

M.T.H. Electric Trains

2014 European Models



Model Trains That Do More

O and HO Gauge Models

Model Trains That Do More



Until now, European hobbyists have often had to choose between models that look realistic and models that run well. Now M.T.H. introduces accurate, highly detailed scale models that run superbly, have more features than any previous HO or O gauge trains, and are offered at attractive prices. Our locomotives feature:

DCC On Board

All M.T.H. locomotives are DCC equipped.* For operators with the newest DCC controllers, M.T.H. engines offer a full range of 28 DCC functions.

Compatibility with all AC and DC operating systems

M.T.H. locomotives are compatible with all common operating systems: analog AC or DC, DCC, and our own DCSTTM Digital Command



System. Your M.T.H. engine automatically senses what kind of power is on the rails. Just set it on the track and run it!

Proto-Scale 3-2TM

M.T.H. O gauge engines are available with a choice of scale wheels or deeper-flanged hi-rail wheels. Our unique Proto-Scale 3-2 feature allows either version to operate on both 2-rail and 3-rail track; changeover is simple and takes just minutes. Engines with hi-rail wheels have blind (unflanged) center drivers to allow operation on smaller radius curves and switches.

Scale Detailing

M.T.H. engines are accurately researched and as detailed as we can reasonably make them. Steam engines and our Crocodile electrics feature die cast metal



construction with many added-on metal details; our TRAXX and Taurus electrics are constructed of ABS plastic with added-on metal details and die-cast trucks and underframe. All are designed to deliver many years of smooth, dependable operation.

Vivid Engine Sounds

Our Proto-Sound[®] system features crystal-clear digital recordings, with a full range of sounds including whistle or horn, steam locomotive chuff, electric engine cooling fans, squealing brakes, crew conversations, and much more. Passenger engines offer Passenger Station Proto-Effects[™], a complete arrival and departure sequence that you can activate from an AC transformer or a DCC or DCS handheld. Freight engines include Freight Yard Proto-Effects, a symphony of freight terminal sounds.





Great Smoke

M.T.H. steam engines feature fan-driven, puffing ProtoSmoke™, synchronized with their drive wheels' revolutions — the most realistic smoke system in the hobby. You can vary the intensity with the smoke "volume" control on the locomotive or remotely with a DCC or DCS handheld.

Extraordinary Slow Speed Capability

M.T.H. engines can throttle down as slow as three scale miles per hour, speed down the main line, and maintain any speed in between. With our DCS system, you can set engine speed in one-scale-mile-per-hour (smph) increments up to 120 smph.

Speed Control

The Proto-Speed Control™ built into every M.T.H. locomotive 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.

Who Is M.T.H.?

While our name may be new to European model railroaders, M.T.H. Electric Trains is a seasoned American model train manufacturer with a long history of innovation. In little more than a quarter century, M.T.H. has grown from a tiny business operated out of a spare bedroom to a 50+ employee company headquartered in its own sprawling building in a suburb of Washington, D.C.

Over the past 34 years, we have cataloged over 17,000 different items in four scales: O gauge, One Gauge, HO gauge, and tinplate Standard Gauge. We are co-owners of two overseas facilities that make nothing but M.T.H. trains, and we use three other

factories that are dedicated solely to our product line. This gives us more control of our manufacturing process and quality than many other train companies, whose products are often made in the same factories used by their competitors.

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

Choice of Couplers

M.T.H. locomotives are supplied with American-style remote-controlled knuckle couplers, NEM 311-compatible couplers, and scale hook-and-chain couplers. Provisions are also made for mounting American Kadee® scale knuckle couplers.

* Except previously-released Proto-Sound 2.0 versions of the French Chapelon Pacific and British Duchess Class locomotives, which were not DCC-compliant.



Visit Us Online at www.mthtrains.com/europe



Proto-Sound 3.0 The Richest Set



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

Like all evolving technological products, there are a number of new features found inside each Proto-Sound 3.0 equipped locomotive that we believe will continue to ensure that M.T.H. locomotives are the most advanced, most universally compatible and most exciting to operate in all of model railroading.

Chief among these new features is the inclusion of an NMRA Digital Command Control (DCC) receiver. While not a popular command control choice of 3-rail O Gauge model railroaders, DCC is the dominant command control protocol in other scales, including HO, N, G and 2-rail O Scale. By incorporating a DCC receiver into our products, your new Proto-Sound 3.0 equipped locomotive can be operated in command control mode using any DCC controller available today. There are dozens of DCC controllers available from a large number of DCC controller manufacturers. Many of these devices can control up to 28 different DCC functions (the NMRA mandated limit for DCC functionality) found in every M.T.H. Proto-Sound 3.0 equipped locomotive.

While 28 DCC functions may seem impressive, when a Proto-Sound 3.0 engine is operated with M.T.H.'s DCS system, quick and easy access to hundreds of sounds and features is available — something DCC controllers cannot do. More importantly, like a DCC controller, one DCS system can control multiple locomotives in different scales. Simply put, with DCS you can control every HO, O, and One Gauge locomotive equipped with a Proto-Sound 2.0 or later digital package on your layout — indepen-

dently or all at the same time. So, if you are into multiple gauges, one handheld system can control all of your trains — if they are equipped with Proto-Sound 2.0 or later.

VIVID ENGINE SOUNDS

Proto-Sound features crystal-clear digital recordings. 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 — and play a steam engine quillable whistle as if you were pulling the whistle cord!

STATION SOUNDS

Proto-Sound passenger engines offer Passenger Station Proto-Effects™, a complete arrival and departure sequence 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.

EXTRAORDINARY SLOW SPEED CAPABILITY

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

UNMATCHED SPEED CONTROL

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

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.

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 2.0 and 3.0 locomotives.

GREAT SMOKE

Proto-Sound engines feature fan-driven Proto-Smoke™, 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.

of Features in Model Railroading

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 OPERATING SYSTEMS

Right out of the box, every Proto-Sound 3.0 M.T.H. engine is compatible with all operating systems: conventional AC or 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 2.0 and 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 2.0 or 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 2.0 or 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 2.0 or 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.

PROTO-SOUND 3.0 DCC FUNCTIONALITY

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

Proto-Sound 3.0 DCC Features

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

Steam Locomotive Features

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

(1) Not Included On European Steam Locomotives
(2) Found Only On European Steam Locomotives

Diesel/Electric Features

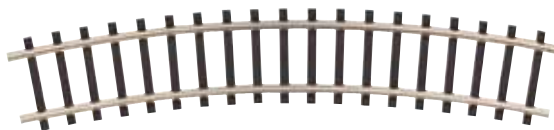
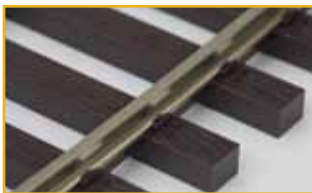
- Head Light/Tail Light
- Bell
- Horn
- Start-up/Shut-down
- Passenger Station/ Freight Yard Sounds
- All Other Lights (On/Off)
- Master Volume
- Front Coupler
- Rear Coupler
- Forward Signal
- Reverse Signal
- Grade Crossing
- Clickety Clack (On/Off)
- Idle Sequence 4 (1)
- Idle Sequence 3 (2)
- Idle Sequence 2
- Idle Sequence 1
- Extended Start-up
- Extended Shut-down
- Rev Up (6)
- Rev Down (6)
- One Shot Doppler
- Coupler Slack
- Coupler Close
- Single Horn Blast
- Engine Sounds
- Brake Sounds
- Cab Chatter
- Feature Reset
- Smoke On/Off (3)
- Smoke Volume (3)
- Pantograph Auto/ Manual (4)
- Front Pantograph Up/Down (4)
- Rear Pantograph Up/Down (4)
- Train Marker (5)
- Country Selection (5)

(1) Found Only On Diesel Locomotives w/o Smoke
(2) Not Included On Electrics
(3) Found Only On Diesel Locomotives w/Smoke
(4) Found Only On Electric Locomotives
(5) Found Only On European Electric Locomotives
(6) Not Included On European Electric Locomotives

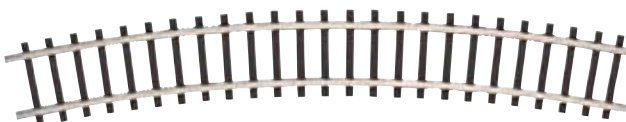
ScaleTrax 2-Rail 0-Scale Track

ScaleTrax™ by M.T.H. Electric Trains is the ultimate 2-rail track system that detail-oriented 2-rail modelers have been looking for. Code 128 rails, authentically detailed ABS track ties and strong, nickel-silver rails mate up to other 2-rail code 128 track.

- Solid, Rust-Proof Nickel Silver Track Rails
- Code 128 Rail
- Durable ABS Plastic Rail Ties
- Nickel Silver Rail Joiners



ScaleTrax - 2-Rail 22" (558.4mm) Radius Curved Track Section
45-2022 \$7.99



ScaleTrax - 2-Rail 36" (914.4mm) Radius Curved Track Section
45-2036 \$8.99



ScaleTrax - 2-Rail 17" (444.1mm) Straight Track Section
45-2017 \$7.99

DR/DB Class 44 “Jumbo”



The long history of the Class 44 (*Baureihe 44* or *BR 44* in German) begins with the nationalization of the German railways in 1920. The newly formed *Deutsche Reichsbahn* (DR) had taken over more than 120 different locomotive types from the various former state railways. As in the United States during World War I and in Great Britain after World War II, nationalization of the railways brought about the desire for a standard series of locomotives that could be built in large quantities and efficiently operated and maintained, with as many common components as possible. The result was the Standard Engines (*Einheitslokomotiven*), which became the basis for development and construction of German locomotives for more than 20 years. Among the most successful of the Standard Engines was the ten-coupled BR 44, which would become Germany's standard heavy freight locomotive from the late 1930s to the end of steam.

To put the maximum amount of power on the rails, the BR 44's designers gave it ten relatively small 55" (1400 mm) drive wheels and three cylinders, with the two outside cylinders driving the third axle and the inside cylinder driving the second axle. Delivering 2000 horsepower, the heavy freighter had a top speed of 80 kph (48 mph). Like its less powerful two-cylinder sister, the BR 43, the BR 44 was designed for the DR's new, heavier standard axle loading of 20 tons. (In the U. S., by comparison, heavy freight

engines were more likely to have eight rather than ten drivers and driver axle loads of around 35 tons.)

After more than three years of development, the first BR 43s and BR 44s were outshopped in 1926 — ten locomotives of each class. As the two-cylinder BR 43 was more economical to operate, the onset of the Great Depression halted further production of the BR 44. Eventually, however, the two-cylinder motion of the BR 43 proved more stressful to the engine frame and other components, and series production of the BR 44 resumed in 1937, with Wagner smoke deflectors and new welded 2'2" T34 tenders.

As the nation's premier heavy freight hauler, the BR 44 became one of only a handful of steam locomotives prioritized for wartime production. By the end of series production in 1944, nearly 2000 BR 44s had been produced by 14 factories in Germany and occupied territories. A so-called “austerity” version, with simplified wartime construction, was the BR 44 Ük; notable spotting features included the omission of both the smoke deflectors and the forward cab side windows. (As many routes in Germany and occupied territories had not yet been upgraded to accept 20-ton axle loads, wartime production also included large numbers of lighter ten-coupled steamers to serve areas where the BR 44 couldn't go.)

After World War II, 1,242 BR 44s found their way to the West German *Deutsche Bundesbahn* (DB) and 355 engines to East Germany's *Deutsche Reichsbahn* (DR). These included a final ten locomotives assembled in 1949 from existing parts. The BR 44s were urgently needed for the reconstruction of the country and soon got modernized. The DB attached Witte smoke deflectors, replaced the air pumps, and added new headlights. The DR just changed the smoke deflectors and experimented with coal-dust fired engines. Both German railways converted part of their engines to oil burners.

During this period, the big locomotives acquired the nickname “Jumbos” — as strong, untiring, and good-natured beasts of burden. During the German *Wirtschaftswunder* (“economic miracle”), the Jumbos were significant contributors to the recovery and the success of German industry. They hauled heavy ore and coal trains as well as mixed freights with manufactured goods over long routes and steep gradients. A legendary train was the *Langer Heinrich* (“Long Henry”) of the 1960s and '70s, a 4000-ton ore train from the North Sea coast to the industrial Ruhr region. BR 44 engines were in regular service until the end of steam in Germany — 1977 in the West and 1981 in the East.

The Class 44 had also been built in occupied France from 1942 onward. Some of these



NEW TOOLING! SNCF - 150 X Era IIIa Steam Engine with DCC/DCS Proto-Sound 3.0
 20-3528-1 Hi-Rail Wheels \$1399.95
 22-3528-2 Fine Scale Wheels \$1399.95

engines were later transferred to the SNCF as war reparations. In 1946, French locomotive factories built 226 more engines with minor modifications. Rostered by the SNCF as series 150X, they were the most powerful and the heaviest steam freight engines in France. They were assigned to industrial transport in the EST region (in green livery) and in the NORD region (in black livery). Forty-eight engines were sold to Turkish Railways in 1955, and all the rest were withdrawn from service by 1965 as France converted to electric traction.

New for 2014, M.T.H. is proud to introduce these superbly detailed BR 44 models, reproducing the power, dependability, and sheer drama that have endeared the Jumbos to generations of railfans. Heavy die-cast metal construction and a powerful electronically controlled drive system offer enormous tractive effort and superior running qualities. Each version accurately replicates how the BR 44 looked in a particular era. And thanks to ProtoSound 3.0, we can see, hear, and feel the dynamics of these massive engines, with smooth operation from a crawl to full throttle, synchronized puffing smoke, conventional or command operation with DCC or M.T.H.'s Digital Command System (DCS), and distinctive three-cylinder exhaust notes and other sounds recorded from an actual BR 44. The M.T.H. Jumbos bring back the steam era as a thrilling experience for our senses in the gorgeous size of O gauge.

DID YOU KNOW

The last regular steam train of the DB was headed by an oil-fired BR 44 on October 26, 1977. Forty-seven BR 44s have survived into preservation, three in serviceable condition.



NEW TOOLING! DRG - BR 44 Era IIc Steam Engine with DCC/DCS Proto-Sound 3.0
 20-3530-1 Hi-Rail Wheels \$1399.95
 22-3530-2 Fine Scale Wheels \$1399.95



NEW TOOLING! DB - BR 44 Era IIIb Steam Engine with DCC/DCS Proto-Sound 3.0
 20-3529-1 Hi-Rail Wheels \$1399.95
 22-3529-2 Fine Scale Wheels \$1399.95



NEW TOOLING! DB - BR 044 Era IV Steam Engine with DCC/DCS Proto-Sound 3.0
 20-3531-1 Hi-Rail Wheels \$1399.95
 22-3531-2 Fine Scale Wheels \$1399.95

- 1:45 scale proportions
- DCC-equipped (all versions)
- 531mm x 98mm x 68mm
- Die-Cast Metal Construction

- Minimum curve:
 - 0-54 with hi-rail wheels
 - 36" radius curves with fine scale wheels
- Die-Cast Metal Construction



2-3-1 Chapelon Pacific



The history of locomotives is the story of an ever-increasing need for speed and power, as trains became heavier and schedules more demanding. On France's Paris-Orleans (PO) Railway in the mid-1920s, management saw electrification as the answer, and development of new steam locomotives came to a halt. But André Chapelon, a young development engineer, had different ideas. He persuaded his superiors to let him drastically rebuild one of the PO's aging Pacifics, and the result cemented his reputation as one of the greatest locomotive designers ever. Chapelon analyzed the design of the steam engine from end to end, from the cold water in the tender to the steam exiting the stack. He modified the boiler and firebox to produce more steam with the same amount of fuel, and opened up nearly every steam passage to improve the flow of steam in and out of the cylinders. Testing proved his rebuilt engine delivered 85% more horsepower and was more efficient to operate — music to the ears of the very managers who had resisted his ideas for years.

The success of the original engine, No. 3566, led the PO to rebuild 31 additional Pacifics. When the Nord Railway tested a Chapelon Pacific against its own best power in 1931 and found the Chapelon superior, it too ordered 20 of the "miracle" rebuilds from the PO's shops. And when the PO ran out of engines to rebuild and sell to other railroads, the Nord ordered an additional 28 Chapelon-design Pacifics from other locomotive builders. Chapelons headed many of the most famous French trains, from the Paris-Calais section of the *Flèche d'Or* (Golden Arrow) to the first leg of the Paris-Istanbul *Orient Express*. To this day, the Chapelon Pacific is considered a high point of French locomotive design, for its combination of speed, power, and economy.

The Chapelon Pacific returns to the Premier lineup for 2014 in chocolate-brown 1930s Nord livery and two SNCF post-nationalization schemes. Our model is based on preserved engine 3.1192, built for the Nord in 1936 and preserved today at the Cité du Train in Mulhouse, France. With over 260 added-on engine and tender detail parts, this is one of the most superbly detailed locomotives we have ever made.



SNCF Green - 2-3-1 Chapelon Pacific Steam Engine with DCC/DCS Proto-Sound 3.0
 20-3450-1 Hi-Rail Wheels \$1199.95
 20-3450-2 Fine Scale Wheels \$1199.95



Nord Brown - 2-3-1 Chapelon Pacific Steam Engine with DCC/DCS Proto-Sound 3.0
 20-3451-1 Hi-Rail Wheels \$1199.95
 20-3451-2 Fine Scale Wheels \$1199.95



SNCF Black - 2-3-1 Chapelon Pacific Steam Engine with DCC/DCS Proto-Sound 3.0
 20-3449-1 Hi-Rail Wheels \$1199.95
 20-3449-2 Fine Scale Wheels \$1199.95

- 1:43.5 scale proportions
- DCC-equipped (all versions)
- 23 1/4" x 2 5/8" x 4" (590mm x 66mm x 102mm)
- Minimum curve: 0-42 with hi-rail wheels
42" radius curves with fine scale wheels
- Die-Cast Metal Construction

Class 141P Mikado



Argentan - Class 141P Mikado Steam Engine with DCC/DCS Proto-Sound 3.0
 20-3487-1 Hi-Rail Wheels \$1199.95
 20-3487-2 Fine Scale Wheels \$1199.95

The 2-8-2 wheel arrangement - a 141 configuration in French parlance, which counts axles rather than wheels - was the most common steam locomotive configuration to ride France's rails. Beginning in 1945 and lasting for 30 years, French railroads were dominated by the American and Canadian built SNCF 141R class with a total of 1,323 locomotives entering service.

In fact, 1,340 141R units were ordered and built from the shops of Lima Locomotive Works, American Locomotive Company, Baldwin Locomotive Works, Montreal Locomotive Works and the Canadian Locomotive company at a rate of nearly three locomotives per day. Sixteen of the 141R's never made it to France, sinking in a violent storm off the coast of Newfoundland in 1947. A seventeenth unit was lost in Marseille Harbor.

Though the 141R was the most populous of the 2-8-2 Mikado class found in France, the most powerful was the 318-strong 141P class. Boasting nearly 3,300 horsepower, the 141Ps were among the most efficient steam locomotives in the world thanks to their compound design. Burning 30% less fuel and using 40% less water than their 141R counterparts should have endeared them to the railroads' accountants, but they were unable to compete with the 141R when it came to reliability — attested to by the fact that all 318 units were scrapped while the 141P remained in service until the end of the steam era in 1975.

The 141P marks the third French locomotive to be released by M.T.H. Electric Trains, following on the heels of the 231 Chapelon Pacific and Class 241A. Outfitted with Proto-Sound 3.0, the 141P can operate conventionally under AC or DC power or in command mode under DCC or DCS control. Equipped with high-quality digital sound, LED contant voltage lighting, hi-rail or fine scale wheels and synchronized puffing smoke timed to its drive wheels' revolutions, this super-detailed 141P will be a favorite on any O scale model railroad.

- 1:43.5 scale proportions
- DCC-equipped (all versions)
- 531mm x 98mm x 68mm
- Minimum curve:
 - 54 with hi-rail wheels
 - 45" radius curves with fine scale wheels
- Die-Cast Metal Construction



Chaumont - Class 141P Mikado Steam Engine with DCC/DCS Proto-Sound 3.0
 20-3488-1 Hi-Rail Wheels \$1199.95
 20-3488-2 Fine Scale Wheels \$1199.95



Le Mans - Class 141P Mikado Steam Engine with DCC/DCS Proto-Sound 3.0
 20-3489-1 Hi-Rail Wheels \$1199.95
 20-3489-2 Fine Scale Wheels \$1199.95



Noisy Le Sec - Class 141P Mikado Steam Engine with DCC/DCS Proto-Sound 3.0
 20-3490-1 Hi-Rail Wheels \$1199.95
 20-3490-2 Fine Scale Wheels \$1199.95



Voisieux - Class 141P Mikado Steam Engine with DCC/DCS Proto-Sound 3.0
 20-3491-1 Hi-Rail Wheels \$1199.95
 20-3491-2 Fine Scale Wheels \$1199.95

E94 Crocodile Electric



German DB Green - E94 Crocodile Electric Engine with DCC/DCS Proto-Sound 3.0
 20-5673-1 Hi-Rail Wheels \$899.95
 20-5673-2 Fine Scale Wheels \$899.95

- 1:45 scale proportions
- DCC-equipped (all versions)
- 413mm X 69.5mm X 99.85mm
- Die-Cast Metal Construction

- Minimum curve:
 O-54 with hi-rail wheels
 36" radius with fine scale wheels

Whether referred to as an E94 or BR 194 or Iron Pig, the German bred E94 electric freight locomotive was developed to tackle the steep grades of Southern Germany just as the more famous Swiss Crocodiles were created to combat the Gotthard line in Switzerland. Equipped with just six axles, weighing over 120 tons and measuring nearly 19 meters in length, the "German Alligator" could haul a 1,000 ton train up a 1.6% grade.

A total of 200 locomotives were constructed with the majority going to the Deutsche Reichsbahn Gesellschaft. Most of the production occurred in the early years of World War II in Austria and Germany. At the war's conclusion, most went to the Deutsche Bundesbahn (DB) and the Austrian Federal Railways. The final units rolled out of the shops in 1953 with some units lasting in service for 50 years. In fact, some still run today, controlled by various clubs and museums.

The E94 designers drew heavily on the locomotive's predecessor the E93, but the electrical systems were significantly different thanks to the incorporation of rheostatic braking, which required a higher locomotive stance in order to house the enclosure for the braking resistors. Each locomotive truck utilized three traction motors mounted parallel to the drive axles via a sprung suspension mount - a traditional drive train often found on street cars.

The center section of the E94 is supported on the truck frames on large pivots giving the locomotive an articulated appearance and its popular "Alligator" nickname. The center section contains the main transformer fed from overhead pantographs which in turn pull power from the catenary lines centered above the rail line. A passageway inside the center section allows crew members to traverse the locomotive from one end to the other.

Like the popular Swiss Crocodile, this all-new die-cast O Scale model is fully outfitted with digital sound, LED lighting and motorized operating pantographs. It is available with deeper-flanged hi-rail wheels or scale wheels; both versions can be quickly converted to operate on 3-rail or 2-rail track, using our unique Proto-Scale 3-2 feature. Choose from four exciting liveries, two in Deutsche Bundesbahn schemes and two in Austrian Federal Railway schemes.



Austrian OBB Orange E94 Crocodile Electric Engine with DCC/DCS Proto-Sound 3.0
 20-5672-1 Hi-Rail Wheels \$899.95
 20-5672-2 Fine Scale Wheels \$899.95



German DB Blue E94 Crocodile Electric Engine with DCC/DCS Proto-Sound 3.0
 20-5674-1 Hi-Rail Wheels \$899.95
 20-5674-2 Fine Scale Wheels \$899.95



Austrian OBB Green E94 Crocodile Electric Engine with DCC/DCS Proto-Sound 3.0
 20-5671-1 Hi-Rail Wheels \$899.95
 20-5671-2 Fine Scale Wheels \$899.95

Swiss Crocodile Electric



Tuscan and Black - Ce 6/8 II Crocodile Electric Engine with DCC/DCS Proto-Sound 3.0

- 20-5667-1 Hi-Rail Wheels \$899.95
- 20-5667-2 Fine Scale Wheels \$899.95



Dark Green and Gray - Ce 6/8 II Crocodile Electric Engine with DCC/DCS Proto-Sound 3.0

- 20-5668-1 Hi-Rail Wheels \$899.95
- 20-5668-2 Fine Scale Wheels \$899.95

In a country famous for mountain railroading, the Gotthard route is the greatest challenge, the one by which the Swiss Federal Railways measures its locomotives. Snaking its way around spiral tunnels, across more than a thousand bridges and open passages, and through narrow mountain valleys, the line culminates in a 2.6% climb to the 9-mile-long Goddard Tunnel — the longest in the world when it was opened in 1882. The Gotthard was the stomping ground for the 2-10-0 “Elephants,” the largest steam engines ever used in Switzerland. But when the decision was made to electrify the route, the Elephants were replaced by Crocodiles.

To conquer the Gotthard's tight turns and steep grades, Swiss Locomotive and Machine Works (SLM) designed a freight locomotive in three articulated sections: a double-ended center section housing two engineer's stations, twin pantographs, and the huge high voltage transformer; and two end sections, each with two electric motors powering a single jackshaft that transmitted power to the 53" drivers, using steam-locomotive-type drive rods. The jackshaft drive was dictated by the motors available at the time, which were too large to be truck-mounted as in later designs. The nickname “crocodile” arose from the engine's long articulated “snouts.”

All crocodiles were delivered in brown paint, but many were later repainted green. The hugely successful Crocodiles ruled the Gotthard route into the 1950s, when they were displaced by newer power. Many worked into the 1970s on less strenuous routes and switching, and several have been preserved.

- 1:45 scale proportions
- 16 ½ " x 2 ½ " x 3 ¾ ""
(419mm x 64mm x 95mm)
- Die-Cast Metal Construction
- Minimum curve:
O-54 with hi-rail wheels
36" radius with fine scale wheels
- DCC-equipped (all versions)

Taurus ES64 U2 Electric



Introduced to the European market by Siemens in 2000, the Taurus ES64 (ES for EuroSprinter, 64 for 6,400 kW of power) was developed as a universal electric locomotive, topping out at a speed of 230km/h. This multipurpose engine has become one of the most influential representatives of Dispolok GmbH, a Siemens Transportation System subsidiary, making leasing options available to a host of different rail operators.

Thanks to liberalization, the freight market had created the ability for anyone to start their own rail company, thus increasing competition and dropping prices. Leasing thrived as the market for cheaper secondhand vehicles expanded. Due to this increase, Siemens came up with an appealing alternative for operators — allowing them to lease the newest, most state-of-the-art locomotives on a flexible basis.

Dispolok was sold in 2006 to Mitsui of Japan, and now 60 yellow and silver painted locomotives are running for various customers across central and Eastern Europe. With two standard pantographs each with 1950mm contacts, these engines can run on the networks of the DB/Germany, OBB/Austria, MAV/Hungary, GySE Hungary, HZ/Croatia, CFR/Romania, ZS/Serbia and Montenegro, ZFBH/ Bosnia-

Herzegovina, MZ/Macedonia and OSE/Greece. While the original 60 Dispolok GmbH locomotives were painted in the distinct bright yellow and silver livery, customers can place their own corporate logos and colors on any of the silver surfaces. If a company leases the engine for over seven years, it may then repaint the engine in its own railways colors if so desired.

New for 2010, the Taurus ES 64 U2 Electric engine comes superbly detailed in the paint schemes of Dispolok (Silver/Yellow), HUPAC (Silver/Black), DB (Red), and OBB (Red). With features such as European NEM fine scale couplers, Proto-Sound 3.0 with the digital command system featuring: German speaking passenger station Proto-Effects, (2) precision flywheel equipped motors, and directionally operating pantographs, this engine is realistic replica of Siemens Euro Sprinter.

- 1:45 scale proportions
- DCC-equipped (all versions)
- Durable, Intricately Detailed ABS Body with Metal Chassis and Die-Cast Metal Truck Sides
- Motorized operating pantographs
- Minimum curve: O-42 with hi-rail wheels 42" radius with scale wheels

DB Railion - Taurus ES64 U2 Electric Engine
with DCC/DCS Proto-Sound 3.0

- 20-5651-1 Hi-Rail Wheels \$449.95
- 20-5651-2 Fine Scale Wheels \$499.95
- 20-5651-3 Non-Powered \$219.95
- 20-5651-6 Non-Powered Fine Scale Wheels \$249.95



Dispolok.com - Taurus ES64 U2 Electric Engine
with DCC/DCS Proto-Sound 3.0

- 20-5649-1 Hi-Rail Wheels \$449.95
- 20-5649-2 Fine Scale Wheels \$499.95

OBB - Taurus ES64 U2 Electric Engine
with DCC/DCS Proto-Sound 3.0

- 20-5652-2 Fine Scale Wheels \$499.95
- 20-5652-3 Non-Powered \$219.95



HUPAC - Taurus ES64 U2 Electric Engine
with DCC/DCS Proto-Sound 3.0

- 20-5650-1 Hi-Rail Wheels \$449.95
- 20-5650-2 Fine Scale Wheels \$499.95
- 20-5650-3 Non-Powered \$219.95

TRAXX Electric



Since the dawn of the Orient Express in 1883, Europeans have dreamed of a rail network that would transcend national borders. For more than a century, the best that could be accomplished was the handoff of passenger or freight consists from one national rail system to another, usually stopping at the border to change motive power. Today, however, all that is changing. Sporting service names like “EuroCity” and slogans like “Connecting Europe,” electric engines glide seamlessly and swiftly across borders, and carriers offer freight and passenger services that span many nations.

With locomotive and car manufacturing facilities on four continents, Bombardier has emerged as a leader in the manufacture of equipment for these multinational carriers. Starting with electric locomotive technology developed by German firm Adtranz, which Bombardier acquired in 2001, Bombardier developed the TRAXX family of electric and diesel locomotives for service across Europe. TRAXX electrics feature modular construction and can be configured to run on multiple voltages and both AC and DC. Leading purchasers have included Cargo, the freight division of the Swiss Federal Railways that runs through Germany, Switzerland, and Italy, and Railion (recently renamed DB Schenker Rail), which spans Denmark, the Netherlands, Germany, Switzerland, and Italy.

The TRAXX electric offers a near-perfect combination of speed, safety, and practicality. Its streamlined shape is designed for aerodynamics but also for economical construction, being composed almost entirely of flat surfaces. The ends are raked at an angle that slices through the air — but a steeper, more streamlined angle was avoided in order to minimize air turbulence between the engine and the following car. With up to 800 horsepower supplied to each of its eight wheels, wheelslip control on the TRAXX was mandatory. The controls, of course, are fully computerized with myriad safety systems. Our superbly detailed TRAXX model features twin motors to replicate the massive power of the prototype, and pantographs that can be configured to pick up power from overhead catenary.



Veolia Transport Germany - TRAXX P160 AC2 Electric Engine

20-5633-1	Hi-Rail Wheels	\$449.95
20-5633-2	Fine Scale Wheels	\$499.95



Railion European- TRAXX F140 AC2 Electric Engine

20-5634-1	Hi-Rail Wheels	\$449.95
20-5634-2	Fine Scale Wheels	\$499.95
20-5634-3	Non-Powered	\$219.95

- 1:45 scale proportions
- 16 3/16" x 2 1/2" x 4 5/16" (411mm x 64mm x 110mm)
- DCC-equipped (all versions)
- Durable, Intricately Detailed ABS Body with Metal Chassis and Die-Cast Metal Truck Sides
- Motorized operating pantographs
- Minimum curve: 42" radius with fine scale wheels



CrossRail - TRAXX P140 AC2 Electric Engine
 20-5648-1 Hi-Rail Wheels \$449.95
 20-5648-2 Fine Scale Wheels \$499.95



Connecting Europe - TRAXX F140 AC-1 Electric Engine
 20-5654-1 Hi-Rail Wheels \$449.95
 20-5654-2 Fine Scale Wheels \$499.95
 20-5654-3 Non-Powered \$219.95
 20-5654-6 Non-Powered Fine Scale Wheels \$229.95



Railion - TRAXX F140 AC-1 Electric Engine
 20-5656-1 Hi-Rail Wheels \$449.95
 20-5656-2 Fine Scale Wheels \$499.95
 20-5656-3 Non-Powered \$219.95
 20-5656-6 Non-Powered Fine Scale Wheels \$229.95



MRCE dispolok - TRAXX F140 AC-1 Electric Engine
 20-5655-1 Hi-Rail Wheels \$449.95
 20-5655-2 Fine Scale Wheels \$499.95
 20-5655-3 Non-Powered \$219.95
 20-5655-6 Non-Powered Fine Scale Wheels \$229.95



Cargo - TRAXX F140 AC-1 Electric Engine
 20-5653-1 Hi-Rail Wheels \$449.95
 20-5653-2 Fine Scale Wheels \$499.95
 20-5653-3 Non-Powered \$219.95
 20-5653-6 Non-Powered Fine Scale Wheels \$229.95



Freight Cars

Modern Kesselwagen



ARAL - European Modern Kesselwagen (Tank Car)
 20-99050 Hi-Rail Wheels \$84.95
 22-99050 Fine Scale Wheels \$84.95



DHL - European Modern Kesselwagen (Tank Car)
 20-99051 Hi-Rail Wheels \$84.95
 22-99051 Fine Scale Wheels \$84.95



ARAL - 6-Car European Modern Kesselwagen (Tank Car) Set
 20-90948 Hi-Rail Wheels \$449.95
 22-90948 Fine Scale Wheels \$449.95



DHL - 6-Car European Modern Kesselwagen (Tank Car) Set
 20-90949 Hi-Rail Wheels \$449.95
 22-90949 Fine Scale Wheels \$449.95

Ermewa - European Modern Kesselwagen (Tank Car)
 20-99052 Hi-Rail Wheels \$84.95
 22-99052 Fine Scale Wheels \$84.95



On Rail - European Modern Kesselwagen (Tank Car)
 20-99053 Hi-Rail Wheels \$84.95
 22-99053 Fine Scale Wheels \$84.95



Ermewa - 6-Car European Modern Kesselwagen (Tank Car) Set
 20-90950 Hi-Rail Wheels \$449.95
 22-90950 Fine Scale Wheels \$449.95



On Rail - 6-Car European Modern Kesselwagen (Tank Car) Set
 20-90951 Hi-Rail Wheels \$449.95
 22-90951 Fine Scale Wheels \$449.95

Modern Kesselwagen

Wascosa Petroplus - European Modern Kesselwagen (Tank Car)
 20-99033 Hi-Rail Wheels \$79.95
 22-99033 Fine Scale Wheels \$79.95



VTG - European Modern Kesselwagen (Tank Car)
 20-99034 Hi-Rail Wheels \$79.95
 22-99034 Fine Scale Wheels \$79.95



Wascosa Petroplus - 6-Car European Modern Kesselwagen (Tank Car) Set
 20-90932 Hi-Rail Wheels \$439.95
 22-90932 Fine Scale Wheels \$439.95



VTG - 6-Car European Modern Kesselwagen (Tank Car) Set
 20-90933 Hi-Rail Wheels \$439.95
 22-90933 Fine Scale Wheels \$439.95

Shell - European Modern Kesselwagen (Tank Car)
 20-99036 Hi-Rail Wheels \$79.95
 22-99036 Fine Scale Wheels \$79.95



Jet - European Modern Kesselwagen (Tank Car)
 20-99035 Hi-Rail Wheels \$79.95
 22-99035 Fine Scale Wheels \$79.95



Shell - 6-Car European Modern Kesselwagen (Tank Car) Set
 20-90935 Hi-Rail Wheels \$439.95
 22-90935 Fine Scale Wheels \$439.95



Jet - 6-Car European Modern Kesselwagen (Tank Car) Set
 20-90934 Hi-Rail Wheels \$439.95
 22-90934 Fine Scale Wheels \$439.95

Wascosa - European Modern Kesselwagen (Tank Car)
 20-99019 Hi-Rail Wheels \$79.95



GATX - European Modern Kesselwagen (Tank Car)
 20-99018 Hi-Rail Wheels \$79.95
 20-99022 Fine Scale Wheels \$79.95



GATX - 6-Car European Modern Kesselwagen (Tank Car) Set
 20-90917 Hi-Rail Wheels \$439.95
 20-90921 Fine Scale Wheels \$439.95

BP - European Modern Kesselwagen (Tank Car)
 20-99017 Hi-Rail Wheels \$79.95
 20-99021 Fine Scale Wheels \$79.95



Wascosa OMV - European Modern Kesselwagen (Tank Car)
 20-99020 Hi-Rail Wheels \$79.95
 20-99024 Fine Scale Wheels \$79.95



BP - 6-Car European Modern Kesselwagen (Tank Car) Set
 20-90916 Hi-Rail Wheels \$439.95
 20-90920 Fine Scale Wheels \$439.95



Wascosa OMV - 6-Car European Modern Kesselwagen (Tank Car) Set
 20-90919 Hi-Rail Wheels \$439.95

Gedeckter Güterwagen



SBB CFF - European Gedeckter Güterwagen (Box Car)
Car No. 20 85 114 4 418-7
20-99046 Hi-Rail Wheels \$69.95
22-99046 Fine Scale Wheels \$69.95



SBB CFF - European Gedeckter Güterwagen (Box Car) Car No. 30417
20-99045 Hi-Rail Wheels \$69.95
22-99045 Fine Scale Wheels \$69.95



SBB CFF - 6-Car European Gedeckter Güterwagen Set
20-90945 Hi-Rail Wheels \$389.95
22-90945 Fine Scale Wheels \$389.95



SBB CFF - 6-Car European Gedeckter Güterwagen Set
20-90944 Hi-Rail Wheels \$389.95
22-90944 Fine Scale Wheels \$389.95



SBB CFF - European Gedeckter Güterwagen (Box Car) Car No. 34159
20-99047 Hi-Rail Wheels \$69.95
22-99047 Fine Scale Wheels \$69.95



SBB CFF - European Gedeckter Güterwagen (Box Car) Car No. 38727
20-99048 Hi-Rail Wheels \$69.95
22-99048 Fine Scale Wheels \$69.95



SBB CFF - 6-Car European Gedeckter Güterwagen Set
20-90946 Hi-Rail Wheels \$389.95
22-90946 Fine Scale Wheels \$389.95



SBB CF- 6-Car European Gedeckter Güterwagen Set
20-90947 Hi-Rail Wheels \$389.95
22-90947 Fine Scale Wheels \$389.95



SBB-CFF - European Gedeckter Güterwagen (Box Car) Car No. 20 85 114 4947-1
 20-99012 Hi-Rail Wheels \$69.95
 20-99016 Fine Scale Wheels \$69.95



SBB-CFF - European Gedeckter Güterwagen (Box Car) Car No. 41138
 20-99009 Hi-Rail Wheels \$69.95



SBB-CFF - 6-Car European Gedeckter Güterwagen Set
 20-90912 Fine Scale Wheels \$389.95



SBB CFF - 6-Car European Gedeckter Güterwagen Set
 20-90913 Fine Scale Wheels \$389.95



SBB CFF - European Gedeckter Güterwagen (Box Car) Car No. 20 85 111 7650-4
 20-99011 Hi-Rail Wheels \$69.95
 20-99015 Fine Scale Wheels \$69.95



SBB-CFF - European Gedeckter Güterwagen (Box Car) Car No. 33109
 20-99010 Hi-Rail Wheels \$69.95
 20-99014 Fine Scale Wheels \$69.95



SBB-CFF - 6-Car European Gedeckter Güterwagen Set
 20-90914 Fine Scale Wheels \$389.95



SBB-CFF - 6-Car European Gedeckter Güterwagen Set
 20-90915 Fine Scale Wheels \$389.95

Bierwagen



Maggi - European Kühlwagen für Nahrungsmittel (Beer Reefer)

20-99042 Hi-Rail Wheels \$69.95
 22-99042 Fine Scale Wheels \$69.95



Bierbrauerei Falken - European Bierwagen (Beer Reefer)

20-99044 Hi-Rail Wheels \$69.95
 22-99044 Fine Scale Wheels \$69.95



Bierbrauerei Falken - 6-Car European Bierwagen (Beer Reefer) Set

20-90943 Hi-Rail Wheels \$389.95
 22-90943 Fine Scale Wheels \$389.95



Maggi - 6-Car European Kühlwagen für Nahrungsmittel Set

20-90941 Hi-Rail Wheels \$389.95
 22-90941 Fine Scale Wheels \$389.95



Brauerei Wartech Basel - European Bierwagen (Beer Reefer)

20-99041 Hi-Rail Wheels \$69.95
 22-99041 Fine Scale Wheels \$69.95



Schützengarten - European Bierwagen (Beer Reefer)

20-99043 Hi-Rail Wheels \$69.95
 22-99043 Fine Scale Wheels \$69.95



Schützengarten - 6-Car European Bierwagen (Beer Reefer) Set

20-90942 Hi-Rail Wheels \$389.95
 22-90942 Fine Scale Wheels \$389.95



Brauerei Wartech Basel - 6-Car European Bierwagen (Beer Reefer) Set

20-90940 Hi-Rail Wheels \$389.95
 22-90940 Fine Scale Wheels \$389.95



Feldschloesschen - European Bierwagen (Reefer Car)
 20-99004 Hi-Rail Wheels \$69.95
 20-99008 Fine Scale Wheels \$69.95



Brasserie du Cardinal - European Bierwagen (Reefer Car)
 20-99002 Hi-Rail Wheels \$69.95
 20-99006 Fine Scale Wheels \$69.95



Brasserie du Cardinal - 6-Car European Bierwagen (Beer Reefer) Set
 20-90905 Fine Scale Wheels \$389.95



Feldschloesschen - 6-Car European Bierwagen (Beer Reefer) Set
 20-90903 Hi-Rail Wheels \$389.95
 20-90907 Fine Scale Wheels \$389.95



Biere Beauregard - European Bierwagen (Beer Reefer)
 20-99001 Hi-Rail Wheels \$69.95
 20-99005 Fine Scale Wheels \$69.95



Brauerei Loewengarten - European Bierwagen (Beer Reefer)
 20-99003 Hi-Rail Wheels \$69.95
 20-99007 Fine Scale Wheels \$69.95



Biere Beauregard - 6-Car European Bierwagen (Beer Reefer) Set
 20-90900 Hi-Rail Wheels \$389.95
 20-90904 Fine Scale Wheels \$389.95



Brauerei Loewengarten - 6-Car European Bierwagen (Beer Reefer) Set
 20-90902 Hi-Rail Wheels \$389.95
 20-90906 Fine Scale Wheels \$389.95

Modern Offener Güterwagen

DB Cargo - European Modern Offener Güterwagen (Gondola)
 20-99037 Hi-Rail Wheels \$79.95
 22-99037 Fine Scale Wheels \$79.95



SBB CFF - European Modern Offener Güterwagen (Gondola)
 20-99038 Hi-Rail Wheels \$79.95
 22-99038 Fine Scale Wheels \$79.95



DB Cargo - 6-Car European Modern Offener Güterwagen (Gondola) Set
 20-90936 Hi-Rail Wheels \$439.95
 22-90936 Fine Scale Wheels \$439.95



SBB CFF - 6-Car European Modern Offener Güterwagen (Gondola) Set
 20-90937 Hi-Rail Wheels \$439.95
 22-90937 Fine Scale Wheels \$439.95

DB - European Modern Offener Güterwagen (Gondola)
 20-99039 Hi-Rail Wheels \$79.95
 22-99039 Fine Scale Wheels \$79.95



OBB Rail Cargo Austria - European Modern Offener Güterwagen (Gondola)
 20-99040 Hi-Rail Wheels \$79.95
 22-99040 Fine Scale Wheels \$79.95



DB - 6-Car European Modern Offener Güterwagen (Gondola) Set
 20-90938 Hi-Rail Wheels \$439.95
 22-90938 Fine Scale Wheels \$439.95



OBB Rail Cargo Austria - 6-Car European Modern Offener Güterwagen (Gondola) Set
 20-90939 Hi-Rail Wheels \$439.95
 22-90939 Fine Scale Wheels \$439.95



Niederlandischen Eisenbahnen - European Modern Offener Güterwagen (Gondola)
 20-99026 Hi-Rail Wheels \$79.95
 20-99030 Fine Scale Wheels \$79.95



Railion - European Modern Offener Güterwagen (Gondola)
 20-99027 Hi-Rail Wheels \$79.95
 20-99031 Fine Scale Wheels \$79.95



Niederlandischen Eisenbahnen - 6-Car European Modern Offener Güterwagen (Gondola) Set
 20-90929 Fine Scale Wheels \$439.95



Railion - 6-Car European Modern Offener Güterwagen (Gondola) Set
 20-90930 Fine Scale Wheels \$439.95



DB Cargo - European Modern Offener Güterwagen (Gondola)
 20-99025 Hi-Rail Wheels \$79.95
 20-99029 Fine Scale Wheels \$79.95



SBB-CFF - European Modern Offener Güterwagen (Gondola)
 20-99028 Hi-Rail Wheels \$79.95



DB Cargo - 6-Car European Modern Offener Güterwagen (Gondola) Set
 20-90928 Fine Scale Wheels \$439.95

Passenger Cars



Orient Express (Blue) - 5-Car Orient Express Passenger Set

20-60004	Hi-Rail Wheels	\$549.95
20-60004-2	Fine Scale Wheels	\$549.95



Orient Express (Blue) - 5-Car Orient Express Add-On Passenger Set

20-60022	Hi-Rail Wheels	\$549.95
20-60023	Fine Scale Wheels	\$549.95



Orient Express (Brown) - 5-Car Orient Express Passenger Set

20-60020	Hi-Rail Wheels	\$549.95
20-60021	Fine Scale Wheels	\$549.95



Orient Express (Brown) - 5-Car Orient Express Add-On Passenger Set

20-60024	Hi-Rail Wheels	\$549.95
20-60025	Fine Scale Wheels	\$549.95



Deutsche Reichsbahn - 5-Car Rheingold Standard Passenger Set

20-60017	Hi-Rail Wheels	\$599.95
20-60018	Fine Scale Wheels	\$599.95







SNCF - 5-Car OCEM Passenger Car Set
20-60019 Hi-Rail Wheels \$549.95



SNCF - 5-Car OCEM Passenger Car Set
20-60019-2 Fine Scale Wheels \$599.95



SNCF - 5-Car OCEM Passenger Car Set
20-60026 Hi-Rail Wheels \$599.95
22-60026 Fine Scale Wheels \$599.95



PLM - 5-Car OCEM Passenger Car Set
20-60027 Hi-Rail Wheels \$599.95
22-60027 Fine Scale Wheels \$599.95



Features

- Intricately Detailed Durable ABS Body
- Metal Wheels and Axles
- Die-Cast 2-Wheel Trucks
- Operating Die-Cast Metal Couplers (Hi-Rail Only)
- Colorful, Attractive Paint Schemes
- Fast-Angle Wheel Sets
- Needle-Point Axles
- 1:43.5 Scale Dimensions
- O Scale Kadee Compatible Coupler Mounting Pads
- Sprung Bumpers
- CE Rated
- European NEM Fine Scale Couplers Included
- NEM 365 Coupler Pocket
- NEM 362 Lenz® Compatible Coupler Included
- Hi-Rail Wheels Operate On O-42 Curves
- NEM 310/311 Standard Fine Scale Wheels Operate On 84" Radius Curves

M.T.H. HO Trains

HO model railroading entered a revolution of sight and sound that surpassed everything you thought HO locomotives could do when M.T.H. Electric Trains released its first HO steam locomotive in 2006. Then, as today, our HO steam locomotives featured quality all-die cast metal construction, intricate add-on details and never-before-seen operating features.



The revolution started with the Pennsylvania K-4s steam locomotive, the first of many engines to come that featured the power and performance of Proto-Sound 3.0 — the most advanced onboard digital sound and train control system ever produced for HO locomotives.

Simply put, an M.T.H. HO steam locomotive will astound you with its features. These are the first HO locomotives to come fully equipped with synchronized puffing smoke, Proto-Speed control for rock-steady speeds in one-scale-mile-per-hour increments from 3 to 120 smph, and the industry's most realistic digital sound system. Capable of operating with any DC power supply, DCC controller or M.T.H.'s own DCS command system, an M.T.H. steam locomotive will make locomotives without Proto-Sound 3.0 pale in comparison!



As M.T.H.'s HO line expanded, so did our list of features. Our electric locomotives feature operating, motorized pantographs that raise and lower on direction change or by command

PROTO-SOUND 3E+

For those who have operated Märklin HO AC 3-rail trains in the past, choosing M.T.H. Proto-Sound 3E+ equipped locomotives will give you the opportunity to run sound-equipped North American and European prototypes on your railroad with your Märklin Motorola 1 and 2 systems and any DCC command control system.

Outfitted with NEM 340 wheels and NEM 360 couplers, these engines feature an all-new version of Proto-Sound 3.0, contain a third rail sliding shoe for use with Märklin 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 Märklin DCC control systems.

Each die-cast steam locomotive is intricately detailed to reflect the prototype's unique look. The powerful 5-pole precision flywheel-equipped, skew-wound 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*



using a DCC controller or DCS handheld. Our diesels and electrics come outfitted with a remotely controlled North American style coupler that can be remotely triggered to open anywhere on the layout at any time. All of our locomotives can be reprogrammed with new sounds and in some cases new features via our software-based control system we call DCS. Constant voltage LED lighting, controlled by the onboard Proto-Sound 3.0 system, allows for realistic lighting effects including strobing MARS lights, lit number boards and lighted classification lights.

In 2011, we released yet another version of our Proto-Sound 3.0 system for HO 3-Rail AC powered operation typically found on Märklin layouts. You can learn more about the Proto-Sound 3E+ system in the sidebar above. Look for HO locomotives with the Proto-Sound 3E+ system on the following page of this catalog or online by visiting www.mthtrains.com/europe.

Let your next HO operating experience be with an M.T.H. HO locomotive and you too will be convinced that M.T.H. HO locomotives are the most exciting thing to ever happen to model railroading.



S 3/6 Express



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

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

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

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



KBayStsB - Bavarian S 3/6 Express Steam Locomotive (Era I; Blue with Black Wheels), Cab # 3632

80-3215-1	DCC/DCS Proto-Sound 3.0	\$529.95
80-3215-5	DCC/DCS/Motorola 1/2 Proto-Sound 3E+	\$529.95



KBayStsB - Bavarian S 3/6 Express Steam Locomotive (Era I; Green with Red Wheels), Cab # 3641

80-3216-1	DCC/DCS Proto-Sound 3.0	\$529.95
80-3216-5	DCC/DCS/Motorola 1/2 Proto-Sound 3E+	\$529.95



Deutsche Bundesbahn - Class 18.4 Steam Locomotive (Era III; Black with Red Wheels), Cab # 18451

80-3217-1	DCC/DCS Proto-Sound 3.0	\$529.95
80-3217-5	DCC/DCS/Motorola 1/2 Proto-Sound 3E+	\$529.95



Deutsche Reichsbahn Class 18.4 Steam Locomotive (Era III; Black with Red Wheels)

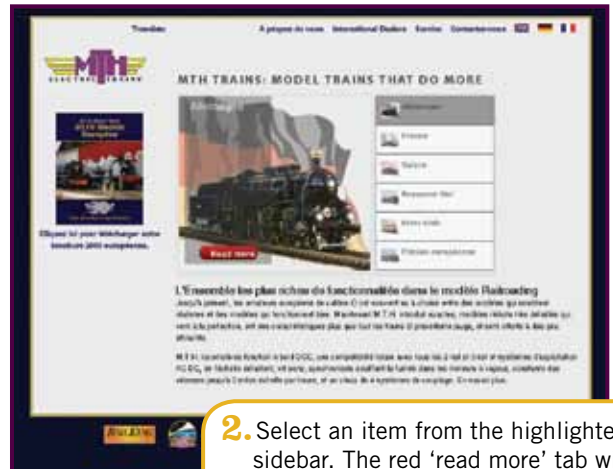
80-3218-1	DCC/DCS Proto-Sound 3.0	\$529.95
80-3218-5	DCC/DCS/Motorola 1/2 Proto-Sound 3E+	\$529.95

- 1:87 scale proportions
- 264.2mm x 38.2mm x 52.7mm
- Operates On 18" Radius Curves
- DCC-equipped (all versions)
- Die-Cast Metal Construction

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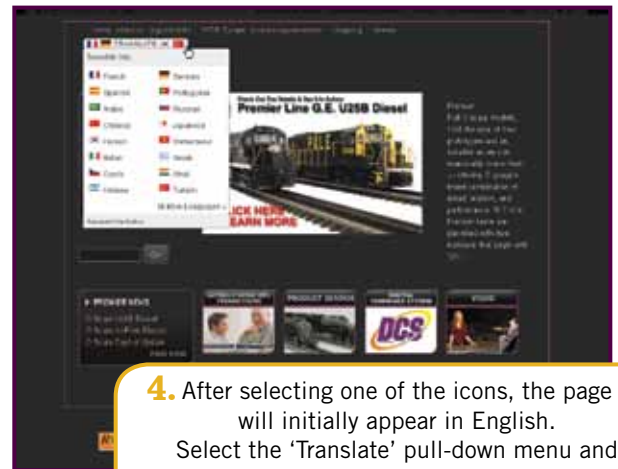
1. Select a country from the MTH European homepage by choosing that country's flag.



2. Select an item from the highlighted sidebar. The red 'read more' tab will appear, allowing you to access additional translated information on this particular item.



3. Once you've selected the 'read more' tab, you will be able to access links to all of MTH's product lines.



4. After selecting one of the icons, the page will initially appear in English. Select the 'Translate' pull-down menu and choose the flag representing the language you wish to translate to.



5. Once your country's flag has been selected, the page you are exploring will be translated into your language using Google translate. Using this translation engine may result in discrepancies in translations.

