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## FEATURES

- \* Alpha-numeric Keypad
- \* Large 16 digit LCD Display
- \* 10 one-touch repertory dialling memories
- \* 5 one-touch/two-touch repertory dialling memories
- \* Last number redialling
- \* Direct Redial feature allows the re-try of a busy number
- \* On Hook dialling operation (E2) or Handsfree operation (E3) with speaker volume control
- \* Mute Function
- \* Back Space Editing for stored telephone number
- \* Storable Time-Break Recall or Manual Earth Recall
- \* User Selectable four PBX Time-Break Recall Timings
- \* Manual and storable access pause
- \* Automatic insertion of pause for PBX trunk access
- \* Call progress monitoring (On-Hook Dialling) with automatic 60s time-out with off-line warning beep for automatic termination of unanswered call
- \* Storable On Hook, Off Hook & On Hook Dial Function
- \* Ringer indicator & Ringer Hi/Lo/Off volume control
- \* Ringer pitch control
- \* User programmable 12/24 hour real-time clock display
- \* " Timer " function provided for call duration indication
- \* Manual Earth Recall
- \* Special pre-programming service available to provide pre-determined memory contents. Impossible to accidentally erase.
- \* Preview dialling option.



## IMPORTANT NOTES

This Interquartz telephone has been manufactured to very high standards and is very easy to use. Please read this manual carefully to find out how to use the features.

### ***Conditions of Use***

This Interquartz telephone is approved for use on private branch exchange extensions, business or private direct exchange lines. The Austel approval label is located on the telephone.

The Austel permit no. for these products are A93/34M/0470 (E2)  
A93/30C/0471 (E3)

The REN number of these telephones is 1.0.

If you wish to connect any other equipment to the line, add the REN numbers of each piece together and ensure that the total does not exceed 3. If too many phones are connected to the line, the circuit may be overloaded and your telephone may not ring.  
Not all telephone devices have the same REN.

### ***Emergency Calls***

"000" calls can be made on this telephone, for the purpose of making calls to the emergency service. An access code may also be required before dialling the emergency number, if the phone is connected to a PABX.

## SETTING UP

### UNPACKING

The carton contains the following :

- \* telephone body and handpiece,
- \* coiled cord and line cord,
- \* operating manual,
- \* batteries ( 2 for E2, 4 for E3 ).

### INSTALLATION

This telephone is designed to plug into the telephone socket using the line cord provided. Other types of line cords and plugs are available on request. Please follow the steps below.

1. connect the handset cord and line cord to the appropriate Modular Jacks (see Fig. 5).
2. fit the batteries to the BATTERY COMPARTMENT. Locate the battery compartment on the base of the telephone, marked "WARNING: unplug the connection to the network before opening this cover". You will need to insert a small pointed tool in the hole next to the compartment. Press down and slide the cover open. Insert the AA batteries, making sure that they are the correct way round. Expose and press the RESET button (See Fig. 8)
3. set the PULSE/TONE, RINGER VOLUME, SPEAKER VOLUME to their correct settings to suit your application,
4. set the hidden switches located under the lower memory index card and in the switch compartment on the phone's underside to suit your application (consult INTERQUARTZ for the proper settings), see later in this section for details of the settings available.
5. connect the LINE CORD to your phone system's socket or outlet,
6. if your telephone system requires a pause after the first digit while an outside line is selected for you, use the following sequence so that the telephone will remember to insert the pause for you;
  - a. press STORE,
  - b. press the digit you normally dial for the outside line (usually 0),
  - c. press STORE again,
  - d. press \* (star)
    - a "beep" tells you the number will be stored,
    - a "boop" tells you the number won't be stored - there was an error in your procedure, please try again,

7. if you decide to cancel the pause function described in item 6 above, repeat step 6 but skip step b.

### PROGRAMMING THE CLOCK

Example: 5:09

1. press STORE,
2. enter the hour, eg. 5,
3. enter the minutes (must be two digits), eg. 09,
4. if AM, enter 0,
5. if PM, enter 1,
6. if you prefer 24-hour mode, enter 2,
7. press CLOCK / TIMER,
  - a "beep" tells you the new time will be displayed,
  - a "boop" tells you the old time will be displayed - there was an error in your procedure, please try again.

### LINE CONNECTION

This telephone is supplied with a "Telecom-style " plug Type 603 for connection to the network via a complementary Type 610 socket (not supplied ). Pins 2 and 6 comprise the speech and dialling pair, with pin 1 being reserved for earth recall where required. The type 603 plug can be removed to utilise the RJ45 plug also provided. Other types of plugs and cords are available on request.

## TECHNICAL ADJUSTMENTS - FOR CORRECT OPERATION

**CAUTION** : Please exercise care when adjusting all selectors described, as they and their surrounding electronic components may be damaged by rough treatment. It is also recommended that all adjustments be made with the telephone disconnected from the line.

### PBX RECALL BUTTON SETTINGS

To achieve compatibility with all systems, the PBX RECALL button may be selected to execute either Earth Recall or Timed Break ( Hook Flash ) by switches on the telephone's underside.

1. Determine the setting required for your system.
2. Set HF/E switch as required.
3. If HF is selected set the HF TIME switch to suit your system (if in doubt, contact your systems supplier).

The telephone, unless pre-set by your dealer, will be factory-set on HF and 100ms.

FLASH TIMING SELECTORS - SWITCH B (SEE TABLE 1)

FLASH TIMING SELECTORS - SWITCH A (SEE TABLE 1)

SELECTS EEPROM MODE IF REQUIRED

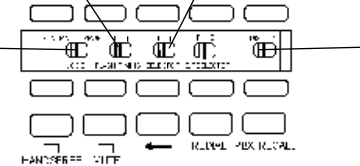


TABLE 1 TIMED BREAK OPTIONS	SWITCH A	SWITCH B
100MS	LEFT	LEFT
200MS	RIGHT	LEFT
350MS	LEFT	RIGHT
700MS	RIGHT	RIGHT

TABLE 2 SWITCHES	DESCRIPTION	LEFT	RIGHT
GENERAL/EEPROM	SELECTS WHETHER THE EEPROM CONTROLS THE TOP 5 MEMORY BUTTONS OR NOT	GENERAL	EEPROM
TIMING SWITCH A	TIMED BREAK TIMING SELECTION	SEE TABLE 1	SEE TABLE 1
TIMING SWITCH B	TIMED BREAK TIMING SELECTION	SEE TABLE 1	SEE TABLE 1
F/E SELECT	SELECTS FLASH OR EARTH RECALL MODE OF PBX RECALL	FLASH	EARTH
LCD PROMPT	ENABLES/DISABLES THE LCD PROMPTS-SEE TOP OF THIS PAGE FOR LOCATION OF PROMPTS	DISABLE	ENABLE

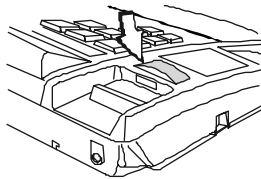
## LOCATION

The telephone should be placed on a desk, table or shelf where it is not likely to be pushed off. If the unit is to be wall-mounted, it should be seated securely on the WALL MOUNTING BRACKET. Avoid excessive heat, damp, dust, direct sunlight, vibration, and other appliances or devices which may transmit or emit electrical or electromagnetic radio frequency noise or signals (e.g. computers, welders, pagers).

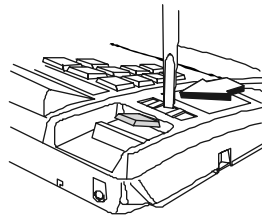
## WALL MOUNTING

1. Fit the optional WALL MOUNT BRACKET (optional, not supplied) to the wall and attach the WALL MOUNT BRACKET to the underside of telephone,
2. To enable the HANDSET to be supported in the cradle, follow the procedure shown in Figure 2 to reverse the HANDSET RETAINER.

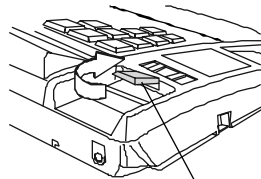
1. Release  
Phone number Plate



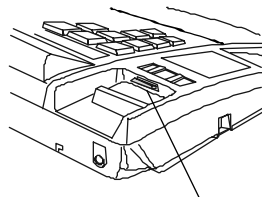
2. Insert Screw Driver into  
slot and then pry to  
release HANDSET RETAINER



3. Insert the HANDSET  
RETAINER for wall  
mount



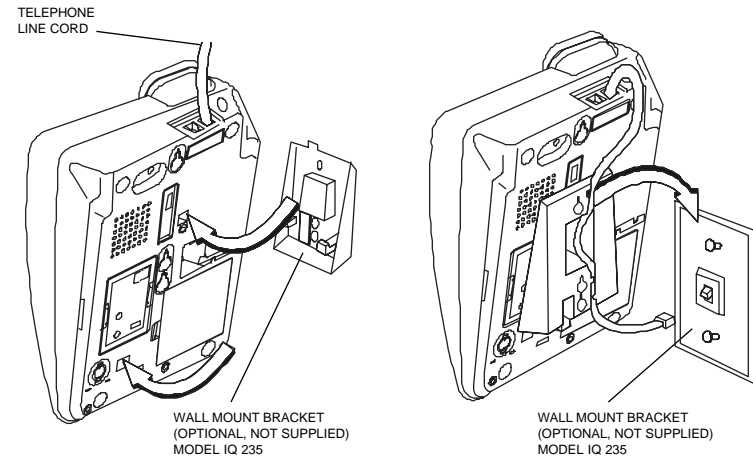
4. HANDSET RETAINER



HANDSET  
RETAINER

FIGURE 2

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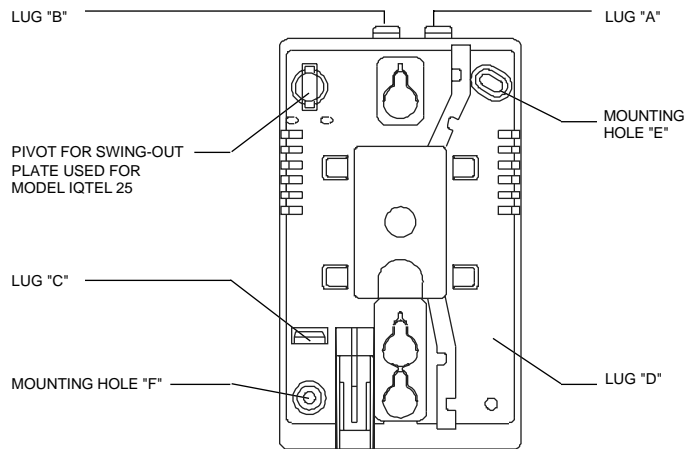
## WALL-MOUNT BRACKET (Optional not included with phone)

**NOTE** : The WALL MOUNT BRACKET and MODULAR WALL JACK illustrated are available from your authorised Interquartz dealer.

FIGURE 3

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## IQ 235 WALL-MOUNT BRACKET (OPTIONAL NOT INCLUDED WITH PHONE)



Please note:

1. The wall bracket may be secured onto the wall by using mounting holes "E" and "F"
2. Lugs to break off before wall mounting the phone.

TELEPHONE MODELS		BREAK OFF LUGS
IQ 90 IQ 250 IQ 350 IQ 450 IQ 550 IQ E2 IQ E3 IQTEL 80 IQTEL 300	IQTEL 500 IQTEL E1 IQTEL E2 IQTEL E3 IQTEL ET	"B" and "D"
IQTEL 25		"A" and "C"
IQ 300 9853 XT 9835 MKII 9836 9837		"A" ONLY

FIGURE 4

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## GENERAL CONTROLS AND INDICATORS

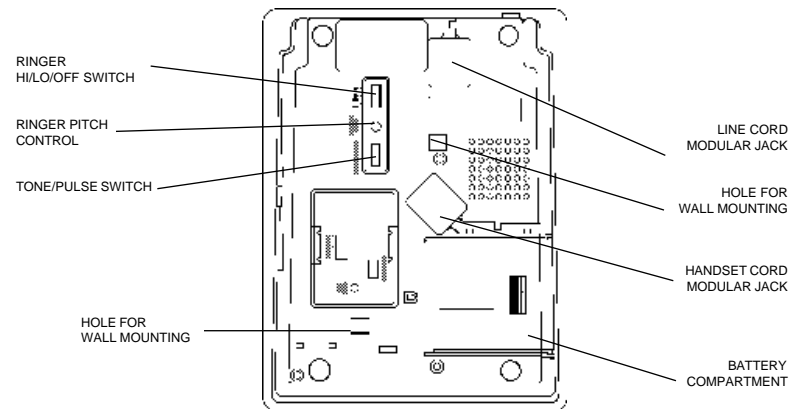
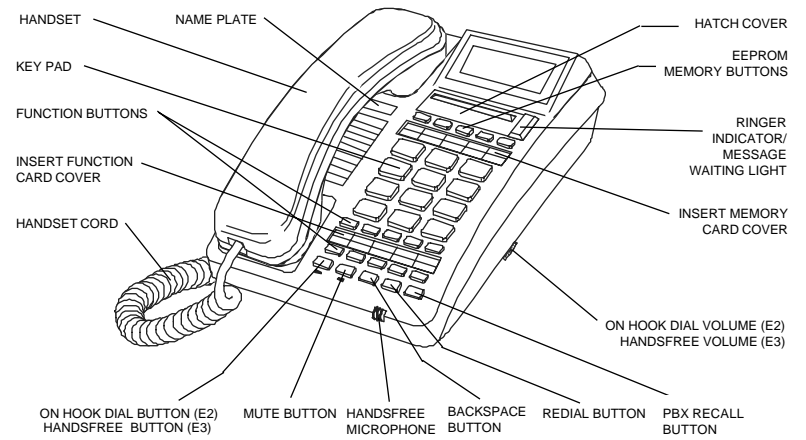


FIGURE 5

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### HANDSFREE BUTTON ( E3 only )

Press to switch the handsfree mode on or off. The red indicator below the button glows when the mode is on.

This feature is storable in memory.

### ON HOOK DIAL button ( E2 only )

Used to monitor an outgoing call. In this mode you may dial and listen to the call's progress without lifting the handset. Lift the handset to speak.

### MUTE BUTTON

When pressed, it cuts off transmission from the handset or handsfree (E3 only) microphones to allow user privacy. The red light indicates when the mute condition is active. Press MUTE again to release the mute condition.

### STORE BUTTON

Used for storing numbers in the memories.

### REDIAL BUTTON

Press to redial the last number previously dialed, which may be up to 32 digits long. When pressed while still on-line, the telephone will clear that call and retry the number. It can be used in handset, handsfree, and on hook dial modes. Dialling more than 32 digits during one call cause erasure of the entire number from the REDIAL memory.

#### SIMPLIFIED EXAMPLE 1: TO REDIAL LAST NUMBER

1. lift HANDSET
2. press REDIAL

#### SIMPLIFIED EXAMPLE 2: DIRECT REDIAL

1. lift HANDSET or press HANDSFREE,
2. dial a number, but find it engaged,
3. press REDIAL; the telephone will automatically clear and re-connect the line and re-dial the last number.



### CLOCK/TIMER AND START/STOP BUTTONS

To program the clock, see the "SETTING UP" section,  
To start the timer press CLOCK/TIMER and press START/STOP, to stop it press START/STOP, to restart it press START/STOP again.

### RINGER INDICATOR / MESSAGE WAITING LIGHT

Flashes when the telephone rings with an incoming call. It may also function as a "Message Waiting" indicator ( optional-consult your Interquartz dealer).

### RINGER VOLUME SWITCH

Located on the base of the unit ( see Figure 5 ). Move switch to select no sound ( OFF ), muted sound ( LOW ) or full sound ( HIGH ) for ringing on incoming call.

### RINGER PITCH CONTROL

Located on the base of the unit ( see Figure 5 ). Rotating this knob alters the pitch of the ringing signal. Useful where there is more than one phone in a room.

### TONE / PULSE SWITCH

Located on the base of the unit ( see Figure 5 ). Used to select the correct dialling mode, either TONE or PULSE.

### HANG-UP FUNCTION

If the Cradle Switch is tapped or the On Hook Dial or Handsfree modes terminated, the line will be released automatically. After approximately 2 second, the dial tone will be heard and dialling may be commenced after a brief pause. This function prevents the false transmission of a Hook Flash or Timed Break signal from the Cradle Switch.

**Caution: Tapping the Cradle Switch (as recommended in some PABX extension user guides) will not create a Hook Flash or Timed Break signal; it will only hang up the call.**

### ALPHA-NUMERIC KEYPAD

A standard 4 x 3 configuration for manual dialling and for numeric entries during MEMORY programming. The alphabetic characters are provided to complement enhanced system features which may be available in your system.



## SPECIAL FUNCTIONS

### PBX RECALL BUTTON

For use with PABX systems. When the PBX RECALL button is pressed, special PABX facilities such as call-hold, call-transfer, available as services in your PABX, may be invoked. The **PBX RECALL** command may also be stored in a memory if required (NOT EARTH RECALL MODE).

To achieve compatibility with all systems, Earth Recall and Hook Flash (also known as Timed Break) modes of the PBX RECALL signal can be selected. See the section entitled "SETTING UP" for further details.

### MUTE BUTTON

When pressed, it cuts off transmission from the handset or handsfree (E3 only) microphones to allow users privacy. The red light indicates when the mute condition is active. Press MUTE again to release the mute condition.

### STONE/PULSE SWITCH

Used to select the dialling mode to suit your telephone system, either TONE (DTMF) or PULSE (DECADIC). Where possible, use TONE mode to speed-up dialling, or to gain access to answering machines or voice mail systems.

### MEMORIES

The five EEPROM memory buttons near the display have five "ONE TOUCH" memories and five "TWO TOUCH" memories. The TWO TOUCH memories are accessed by pressing the same memory button twice in quick succession. There are ten more memory buttons in two rows below the zero button which each contain a ONE TOUCH memory. Each memory can contain 24 digits. Please see the "EEPROM MEMORY FEATURE" section for details about special programming for the EEPROM Memories.

### SAVING THE LAST NUMBER

To keep a previously-dialled number for later use, press store and a free MEMORY button respectively. The number will then be stored in that memory, providing it does not exceed the 24 digit capacity of the memory.

### SPEED - DIALLING

When storing a number, you can add a " speed -dialling" command to the start of the number. This makes dialling faster and easier.

- \* The "H" (upper-case) command, entered by pressing the HANDSFREE button (ON HOOK DIAL FOR E2) in step 2 of the following storage procedure, activates the HANDSFREE (ON HOOK DIAL FOR E2) function during dialling so that you can make a handsfree or on hook dial call just by pressing the memory button once it is programmed.
- \* The "h" (lower-case) command, entered by pressing the ON/OFF HOOK button in step 2 of the following storage procedure, activates the MONITOR SPEAKER (both E2 and E3) during dialling so that you can start a call just by pressing the memory button after it is programmed. To speak, remember to press HANDSFREE (if you have the E3) or lift the HANDSET. If you don't, the phone will hang-up automatically in 60 seconds after a warning tone. To shorten the hang-up time to 5 seconds after the number is dialled, add another "h" after the number in the storage procedure. This can be used for PABX, Easycall, or Customnet facility codes.

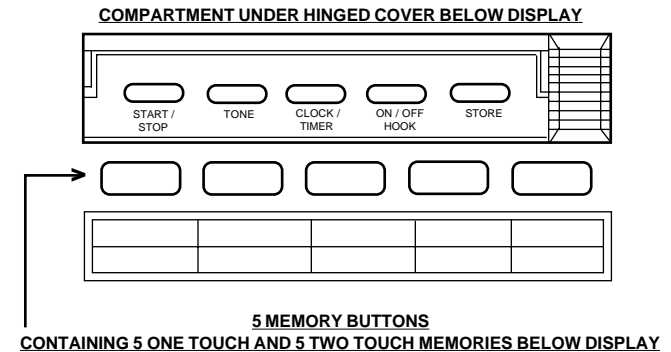
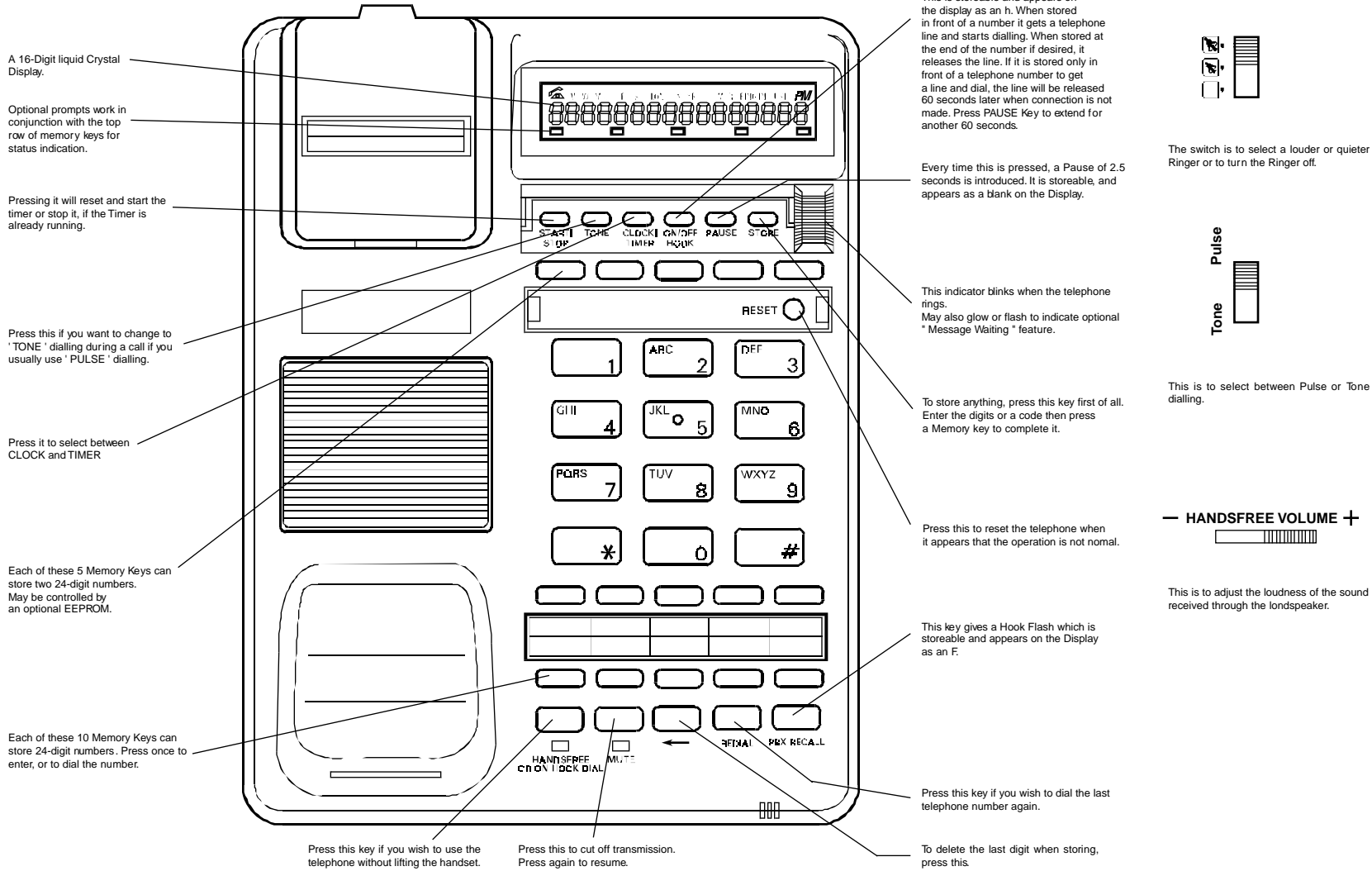
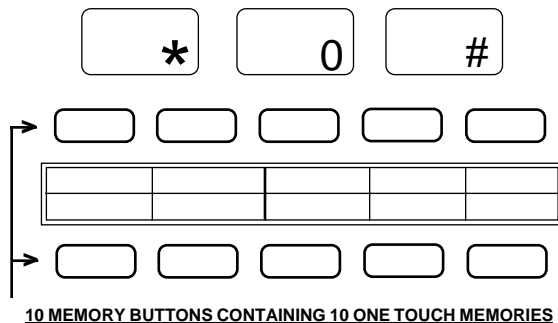


FIGURE 6 : EEPROM MEMORY BUTTONS

# E3 / E2 QUICK REFERENCE GUIDE



**FIGURE 8**



**FIGURE 7**

**Storage Procedure**

1. press STORE,
2. if you want speed-dialling, press HANDSFREE (ON HOOK DIAL FOR E2) which becomes "H" on the display, or ON/OFF HOOK (becomes "h" on the display),
3. enter the desired digits to be stored (and any of the following 1 - 9, 0, \*, #, PAUSE, TONE, PBX RECALL),
4. press the desired MEMORY button either once for a "ONE TOUCH" memory (any memory button), or twice for a "TWO TOUCH" memory (only the top row near the display).  
*a "beep" tells you the new number will be stored,  
a "boop" tells you the number won't be stored - there was an error in your procedure, please try again.*

**Preservation of memory contents**

Using Alkaline batteries will preserve the contents of the memories for more than 12 months. On request, a permanent program chip may have been installed in your telephone (called an EEPROM) by INTERQUARTZ. This program can control only the five memory buttons near the display. Using the EEPROM, these memories cannot be erased either accidentally or by flat batteries (other functions may be affected by flat batteries, however). See the "EEPROM MEMORY FEATURE" in this manual.

**CASCADABLE MEMORIES**

The contents of more than one MEMORY can be 'cascaded' or added together during a call to create a longer dialling sequence by pressing the required MEMORY buttons in the desired order. This feature can be used to store unusually-long numbers which may exceed the digit capacity of any individual MEMORY.

**TONE BUTTON**

Used when the telephone is normally set to PULSE on the TONE / PULSE switch but tone dialling is needed at some point in the call. Any digits dialled after the TONE command will be sent in tone format. The TONE command can be stored in a memory.

**BACKSPACE BUTTON ( ← )**

To remove the last digit during the storage procedure, press this button once.

**PAUSE BUTTON**

Used for both manual and memory dialling. Pressing the PAUSE button will cause the telephone to delay all following dialling functions for 2.5 seconds after which further dialling may commence. To prematurely terminate the pause period, press the PAUSE button as a 'hurry-up' to commence follow-on dialling. The pause command may be needed if your phone is connected to some types of PABX or to any network where a pause is required, e.g. between internal and external dial tones. Contact your system supplier or authorised Interquartz dealer if assistance is required. If required, multiple PAUSE entries may be used to extend the total PAUSE duration to suit your telephone network.

**For MEMORY Usage**

**Example :** To store the telephone number 457 5000 in a one-touch memory location, on a telephone connected to a system whose access code is 0 followed by a 4 second pause.

- Storage procedure:**
1. press STORE,
  2. dial 0 on ALPHA -NUMERIC KEYPAD,
  3. press PAUSE,
  4. dial 457 5000 on ALPHA-NUMERIC KEYPAD,
  5. press MEMORY button once.  
*a "beep" tells you the new number will be stored.  
a "boop" tells you the number won't be stored, there was an error in your procedure, please try again.*

- Dialling procedure :**
1. lift HANDSET or press HANDSFREE,
  2. press MEMORY once, and listen for confidence BEEP,
  3. telephone dials 0, waits for 2.5 seconds, then dials 457 5000.

**For Manual usage**

**EXAMPLE :** same as above

1. lift HANDSET,
2. dial 0 on ALPHA-NUMERIC KEYPAD,
3. press PAUSE,
4. dial 457 5000 on ALPHA-NUMERIC KEYPAD,
5. telephone delays actual dailling of 457 5000 for 2.5 seconds, then resumes automatically.

**AUTOMATIC PAUSE INSERTION**

In the event that your telephone network requires a PAUSE after dialling an access code (such as trunk line access via a PABX ), the telephone can be programmed to automatically insert one pause or two pauses after that access code is dialled to commence an out-going call.

**EXAMPLE :** Automatic pause is required for a system using trunk access via digit 0.

1. press STORE
2. press 0 (trunk access digit),
3. press STORE,
4. press \* , and listen for confidence **BEEP**.

During either manual or memory dialling of any number commencing with the digit 0, the telephone will automatically insert a pause (i.e. a waiting period) before proceeding with further dialling. Having programmed this feature both manual and memory dialling procedures are simplified and, when programming MEMORIES, it is no longer necessary to include a PAUSE command in the number sequence.

If your telephone system requires a PAUSE time longer than 2.5 seconds, press PAUSE after step 2 above and before step 3 to produce a 5 seconds automatically-inserted trunk access PAUSE, or press PAUSE twice for a 7.5 seconds PAUSE. The AUTOMATIC PAUSE INSERTION may be programmed to respond to an access code of one, two, or three digits long (insert in step 2 above).

**To cancel the automatic pause feature :**

1. press STORE twice,
2. press \* , and listen for confidence **BEEP**.

**EEPROM MEMORY FEATURE**

An E2 or E3 can be fitted on request with an Electrically-Eraseable Programmable Read-Only Memory (EEPROM) chip. The EEPROM provides non-eraseable (except by Interquartz) pre-set codes for the 10 Memores accessible from the five EEPROM Memory buttons located near the display (five ONE TOUCH and five TWO TOUCH memories).

Long and complex phone numbers and system or network facility codes can be installed to eliminate the need to consult confusing system user guides. Custom-programming can enhance and simplify phone and network operation, thereby reducing the demands on staff training. The display can provide visual feedback to indicate the status of system parameters which are under the control of the EEPROM Memories.

If the chip is fitted the EEPROM Memory buttons cannot be manually programmed.

**Programming Options**

The Memories can contain all digit 1 to 9 and 0, plus\*, # and ABCD DTMF tones. In addition, specialised characters are available to control the telephone's operatiion. They are described in the following documentation. Please consult the glossary at the back of this manual for explanation of any confusing terms.

CHARACTER	PURPOSE
Letter O	<ol style="list-style-type: none"> <li>1) phone dials immediately after pressing a Memory button in On Hook Dial mode (O must be first in the memory sequence).</li> <li>2) phone hangs up after 60 seconds if undisturbed(i.e.don't lift handset or touch On Hook Dial (E2)/Handsfree (E3) button)</li> <li>3) shows on display as letter "h" (lower case).</li> <li>4) if also placed at the end of the character sequence for a memory, will cause hang-up 5 seconds after the last digit is dialled.</li> <li>5) equivalent to the use of the ON/OFF HOOK button when storing Memories manually.</li> </ol>

- Letter H
  - 1) E3 dials immediately after pressing a memory button in Handsfree mode and will not hang-up automatically ( it must be first in Memory sequence).
  - 2) E2 dials immediately after pressing a memroy button in On Hook Dial mode. Lift the handset to speak (it must be first in Memory sequence).
  - 3) shows on display as letter "H" (upper case).
  - 4) equivalent to the use of the Handsfree (E3)/On Hook Dial (E2) button when storing Memories manually.
  
- Letter P
  - 1) pauses for 2.5 seconds or any pause time set in the optional PAUSE TIME setting of the EEPROM, explained below.
  - 2) shows on display as a space.
  - 3) equivalent to the use of the PAUSE button when storing Memories manually
  
- Letter F
  - 1) PBX Recall signal (also known as "timed break"or"Hookflash") for holding and transferring calls.
  - 2) shows on display as letter "F"(upper case).
  - 3) equvalent to the use of the PBX RECALL button when storing Memories manually.
  
- Letter T
  - 1) if TONE/PULSE switch in Fig.5 is set to PULSE, the dialling mode can be changed, for the duration of the call, to TONE.
  - 2) shows on display as letter "t"(lower case).
  - 3) equivalent to the use of the TONE button when storing Memories manually.
  
- Dash -
  - 1) introduces a 0.1 second pause during dialling.
  - 2) shows on display as a dash (ie."-").
  - 3) equivalent to the use of the BACKSPACE button (held bown for one second) when storing Memories manually.

### **Additional Program Elements**

As well as the characters available, three phone parameters can be set in the EEPROM :

- PAUSE TIME :                      Affects the actual length of the PAUSE function used both manually and stored in Memories. It should be used if the system requires it.Available range is 900 to 8000 milliseconds.
  
- PBX RECALL TIME:              Affects the actual length of the PBX RECALL function used both manually and stored in Memories. It should be set to suit the system. Table 3 may help.
  
- TRUNK LINE DIGIT:              Specifies the trunk line digit associated with the AUTOMATIC PAUSE INSERTION feature decribed in the SPECIAL FUNCTIONS section in this manual.

### **Digit Capaci y**

Each memory can contain 16 digits, but note that the letter P,O,F, and T use 2 space each.

### **Example :**

To dial a number at the press of a Memory button in Handsfree mode, and insert dashes to break up the area code and prefix.

EXAMPLE NUMBER	= 034575000
MEMORY CONTENTS WILL BE	= H03-457-5000
DISPLAY WILL SHOW	= 03-457-5000





### **REDIAL BUTTON**

Press to redial the last number previously dialed, which may be up to 32 digits long. When pressed while still on-line, the telephone will clear that call and retry the number. It can be used in handset, handsfree, and on hook dial modes.

### **USING A MEMORY**

See "Memories" in the "SPECIAL FUNCTIONS" section to store a number in memory, and to see an explanation of the "H" and "h" function characters.

1. press the desired memory button,  
a 'beep' tells you the number will be displayed,  
a 'boop' tells you that the memory is empty - do not proceed as there is no number in the memory redial.
2. if " H " appears before the number on the display, it will dial immediately, and you can have a HANDSFREE ( E3 ONLY ) conversation when your call is answered,  
if " h " appears on the display before the number it will dial immediately, if the number is not preceded by " h " or " H " on the display, you can either press HANDSFREE or lift ( ON HOOK DIAL FOR E2 ) or lift the HANDSET to start dialling,
3. lift the HANDSET or press HANDSFREE ( E3 ONLY ) if you haven't already done so to commence your conversation.
4. ...and when your conversation is finished, press HANDSFREE again to terminate the call, or replace the HANDSET to terminate the call.



## **OPERATION - INCOMING CALL**

### **HANDSET OPERATION**

When the telephone rings,

1. lift the HANDSET,
2. ...and when your conversation is finished replace the HANDSET to terminate the call.

### **HANDSFREE OPERATION ( E3 ONLY )**

When the telephone rings,

1. press HANDSFREE,
2. ...and when your conversation is finished, press HANDSFREE to terminate the call.



## HANDSFREE FEATURE OPERATION (E3)

As an alternative to the HANDSET, this feature allows you to conduct a conversation with the mere touch of a button. ( E 3 only )

### **VOLUME SLIDER**

Adjusts the volume of sound from the SPEAKER.

### **HANDSFREE MICROPHONE**

Located at the front of the phone ( Fig.1 ), it's function is to reproduce your voice, as you speak, to the other party while your telephone is in HANDSFREE mode. Positioning of the telephone, and therefore the MICROPHONE, is important to ensure the best reproduction of your voice.

### **HANDSFREE BUTTON and INDICATOR**

To commence a HANDSFREE call press the HANDSFREE button; the telephone will activate the line, the SPEAKER, and the HANDSFREE MICROPHONE, and the INDICATOR will switch on to provide confirmation. Dialling and speech can then commence. Pressing the button again will terminate the call.

Incoming Call using HANDSFREE :

1. telephone rings,
2. press HANDSFREE,
3. commence your HANDSFREE conversation.

Changing from HANDSFREE to HANDSET during a call :

Lift the HANDSET and resume your conversation; the HANDSFREE function will switch off automatically.

Changing from HANDSET to HANDSFREE during a call:

1. press HANDSFREE,
2. replace HANDSET,
3. resume your conversation using the handsfree function.

Outgoing call using HANDSFREE ( manual or memory dialling ) :

1. press HANDSFREE,
2. dial required number on ALPHA-NUMERIC KEYPAD or press desired MEMORY button,
3. speak as required.



## HINTS FOR HANDSFREE OPERATION

As a courtesy, tell the other party that you are using the Handsfree function. He / She may or may not want people other than yourself to hear the conversation. A quiet environment ensures best Handsfree performance. When HANDSFREE is used in a noisy room or near a noise generating device, for example, a TV set, all or part of the message may be interrupted and cannot be heard. To eliminate this problem try to lower the noise level in the room.

During the handsfree conversation, your telephone will give priority to the person who speaks louder when both people are talking simultaneously. Speak ONLY after the other person pauses or stops.

If the other person complains about poor transmission, talk directly at your telephone and from a closer distance as necessary, or lower the speaker volume control.

If the operation of the Handsfree feature is not correct, refer to the FAILURE TO OPERATE section.





## EASYCALL AND CUSTOMNET USAGE

Where this telephone is used on a PABX ( telephone switchboard ) extension, or a Direct Line with Telecom Australia's Customnet or Easycall service the following information is important.

### ***Making Outgoing Calls***

If your phone is connected to any system where dialling must be grouped, such as between internal and external dial tones, then the PAUSE function of the telephone will be required. If in doubt, check with your system supplier or Interquartz dealer, as failure to observe your system's requirements may lead to difficulty in making outgoing external calls. If you have determined that a pause is required by your PABX or switchboard, please consult the following sections of this manual to select the best alternative :

- \* PAUSE BUTTON section,page 22
- \* AUTOMATIC PAUSE INSERTION section,page 23

### ***Holding and Transferring Calls***

The method used for these functions is dependent on your system type, so you will need to check the system's Extension User Guide. The PBX RECALL button is provided to make these functions possible in the easiest and most convenient way. The related adjustment switches described in the INSTALLATION section of this manual must be correctly set to suit your system for correct operation. As a guide, Table 1 may help you to set the switches correctly. Please also refer to the PBX RECALL BUTTON section for detailed instructions.

### ***\* AND # BUTTONS***

These may be used, when the TONE / PULSE switch is set to TONE position or if the TONE BUTTON has been pressed during the call, to control special system facilities. Consult your system User Guide to ascertain their use.



### ***Using the Memories***

Many different numbers and codes can be stored. You may find it useful to store some of your favourite system facility commands in the telephone for fast, convenient access to those facilities. Consult your system User Guide and refer to the " Special Codes " section of this manual.

### ***Compatibility Adjustments***

As can be seen from Table 3 in the INSTALLATION section, various settings are required for different PBXs etc. It is strongly recommended that these settings be checked for correct adjustment to suit your system or line type, as some degradation of the telephone's performance may otherwise result.

### ***Easycall and Customnet***

All of the facilities available can be accessed by the methods described in the User Guide available from Telstra. Note that the "Recall" button referred-to in the EASYCALL instructions is equivalent to the PBX RECALL button described in this manual. The alphabetic characters provided on the ALPHA-NUMERIC KEYPAD may be applicable for CUSTOMNET applications.

### ***Special Codes***

All memories are able to store any combination of numeric entries and Special Facility commands including PBX RECALL, ON/OFF HOOK, PAUSE, \*and # in the tone dialing mode, and TONE. Thus, normal telephone numbers and also system service codes (for example) may be stored in the telephone memories.



## GENERAL CARE AND MAINTENANCE

This telephone is a precision electronic instrument. While in use and storage, care should be taken to avoid rough handling, extreme temperature, and damp or dirty environments.

### **CLEANING**

NEVER use aerosol sprays or other chemical agents or substances which leave a residue (furniture polish for example).

Use a mild detergent and a damp, clean cloth when cleaning. Do not allow moisture to enter the telephone's interior-damage may result!

### **FAILURE TO OPERATE AND SERVICE DIFFICULTIES**

If you are satisfied with the operation of your telephone service, your installation is completed. However, if telephone service problems occur at any time, it is recommended that the installation procedure described in this manual be re-checked.

If a fault occurs, try to determine if the fault is with the telephone, or with the network or system to which the telephone is connected:

- \* Disconnect the "suspect" telephone, and test the line with a substitute telephone. If the telephone service then operates satisfactorily, the fault is in the "suspect" telephone.
- \* Test the "suspect" telephone on a known good line. If the fault still occurs the fault is the "suspect" telephone.

Consult your Interquartz dealer for further advice if necessary.



## THUNDERSTORMS



The telephone, in common with household electrical appliances, can be a source of electric and acoustic shock during thunderstorms. The possibility of a telephone user experiencing a shock is minimal. Nevertheless, customers should be aware of some simple precautions to follow during thunderstorms:

- \* Use your telephone only for calls of the utmost urgency. Keep these calls brief.
- \* Whilst using your telephone keep clear of electrical appliances and metal fixtures such as: stoves, air conditioners, refrigerators, window frames and sinks.

## WARRANTY

Interquartz (A'asia) Pty. Limited warrants the original purchaser against failure under normal usage resulting from defective material and workmanship at time of manufacture for a period of three years from the date of purchase. Proof of purchase and date of purchase are required for determining validity of this warranty. This warranty does not cover defects or damage due to normal wear and tear, negligence, accidents, exposure to radiation, misuse, improper maintenance, lightning strikes or unauthorised repairs or modifications and excludes freight or postage costs to/from your local authorised service centre unless otherwise arranged. Consequential loss not included. Notification of any defect must be made within the warranty period before a warranty repair can be effected.

This guarantee is in addition to all other Warranties or Guarantees expressed or implied by the Trade Practices Act or other Commonwealth or State laws and all other obligations and liabilities on the part of Interquartz (A'Asia) Pty. Limited.

## SERVICE CENTRES

VICTORIA	PH. 03-9464-3333
NEW SOUTH WALES	PH. 02-9875-4011
QUEENSLAND	PH. 07-3808-8008
SOUTH AUST.	PH. 08-8269-2555
WESTERN AUST.	PH. 08-9249-9569
TASMANIA	PH. 03-6231-0888 PH. 03-6334-5555 PH. 03-6234-7177

## GLOSSARY

PABX	Private Automatic Branch Exchange. An automatic switchboard on the customer's premises which interfaces to the Telecom network.
EASYCALL	Intelligent network direct line service provided by Telecom. Similar feature to a PABX, for a single line.
CUSTOMNET	Intelligent network direct line service provided by Telecom. Similar feature to a PABX for many lines
OFF HOOK	The "in-use" condition of a telephone.
ON HOOK DIAL	The mode of operation which reproduces line audio through a loud-speaker, but dose not allow a 2-way conversation.
HANDSFREE	The mode of operation which allows a 2-way telephone conversation through a loud-speaker.
PBX RECALL	A signal sent to the host system or network (PABX, Easycall, Customnet) from the telephone which can be used to hold and transfer calls. There are different forms and names: Timedbreak,Earth-Recall, Hookflash, Facility button.
NETWORK	The host system to which the telephone is connected, may be a PABX or direct line
CASCADE DIALLING	Dialling a number which is composed of two or more part to be dialled from different memories or by different methods.
EARTH RECALL	Method of signalling from a PABX telephone to a PABX which an Earth lead is connected momentarily via a low impedance load to either the Tip or Ring Lead. Earth must be available on pin 1 of a 610 socket.
TIMED-BREAK	Method of signalling from a PABX telephone to a host system in which the line current is interrupted for a pre-defined duration.
HOOKFLASH	See "Timed-break".

Definitions provided pertain only to the context of this document.



# USER MANUAL

for  
electronic telephone

## MODELS E2 & E3

by INTERQUARTZ BUSINESS PHONES

3C583011-XA03B

Manufactured by  
**International Quartz Limited**  
A Subsidiary of Chiaphua Industries Ltd.  
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