

# ***Dakota Alert™***

## **MURS Alert™ Transmitter**

**Long range driveway  
alarm and real time  
trail monitoring system**

**Owner's Manual**



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## 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.

Thank you for your purchase of this Dakota Alert product.

The MURS Alert transmitter is a passive infrared (PIR) detector that can be used to detect people, vehicles or large animals at selected locations. The PIR sensor will detect movement of objects up to 80 feet in front of the transmitter box. When a person, vehicle or large animal is detected, the MURS Alert will transmit a 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. (See page 4 for more information about alerts)

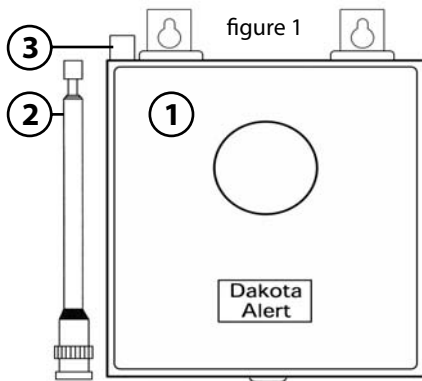
### Instructions:

When you open the MURSexterior case (figure 1-①), you will see an antenna (figure 1-②), a battery pack and the PIR unit. Attach the antenna to the antenna jack (figure 1-③), located on the top of the case.

#### Power Supply:

The MURS Alert transmitter is powered by 6 AA batteries. For best results, we recommend that you use good quality alkaline batteries. When replacing batteries, do not mix old and new batteries together. The average life of the batteries is about 6 months under normal conditions. Conditions affecting battery life include use of the product in high traffic areas, and using product in a cold climate. If you live in a cold climate, it is recommended that you put in new batteries at the beginning of winter.

### MURS Alert Transmitter Antenna



- 1. Exterior Case
- 2. Antenna
- 3. Antenna jack (exterior)

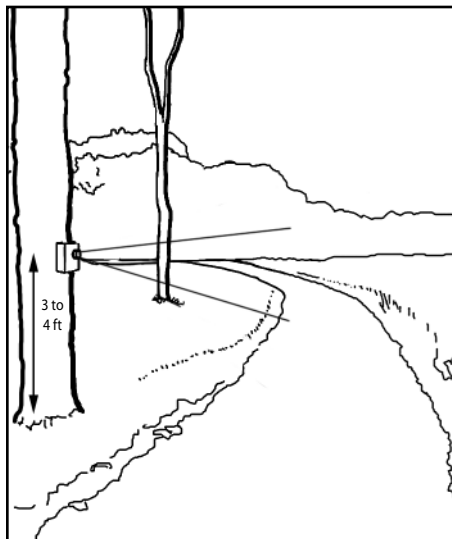


figure 2

#### Installation:

In order for the sensor to detect properly it is recommended that the transmitter be mounted on a tree or post about 20 feet back from the area to be monitored and about 3 to 4 feet off the ground. If you want to detect smaller animals, the sensor can be mounted closer to the ground. (See figure 2)

#### Alert Signal:

The MURS alert transmitter has 4 different alert signals. The alert signal will repeat the location of the transmitter. The signal will be a voice saying "Alert zone one,..." "Alert zone two,..." "Alert zone three,..." or "Alert zone four." If you have more than one transmitter, you may wish to change the alert from the default setting (Alert zone one...) to one of the other alerts. This can be done by changing the position of the switch, located on the radio transmitter.

figure 3

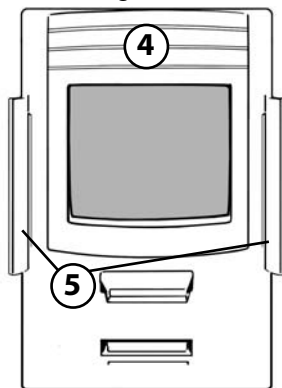
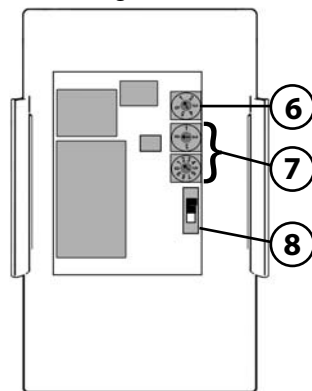


figure 4



4. PIR sensor 5. Retention clips 6. Channel switch 7. Sub-channel switch 8. Alert zone message switch

#### Locating the radio transmitter:

When looking at the PIR (figure 3) you will see clips on the sides of the plastic case. Push one of the clips away from the center of the case and lift out the PIR and the plastic backing. You will now be looking inside of the case at the radio transmitter (figure 4-⑧). To change the settings of the radio transmitter, locate the alert switch. 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.

#### Operation:

A. The factory-set default for the transmitter is Channel 01 Sub-channel (CTCSS) 01.

B. 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 4-⑥) and set it to the appropriate channel, If SW 1 is set to "0" it will default to channel 1.

C. Sub Channel (CTCSS) selection. To select the proper CTCSS locate SW2 and SW3 (figure 4-⑦). 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. There are 38 different CTCSS combinations, if the CTCSS is set at 39 or 00, no sub code will be in use.

#### 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.

### Frequency Chart

Channel	Channel Type	Frequency (MHz)	Power (Watts)
1	MURS	151.820	1.1
2	MURS	151.880	1.1
3	MURS	151.940	1.1
4	MURS	154.570	1.1
5	MURS	154.600	1.1

### Sub Code (CTCSS) Frequency

Code	Frequency (Hz)	Code	Frequency (Hz)	Code	Frequency (Hz)
00	0	13	103.5	26	162.2
01	67.0	14	107.2	27	173.8
02	71.9	15	110.9	28	179.9
03	74.4	16	114.8	29	186.2
04	77.0	17	118.8	30	192.8
05	79.7	18	123.0	31	203.5
06	82.5	19	127.3	32	210.7
07	85.4	20	131.8	33	218.1
08	88.5	21	136.5	34	210.7
09	91.5	22	141.3	35	225.7
10	94.8	23	146.2	36	233.6
11	97.4	24	151.4	37	241.8
12	100	25	156.7	38	250.3

## 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  
Phone: (605) 356-2772  
Fax: (605) 356-2584  
Web: [www.dakotaalert.com](http://www.dakotaalert.com)

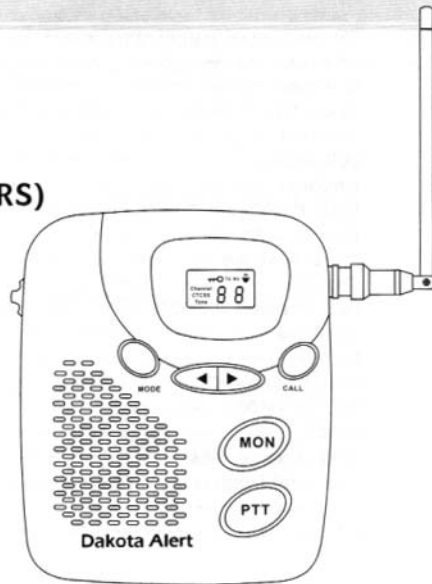


# Dakota Alert™

## Model: M538-BS

Multiple Use Radio Service (MURS)  
Base Station Transceiver

Owner's Manual



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## 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.

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:

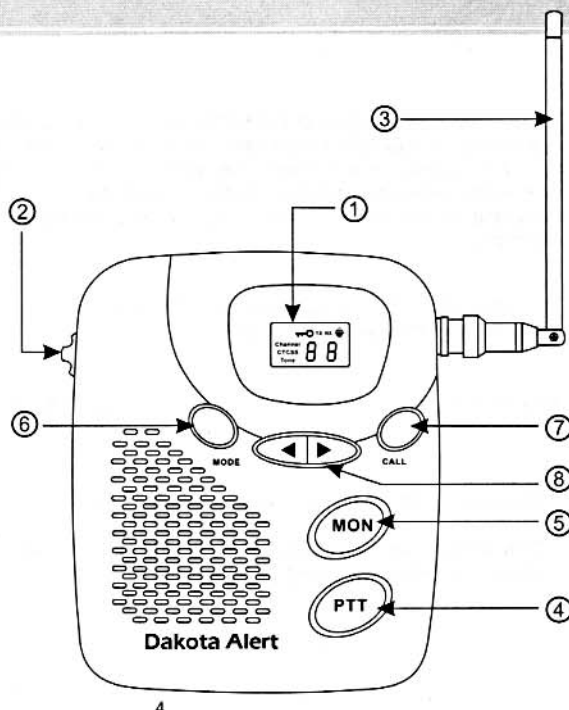
M538-BS

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



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## POWER SUPPLY:

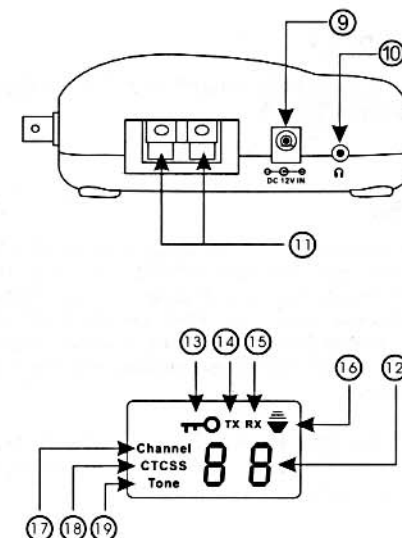
The M538-BS is powered by a transformer that will convert from 120 volt AC to 12 volt DC, with a current capacity of 900mA.

## 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



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**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.

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## 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 this 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.

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

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## 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:

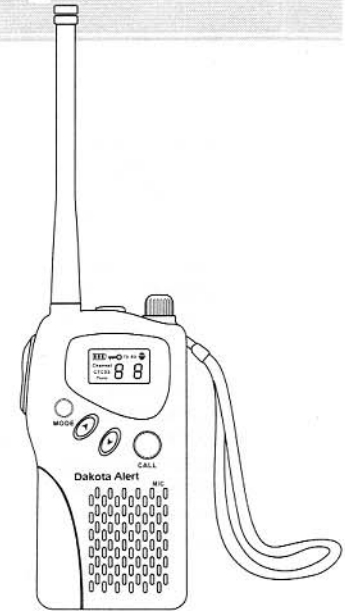
Dakota Alert, Inc.  
112 W. Main St.  
PO Box 130  
Elk Point, SD 57025  
Phone:605-356-2772  
FAX:605-356-2584

# Dakota Alert™

## Model: M538-HT

Multiple Use Radio Service (MURS)  
Hand Held Transceiver

### Owner's Manual



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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. The belt clip is for storage purposes only. DO NOT TRANSMIT WHILE USING THE BELT CLIP. 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.

This device complies with Part 15 of the FCC rules. Operation of this device is subject to the following conditions:

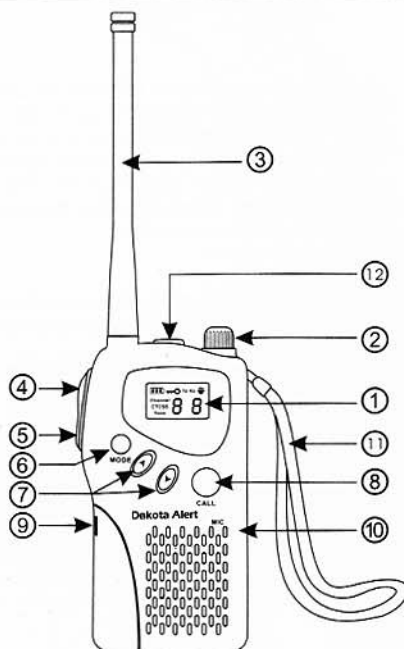
1. This device may not cause harmful interference.
2. This device must accept any interference, including interference that may cause undesired operation.

## CONTENTS:

M538-HT radio  
Wrist Strap  
Belt clip  
6 AA rechargeable batteries  
Charger

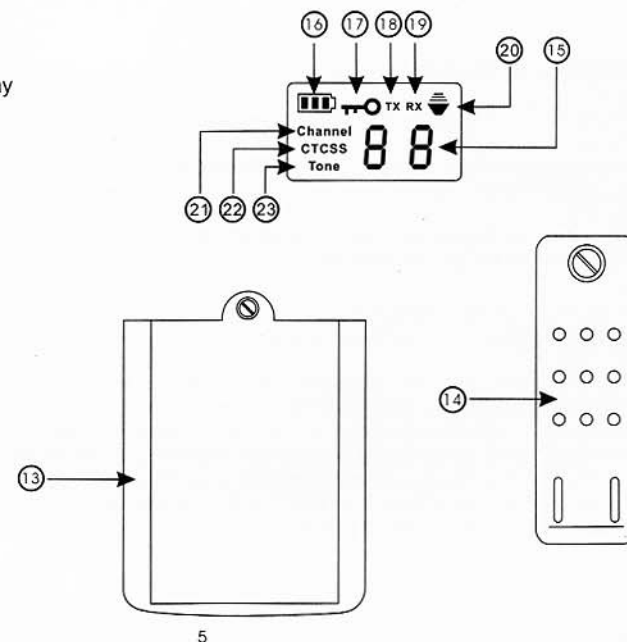
### DIAGRAM:

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
9. Charger port
10. Microphone (MIC)
11. Wrist strap
12. Earphone jack



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13. Battery cover
14. Belt clip
15. Numeric display
16. Battery icon
17. Lock icon
18. TX
19. RX
20. Alert Icon
21. Channel
22. CTCSS
23. Tone



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## POWER SUPPLY:

The M538-HT is powered by 6 AA rechargeable batteries. The batteries can be charged in the unit by using the plug in transformer that is provided. The battery icon on the LCD will display the amount of battery charge. One bar showing on the icon will mean that the batteries need to be charged, three bars on the icon means that the batteries are fully charged.

**Note:** ONLY use the charger with rechargeable batteries. When the charger is plugged in, the unit will receive signals only on sub channel 00, and will NOT transmit.

## FUNCTION:

**Transmit and receive.** The M538-HT will operate as a transceiver, meaning it will both transmit and receive messages from other MURS radio units. The M538-HT 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-HT also has 4 separate call tones that can be used to page other users before starting a conversation. The M538-HT can also receive an alert signal from the MURS ALERT transmitter. This will notify you of activity at the location of the MURS Alert 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.


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


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


**Power save mode.** If the unit has not received or transmitted a signal for more than a minute, it will go into power save mode. This will extend the life of the batteries. When a signal is received or transmitted, the unit will automatically go out of power save mode.


## OPERATION:

**Power/Volume.** With the batteries charged, you can turn the power on or off by rotating the knob on top of the M538-HT. This will also control the level of the volume.

**Changing 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. There are four separate tones to choose from.

**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.

## MURS FREQUENCIES:

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

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- If the hand held 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.

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PO Box 130  
Elk Point, SD 57025  
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FAX: 605-356-2584