



Digitrax Command Control
Run Your Trains, Not Your Track!

DN121PS

N Scale

Fits Many DCC-Ready N and HO
Scale Locomotives

Mobile Decoder
1.0 Amp/1.5 Amp Peak
2 Functions, 0.5 Amp
DCC Plug 'N Play with 1' Harness

Features:

- 1 Amp (1.5 Amp Peak) Mobile DCC Decoder
- New Thin Profile for easier installation
- Supports Both Short (127) & Long (10,000) Address Modes
- User Programmable Address, Acceleration, Deceleration, Start-voltage, Mid-point voltage, Max Voltage and more
- Constant brightness directional headlights (Does not support independent forward & reverse light operation)
- Programmable from DCC compatible equipment without opening the loco
- Smooth conversion to analog operation with functions operational
- Smooth locomotive speed control with user selectable 14, 28, or 128 forward & reverse speed step capabilities
- Supports Basic, Advanced & UniVersal Consisting
- Compatible with DCC standards
- Complies with FCC Part 15, class B RFI requirements

Parts List

1 DN121PS Decoder

1 Instruction sheet

Installation Information

See the Digitrax Decoder Manual for complete decoder test procedures, installation instructions, programming and technical information. Digitrax manuals and instructions are updated periodically. Please visit www.digitrax.com for the latest versions, technical updates and additional locomotive-specific installation instructions.

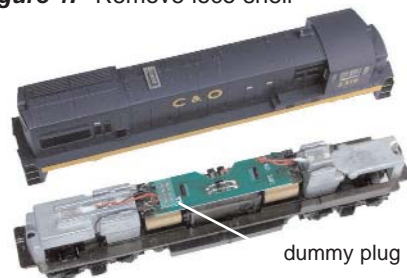
Installation Instructions - Atlas U23B (HO Scale)

1. Carefully remove the locomotive's shell from the frame. Notice the orientation of the shell to the frame (**Figure 1**) so that you can reinstall the shell correctly.
2. Remove the dummy plug from the locomotive's DCC-ready socket. (**Figure 2**) The jumper plug allows the loco to operate on a standard DC track or in analog mode on a DCC track. Pin 1 is marked for proper orientation of the decoder.



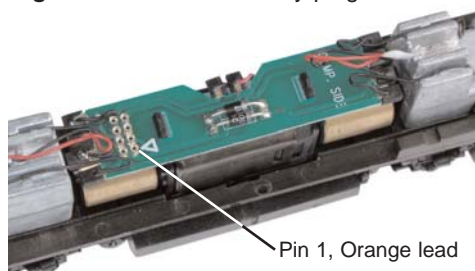
- The DN121PS has a short, 1" harness with a DCC medium plug on the end of it. The plug is oriented so the pin for the orange wire is inserted in the socket marked "pin 1." Seat the decoder firmly in the socket. (Figure 3) The Green and Violet wires are not used on the DN121PS because it only supports F0 Fwd and F0 Rev functions.

Figure 1. Remove loco shell



- Replace the loco shell. You are now ready to run your locomotive. The DN121PS is factory programmed to address 03. You can easily customize the address and other features. See section "Customizing Your Decoder" that follows.

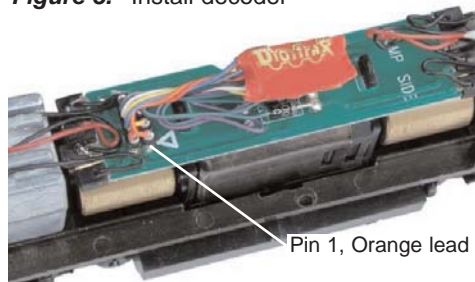
Figure 2. Remove dummy plug



Installation Notes:

- Do not exceed the decoder's 500mA total function output rating.
- We recommend that the Blue wire, also called +Common or Lamp Common, be connected as shown. If you wish to omit the Blue wire in your installation, consult the Digitrax Decoder Manual for more information.
- The head lamp should be hooked up using the Blue/+Common wire for optimal Digitrax transponding operation.
- See the Digitrax Decoder Manual for full details of wiring 12-16V lamps, 1.5V lamps, and LEDs. Lamps that draw more than 80 mA when running require a 22 ohm 1/4 watt resistor in series with the directional light function lead to protect the decoder.
- Some locomotives employ filter capacitors for RFI suppression in the locomotive wiring. These may cause problems with Supersonic decoders and non-decoder analog operation on DCC. This capacitor should be removed for safe operation.

Figure 3. Install decoder



Customizing Your Decoder

Your Digitrax decoder is ready to run and will operate using address 03 with no additional programming. For a more prototypical railroading experience, your decoder can be customized for your specific locomotive by programming some of the Configuration Variables, or CVs, available. See the Digitrax Decoder Manual or the Digitrax web site for more information.

Changing the Decoder Address

The first CV most people change is the decoder address. This allows you to independently control each loco with a unique address. Digitrax decoders are shipped with CV01 (AD2), the two digit address, set to 03. Following is a brief description of how to change the decoder address with a Digitrax DT series throttle. See your Starter Set Manual for complete programming instructions.

- Place the loco on the programming track. Go into Program Mode on your system. On DT400 press **PROG**. On DT300, DT100 & DT200 press **RUN/STOP & FN/F0**.
- Choose AD2 for 2 digit addressing or AD4 for 4 digit addressing (DT300 & DT400). (Ad for DT100 & DT200, see your Starter Set manual for 4 digit instructions).
- Use your throttle to choose the address you want to set up for the decoder.
- Complete address programming. On DT400 press **ENTER**. On DT300, DT100 & DT200 press **SEL**.

Note: CV29 must also be programmed to enable 4 digit addressing, this is done automatically by the DT300 & DT400 but not on earlier throttles.

Warranty & Repair

All warranties on Digitrax products are limited to refund of purchase price, repair or replacement at Digitrax's sole discretion. Except as expressly stated in the full warranty statement, there are no warranties, express or implied, including but not limited to any warranties of merchantability or fitness for a particular purpose. For complete warranty details see www.digitrax.com.

Damaged decoders should be returned directly to Digitrax for repair.

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DN121PS

Fits a Variety of N and HO Scale Locomotives

Movin' Down The Tracks With Digitrax[®] Command Control

Main Station

Starter Sets
LocoNet
Power Supplies



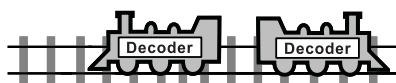
Your Digitrax LocoNet[®] Starter Set is just the beginning of an exciting trip!

Pick the one that's right for you!



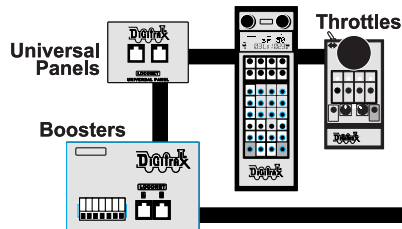
Locomotive Shops

Mobile Decoders
Function Decoders



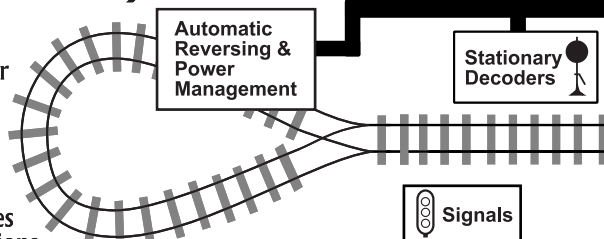
More Fun For Everyone

Add More Boosters,
Advanced & Simple Throttles,
Power Supplies,
Universal Panels,
IR and/or Radio
for more trains and operators.



Maintenance Of Way

Make your layout more fun & simpler to operate!

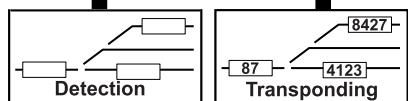


Computer Controls

PDA Throttles
& Applications
Computer Interfaces
Programmer

Putting It All Together

The Digitrax Big Book of DCC



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