CES

$2.50

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Programming ANI's In The Model #850 Handset, and The Model #700 Encoder Microphones

General Description

The Model #700 DTMF encoder microphone and the Model #850 DTMF encoder handset can be configured to function in any one of three different ways. These are:

- #1 Manual dialing with automatic dialing of nine (9) pre-programmed speed dial numbers.
- #2 Manual dialing, with both automatic ANI's, and automatic dialing of up to eight (8) pre-programmed speed dial numbers.
- #3 Manual dialing with two automatic ANI's of up to 21 digits each.

All Model #700 microphones and Model #850 encoder handsets are shipped from the factory configured for manual dialing and automatic dialing of speed dial numbers, (configuration #1 above). Since ANI's are a security and control feature of benefit primarily to the system operator, necessary information for reconfiguration to include automatic ANI's and programming of the ANI's is published only in this document. This information is not included in the manuals provided with each unit. Distribution of the programming instructions is limited to Authorized Dealers, Technicians, System Operators, and Radio Common Carriers only.

These configurations are controlled by three jumper plugs: JPA, JPB, and JPC. The function of each jumper plug is:

JPA Controls the programming of the keypad memory locations. This jumper should be IN for programming ANI's, and IN for use as a autodialing microphone so that the user can program speed dial numbers at will.

JPB Controls the programming of ANI's. This jumper should be IN whenever programming ANI's, and OUT when in service so that the user can not change the ANI codes.

JPC This is the jumper that controls whether the handset or microphone automatically transmits ANI's when the microphone or handset goes "on-hook", or "off-hook". When this plug is OUT the ANI's will be automatically transmitted. With this plug IN they will not be automatically transmitted.

To set up the microphone or handset for use, or programming, place the jumper plugs, and the "Manual/Auto" slide switch as follows:

Configuration #1 Autodialing without any ANI's

To Program:	To Use:
	Jumper A IN
None required	Jumper B IN
	Jumper C IN
Switch: Manual	Switch: Auto

Configuration #2 Autodialing with two Automatic ANI's

To Program ANI:	To Use:
Jumper A IN	Jumper A In
Jumper B IN	Jumper B Out
Jumper C IN	Jumper C IN (no hook automatic ANI)
	OUT(With Hook automatic ANI)
Switch: Manual	Switch: Auto

Configuration #3 Automatic ANI's only, without any automatic dialing

To Program ANI:	To Use:
Jumper A IN	Jumper A OUT

Jumper B IN	Jumper B OUT
Jumper C IN	Jumper C IN (no hook automatic ANI) OUT (With hook automatic ANI)
Switch: Manual	Switch: Auto

NOTE: When using the Model #700 microphone or the Model #850 handset in Configuration #3 (Automatic ANI's only without and automatic dialing) the "Auto/Manual" slide switch must be strapped by the technician so that it is fixed "On".

ANI PROGRAMMING METHODOLOGY

Once placed in Auto mode, with the slide switch on the microphone back, the ANIs and dialing speed can be set using multi-key entries which start with the # key. A two second timer is started each time a key entry is made. This timer is reset each time another key is pressed. Two seconds after the last key is released, the warning beep will be heard, indicating that the timer has timed out. When programming, the warning beep indicates that the number sequence has been stored in the selected address. For all digits to be stored, the complete sequence must be dialed before the warning beep sounds. This means that not more than two seconds may be taken between digits when manually dialing or programming. The two second time-out can be held off by holding down a key until ready to dial the remaining digits.

PROGRAMMING ANIs

To program an ANI-UP code into memory, press # 0, then the ANI number. Enter the entire sequence before the warning beep sounds.

EXAMPLE - Store "* 1 2 3 4" as the UP code
Press # 0 * 1 2 3 4 BEEP
Press "* 0" to automatically dial this number

To program the ANI-DOWN code into memory, press # 9, and the ANI number. To store a "#" in memory, it must be pushed 2 times.

EXAMPLE - Store "# 1 2 3 4" as the DOWN code
Press # 9 ## 1 2 3 4 BEEP

Press * 9 to automatically dial back this number

To clear an ANI memory location, press either #0, or # 9 , and wait for the BEEP. When cleared of a valid ANI code, the * and # keys send out the "*" and "#" DTMF codes when in ANI mode.

Automatic PTT does not function during programming. Either ANI can be up to 21 digits. When the 21st digit is entered, a unique tone will be heard to signify that the storage is now full.

After programming ANI's be sure to return the microphone or handset to the operational mode by configuring the jumper plugs as shown above. Also, be sure to strap the switch (as described in the note above) if the device is to be used for Automatic ANI's only, without automatic dialing.

Note: Although in some systems applications the use of automatic "on-hook" and "off-hook" ANI's are of great value special consideration should be given to two important points before using auto-ANI in the field:

When using the Model #700 microphone make sure that the radio user with CTCSS has some means of monitoring the radio channel before "going off-hook". Taking the microphone off-hook is usually how most mobiles monitor the channel prior to making any transmissions. With auto-ANI, mobiles may transmit on another co-channel user if they have no other means of monitoring. The CES handset solve this potential problem with the on-hook PTT monitor function.

Carefully consider the operation of a handset before programming it for auto-ANI. If the handset user monitors the channel with the on-hook monitor, then on-hook dials a telephone number, waits for the ringing signal then picks-up the handset; the handset will at that time auto-ANI. This could be confusing or disturbing to either the person answering the telephone call, or to the mobile operator.