

DTMF DECODER MANUAL

Features

- Direct phone line hookup for unattended monitoring
- Space inserted between decoded strings after user-selectable gap time
- User selectable inter-sequence gap time of: NONE, 4-sec, 8-sec, or 1-minute
- User selectable "Ignore" options to save memory space
 - Ignore a '1' when dialed first in a series*
 - Ignore 1+AREA CODE when dialed first in a series*
- 510 digit memory
- Will not overwrite memory until user resets or clears log
- Low power mode when memory full
- Tones can be decoded via direct line from ham radio or scanner
- User's manual explains how to decode tones recorded on tape
- Page* through memory 16 digits at a time. No confusing "scroll"
- Runs off 9-volt battery or inexpensive 9-volt battery adapter
- Low power consumption of ~11mA
- Heavy-duty battery clip
- Push-on-push-off power switch

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How To Use

1. Power up
Radio Shack's "9 Volt Battery Eliminator" is recommended, especially for continuous use. Radio Shack's Catalog Number for this part is: 273-1552A¹
2. Plug into working phone jack
3. Dialed digits will be decoded until memory is full
4. Page through memory with PLAYBACK button (right pushbutton)
5. Press RESET to begin decoding tones again. Old data will be overwritten, so write down any important numbers before resetting.

How To Set Options

While unit is on . . .

1. Hold PLAYBACK button down (right pushbutton).
2. Press and release RESET button (left pushbutton).
3. Release PLAYBACK button

NOTE: You can hold down the PLAYBACK button while the unit is off, then turn on the unit and release the PLAYBACK button. This will also get you into the OPTIONS menu.

A user selectable option will appear on the LCD. Press PLAYBACK to select the option. If you do not want to select it, simply wait. The next option will appear after five seconds.

Available Options

<u>OPTION</u>	<u>FUNCTION</u>
Clear Log? Yes	Clears the memory log*
Set Gap Time Sht	Sets short gap time (approx. 4 seconds)
Set Gap Time Lng	Sets long gap time (approx. 8 seconds)
Set Gap Time Xlg	Sets gap time to about 1 minute
Set Gap: No Gap.	Prohibits space from being inserted between dialed strings.
Set Ignore 1?	Decoder will ignore the digit "1" when dialed first in a string ² .
Set Ignore 1AREA	Ignore 1-xxx when "1" dialed first
Set Ignore NONE?	Prohibits Ignore feature.

¹ Though Radio Shack specifies a 9mA output for this part, it still works very well.

² If no digit is received for five seconds, the next digit is assumed to be a new string of numbers. Beware that numbers dialed very slowly could be missed with an "Ignore" option set.

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* The memory is actually filled with the Greek Omega letter. This is because it is very disconcerting to page through blank screens when you need to read screen 32.

How To See Which Options Are Already Set

Press PLAYBACK until you've reached the last page of memory (32nd screen). The very last digit on the screen indicates selected options according to the following table.

<u>Digit / Symbol</u>	<u>Inter-Sequence Gap Time Setting</u>	<u>Ignore Setting</u>
0	NONE	NONE
1	SHORT (approx. 4 seconds)	NONE
2	LONG (approx. 8 seconds)	NONE
3	Extra Long (approx. 1 minute)	NONE
4	NONE	Ignore '1' (when dialed first)
5	SHORT	Ignore '1'
6	LONG	Ignore '1'
7	Extra Long	Ignore '1'
<	NONE	Ignore 1+AREA CODE
=	SHORT	Ignore 1+AREA CODE
>	LONG	Ignore 1+AREA CODE
?	Extra Long	Ignore 1+AREA CODE
OTHER	Options not properly saved. Must re-select them*	

* This can happen if decoder is powered down before options are saved in memory (rare). Low battery power may also cause this condition.

Decoding From a Scanner

You can decode tones directly from a scanner, ham radio, or other device with line level output. You will have to design your own cable to match your device's output. You can build your own cable, or buy a series of adapters that will allow you to connect your device directly to the DTMF decoder. For example:

A 1/8" miniature phono to modular phone cable will connect the decoder to the earphone jack of most scanners. These cables are hard to find, but allelectronics.com has them for \$1.00 each³.

Of course, connected this way, you will not be able to hear your scanner because plugging into the earphone jack disconnects the scanner's internal speaker. So . . .

Buy a 1/8" miniature phono Y adapter. The adapter must have a 1/8" miniature male phono plug on one end and two female receptacles on the other. Plug the adapter into your scanner's earphone jack, then plug an earphone into one side of the adapter and the decoder into the other side. Problem solved.

³ Cat. No. CB-373. Toll Free Order Line: 1-800-826-5432. Web: www.allelectronics.com. Email: allcorp@allcorp.com. I will buy some of these in quantity and make them available as an optional accessory.

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Other devices have line level RCA outputs in the back, which may or may not disconnect the device's internal speaker. Using the above cable from allelectronics.com, it would be a simple matter to add a 1/8" miniature phono to RCA adapter. This will allow a direct connection between your device and the decoder.

What About Microphone Decoding?

Since most electronic devices have line level outputs that can be readily linked to the decoder (see above), mic input to the decoder should seldom be necessary. If needed, however, simply connect the decoder to a working phone using a 2-into-1 modular adapter (widely available, Radio Shack, etc.). Now you can use the phone as a mic. You may need to turn up the volume on whatever device you are monitoring (tape player?) until you have satisfied the decoder's input requirements.

NOTE: When using this method, hang up the phone after every decoded string or YOU WILL BE DIALING actual numbers!

Early Revision

This is an early draft of the manual being sent out with sold prototypes. A more detailed draft will eventually be available. Email me in a few months to check on my progress. Also, feel free to email any questions or suggestions you may have for the decoder: sxcharrett@yahoo.com.