

# Track, Accessories & Electronics

REVIEW **N**

## Commuter DCC

Installing Digitrax DCC and DCC-Sound in Kato's N-scale F40PH

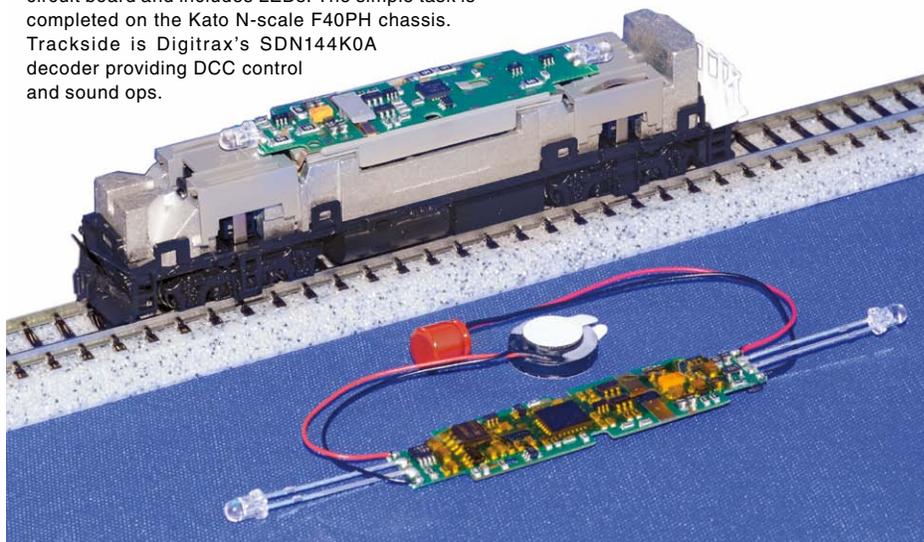
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Digitrax DN163K0D  
MSRP: \$35.99

SDN144K0A  
MSRP: \$69.95

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Digitrax DN163K0D is designed to replace Kato's circuit board and includes LEDs. The simple task is completed on the Kato N-scale F40PH chassis. Trackside is Digitrax's SDN144K0A decoder providing DCC control and sound ops.



**D**IGITRAX has been making decoders in N scale for years; the company's innovation, coupled with high quality and modern manufacturing standards, makes Digitrax products one of the leaders in the model railroad electronics industry. Digitrax's "No Worries Warranty" should give anyone the confidence to install their own decoder in a locomotive. The newly retooled F40PH recently released by Kato offers an opportunity to take a look at some of Digitrax's current decoder offerings.

The DN163K0D decoder is a complete replacement board that quickly replaces Kato's standard DC factory-installed light board. The decoder has the same basic shape and LED lights found on Kato's board. I found it to be little more than a five-minute job to make the switch. There are only a few basic steps involved in the DN163K0D decoder installation. Remove the F40PH locomotive shell by gently using a small screwdriver or toothpick between the frame and the shell above the right rear axle and the left side front window simultaneously to release the shell from the catches. Remove the gray plastic clip that holds the factory light board in place and set aside; remove the light board. Remove the front plastic truck retainer and then take out one of the horizontal metal wipers that carry power from the truck to the board. Use care not to bend the wiper. Wrap the metal wiper with the Kapton tape supplied with the decoder so that there is no electrical contact between the motor

leads and the wiper. Only a small amount of tape is needed. Reinstall the wiper and repeat for the other side. Reinstall the front truck plastic retainer and insert the decoder. Make sure the decoder is seated against the metal frame and slid back against the rear retainer. Fold the motor leads down, and reinstall the plastic clip.

That's it! You are ready to program your locomotive and enjoy DCC operation. Detailed instructions with color pictures are also available on the Digitrax web site at [www.digitrax.com/static/apps/products/mobile-decoders/dn163k0d/documents/dn163k0d.pdf](http://www.digitrax.com/static/apps/products/mobile-decoders/dn163k0d/documents/dn163k0d.pdf).

Digitrax's second offering for the F40PH is the SDN144K0A sound decoder. Digitrax has a web page that details the steps for installing this decoder in a Kato E8 at [www.digitrax.com/static/apps/products/sound-decoders/sdn144k0a/documents/SDN144K0A.pdf](http://www.digitrax.com/static/apps/products/sound-decoders/sdn144k0a/documents/SDN144K0A.pdf).

The footprint of the sound decoder is almost identical to the DN163K0D, with two important exceptions. The sound decoder comes equipped with a 13mm factory-wired speaker and a separate wired 330 uF capacitor. In addition, the LED lights are mounted on long legs designed to fit much larger locomotives, such as Kato's E8. It is a simple process to shorten the legs of the LEDs. You can cut them off flush with the end of the decoder, trim to size, and resolder to the pads on the decoder. Make sure you reinstall the anode on the same side as it came from originally. Installing the speaker and the capacitor require the tools and skills needed to mill spaces into the

frame for these items. In my judgment, there are two possible locations for the speaker, the rear metal frame pedestal or the fuel tank area. According to Digitrax, the capacitor is optional in this application. For those who lack the experience or equipment to mill the frame, there are several highly qualified individuals and shops that provide decoder installation services. A good place to start is the web list of decoder installers maintained by Aztec: [www.aztectrains.com/dccinstallers.html](http://www.aztectrains.com/dccinstallers.html).

While I have not tackled any sound decoder installations this complex, I do have several sound-equipped locomotives. I find that sound adds a new dimension to operations that is worth the expense, time, and effort. An F40PH sound scheme is factory-installed in the SDN144K0A decoder. A Digitrax Sound Project specific for the F40PH is available on the Digitrax web site. Installation of this sound project requires a PR3 SoundFX USB Decoder Programmer and SoundLoader software available from Digitrax.

Both Digitrax decoders have many standard features that include Back EMF, Transponding, and extra function pads that can be wired to provide strobe lights, separate ditch lights, or other operating accessories. The sound functions include a choice of horn/whistle combinations, dynamic brakes, prime mover notch up and/or down, brake squeal, and a crossing gate horn sequence. List price for the DN163K0D is \$35.99, and the SDN144K0A is \$69.95.

