

Anatomy of an M.T.H. Diesel Locomotive

Look closely at any M.T.H. locomotive and you'll find a combination of superb detailing, prototype accuracy, realistic sound effects, and smooth, dependable operation that is unmatched by any other manufacturer. The Electro-Motive Diesel SD70ACe shown here, for example, features a wealth of separately-added detail parts and tooling that can be customized to produce different, accurate versions for a variety of railroads—by changing the location of vents, headlights, side panels, and other locomotive details.

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:

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 Sound

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



Includes Remotely Activated Proto-Coupler™ and interchangeable magnetic coupler, both Kadee® Compatible



Directionally Controlled Headlights

Illuminated Number Boards

Windshield wipers

Sand Filler



Shock Absorber

Brake Cylinders & Air Lines

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

**Side View
Mirror**

GPS Receiver

**Metal See-Through
Fan Grills**



**Separate Metal
Grab Irons and
Hand Rails**

**Safety Tread on
End Steps**

Detachable Snow Plow

**Die-Cast Air Tanks
and Fuel Tank**

**All Wheels
Powered**

*Pre-Production Model Shown
(Graphics Subject to Change)*

**Warning
Placards**

**Safety Tread
on Walkways**



**See-Through
Grills**

**Metal
Handrails**



**Handrails &
Safety
Chains**

**Operating
Ditch Lights**

**Coupler Lift
Bar**

MU Cables



4500hp Gas Turbine



New for 2010, 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 fly-wheel-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 (GTEL) 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 GTEL 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 GTELs 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.



- NEW!** **Union Pacific** - 4500hp Gas Turbine & Tender Set With Proto-Sound 3.0
 80-2130-1 Cab Numbers 52 \$499.95
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 Proto-Sound 3.0
 80-2131-1 Cab Numbers 57 \$499.95
Union Pacific - 4500hp Gas Turbine & Tender Set (DCC Ready)
 80-2131-0 Cab Numbers 57 \$419.95

- Union Pacific** - 4500hp Gas Turbine & Tender Set With Proto-Sound 3.0
 80-2132-1 Cab Numbers 59 \$499.95
Union Pacific - 4500hp Gas Turbine & Tender Set (DCC Ready)
 80-2132-0 Cab Numbers 59 \$419.95
Union Pacific - 4500hp Gas Turbine & Tender Set With Proto-Sound 3.0
 80-2133-1 Cab Numbers 55 \$499.95
Union Pacific - 4500hp Gas Turbine & Tender Set (DCC Ready)
 80-2133-0 Cab Numbers 55 \$419.95



- NEW!** **Union Pacific** - 4500hp Gas Turbine With Proto-Sound 3.0
 80-2126-1 Cab Numbers 52 \$429.95
Union Pacific - 4500hp Gas Turbine (DCC Ready)
 80-2126-0 Cab Numbers 52 \$349.95
Union Pacific - 4500hp Gas Turbine With Proto-Sound 3.0
 80-2127-1 Cab Numbers 57 \$429.95
Union Pacific - 4500hp Gas Turbine (DCC Ready)
 80-2127-0 Cab Numbers 57 \$349.95



- NEW!** **Union Pacific** - 4500hp Gas Turbine With Proto-Sound 3.0
 80-2128-1 Cab Numbers 59 \$429.95
Union Pacific - 4500hp Gas Turbine (DCC Ready)
 80-2128-0 Cab Numbers 59 \$349.95
Union Pacific - 4500hp Gas Turbine With Proto-Sound 3.0
 80-2129-1 Cab Numbers 55 \$429.95
Union Pacific - 4500hp Gas Turbine (DCC Ready)
 80-2129-0 Cab Numbers 55 \$349.95

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



F-7 Diesel



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), wind-shield 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.



NEW! **Santa Fe - F-7 A/B Set With Proto-Sound 3.0**
 80-2114-1 Cab Numbers 304 & 342B \$439.95
Santa Fe - F-7 A Unit With Proto-Sound 3.0
 80-2115-1 Cab Number 315 \$229.95
Santa Fe - F-7 B Unit With 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

**Proto-Sound 3.0
 A/B Sets Include
 Motors & Sound In
 Both Units!**



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

**Add a Matching
 Passenger Set**
 See Page 40

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 Diesel



NEW!

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

**Add a Matching
 Passenger Set**
 See Page 41



NEW!

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



NEW!

Northern Pacific - F-7 A/B Set With Proto-Sound 3.0

80-2120-1 Cab Numbers 6511A & 6511B \$439.95

Northern Pacific - F-7 A Unit With Proto-Sound 3.0

80-2121-1 Cab Number 6511C \$229.95

Northern Pacific - F-7 B Unit With 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

Add a Matching Passenger Set

See Page 40



NEW!

Chesapeake & Ohio - F-7 A/B Set With Proto-Sound 3.0

80-2108-1 Cab Numbers 7016 & 7508 \$439.95

Chesapeake & Ohio - F-7 A Unit With Proto-Sound 3.0

80-2109-1 Cab Number 7017 \$229.95

Chesapeake & Ohio - F-7 B Unit With 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



Alco FA-1 Diesel



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.



NEW!

Reading - Alco FA-1 A/B Set With Proto-Sound 3.0
 80-2095-1 Cab Numbers 300A & 300B \$439.95
Reading - Alco FA-1 A Unit With Proto-Sound 3.0
 80-2096-1 Cab Number 301A \$229.95
Reading - Alco FB-1 B Unit With 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

**Proto-Sound 3.0
 A/B Sets Include
 Motors & Sound In
 Both Units!**



NEW!

Lehigh Valley - Alco FA-1 A/B Set With Proto-Sound 3.0
 80-2098-1 Cab Numbers 530 & 531 \$439.95
Lehigh Valley - Alco FA-1 A Unit With Proto-Sound 3.0
 80-2099-1 Cab Number 542 \$229.95
Lehigh Valley - Alco FB-1 B Unit With 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

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

**DCC-Ready
 A/B Sets Include
 Motors In
 Both Units!**

Alco FA-1 Diesel



NEW!

Union Pacific - Alco FA-1 A/B Set With Proto-Sound 3.0
 80-2103-1 Cab Numbers 1501A & 1525B \$439.95
Union Pacific - Alco FA-1 A Unit With Proto-Sound 3.0
 80-2104-1 Cab Number 1500A \$229.95
Union Pacific - Alco FB-1 B Unit With 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



NEW!

Great Northern - Alco FA-1 A/B Set With Proto-Sound 3.0
 80-2101-1 Cab Numbers 310A & 310B \$439.95
Great Northern - Alco FA-1 A Unit With 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



NEW!

Pennsylvania - Alco FA-1 A/B Set With Proto-Sound 3.0
 80-2092-1 Cab Numbers 9600-A & 9600-B \$439.95
Pennsylvania - Alco FA-1 A Unit With Proto-Sound 3.0
 80-2093-1 Cab Number 9601-A \$229.95
Pennsylvania - Alco FB-1 B Unit With 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



Alco PA Diesel



**All Proto-Sound 3.0 Models Include
On-Board DCC Receiver!**

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 engineer 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.



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

Southern Pacific - Alco PA A-B Set With Proto-Sound 3.0 (DCC Ready)
 80-2049-0 Cab Numbers 6005 & 5910 \$349.95
Southern Pacific - Alco PA A Unit With Proto-Sound 3.0 (DCC Ready)
 80-2050-0 Cab Number 6006 \$189.95
Southern Pacific - Alco PA B Unit With Proto-Sound 3.0 (DCC Ready)
 80-2051-0 Cab Number 5911 \$169.95

Boxed Passenger Set

See Page 42 for Passenger Car Details

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

Proto-Sound 3.0 A/B Sets Include Motors, Smoke & Sound In Both Units!



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

New York Central - Alco PA A-B Set With Proto-Sound 3.0 (DCC Ready)
 80-2046-1 Cab Number 4200 & 4300 \$349.95
New York Central - Alco PA A Unit With Proto-Sound 3.0 (DCC Ready)
 80-2047-1 Cab Number 4202 \$189.95
New York Central - Alco PA B Unit With Proto-Sound 3.0 (DCC Ready)
 80-2048-1 Cab Number 4302 \$169.95

Boxed Passenger Set

See Page 42 for Passenger Car Details

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

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 Diesel



Denver Rio Grande - Alco PA A-B Set With Proto-Sound 3.0

80-2077-1 Cab Number 6011 & 6002 \$449.95

Denver Rio Grande - Alco PA A Unit With Proto-Sound 3.0

80-2078-1 Cab Number 6013 \$249.95

Denver Rio Grande - Alco PA B Unit With Proto-Sound 3.0

80-2079-1 Cab Number 6012 \$229.95

Denver Rio Grande - Alco PA A-B Set With Proto-Sound 3.0 (DCC Ready)

80-2077-0 Cab Number 6011 & 6002 \$349.95

Denver Rio Grande - Alco PA A Unit With Proto-Sound 3.0 (DCC Ready)

80-2078-0 Cab Number 6013 \$189.95

Denver Rio Grande - Alco PA B Unit With Proto-Sound 3.0 (DCC Ready)

80-2079-0 Cab Number 6012 \$169.95

Add a Matching Passenger Set

See Page 40



Santa Fe - Alco PA A-B Set With Proto-Sound 3.0

80-2080-1 Cab Number 70 & 70A \$449.95

Santa Fe - Alco PA A Unit With Proto-Sound 3.0

80-2081-1 Cab Number 62 \$249.95

Santa Fe - Alco PA B Unit With Proto-Sound 3.0

80-2082-1 Cab Number 62A \$229.95

Santa Fe - Alco PA A-B Set With Proto-Sound 3.0 (DCC Ready)

80-2080-0 Cab Number 70 & 70A \$349.95

Santa Fe - Alco PA A Unit With Proto-Sound 3.0 (DCC Ready)

80-2081-0 Cab Number 62 \$189.95

Santa Fe - Alco PA B Unit With Proto-Sound 3.0 (DCC Ready)

80-2082-0 Cab Number 62A \$169.95

Add a Matching Passenger Set

See Page 40





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

New Haven - Alco PA A-A Set With Proto-Sound 3.0 (DCC Ready)
 80-2083-0 Cab Number 0760 & 0767 \$349.95
New Haven - Alco PA A Unit With Proto-Sound 3.0 (DCC Ready)
 80-2084-0 Cab Number 0785 \$189.95

Add a Matching Passenger Set
See Page 40



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

Erie - Alco PA A-A Set With Proto-Sound 3.0 (DCC Ready)
 80-2086-0 Cab Number 854 & 858 \$349.95
Erie - Alco PA A Unit With Proto-Sound 3.0 (DCC Ready)
 80-2087-0 Cab Number 856 \$189.95

Add a Matching Passenger Set
See Page 41



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

Delaware & Hudson - Alco PA A-B Set With Proto-Sound 3.0 (DCC Ready)
 80-2089-0 Cab Number 16 & 18 \$349.95
Delaware & Hudson - Alco PA A Unit With Proto-Sound 3.0 (DCC Ready)
 80-2090-0 Cab Number 19 \$189.95

Add a Matching Passenger Set
See Page 41

HO Diesels

All Proto-Sound 3.0 Models Include On-Board DCC Receiver!

SD70ACe Comfort Cab Diesel



NEW! Union Pacific - SD70ACe Comfort Cab Diesel Engine w/Proto-Sound® 3.0

80-2134-1	Cab Number 8622	\$249.95
80-2135-1	Cab Number 8625	\$249.95
80-2136-1	Cab Number 8631	\$249.95

Union Pacific - SD70ACe Comfort Cab Diesel Engine (DCC Ready)

80-2134-0	Cab Number 8622	\$189.95
80-2135-0	Cab Number 8625	\$189.95
80-2136-0	Cab Number 8631	\$189.95

NEW! BNSF - SD70ACe Comfort Cab Diesel Engine w/Proto-Sound® 3.0

80-2137-1	Cab Number 9162	\$249.95
80-2138-1	Cab Number 9168	\$249.95
80-2139-1	Cab Number 9172	\$249.95

BNSF - SD70ACe Comfort Cab Diesel Engine (DCC Ready)

80-2137-0	Cab Number 9162	\$189.95
80-2138-0	Cab Number 9168	\$189.95
80-2139-0	Cab Number 9172	\$189.95



SD70ACe Diesel



CSX - SD70ACe Diesel Engine
80-2001-1 w/Proto-Sound 3.0 \$249.95
Cab Numbers 4833, 4836 & 4839

CSX - SD70ACe Diesel Engine (DCC Ready)
80-2062-0 Cab Number 4833 \$189.95
80-2063-0 Cab Number 4836 \$189.95
80-2064-0 Cab Number 4839 \$189.95

Kansas City Southern- SD70ACe Diesel Engine

80-2002-1 w/Proto-Sound 3.0 \$249.95
Cab Numbers 4030, 4031 & 4051

Kansas City Southern - SD70ACe Diesel Engine (DCC Ready)

80-2065-0 Cab Number 4030 \$189.95
80-2066-0 Cab Number 4031 \$189.95
80-2067-0 Cab Number 4051 \$189.95





Western Pacific - SD70ACe Diesel Engine
80-2008-1 w/Proto-Sound 3.0 \$249.95
Cab Number 1983

Western Pacific - SD70ACe Diesel Engine (DCC Ready)
80-2008-0 Cab Number 1983 \$189.95

Missouri Pacific - SD70ACe Diesel Engine
80-2007-1 w/Proto-Sound 3.0 \$249.95
Cab Number 1982

Missouri Pacific - SD70ACe Diesel Engine (DCC Ready)
80-2007-0 Cab Number 1982 \$189.95



Katy - SD70ACe Diesel Engine
80-2009-1 w/Proto-Sound 3.0 \$249.95
Cab Number 1988

Katy - SD70ACe Diesel Engine (DCC Ready)
80-2009-0 Cab Number 1988 \$189.95

Denver & Rio Grande Western - SD70ACe Diesel Engine
80-2010-1 w/Proto-Sound 3.0 \$249.95
Cab Number 1989

Denver & Rio Grande Western - SD70ACe Diesel Engine (DCC Ready)
80-2010-0 Cab Number 1989 \$189.95



Chicago & North Western - SD70ACe Diesel Engine
80-2011-1 w/Proto-Sound 3.0 \$249.95
Cab Number 1995

Chicago & North Western - SD70ACe Diesel Engine (DCC Ready)
80-2011-0 Cab Number 1995 \$189.95

Southern Pacific - SD70ACe Diesel Engine
80-2012-1 w/Proto-Sound 3.0 \$249.95
Cab Number 1996

Southern Pacific - SD70ACe Diesel Engine (DCC Ready)
80-2012-0 Cab Number 1996 \$189.95



SD70ACe Diesel

EMD Demonstrator - SD70ACe Diesel Engine
 80-2004-1 w/Proto-Sound 3.0 \$249.95
 Cab Numbers GM70 (Off-White Steps) GM71 & GM73 (Blue Steps)

EMD Demonstrator - SD70ACe Diesel Engine (DCC Ready)
 80-2071-0 Cab Number GM70 \$189.95
 80-2072-0 Cab Number GM71 \$189.95
 80-2073-0 Cab Number GM73 \$189.95



Union Pacific - SD70ACe Diesel Engine w/Proto-Sound® 3.0
 80-2023-1 Cab Number 8444 \$249.95
 80-2024-1 Cab Number 8439 \$249.95
 80-2025-1 Cab Number 8453 \$249.95

Union Pacific - SD70ACe Diesel Engine (DCC Ready)
 80-2023-0 Cab Number 8444 \$189.95
 80-2024-0 Cab Number 8439 \$189.95
 80-2025-0 Cab Number 8453 \$189.95



George H. Bush - SD70ACe Diesel Engine
 80-2013-1 w/Proto-Sound 3.0 \$249.95
 Cab Number 4141

George H. Bush - SD70ACe Diesel Engine (DCC Ready)
 80-2013-0 Cab Number 4141 \$189.95



Montana Rail Link - SD70ACe Diesel Engine
 80-2005-1 w/Proto-Sound 3.0 \$249.95
 Cab Numbers 4304, 4308 & 4311

Montana Rail Link - SD70ACe Diesel Engine (DCC Ready)
 80-2074-0 Cab Number 4304 \$189.95
 80-2075-0 Cab Number 4308 \$189.95
 80-2076-0 Cab Number 4311 \$189.95



Union Pacific - SD70ACe Diesel Engine
 80-2006-1 w/Proto-Sound 3.0 \$249.95
 Cab Number 8321

Union Pacific - SD70ACe Diesel Engine (DCC Ready)
 80-2006-0 Cab Number 8321 \$189.95



BNSF - SD70ACe Diesel Engine
 80-2003-1 w/Proto-Sound 3.0 \$249.95
 Cab Numbers 9371, 9370 & 9374

BNSF - SD70ACe Diesel Engine (DCC Ready)
 80-2068-0 Cab Number 9371 \$189.95
 80-2069-0 Cab Number 9370 \$189.95
 80-2070-0 Cab Number 9374 \$189.95



Electro-Motive Diesel SD70M-2



Norfolk Southern - SD70M-2 Diesel Engine w/Proto-Sound 3.0

80-2014-1	Cab No. 2649	\$249.95
80-2015-1	Cab No. 2651	\$249.95
80-2016-1	Cab No. 2654	\$249.95

Norfolk Southern - SD70M-2 Diesel Engine (DCC Ready)

80-2014-0	Cab Number 2649	\$189.95
80-2015-0	Cab Number 2651	\$189.95
80-2016-0	Cab Number 2654	\$189.95

Florida East Coast - SD70M-2 Diesel Engine w/Proto-Sound 3.0

80-2020-1	Cab No. 100	\$249.95
80-2021-1	Cab No. 102	\$249.95
80-2022-1	Cab No. 103	\$249.95

Florida East Coast - SD70M-2 Diesel Engine (DCC Ready)

80-2020-0	Cab Number 100	\$189.95
80-2021-0	Cab Number 102	\$189.95
80-2022-0	Cab Number 103	\$189.95



Canadian National - SD70M-2 Diesel Engine w/Proto-Sound 3.0

80-2026-1	Cab No. 8000	\$249.95
80-2027-1	Cab No. 8010	\$249.95
80-2028-1	Cab No. 8023	\$249.95

Canadian National - SD70M-2 Diesel Engine (DCC Ready)

80-2026-0	Cab Number 8000	\$189.95
80-2027-0	Cab Number 8010	\$189.95
80-2028-0	Cab Number 8023	\$189.95

Florida East Coast - SD70M-2 Diesel Engine w/Proto-Sound 3.0

80-2029-1	Cab No. 106	\$249.95
80-2030-1	Cab No. 105	\$249.95
80-2031-1	Cab No. 107	\$249.95

Florida East Coast - SD70M-2 Diesel Engine (DCC Ready)

80-2029-0	Cab Number 106	\$189.95
80-2030-0	Cab Number 105	\$189.95
80-2031-0	Cab Number 107	\$189.95



EMD Demonstrator - SD70M-2 Diesel Engine w/Proto-Sound 3.0

80-2017-1	Cab No. 74	\$249.95
80-2018-1	Cab No. 75	\$249.95
80-2019-1	Cab No. 76	\$249.95

EMD Demonstrator - SD70M-2 Diesel Engine (DCC Ready)

80-2017-0	Cab Number 74	\$189.95
80-2018-0	Cab Number 75	\$189.95
80-2019-0	Cab Number 76	\$189.95