# TONE ALERT RECEIVER

**MODEL 2TR9A** 



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## CONTROLS AND FUNCTIONS

ON/OFF/ VOLUME CONTROL - Turns on receiver and adjusts speaker to desired volume.

SQUELCH CONTROL - Adjusts the amount of signal required to open the speaker while in the monitor mode.

TONE/ MONITOR SWITCH - Selects whether you want tone coded messages only (switch out), or monitor all traffic on your frequency (switch pressed in).

RESET SWITCH - Depress this switch to mute the speaker, stop the alert LED from flashing, or manually reset the remote switched output (RSO). Push reset button if LED does not illuminate when power is turned on.

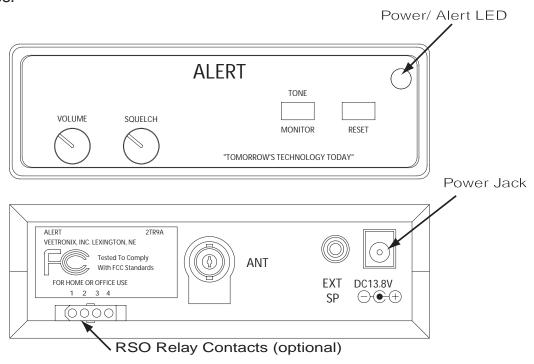
POWER/ ALERT LED - Indicates power is turned on when the LED is solid red. The LED flashes to indicate the unit has been activated. The LED continues to flash until the RESET switch is pressed.

ANTENNA JACK - Mounting jack for the telescoping antenna.

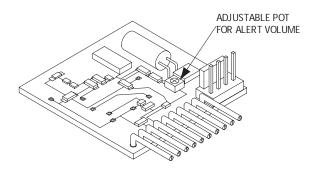
EXTERNAL SPEAKER JACK - If an external speaker is used, the internal speaker will disconnect.

POWER JACK - Use the wall mount power supply shipped with the receiver or the optional DC power cord.

RSO Relay contact (optional) - Timed relay contacts for controlling external devices.

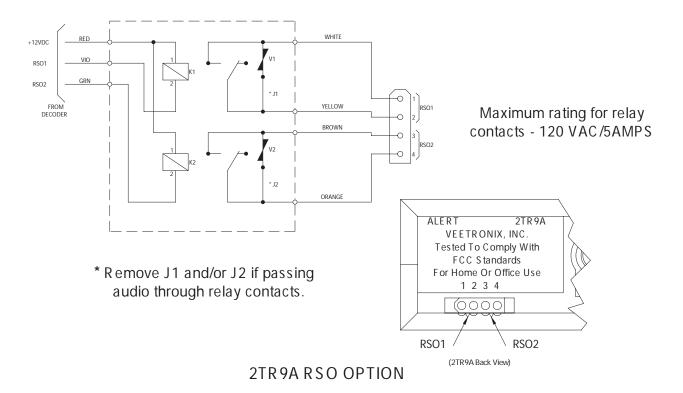


## TWO-TONE DECODER



Code plan, tones, tone timing, output timing and other options are programmed with the Alert2 software kit. A complete programming manual can be printed from the programming disk.

### REMOTE SWITCHED OUTPUT CONNECTIONS

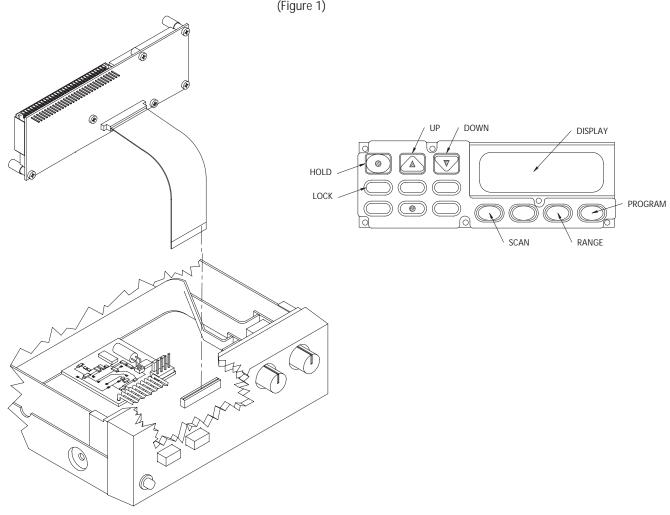


The RSO option board is capable of two outputs. Each RSO may be programmed to activate on separate codes or together on the same code. If the outputs are on separate codes they may be programmed independently to run anywhere from a momentary output or up to 20 min in 5 sec increments. If both outputs are activated on the same code their programmed time will be identical.

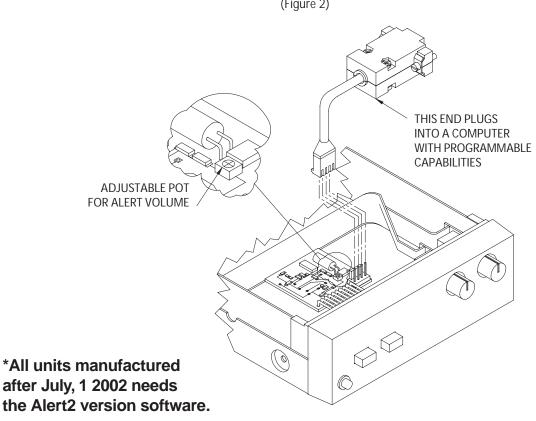
### **AUDIO OUTPUT**

The audio output is an unbalanced 8 ohm with a 2 watt max rating. It is intended to only drive one speaker. If multiple speakers are used an audio amplifier will be needed.

# RF Programming Diagram (Figure 1)



# Decoder Programming Diagram (Figure 2)



# Programming 2TR9A Receive Frequency

With the unit off remove the bottom panel by removing two screws on each side.

Position the receiver so the front panel faces toward you.

Set the PROG-LOCK switch to the OFF position. This switch is located at the left rear of the printed circuit board.

Install the programming keypad/ display. (Refer to figure 1)

With the keypad to the back of the receiver, connect the flat cable to the connector located near the front of the printedcircuit board.

Turn the 2TR9A on.

Press the SCAN switch on the programmer.

The SQUELCH control on the receiver may need to be adjusted if the frequency scan doesn't start.

Press the RANGE switch to select the frequency range the receiver is to be programed for.

The frequency scan will display on the programmer. The UP/ DOWN arrows on the programmer keypad can be used to change direction of the scan.

Press the HOLD switch on the programmer to stop the frequency scan near the desired frequency.

Use the UP/ DOWN arrows to step to the desired frequency.

Press the PROGRAM switch on the programmer to enter the correct frequency.

CH will blink on/ off on the display.

Press the LOCK switch on the programmer.

A channel number will be displayed next to the CH.

If the channel number isn't a 1 then use the UP/ DOWN arrow keys to select 1.

Press the PROGRAM switch on the programmer.

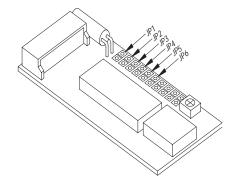
Return the PROG-LOCK switch on the printed circuit board to the ON position.

Turn off the receiver.

Disconnect the programmer.

Frequency programming is complete.

# CTCSS DECODER



# CTCSS DECODER PROGRAMMING

| TONE  | JP1    | JP2    | JP3    | JP4    | JP5    | JP6    |
|-------|--------|--------|--------|--------|--------|--------|
| 67.0  | out    | out    | out    | out    | out    | out    |
| 71.9  | out    | out    | out    | out    | out    | bridge |
| 74.4  | bridge | out    | out    | out    | out    | out    |
| 77.0  | out    | out    | out    | out    | bridge | bridge |
| 79.7  | out    | bridge | out    | out    | out    | out    |
| 82.5  | bridge | out    | out    | out    | out    | bridge |
| 85.4  | bridge | bridge | out    | out    | out    | out    |
| 88.5  | bridge | out    | out    | out    | bridge | bridge |
| 91.5  | out    | out    | bridge | out    | out    | out    |
| 94.8  | out    | bridge | out    | out    | out    | bridge |
| 100.0 | out    | bridge | out    | out    | bridge | bridge |
| 103.5 | bridge | bridge | out    | out    | out    | bridge |
| 107.2 | bridge | bridge | out    | out    | bridge | bridge |
| 110.9 | out    | out    | bridge | out    | out    | bridge |
| 114.8 | out    | out    | bridge | out    | bridge | bridge |
| 118.8 | bridge | out    | bridge | out    | out    | bridge |
| 123.0 | bridge | out    | bridge | out    | bridge | bridge |
| 127.3 | out    | bridge | bridge | out    | out    | bridge |
| 131.8 | out    | bridge | bridge | out    | bridge | bridge |
| 136.5 | bridge | bridge | bridge | out    | out    | bridge |
| 141.3 | bridge | bridge | bridge | out    | bridge | bridge |
| 146.2 | out    | out    | out    | bridge | out    | bridge |
| 151.4 | out    | out    | out    | bridge | bridge | bridge |
| 156.7 | bridge | out    | out    | bridge | out    | bridge |
| 162.2 | bridge | out    | out    | bridge | bridge | bridge |
| 167.9 | out    | bridge | out    | bridge | out    | bridge |
| 173.8 | out    | bridge | out    | bridge | bridge | bridge |
| 179.9 | bridge | bridge | out    | bridge | out    | bridge |
| 186.2 | bridge | bridge | out    | bridge | bridge | bridge |
| 192.8 | out    | out    | bridge | bridge | out    | bridge |
| 203.5 | out    | out    | bridge | bridge | bridge | bridge |
| 210.7 | bridge | out    | bridge | bridge | out    | bridge |
| 218.1 | bridge | out    | bridge | bridge | bridge | bridge |
| 225.7 | out    | bridge | bridge | bridge | out    | bridge |
| 233.6 | out    | bridge | bridge | bridge | bridge | bridge |
| 241.8 | bridge | bridge | bridge | bridge | out    | bridge |

# **SPECIFICATIONS**

Model 2TR9A

Size 5 1/2" x 6 15/16" x 1 5/8"

Weight 1 lb. 1 oz.

Power 13.8 VDC

Antenna External (supplied) 50 ohm z

Frequency Low 29-54 MHz

High 136-174 MHz UHF 406-512 MHz

RF Sensitivity 0.3uV 29-52 MHz (nominal) 0.4uV 136-174 MHz

0.4uV 406-512 MHz

0.9uV 108.000-136.975 MHz

Audio Output 2 watts maximum

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

# **OPTIONS**

Battery Backup DTMF Decoder

RSO Relay Board CTCSS Decoder

#### VEETRONIX, INC.

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

# Any changes or modifications to this unit without approval by Veetronix, Inc. could void the user's authority to operate this equipment.

**NOTE:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encourage to try to correct the interference by one or more of the following measures:

- \* Reorient or relocate the receiving antenna.
- \* Increase the separation between the equipment and receiver.
- \* Connect the equipment into an outlet on a circuit different from that to which the receiver is
- \* Consult the dealer or an experienced radio/ TV technician for help.

## LIMITED WARRANTY

Veetronix, Inc. warrants to the original purchaser, equipment described herein to be free from defects in material and workmanship, under normal use and service when used for the purpose for which the equipment was designed. This warranty is for a period of one year from date of shipment for most Veetronix equipment. Exceptions in time periods will be specified on advertising materials for that product.

The liability of Veetronix, Inc shall be limited to replacement or repair of the defective part, by the factory, without charge, provided the equipment is delivered to us intact with all transportation charges prepaid to the factory. Repaired equipment shall be returned to the purchaser F.O.B. factory.

Exceptions to warranty are fuses, batteries and ancillary equipment which are covered by the original manufacturer's standard EIA warranty and are, therefore, excluded from the provisions of this warranty.

This warranty is, and shall be in lieu of all other warranties. Whether expressed or implied, and of all other obligations or liabilities on the part of Veetronix, Inc., resulting from installation or use of this equipment.

This warranty is void if equipment described herein has been abused, improperly used, modified, improperly installed or repaired by persons other than those authorized by Veetronix, Inc.

Except as expressly provided herein, all warranties of any kind which may be disclaimed are hereby disclaimed (such as, but not limited to, warranties of fitness for a particular purpose). Whether expressed or implied. Veetronix, Inc. sells or otherwise delivers the product or service "as is," "where is," and "with all faults," intending that Veetronix, Inc. shall have no liability for any consequential or incidental damage whatsoever.

Veetronix, Inc. reserves the right to modify or change equipment, in whole, or in part, at any time prior to delivery, in order to include refinements deemed appropriate by the company, but, without incurring any liability to modify or change any equipment in accordance with earlier specifications.

Veetronix, Inc. 02/01/01