 & 4300 \$349.95
 New York Central - Alco PA A Unit (DCC Ready)
 80-2047-0 Cab Number 4202 \$189.95
 New York Central - Alco PA B Unit (DCC Ready)
 80-2048-0 Cab Number 4302 \$169.95

New York Central - Alco PA Boxed Set
 80-2060-1 \$529.95
 Includes Powered A Unit & 5 Passenger Cars
 (Baggage, Parlor, Diner, Coach, Observation)
 See Website for Engine and Car Names and Numbers



Denver Rio Grande - Alco PA A-B Set With DCC/DCS Proto-Sound 3.0
 80-2077-1 Cab Number 6011 & 6002 \$449.95
 Denver Rio Grande - Alco PA A Unit With DCC/DCS Proto-Sound 3.0
 80-2078-1 Cab Number 6013 \$249.95
 Denver Rio Grande - Alco PA B Unit With DCC/DCS Proto-Sound 3.0
 80-2079-1 Cab Number 6012 \$229.95

Denver Rio Grande - Alco PA A-B Set (DCC Ready)
 80-2077-0 Cab Number 6011 & 6002 \$349.95
 Denver Rio Grande - Alco PA A Unit (DCC Ready)
 80-2078-0 Cab Number 6013 \$189.95
 Denver Rio Grande - Alco PA B Unit (DCC Ready)
 80-2079-0 Cab Number 6012 \$169.95

Features

- Intricately Detailed ABS Bodies
- Authentic Paint Scheme & Cab Numbers
- Detailed Truck Sides, Pilots and Fuel Tank
- Die-Cast Metal Chassis
- (2) Cab Figures In A Unit
- Directionally Controlled Headlights
- RP-25 Metal Wheels Mounted On Metal Axles
- Powerful 12-Volt 5-Pole Precision Skew-Wound Flywheel-Equipped Motor In Each Unit
- Locomotive Speed Control in Scale MPH Increments
- Lighted Cab Interior
- Operating MARS Light (Where Prototypical)
- Illuminated Number Boards
- Lighted Class Lights
- (2) Scale Kadee-Compatible Remotely Controlled Proto-Couplers On Each A/B Set
- (2) User-Installable Kadee-Compatible Operating Couplers Also Supplied
- On-Board DCC Receiver
- Operates On Code 70, 83, & 100 Rail
- Proto-Sound® 3.0 With The Digital Command System Featuring Passenger Station Proto-Effects™
- A Unit Measures: 9 1/4" x 1 3/8" x 2 1/8"
- B Unit Measures: 8 3/4" x 1 3/8" x 2 1/8"
- Operates On 18" Radius Curves

Alco PA



Santa Fe - Alco PA A-B Set With DCC/DCS Proto-Sound 3.0
 80-2080-1 Cab Number 70 & 70A \$449.95
 Santa Fe - Alco PA A Unit With DCC/DCS Proto-Sound 3.0
 80-2081-1 Cab Number 62 \$249.95
 Santa Fe - Alco PA B Unit With DCC/DCS Proto-Sound 3.0
 80-2082-1 Cab Number 62A \$229.95

Santa Fe - Alco PA A-B Set (DCC Ready)
 80-2080-0 Cab Number 70 & 70A \$349.95
 Santa Fe - Alco PA A Unit (DCC Ready)
 80-2081-0 Cab Number 62 \$189.95
 Santa Fe - Alco PA B Unit (DCC Ready)
 80-2082-0 Cab Number 62A \$169.95



Southern Pacific - Alco PA A-B Set With DCC/DCS Proto-Sound 3.0
 80-2049-1 Cab Numbers 6005 & 5910 \$449.95
 Southern Pacific - Alco PA A Unit With DCC/DCS Proto-Sound 3.0
 80-2050-1 Cab Number 6006 \$249.95
 Southern Pacific - Alco PA B Unit With DCC/DCS Proto-Sound 3.0
 80-2051-1 Cab Number 5911 \$229.95

Southern Pacific - Alco PA A-B Set (DCC Ready)
 80-2049-0 Cab Numbers 6005 & 5910 \$349.95
 Southern Pacific - Alco PA A Unit (DCC Ready)
 80-2050-0 Cab Number 6006 \$189.95
 Southern Pacific - Alco PA B Unit (DCC Ready)
 80-2051-0 Cab Number 5911 \$169.95

Southern Pacific - Alco PA Boxed Set
 80-2061-1 \$529.95
 Includes Powered A Unit & 5 Passenger Cars
 (Baggage, Tavern, Parlor, Single Chair Coach, Observation)
 See Website for Engine and Car Names and Numbers





Delaware & Hudson - Alco PA A-B Set With DCC/DCS Proto-Sound 3.0
 80-2089-1 Cab Number 16 & 18 \$449.95
 Delaware & Hudson - Alco PA A Unit With DCC/DCS Proto-Sound 3.0
 80-2090-1 Cab Number 19 \$249.95

Delaware & Hudson - Alco PA A-B Set (DCC Ready)
 80-2089-0 Cab Number 16 & 18 \$349.95
 Delaware & Hudson - Alco PA A Unit (DCC Ready)
 80-2090-0 Cab Number 19 \$189.95



New Haven - Alco PA A-A Set With DCC/DCS Proto-Sound 3.0
 80-2083-1 Cab Number 0760 & 0767 \$449.95
 New Haven - Alco PA A Unit With DCC/DCS Proto-Sound 3.0
 80-2084-1 Cab Number 0785 \$249.95

New Haven - Alco PA A-A Set (DCC Ready)
 80-2083-0 Cab Number 0760 & 0767 \$349.95
 New Haven - Alco PA A Unit (DCC Ready)
 80-2084-0 Cab Number 0785 \$189.95



Erie - Alco PA A-A Set With DCC/DCS Proto-Sound 3.0
 80-2086-1 Cab Number 854 & 858 \$449.95
 Erie - Alco PA A Unit With DCC/DCS Proto-Sound 3.0
 80-2087-1 Cab Number 856 \$249.95

Erie - Alco PA A-A Set (DCC Ready)
 80-2086-0 Cab Number 854 & 858 \$349.95
 Erie - Alco PA A Unit (DCC Ready)
 80-2087-0 Cab Number 856 \$189.95

F-7



Manufactured by the Electro-Motive division of GM (EMD) from 1949 to 1953, the F-7 was a welcome relief to the strict guidelines set in place by the War Production Board during WWII. By 1945 the war had ended and the restrictions were lifted. EMD took advantage of having no limitations on supplies and released their F-series locomotives that same summer. The EMD F-7 shared the same smooth faced pilots and coupler shrouds as the earlier F3, the only noticeable difference between the two was the F-7's modified primary internal equipment, and the replacement of the F-3's chicken wire grilles with stainless steel upper body grilles.

This 1500hp diesel electric locomotive worked hard to meet industry demand after the four years of restriction during the

war. Universally associated with North American railroads until the 1970's, EMD's F-7 continued to be used for decades as railroads found them inexpensive to operate and maintain. Originally introduced as a freight-hauling unit, by EMD, the F-7 was also frequently used in passenger service. The F-7 wound up being the best selling carbody-style diesel EMD ever produced, selling over 3,700 units to 49 different railroads. They stayed in service until 1970 and assured itself a place in the railroad record books as a triumph of diesel productivity.

M.T.H. is proud to offer the drama of this postwar locomotive in HO scale. The M.T.H. HO F-7 Diesel Sets include Proto Sound 3.0 offering authentic EMD 567 prime mover sounds, first generation diesel horn and bell, crew station sounds, break

sounds, and cab chatter. The F7 features superb detailing that characterizes all M.T.H. HO diesels with added-on details that include legible builder's plates, grab irons, multiple-unit hoses, rooftop lift rings, see-through rooftop fans, steam generator exhaust stack (for passenger versions), windshield wipers, and trucks with separately-applied spring hangers, brake cylinders, and air pipes. This HO locomotive comes available in the markings of Santa Fe, Erie Lackawanna, Western Maryland, Northern Pacific, and Chesapeake & Ohio.



Northern Pacific - F-7 A/B Set With DCC/DCS Proto-Sound 3.0
 80-2120-1 Cab Numbers 6511A & 6511B \$439.95
 Northern Pacific - F-7 A Unit With DCC/DCS Proto-Sound 3.0
 80-2121-1 Cab Number 6511C \$229.95
 Northern Pacific - F-7 B Unit With DCC/DCS Proto-Sound 3.0
 80-2122-1 Cab Number 6512B \$219.95

Northern Pacific - F-7 A/B Set (DCC Ready)
 80-2120-0 Cab Numbers 6511A & 6511B \$299.95
 Northern Pacific - F-7 A Unit (DCC Ready)
 80-2121-0 Cab Number 6511C \$159.95
 Northern Pacific - F-7 B Unit (DCC Ready)
 80-2122-0 Cab Number 6512B \$149.95



Erie Lackawanna - F-7 A/B Set With DCC/DCS Proto-Sound 3.0
 80-2123-1 Cab Numbers 6111 & 6112 \$439.95
 Erie Lackawanna - F-7 A Unit With DCC/DCS Proto-Sound 3.0
 80-2124-1 Cab Number 6351 \$229.95
 Erie Lackawanna - F-7 B Unit With DCC/DCS Proto-Sound 3.0
 80-2125-1 Cab Number 6332 \$219.95

Erie Lackawanna - F-7 A/B Set (DCC Ready)
 80-2123-0 Cab Numbers 6111 & 6112 \$299.95
 Erie Lackawanna - F-7 A Unit (DCC Ready)
 80-2124-0 Cab Number 6351 \$159.95
 Erie Lackawanna - F-7 B Unit (DCC Ready)
 80-2125-0 Cab Number 6332 \$149.95

Features

- Directionally Controlled Headlights
- Intricately Detailed ABS Bodies
- 1:87 Scale Proportions
- Metal Wheels and Axles
- (1) Scale Operating Kadee Compatible Coupler on A-Unit
- (1) Operating Kadee Compatible Remote Controlled Proto-Coupler on A-Unit
- Detailed Truck Sides, Pilots and Fuel Tank
- Powerful 12-Volt 5-Pole Skew-Wound Precision Flywheel Equipped Motor In Both A & B Units
- Locomotive Speed Control In Scale MPH Increments
- Lighted Cab Interior
- Illuminated Number Boards
- Lighted Marker Lights
- (2) Engineer Cab Figures
- Moveable Spinning Roof Fan Blades
- Operating MARS Light (Where Prototypical)
- On-Board DCC Receiver
- Operates On Code 70, 83, & 100 Rail Curves
- Proto-Sound 3.0 With The Digital Command System Featuring Passenger Station or Freight Yard Proto-Effects
- A-Unit Measures: 7" x 1 7/16" x 2 3/8"
- B-Unit Measures: 6 7/8" x 1 7/16" x 2 3/8"
- Operates On 18" Radius Curves

F-7



Western Maryland - F-7 A/B Set With DCC/DCS Proto-Sound 3.0
 80-2111-1 Cab Numbers 60 & 59B \$439.95
 Western Maryland - F-7 A Unit With DCC/DCS Proto-Sound 3.0
 80-2112-1 Cab Number 54 \$229.95
 Western Maryland - F-7 B Unit With DCC/DCS Proto-Sound 3.0
 80-2113-1 Cab Number 53B \$219.95

Western Maryland - F-7 A/B Set (DCC Ready)
 80-2111-0 Cab Numbers 60 & 59B \$299.95
 Western Maryland - F-7 A Unit (DCC Ready)
 80-2112-0 Cab Number 54 \$159.95
 Western Maryland - F-7 B Unit (DCC Ready)
 80-2113-0 Cab Number 53B \$149.95



Santa Fe - F-7 A/B Set With DCC/DCS Proto-Sound 3.0
 80-2114-1 Cab Numbers 304 & 342B \$439.95
 Santa Fe - F-7 A Unit With DCC/DCS Proto-Sound 3.0
 80-2115-1 Cab Number 315 \$229.95
 Santa Fe - F-7 B Unit With DCC/DCS Proto-Sound 3.0
 80-2116-1 Cab Number 345B \$219.95

Santa Fe - F-7 A/B Set (DCC Ready)
 80-2114-0 Cab Numbers 304 & 342B \$299.95
 Santa Fe - F-7 A Unit (DCC Ready)
 80-2115-0 Cab Number 315 \$159.95
 Santa Fe - F-7 B Unit (DCC Ready)
 80-2116-0 Cab Number 345B \$149.95

Santa Fe - F-7 A Unit (Proto-Sound 3E+)
 80-2115-5 Cab No. 315 \$229.95
 Santa Fe - F-7 B Unit (Proto-Sound 3E+)
 80-2116-5 Cab No. 345B \$219.95



Santa Fe - F-7 A/B Set With DCC/DCS Proto-Sound 3.0
 80-2117-1 Cab Numbers 39L & 39A \$439.95
 Santa Fe - F-7 A Unit With DCC/DCS Proto-Sound 3.0
 80-2118-1 Cab Number 39C \$229.95
 Santa Fe - F-7 B Unit With DCC/DCS Proto-Sound 3.0
 80-2119-1 Cab Number 39B \$219.95

Santa Fe - F-7 A/B Set (DCC Ready)
 80-2117-0 Cab Numbers 39L & 39A \$299.95
 Santa Fe - F-7 A Unit (DCC Ready)
 80-2118-0 Cab Number 39C \$159.95
 Santa Fe - F-7 B Unit (DCC Ready)
 80-2119-0 Cab Number 39B \$149.95



Chesapeake & Ohio - F-7 A/B Set With DCC/DCS Proto-Sound 3.0
 80-2108-1 Cab Numbers 7016 & 7508 \$439.95
 Chesapeake & Ohio - F-7 A Unit With DCC/DCS Proto-Sound 3.0
 80-2109-1 Cab Number 7017 \$229.95
 Chesapeake & Ohio - F-7 B Unit With DCC/DCS Proto-Sound 3.0
 80-2110-1 Cab Number 7509 \$219.95

Chesapeake & Ohio - F-7 A/B Set (DCC Ready)
 80-2108-0 Cab Numbers 7016 & 7508 \$299.95
 Chesapeake & Ohio - F-7 A Unit (DCC Ready)
 80-2109-0 Cab Number 7017 \$159.95
 Chesapeake & Ohio - F-7 B Unit (DCC Ready)
 80-2110-0 Cab Number 7509 \$149.95



SD70ACe



The SD70ACe is Electro-Motive Diesel's hope for the future. While designed to meet the Environmental Protection Agency's Tier-2 emissions requirements that took effect on January 1, 2005, this replacement for the SD70MAC also has a higher purpose: to recapture the lead in North American locomotive sales that EMD lost to General Electric in 1987.

Under the hood beats a third-generation model 710 diesel with 4300 horsepower; only slight modifications were needed to make the existing model 710 meet new emission standards. With 5000 such motors in service worldwide and a reputation for dependability, EMD reasoned that shop crews would prefer familiar technology.

Other than the prime mover, however, virtually every element of the SD70ACe has been re-thought to create a 21st century locomotive. Ergonomics were a prime consideration. The engine's angular nose offers the crew far better visibility than most other locomotives, and the cab is comfortable for engineers of almost any size. Digital screens provide a range of information on what is happening both inside the locomotive and out on the road. The cab easily accommodates a crew of three — an important factor in a modern world without cabooses. And there is, of course, a cupholder for the engineer.

The SD70ACe also offers, in EMD's words, "outstanding improvements in maintainability." All electrical wires are on the right side of the locomotive and all piping is on the left, with most pipes and wires routed under the frame so they can be serviced by a man standing outside the engine — rather than crawling around at the bottom of the engine room. And the time between service intervals has been doubled, from every three months to every six months.

After a year of testing on the road and at the Association of American Railroads' test track in Pueblo, CO, the first SD70ACe's ('e' stands for "enhanced") were delivered to CSX Transportation in 2004. Today they are rostered by nearly every North American Class 1 railroad. At the present time, mainline American railroads generally maintain dual fleets of locomotives. AC power is used for heavy coal hauling and hotshot intermodal traffic because AC traction motors offer higher starting tractive effort with the same horsepower. Less expensive, traditional DC power is used for more mundane duties. But with the SD70ACe, Electro-Motive hopes it may have the 21st Century successor to its 1949 Geep — a locomotive that can be nearly all things to all railroads.

Features

- Intricately Detailed ABS Body
- Authentic Paint Scheme & Cab Numbers
- Detailed Truck Sides, Pilots and Fuel Tank
- Die-Cast Metal Chassis
- Detachable Scale Snow Plow
- (2) Cab Figures
- Directionally Controlled Headlights
- RP-25 Metal Wheels Mounted On Metal Axles
- Powerful 5-Pole Precision Flywheel Equipped Motor
- Locomotive Speed Control in Scale MPH Increments
- Lighted Cab Interior
- Illuminated Number Boards
- Lighted Marker Lights
- Operating Ditch Lights
- (2) Scale Kadee Compatible Remotely Controlled Proto-Couplers
- On-Board DCC Receiver
- Operates On Code 70, 83, & 100 Rail Curves
- Measures: 10 9/16" x 1 7/16" x 2 3/16"
- Operates On 18" Radius Curves

Did you know?

IntelliTrain, an option on the SD70ACe, uses cellular and GPS technology to allow a railroad's maintenance department to monitor operating conditions and problems as they occur out on the road — making diagnosis and repair considerably easier.



CSX - SD70ACe Diesel Engine
 80-2001-1 DCC/DCS Proto-Sound 3.0 \$249.95
 Cab Nos. 4833, 4836 & 4839

Kansas City Southern - SD70ACe Diesel Engine
 80-2002-1 DCC/DCS Proto-Sound 3.0 \$249.95
 Cab Nos. 4030, 4031 & 4051



BNSF - SD70ACe Diesel Engine (DCC Ready)
 80-2068-0 Cab No. 9371 \$189.95
 80-2069-0 Cab No. 9370 \$189.95
 80-2070-0 Cab No. 9374 \$189.95
 BNSF - SD70ACe Diesel Engine
 80-2003-1 DCC/DCS Proto-Sound 3.0 \$249.95
 Cab Nos. 9371, 9370 & 9374

Professionally Weathered!

Union Pacific - Signature Series SD70ACe Diesel Engine
 80-2155-1 DCC/DCS Proto-Sound 3.0 \$349.95

M.T.H. Electric Trains
Signature Series



SD70ACe



Union Pacific - SD70ACe Diesel Engine, Cab No. 8321
 80-2006-1 DCC/DCS Proto-Sound 3.0 \$249.95
 80-2006-0 DCC Ready \$189.95



Missouri Pacific - SD70ACe Diesel Engine, Cab No. 1982
 30-2007-1 DCC/DCS Proto-Sound 3.0 \$249.95



Denver Rio Grande Western - SD70ACe Diesel Engine, Cab No. 1989
 80-2010-1 DCC/DCS Proto-Sound 3.0 \$249.95
 80-2010-0 DCC Ready \$189.95



Katy - SD70ACe Diesel Engine, Cab No. 1988
 80-2009-1 DCC/DCS Proto-Sound 3.0 \$249.95
 80-2009-0 DCC Ready \$189.95



Chicago NorthWestern - SD70ACe Diesel Engine, Cab No. 1995
 80-2011-1 DCC/DCS Proto-Sound 3.0 \$249.95



Southern Pacific - SD70ACe Diesel Engine, Cab No. 1996
 80-2012-1 DCC/DCS Proto-Sound 3.0 \$249.95
 80-2012-0 DCC Ready \$189.95

EMD Demonstrator - SD70ACe Diesel Engine with DCC/DCS Proto-Sound 3.0
 80-2004-1 Cab Nos. GM70, GM71 & GM73 \$249.95



George H. Bush - SD70ACe Diesel Engine, Cab No. 4141
 80-2013-1 DCC/DCS Proto-Sound 3.0 \$249.95
 80-2013-0 DCC Ready \$189.95

Montana Rail Link - SD70ACe Diesel Engine with DCC/DCS Proto-Sound 3.0
 80-2005-1 Cab Nos. 4304, 4308 & 4311 \$249.95



SD70ACe Comfort Cab



Union Pacific - SD70ACe Diesel Engine Comfort Cab, Cab No. 8622
 80-2134-1 DCC/DCS Proto-Sound 3.0 \$249.95
 80-2134-0 DCC Ready \$189.95
 Union Pacific - SD70ACe Diesel Engine Comfort Cab, Cab No. 8625
 80-2135-1 DCC/DCS Proto-Sound 3.0 \$249.95
 80-2135-0 DCC Ready \$189.95
 80-2135-5 DCC/DCS Proto-Sound 3E+ \$249.95
 Union Pacific - SD70ACe Diesel Engine Comfort Cab, Cab No. 8631
 80-2136-1 DCC/DCS Proto-Sound 3.0 \$249.95
 80-2136-0 DCC Ready \$189.95

BNSF - SD70ACe Diesel Engine Comfort Cab, Cab No. 9162
 80-2137-1 DCC/DCS Proto-Sound 3.0 \$249.95
 80-2137-0 DCC Ready \$189.95
 BNSF - SD70ACe Diesel Engine Comfort Cab, Cab No. 9168
 80-2138-1 DCC/DCS Proto-Sound 3.0 \$249.95
 80-2138-0 DCC Ready \$189.95
 80-2138-5 DCC/DCS Proto-Sound 3E+ \$249.95
 BNSF - SD70ACe Diesel Engine Comfort Cab, Cab No. 9172
 80-2139-1 DCC/DCS Proto-Sound 3.0 \$249.95
 80-2139-0 DCC Ready \$189.95



SD70M-2



With a wave of consolidation behind it, North American railroading is once again a good business to be in. Freight traffic is booming. Locomotive orders are coming in at a record pace from the Big Six roads that dominate rail transportation on the continent: Union Pacific, BNSF, CSX, Norfolk Southern, Canadian National, and Canadian Pacific. And the two remaining diesel builders, EMD and GE, are locked in a battle to become the locomotive supplier for the 21st century.

The standard bearers for EMD, newly independent and no longer a division of General Motors, are its 70 Series road freight engines, the SD70M-2 shown here and the SD70ACe detailed on page 8. Both locomotives are powered by a two-cycle, 16-cylinder, 4300-horsepower model 710 prime mover and have a top speed of 70 mph. The biggest difference between the siblings is what's under the floor:

traditional DC traction motors in the SD70M-2's trucks and AC traction motors in the SD70ACe. While AC traction motors put more tractive effort on the rails and enable an SD70ACe to start a heavier train with the same horsepower, that additional capability comes at a cost. AC-powered locomotives are both more expensive and more electrically complex than engines with DC traction motors, which most diesels have used since the 1940s. For that reason, the Norfolk Southern and Canadian National have found the SD70M-2 more suitable to their needs, and both roads roster large DC fleets. Regional railroad Florida East Coast has been another DC-power advocate.

Did You Know?

Fully loaded, a 70 Series locomotive carries 4,900 gallons of diesel fuel, 420 gallons of lube oil, and 275 gallons of cooling water.

Features

- Intricately Detailed ABS Body
- Authentic Paint Scheme & Cab Numbers
- Detailed Truck Sides, Pilots and Fuel Tank
- Die-Cast Metal Chassis
- Detachable Scale Snow Plow
- (2) Cab Figures
- Directionally Controlled Headlights
- RP-25 Metal Wheels Mounted On Metal Axles
- Powerful 5-Pole Precision Flywheel Equipped Motor
- Locomotive Speed Control in Scale MPH Increments
- Lighted Cab Interior
- Illuminated Number Boards
- Lighted Marker Lights
- Operating Ditch Lights
- (2) Scale Kadee Compatible Remotely Controlled Proto-Couplers
- On-Board DCC Receiver
- Operates On Code 70, 83, & 100 Rail Curves
- Proto-Sound 3.0 With The Digital Command System Featuring Freight Yard Proto-Effects
- Measures: 10 9/16" x 1 7/16" x 2 3/16"
- Operates On 18" Radius Curves



Canadian National - SD70M-2 Diesel Engine, Cab No. 8000
 80-2026-1 DCC/DCS Proto-Sound 3.0 \$249.95
 80-2026-0 DCC Ready \$189.95

Canadian National - SD70M-2 Diesel Engine, Cab No. 8000
 80-2027-1 DCC/DCS Proto-Sound 3.0 \$249.95
 80-2027-0 DCC Ready \$189.95

Canadian National - SD70M-2 Diesel Engine, Cab No. 8023
 80-2028-1 DCC/DCS Proto-Sound 3.0 \$249.95
 80-2028-0 DCC Ready \$189.95



Electro Motive Division - SD70M-2 Diesel Engine, Cab No. 74
 80-2017-1 DCC/DCS Proto-Sound 3.0 \$249.95
 Electro Motive Division - SD70M-2 Diesel Engine, Cab No. 75
 80-2018-1 DCC/DCS Proto-Sound 3.0 \$249.95



Norfolk Southern - SD70M-2 Diesel Engine, Cab No. 2649
 80-2014-1 DCC/DCS Proto-Sound 3.0 \$249.95
 80-2014-0 DCC Ready \$189.95
 Norfolk Southern - SD70M-2 Diesel Engine, Cab No. 2651
 80-2015-1 DCC/DCS Proto-Sound 3.0 \$249.95
 80-2015-0 DCC Ready \$189.95
 Norfolk Southern - SD70M-2 Diesel Engine, Cab No. 2654
 80-2016-0 DCC Ready \$189.95



Florida East Coast - SD70M-2 Diesel Engine, Cab No. 100
 80-2020-1 DCC/DCS Proto-Sound 3.0 \$249.95
 Florida East Coast - SD70M-2 Diesel Engine, Cab No. 102
 80-2021-0 DCC Ready \$189.95
 Florida East Coast - SD70M-2 Diesel Engine, Cab No. 103
 80-2022-0 DCC Ready \$189.95



Florida East Coast - SD70M-2 Diesel Engine, Cab No. 106
 80-2029-0 DCC Ready \$189.95
 Florida East Coast - SD70M-2 Diesel Engine, Cab No. 105
 80-2030-0 DCC Ready \$189.95
 Florida East Coast - SD70M-2 Diesel Engine, Cab No. 107
 80-2031-0 DCC Ready \$189.95

F-3

The EMD F-unit, built by the Electro-Motive Division of General Motors, was "the diesel that did it" - vanquished the steam engine from American railroads.

In 1939-40, a quartet of F-units barnstormed across 35 states, logging 83,764 miles on 20 railroads and proving once and for all that diesels were the wave of the future. One of EMD's largest customers was the Pennsylvania Railroad. On Pennsylvania mainlines from the east Coast to Chicago, new EMD diesels displaced the Pennsy-designed steamers that had been the symbols of the "P Company." While other diesel manufacturers competed with EMD, the various versions of the ubiquitous F unit — FT, F3, and F7 — became the icons of the diesel revolution.

Features

- Intricately Detailed ABS Body
- Detailed Truck Sides, Pilots and Fuel Tank
- Die-Cast Metal Chassis
- (2) Cab Figures
- Directionally Controlled Headlights
- RP-25 Metal Wheels Mounted On Metal Axles
- (2) Kadee Compatible Magnetic Couplers
- Operates On Code 70, 83, & 100 Rail Curves
- Proto-Sound 3.0 With The Digital Command System Featuring Freight Yard Proto-Effects
- Unit Measures: 7" x 1 7/16" x 2 3/8"
- Operates On 18" Radius Curves



Baltimore & Ohio - F-3 A Unit

85-2009-1	DCC/DCS Proto-Sound 3.0	\$169.95
85-2009-0	DCC Ready	\$99.95
85-2009-3	Non-Powered	\$55.97



Western Pacific - F-3 A Unit

85-2010-1	DCC/DCS Proto-Sound 3.0	\$169.95
85-2010-0	DCC Ready	\$99.95
85-2010-3	Non-Powered	\$55.97



Bessemer & Lake Erie - F-3 A Unit

85-2011-1	DCC/DCS Proto-Sound 3.0	\$169.95
85-2011-0	DCC Ready	\$99.95
85-2011-3	Non-Powered	\$55.97

READY **2** RAIL

Operating Action Car



Harley-Davidson® - Operating Action Car
81-99003 \$54.95



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Christmas - Operating Action Car
81-99014 \$54.95



Lionel Corporation - Operating Action Car
81-99012 \$54.95

Licensed by Lionel L.L.C.



MTH Electric Trains - Operating Action Car
81-99013 \$54.95

This exciting car features a backlighting 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!

READY **2** RAIL

40' PS-1 Box Car



Milwaukee Road - 40' PS-1 Box Car

85-74051	Car # 35050	M.S.R.P \$22.95
85-74052	Car # 35062	M.S.R.P \$22.95
85-74053	Car # 35068	M.S.R.P \$22.95



Great Northern - 40' PS-1 Box Car

85-74057	Car # 27010	M.S.R.P \$22.95
85-74058	Car # 27014	M.S.R.P \$22.95
85-74059	Car # 27017	M.S.R.P \$22.95

**Opening
Doors!**



Southern Pacific - 40' PS-1 Box Car

85-74054	Car # 97828	M.S.R.P \$22.95
85-74055	Car # 97839	M.S.R.P \$22.95
85-74056	Car # 97852	M.S.R.P \$22.95



Western Maryland - 40' PS-1 Box Car

85-74048	Car # 29076	M.S.R.P \$22.95
85-74049	Car # 29083	M.S.R.P \$22.95
85-74050	Car # 29097	M.S.R.P \$22.95



Bessemer & Lake Erie - 40' PS-1 Box Car

85-74042	Car # 81046	M.S.R.P \$22.95
85-74043	Car # 81052	M.S.R.P \$22.95
85-74044	Car # 81073	M.S.R.P \$22.95



Chesapeake & Ohio - 40' PS-1 Box Car

85-74045	Car # 4446	M.S.R.P \$22.95
85-74046	Car # 4450	M.S.R.P \$22.95
85-74047	Car # 4462	M.S.R.P \$22.95

40' Steel Sided Reefer



Pennsylvania - 40' Steel Sided Reefer

85-78009	Car # 498353	M.S.R.P. \$22.95
85-78010	Car # 498357	M.S.R.P. \$22.95
85-78011	Car # 498359	M.S.R.P. \$22.95



Railway Express Agency - 40' Steel Sided Reefer

85-78012	Car # 6838	M.S.R.P. \$22.95
85-78013	Car # 6850	M.S.R.P. \$22.95
85-78014	Car # 6862	M.S.R.P. \$22.95



Pacific Fruit Express - 40' Steel Sided Reefer

85-78018	Car # 47620	M.S.R.P. \$22.95
85-78019	Car # 47625	M.S.R.P. \$22.95
85-78020	Car # 67629	M.S.R.P. \$22.95



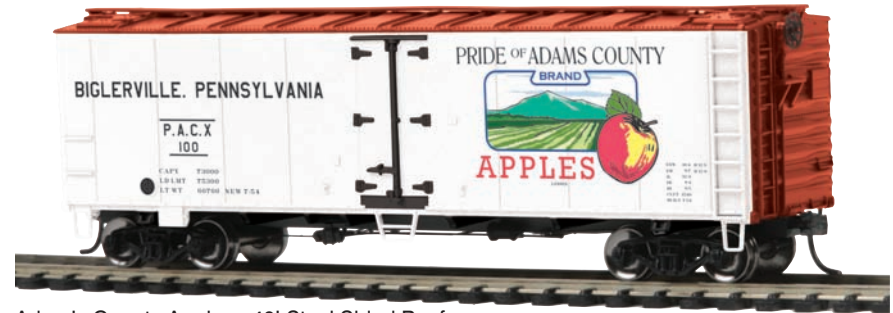
Santa Fe - 40' Steel Sided Reefer

85-78021	Car # 4225	M.S.R.P. \$22.95
85-78022	Car # 4237	M.S.R.P. \$22.95
85-78023	Car # 4239	M.S.R.P. \$22.95



Isaly's - 40' Steel Sided Reefer

85-78003	Car # 47802	M.S.R.P. \$22.95
85-78004	Car # 47806	M.S.R.P. \$22.95
85-78005	Car # 47814	M.S.R.P. \$22.95



Adam's County Apples - 40' Steel Sided Reefer

85-78000	Car # 100	M.S.R.P. \$22.95
85-78001	Car # 103	M.S.R.P. \$22.95
85-78002	Car # 108	M.S.R.P. \$22.95

R40-2 Woodside Reefer



Edelweiss Beer R40-2 Woodside Reefer Car

80-94010	Car # 18302	M.S.R.P. \$32.95
80-94010-5	Car # 18302 (HO 3-Rail)	M.S.R.P. \$34.95
80-94011	Car # 18304	M.S.R.P. \$32.95
80-94012	Car # 18305	M.S.R.P. \$32.95



Pacific Fruit Express R40-2 Woodside Reefer Car

80-94007	Car # 37654	M.S.R.P. \$32.95
80-94008	Car # 37682	M.S.R.P. \$32.95
80-94009	Car # 37650	M.S.R.P. \$32.95
80-94009-5	Car # 37650 (HO 3-Rail)	M.S.R.P. \$34.95



Pennsylvania R40-2 Woodside Reefer Car

80-94001	Car # 120167	M.S.R.P. \$32.95
80-94002	Car # 120143	M.S.R.P. \$32.95
80-94003	Car # 120140	M.S.R.P. \$32.95
80-94003-5	Car # 120140 (HO 3-Rail)	M.S.R.P. \$34.95



Santa Fe R40-2 Woodside Reefer Car

80-94004	Car # 24978	M.S.R.P. \$32.95
80-94005	Car # 24980	M.S.R.P. \$32.95
80-94006	Car # 24963	M.S.R.P. \$32.95
80-94006-5	Car # 24963 (HO 3-Rail)	M.S.R.P. \$34.95

R40-2 Woodside Reefer Sets



Edeltweiss Beer 6-Car R40-2 Reefer Set

80-90023 #s 18307, 18306, 18308, 18312, 18310, 18313

M.S.R.P. \$169.95



Pacific Fruit Express 6-Car R40-2 Reefer Set

80-90022 #s 37673, 37678, 37680, 37685, 37692, 37694

M.S.R.P. \$169.95



Santa Fe 6-Car R40-2 Reefer Set

80-90021 #s 24965, 24967, 24972, 27976, 24983, 24989

M.S.R.P. \$169.95



Pennsylvania 6-Car R40-2 Reefer Set

80-90020 #s 120163, 120165, 120154, 120159, 120178, 120170

M.S.R.P. \$169.95



New York Central 6-Car R40-2 Reefer Set

80-90024 #s 6350, 6354, 6342, 6348, 6363, 6369

M.S.R.P. \$169.95

USRA 55-Ton Steel Twin Hopper



Baltimore & Ohio - USRA 55-Ton Steel Twin Hopper
 80-97013 Car # 220706 \$29.95
 80-97014 Car # 220722 \$29.95



Union Pacific - USRA 55-Ton Steel Twin Hopper
 80-97011 Car # 88806 \$29.95
 80-97012 Car # 88828 \$29.95



Pennsylvania - USRA 55-Ton Steel Twin Hopper
 80-97009 Car # 220149 \$29.95
 80-97010 Car # 220158 \$29.95



Erie - USRA 55-Ton Steel Twin Hopper
 80-97015 Car # 26545 \$29.95
 80-97016 Car # 26548 \$29.95



Norfolk & Western - USRA 55-Ton Steel Twin Hopper
 80-97017 Car # 22044 \$29.95
 80-97018 Car # 22016 \$29.95



New York Central - USRA 55-Ton Steel Twin Hopper
 80-97007 Car # 420511 \$29.95
 80-97008 Car # 420527 \$29.95

USRA 55-Ton Steel Twin Hopper Sets



New York Central - 6-Car USRA 55-Ton Steel Twin Hopper Set
80-90014 Car # 420536, 420529, 420555, 420549, 420543, 420530 \$169.95



Pennsylvania - 6-Car USRA 55-Ton Steel Twin Hopper Set
80-90015 Car # 220166, 220138, 220105, 220109, 220184, 220173 \$169.95



Union Pacific - 6-Car USRA 55-Ton Steel Twin Hopper Set
80-90016 Car # 88823, 88835, 88839, 88840, 88842, 88854 \$169.95



Baltimore & Ohio - 6-Car USRA 55-Ton Steel Twin Hopper Set
80-90017 Car # 220723, 220725, 220739, 220746, 220757, 220701 \$169.95



Erie - 6-Car USRA 55-Ton Steel Twin Hopper Set
80-90018 Car # 26538, 26543, 26555, 26530, 26546, 26532 \$169.95



Norfolk & Western - 6-Car USRA 55-Ton Steel Twin Hopper Set
80-90019 Car # 22046, 22049, 22022, 22036, 22038, 22010 \$169.95

Steel Caboose

READY **2** RAIL



Baltimore & Ohio - Steel Caboose
 85-77000 Car # C1687 M.S.R.P. \$23.95
 85-77001 Car # C1698 M.S.R.P. \$23.95



Pennsylvania - Steel Caboose
 85-77006 Car # 478230 M.S.R.P. \$23.95
 85-77007 Car # 478247 M.S.R.P. \$23.95



Santa Fe - Steel Caboose
 85-77008 Car # 1764R M.S.R.P. \$23.95
 85-77009 Car # 1788R M.S.R.P. \$23.95



Western Pacific - Steel Caboose
 85-77010 Car # 761 M.S.R.P. \$23.95
 85-77011 Car # 765 M.S.R.P. \$23.95



Bessemer & Lake Erie - Steel Caboose
 85-77002 Car # 1850 M.S.R.P. \$23.95
 85-77003 Car # 1856 M.S.R.P. \$23.95



Milwaukee Road - Steel Caboose
 85-77004 Car # 026 M.S.R.P. \$23.95
 85-77005 Car # 034 M.S.R.P. \$23.95

Passenger Cars



Southern Pacific - 3-Car Diner/Kitchen/Coffee Passenger Set

80-60030 \$199.95
80-60030-5 (HO 3-Rail) \$199.95



Southern Pacific - 5-Car Passenger Set

80-60029 \$329.95
80-60029-5 (HO 3-Rail) \$329.95



Southern Pacific Lines - Articulated Chair/Chair Passenger Car Set

80-60010 \$134.95
80-60011 \$134.95



Southern Pacific Lines - Articulated Chair/Chair Passenger Car Set w/Antenna

80-60009 \$134.95



Southern Pacific Lines - 8-Car Passenger Set

80-60007 \$499.95

8-Car Sets Include: (1) Baggage, (1) Coffee/Kitchen/Diner Articulated Set, (1) Tavern Car, (1) Parlor Car, (1) Single Chair Pass Car, (1) Observation Car

Passenger Cars



Northern Pacific - 5-Car Passenger Set
81-60008 \$329.95

Northern Pacific - 2-Car Parlor Passenger Set
81-60016 \$149.95



Santa Fe - 5-Car Passenger Set (Ribbed)
81-60003 \$329.95



Santa Fe - 2-Car Parlor Passenger Set
81-60011 \$149.95



Denver Rio Grande - 5-Car Passenger Set
81-60005 \$329.95

Denver Rio Grande - 2-Car Parlor Passenger Set
81-60013 \$149.95



New Haven - 5-Car Passenger Set (Ribbed)
81-60002 \$329.95



New Haven - 2-Car Parlor Passenger Set
81-60010 \$149.95

Passenger Cars



Delaware & Hudson - 5-Car Passenger Set
80-60004 \$329.95



Delaware & Hudson - 2-Car Parlor Passenger Set
81-60012 \$149.95



Erie Lackawanna - 5-Car Passenger Set
81-60006 \$329.95



Erie Lackawanna - 2-Car Parlor Passenger Set
81-60014 \$149.95



Pennsylvania - 5-Car Passenger Set
81-60001 \$329.95



Pennsylvania - 2-Car Parlor Passenger Set
81-60009 \$149.95

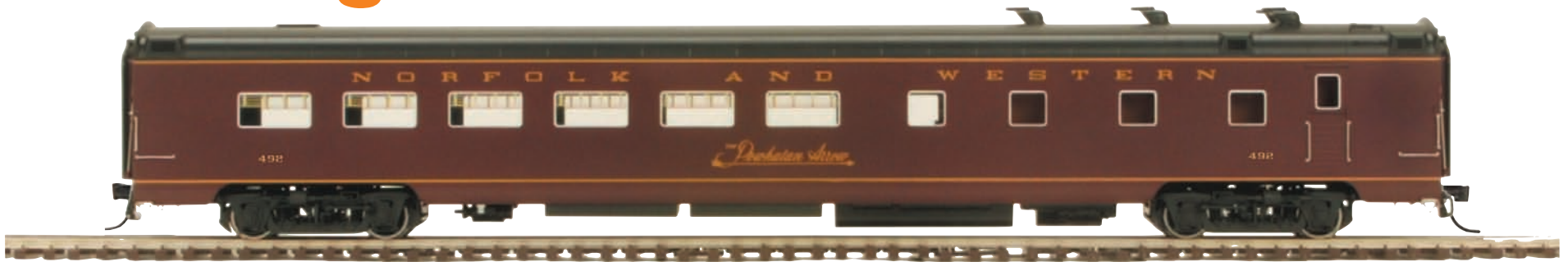


Erie - 5-Car Passenger Set
80-60007 \$329.95



Erie - 2-Car Parlor Passenger Set
81-60015 \$149.95

Passenger Cars



Norfolk & Western - Diner No. 492
80-60015 \$69.95



Features

- Durable ABS Intricately Detailed Bodies
- Metal Wheels and Axles
- Overhead Interior LED Lighting
- Detailed 4-Wheel Trucks
- Authentic Paint Scheme
- Operating End-of-Car Diaphragms
- Separate Metal Handrails
- Detailed Car Interiors
- Kadee-Compatible Couplers
- Detailed Car Undercarriage
- 5-Car Sets Feature: (1) Combine Car, (1) Coach Car, (1) Tavern Car, (1) Parlor Car, (1) Observation Car
- Measures: 11 1/2" x 1 7/16" x 1 7/8"
- Operates On 22" Radius Curves



Norfolk & Western- 5-Car Passenger Set
80-60013 \$329.95

5-Car Sets Include: (1) Compartment (Divided) Coach No. 511, (1) Crew Coach No. 501, (1) Coach No. 532, (1) Diner No. 491, (1) Tavern-Lounge-Observation No. 581



M.T.H. Electric Trains
Signature Series

Norfolk & Western - Signature Series 5-Car Passenger Set
80-60031 \$479.95

5-Car Sets Include: (1) Compartment (Divided) Coach No. 511, (1) Crew Coach No. 501, (1) Coach No. 532, (1) Diner No. 491, (1) Tavern-Lounge-Observation No. 581

**Professionally
Weathered!**



Passenger Cars



Empire State Express - 5-Car Passenger Set
80-60025 \$329.95



Empire State Express - 2-Car Parlor/Diner Passenger Set
80-60028 \$134.95



Empire State Express - 2-Car Coach Passenger Set
80-60027 \$134.95



Empire State Express - Tavern-Lounge-Baggage Car
80-60026 \$69.95



Twentieth Century (1940) - 4-4-2 Sleeper Passenger Car
80-60018 \$69.95

Twentieth Century (1938) - 4-4-2 Sleeper Passenger Car
80-60022 \$69.95



Twentieth Century (1940) - 2-Car Sleeper Passenger Set
80-60019 \$134.95

Twentieth Century (1938) - 2-Car Sleeper Passenger Set
80-60024 \$134.95



Twentieth Century (1940) - 2-Car Sleeper Passenger Set
80-60020 \$134.95

Twentieth Century (1938) - 2-Car Sleeper Passenger Set
80-60023 \$134.95

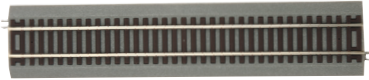


Twentieth Century (1938) - 5-Car Passenger Set
80-60021 \$329.95



Twentieth Century (1940) - 5-Car Passenger Set
80-60017 \$329.95

Track & Accessories



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



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



HO RealTrax 9" Straight Code 83 Track Rerailer
81-1015 \$7.99



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



HO ScaleTrax 9" Straight Code 83 Track
80-1001 \$0.99



HO ScaleTrax 22" Code 83 Radius Curve Track
80-1022 \$0.99



HO ScaleTrax 18" Radius Curve Code 83 Track
80-1018 \$0.99

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



7 oz. ProtoSmoke™ Fluid		
60-1045	Unscented	\$14.95
60-1046	Christmas	\$14.95
60-1047	Coal	\$14.95
60-1048	Diesel	\$14.95
60-1049	Woodburning	\$14.95

Assortment (36 pieces)
2 oz. ProtoSmoke™ Fluid Bottles
60-1051 \$179.95

2 oz. ProtoSmoke™ Fluid Bottles		
60-1051a	Christmas	\$4.99
60-1051b	Coal	\$4.99
60-1051c	Diesel	\$4.99
60-1051d	Wood Burning	\$4.99
60-1051e	Coffee	\$4.99
60-1051f	Eggs & Bacon	\$4.99
60-1051g	Vanilla	\$4.99
60-1051h	Candy Cane	\$4.99
60-1051i	Barbeque	\$4.99
60-1051j	Pipe Smoke	\$4.99
60-1051k	Cinnamon Roll	\$4.99
60-1051l	Apple Pie	\$4.99
60-1051m	Unscented	\$4.99



30 Watt DC Transformer
40-300 \$99.95

If you're looking for a reliable HO power source, the Z-Series DC-300 transformer from M.T.H. Electric Trains is a perfect choice. Featuring 30 watts of power and a 16 volt AC accessory port, the CSA approved DC-300 will comfortably run up to five HO locomotives.

Thanks to the AC accessory port, the DC-300 can throw a turnout or light up a town's building and house lights while still allowing your locomotives to challenge steep grades or pull a long consist. The DC-300 outputs power in minute increments that ensure your locomotives will operate smoothly and realistically.

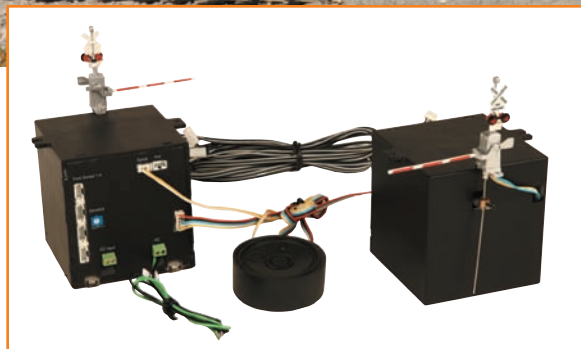
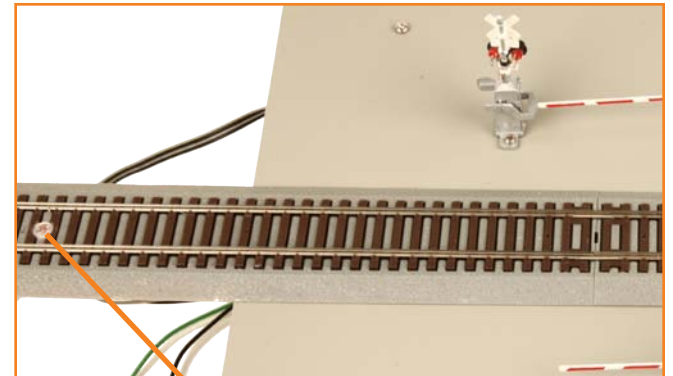
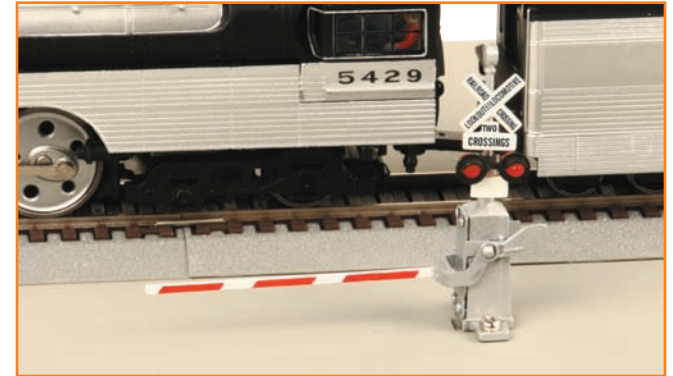
Equipped with boost, brake and direction buttons, the DC-300 provides the operator with the control needed to conventionally operate your HO pike.

Operators using the DC-300 with M.T.H. HO locomotives equipped with Proto-Sound 3.0 have access to a special "M.T.H. Brake" mode that slowly stops the engine but keeps its lights and sound on. When the M.T.H. Brake is turned off, the locomotive will begin moving and slowly ramp up to the previous throttle setting.

Features

- Controller LED On Light
- Overload Light
- Power On Switch
- Momentum Control
- Brake Control
- Direction Control
- Smooth Operating Throttle Knob
- Built-In Circuit Breaker Protection
- 30 Watt Power Supply w/16v AC Accessory Output Jacks
- 5-Year Limited Warranty
- CSA Approved
- Unit Measures: 7 1/2" x 5 1/4" x 3 3/4"

Operating Crossing Signal



Operating Crossing Signals
80-10001 \$179.95

- Flashing warning lights
- Slow-motion crossing gates
- Ringing warning bell
- Guards up to four tracks

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!

Features

- 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
- Unit Measures: 2 1/8" High

Optical Track Sensors

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



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, even though controllers that access these NMRA standard functions are just now becoming 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/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 1 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



DCS Commander Controller
50-1028 \$149.95

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

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 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.

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



DCS Remote Control System
50-1001 \$299.95
(requires separate power supply)

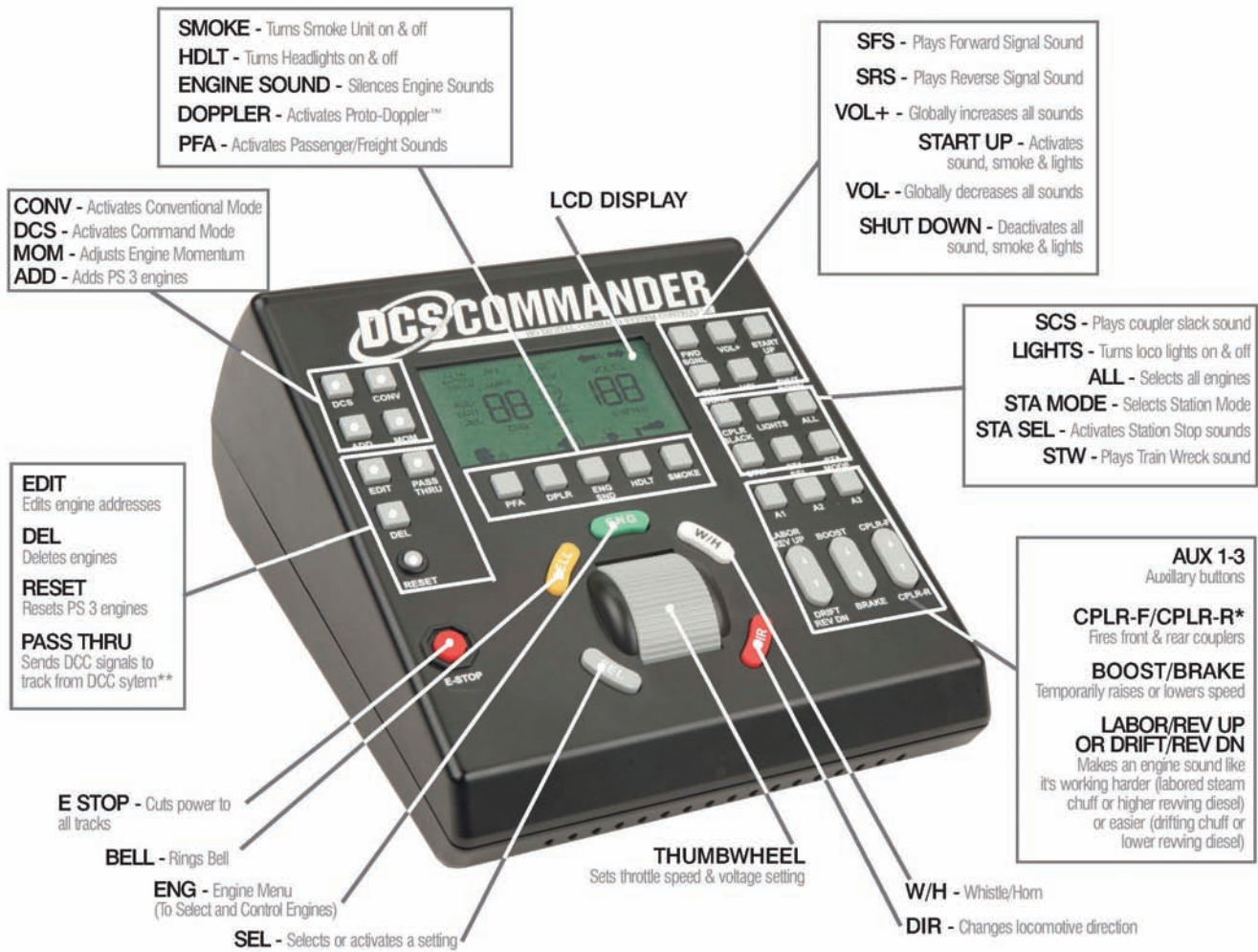


DCS Accessory
Interface Unit (AIU)
50-1004 \$99.95

Your Proto-Sound® engine senses what kind of power is on the rails. **Just set it on the track and run it!**

DCS COMMANDER

BY MTH ELECTRIC TRAINS
MTH DIGITAL COMMAND SYSTEM
HO DIGITAL COMMAND SYSTEM CONTROLLER



More Features Than Analog DC or DCC Command Control

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 10 different DCS engines from a single Commander at the same time on the same track — 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 controller.

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.

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.

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DCS™ Simply The Best Way To Run A Railroad™
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)
M.T.H.'s RealTrax® has received U.S. Patent No. 6,019,289.
M.T.H.'s Z-4000® Transformer has received U.S. Patent No's. 6,281,606 & 6,624,537.
HO Coupler 7,694,834

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* Operating couplers are available only on diesels 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 3.0 locomotive to any demo center and experience the additional features your engine has with DCS Control.

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