

## U.S.A.

### Customer Information FCC RULES PART 68

This equipment complies with Part 68 of the FCC rules. On the metal cover of the circuit board of this equipment is a label that contains, among other information, the FCC registration number and ringer equivalence number (REN) for this equipment. If requested, this information and the USOC jack number required for connection, must be provided to the telephone company.

An FCC compliant telephone cord and modular plug is provided with this equipment. This equipment is designed to be connected to the telephone network or premises wiring using a compatible modular jack which is Part 68 compliant. See installation instructions for details.

The REN is used to determine the quantity of devices which may be connected to the telephone line. Excessive RENs on the telephone line may result in the devices not ringing in response to an incoming call. In most, but not all areas, the sum of the REN's, should not exceed five (5.0). To be certain of the number of devices that may be connected to the line, as determined by the total REN's contact the telephone company to determine the maximum REN for the calling area.

If the terminal equipment "Dialex model 4000 or 4500" causes harm to the telephone network, the telephone company will notify you, in advance, that temporary discontinuance of service may be required. But if advance notice isn't practical, the telephone company will notify you as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe this action is necessary.

The telephone company may make changes in its facilities, equipment, operations, or procedures that could affect the operation of the equipment. If this happens, the telephone company will provide advance notice in order for you to make the necessary modifications in order to maintain uninterrupted service.

If trouble is experienced with this equipment "Dialex model 4000 or 4500", please contact DeltaVision Inc. at (450) 974-3244 for repair and (or) warranty information. If the equipment is causing harm to the telephone network, the telephone company may request that you disconnect the equipment from the network until the problem is resolved.

No repairs can be performed by the user—return the unit for repair according to instructions from Delta Vox or its authorized representative

This equipment cannot be used on public coin service provided by the telephone company. Connection to Party Line Service is subject to state tariffs. (Contact the state public utility commission, public service commission or corporation commission for information).

### INTERFERENCE AND FCC RULES PART 15

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 instructions, 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 encouraged to try to correct the interference by one or more of the following measures:

Re-orient or relocate your radio or TV 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 connected.

Consult your dealer or an experienced radio/TV technician for help.

## Canada

### NOTICE

The Canadian Department of Communications label identifies certified equipment. This certification means that the equipment meets certain telecommunications network protective, operational and safety requirements. The Department does not guarantee the equipment will operate to the user's satisfaction.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. In some cases, the company's inside wiring associated with a single line individual service may be extended by means of certified connector assembly (telephone extension cord). The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be made by an authorized Canadian maintenance facility designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

### CAUTION

Users should not attempt to make such connections themselves, but should contact the appropriate electric inspection authority, or electrician as appropriate.

The **Load Number (LN)** assigned to each terminal device denotes the percentage of the total load to be connected to a telephone loop which is used by the device, to prevent overloading. The termination on a loop may consist of any combination of devices subject only to the requirement that the total of the Load Numbers of all devices does not exceed 100.

The Load Number of this device is 1

### AVIS

L'étiquette du ministère des Communications du Canada identifie le matériel homologué. Cette étiquette certifie que le matériel est conforme à certaines normes de protection, d'exploitation et de sécurité des réseaux de télécommunications. Le Ministère n'assure toutefois pas que le matériel fonctionnera à la satisfaction de l'utilisateur.

Avant d'installer ce matériel, l'utilisateur doit s'assurer qu'il est permis de le raccorder aux installations de l'entreprise locale de télécommunication. Le matériel doit également être installé en suivant une méthode acceptée de raccordement. Dans certains cas, les fils intérieurs de l'entreprise utilisés pour un service individuel à ligne unique peuvent être prolongés au moyen d'un dispositif homologué de raccordement (cordon prolongateur téléphonique interne). L'abonné ne doit pas oublier qu'il est possible que la conformité aux conditions énoncées ci-dessus n'empêchent pas la dégradation du service dans certaines situations. Actuellement, les entreprises de télécommunication ne permettent pas que l'on raccorde leur matériel à des jacks d'abonné, sauf dans les cas précis prévus par les tarifs particuliers de ces entreprises.

Les réparations de matériel homologué doivent être effectuées par un centre d'entretien canadien autorisé désigné par le fournisseur. La compagnie de télécommunications peut demander à l'utilisateur de débrancher un appareil à la suite de réparations ou de modifications effectuées par l'utilisateur ou à cause de mauvais fonctionnement.

Pour sa propre protection, l'utilisateur doit s'assurer que tous les fils de mise à la terre de la source d'énergie électrique, des lignes téléphoniques et des canalisations d'eau métalliques, s'il y en a, sont raccordés ensemble. Cette précaution est particulièrement importante dans les régions rurales.

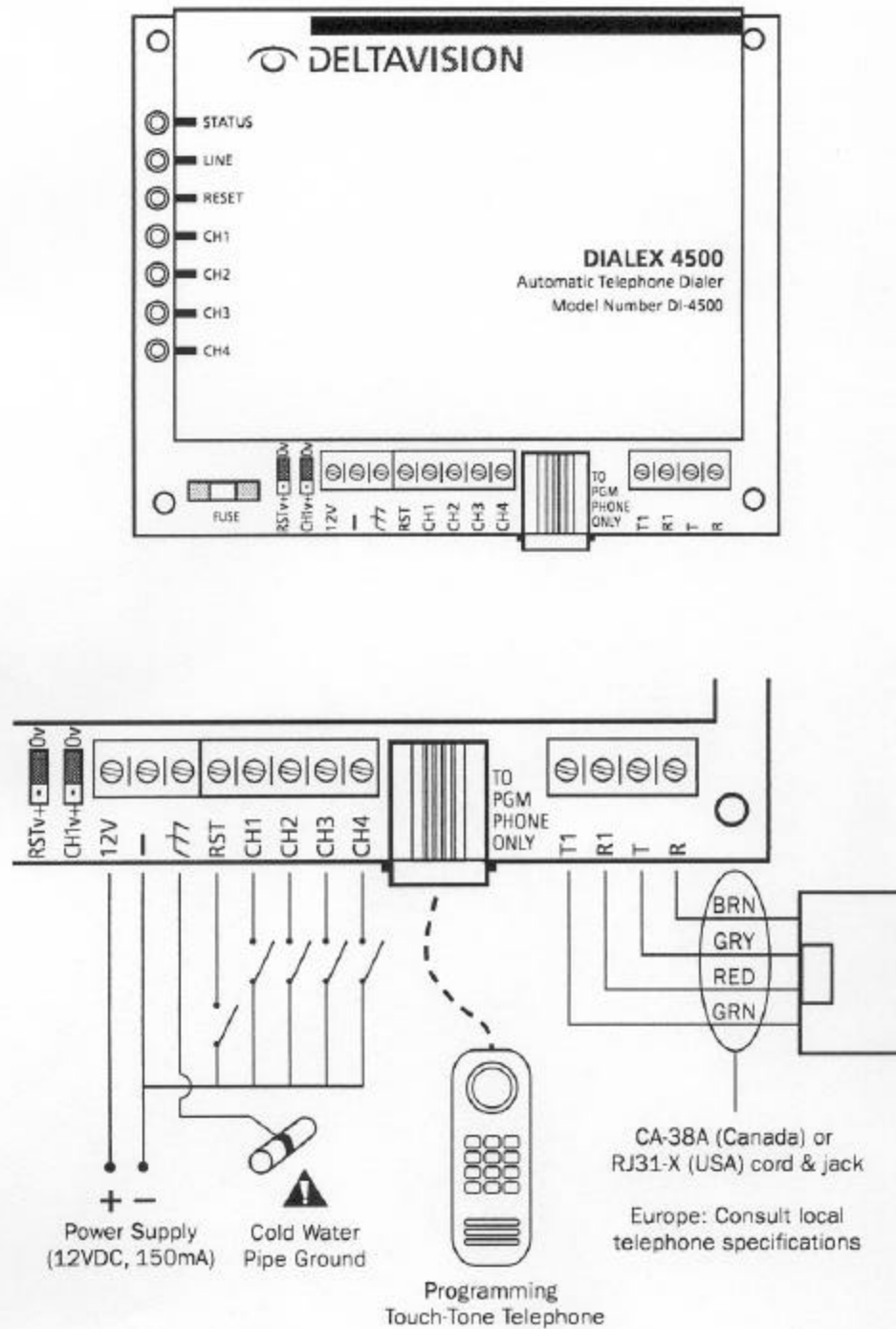
### AVERTISSEMENT

L'utilisateur ne doit pas tenter de faire ces raccordements lui-même; il doit avoir recours à un service d'inspection électriques, ou à un électricien, selon le cas.

L'**Indice de charge (IC)** assigné à chaque dispositif terminal indique, pour éviter toute surcharge, le pourcentage de la charge totale qui peut être raccordée à un circuit téléphonique bouclé utilisé par ce dispositif. La terminaison du circuit bouclé peut être constituée de n'importe quelle combinaison de dispositifs, pourvu que la somme de charge de l'ensemble des dispositifs ne dépasse pas 100.

L'indice de charge de ce dispositif est 1.

Figure 1: Wiring Connections



## **Table of contents**

<b>1.0 Introduction.....</b>	<b>4</b>
1.1 Warnings.....	4
<b>2.0 Installation .....</b>	<b>5</b>
2.1 Location and Mounting.....	5
2.2 Channel Inputs .....	5
2.3 CH1 and RST inputs .....	5
2.4 Alarm Detection Modes.....	6
2.5 Telephone Line Connections .....	7
2.6 DC Power Supply Connections .....	7
<b>3.0 Operation .....</b>	<b>7</b>
3.1 Power On Procedure.....	7
3.2 Status LEDs .....	7
3.3 Resetting the Dialer .....	7
3.4 Operation During an Alarm .....	8
3.5 Audible Tones .....	8
<b>4.0 Programming .....</b>	<b>9</b>
4.1 Programming Phone Compatibility .....	9
4.2 Ready Mode .....	9
4.3 Programming Overview.....	9
4.4 Programming Procedure .....	11
<b>5.0 Warranty .....</b>	<b>15</b>
<b>Programming Form.....</b>	<b>16</b>
<b>Specifications .....</b>	<b>18</b>

## 1.0 Introduction



### In the event of an alarm, the Dialex will:

- Seize the telephone line
- Dial the emergency telephone numbers according to which channel was activated
- Deliver a voice or numeric (pager) message
- Repeat as programmed or until reset

### Features

- Pulsing Bell Detection Mode on CH1 to distinguish between fire and burglary alarms (with compatible alarm panels)
- Store and dial up to 8 telephone #s
- Digital voice message recording
- Pulse or tone dialing
- Choice of voice or numeric message for each telephone #
- Separate program options for each alarm channel:
  - speech and pager messages
  - calling list (programmable priority order)
  - redial delay and number of repeats
- Enter program using any Touch-Tone™ phone
- Full test from programming telephone
- Program memory battery back-up (Allows the Dialex to be programmed and tested in one location, transported and installed elsewhere.)

## 1.1 Warnings

-  Do not bundle input wiring with high voltage power cables! Failure to observe this warning could allow high voltage to be inductively coupled to the input wiring, resulting in circuit damage and false operation.
-  Do not connect DC power until all other wiring has been connected!

## 2.0 Installation

### 2.1 Location and Mounting:

Mount the Dialer in a dry and secure location, such as inside an alarm system cabinet. Use the self-adhesive spacers provided, or use standard screws and nonconductive spacers.

### 2.2 Channel Inputs

Connect the channel inputs according to the wiring diagram (figure 1), and the type of contact from table 1, below.

All channel (CH#) inputs and the reset (RST) input are designed to be connected to either:

(a) Normally Open (NO) dry contacts, which ground the input when closed,

(b) a Low Logic Level (0V) trigger from a programmable burglary panel, with +5 to +24VDC as the (normal) High Logic Level condition. [Connect the panel negative (-) to the Dialex (-)], or






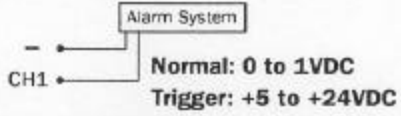

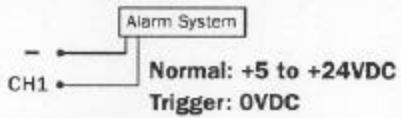
(c) Normally Closed (NC) dry contacts, when connected between the input and (+) with a 10K $\Omega$  pull-down resistor to ground on each channel to be converted.

**Do not bundle input wiring with high voltage power cables! Failure to observe this warning could allow high voltage to be inductively coupled to the input wiring, resulting in circuit damage and false operation.**

### 2.3 CH1 and RST Inputs

For additional flexibility, the RST and CH1 inputs can accept a positive (+5 to 24V) trigger. [Move the

Table 1: Input Channel and Reset Wiring Options

Situation	Jumper (CH1 or RST)	Connections
Dry Contact (Normally Open) Any Channel		
Dry Contact (Normally Closed) Any Channel		
Trigger Voltage (Positive) <b>CH1 and RST only</b>		
Trigger Voltage (Negative) Any Channel		

jumper for the channel to the (+V) position. Connect the trigger wire to the channel, and connect the panel negative (-) to the Dialex (-). Positive voltages will trigger the channel, with low voltage (0 to +1V) being the idle (normal) state.]

When triggered, the reset (RST) input will stop and reset all call sequences and alarm channels.

## **2.4 Alarm Detection Modes:**

### **Standard Detection Mode (SDM)**

In SDM, all inputs operate in the same manner: Activating a channel will start the corresponding call sequence.

### **Pulsing Bell Detection Mode (PBDM)**

The 80# programming location allows the user to set the CH1 Dialex input to operate in Standard Detection Mode (SDM) or in Pulsing Bell Detection Mode (PBDM). PBDM provides a simple way to connect the Dialex to the Bell/Siren output of a Burglary/Fire control panel. This bell output is usually steady for burglary alarm and pulsing for fire alarm. With this option enabled, the Dialex can distinguish between a steady or pulsing signal applied to CH1.

A steady signal will always activate CH1. However, in PBDM the Dialex will react to the pulsing signal as if it came from an extra input channel, numbered one more than the highest real hardware input. For the 2-channel DI-4000 & DI-4202, the pulsing signal will trigger chan-

nel 3, and the programming such as the phone numbers called and the message played, will be done at the channel 3 programming locations. For the 4-channel DI-4500 & DI-4204, channel 5 will be triggered by a pulsing signal.

Many control panels switch the negative side of the Bell Output, while positive is always present on the + Bell terminal. In this case, leave the CH1 jumper in the normal "0V" position, and connect CH1 to the active negative (-) side of the Bell Output. If the control panel switches the positive, then move the CH1 jumper to the "+V" position and connect Bell (+) to the CH1 input.

If the control panel bell output is (or may later be) connected to a sounding device which generates electrical noise, such as an electro-mechanical bell or horn, extra precautions may be required. Connect a suppression device, such as a .1 $\mu$ F 250V capacitor or a diode, across the sounder to minimize the noise interference and a .1 $\mu$ F capacitor between the CH1 input and (+) for negative trigger, or (-) for positive trigger.

**Important Note:** Input CH2 always has the standard SDM characteristics, regardless of whether CH1 is configured as PBDM or "Standard" SDM. However, CH2 must be activated for at least 6 seconds in some operating modes to start a call sequence, when the CH1 input is configured as PBDM.



## 2.5 Telephone Line Connections

The Dialex provides line seizure capability and should be connected as the first device after the telephone line enters the building. The telephone line is connected to the "T" and "R" terminals. The line continuing on to the building telephones, or other telephone equipment, is connected to "T1" and "R1". When properly connected in this way, the Dialex can disconnect any telephone left off hook or telephone equipment in use, in order to call out in an emergency.

The requirement for line seizure is provided for by using the proper CA-38A (Canada) or RJ31-X (USA)

modular cord and corresponding Telephone Company installed jack, as shown in figure 1. In Europe, see local telephone specifications.

## 2.6 DC Power Supply Connections

Use a power supply (DeltaVision DV1-24F) or alarm control panel that can supply filtered and regulated 12VDC, under at least 150mA continuous load. Connect the positive (+12 to +14VDC) to the (+) terminal. Connect the negative side to the (-) terminal.

***Do not connect DC power until all other wiring has been connected!***

## 3.0 Operation

### 3.1 Power On Procedure

Connect DC Power. The Status LED should flash every 2 seconds (and all other LEDs should be off), indicating "ready mode". **Note:** *On power up, each channel input under an alarm condition will be activated, starting a calling sequence.*

### 3.2 Status LEDs—See table 2.

### 3.3 Resetting the Dialex

There are 3 ways to reset the unit:

- (1) **Hardware Reset**, by activating the "RST" input,
- (2) **Remote Tone Reset (during an alarm condition only)**, by pressing "0" on a Touch-Tone™ phone between repeats of the voice message, or

Table 2: LED Status Indications

LED	Appearance	Condition Indicated
STATUS	OFF	No power
	Flashing Slowly	Ready mode
	Flashing	Programming mode
	Flashing Quickly	Voice message recording
	ON Continuously	Calling sequence in progress
LINE	ON	Telephone line seized by Dialex, or programming telephone is in use
	Intermittent Flash	Dialing out
RESET	ON	Reset input activated
CH#	ON	Channel input activated



(3) **Automatic Reset**, which occurs after the programmed number of sequences.

**NOTE:** When using the hardware reset channel, only a brief signal is required to reset the unit. As long as the RST input is activated, the Dialex is disabled.

### 3.4 Operation During an Alarm

When one of the alarm channels is activated, the Dialex will immediately begin the programmed call sequence for that channel, and will repeat until reset by one of the three methods above.

During a call sequence, the STATUS LED will light continuously, and the LINE LED will indicate whether a call is in progress (ON if off hook, FLASHING if dialing).

#### Call Progress Detection

If the Dialex detects either a busy signal or no answer, and if Call Progress mode is set for the alarm channel that was activated to start the call sequence, the Dialex will hang up and move on to the next phone # in the sequence. This feature may not work well on some telephone lines, depending on

signal and noise levels. Test the operation as programmed, using the real telephone lines, before completing the installation. Use a time delay instead if necessary.

#### Secondary Alarm During a Call Sequence

If the LINE LED is off, but the STATUS LED is ON, the Dialex is waiting to repeat the call sequence. During this redial waiting period, the Dialex can detect a new alarm signal **on CH1 only**. If a new alarm occurs on CH1, the unit will immediately begin the CH1 call sequence. When the CH1 call sequence is complete, the Dialex will return to the previously interrupted call sequence (for the channel originally activated).

### 3.5 Audible Tones

After pick-up and before message playback begins, the called party hears a special alert tone.

A successful remote reset operation (the called party must press the [0] key between message repeats to reset the Dialex) is acknowledged by the Dialex with a series of "beeps".

#### Important note:

When using Call Progress Detection, always test the Dialex program fully using the real telephone lines. Noisy connections can produce inconsistent results. If the Dialex calls the emergency number but does not deliver the voice message, turn off Call Progress Detection and use a time delay instead.

## 4.0 Programming

Use the programming form provided to prepare the information to be programmed, and as a guide for entering the program and recording voice messages.

In order to program the Dialex, temporarily plug a Touch Tone™ phone into the programming jack. The telephone keys to be pressed are indicated in these instructions by square brackets, e.g. [7 0 #].

### 4.1 Programming Phone Compatibility

The Dialex 4000 series will work with most Touch Tone™ telephones which generate the standard 12 DTMF tones. The [\*] and [#] keys are needed for programming. Telephones that use these keys for the mute and redial functions cannot be used to program the Dialex.

### 4.2 Ready Mode

The Dialex must be in READY mode to begin programming.

## 4.3 Programming Overview

The Dialex program is divided into a series of "locations" which can accept input. To program a location, the user begins with the location number, followed by [#] (e.g. [1 1 #] to open the program location to store the first telephone number in the Phone # Directory).

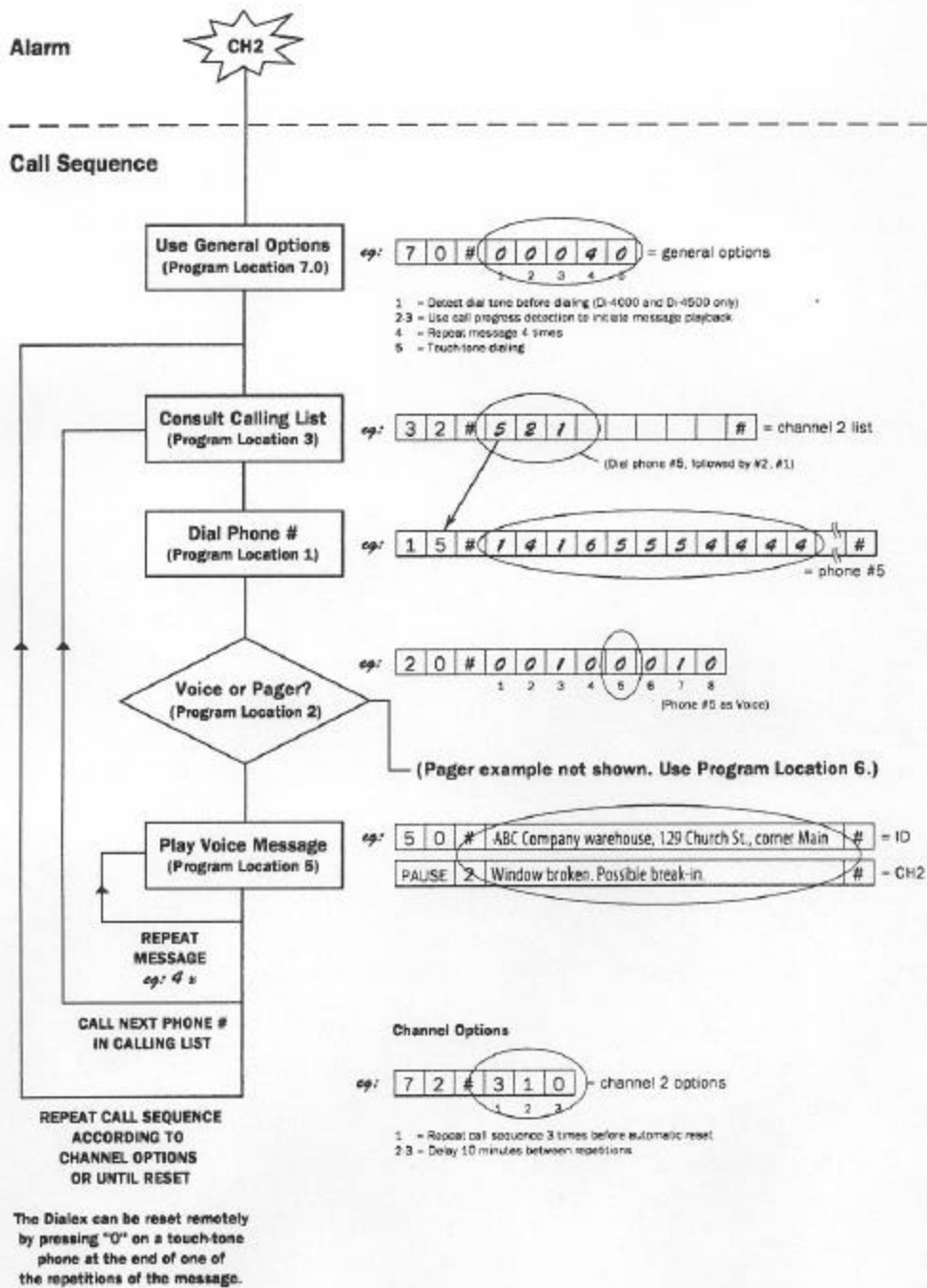
The user then enters the information to be programmed in that location, usually followed by [#] to end the entry. Items in the programming form which do not end with [#] require the user to enter all the digits indicated, which will end the entry without the use of [#].

The Dialex will produce one audible beep on the programming phone to indicate that the program location is "open", or that the Dialex is in "programming mode". After the user makes a correct entry, the Dialex will beep twice and return to ready mode. Open the next program location and continue programming.

Table 3: Programming Prompts and LED Indications

Audible Prompt or LED	Meaning
One short tone	Program Location is open and ready to accept the programming entry
Two short tones	Entry accepted and saved. The Dialex returns to READY mode.
One long tone	ERROR (incorrect entry)
STATUS (Flashing Slowly)	READY mode
STATUS (Flashing)	Programming mode
STATUS (Flashing Quickly)	Record or playback of voice message
LINE (ON)	Programming phone is off-hook

Figure 2: How the Dialer Responds to an Alarm.



An incorrect entry or inaccessible program location will result in one long (ERROR) tone.

**Note:** The digits to open a program location (e.g. [1 1 #]) must be entered within 5 seconds, or the Dialex will return to READY mode. A pause of 30 seconds without pressing a key when programming will also return the Dialex to READY mode.

See table 3 for a complete list of programming prompts.

#### 4.4 Programming Procedure

Refer to the programming form and the explanatory flow chart in figure 2 to see how the program entered by the user is used by the Dialex during a call sequence.

##### Step 1: Telephone Directory

The emergency phone #s of the parties to be contacted in case of an alarm are stored in Location 1 (Telephone Directory). Enter each of the phone #s including outside line access and long-distance codes if applicable. End with [#].

e.g.: To program 555-4444 as phone #1, enter [1 1 #] [5 5 5 4 4 4 4 #].

To program a 4-second pause during dialing, enter [\* 4]. (Only a 4-second pause is available.)

To program a "\*", enter [\* \*].

To program a "#", enter [# #].

##### Step 2: Specify Voice or Pager

Enter all 8 digits at Location 2 to set each phone # as either voice (0) or pager (1), e.g.: To program all but phone #3 and #5 as voice, enter [2 0 #] [0 0 1 0 1 0 0 0].

##### Step 3: Calling Priority List

Location 3 is reserved for storing a Calling Priority List for each channel.

Because different alarms may require a different set of numbers to be called, or may affect the order in which calls should be made, the user must create a priority list for each channel. Enter the numbers to be dialed in priority order.

e.g.: To program the calling list for channel 1, corresponding to calling Phone #8, #2 and #3 in that order, enter [3 1 #] [8 2 3 #].

##### Channel Bypass:

When a channel input is not in use, program a blank in its calling priority list, e.g.: to bypass channel 2, enter [3 2 #] [#].

**Note:** Program Location 4 is unused.

##### Step 4: Voice Message Recording

The Di-4000 & Di-4202 have a total recording time of 20 seconds, split between 4 messages. The Di-4500 & Di-4204 have a total recording time of 60 seconds, split between 6 messages.

The first message is the ID message (Name, address, ...) and the following messages are assigned to the alarm channels, up to CH3 for the Di-4000 & Di-4202, and up to CH5 for the Di-4500 & Di-4204.

**Reminder:** The channel one number higher than the highest real hardware input is reserved for Pulsing Bell Detection Mode (CH3 for the Di-4000 & Di-4202, CH5 for the Di-4500 & Di-4204).

**You must record all messages in the right order (as indicated on the programming form). The recording procedure requires you to record all messages even though they may not be needed for your application. Record a short blank for an unused message.**

#### **Recording Procedure**

Prepare a written script on the programming form (Location 5), to help avoid mistakes and unwanted pauses.

- [50#] Begin ID message recording (speak through the handset).
- [#] Stop ID message recording, then wait 1 second.
- [1] Begin channel 1 message recording.
- [#] Stop recording, then wait 1 second.
- [2] Begin channel 2 message recording.
- [#] Stop recording, then wait 1 second.
- [3] Begin channel 3 recording.
- [#] Stop recording and end the recording procedure on the Di-4000 & Di-4202.

- [4] Begin channel 4 message recording.
- [#] Stop recording, then wait 1 second.
- [5] Begin channel 5 recording.
- [#] Stop recording and end the recording procedure on the Di-4500 & Di-4204.

**Note:** [#] can be entered every time in place of [1], [2] or [3] to begin recording the next message. Use [1] instead of [#] to end recording of each message when the Dialex calls a voice pager. Messages can be tested by entering [050] for the ID message, [051] for the CH1 message, [052] for the CH2 message, etc.

#### **Step 5: Digital Pager Messages**

If a phone # is programmed as a pager format, rather than voice (Step 2), the corresponding numeric message entered in Location 6 will be sent to the pager.

Location 60 allows the user to enter 2 digits to program the delay that the Dialex will wait for the end of the pager central voice prompt, before sending the numeric message. This delay is added to the normal delay that the Dialex waits after dialing before beginning its message. **(Not available on the Di-4202 and Di-4204.)**

If "Call Progress" is selected at location 70, this pager transmission delay will start after the Dialex hears the pager voice prompt begin.

You must enter 2 digits. A typical pager delay is 8 seconds.

eg: To set the pager delay to 8 seconds, enter [6 0 #] [0 8].

A digital pager numeric message can have up to 8 digits. Program the message for each channel at locations 61-65.

eg: To send the message "129001" (for instance to indicate the address of the alarm, and that CH1 was activated), enter [6 1 #] [1 2 9 0 0 1 #]

## **Step 6: Communication Options**

### **General Options**

The general options (at Location 70) have 5 digits for North American models (Di-4000 & Di-4500), and only 4 digits for European models (Di-4202 & Di-4204), due to differences in dial tones. The Di-4202 and Di-4204 do not allow the user to adjust the Delay Before Dialing (DBD). The first digit (D1) is left out when programming the Di-4202 and Di-4204.

#### **Di-4000 & Di-4500:**

[7 0 #] [D1, D2, D3, D4, D5]

#### **Di-4202 & Di-4204:**

[7 0 #] [D2, D3, D4, D5] (4 digits)

### **D1: DBD/DTD (Delay Before Dialing/ Dial Tone Detection)**

Enter [1] to [9] to set a DBD of 1 to 9 sec. before the Dialex dials out after picking up the line.

Enter [0] to activate DTD. With DTD active, the Dialex will dial out as soon as the dial tone is detected. If no dial tone is detected, after 2 trials, the unit will dial out within 10 seconds (on models Di-4000 and Di-4500).

Models Di-4202 and Di-4204 (Europe) cannot begin dialing without the appropriate local dial tone.

### **D2, D3: DBT/CP (Delay before Transmission / Call Progress)**

Enter [01] to [19] to set a waiting time of 1 to 19 seconds between the end of dialing out and the beginning of message playback.

Enter [00] to activate call progress detection. In this case, the Dialex quickly skips busy numbers and begins playback only when the phone is answered. This feature may not work well on some phone lines, depending on signal and noise levels. Test carefully.

### **D4: REP (Message Repeat)**

Enter a number between [1] and [0] to set the number of message repeats per call from 1 to 10.

### **D5: Dialing Mode**

Enter [0] for Touch-Tone™ (DTMF), [1] for pulse.

### **Overall Example:**

The telephone line is capable of DTMF. To set DTD, CP, 3 message repeats and DTMF dialing, enter [7 0 #] [0 0 0 3 0].



### **Channel Options**

The first channel option (Locations 71 and up, first digit) allows the user to set a number of call sequences (program from [1] to [9]) after which the system will automatically reset. The second option (second and third digits) sets the delay in minutes between the end of a call sequence and the beginning of the next (redial delay, [00] to [99], [00]=30 seconds).

e.g.: To set CH1 to repeat the call sequence 5 times before automatic reset, with 5 minutes between sequences, enter: [7 1 #] [5 0 5]

### **Step 7: CH1 Detection Mode**

Use Location 8 to set channel 1 to Standard Detection Mode [0] (PBDB), or Pulsing Bell Detection Mode [1] (PBDM).

e.g.: To set the Dialer for PBDM operation, enter [8 0 #] [1].

### **Step 8: Verification and Testing**

#### **To test the operation of the Dialer:**

Use Location 9 to simulate an alarm by starting the call procedure for a channel.

e.g.: [9 1 #] initiates the CH1 call procedure.

If tested using the programming telephone, and if call progress is set in step 6, press a button on the phone two or three times after the number is dialed, to simulate ringing and the called party answering.

#### **To read the contents of a program location:**

Enter [0], then the location number (without a [#]). e.g.: To read location 72, enter [0 7 2]. ( This is the same procedure as for replaying recorded speech messages.)

The STATUS LED will flash the value of each digit in the location as follows, with a 1 to 2 second delay between digits:

<u>Value</u>	<u># of Flashes</u>
1-9	1-9, matching the value
0	10
*	11
#	12
Pause	14

Note: The pause is a 4-second pause, programmed by pressing [\*4].



## Specifications

	DI-4000 / DI-4202	DI-4500 / DI-4204
Channel Inputs	2	4
Voice Messages	3 + 1 ID message	5 + 1 ID message
Total Recording Time	20 seconds	60 seconds
Pager Messages	3	5
Input Detection Capability	All Channels: N.O. contacts, (-) trigger, or N.C. with resistor CH1 and RST: As above and also selectable for (+) trigger	
Pulsing Bell Detection Mode	Selectable on CH1	
Reset Methods	Activate RST Input, Remote [0] signal from Touch Tone™ phone, or automatic after 1-9 call sequences	
Dialing Mode	DTMF or Pulse	
Telephone Interface	CA38A or RJ31X connection	
Telephone Numbers	8	
Calling Priority List	Individual list for each channel	
General Communication Options	DBD/DTD (Delay Before Dialing/Dial Tone Detection)* DBT/CP (Delay before Transmission/Call Progress) REP (Message Repeat) * = not available on DI-4202 or DI-4204	
Channel Communication Options	Automatic Reset after 1-9 call sequences and redial delay of 30 seconds or 1-99 minutes	
Operating Voltage	12 to 14VDC	
Stand-by Current	30mA	
Maximum Current Draw	130mA	
Fuse F1	500mA, 2AG, "small" size	
Operating Temperature	0°C to 50°C	
Dimensions, Circuit Board only	13.5 x 11 x 2 cm (5 3/8 x 4 3/8 x 3/4 inches)	
Weight	150g (5.25oz)	

Touch-Tone™ is a trademark of AT&T.

## Programming Form

### Location 1: Telephone Directory

[illegible]

\*4 = 4-second pause    To program a \*, press \*\*.    To program a #, press \*#.

**Location 2: Choice of Voice or Pager message for each telephone #**

2	0	#							
			1	2	3	4	5	6	7 8

0 = speech
1 = pager
(Enter all 8 digits.)

### Location 3: Calling Priority List

[illegible]

### Location 5: Voice Message Recording

5	0	#		#	= ID message
(Name, address, etc.)					
PAUSE	1			#	= CH 1 message
PAUSE	2			#	= CH 2 message
PAUSE	3			#	= CH 3 message
PAUSE	4			#	= CH 4 message
PAUSE	5			#	= CH 5 message

[Describe alarm condition, e.g.: "Unauthorised entry through rear door."] ☐

Use **1** instead of **#** to end each message when the Dialex calls a voice pager.

### Location 6: Pager Message

6	0	#			= pager transmission delay (seconds, enter 2 digits). (N/A on DI-4202/DI-4204)
6	1	#			# = channel 1 message
6	2	#			# = channel 2 message
6	3	#			# = channel 3 message
6	4	#			# = channel 4 message
6	5	#			# = channel 5 message

### Location 7: Communication Options

7	0	#					
			1	2	3	4	5

 = general options (all channels)

DI-4202 & DI-4204 (Europe), omit 1st digit. Enter 4 digits (2 to 5).

- (1) Delay before dialing (0 = dial tone detect, instead of a delay)
- (2-3) Delay before starting message (1 to 19 sec, 00 = call progress detection)
- (4) Number of message repetitions (0 to 9)
- (5) Dialing type (1 = pulse, 0 = tone)

7	1	#				= channel 1 options
7	2	#				= channel 2 options
7	3	#				= channel 3 options
7	4	#				= channel 4 options
7	5	#				= channel 5 options

1      2      3

- (1) Auto Reset after N sequences (Program N=1 to 9)  
(2-3) Delay in minutes between redial sequences (00 = 30 seconds)

### Location 8: Input Channel 1 Detection Mode

8	0	#	0 = Standard (SDM)    1 = Pulsing Bell Detection Mode (PBDM)
---	---	---	--

### Location 9: Test Functions

9	1	#	= initiate channel 1 call sequence
9	2	#	= initiate channel 2 call sequence
9	3	#	= initiate channel 3 call sequence
9	4	#	= initiate channel 4 call sequence
9	5	#	= initiate channel 5 call sequence

### Location 0: Voice Message Playback

0	5	0	= playback ID message (through programming phone)
0	5	1	= playback channel 1 voice message
0	5	2	= playback channel 2 voice message
0	5	3	= playback channel 3 voice message
0	5	4	= playback channel 4 voice message
0	5	5	= playback channel 5 voice message

### Location 0: Program Location Verify

0	?	?
---	---	---

 = Verify the contents of any program location (2 digits, ??)  
The STATUS LED will flash to indicate the digits stored in the location  
(\* = 11 flashes, # = 12 flashes, pause = 13 flashes)

