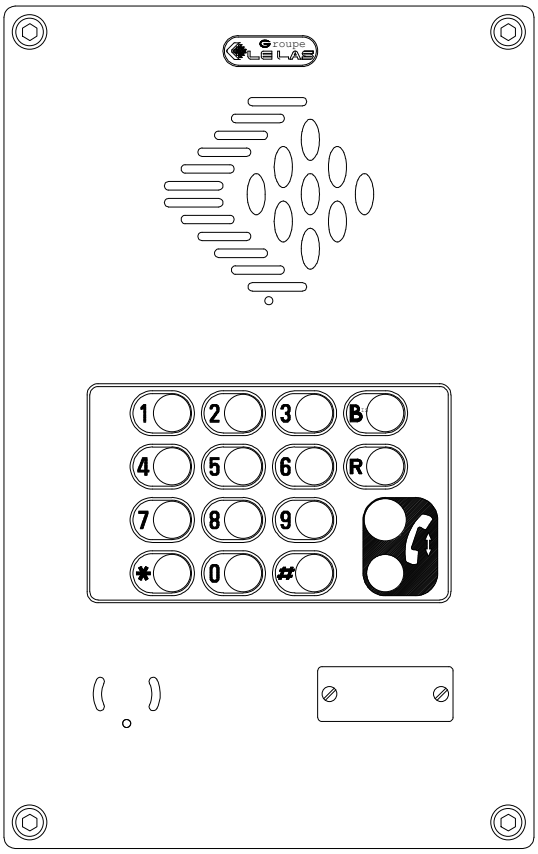
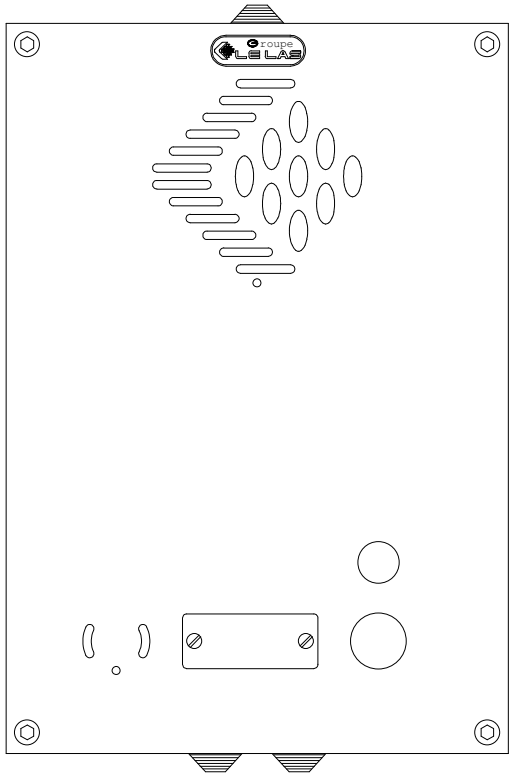
USER GUIDE
WEATHERPROOF «HANDS FREE» TELEPHONE
TLS 376 E





Groupe Le Las
COMMUNICATING IN SAFETY

Safe Communications Ltd
March 2003

CONTENTS

1.1 GENERAL CHARACTERISTICS

EQUIPMENT FOR INDUSTRIAL SITES « HANDS FREE » WEATHERPROOF
TELEPHONES SERIES TLS 376 E

IMPORTANT NOTE

THIS PRODUCT CONFORMS TO IP66 WEATHERPROOFING CLASSIFICATION, I.E. DUST-TIGHT AND PROTECTED AGAINST WATER-JETS AND HEAVY SEAS

WARRANTY IS ONLY VALID WHERE THE PRODUCTS ARE INSTALLED AND USED STRICTLY IN ACCORDANCE WITH THE INSTRUCTIONS DESCRIBED IN THIS MANUAL.

TO ENSURE EFFECTIVE WEATHERPROOFING OF THE TLS376 TELEPHONE, ON INSTALLATION RE-INSTALLATION OR CLOSING AFTER OPENING ALL JOINTS SEALS SCREW-HOLES AND CABLE ENTRY APERTURES MUST BE TIGHTLY FASTENED OR BLOCKED OFF AND A COATING OF SILICONE SEALANT APPLIED TO SEAL COMPLETELY ALL SUCH JOINTS AND APERTURES. THIS IS ESPECIALLY IMPORTANT IN THE CASE OF TOP-ENTRY CABLES.

IF SUCH PRECAUTIONS ARE NOT TAKEN BY THE INSTALLER, OUR WEATHERPROOFING GUARANTEE SHALL BE NULL AND VOID.

THE GUARANTEE WILL BE INVALIDATED IN THE EVENT OF A FAULT OR DAMAGE RESULTING FROM AN EXTERNAL SOURCE OR DUE TO LACK OF ADHERENCE TO USER INSTRUCTIONS.

IN THE DESIRE FOR CONSTANT IMPROVEMENT, THE INFORMATION CONTAINED IN THIS DOCUMENT AND THE CHARACTERISTICS OF THE EQUIPMENT MAY BE SUBJECT TO MODIFICATION WITHOUT PRIOR NOTICE

EUROPEAN STANDARDS

UNITS BEARING THE CODE " CE " CONFORM TO EMC DIRECTIVE EMC (89/336/EEC) AND THE DIRECTIVE RELATING TO LOW VOLTAGE (73/23/EEC) FORMULATED BY THE EUROPEAN COMMUNITY.

UK BABT APPROVAL

UK BABT APPROVAL No S/4130/3/Y/504612

REN (RINGING EQUIVALENCE NUMBER) = 1

1.2 CONTENTS OF THE PACKAGE

The equipment you have received comprises :

- a telephone set reference TLS376E1S
- a user manual
- cable entries Ref : GM208A10
- wall mounting kit Ref : GM208A12

1.3 GENERAL DESCRIPTION OF TLS TELEPHONES

The « Hands free » weatherproof telephones are Central Battery (CB) or Automatic Central Battery (ACB) telephones without handset which can be used in centrally powered networks or installations within the voltage limits permitted by our equipment (see technical characteristics para.1.4 below).

These telephones are equipped with:

- A weatherproof loudspeaker
- A weatherproof and vandal-resistant « Electret » type microphone
- An electronic circuit card
- An on-line LED
- 1 button for S1 version

The telephone is housed in an enclosure comprising a front and back section, wallmounted fixing internal to casing or optionally via external brackets. A hinge connects the two sections, so that once installed, by removing a connecting pin from the hinge, the front section containing all the electronics, can be removed.

FEATURES

- Pulse/Tone dialling.
- Automatic cleardown capability.
- Automatic answering capability or answering after a programmable number of rings.
- « Tone security protection » (microphone operable only after called party answers)
- Programming of stored numbers locally or via telephone line from any DTMF telephone.
- Chained numbers if the called number is busy or does not answer after a programmable time.
- Modification of settings via telephone line from any DTMF telephone or via a maintenance station, for example:
  - Ringing type
  - Ringing volume
  - Loudspeaker volume
  - Dialling type
  - Automatic answer etc...

1.4 TECHNICAL CHARACTERISTICS OF TLS TELEPHONE

IMPORTANT NOTE

THIS MICROPROCESSOR-BASED PRODUCT, WHEN CONNECTED TO THE TELEPHONE LINE, CARRY OUT AN AUTO-TEST BY TRANSMITTING AN AUDIBLE SIGNALS.

IT IS EQUIPPED WITH MANY PROGRAMMABLE FUNCTIONS AND IS FACTORY CONFIGURED FOR NORMAL USE.

BEFORE INSTALLATION, READ THIS MANUAL CAREFULLY TO BE SURE THE FACTORY SETTINGS SUIT THE DESIRED USE.

The « Hands free » telephone operates without any modification to PSTN circuits. For perfect operation on a PABX, it is necessary to ensure that the following characteristics conform to those of your switch.

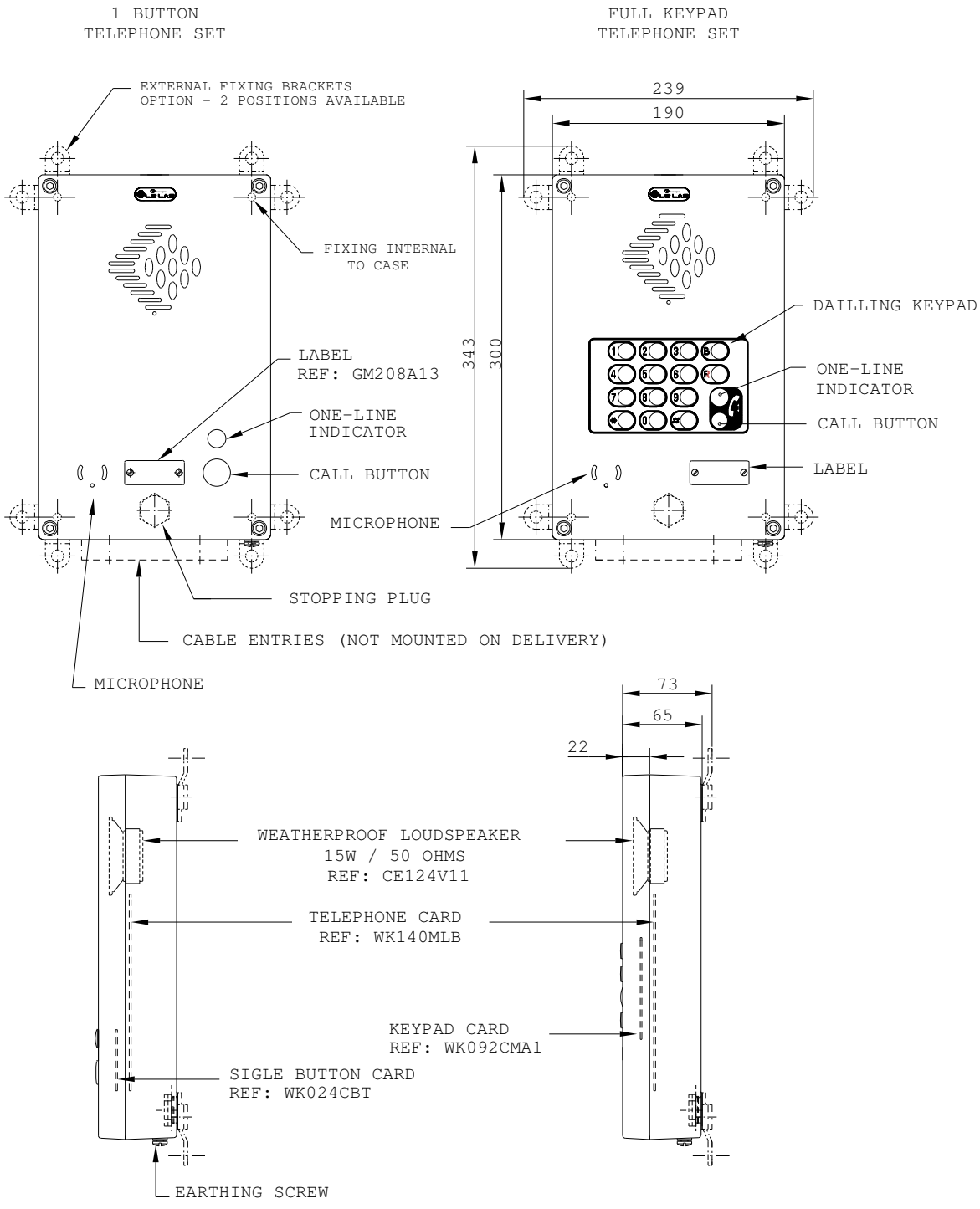
In the event of incompatibility, software modifications can be carried out on request.
Contact the supplier for more information.

TECHNICAL CHARACTERISTICS

- Ringing call voltage > 35 V RMS 25Hz or 50Hz
- Current in the telephone (off-hook position) 35mA (20mA minimum)
- Voltage at terminals (on-hook position) 48V (24V minimum)
- Dialling system DTMF or Pulse
- Dialling tone Continuous tone
  Frequency: 270 to 540Hz Detection time 2 sec.minimum
- Busy tone
  Frequency: 300 to 500 Hz
  Beep/pause sequence for more than 10 seconds. Detection time 4-10 sec.
  Beep: 100 to 600 ms
  Pause: 100 to 600 ms
- Distance ringing tone
  Frequency: 350 à 500Hz
  Beep/pause sequence until far-end off-hook
  Beep: 0.2sec. to 1.6 sec.
  Beep + pause sequence < 6 sec.
- End of conversation sequenced tone
  Frequency: 300 to 500 Hz
  Beep/pause sequence for more than 10 seconds. Detection time 4-10 sec
  Beep: 100 to 600 ms
- End of conversation continuous tone
  Frequency: 300 to 500 Hz or 760 to 840 Hz
  Tone sequence for more than 10 seconds Detection time 6-10 sec.
- Call voltage transmitted by the switch
  Frequency : 50Hz or 25Hz
  Ringing duration : 1.5s ± 0.5s
  Pause duration : 3s ± 2s

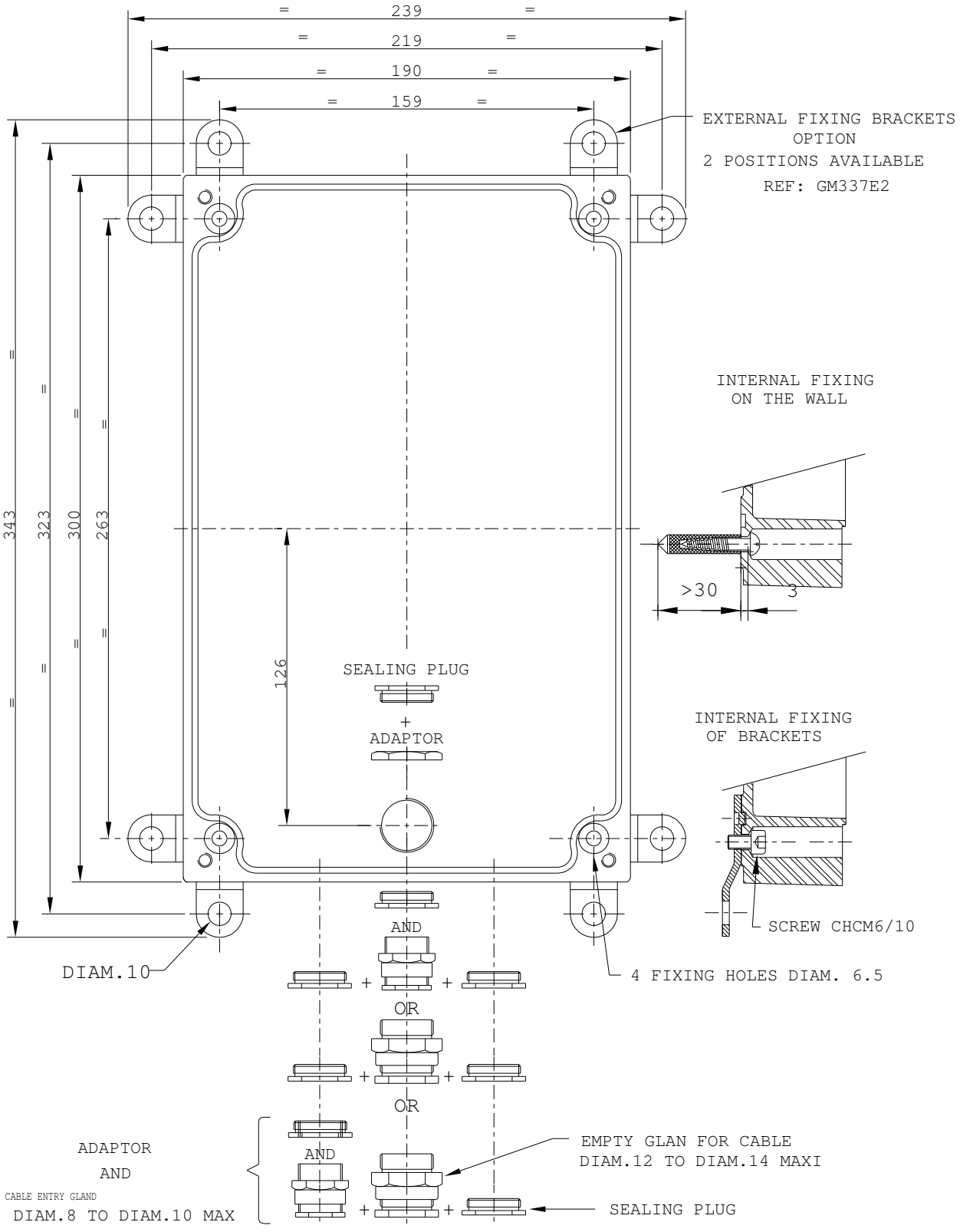
1.5 DESCRIPTION OF TLS 376E TYPE TELEPHONES

CB or ACB type weatherproof (IP66) wallmounted telephone set, comprising a light metal back-case and front cover, protected by EPIKOTE paint.
The front cover which pivots at up to 180° and is removable, closes on to a weatherproof seal via two screws acting as hinges and two hollow hexagonal retention screws or special (optionally vandal-resistant) screws. A special key is needed to undo these screws.



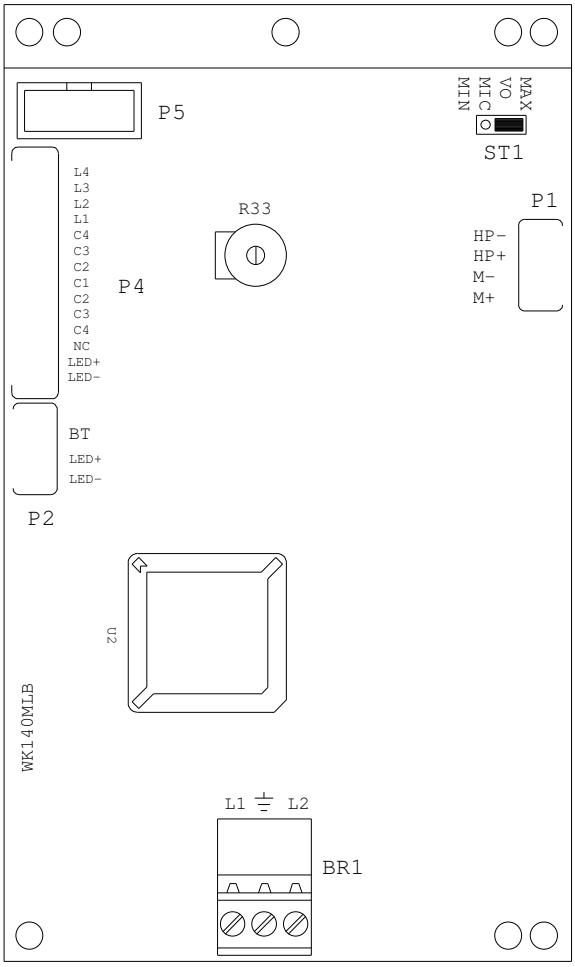
2. INSTALLATION OF THE TELEPHONE

2.1 INSTALLATION OF TLS 376 E MODEL CABLE ENTRIES ASSEMBLY



3. LAYOUT OF THE TELEPHONE CARD

3.1 FUNCTIONS AND JUMPER SETTINGS



FUNCTIONS	REF	JUMPERS
SENSITIVITY OF THE HANDS FREE MICROPHONE Sensitivity up to 1m Sensitivity up to 30cm	ST1	MIN MAX MIN MAX
RÉCEPTION LEVEL ADJUSTMENT Minimum setting : quiet location Maximum setting : noisy location NOTE : normal setting is carried out in factory (see drawing)	R33	MIN MAX

4. CONNECTION OF THE TELEPHONE SET

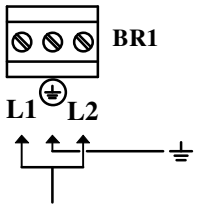
4.1 OPENING THE TELEPHONE SET

To gain access to the circuit board, unfasten the 4 fixing screws in the front cover of the case using Allen key No 5.

4.2 CONNECTION OF THE TELEPHONE LINE

The connection of the unit to the telephone line is carried out on printed circuit board WK140MLB with the plug-in connector reference « BR1 ».

Connect the telephone line to the terminals L1 and L2 of the connector « BR1 ».



LIGNE TELEPHONIQUE

EARTHING THE TELEPHONE SET

Electrical earthing is carried out either externally via the earthing screw (situated at the bottom of the case) indicated by the sign ⊥ or internally on the terminal ⊥ situated on the « BR1 » connector on the telephone card WK140 MLB. A gas discharge tube is located on the card, to discharge possible overloads to earth.

5. USAGE OF THE TELEPHONE

OPERATION : The button dials a pre-programmed telephone number (see chapter on programming page 14)

HOW TO MAKE OR ANSWER A CALL (MANUAL ANSWER)

1

Press the call button

The red indicator shows.

When the called party answers, speak in front of the telephone from a distance of approximately 20cm (8in).

At the end of conversation, to free the line :

2

PRESS THE CALL BUTTON 2 SEC.
OR ALLOW THE TELEPHONE TO CLEAR DOWN AUTOMATICALLY

The red indicator ceases to show.

HOW TO ANSWER A CALL (AUTOMATIC ANSWER)

The telephone will anwer automatically and the red indicator will show, the loudspeaker will be activated, but not the microphone.

When the telephone rings

1

PRESS THE CALL BUTTON

The microphone is activated.

Having taken the call, speak in front of the telephone from a distance of approximately 20 cm (8 in).
The red indicator shows.

2

PRESS THE CALL BUTTON
OR ALLOW THE TELEPHONE TO CLEAR DOWN AUTOMATICALLY

The red indicator shows.

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Safe Communications Ltd
March 2003

6. VOLTAGE-FREE CONTACT FOR CCTV ACTIVATION

CAUTION ! FOR ANY APPLICATION INVOLVING CONNECTION TO AN EXTERNAL POWERED DEVICE, INSTALLATION AND MAINTENANCE MUST ONLY BE CARRIED OUT BY A QUALIFIED ELECTRICIAN.

7. PROGRAMMING

The TLS376E1S telephone is designed to facilitate programming remotly over a telephone line. Programming is carried out using sequences keyed from a DTMF telephone, when connected to the TLS376E1S telephone to be programmed.

7.1 PROGRAMMING CODES

IMPORTANT :

Before all programming, key the access code : *1234* (factory setting) or as changed by the user (see function 12/13 below).

The acceptance sequence is a single beep if memory M0 (see function 18 below) if empty or a single beep followed by the contents of Memory 0 folloxed by « * » if memory M0 has been programmed.

Non-acceptance is indicated by « no-response » in which case it is necessary to try again.

Proceed with programming as follows :

For each programming sequence below the telephone gives an acceptance/non-acceptance sequence. The acceptance sequence is a mix DTMF tones (functions N° 1, 5 and 18 below) or a single beep (all other functions).
In all cases the non-acceptance sequence is two beeps.
If the non-acceptance sequence is received, it is necessary to try again.

Function No	Function	Programming code
1	**<u>AUTODIAL NUMBERS</u>** (If no chaining is required) If chaining is required, use function N°5 instead (page 14) During memory programming , the combination #11# represents the recognition of a continuous tone with a frequency of 440 Hz ± 100Hz (standard) before dialling. **<u>PROCEED AS FOLLOWS :</u>** Program button : N = autodial number from 1 to 15 digits. Program empty memory :	 ***5001*#11#N*** ***5002***
2	**TYPE OF DIALLING / CONFIGURATION** Although this equipment can use either loop disc or DTMF signalling only the performance of the DTMF signalling is subject to regulatory requirements for correct operation. It is therefore strongly recommanded that the equipment is set up to use DTMF signalling for access to public or private emergency services. DTMF signalling also provides faster call set-up. For configuration, each function has a value as follows: 1/ DTMF dialling and automatic cleardown. 00 2/ For pulse dialling and automatic cleardown. Key the combination :	 ***1000*** ***1001***
3	**LOUDSPEAKER VOLUME** V= volume from 1 to 9 (factory setting = 5)	***140V***
4	**RINGING VOLUME** V= volume from 1 to 7 (factory setting = 7)	***160V***

Function No	Function	Programming code
5	**PROGRAMME A NUMBER CHAIN** It is possible to program a number chain, so that, for autodial buttons, if the first number dialled is busy or does not answer, the telephone will dial one or more alternative number in a 'chain' until successful connection is made. All telephone numbers programmed into the chain must be different, no number may appear more than once. **<u>THE STEPS TO TAKE ARE :</u>** Program the main number in memory 1 and additional numbers in memories 2-8. Program an empty memory following the last number entered, e.g., if two numbers are programmed, Memory 3 should be empty : To program the interval between memory auto-dial attempts T1 between M1 – M2 and T2 between M2 – M3, M3 – M4 etc… if necessary These times are the intervals in the event of no-answer before dialling the next number. For T1 key : TT is the time in seconds. If only one number TT=00 For T2 key : If chaining 2 or several numbers, 2 choices are possible : a) to hear what actually happens on the line : program T1/T2 with even number *e.g. 30 sec.) b) to mask what happens on the line (no-answer, busy tone, ..) until the called party picks up, by simulating ringing and flashing LED. On detection of speech from the called party, a long beep announces to both parties that the communication has been established, the LED shows constant. For this, program T1/T2 with an odd number (e.g. 31 sec.)	***500M*#11#N*** M (memory) = 1,2,….8 max. N= Call number up to 15 digits The chain stops at the first empty memory. ***5003*** ***20TT*** ***21TT***

Function No	Function	Programming code
6	**NUMBER OF RINGS BEFORE AUTOMATIC ANSWER** In the factory, the telephone is set to answer automatically after 3 rings. To change this number, key : NN= 00 to 99 NN= 03 factory setting (answer automatically after 3 ring or manually by pushing the button) NN= 00 automatic answer with no ringing (suitabel only for programming) NN= 99 No automatic answer (answer only manually by pushing the button) **Important note :** Where 00 is programmed, both microphone and loudspeaker are de-activated on auto-answer, where 01-98 is programmed, the microphone is de-activated on auto answer (but the loudspeaker is active). The microphone can be activated by pushing any button. If, in this case, the telephone receives programming signals (from an operator or call-centre system, the loudspeaker is de-activated. It can be re-activated by keying the code *** 9901 ***	***11NN***
8	**MAXIMUM CALL DURATION** Length of conversation before automatic cleardown Range XX=-00 No limit XX=-99 99 minutes Factory setting 4 minutes.	**∗12XX∗**
9	**DURATION OF SILENCE BEFORE AUTOMATIC CLEARDOWN** XX = 30 30 seconds (factory setting) XX = 00 Does not clear down on duration of silence XX = 99 99 seconds Note : frequency tones are taken as silence.	***13XX***
10	**TYPE OF RINGING MODULATION** XX = 00 Pure Frequency (factory setting) XX = 01 3 Frequencies mixed	***15XX***
Function No	**Function**	Programming code

11	**DURATION FOR WHICH BUTTON MUST BE PRESSED CONTINUOUSLY BEFORE TELEPHONE GOES « ON LINE »** XX = 00 Immediate (factory setting) XX = 99 9.9 seconds	***17XX***
12	**PASS CODE (1)** First two digits of programming pass-code XX = 12 (factory setting) XX = 10 (range) XX = 99	***30XX***
13	**PASS CODE (2)** Last two digit of programming pass-code Note : The pass-code is a 4 digit code (from 1000 – 9999). It is input in two halves, as described above. XX = 34 (factory setting) XX = 10 (range) XX = 99	***31XX***
14	**DURATION FOR WHICH BUTTON MUST BE PRESSED CONTINUOUSLY FOR CLEARDOWN TO TAKE PLACE** XX = 20 (factory setting) XX = 00 (range) no clear down XX = 99 9.9 seconds	***32XX***
15	**MINIMUM TONE RECOGNATION/CLEARDOWN FREQUENCY** XX = 25 250Hz (factory setting) XX = 00 0Hz (range) XX = 99 990Hz	***34XX***
16	**MAXIMUM CLEARDOWN TONE FREQUENCY** **XX = 50 500Hz (factory setting)** **XX = 00 0Hz (range)** **XX = 99 990Hz**	***35XX***

Function No	Function	Programming code
17	**RETURN TELEPHONE TO FACTORY SETTING ERASE MEMORIES** XX=00 Acknowledgement from telephone after about 1.3s XX = 02 Erase memories M0 – M9	***98XX***
18	**PROGRAM TELEPHONE ID** This is a code of up to four digits which should be programmed into memory M0. The telephone will automatically transmit this ID code followed by « star » (*) on receipt of thec command code ***0600*** from a central system. N = telephone ID up to 4 digits	***5000*N***

7.2 OPERATIONAL COMMAND CODES

Function No	Function	Programming code
1	**REQUEST TELEPHONE ID** This code is transmitted by the central system to determine the identity of a telephone calling the centre. The telephone will respond with its telephone ID (see programming code 18 above)	***0600***
2	**AUTOMATIC CLEARDOWN** At the end of a call without access to programming, the central system or operator can effect an automatic cleardown by transmitting this code : However, if the call has included access to programming, automatic clear-down is carried out by transmitting this code :	***0990*** ***9900***
3	**TEST MICROPHONE AND LOUDSPEAKER** Acknowledgement from telephone : 1 sec. Transmission of frequency of 1244Hz Followed by : 1sec. Transmission of frequency of 622Hz Note : After test, the loudspeaker is switched off. To re-activate the loudspeaker : To conclude the test :	***9700*** ***9901*** ***9900***

8. MAINTENANCE

The TLS376E1S telephone requires little maintenance to remain in excellent operational condition.
Carry out the following maintenance if necessary.

EXTERNALLY

Clean using a dampened soft cloth to remove dust and dirt. For grease, a little soap may be used.

If you use a high pressure hose (preferably 50 bar) do so from a distance of about 1.50m (5ft) from the telephone.

INTERNALLY

The telephone requires no internal maintenance. Do not insert any fluid into the telephone set.

WEATHERPROOFING

At least once a year and otherwise whenever closing after opening check thoroughly the effective weatherproofing of the joints, seals and apertures and state of the silicon sealant and repair or replace as appropriate (see Note – page 4).

GRAFFITI

Where graffiti have been sprayed or painted on to the surface of the telephone and cannot be removed the telephone may be re-painted using Epoxy paint colour orange RAL2008 or BROWN RAL8007. The surface of the telephone should first be washed with a detergent and rubbed down with an abrasive.

9. IN THE EVENT OF A PROBLEM

Before consulting the maintenance service, we advise you to check the following points:

PROBLÈM WITH LINE CONNECTION OR DIALLING :

- Check telephone line correction on the connection terminal (see page 14)
- Check the button is not jammed by foreign object.

TRANSMISSION PROBLEM

- Check the setting of jumper ST1 (see page 13)
- If transmission if weak, check that the microphone holes are not blocked by a foreign object.

RECEPTION PROBLEM

- If transmission if weak, adjust the reception to the level required.

10. SPARE PARTS LIST

- Telephone board — WK 140 MLB
- Single button card for TLS376E1S — WK024CBT
- 50 Ω - 15 W Loudspeaker — CE 124 V11
- Electret microphone — CE 515 V2

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