

# D-4B

## FOUR-CHANNEL DIGITAL TRANSMITTER



### Code Setting Instructions

**Linear**  
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### CHECKOUT AND TEST

After coding the D-4B transmitter and receiver, the units should be tested as a system.

#### NOTE:

*The receiver should be powered as described in the Code Setting and Installation Instructions pamphlet enclosed with the receiver. Provision should be made (with a meter or sounder) to detect that the correct receiver output is activated when a signal is received from the D-4B transmitter.*

To test the transmitter, perform the following steps:

**STEP 1:** Move the transmitter at least six feet away from the receiver and press a pushbutton. Receiver activation indicates that the transmitter is operating properly and that the transmitter/receiver's digital codes are correctly matched.

#### NOTE:

*The transmitter transmits continuously with any button depressed. The red LED lights during transmission to indicate battery condition.*

**STEP 2:** Operate the transmitter from various locations. This will help to locate possible null areas where structural steel, and/or certain obstacles may interfere with transmission.

If the transmitter fails to activate the receiver, first check the coding switches to see that the switch keys in the transmitter and receiver are properly matched. Next, check the battery and replace it if it is weak. Although the battery should last for a year with normal use, it is good practice to install a new battery every six months.

### LINEAR LIMITED WARRANTY

This Linear product is warranted against defects in material and workmanship for twelve (12) months. The Warranty Expiration Date is labeled on the product. **This warranty extends only to wholesale customers** who buy direct from Linear or through Linear's normal distribution channels. **Linear does not warrant this product to consumers.** Consumers should inquire from their selling dealer as to the nature of the dealer's warranty, if any. **There are no obligations or liabilities on the part of Linear corporation for consequential damages arising out of or in connection with use or performance of this product or other indirect damages with respect to loss of property, revenue, or profit, or cost of removal, installation, or reinstallation.** All implied warranties, including implied warranties for merchantability and implied warranties for fitness, are valid only until Warranty Expiration Date as labeled on the product. **This Linear Corporation Warranty is in lieu of all other warranties express or implied.**

For warranty service on Linear equipment return product, at sender's expense to:

Linear Corporation  
5957 Landau Court  
Carlsbad, CA 92008  
Attention: Repairs Department

### IMPORTANT !!!

Linear radio controls provide a reliable communications link and fill an important need in portable wireless signalling. However, there are some limitations which must be observed.

- \* For U.S. installations only: The radios are required to comply with FCC Rules and Regulations as Part 15 devices. As such, they have limited transmitter power and therefore limited range.
- \* Receivers may be blocked by radio signals that occur on or near their operating frequencies, regardless of code settings.
- \* A receiver cannot respond to more than one transmitted signal at a time.
- \* Infrequently used radio links should be tested regularly to protect against undetected interference or fault.
- \* A general knowledge of radio and its vagaries should be gained prior to acting as a wholesale distributor or dealer, and these facts should be communicated to the ultimate users.

## DESCRIPTION

The D-4B is a handheld four-channel transmitter, designed to perform four separate functions. this attractive, lightweight transmitter, operating in conjunction with four single-channel receivers, or one multi-channel receiver, can perform a wide variety of remote switching tasks.

## CODE SWITCH LOCATION

The digital coding switch is attached to the circuit board inside the transmitter. It is located beneath the small access door on the back of the case (see Figure 1). To reach the coding switch and the 9-volt battery, gently pry open the access door and lift it off.

### CAUTION:

**Transmitters and receivers should be recoded by the installer prior to installation.**

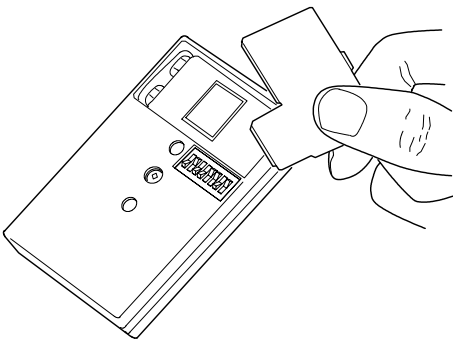


Figure 1. Removing the Battery/Coding Access Door

In order to avoid the possibility of duplicating codes in adjacent systems, factory set codes should not be used. In addition, among the valid codes available, four other should not be used because they, also, are too often duplicated. These include: (1) all keys set to ON; (2) all keys set to OFF; (3) keys set in alternating ON/OFF positions; and (4) keys set in alternating OFF/ON positions.

## CODE SETTING FOR FOUR SINGLE-CHANNEL RECEIVERS

Following is the procedure for coding four single-channel receivers to a D-4B transmitter. Use a paper clip or other pointed object (except a pencil or pen) to set the keys on the digital coding switches to the code you select - remember the previous caution about coding. Do not use a pen or pencil; the ink or graphite may contaminate the switch keys. Note that the D-4B and each receiver has an eight-position dipswitch (see Figure 2). **The ON/OFF code selected on keys 3-8 in the transmitter must match exactly with the ON/OFF code selected on keys 3-8 in each receiver.** Set keys to ON or OFF positions from left to right (from numbers 3-8). In the example shown in Figure 2, keys 4, 6 and 7 are set to ON; keys 1, 2, 3, 5, and 8 are set to OFF. **Keys 1 and 2 in the transmitter are not connected, they can be set in any position.**

Set each receiver's switch keys 1 and 2 as follows:

**Receiver #1:** Switch 1 OFF, switch 2 OFF (see Figure 3)

**Receiver #2:** Switch 1 ON, switch 2 OFF (see Figure 4)

**Receiver #3:** Switch 1 OFF, switch 2 ON (see Figure 5)

**Receiver #4:** Switch 1 ON, switch 2 ON (see Figure 6)

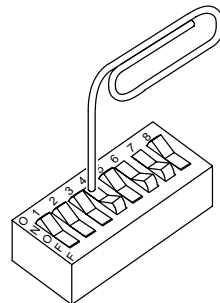


Figure 2. Example Digital Coding Switch

Each button on the D-4B will now activate a separate receiver.

### NOTE:

**Mount receivers at least 10 feet apart from each other.**

## CODE SETTING FOR FOUR-CHANNEL RECEIVERS

To code a D-4B transmitter with a four-channel receiver, procede as follows:

Set keys 3 through 8 in the transmitter to correspond exactly to keys 3 through 8 in the receiver. Matching these keys completes the coding procedure required to activate the four channels. Their functions are programmed to access channels 1 through four corresponding with buttons 1 through 4 on the D-4B transmitter.

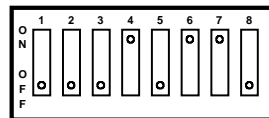


Figure 3. Receiver #1 Coding

## CODE SETTING FOR EIGHT-CHANNEL RECEIVERS

To code a D-4B transmitter with an eight-channel receiver, procede as follows:

Set keys 4 through 8 in the transmitter to correspond exactly to keys 4 through 8 in the receiver.

For the transmitter to activate channels 1 through 4 of the eight-channel receiver, set key 3 in the transmitter to OFF.

For the transmitter to activate channels 5 through 8 of the eight-channel receiver, set key 3 in the transmitter to ON.

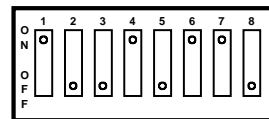


Figure 4. Receiver #2 Coding

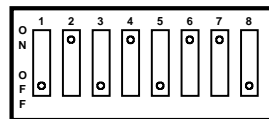


Figure 5. Receiver #3 Coding

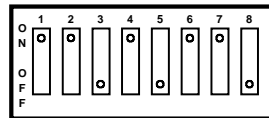


Figure 6. Receiver #4 Coding