Complete Train Control
Run Your Trains, Not Your Track!

BD4

All Scales

Occupancy Detector
For 4 Detection Sections
For use with DS64 or SE8
Series Stationary Decoders

Occupancy Detection
5 Amps Peak, 3 Amps Continuous

Features

- **Occupancy Detection** for 4 detection sections lets you know when rolling stock is in a detection section on your layout
- **Outputs for LEDs** to indicate local detection section occupancy and zone power status on a panel mounted display
- **3 Amp capacity** per detection section
- **Connect to LocoNet** via your DS64 or SE8 series decoder to transmit occupancy information to your LocoNet system (works with the older DS54 too)
- **Detects any powered locomotive**
- **Detects un-powered rolling stock equipped with resistor wheel sets**
- **Anti-Chatter Filter** For Reliable Occupancy Detection

Parts List

1 BD4	1	Instruction Manual
1 Block Monitor		

The BD4 requires a DS64 or SE8 Series Stationary Decoder (sold separately) for LocoNet reporting.

NOTE: The BD4 operates up to a maximum resistance across the tracks of 10Kohms for positive occupancy detection. Do not connect any other devices or loads across the detection section track for proper operation.

Digitrax Manuals and Instructions are updated periodically.
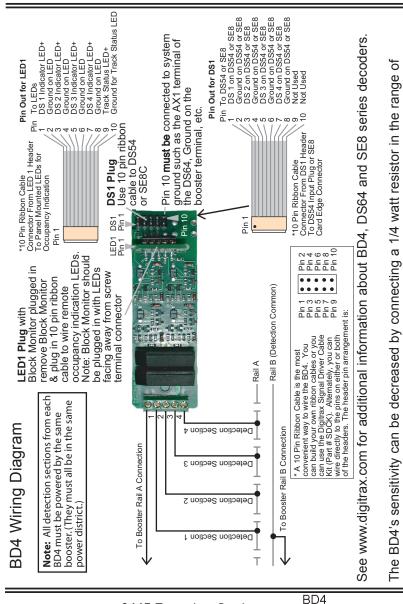**Please visit www.digitrax.com for the latest version of all manuals.**

BD4
Occupancy Detector for 4 Detection Sections

BD4 Wiring Diagram

Pin Out for LED1

Pin	To LEDs
1	DS 1 Indicator LED+
2	Ground on LED
3	DS 2 Indicator LED+
4	Ground on LED
5	DS 3 Indicator LED+
6	Ground on LED
7	DS 4 Indicator LED+
8	Ground on LED
9	Track Status LED+
10	Ground for Track Status LED

*10 Pin Ribbon Cable Connector From LED 1 Header To Panel Mounted LEDs for Occupancy Indication

LED1 Plug with Block Monitor plugged in remove Block Monitor & plug in 10 pin ribbon cable to wire remote occupancy indication LEDs. Note: Block Monitor should be plugged in with LEDs facing away from screw terminal connector

DS1 Plug Use 10 pin ribbon cable to DS54 or SE8C

Pin 10 **must be** connected to system ground such as the AX1 terminal of the DS64, Ground on the booster terminal, etc.

Pin Out for DS1

Pin	To DS54 or SE8
1	DS 1 on DS54 or SE8
2	Ground on DS54 or SE8
3	DS 2 on DS54 or SE8
4	Ground on DS54 or SE8
5	DS 3 on DS54 or SE8
6	Ground on DS54 or SE8
7	DS 4 on DS54 or SE8
8	Ground on DS54 or SE8
9	Not Used
10	Not Used

*10 Pin Ribbon Cable Connector From DS1 Header To DS54 Input Plug or SE8 Card Edge Connector

Pin 1	Pin 2
Pin 3	Pin 4
Pin 5	Pin 6
Pin 7	Pin 8
Pin 9	Pin 10

* A 10 Pin Ribbon Cable is the most convenient way to wire the BD4. You can build your own ribbon cables or you can use the Digitrax Signal Driver Cable Kit (Part # SDCK). Alternately, you can wire directly to the pins on either or both of the headers. The header pin arrangement is:

Rail A
Rail B (Detection Common)

Detection Section 4
Detection Section 3
Detection Section 2
Detection Section 1

To Booster Rail A Connection
To Booster Rail B Connection

See www.digitrax.com for additional information about BD4, DS64 and SE8 series decoders.

The BD4's sensitivity can be decreased by connecting a 1/4 watt resistor in the range of 47ohms to1 Kohm from the DS (detection section) screw terminal to the Rail A screw terminal on the screw connector on the BD4. Each DS 1-4 can be adjusted separately.

BD4

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