

MURS Alert Probe

WARNINGS

To maintain compliance with the FCC's RF exposure guidelines, this transmitter and its antenna must maintain a separation distance of at least 2 inches (5 centimeters) from your body while transmitting.

This transmitter must have the antenna connected while operating. Failure to connect the antenna can cause damage to the radio.

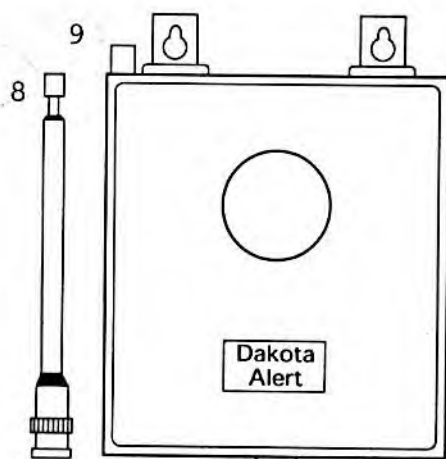
This device complies with Part 15 of the FCC rules, Operation of this device is subject to the following conditions: 1. This device may not cause harmful interference. 2. This device must accept any interference, including interference that may cause undesired operation.

CONTENTS

MURS Alert probe transmitter
Antenna

DIAGRAM

1. Exterior Case (figure 1)
2. Probe sensor control (figure 2)
3. MURS transmitter (figure 2)
4. Switch (SW1) (figure 2)
5. Switch (SW2) (figure 2)
6. Switch (SW3) (figure 2)
7. Switch (SW4) (figure 2)
8. Antenna (figure 1)
9. Antenna connector (figure 1)



Exterior Case
Figure 1

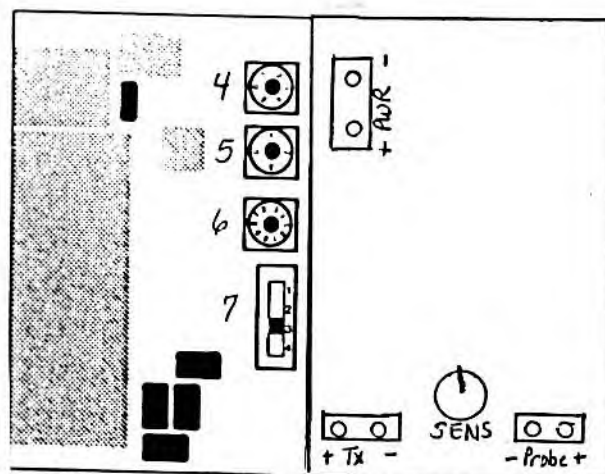


Figure 2

Power Supply:

The MURS Alert probe transmitter is powered by 6 AA batteries. It is recommended that you use good quality alkaline batteries. When changing the batteries, do not mix old and new batteries together. The life of the batteries should be about 6 months under normal conditions. In high traffic areas, the batteries will go down sooner. Also, in a cold climate it is recommended that you put fresh batteries in about the beginning of winter.

Function:

- A. Detection. The MURS Alert probe transmitter is a metal detector that can be used to detect vehicles. The probe sensor will detect movement of vehicles about 14 feet either side of the probe. When a vehicle is detected, the MURS Alert will transmit a signal.
- B. In order for the sensor to detect properly it is recommended that the probe be buried along side the drive and the transmitter box mounted on a tree or post nearby. If you have a very wide driveway, you may need to bury the probe in the center of the drive. If you do this, place the probe and wire in a 2 inch schedule 80 PVC pipe and bury it at least a foot deep. This is done to protect the probe and wire from any damage. It is also prudent to place the wire in a conduit to protect it from inadvertent damage from rodents or future digging projects.
- C. Alert Signal. When an target is detected by the MURS Alert, an alert signal will be sent to the M538-HT or M538-BS MURS radio. There are 4 different Alert signals that can be sent. The alert signal will repeat the location of the transmitter. The signal will be "Alert Zone One,...", "Alert Zone Two,...", "Alert Zone Three,..." or "Alert Zone Four,..."
- D. To locate the radio transmitter, you will need to open the front cover exterior case. You will now see the radio transmitter (figure 2). To change the settings of the radio transmitter, please go through the procedure in the next section.
- E. The gray knob on the lower right area of the PCB is the sensitivity control. This can be used to increase or decrease the sensitivity of the probe. In most locations the sensitivity should be set at the mid point (12 o'clock). Rotate the knob clockwise to increase sensitivity. **Note, do not operate with the sensitivity knob fully clockwise, as false signals may result. Move the knob slightly off the fully clockwise stop.**

Operation:

- A. Channel selection. The MURS Alert transmitter is capable of transmitting on any of the 5 MURS channels. To select the proper channel, locate SW1 (figure 2) and set it to the appropriate channel. If SW 1 is set to "0" it will default to channel 1.
- B. Sub Channel (CTCSS) selection. To select the proper CTCSS locate SW2 and SW3 (figure 2). SW2 is labeled 0-3, SW3 is labeled 0-9. SW2 represents the first digit in the CTCSS and SW3 represents the second digit in the CTCSS. Example for CTCSS to be set at 38, SW2 must be set at 3 and SW3 must be set at 8. The

are 38 different CTCSS combinations, if the CTCSS is set at 39 or 00, no sub code will be in use.

C. Alert signal. You can select one of four different alert signals, Alert Zone One, Alert Zone Two, Alert Zone Three, or Alert Zone Four. To select the Alert signal, locate SW 4 (figure 2). This is a 4 position slide switch. If the switch is all the way to the top, it will be zone one, the other zones will be located in order from the top.

MURS Frequencies

Channel	Frequency
1	151.820MHz
2	151.880MHz
3	151.940MHz
4	154.570MHz
5	154.600MHz

TECHNICAL SUPPORT

Thank you for your purchase of the Dakota Alert product.

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.

Please ship to:
 Dakota Alert, Inc.
 109 W. Main St.
 PO Box 130
 Elk Point, SD 57025

Dakota Alert™

Model: M538-BS

Multiple Use Radio Service (MURS)
Base Station Transceiver

Owner's Manual

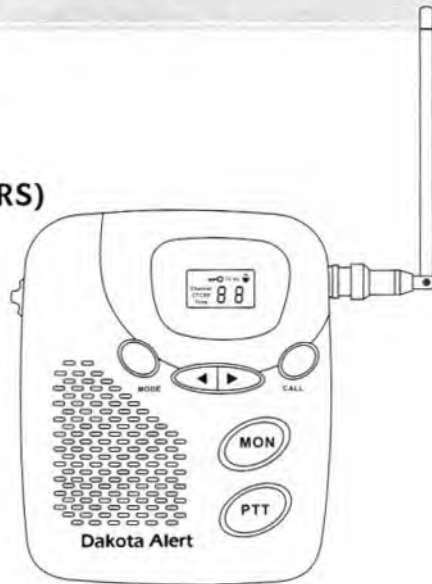


TABLE OF CONTENTS

Warnings	3
Contents	4
Diagram	5
Power Supply	6
Transmit and Receive	6
LCD Display	7
Earphone	7
Relay Function	7
Operating Range	7
Power/Volume	7
Channels	7
Sub-Channels (CTCSS)	8
Call Tone	8
Lock	8
Push To Talk (PTT)	8
Monitor (MON)	9
MODE	9
MURS Frequencies	10
Technical Support	10
Warranty	11
Address	11

WARNINGS

To maintain compliance with the FCC's RF exposure guidelines, this transmitter and its antenna must maintain a separation distance of at least 2 inches (5 centimeters) from your face. Speak in a normal voice, with the antenna pointed up and away from the face at the required separation distance. To transmit, hold the device away from your body and ensure that the antenna is at least 2 inches (5 centimeters) from your body when transmitting.

This transceiver must have the antenna connected while operating. Failure to connect the antenna can cause damage to the radio.

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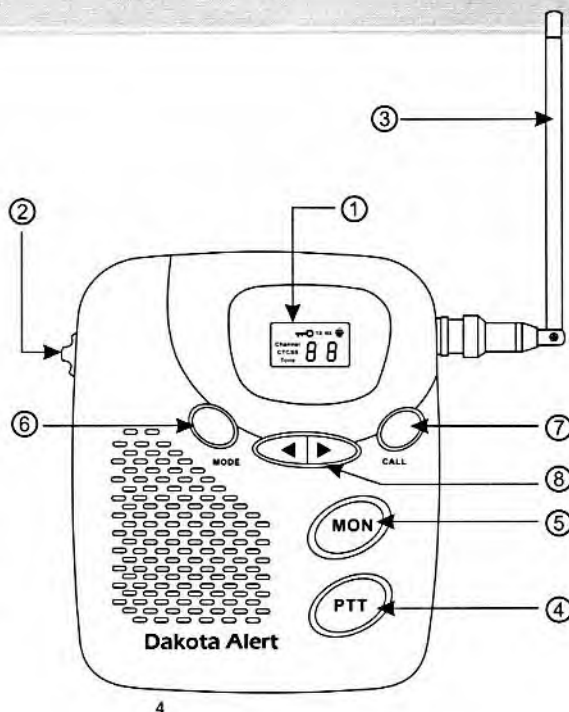
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CONTENTS:

M538-BS
Antenna
Plug in adapter

DIAGRAM:

1. Backlit LCD
2. Power, volume
3. Antenna
4. Push to talk (PTT)
5. Monitor (MON)
6. Mode
7. Up and Down arrow
8. Call



4

POWER SUPPLY:

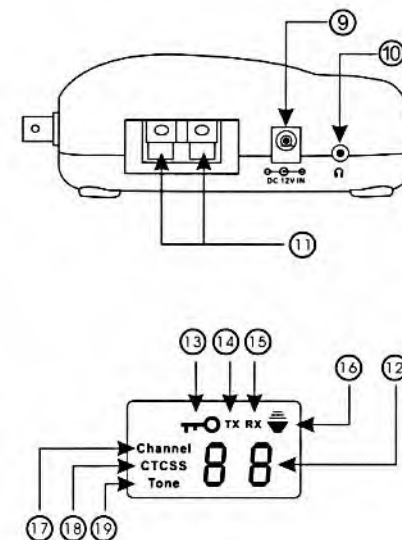
The M538-BS is powered by a transformer that will convert from 120 volt AC to 12 volt DC, with a current capacity of 900mA.

FUNCTION:

Transmit and receive. The M538-BS will operate as a transceiver, meaning it will both transmit and receive messages from other MURS radio units. The M538-BS is equipped to operate on 5 channels, with 38 sub channels. In order to communicate with another MURS radio, the channel and the sub channel must be set alike. The M538-BS also has 4 separate call tones that can be used to page other users before starting a conversation. The M538-BS can also receive an alert signal from the MURS ALERT transmitter. This will notify you of activity at the location of the MURSt Transmitter.

LCD Display. The LCD will display channel, CTCSS, Tone, TX, RX, Lock Icon (🔒), and Alert Icon (🚨). When the base station is powered up, it will return to the same channel, CTCSS, and tone that it had when it was turned off.

9. Charger port
10. Earphone jack
11. Relay output
12. Numeric display
13. Lock icon
14. TX
15. RX
16. Alert Icon
17. Channel
18. CTCSS
19. Tone



5

Earphone. The M538-BS is equipped with a jack for an earphone.

Relay Function. The red and black push button terminals on the back of the base station are a Normally Open (NO) relay. The relay will make closure for several seconds when an alert signal is received from the MURS Alert transmitter. The relay has a capacity of 5A @ 28V DC.

Operating range. The M538-BS is capable of communicating up to 2 or more miles. This will vary depending on the local terrain.

Operation:

Power/Volume. With the transformer plugged into an outlet, you can turn the power on or off by rotating the volume dial on the left side of the base station. This will also control the level of the volume.

Channels. You can select the proper channel by pressing the up or down key. The Lock Icon (🔒) must be deactivated before you can change the channel.

Sub Channels (CTCSS). You can select the proper sub channel by pressing the mode button once. This will cause the CTCSS display to flash. You can then select the proper sub channel by pressing the up or down key. The Lock Icon() must be deactivated before you can change the sub channel.

Call Tone. You can select between 4 different call tones. You can select the proper call tone by pressing the mode button twice. This will cause the Tone display to flash. You can then select the proper call tone by pressing the up or down key. The Lock Icon() must be deactivated before you can change the call tone. The call tone can be used to initiate a conversation. In order to send a call tone, simply press and release the CALL button.a

Lock. The Lock Icon() will indicate that the unit is locked and the channel, sub channel and tone will not be able to be changed. To lock the unit, press and hold the MODE button for 2 seconds. To unlock the unit, press and hold the MODE button for 2 seconds.

PTT. The PTT (push to talk) button is used so that you can send a message to another unit. Simply press the PTT button and speak with a clear voice into the base station. When you are done speaking, release the button.

8

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10

When the PTT is pushed, the TX display will show on the LCD. This means that you are transmitting.

Monitor. The MON button will allow you to monitor the channel that you are using. When the MON button is pressed, you will be able to hear an conversations that are occurring on any sub channels. This can be used so that you do not talk over others that are trying to use the channel.

MODE.

a. The MODE button is used to control the Channel, CTCSS, Call tone, Lock Icon() and Alert Icon(). To lock or unlock the controls, you must press and hold the MODE button for 2 seconds. If the lock icon is not displayed, you can use the MODE button to toggle through the Channel, CTCSS, and Tone functions

b. If the base station has received an alert signal from the MURS ALERT transmitter, the Alert Icon() will be displayed in the LCD. To remove the alert icon, press the mode button for 1 second

9

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PLEASE SHIP TO:

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11