Rotatone Operation Manual

'*Rotatone*' is an electronic module which enables phones with rotary pulse dials to work on "DTMF" (dual tone multi-frequency) telephone lines, tone-only enabled exchanges, or on VOIP adapters.

In addition to sending the correct tones corresponding to 0 to 9 on a regular dial, *Rotatone* can send the correct codes for * and #.   It also features 'last number redial' and can dial 7 programmable stored numbers. An added benefit of Rotatone is the ability to select one of your stored numbers as a "hotline" that is automatically dialed when the phone is taken off hook (feature available on Rotatone version 2 only.)

Note that a phone fitted with *Rotatone* no longer sends rotary pulse signals to the exchange. Therefore the phone becomes a tone dial only device.

Rotatone version 2 (Rotatone with Hotline capability) can be identified by the "version 2" sticker on the Rotatone housing.

Dialing Methods

Rotatone recognises two methods of using the telephone's rotary dial:

1) Dial and Release (DR) dialing -- is conventional dialing where the user pulls the dial around to the finger stop and immediately lets go.

2) Dial and Hold (DH) dialing -- requires the user to dial a digit and hold against the finger stop to await a signal before releasing the fingerwheel.

DH dialing enables *Rotatone* to receive instructions for dialing *, #, last number redial and stored numbers.

Menu system

Rotatone has a simple 4 level menu system. The DH dialing method is used to switch between levels.

Level 0 -- is the default level for dialing the digits 0 thru 9.

When a digit is dialed and the fingerwheel immediately released, *Rotatone* sends the standard DTMF tones for the digit dialed, just like a standard Touch Tone phone. The tones are heard in the telephone receiver.

Level 1 -- allows access to *, #, Last number redial, and 7 user stored numbers.

Level 1 is entered using the DH dial method. After dialing a digit, the finger is held against the fingerstop for about 1 second until a single beep is heard. Then the fingerwheel is released.

1 sends tones for *
2 sends tones for #
3 sends the complete last number dialed.
4,5,6,7,8,9 or 0 sends the number stored for that digit (See Level 2 to store numbers.)

Note that after the operation is completed, *Rotatone* automatically resets the level to 0.

Level 2 -- is used to program the stored numbers.

Level 2 is entered using the DH dial method. Dial the digit identifying the storage location, and hold the finger against the fingerstop for about 1 second until a single beep is heard, then for an additional ½ second until two ascending beeps are heard. Then the fingerwheel is released.

Dial the phone number to be stored in memory. When the complete number has been entered, replace the handset back 'on-hook'. *Rotatone* returns to level 0.

Up to 7 complete phone numbers may be stored -- one for each digit 4,5,6,7,8,9 and 0. Detailed instructions and examples are found in the user guide.

In Rotatone Version 2 you can select one of your stored numbers as a "hotline" number that is automatically dialed when the phone is taken off-hook. The hotline number is set by dialing the digit "3" and waiting for the 2nd beep before releasing the fingerwheel. You then dial the speed dial location that contains the hotline number, followed by a digit from 1-9 to specify a 0-2.5 second delay in dialing when the phone is taken off-hook. To cancel the "hotline" number you should dial the digit "3", wait for the 2nd beep, release the fingerwheel, dial the digit "1" and replace the handset back on-hook.

Level 3 -- locks 1 and 2 on the dial to * and # respectively.

Level 3 is entered using the DH dial method. After dialing a digit, the finger is held against the fingerstop for about 1 second until a single beep is heard, then for an additional ½ second until two ascending beeps are heard and then for an additional ½ second until 3 ascending beeps are heard. Then the fingerwheel is released.

This is useful when, for example, '****' needs to be dialed quickly.

Rotatone stays on level 3 until DH is used to select a further level change, and a descending series of beeps is heard as *Rotatone* returns to level 0

Dialing examples

Example 1. Dial 342-4962:
Simply lift the phone receiver and dial the number in DR mode. Note that it is essential that the dial is released as soon as the finger reaches the finger stop. Any significant delay in doing so may cause *Rotatone* to shift level.

Example 2. Dial #:
Dial number 2 by the DH mode, i.e. place a finger in 2, turn the dial to the finger stop and hold until a single beep is heard in the receiver. Immediately release the dial.

Example 3. Dial *:
Dial number 1 by the DH mode, i.e. place a finger in 1, turn the dial to the finger stop and hold until a single beep is heard in the receiver. Immediately release the dial.

Example 4. Re-Dial the last number dialed:
Lift the receiver and Dial number 3 by the DH mode, i.e. place a finger in 3, turn the dial to the finger stop and hold until a single beep is heard in the receiver. Immediately release the dial. The complete number is dialed.

Example 5. Dial a number previously stored under number 7:
Lift the receiver and Dial number 7 by the DH mode, i.e. place a finger in 7, turn the dial to the finger stop and hold until a single beep is heard in the receiver. Immediately release the dial. The complete number is dialed.

Example 6. Store a telephone number under number 7:
Lift the receiver and dial 7 by the DH method, i.e. inserting a finger into '7' pulling the dial around to the finger stop and listen for audible tones. The first beep heard will signal that *Rotatone* has switched to level 1. Keep holding and after a short time two ascending tones in quick succession will be heard in the receiver, signaling level 2. Immediately release the dial. Then dial the number to be stored in memory. When the complete number has been entered, replace the receiver back on-hook. *Rotatone* returns to level 0.

Example 7, Program location "7" as "hotline" number that is dialed when the phone is taken off-hook. (Rotatone Version 2 only)

Lift the receiver and dial 3 by the DH method, i.e. inserting a finger into '3' pulling the dial around to the finger stop and listen for audible tones. The first beep heard will signal that *Rotatone* has switched to level 1. Keep holding and after a short time two ascending tones in quick succession will be heard in the receiver, signaling level 2. Immediately release the dial. Dial "7" to specify location 7 as the "hotline" location. Then dial a digit from 1-9 to specify a 2-2.5 second delay in dialing when the phone comes off-hook. Replace the receiver back on-hook. *The next time you take the phone off-hook, the "hotline" number will be automatically dialed.*

Example 8, Remove "hotline" number (Rotatone Version 2 only)

Lift the receiver and dial 3 by the DH method, i.e. inserting a finger into '3' pulling the dial around to the finger stop and listen for audible tones. The first beep heard will signal that *Rotatone* has switched to level 1. Keep holding and after a short time two ascending tones in quick succession will be heard in the receiver, signaling level 2. Immediately release the dial. Dial "1" to cancel the "hotline" number. Replace receiver back on-hook.

Troubleshooting

Most problems that occur in the use of *Rotatone* will occur through pausing too long with the finger against the finger stop while dialing normally. This will cause *Rotatone* to change levels unintentionally, and possibly cause the number to be misdialed. Therefore always release the dial as soon as the finger hits the finger stop when dialing in normal (DR) mode. This will become second nature with a little practice.

Sporadic behaviour of *Rotatone* can occur on some VOIP adapters or PABX lines if the line current is unusually low. For reliable operation, make sure VOIP adapters are set for at least 25ma loop current.

Rotatone is polarity sensitive so we include a polarity guard with each *Rotatone* purchased. Wiring diagrams for specific phones are under development.

Note - *Rotatone* installation does require some technical expertise. For those who prefer a turnkey *Rotatone* solution, we offer full installation services. Contact us for details.