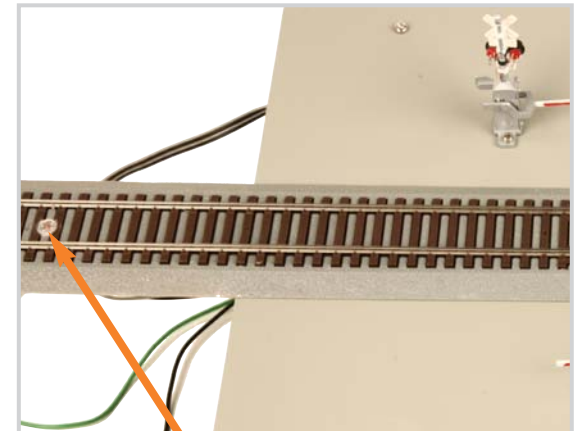
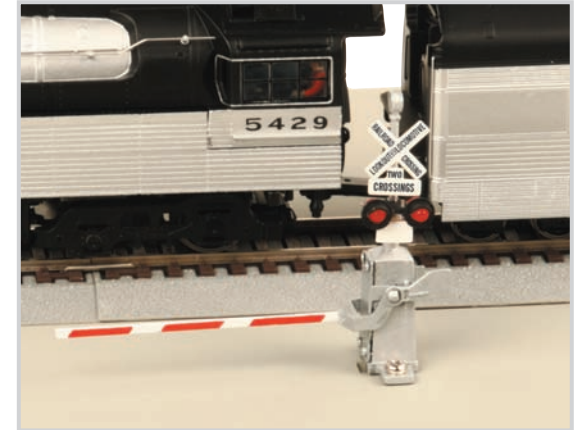


# Operating Crossing Signals



**Operating Crossing Signals**  
80-10001 \$179.95

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



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

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

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

## Features

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

# Z-Series DC-300 Transformer



**30 Watt DC Transformer**  
40-300 \$99.95

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

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

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

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

## Features

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

## Smoke Fluid



### ProtoSmoke™ Fluid (7oz.)

Unscented	60-1045	\$12.95
Christmas	60-1046	\$12.95
Coal	60-1047	\$12.95
Diesel	60-1048	\$12.95
Woodburning	60-1049	\$12.95

### ProtoSmoke™ Fluid (2 Oz.)

Assortment (36 pieces)	60-1051	\$179.95
Christmas	60-1051-a	\$4.99
Coal	60-1051-b	\$4.99
Diesel	60-1051-c	\$4.99
Wood Burning (Hickory)	60-1051-d	\$4.99
Coffee	60-1051-e	\$4.99
Eggs & Bacon	60-1051-f	\$4.99
Vanilla	60-1051-g	\$4.99
Candy Cane	60-1051-h	\$4.99
Barbeque	60-1051-i	\$4.99
Pipe Smoke	60-1051-j	\$4.99
Cinnamon Roll	60-1051-k	\$4.99
Apple Pie	60-1051-l	\$4.99



# No Matter How You Run It

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

## Analog DC

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

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



## DCC

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

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

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



(see page 1 or 8 for the complete list)

## DCS Commander

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

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

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

\* Customer-supplied DCC system required



DCS Commander Controller  
50-1028 \$149.95

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

## DCS Remote Control System

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

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



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



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



# More Features Than Analog DC or DCC Command Control

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

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

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

**LCD DISPLAY**

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

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

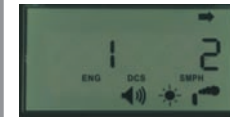
**AUX 1-3**  
Auxiliary buttons  
**CPLR-F/CPLR-R\***  
Fires front & rear couplers  
**BOOST/BRAKE**  
Temporarily raises or lowers speed  
**LABOR/REV UP OR DRIFT/REV DN**  
Makes an engine sound like its working harder (labored steam chuff or higher revving diesel) or easier (drifting chuff or lower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

**E STOP** - Cuts power to all tracks  
**BELL** - Rings Bell  
**ENG** - Engine Menu (To Select and Control Engines)  
**SEL** - Selects or activates a setting

**THUMBWHEEL**  
Sets throttle speed & voltage setting

**W/H** - Whistle/Horn  
**DIR** - Changes locomotive direction

The DCS Commander is the easiest way to access the dozens of command control functions already programmed into your M.T.H. HO locomotive. The Commander features clearly-labeled, one-button control of more than 32 engine functions; no function keys or special codes to remember; and more features than any DCC system made today. Use the engine menu to select and control up to 10 different DCS engines from a single Commander at the same time on the same track — or switch back to DCC or analog DC operation with the push of a button.



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



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

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

MTH Trademarks: M.T.H. Electric Trains®, M.T.H.®, MTH Railroaders Club™, Ives®, Loco-Sound™, Proto-Sound® 2.0, Proto-Sound® 3.0, Proto-Speed Control™, Proto-Doppler™, Proto-Dispatch™, Proto-Cast™, ProtoSmoke™, Proto-Coupler™, Proto-Effects™, RailKing®, Rugged Rails®, RailKing One-Gauge™, RailTown™, Tinplate Traditions™, ScaleTrax™, RealTrax®, Z-500™, Z-750™, Z-4000™, Z-1000™, Z-4000 Remote Commander™, DCS™ and the MTH Numbering System and all others indicated throughout this catalog.

DCS™ Simply The Best Way To Run A Railroad™  
M.T.H.'s DCS Digital Command System has received U.S. Patent No. 6,457,681. M.T.H.'s Proto-Sound® system has received U.S. Patent No's 6,457,681 B1 (sound system), 6,457,681 B1 (Proto-Speed Control), 6,604,641 (Proto-Coupler), 6,280,278 (Proto-Smoke). M.T.H.'s RealTrax has received U.S. Patent No. 6,019,289. M.T.H.'s Z-4000 Transformer has received U.S. Patent No's. 6,281,606 & 6,624,537.

Some images used in this publication © 2010 www.clipart.com

Lionel & Lionel Corporation Tinplate is licensed by Lionel® LLC

© 2010 H-D. All Rights Reserved. Manufactured by M.T.H. Electric Trains under license from Harley-Davidson Motor Company.  
© 2010 M.T.H. Electric Trains, 7020 Columbia Gateway Drive, Columbia, Maryland 21046

© 2010 MillerCoors, LLC. All rights reserved. Produced under license by M.T.H. Electric Trains. This licensed product is intended for adults of legal drinking age

\*© 2010 Anheuser-Busch, Inc. All Rights Reserved.\*

®/™ M&M'S, the letter M and the M&M'S Characters are registered trademarks of Mars, Incorporated and its affiliates. © Mars, Incorporated 2010  
®/TM MILKY WAY and the MILKY WAY logo are registered trademarks of Mars, Inc. and its affiliates. Used under license by Summit Resource Imports © Mars, Incorporated 2010  
®/TM SNICKERS and the SNICKERS logo are registered trademarks of Mars, Inc. and its affiliates. Used under license by Summit Resource Imports © Mars, Incorporated 2010

\* Operating couplers are available only on diesels at this time.  
\*\* Customer supplied DCC system Required

DR PEPPER is a trademark of Dr Pepper/Seven Up, Inc., used by M.T.H. Electric Trains under license. ©2010 Dr Pepper/Seven up, Inc.  
A&W is a trademark of A&W Concentrate Company, used under license by M.T.H. Electric Trains. ©2010 A&W Concentrate Company