Dakota Alert, Inc.

IR-2500
Wireless PIR
Sensor

Owner's Manual

Warnings
This device complies with Part 15 of the FCC rules, Operation of this device is subject to the following conditions: 1. This device may not cause harmful interference. 2. This device must accept any interference, including interference that may cause undesired operation.

Introduction: The IR-2500 is a wireless PIR sensor that is compatible with the Dakota Alert 2500 Series of transmitters and receivers. The IR-2500 is designed for indoor applications or outdoor applications in a protected area such as under an eve. When the sensor detects an object it will send a signal to the receiver which will sound one of four different tones (Classical, Westminster chime, Ding Dong, Whistle.) for a few seconds.

Operation: (Always test unit prior to installation)
1. Connect a 9-volt alkaline battery to the transmitter.
2. Set the dip switches 1-8 on the transmitter module to match the receiver. (figures 2 & 3)
3. Set dip switches 9 and 10 to control the desired zone, tune, and relay output. (figures 2 & 3)
4. Mount on wall 6 to 8 feet high slightly pointing down.

Figure 1
PIR with cover opened

2.

PIR settings: Loosen the phillips screw on the bottom of the case and swivel the top cover up to reveal the PIR board (figure 1). (The screw is captured in the case and will not come completely out.) The jumper settings are as follows:

Detection Range: High - 40 feet
Medium - 25 feet
Low - 12 feet

LED: ON - led will flash when it detects
OFF - led is always dark

Filter: ON - set for outdoor use
OFF - set for indoor use

Reset: 15 seconds to reset after activation
120 seconds to reset after activation

Dip Switches: 1 & 2 should both be OFF
(on the PIR board)

Figure 2

Coding the transmitter:
Note: **The transmitter and receiver frequencies are preset at the factory. DO NOT change settings, unless changing the tune or experiencing false signals.**

1. Just above the PIR board is a small clip on the case. Pull on this clip and the center portion of the case will swivel down to reveal the radio transmitter and battery slot (figure 2).
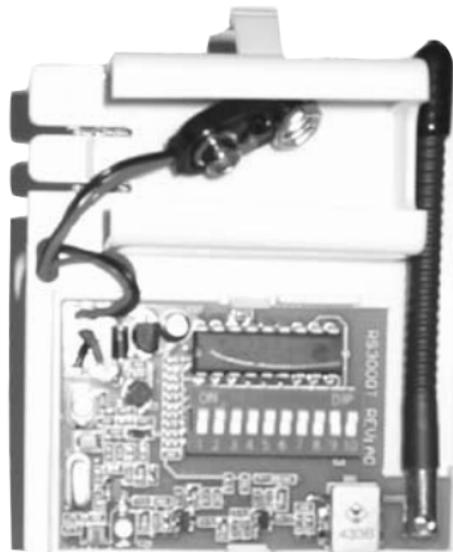
2. Locate the 10 dip switches on the transmitter module (figure 3).

3. The first eight dip switches are for the frequency setting (256 combinations). Set switches 1-8 (figure 3-3) to match the eight switches in the receiver.

4. Switches 9 and 10 (figure 3-4) are for zone/channel setting on the transmitter. The four zones are listed below.

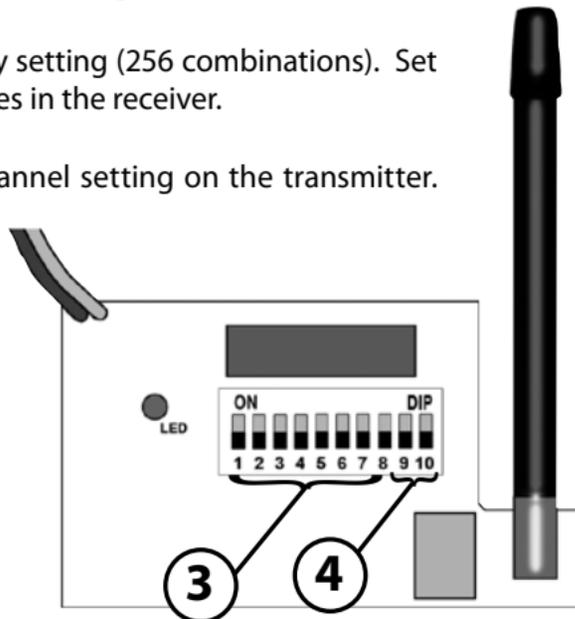| Switch 9	Switch 10	Channel	Tune
On	On	1	Classical
Off	On	2	Westminster
On	Off	3	Ding Dong
Off	Off	4	Whistle

figure 3

Low battery alert: If the receiver sounds a second alert 30 seconds after the first alert, provided nothing trips the transmitter again, the 9-volt battery in the transmitter should be changed.

4.

Setting the detection area:
The IR-2500 comes with a user modifiable mask on the lens (figure 4) to adjust the width of the detection area from approximately 16° to 100°. The mask comes in two pieces, and fits into the slots above & below the lens cover. Each half of the mask is perforated and can broken into three separate strips (figure 4). Each strip of the mask represents approximately 16° of viewing angle. The user breaks off the appropriate number of strips to provide the required viewing angle. For example, to monitor a 48° angle (figure 5), break off three strips from the mask (3 x 16°= 48°).

NOTE: The two halves of the mask do not need to be symmetrical, a different number of strips can be broken off either side.

Frequency: 434 MHz
Operating range: -30°F to 110°F
Battery life: 6-12 months

figure 4

5.

Swivel Mount

The IR-2500 has a swivel mount (figure 6) which also provides for adjustment of the detection area. The mount can be adjusted right or left up to 80º and up or down up to 50º. The swivel mount can be attached to the desired surface with the provided mounting screws. The sensor is then attached to the mount using the notch on the back (figure 6).

NOTE: *The mount will slide easily into the slot and lock into position one way only. If the mount does not slide into the slot, do not force it. Rotate the swivel joint 180 degrees and then slide the mount into position.*
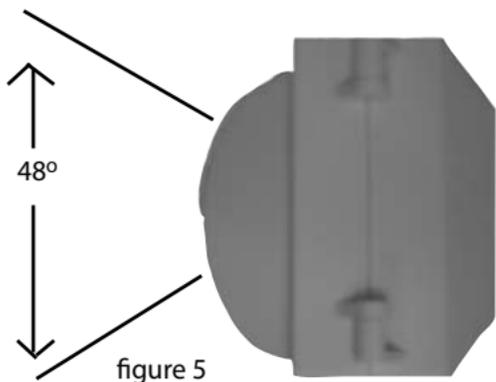
48º

figure 5

figure 6
Swivel mount

6.

Troubleshooting the IR-2500
Although the IR-2500 should be very reliable, there are occasions when you might have false alarms or a failure to alert. If you are getting false alarms, please try this:
  • Set filter jumper to "ON".
  • Decrease range jumper.
  • Make sure that the transmitter is not pointing at a road in the distance.
  • The sun may be causing false signals; try to relocate the transmitter to a different position.
  • Make sure the transmitter is not detecting animals.

If the transmitter is not detecting, try one of these:
  • Change the battery in the transmitter.
  • Make sure the transmitter and receiver are coded alike.
  • Change the height and distance of the transmitter
  • Move the transmitter closer to the receiver.
  • Keep the transmitter away from large metal objects that may interfere with the radio signal.

TECHNICAL SUPPORT
If you encounter any difficulty in the operation of this product after reading the manual, please contact us. You can reach us by phone at 605-356-2772 from 8:30 AM to 5:00 PM Monday through Friday (Central Standard Time). We will be happy to answer your questions and help you in any way we can.

WARRANTY

Dakota Alert warrants this product to be free of defects in material and workmanship for a period of one year from the date of purchase. This warranty does not cover damage resulting from accident, abuse, act of God or improper operation. If this product does become defective, simply return it to Dakota Alert. Please include a note describing the troubles along with your name and return address as well as the original sales receipt. If the product is covered under warranty it will be repaired or replaced at no charge. If it is not covered by warranty, you will be notified of any charges before work is done.

Dakota Alert, Inc.

32556 E. Main Street
P0 Box 130
Elk Point, SD 57025

Phone: (605) 356-2772
Fax: (605) 356-3662
Web: www.dakotaalert.com