ELOTEC

VOICE-TEL

AUTO ALARM DIALLER

USER MANUAL

SPECIFICATIONS

Connections

1.5 mm screw terminals are provided for all electrical connections to the VOICE-TEL.

- **Power** (With no external battery connected)
  - **Voltage** 10-30V DC
  - **Current** 40mA idle
    80-100mA active
- **Backup Battery**
  - **Charge Current** ~130mA
  - **Battery Size** Up to user. Note that the larger the battery the longer the recharge time. 7AH, +12V, Recombination Cell Battery is recommended.
  - **Backup Cut-In Voltage** 9.5 V
  - **Backup Cut-Out Voltage** 11.4 V
- **Inputs** Four, clean-contact, voltage-free trigger inputs such as relay contacts, a float switch or a microswitch are required.

WARNING: *Applying voltage to the Inputs of the VOICE-TEL may damage the VOICE-TEL and will void the product warranty.*

- **Telecom Line** Two terminal blocks.
- **RS232 Connector (DB9)** Used for programming VOICE-TEL configuration via VOCOS and a PC.

Mechanical

- **Dimensions** 171mm length x 106mm width x 25mm height.
- **Weight** 150 g
- **Line in/Line out** Terminal blocks

Messages

- **Site Message** Four seconds of high-quality, user-recordable speech. The site message should clearly identify the site where the VOICE-TEL is located.
- **Input Messages** Eight seconds of high-quality, user-recordable speech per input. The input messages should clearly identify the event and what action needs to be taken.
- **Acknowledged** Four seconds of high-quality, user-recordable speech to identify when message inputs have been acknowledged.
- **Idle Message** Four seconds of high-quality, user-recordable speech to identify when the VOICE-TEL inputs are in an idle state.

Parameters

- **Maximum number of telephone numbers** Four per Input or one list of 16 numbers
- **Maximum number of digits per number** Twenty including pauses
- **Time duration of phone call (playtime)** Variable 1 - 9 minutes
- **Wait time (between each call)** Variable 0 - 9 minutes.

- **PABX access delay** Two seconds for each user inserted pause
- **Recordable message time** Up to eight seconds per Input
- **Dialling mode** DTMF (tone dialling)

Modem

The VOICE-TEL has an onboard 1200 baud modem used for remote configuration using VOCOS. The VOICE-TEL can also be put into transparent mode. This allows remote communications via a dial-up connection, to devices attached to the external RS232 connector such as a PLC or RTU.

Programming

Functions (including voice), are normally programmed using the keypad and single character display. The VOICE-TEL can also be programmed through the inbuilt RS232 connector using a PC and a custom Windows application called VOCOS.

Alarm Cancellation

Alarm notification calls can be cancelled by using a DTMF touch-tone phone. The alarm can be cancelled by pressing any numeric key on your telephone keypad or by entering a PIN, depending on which option you have selected at the time of installation and programming.

INSTALLATION

Installation Requirements

The typical wiring schematic is shown in Figure 1.

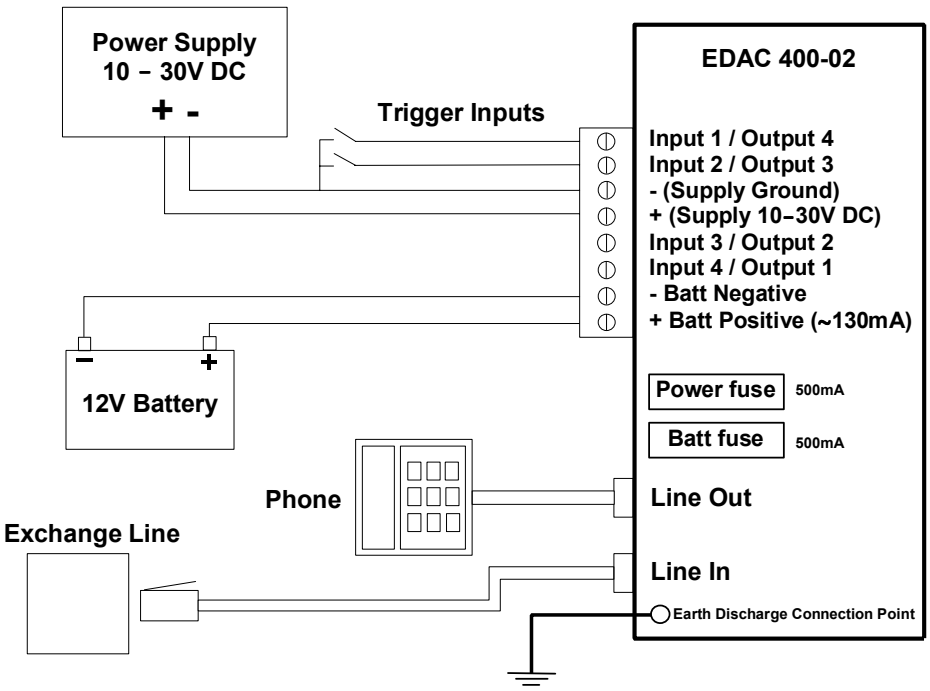


Figure 1: Typical VOICE-TEL Installation

1. Power Supply

A DC regulated power supply complying with Telecom PTC101 is required. The DC power supply should be normally constant, between 10 and 30 volts. An optional 12V sealed lead-acid battery (AGM) is required to maintain operation during a mains failure event.

2. Input Triggers

The input trigger, causes the VOICE-TEL to commence the dialling sequence. A clean contact, voltage-free input is required. This would normally be via an external relay. The VOICE-TEL is configured by default for a normally open type input. Alternatively the user can configure any of the inputs to accept a normally closed type input (see function ***F52***).
Some examples of these types of triggers might be a relay output, a micro-switch or a float switch. Any of the inputs can be configured as either an input or an output (see function ***F08***).

> **NOTE:** *The activating trigger must be installed correctly and maintained to prevent false triggering.*

3. Earth Discharge

The VOICE-TEL has a separate Earth Discharge Circuit, which is used to protect the VOICE-TEL and any attached equipment from lightning strikes and other external high voltage transients, which may travel down the phone line. The Earth Discharge circuit **must** be connected to a common earth point. These are usually found at a switch board earth point (earth buss bar).

4. Telephone Line

The VOICE-TEL does not require a separate line and can be inserted as a **master upstream** device in an existing telephone connection (see S*ecure Installation* on next page). An RJ11 plug and socket system is used. You **must** use the cord-set provided to connect the VOICE-TEL to the Telecom wall socket or the VOICE-TEL may not work and no alarm notification calls will be made. Extra cords are available upon request for a small charge. The VOICE-TEL may be used with a PABX (Private exchange) but it must be connected to an analog line.

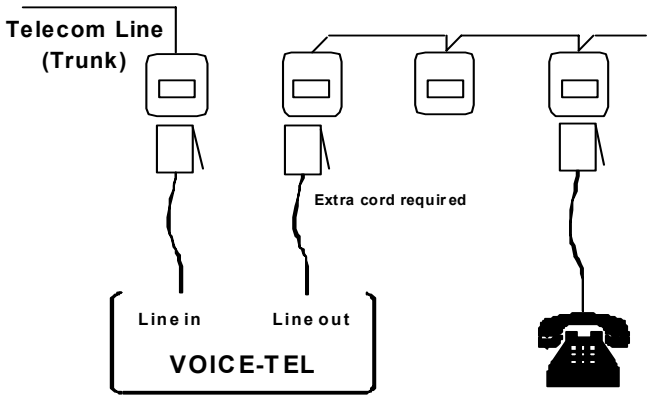
WARNING*: If the existing phone system has lights on the phone it is probably a digital PABX system. Do* ***not*** *plug the VOICE-TEL into a digital phone system unless you are sure that it supports standard analog phone equipment. Plugging the unit into an incorrect phone system will cause severe damage to the equipment and void the warranty. If there is any uncertainty please contact the supplier from whom you purchased your PABX for more information.*

Points To Note:

- The VOICE-TEL can be connected between the telephone line (trunk) and the PABX or it can be used on an extension.
- When connected to a PABX **and** an extension, ensure that the extension socket the VOICE-TEL is plugged into remains active during a power failure. Refer to your PABX instructions or contact your supplier.
- When programming phone numbers for your call list, remember to add the outside line number to the beginning of each programmed telephone number (this is usually **1** or **9**). Most PABX systems require a pause between the number you dial to get an outside line and the actual telephone number. Refer to ***F11*** *Programming Your Telephone Numbers*, for details of how to do this.

Secure Installation

This is a **master upstream device** configuration and may require Telecom assistance to remove the connection between the first wall socket and other wall sockets. On an alarm input trigger, the VOICE-TEL takes over the telephone line, disconnecting all other calls. The alarm condition is immediately acted on and cannot be stopped by unauthorised means. When not triggered, the VOICE-TEL has no effect on the phone line.

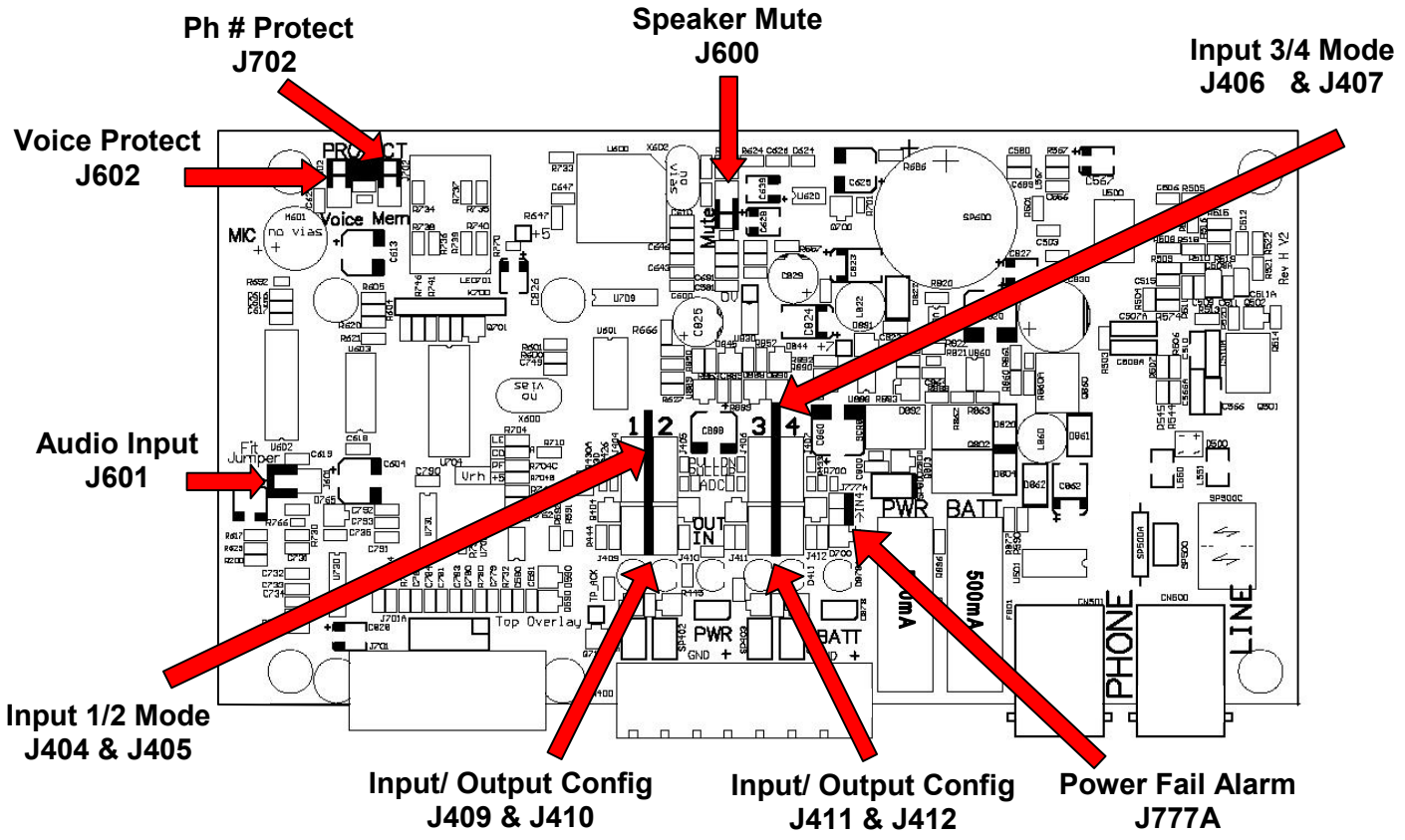


Jumper Settings

Below is a table detailing the hardware jumpers on the VOICE-TEL. This is followed by a circuit board overlay, which details where the jumpers are located on the VOICE-TEL.

> **NOTE:** *If the memory or voice protection jumpers (J702 and J602) are in the* ***lock*** *position, any new parameters you enter, such as phone numbers, will not be stored. This error can be easily detected by watching the numbers being played back for verification. The character display will show either an* E*, for empty, or the previous numbers will be displayed rather than the newly entered ones.*

Jumper	Function	Position/Mode		
J404	Input 1 Mode	Center = Pullup(Default)	Up = Pulldown	Down = Floating
J405	Input 2 Mode	Center = Pullup(Default)	Up = Pulldown	Down = Floating
J406	Input 3 Mode	Center = Pullup(Default)	Up = Pulldown	Down = Floating
J407	Input 4 Mode	Center = Pullup(Default)	Up = Pulldown	Down = Floating
J777A	Power Fail Alarm	Remove Jumper from J407 and fit to J777A to activate		
J409	Direction 1/4	Down = Input 1 (Default)	Up = Output 4	
J410	Direction 2/3	Down = Input 2 (Default)	Up = Output 3	
J411	Direction 3/2	Down = Input 3 (Default)	Up = Output 2	
J412	Direction 4/1	Down = Input 4 (Default)	Up = Output 1	
J600	Speaker Mode	Up = Active (Default)	Down = Muted	
J601	External Audio Input	Must be fitted to record voice using onboard microphone		
J602	Voice Message	Down = Open (Default)	Up = Secure	
J702	Phone number & Parameters	Down = Open (Default)	Up = Secure	



HOW THE VOICE-TEL WORKS – RUN MODE

On power-up, the VOICE-TEL will be in RUN mode assuming no trigger is present. RUN mode can be identified by a horizontal line on the display with a flashing dot  .

Displays

RUN – MODE

 = RUN mode (default at power up)

 = Looking for dial tone

 = Retry (function ***F53*** *Wait Time* applies)

 = Input is active, VOICE-TEL cancelled

The VOICE-TEL uses three distinct states when in RUN mode:

Active When the VOICE-TEL is active (in alarm state) the unit will make alarm notification calls.

Cancelled or acknowledged When the VOICE-TEL is active (in alarm state) the unit will make alarm notification calls. When these active trigger states (inputs) have all been acknowledged the VOICE-TEL is said to be in a cancelled state. This means that the VOICE-TEL will not make any further calls. The input is still present however and it must be removed in order to re-trigger the VOICE-TEL. Any new trigger on a different alarm input will initiate a new alarm notification call sequence.

Cleared or idle The input is cleared when it no longer meets the input criterion (e.g. trigger on close contact and the contact is open). The VOICE-TEL is idle when all inputs are clear. (i.e. no inputs present).

When an event triggers an alarm notification call, the VOICE-TEL will dial through the telephone number call list. When the call is answered, the voice message is spoken. This process is broken down into the following stages:

NOTE: *The references in brackets refer to the functions, which are programmed by you at the time of installation.*

1. All inputs are idle (no alarms are being triggered).
2. An input meets the alarm-trigger criteria (see functions ***F51*** and ***F52***).
3. The VOICE-TEL waits for the trigger/dial time to elapse (the time between the alarm trigger and the first phone call being made). If the input is removed before the VOICE-TEL has had time to place a call the input state goes back to idle (see functions ***F09*** and ***F96***)
4. The VOICE-TEL will now make calls to the people on your call list (see functions ***F07*** and ***F11***).
5. When a call is answered and it is a **voice** call (telephone, cell/mobile phone, etc) it will speak the message sequence outlined below.

Your site message (identifies the site)
The Input messages (identifies which alarms have been triggered)
The cancellation message (if you cancel the alarms) “The following Inputs have been acknowledged”
The Input messages again (if the alarms are cancelled but the Input triggers have not been removed)

This message sequence will be spoken repeatedly for whatever length of time you have set for function ***F55*** *Message Play Time*.

You will need to go to a phone and dial into the VOICE-TEL, which will then speak the voice message sequence as outlined above.

6. Once the call duration time has been reached, the VOICE-TEL will hang up the call. If **busy** tone was not detected the call is counted.
7. The VOICE-TEL now waits for whatever time period you have set before making the next call in the call list (function ***F53***). An  will be displayed indicating the dialler is in a retry state.
8. On receiving an alarm notification call, you should **acknowledge** (cancel) the alarm by pressing any key or entering the PIN number. This will stop the VOICE-TEL from making more calls.
9. If the VOICE-TEL hangs up before you have time to cancel, you can dial into the unit to cancel it (functions ***F03***, ***F04***, ***F05*** and ***F06*** to set cancellation options).

Telephone programming functions are explained in separate sections of this manual.

Cancelling Alarm Notification Calls

When the VOICE-TEL is cancelled/acknowledged it will stop trying to make alarm notification calls. An alarm notification call may be cancelled by:

1. Receiving an alarm notification call.
2. Making a call to the VOICE-TEL after receiving an alarm call.
3. Physical removal of the alarm condition.
4. Self-Cancel by counting calls.

1. Receiving an alarm notification call.
If you receive a call from the VOICE-TEL and wish to acknowledge (cancel) the call, stopping further calls being made, press the PIN or any numeric key (0-9) on your telephone keypad while the alarm message is playing. The option of cancelling further calls by pressing any numeric key or using a PIN depends on the **call type**, which must be set by you in function ***F11***.

The VOICE-TEL will respond with beeps to confirm it has received your key presses and then announce which inputs have been acknowledged. At this point, the person contacted may hang up their telephone. No other calls will be made by the VOICE-TEL until a new trigger signal occurs.

If you do not wish to acknowledge the alarm, press the # key to make the VOICE-TEL hang up and call the next number in its call list.

If you have acknowledged the alarm, pressing # will put the VOICE-TEL into modem mode (you will hear fax tones). Hang up your phone – the VOICE-TEL will automatically time-out and stop making further calls.

Pressing *0# will acknowledge the call and make the VOICE-TEL hang up immediately. No further alarm notification calls will be made.

2. Making a call to the VOICE-TEL after receiving an alarm call
This method can be used if the VOICE-TEL hangs up before you have time to cancel. Go to a telephone and ring the telephone number of the VOICE-TEL. The VOICE-TEL will answer and play messages to announce its current status. You may cancel (if allowed) by pressing any key on your phone or entering your PIN on your telephone keypad (see functions ***F03*** and ***F04***).

3. Physical removal of the alarm condition
Normally, removing the trigger signal immediately cancels the alarm condition and releases the telephone line regardless of what it is doing. The VOICE-TEL will return to RUN mode.

> **NOTE***: This is only true if the physical Input is not latched by the VOICE-TEL (see function **F52**).*

4. Self-Cancel by counting calls
When the number of calls set in function ***F56** Call Counter*, is reached, the alarm condition is cancelled and the VOICE-TEL will not make any further calls.

EXPLANATION OF PROMPTS – PROGRAMMING MODE

The ***F*** prompt indicates the VOICE-TEL is in programming mode and is waiting for you to select a function.

The ***P*** prompt indicates the VOICE-TEL is awaiting data entry.

The ***E*** prompt indicates the VOICE-TEL has detected an error in the data entry process, or a number is empty. The ***E*** is also displayed for the number ***12*** in some functions.

The ***t*** prompt indicates the VOICE-TEL is waiting for you to enter a call type. The seven-segment display cannot create a ***t*** character but the picture above is an accurate diagram of this prompt.

The ***r*** prompt indicates that a voice message is recording.

GETTING STARTED QUICKLY - EXAMPLE

Below is a brief description of how to quickly set up the essential functions of the VOICE-TEL. This simple configuration example will take you through the steps needed to:

- Program one telephone number for your alarm notification call list.
- Record one voice message to identify the site (location of the alarm).
- Record one voice message to report the alarm condition.
- Replay the recorded voice message so you can check it.
- Apply a physical trigger to any input (1-4) to initiate an alarm notification call and test that the unit is working.

Entering Programming Mode

Press 0000 (the factory default PIN number).

The F prompt will appear on the display.
If your PIN is not working, turn the VOICE-TEL off and hold down a key while powering up.

The product will go into programming mode and display the F prompt.

Programming Telephone Numbers

Up to four telephone numbers can be entered for each alarm input. For full instructions on how to program telephone numbers, refer to function ***F11*** *Programming Your Telephone Numbers*.

To enter phone or PABX extension number **one:**

F ⇨ 11 ⇨ P ⇨ Enter number followed by a # to save
e.g.
1*02432# (1 to get an outside line,
* pause, 02432)
Then…

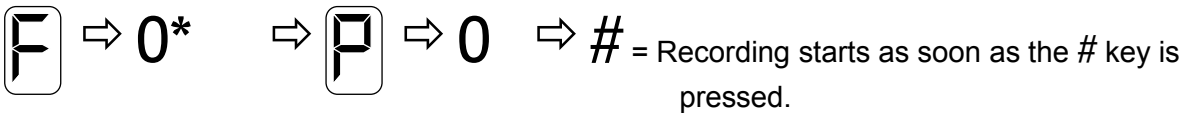
⇨ t ⇨ Enter the call type 1 This means voice call, cancel using any key).

The VOICE-TEL will then redisplay the entered telephone number followed by the call type so that you may verify their accuracy.

The dialler will return to the F prompt.

NOTE: *By default, the call list is treated as one long list of 16 numbers which is applied to all Inputs.*

Recording a Site Message



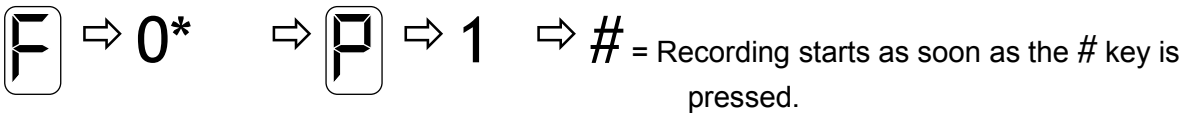
= Recording starts as soon as the # key is pressed.

Press any key to finish the recording.

⇨  ⇨ The message will then play until any key is pressed.

Press any key again and the dialler will return to the  prompt.

Recording Input Trigger one Voice Message



= Recording starts as soon as the # key is pressed.

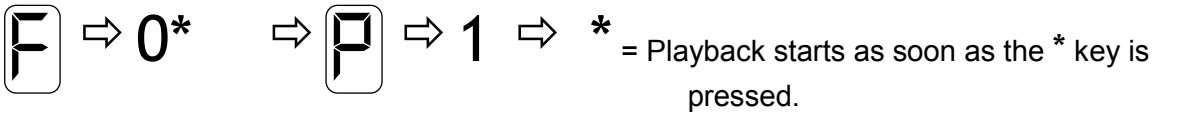
Press any key to finish the recording.

⇨  ⇨ The message will then play until a key is pressed.

Press any key again and the VOICE-TEL will return to the  prompt.

See function ***F0**** for the full list of voice message functions.

Replaying the Recorded Message



= Playback starts as soon as the * key is pressed.

⇨  ⇨ The message will then play until any key is pressed.

The VOICE-TEL will return to the  prompt when complete.

Exit to Run Mode

= Exit programming to RUN mode.

Once all these functions have been programmed, exit programming mode by pressing ## very quickly at the F prompt. The VOICE-TEL should now display the -. with a flashing dot. Pressing too slowly causes the display to cycle through the product software version number before returning to the F prompt. This indicates that the unit is still in programming mode. In RUN mode the VOICE-TEL is ready to accept an input trigger and make alarm notification calls.

Testing the VOICE-TEL

By default the input is set up for **normally open**. Connecting the input terminal to negative supply will trigger the VOICE-TEL.

Use a paper clip or small peace of wire to connect any input to **ground** (third terminal from the left). This will make a closed connection, causing the input to trigger and the VOICE-TEL to make an alarm notification call.

HOW TO PROGRAM THE VOICE-TEL

Introduction

The VOICE-TEL can be used to report four different types of input alarm as configured by the user. When an input alarm is triggered, it will cause the VOICE-TEL to auto-dial the list of phone numbers it has been programmed with. By default, a single list of 16 phone numbers is available for use with any alarm type. These 16 phone numbers can be divided into 4 lists of four numbers each. Each of the input alarms can then use a separate list of four phone numbers to call when the alarm is triggered.

Definition of Terms Used

Parameter: A value that must be entered by the user such as a phone number.

Input: The Input is the physical event that triggers the VOICE-TEL to make alarm notification calls.

Call type: The call type defines your alarm cancellation options. See section *Call Types* on page 29 for a list of call type options.

Tips For Use:

NOTE: *Jumper J702 (Phone Numbers & Parameters) must be set open (down) or your settings will not be stored. See* Jumper Settings *in the* Installation *section.*

- Functions not being used should be left at factory default settings. If the product appears to be acting erratically or is being relocated to a new site, we recommend resetting it to factory defaults.

NOTE: *The factory defaults can be re-installed at any time by entering the pin number (factory default* 0000*) and at the*  *prompt pressing* #**0***,* #1*,* #2*,* #3 *then* #4*.*

*The * Key - Program Checking*

The * key is used to display current parameter data held in the VOICE-TEL. Select a function and, when the  is displayed, press the * key. The data currently held in that function will display (digit by digit in the case of multi-digit entries).

NOTE: *The * key is also used to insert a 2-second* ***pause*** *when entering phone numbers. See function* ***F11*** *for an explanation of how this may be used with a PABX system.*

Fixing Data Entry Errors

Should incorrect data be entered, at the F prompt simply re-select the function number and re-enter the parameter data.

If the F prompt is not displayed, press * repeatedly until it returns

Programming the Functions for Individual Alarm Inputs

The functions in this manual are all referred to by numbers e.g. function ***F53*** *Wait Time Between Calls*. The numbers after the F are what you enter into the VOICE-TEL to let the unit know which function you are setting. These numbers will differ depending on which of the four inputs (alarms) you are setting.

When you program functions for Input ***1***, the function number will always begin with either a ***1*** or a ***5***. For example: ***F11***, ***F51***, ***F52***, ***F53***.

To program functions for Inputs ***2***, ***3*** and ***4***, you will need to change the number following the F.

For example, function ***F53*** Wait time, determines the period to wait between one call and the next.

- To program the wait time for Input ***1***, you will enter ***53*** at the F prompt.
- To program the wait time for Input ***2***, you will enter ***63*** at the F prompt.
- To program the wait time for Input ***3***, you will enter ***73*** at the F prompt.
- To program the wait time for Input ***4***, you will enter ***83*** at the F prompt.

The tables below summarise how to convert the function numbers for each Input.

When programming functions for:	Input 1	Input 2	Input 3	Input 4
If the function begins with a **1**	Follow the instructions in the manual	Change the first number to 2, e.g. ***F11*** becomes ***F21***	Change the first number to 3, e.g. ***F11*** becomes ***F31***	Change the first number to 4, e.g. ***F11*** becomes ***F41***

When programming functions for:	Input 1	Input 2	Input 3	Input 4
If the function begins with a **5**	Follow the instructions in the manual	Change the first number to 6, e.g. ***F53*** becomes ***F63***	Change the first number to 7, e.g. ***F53*** becomes ***F73***	Change the first number to 8, e.g. ***F53*** becomes ***F83***

Entering Programming Mode

To enter programming mode enter the PIN number.

The factory default PIN is 0000

The character display will now show the F prompt.

What to do if you Forget your PIN Number

If your PIN is not working, turn the VOICE-TEL off and hold down a key while powering up. The product will go into programming mode and display the F prompt.
To choose a new PIN number use function ***F00*** *Modify PIN Number*.

Exit to RUN Mode

Once all the functions have been programmed, exit programming mode by pressing ## very quickly at the F prompt. Pressing too slowly causes the display to cycle through the product software version number before returning to the F prompt (still in programming mode). The VOICE-TEL should now display the -. with a flashing dot. In RUN mode the VOICE-TEL is ready to accept an input trigger and make alarm notification calls.

F ⇨ ## = Exit programming to RUN mode.

Restore Factory Defaults

Use this function to clear old or unknown parameters (user settings) and return to factory settings. You can then reprogram each function from the default starting point

NOTE: *This procedure does not affect any existing voice messages.*

NOTE: *Jumper J702 (Phone Numbers & Parameters) must be set open (down) or your settings will not be stored. See Jumper Settings in the Installation section.*

WARNING: *The following instructions will clear your user settings from all functions associated with an input, e.g. #1 will clear the phone numbers, trigger type, wait time, message play time and call counter for input one. If you wish to reset only one or two functions, look up those functions in this manual and simply reprogram the data .*

F ⇨ #0 = Clear general parameters (functions ***F01*** to ***F09***).

#1 = Clear phone numbers and all parameters for Input 1.

#2 = Clear phone numbers and all parameters for Input 2.

#3 = Clear phone numbers and all parameters for Input 3.

#4 = Clear phone numbers and all parameters for Input 4.

Function F0 Recording Voice Messages*

The operator can re-record all voice messages in the VOICE-TEL. Voice messages are recorded on to an analogue EEPROM for permanent storage using the microphone provided on the VOICE-TEL. The message is played back through the onboard speaker. The Speaker Mute jumper (J600) **must** be in the top most position (un-muted) to hear any message playback. see *Jumper Settings* in the *Installation* section.

Jumper J602 is provided to protect your recorded messages in EEPROM from being accidentally erased. At the time of shipping the default position is to the down/bottom (unprotected) position, allowing messages to be re-recorded, for your installation configuration.

> **NOTE:** *You **must** ensure that the voice protection jumper (J602) is in the **down/bottom** position before attempting to record a message or your message will not be recorded.*

Play and Record control keys

All voice messages start with 0* this is the function number. After this a P for parameter will be displayed and a parameter must be entered. Use the tables below to select a parameter for the different voice message slots.

To **start recording** press # after entering the parameter number. Recording starts immediately, and is indicated by a r being displayed.

Press any key to finish recording. The message will be played back automatically. Then the F prompt will return.

To play back a previously recorded message enter 0* followed by the parameter at the P prompt. Then press * to hear the message. Press any key to return to the F prompt.

F0*0	Site message (spoken to identify the VOICE-TEL installation)
F0*9	Idle message (“All Inputs are clear”)
F0 ***	Cancel message (“The following Inputs have been acknowledged”)
F0*#	Output mode

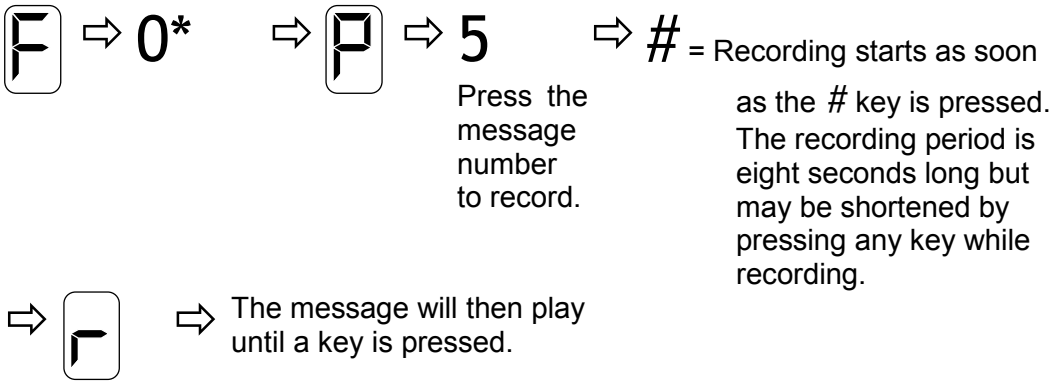
Inputs

F0*1	Input 1 active message (Eight seconds max)
F0*2	Input 2 active message (Eight seconds max)
F0*3	Input 3 active message (Eight seconds max)
F0*4	Input 4 active message (Eight seconds max)

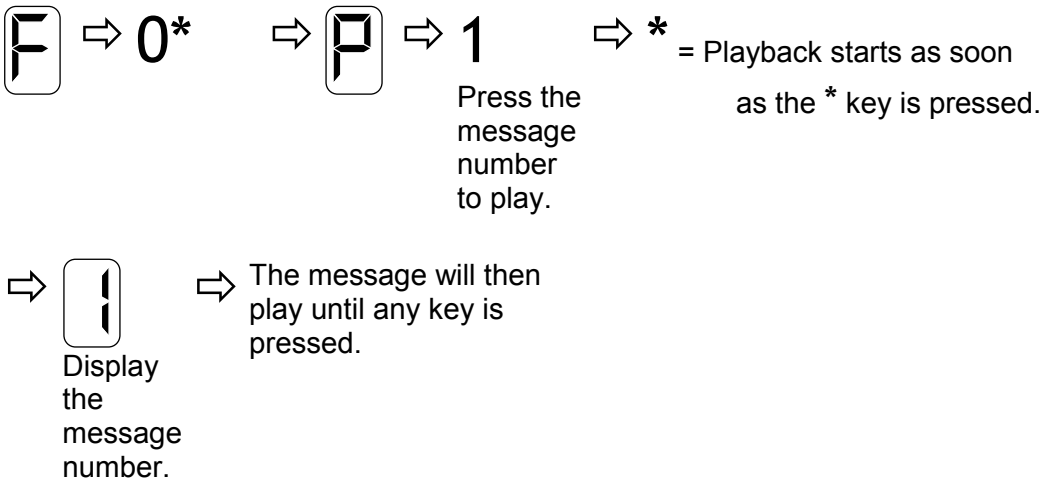
Outputs

F0*1	Output 4 On message (four seconds max)
F0*2	Output 3 On message (four seconds max)
F0*3	Output 2 On message (four seconds max)
F0*4	Output 1 On message (four seconds max)
F0*5	Output 4 Off message (four seconds max)
F0*6	Output 3 Off message (four seconds max)
F0*7	Output 2 Off message (four seconds max)
F0*8	Output 1 Off message (four seconds max)

RECORD example



PLAY example



Function F00 Modify PIN Number

The factory default PIN is 0000. If you forget the PIN your can still enter programming mode by holding down any key when applying power to the VOICE-TEL.

F ⇨ 00 ⇨ P ⇨ Enter any 4-digit number. Please remember your new PIN or write it here. ☐☐☐☐

Default: 0000

Function F02 Call Progress

By default, before the VOICE-TEL places a call it will try to detect **dial** tone to see if a call can be made. Once detected, the VOICE-TEL will dial the number and immediately start speaking its message. We recommend you use **dial tone detection only**. If you wish to use dial and ring detect (setting this function to **3**) you should be aware that it may take six seconds for the VOICE-TEL to detect that ringing has ceased. It is likely that an impatient person may hang-up before hearing the message.

F ⇨ 02 ⇨ P ⇨

0 = No tone detect (blind dial).

Picks up the line, waits five seconds then dials the number. The voice messages are then spoken for the play time (set in function ***F55***).

1 = Dial tone detect only.

Picks up the line and makes two attempts to detect dial tone. If detected, it dials the number and the voice messages are spoken for the play time (set in function ***F55***). If not detected tries the next number.

2 = Ring tone detect only.

Picks up line as 0 (no tone detect) above. If tones other than RING tone are detected the call is aborted and the next number is tried. Once ringing, the VOICE-TEL must detect silence before speaking message.

3 = Dial and Ring.

Detects both dial tone and ring as in 1 and 2 above.

Default: 1 (Dial tone only)

Note: Please see Telecom certification requirements over the page

Function F03 Cancel Options When Making a Call to the VOICE-TEL

This method can be used if the VOICE-TEL hangs up before you have time to cancel.

F ⇨ 03 ⇨ P ⇨ 0 = Caller cannot cancel Inputs.
The VOICE-TEL will play its voice messages and not stop making calls.

1 = Input cancelled by any number key.
Pressing * and # does **not** cancel the Input.

2 = Input cancelled by PIN.

Default: 1 (Cancel by any number key)

When an input is active, the dialler will attempt to make alarm notification calls. If the input allows a wait time between calls (functions ***F53***, ***F63***, ***F73*** and ***F83***), then the dialler will answer incoming calls (functions ***F04***, ***F05*** and ***F06***). The operator may then cancel the input depending on the setting of function ***F03***.

You will need to allow the VOICE-TEL to answer incoming calls so that you may cancel the alarm notification calls. Use function ***F53*** *Wait Time Between Calls*, to provide a window for the operator to make a call to the VOICE-TEL and ***F04*** or ***F05*** to set the options for incoming calls.

Function F04 Answer Incoming Calls When any Input Active

When an input is active the VOICE-TEL will attempt to make alarm notification calls. Setting a wait time (function ***F53***) gives you the opportunity to call into the VOICE-TEL and cancel the input. When an input is cancelled, the alarm condition still exists but the VOICE-TEL will stop making alarm notification calls.

The VOICE-TEL will only use this function and its setting when any input is active.
NOTE: Do not use one ring.

F ⇨ 04 ⇨ P ⇨ Answer all calls after …

2 to 9 = 2 to 9 rings,

\# = 12 rings when any Input is active.

(Displays an E. NB: This is not an error).

0 = Never answer any incoming calls when any Input is active.

Default: 4 (Answer after four rings when any Input active)

Function F05 Answer Incoming Calls When all Inputs are Cancelled

When an Input is cancelled, the alarm condition still exists but the VOICE-TEL will stop making alarm notification calls. If you wish to monitor the status of an alarm you can call into the VOICE-TEL periodically and listen to its message. Monitoring Input (alarm) status can be useful as certain alarm conditions may go away by themselves e.g. electrical power will be automatically restored after a power failure. In this instance the alarm condition is removed automatically and the VOICE-TEL will reset itself to the idle state.

The VOICE-TEL will only use this value when all active Inputs are cancelled but not removed.
NOTE: Do not use one ring.

F ⇨ 05 ⇨ P ⇨ Answer all calls after …

2 to 9 = 2 to 9 rings.

\# = 12 rings when all active Inputs are cancelled.

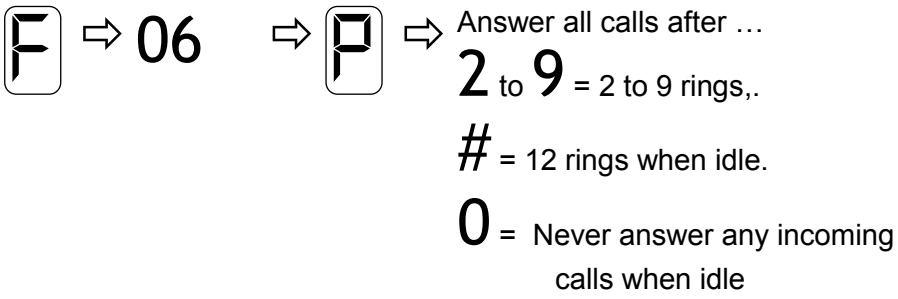
0 = Never answer any incoming calls when all active Inputs are cancelled.

Default: 4 (Answer call after four rings)

Function F06 Answer Incoming Calls When no Inputs Active (Idle)

You may wish to periodically dial into the VOICE-TEL to confirm that it is in idle state. This can be useful if you have previously received a notification call of an alarm which may cancel itself e.g. electrical power will be automatically restored after a power failure. Because the alarm condition is removed, the VOICE-TEL will reset itself to the idle state.

The VOICE-TEL will use this value only when there are no Inputs active and the VOICE-TEL is in the idle state.
NOTE: Do not use one ring.



Default: 4 (Answer calls after four rings)

> **NOTE:** *If using Outputs, or remote modem configuration, you will need to consider appropriate values for functions **F04, F05** and **F06**, to ensure the VOICE-TEL answers the phone appropriately.*

For installations that only use voice alarm notification calls where no user call back is required, functions ***F04, F05*** and ***F06*** can be set to zero ensuring the VOICE-TEL will never answer an incoming alarm call. This allows the phone line to be used for other day-to-day activities. This configuration requires that the operator acknowledges the alarm notification call on the phone they receive the call on.

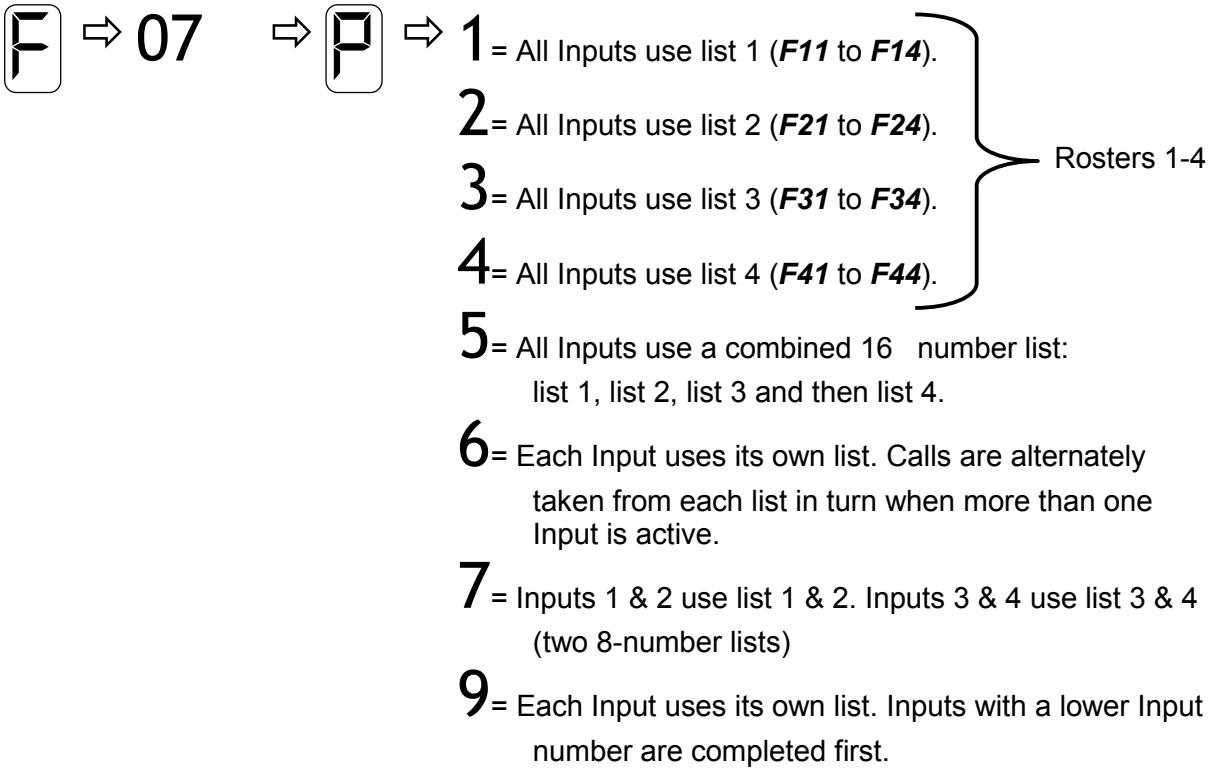
Function F07 Call List Priority & Rosters

The VOICE-TEL can be programmed with up to 16 different phone numbers. By default the programmed numbers are treated as a single list of 16 numbers. Using ***F07*** the list can be divided up in to blocks of 4, or 8 and treated differently depending on the alarm Input trigger number.

The list of telephone numbers can be configured in a number of ways including rosters.

A roster is used to assign a specific call list to be used to call only the people who will be on duty that day. You can use four separate lists of four phone numbers, and change which list is to be used either remotely or on site.

When the call is established and the VOICE-TEL is speaking the idle message, the current roster may be changed by pressing * followed by the roster number (1, 2, 3 or 4).



Default: 5 (One list of 16 numbers)

Function F08 Outputs

All 4 Inputs can be used as pull down (open collector type) Outputs. See *Glossary*, for an explanation of Inputs and Outputs. A physical Input terminal can be used **either** as an Input or Output but **not** both. Any combination of Inputs and Outputs can be configured. See section *Specifications* for max current and voltage ratings.

These Outputs are independent from any Input and are toggled by a key press once a call is established and a suitable PIN has been entered to gain access to 'Output Mode'. An operator's pre-recorded voice message provides feedback to the operator as to the status of the Output e.g. 'The heater is On' or 'The heater is Off'.

The numbers used to identify Outputs are the opposite of the Input numbers, i.e. Input 4 is Output 1. Please refer to the table below to see which Inputs correspond to which Outputs.

Input 1	Output 4
Input 2	Output 3
Input 3	Output 2
Input 4	Output 1

F ⇨ 08 ⇨ P ⇨ 0 = All triggers are Inputs (no Outputs).

1 = Output 1 and trigger 1, 2 & 3.

2 = Output 1 & 2 and trigger 1 & 2.

3 = Output 1, 2 & 3 and trigger 1.

4 = All triggers are used as Outputs.

Default: 0 (All Inputs)

Function F09 Trigger/Dial Time

This function determines the period to wait from physical trigger to alarm condition and dial out. It can be used as a trigger delay timer to allow for exit / entry time, or can be used with float switches to ensure the level has reached and is triggering the float switch correctly.

The **latch** capture, (function ***F52***) occurs either when triggered, or at the end of the trig/dial time. The value displayed is seconds by default. Minutes may be used (see function ***F96***)

F ⇨ 09 ⇨ P ⇨ 0 = Immediate dial (default).

1 = 1 sec/min 2 = 2 sec/min

3 = 3 sec/min 4 = 5 sec/min

5 = 10 sec/min 6 = 15 sec/min

7 = 20 sec/min 8 = 30 sec/min

9 = 60 sec/min # = 120 sec/min

Default: 0 (Start dialling when triggered)

Function F11 Programming Your Telephone Numbers

The VOICE-TEL can be programmed with up to 16 different phone numbers. Each of the four individual Inputs can have can have up to 4 phone numbers, associated with it, hence a total of 16 numbers can be programmed into the VOICE-TEL.

By default the programmed numbers are treated as a single list of 16 numbers. Using function ***F07*** *Call List Priority*, the list can be divided up and treated differently depending on the alarm Input trigger number. See function ***F07***

When the alarm Input is activated, the VOICE-TEL will start to dial through the call list, always starting with the first phone number on the call list, then the next and so on. When programming phone numbers they may be entered in any order. However, alarm notification calls will be made in the function sequence number in the table below while applying the rule selected in function ***F07*** *Call List Priority*.

Slot #	Function	
1	***F11***	Roster / Input 1
2	***F12***	
3	***F13***	
4	***F14***	
5	***F21***	Roster / Input 2
6	***F22***	
7	***F23***	
8	***F24***	
9	***F31***	Roster / Input 3
10	***F32***	
11	***F33***	
12	***F34***	
13	***F41***	Roster / Input 4
14	***F42***	
15	***F43***	
16	***F44***	

If you are using a PABX: Sometimes problems can be encountered when getting the VOICE-TEL to dial an outside line. Usually this occurs when the **outside line number** (e.g. 1 or 9) is dialled and the VOICE-TEL begins dialling the phone number **before** the PABX can produce the outside line dial tone. This results in the first few numbers being missed by the PABX. This problem can be overcome by putting more pauses between the outside line number and the phone number to be dialled. If you are using a PABX system, a two-second pause may be inserted using the * key. You cannot start or end with a pause.

F ⇨ 11 ⇨ P ⇨ Enter number followed by a # to save
e.g.
1*02432# (1 to get an outside line, *pause, 02432)
Then…

⇨ t ⇨ Enter the **call type** (see *Call Types* on page 32)
e.g.
1
The number is then displayed for checking.

Each subsequent phone number to be dialled is entered in the same manner: ***12*** is Input one, phone number two, ***21*** is Input 2, phone number one or phone number five, if ***F07*** is on default setting of 5, providing one call list of 16 numbers (see table previous page).

The telephone numbers for Inputs two, three and four can be entered by repeating the sequence starting from the F prompt using ***21***-***24*** (Input two), ***31***-***34*** (Input three) and ***41***-***44*** (Input four). For example ***23*** would refer to Input 2, phone number three, or phone number 7 if on default ***F07*** setting.

Clearing a Telephone Number:
Enter the function (***F11***-***14***, ***F21***-***24***, ***F31***-***34*** or ***F41***-***F44***) and enter the # key without a number. An E will be displayed to show it is empty. To clear the complete list for one Input use #1 (call list for Input 1), #2 (call list for Input 2) #3 (call list for Input 3) or #4 (call list for Input 4).

NOTE: *If the memory jumper (J702) is in the* ***Protect*** *position, any new parameters you enter, such as phone numbers, will not be stored. This error can be easily detected by watching the numbers being played back for verification. The character display will show either an* E***,*** *for empty, or the previous numbers will be displayed rather than the newly entered ones. See* Jumper Settings *in the* Installation *section of the manual for information on jumper settings.*

Call Types

The 'call type' sets an option for how the alarm notification call associated with this number will be cancelled/acknowledged.

0	Voice call	Cancel not allowed
1	Voice call	Cancel by any number key
2	Voice call	Cancel by PIN

Points To Note:

- You select a call type when you program each individual phone number. This provides the flexibility for some phone numbers being set to 'cancel by any key' and some being set to 'cancel by PIN' e.g. if the VOICE-TEL is going to make an alarm notification call which could be received by the wrong person (such as a baby sitter), you might like to set this number to cancel by PIN to ensure any alarms do not get accidentally cancelled by the wrong person.
- Cancel methods shown here apply only to outgoing alarm notification calls made by the VOICE-TEL to a human operator **not** incoming calls. See ***F03*** *Cancel Option When Making an Incoming Call* for this.

Function F51 Setting Inputs to Trigger or Report

An Input may be configured as triggering or reporting. A triggering input triggers alarm notification calls. A reporting input will not cause the VOICE-TEL to make any calls. A reporting input will speak its message either when the VOICE-TEL has already been triggered by another Input and is making an alarm notification call, or when you call into the unit to check its status (active, cancelled or idle).

Set Input **one** as follows:

F ⇨ 51 ⇨ P ⇨ 0 = Triggering input. This input dials.

1 = Reporting input.

When another input is dialling this input reports. This input will not cause the VOICE-TEL to make any calls.

Default: 0 (Triggering)

By default all four inputs are set to triggering. Each of the four inputs must be programmed separately to change them from triggering to reporting, as follows:

- Use ***F51*** for Input **1**, as in the example above.
- Use ***F61*** for Input **2**.
- Use ***F71*** for Input **3**.
- Use ***F81*** for Input **4**.

Function F52 Physical Input Trigger Configuration

You can configure the input to trigger on **normally open** (N.O.) or **normally closed** (N.C.) contacts. The pull-ups may be changed to pull-downs by moving the appropriate input channel jumper (see *Jumper Settings* in the *Installation* section). Any unused inputs must be treated as normally open.

The VOICE-TEL can **latch** an input so that, even though the physical trigger is removed or gone back to its normal state, the VOICE-TEL continues to make alarm notification calls. The input latches after the latch time as defined in function ***F09.*** Function ***F96*** determines how the time in function ***F09*** is applied and in what units (seconds or minutes).

By default the input triggers are set up to be **non-latching**. This means that when the input trigger is removed, the VOICE-TEL will stop making alarm notification calls.

By default the input is set up for **normally open***.* Connecting the input terminal to negative supply will trigger the VOICE-TEL.

Alternatively the input can be set up for **normally closed***,* input terminal connected to negative supply. Opening the connection will trigger the VOICE-TEL.

The trigger type for input **one** is set as follows:

F ⇨ 52 ⇨ P ⇨ 0 = Normally open and input will not latch.
1 = Normally open and input will latch.
2 = Normally closed and input will not latch.
3 = Normally closed and input will latch.

Default: 0 (Normally open)

By default all four inputs are set to Normally open and the inputs will not latch. Each of the four inputs must be programmed separately to change them from N.O. non-latching as follows:

- Use ***F52*** for Input **1**, as in the example above.
- Use ***F62*** for Input **2**.
- Use ***F72*** for Input **3**.
- Use ***F82*** for Input **4**.

Function F53 Wait Time Between Calls

This function determines the period to wait between one call and the next. The wait time allows an opportunity for an operator to call into the VOICE-TEL to cancel the input or listen to the current status message. Each individual input has its own wait time.

Set the wait time for input **one** as follows:

F ⇨ 53 ⇨ P ⇨ Wait time between calls is …
1 to 9 = 1 to 9 minutes.

= 12 minutes.

0 = No wait time. Immediately call next number.

Default: 1 (One minute)

Each of the four inputs must be programmed separately as follows:

- Use ***F53*** for Input **1**, as in the example above.
- Use ***F63*** for Input **2**.
- Use ***F73*** for Input **3**.
- Use ***F83*** for Input **4**.

Function F55 Message Play Time

The Message Play Time is the amount of time, in minutes, that the VOICE-TEL is allowed to be off hook to dial the number, speak messages and accept a cancellation by any key or PIN. The VOICE-TEL will speak the message for the playtime before the call is terminated. The play time starts from when the VOICE-TEL starts to dial. The messages are spoken repeatedly as follows:

When any Input/s active:
Site message
Active Input messages
Cancel message
Input messages cancelled but not cleared

When all Inputs are clear:
Site message
Idle message twice
Hang-up call

When all Inputs are cancelled:
Site message
Cancel message
Input messages cancelled but not cleared
Hang-up call

Normally the voice message will start speaking as soon as the VOICE-TEL has finished dialling the number. This means that you may miss hearing the first part of the voice message. With ring detection, the voice message starts after the call is answered.

The playtime for input **one** is set as follows:

F ⇨ 55 ⇨ P ⇨ Play time is …

1 to 9 = 1 to 9 minutes

\# = 12 minutes

0 = 30 sec

Default: 1 (One minute)

Each of the four inputs must be programmed separately as follows:

- Use ***F55*** for Input **1**, as in the example above.
- Use ***F65*** for Input **2**.
- Use ***F75*** for Input **3**.
- Use ***F85*** for Input **4**.

Function F56 Call Counter

As successful telephone calls are made they are counted. The input alarm condition is automatically self cancelled when the number of calls made exceeds the value set in this function. If a call was not successful (e.g. the telephone was BUSY) the call is not counted.

The call counter for input **one** is set as follows:

F ⇨ 56 ⇨ P ⇨ Input cancelled after…

1 to 9 = 1 to 9 calls.

= 12 calls. (Displays as E NB: This is not an error).

0 = Unlimited number of calls are made and VOICE-TEL input is not self cancelled.

Default: 0 (Unlimited number of calls made)

Each of the four inputs must be programmed separately as follows:

- Use ***F56*** for Input **1**, as in the example above.
- Use ***F66*** for Input **2**.
- Use ***F76*** for Input **3**.
- Use ***F86*** for Input **4**.

MISCELLANEOUS FUNCTIONS

Function F94 Special Mode Selection

Some processes of the VOICE-TEL can be modified. These system flags are **not** to be changed without the consent of the dealer.

F ⇨ 94 ⇨ P ⇨ 0 = Normal operation.

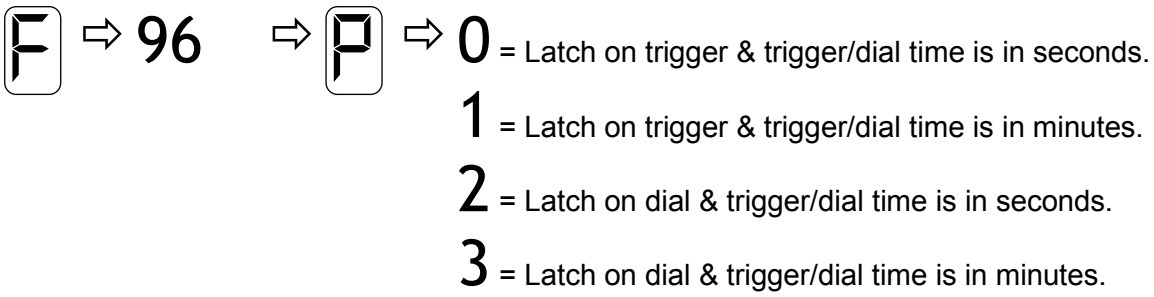
1 = No cancel message when cancelled (**NOC**).

Default: 0 (Normal operation)

Function F96 Trigger/dial Mode

When an alarm input is present the VOICE-TEL will trigger. The VOICE-TEL will not begin calling until the trigger/dial time has passed (see function ***F09***). Function ***F96*** is used to set the units used (seconds or minutes) by the trigger/dial time in ***F09***.

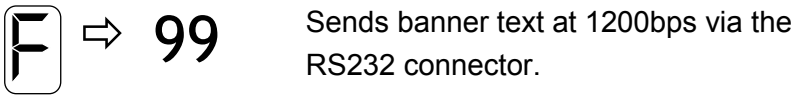
When the input is **latching** the input can be latched either at the trigger time or at the dial time (see function ***F52***). **Latch on trigger** means once the VOICE-TEL has been triggered it will continue until it is acknowledged. If the input is set to **latch on dial** and the trigger is removed before the dial has commenced the VOICE-TEL will cancel and stop making calls. With function ***F52*** set as non-latching, the latch on trigger and latch on dial have no effect. The trigger dial time is always relevant.



Default: 0 (Latch on trigger & trigger/dial time is in seconds)

Function F99 Send Model Information via RS232

This function makes the VOICE-TEL send an identification string via the RS232 connector. By using this function from the keypad you can send text to a PC. This is a good way to check if the PC is correctly connected and communicating. You need to be running Hyperterm or a similar terminal emulation program. The text is sent as 1200bps, ASCII 8-bit, no parity, one stop bit.



ADVANCED FEATURES

Modem Communications

The VOICE-TEL has a 1200-baud modem, which can be used to communicate with external devices e.g. a datalogger or PLC plugged into the RS232 connector. A call to the VOICE-TEL can be established with a PC using HyperTerminal, a Windows application shipped with all versions of Windows. When the call is made using **ATDT<phone number>,,,,##** the VOICE-TEL will go into **through mode** allowing direct RS232 communications between the PC and the external device connected to the VOICE-TEL.

Programming Using RS232

Using HyperTerminal, a Windows application shipped with all versions of Windows, you can configure the VOICE-TEL via its RS232 connector if required.

For programming through the RS232 interface, use the instructions as described in this manual but replace some of the symbols as follows:

For  you will see	**>**
For # use	# key or enter key
For * use	* key or , key

An **=** sign will appear before displaying the stored EEPROM contents.