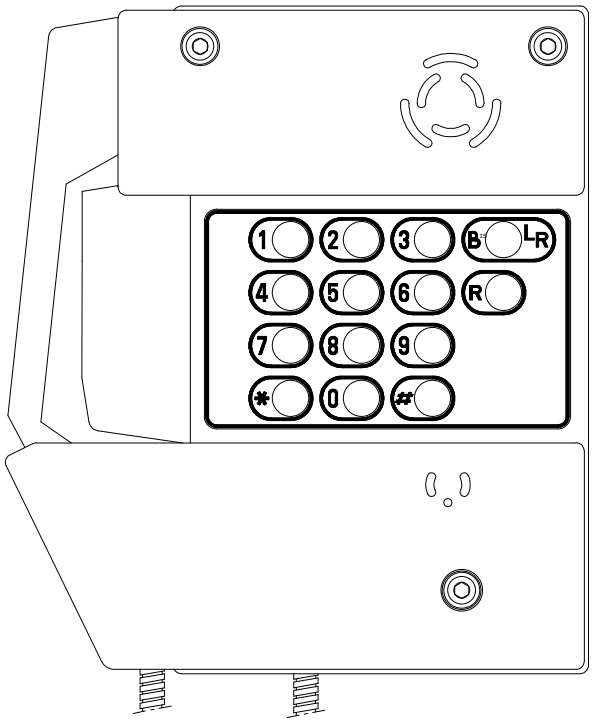
USER GUIDE EXPLOSION PROOF TELEPHONES

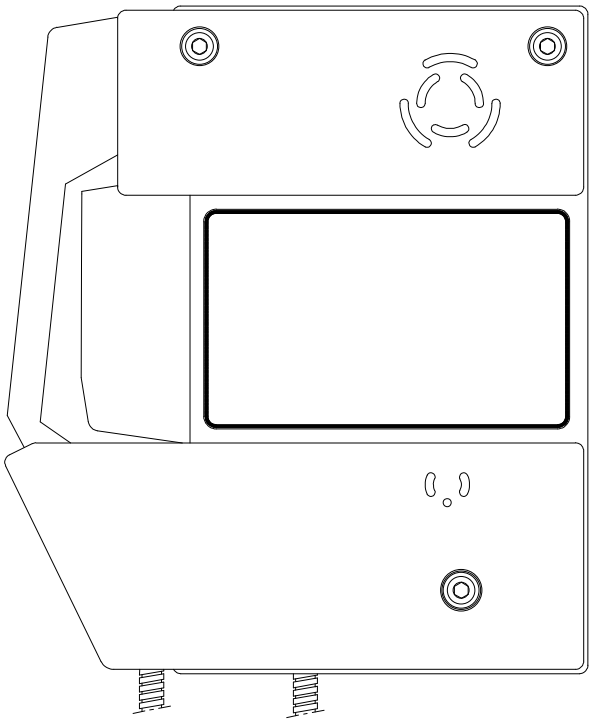
ATEX – GASES AND DUST Ⓔx II 2 G D

DIA-227 WITH KEYPAD
DIA-227E WITHOUT KEYPAD
DIA-227H WITH KAYPAD AND HANDSFREE
DIA-227EH WITHOUT KEYPAD AND HANDSFREE

DIA-227



DIA-227E



COMMUNICATING IN SAFETY

CONTENTS

EXPLOSIONPROOF TELEPHONES DIA-227 TYPE AND VARIANTS

1. PRESENTATION

1.1 GENERAL FEATURES

EQUIPMENT FOR INDUSTRIAL SITES - EXPLOSIONPROOF TELEPHONES
SERIES DIA-227

MARKING

The marking indicates following particulars :

- Address : LE LAS
  34/36 RUE ROGER SALENGRO
  F94134 FONTENAY SOUS BOIS - FRANCE
- Marking : CE0080
- Designation of type : 227
- Year of construction : 200-
- Specific marking :  **II 2 G D**
- Complementary marking : em [ib] ib II CT5
- Certificate of conformity : INERIS 03ATEX0118X
- Ambient temperature of use : Tamb. = -40°C à +60°C
- Voltage and current of use : **see special conditions page 32**

NOTE

THIS PRODUCT CONFORMS TO WEATHERPROOF PROTECTION
CLASSIFICATION IP65

CAUTION!
EACH AND EVERY COMPONENT PART IS INTEGRAL TO THE METHOD
OF PROTECTION AND CANNOT BE MODIFIED IN ANY WAY WHATSOEVER,
INCLUDING THE CABLE ENTRIES.

THE GUARANTEE ONLY APPLIES WHERE THE PRODUCT IS INSTALLED AND OPERATED STRICTLY IN ACCORDANCE WITH INSTRUCTIONS AS DEFINED IN THIS MANUAL

NO GUARANTEE CAN BE INVOKED IN THE EVENT OF A DETERIORATION RESULTING FROM EXTERNAL FACTORS 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 MODIFICATIONS WIHTOUT PRIOR NOTICE

EUROPEAN STANDARDS

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

UNITS BEARING THE CODE "**E x**" CONFORM TO ATEX DIRECTIVE (94/9CE)
AND CONFORM TO EUROPEAN STANDARDS
EN 50 014 - 1997, EN 50 019 - 1994, EN 50 020-2002, EN 50 028 – 1987, EN 50 281 – 1998

1.2 CONTENTS OF THE PACKAGE

The equipment you have just opened comprises:

- A telephone set
- A user manual
- Wall mounting kit Ref: GM208A12

1.3 GENERAL PRESENTATION OF SERIES DIA-227 TELEPHONES

The telephone set is an explosion proof, wall mounted type , CB or ACB and comprises essentially:

- a casing protected to an enhanced level of safety, containing two intrinsically-safe printed circuit boards and a set of electronic components, resin-coated and encapsulated. The coated printed circuit board has on its upper side two "e" terminals for connection of external electrical circuits.

- an intrinsically safe (IP65) telephone handset of light alloy

- an optional second receiver, also intrinsically safe

The front cover closes on to a weatherproof seal via 3 hollow hexagonal or special (optionally vandal-resistant) screws (M6) requiring a suitable key to undo them.

FEATURES

For all telephones types :

- Multi frequency (DTMF) and pulse dialling (for ACB type telephones)
- Remote modification of settings from a typical DTMF telephone or from a maintenance station, for example:
  - Ringing type
  - Ringing volume
  - Loudspeaker volume
  - Type of dialling

- Automatic clear down capability
- Off hook capability either immediately or after a programmable number of rings
- Tone security protection - microphone operable after internal dialling

For Hands free telephones :

- Automatic clear down 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.
- Automatic off-hook

1.4 PUTTING INTO SERVICE

THE FIRST PUTTING INTO SERVICE SHOULD BE REALISED BY WORKERS WITH SUFFICIENT AND APPROPRIATE TRAINING WITH REGARD TO HAZARDOUS AREAS.

IMPORTANT

ANY REPAIR OR MODIFICATION OF THE UNIT BY THE USER IS NOT ALLOWED WITHOUT A FORMAL MANUFACTURER AGREMENT.

1.5 TECHNICAL FEATURES OF THE SERIES DIA-227 TELEPHONES

The telephones operate without any modification to the PSTN lines. For perfect operation with a switch, it is necessary to ensure that the following characteristics match those of the switch.
In a case of incompatibility, special software can be provided. Contact the manufacturer for more information.

• Ringing voltage Ringing duration = 1.5s ± 0.5s Pause duration: 3s ± 2s	>35V eff 25Hz or 50HzUmax = $80V_{eff}$ Imax = 0.05 A_{eff}; Pmax = 1W
• Current in the telephone (off-hook position	35mA (20Ma minimum) Imax = $0.08A_{DC}$; Pmax = 1.2W
• Voltage on the telephone terminals (on-hook position)	48V (24V minimum) Umax = $60V_{DC}$
• Dialling system	DTMF or pulse
• Dialling tone	Frequency: 270Hz to 540Hz Detection time min 2 sec
• Busy tone Sequence of beeps and pauses for more than 10 seconds Beep: 100ms to 600ms Pause: 100ms to 600ms	Frequency: 300Hz to 500Hz Detection time 4-10sec Must be equal to beep value
• Remote Ringing Tone Return Sequence of beeps and pauses until off-hook Beep: 0.2 sec to 1,6 sec. Beep + Pause: <6 sec	Frequency: 350Hz to 500Hz
• Clear down Tone Sequence of beeps and pauses for more than 10 seconds Beep: 100ms to 600ms Pause: 100ms to 600ms	Frequency: 300 to 500Hz Detection time 4-10 sec Must be equal to beep value

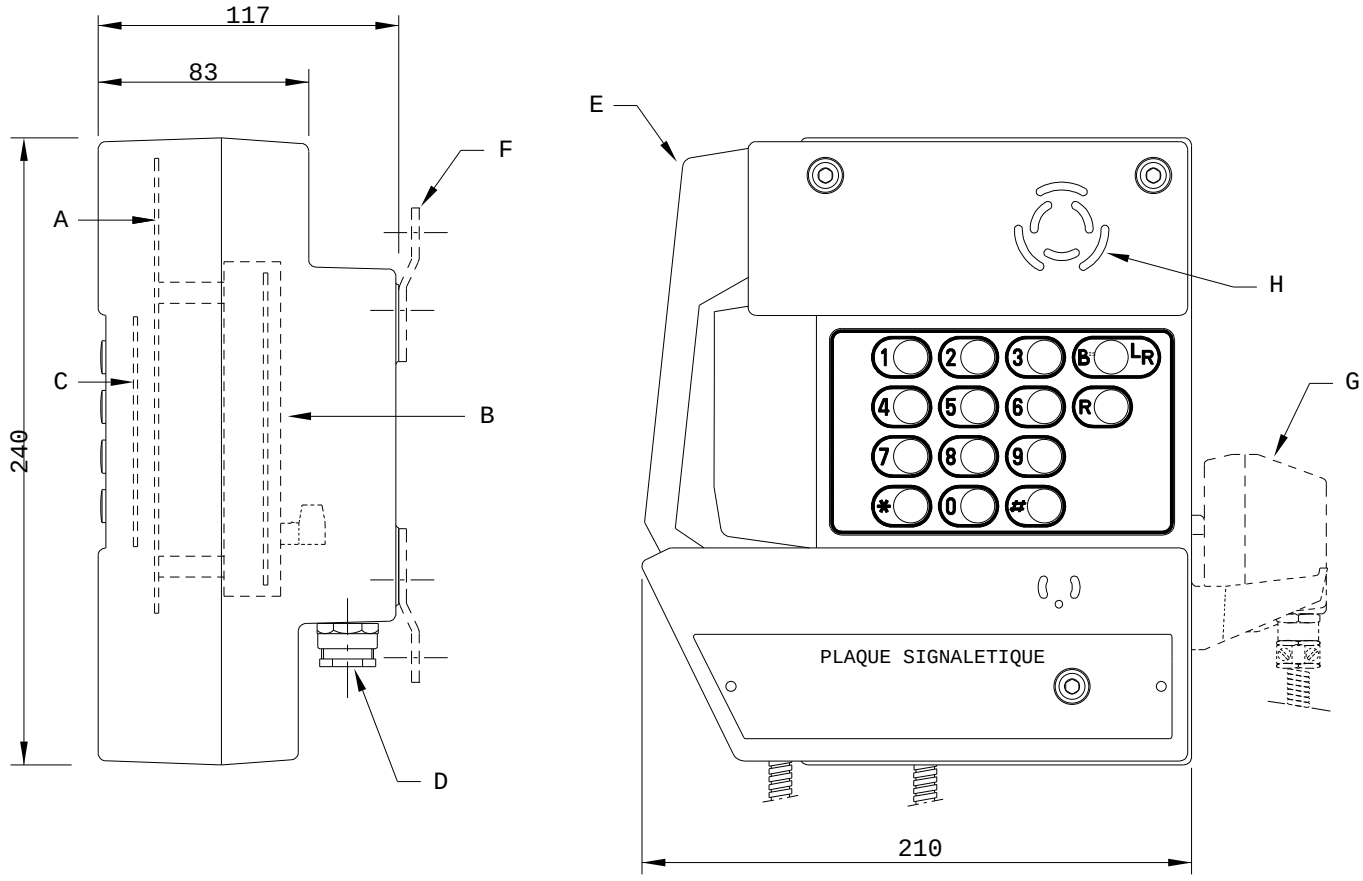
1.6 SPECIAL CONDITIONS OF USE

DIA-227 telephone set should be connected on a network line with the following particulars :

- Maximum voltage of use : Umax. = 60Vdc
- Maximum delivered current : Imax. = 80mA
- Maximum delivered power : Pmax. = 1.2W

1.7 DESCRIPTION OF TELEPHONES TYPE DIA-227

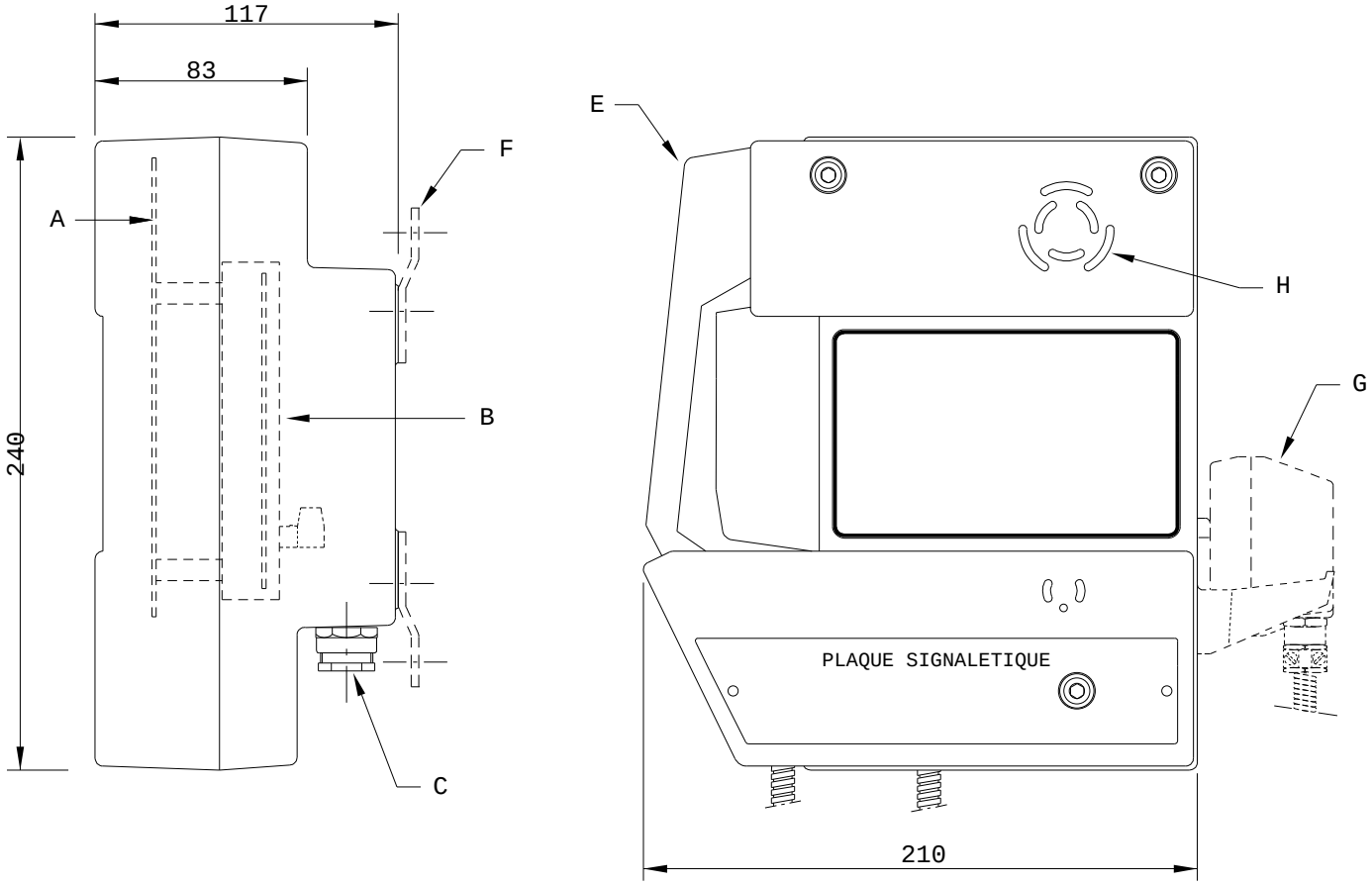
Version DIA-227 is equipped with a 14-button keypad and operates solely in handset mode.



A-	Telephone Card Pulse/Tone	Ref: WK221CMAATX
B-	Intrinsic Safety Card	Ref: WK118PLIATX
C-	Keypad Card	Ref: WK092CMA
D-	2 Eex cable entries for cable Ø10-13mm	Ref: EEL13C10*13ATX
E-	Light alloy handset	Ref: MS436A13
F-	Mounting brackets, option	Ref: GM337E2
G-	Second receiver, option	Ref: MS533A2A
H	Piezo howler	

1.8 DESCRIPTION OF TELEPHONES TYPE DIA-227E

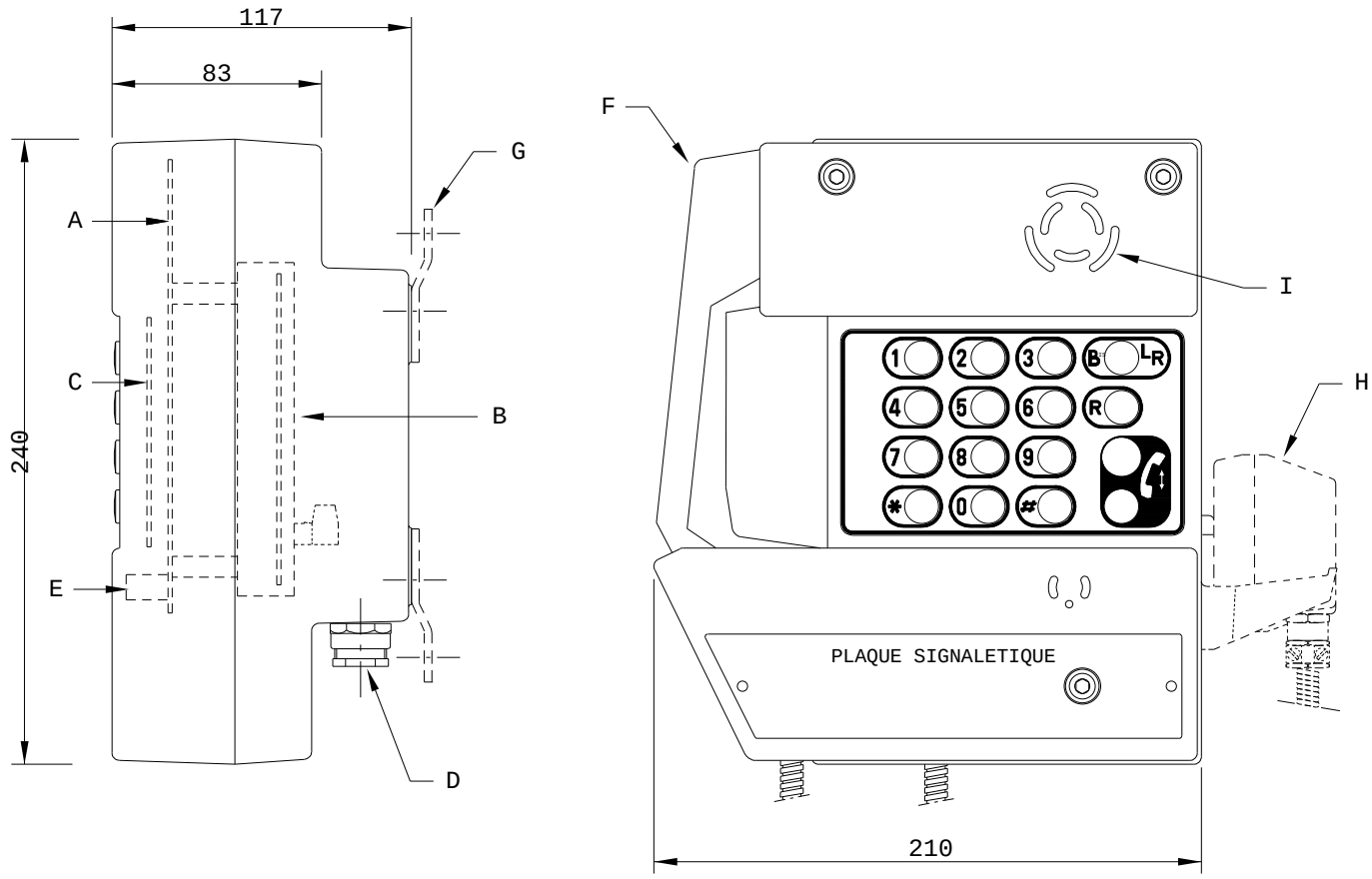
This version is CB (central battery) type without a keypad.



A-	Telephone Card Pulse/Tone	Ref: WK221CMAATX
B-	Intrinsic Safety Card	Ref: WK118PLIATX
C-	2 Eex cable entries for cable Ø10-13mm	Ref: EEL13C10*13ATX
D-	Light alloy handset	Ref: MS436A13
F-	Mounting brackets, option	Ref: GM337E2
G-	Second receiver, option	Ref: MS533A2A
H	Piezo howler	

1.9 DESCRIPTION OF TELEPHONES TYPE DIA-227H

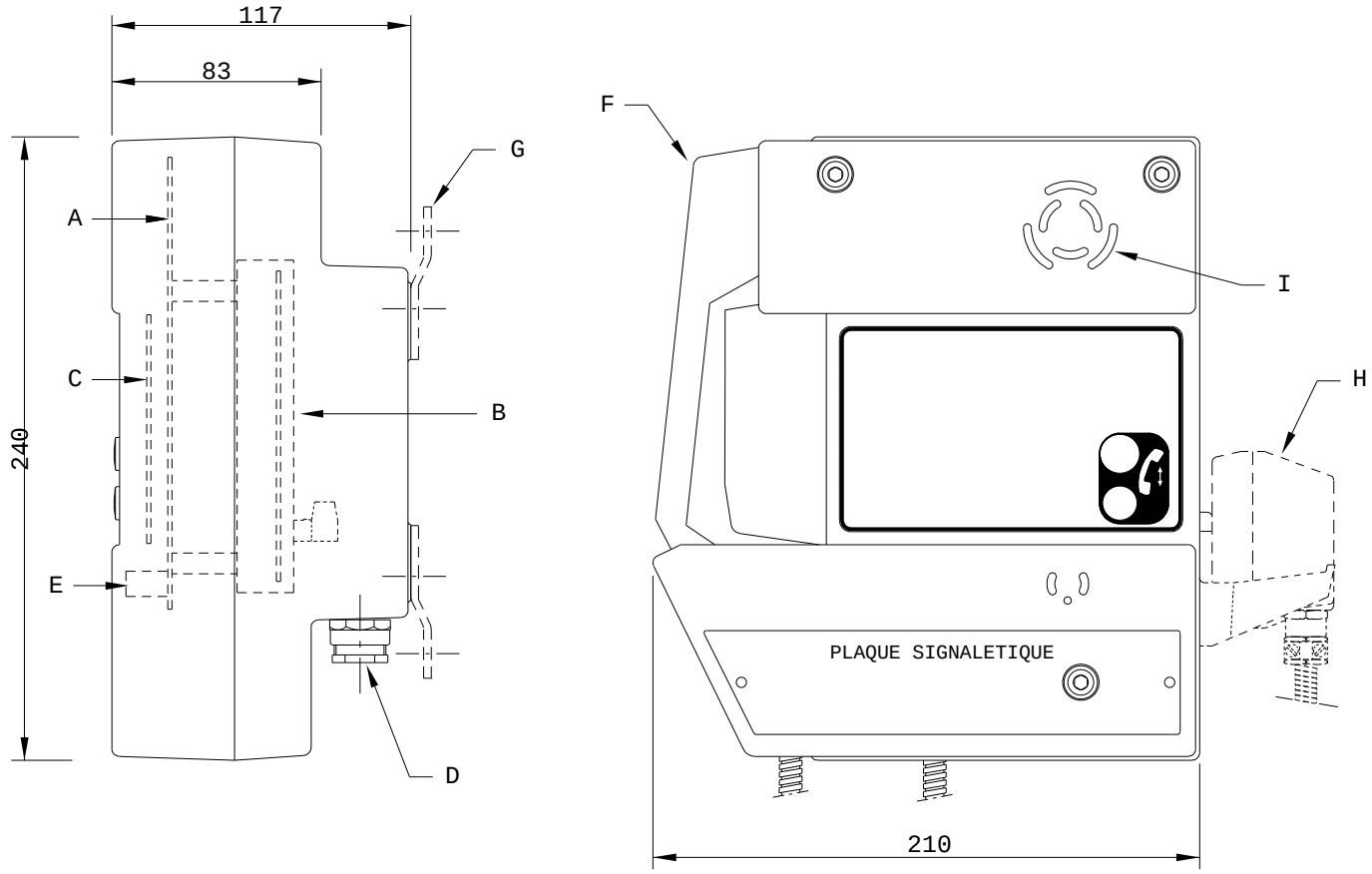
Version DIA-227H is equipped with a 15 button keypad plus a connect-to-line indicator and can operate in handset or hands-free mode. The latter mode can work with a maintenance station.



A-	Telephone Card Pulse/Tone	Ref: WK221CMATATX
B-	Intrinsic Safety Card	Ref: WK118PLIATX
C-	Keypad Card	Ref: WK092CMA
D-	2 Eex cable entries for cable Ø10-13mm	Ref: EEL13C10*13ATX
E-	Electret type microphone	Ref: CE515V2
F-	Light alloy handset	Ref: MS436A13
G-	Mounting brackets, option	Ref: GM337E2
H-	Second receiver, option	Ref: MS533A2A
I-	Piezo loudspeaker	

1.10 DESCRIPTION OF TELEPHONES TYPE DIA-227EH

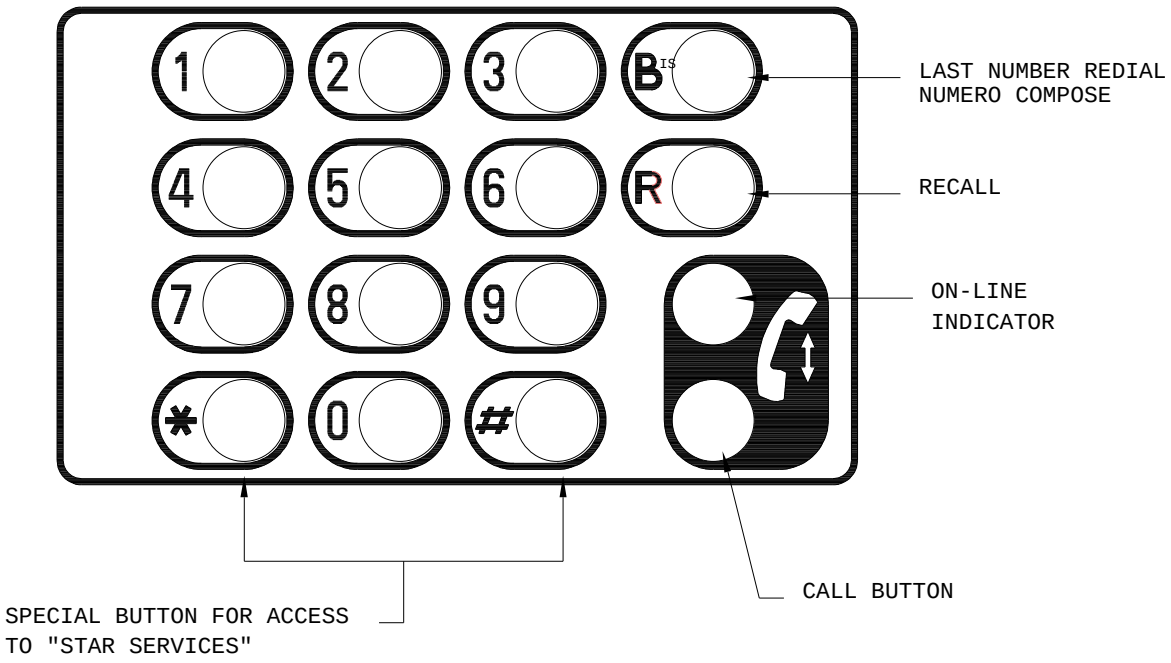
Version DIA-227EH is a CB-type telephone, it is equipped with a single-button connect-to-line indicator and can operate in handset or hands-free mode. This version can work with a maintenance station.



A-	Telephone Card Pulse/Tone	Ref: WK221CMATATX
B-	Intrinsic Safety Card	Ref: WK118PLIATX
C-	Keypad Card	Ref: WK092CMA
D-	2 Eex cable entries for cable Ø10-13mm	Ref: EEL13C10*13ATX
E-	Electret type microphone	Ref: CE515V2
F-	Light alloy handset	Ref: MS436A13
G-	Mounting brackets, option	Ref: GM337E2
H-	Second receiver, option	Ref: MS533A2A
I-	Piezo loudspeaker	

1.11 DESCRIPTION OF KEYPAD

15 buttons weatherproof keypad with on-line reassurance indicator.
A self-adhesive membrane placed between the buttons and the micro-contacts assures keypad weatherproofing.



NOTE : valid only for the hands free telephones set DIA-227H.
Programming 10 direct memory access for keys 0 to 9 is allowed see chapter « autodial numbers M0 to M9 » page 47.

- Remotely checked phones : 8 memories M1 to M8 available by pushing keys 1 to 8 without pushing call button.
- Phones without remotely checked facility : 10 memories M0 to M9 by pushing keys 0 to 9 without pushing call button.

NOTE

THE RECALL BUTTON (R) HAS A DOUBLE FUNCTIONS

ACCORDING TO PROGRAMMING:
FLASHING OR ONE-TOUCH MÉMORY M1

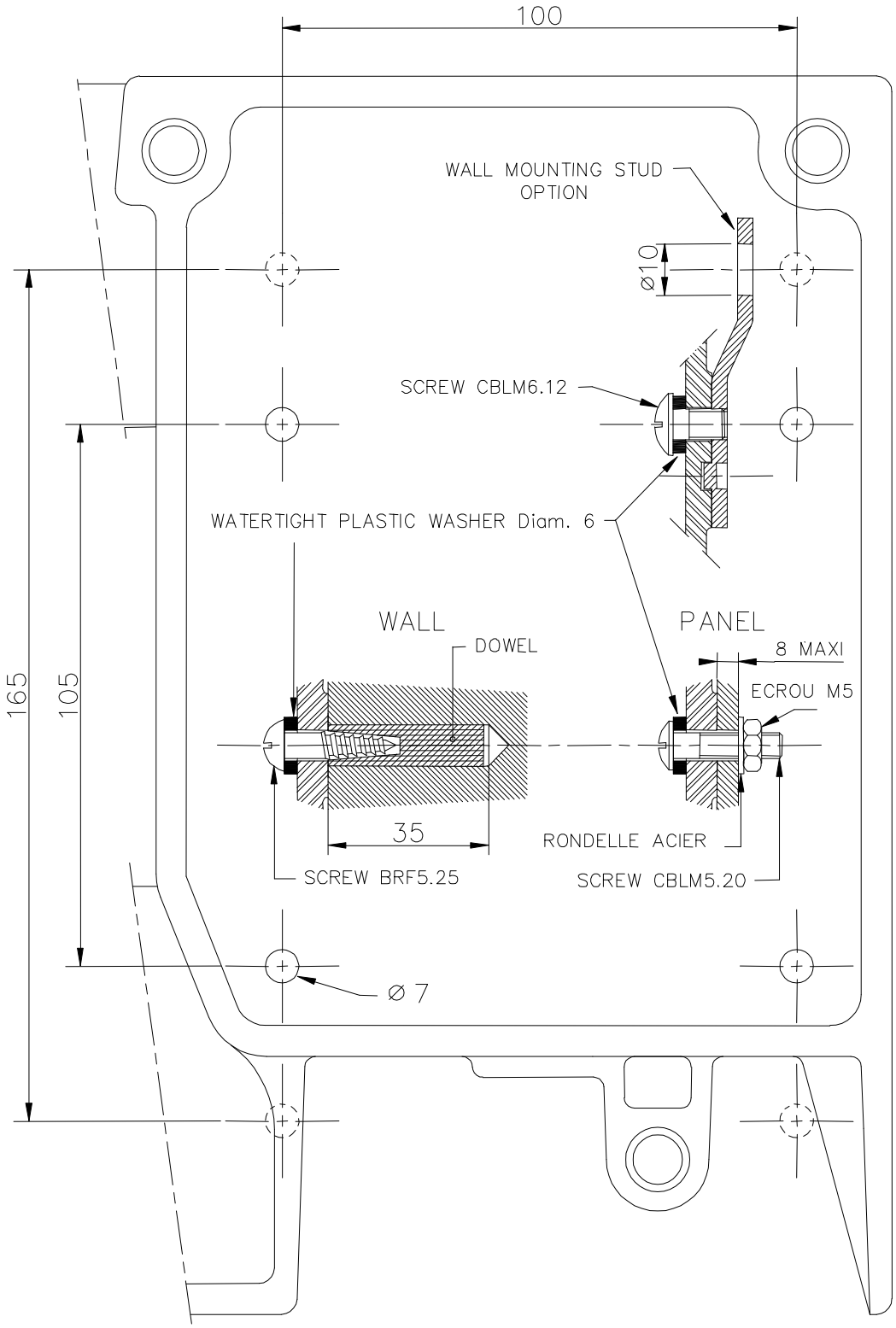
NOTE:

Facility to use “R” and “BIS” keys as memory keys after going “off-hook”.

- When memory one is empty “R” key is used as a flashing key, otherwise “M1” value is dialled on line.
- When memory 2 is empty “BIS” key is used as a redial function, otherwise “M2” value is dialled on line.

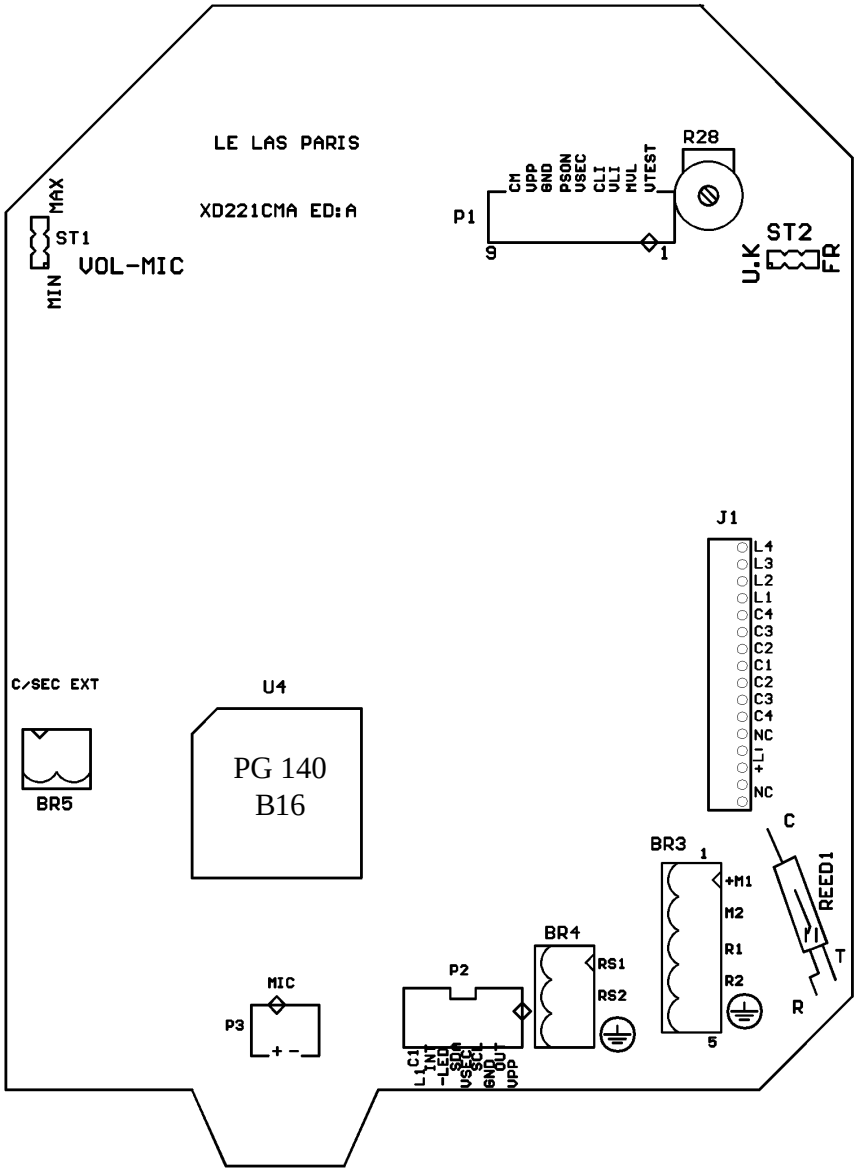
2. INSTALLATION OF DIA-227 TELEPHONES

CUTOUT PLAN



3. TELEPHONE CARD LAYOUT (REF.: WK221 CMAATX)

FUNCTIONS AND SETTINGS OF JUMPERS



FUNCTIONS	REF	JUMPERS
HANDS-FREE MICROPHONE SENSITIVITY • Sensitivity at 1 metre: place jumper on MAX • Sensitivity at 30 cm: place jumper on MIN	ST1	**MIN** **MAX** **MIN** **MAX**
NOISE THRESHOLD SETTING • MIN setting: for quiet environment • MAX setting: for very noisy environment **NOTE**: normal setting is carried out in the factory (according to design)	R28	**MAX** **MIN**

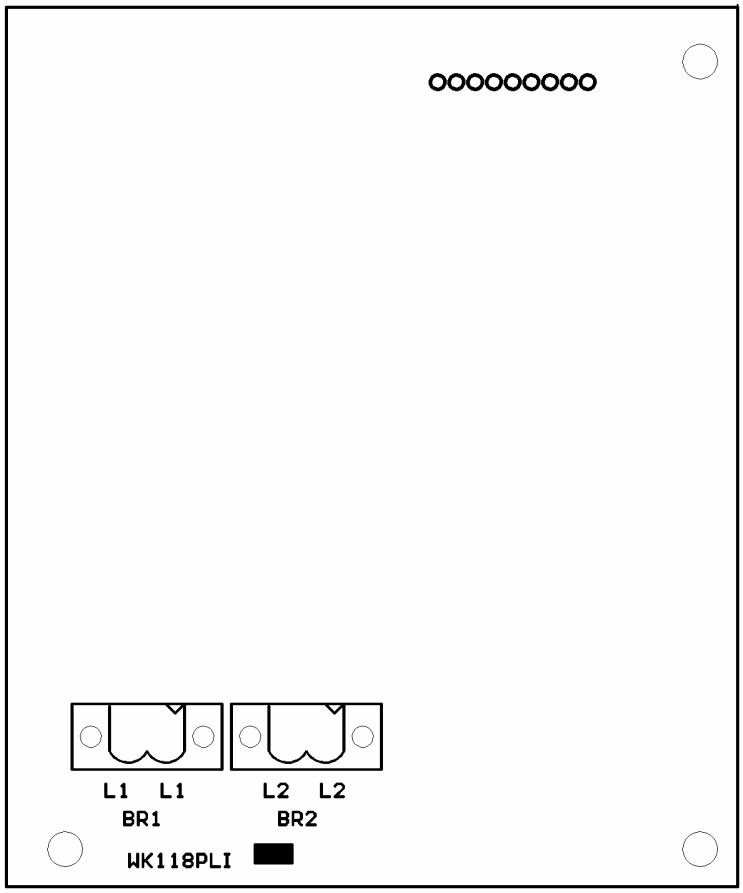
4. CONNECTION OF DIA-227 TELEPHONES

4.1 OPENING THE TELEPHONE

To access the telephone circuit, unscrew the 3 fixing points on the front case using an ALLEN key #5.

4.2 CONNECTION OF THE TELEPHONE LINE

Connection of the telephone to the line is carried out on the intrinsic safety card WK118PLIATX via the connector which can be embedded and lockable.



Connect the line to terminals L1 and L2 which are doubled to connect extensions.

4.3 EARTHING THE TELEPHONE

Electrical earthing is carried out externally via the earth screw (situated on the lower part of the case) referenced by the sign ⊥.

5. USAGE OF TELEPHONES WITH KEYPAD DIA-227 & DIA-227H

The DIA-227(H) unit is a telephone set, it will be used under the entire responsibility of the user.

TO CALL

1

LIFT THE HANDSET

2

DIAL THE NUMBER

When the communication is finished, to release the line:

3

REPLACE THE HANDSET

TO ANSWER A CALL

When the telephone rings

1

LIFT THE HANDSET

When the communication is finished, to release the line:

2

DIAL THE NUMBER

LAST NUMBER REDIAL

1

LIFT THE HANDSET

2

PRESS “Bis” or “LR”

When the communications is finished, to release the line

3

REPLACE THE HANDSET

6. USAGE OF CB TELEPHONES DIA-227E(H)

The DIA-227E(H) unit is a telephone set, it will be used under the entire responsibility of the user.

TO CALL

1

LIFT THE HANDSET

When the communication is finished, to release the line:

2

REPLACE THE HANDSET

TO ANSWER A CALL

When the telephone rings

1

LIFT THE HANDSET

When the communication is finished, to release the line:

2

REPLACE THE HANDSET

7. USAGE OF TELEPHONES WITH KEYPAD DIA-227H

The DIA-227H unit is a telephone set, it will be used under the entire responsibility of the user.

- Operation of a telephone alternating from handset to hands-free with keypad:

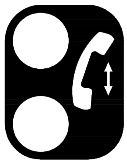
-	Lift handset	⇒	take line/handset
-	Push PL button	⇒	hands-free
-	Push PL button	⇒	handset
-	Replace handset	⇒	release line
or:			
-	Lift handset	⇒	take line/handset
-	Push PL button	⇒	hands-free
-	Replace handset	⇒	hands-free
-	Push PL button	⇒	release line
or:			
-	Push PL button	⇒	take line/hands-free
-	Lift handset	⇒	handset
-	Replace handset	⇒	hands-free
-	Push PL button	⇒	release line

If the handset is not replaced (vandalism, handset ripped out) the telephone remains operational hands-free

TO CALL

1

PUSH THE CALL BUTTON
OR LIFT THE HANDSET



The red indicator comes on

2

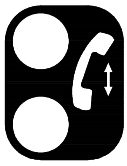
DIAL THE NUMBER

When the called party responds, speak in front of the telephone from a distance
Of approximately 20cm or into the handset

When the communication is finished, to release the line:

3

PUSH THE CALL BUTTON
OR REPLACE THE HANDSET
OR LIFT THE TELEPHONE
CLEAR DOWN AUTOMATICALLY



The red indicator goes off

NOTE : Programming 10 direct memory access for keys 0 to 9 is allowed see chapter « autodial numbers M0 to M9 » page 47.

TO ANSWER A CALL

When the telephone rings

1

PUSH THE CALL BUTTON
OR LIFT THE HANDSET

The red indicator comes on

speak in front of the telephone from a distance Of approximately 20cm or into the handset
When the communication is finished, to release the line:

2

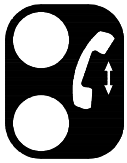
PUSH THE CALL BUTTON
OR REPLACE THE HANDSET
OR LET THE TELEPHONE
CLEAR DOWN AUTOMATICALLY

The red indicator goes off

LAST NUMBER REDIAL

1

PUSH THE CALL BUTTON
OR LIFT THE HANDSET



The red indicator comes on

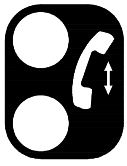
2

PRESS “BIS” or LR

When the called party responds, speak in front of the telephone from a distance Of approximately 20cm or into the handset
When the communication is finished, to release the line:

3

PUSH THE CALL BUTTON
OR REPLACE THE HANDSET
OR LET THE TELEPHONE
CLEAR DOWN AUTOMATICALLY



The red indicator goes off

FLASH RECALL

PRESS "R"

A programmed flash recall of 270ms takes place
Length of time of flash can be adjusted by programming

The **R** button has a double functions according to the programming : flashing or direct memory M1.(see chapter programming page 47) .

NOTE

LENGTH OF CONVERSATION IS NOT LIMITED IN THE FACTORY.
IT CAN BE CHANGED BY PROGRAMMING.

8. USAGE OF CB TELEPHONES DIA-227EH

The DIA-227EH unit is a telephone set, it will be used under the entire responsibility of the user.

- Operation of a telephone alternating from handset to hands-free CB:

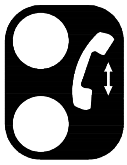
-	Lift handset	⇒	take line/handset
-	Push PL button	⇒	hands-free
-	Push PL button	⇒	handset
-	Replace handset	⇒	release line
or:			
-	Lift handset	⇒	take line/handset
-	Push PL button	⇒	hands-free
-	Replace handset	⇒	hands-free
-	Push PL button	⇒	release line
or:			
-	Push PL button	⇒	take line/hands-free
-	Lift handset	⇒	handset
-	Replace handset	⇒	hands-free
-	Push PL button	⇒	release line

If the handset is not replaced (vandalism, handset ripped out) the telephone remains operational hands-free.

TO CALL

1

PUSH THE CALL BUTTON
OR LIFT THE HANDSET



The red indicator comes on

When the called party responds, speak in front of the telephone from an approximate distance of 20 cm or into the handset.

When the communication is finished, to release the line:

2

PUSH THE CALL BUTTON
OR REPLACE THE HANDSET
OR LET THE TELEPHONE
CLEAR DOWN AUTOMATICALLY

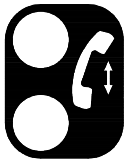
The red indicator goes off

TO ANSWER A CALL

When the telephone rings

1

PUSH THE CALL BUTTON
OR LIFT THE HANDSET



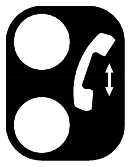
The red indicator comes on

Speak in front of the telephone from an approximate distance of 20 cm or into the handset.

When the communication is finished, to release the line:

2

PUSH THE CALL BUTTON
OR REPLACE THE HANDSET
OR LET THE TELEPHONE
CLEAR DOWN AUTOMATICALLY



The red indicator goes off

9. BASIC PROGRAMMING

The sequence of buttons to be keyed on the keypad of a remote telephone, DTMF type, connected to the telephone to be programmed.
Take care during programming, the presence of busy tone can clear down the telephone automatically.
IMPORTANT: Before any programming, key the access code :

*	1	2	3	4	*

AUTODIAL NUMBERS (M1)

Key the combination:

*	5	0	0	1	*	#	1	1	#	<N>	*

< N > autodial number from 1 to 15 digits.

During memory programming , the combination #11# represents the recognition of a continuous tone with a frequency of 440 Hz ± 100Hz (standard) before dialling.
This is the standard for UK and many other countries but in some other countries #10# may be applicable instead, whereby a 2-second pause is inserted rather than tone recognition.

AUTODIAL NUMBERS (M0 TO M9) (HANDS-FREE TELEPHONES)

Key the combination:

*	5	0	0	<M>	*	#	1	1	#	<N>	*

< M > number of memory from 0 to 9 affected with the buttons 0 to 9
With the exception of the stations has two buttons or button 2 is affected at the M5.

- Remotely checked phones : 8 memories M1 to M8 available by pushing keys 1 to 8 without pushing call button.
- Phones without remotely checked facility : 10 memories M0 to M9 by pushing keys 0 to 9 without pushing call button.

NOTE

FOR FULL KEYPAD TELEPHONE, THE MEMORY M1
CAN BE ALLOCATED TO THE R BUTTON

PROGRAMMING OF THE « R » BUTTON

For full keypad telephone, to assign button R to memory M1 key the combination:

*	2	4	0	0	*

PROGRAMMING THE TYPE OF DIALLING OF THE TELEPHONE

Key one of the following combinations:

1/ For DTMF dialling and automatic clear down
Key the combination

*	1	0	0	2	*

2/ For pulse dialling and automatic clear down
Key the combination

*	1	0	0	3	*

3/ To suppress automatic clear down (usual case for DTMF handset telephone)
Key the combination

*	1	0	0	6	*

4/ To suppress automatic clear down (usual case for pulse handset telephone)
Key the combination

*	1	0	0	7	*

RECEIVE VOLUME ADJUSTMENT (HANDS-FREE TELEPHONES)

Key the following combination:

*	1	4	0	<V>	*

< V > Volume from 0 to 9 (factory setting = 5)

RINGING VOLUME ADJUSTMENT

Key the following combination:

*	1	6	0	<V>	*

< V > Volume from 1 to 7(factory setting = 7)

PROGRAMME A NUMBER CHAIN (HANDS-FREE TELEPHONES)

For the programming of several memories, key the combinations:

*	5	0	0	<M>	*	#	1	1	#	<N>	*

M (memory) = 1, 2, ..., 8 max
N= Call number up to 15 digits

The chain always starts with the basic storage assigned to the button and stop at the first empty memory.
To program a memory empties (or to erase a number) it is necessary to type:

*	5	0	0	<M>	*	*

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 :

*	2	0	T	T	*

TT is the time in seconds. If only one number TT=00

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.)

For T2 key :

*	2	1	T	T	*

10. MAINTENANCE

Telephones type DIA-227 require little maintenance to remain in excellent working order.
Carry out the maintenance below if necessary.

EXTERNALLY

Clean with a soft damp rag.
If a high-pressure water jet (preferably 50 bars) is used, this should be done with a distance of about 1m50 between the telephone and the hose.

INTERNALLY

The interior of the telephone requires no maintenance. Do not pour any liquid into the telephone.
Check the weatherproofing seals and that they are in place.

11. IN THE EVENT OF A PROBLEM

Before consulting the after-sales service, we advise you to check the following points:

LINE OR DIALLING PROBLEM

- Check the telephone line connection on the connector terminal
- Check that the button is not jammed by a foreign object.

TRANSMISSION PROBLEM

- If transmission from the telephone is weak, check that the microphone holes are not blocked by a foreign object.
- Check the setting of the jumper ST1

RECEPTION PROBLEM

- If telephone reception is weak, adjust the receive volume to the level required

After having checked the precedent points and if problem is not solved, please return the unit to the supplier.

IMPORTANT

ANY REPAIR OR MODIFICATION OF THE UNIT BY THE USER IS NOT ALLOWED WITHOUT A FORMAL MANUFACTURER AGREMENT.

12. ADDITIONAL PROGRAMMING

- The telephone can be configured, locally or remotely, for user requirements by programming codes. The most usual programming procedures are described in Section 8.1 Basic Programming.

- Other programming options, available to the user, are described in the present chapter. The remote-control codes facilitating particular functions are listed below. As a rule, all these codes are 4-digits enveloped by two stars (*), with the exception of autodial number memories.

- These functions are accessed by an "access code" which can be specific to the user.

- Programming code ***STATUS***

  10xx Hardware configuration

  For each function a value (xx) is designated

  xx = 00 DTMF dialling
  xx = 01 Pulse dialling
  xx = 02 No direct memory access
  xx = 04 No clear down on tone

  The sum of these values determines the overall configuration.

  Example:

  ⇒ *1000* = DTMF dialling + access to memory 0-9 on keying the corresponding button on the keypad + automatic clear down on busy tone.

  ⇒ *1007* = Pulse dialling + no memory access + no automatic clear down.

- Programming code ***Ringing***

  11xx Number of rings before auto-answer
  xx = 00 No ringing before auto-answer
  Up to xx = 98 98 rings before auto-answer
  Factory setting xx = 99 The telephone does not auto-answer
  Note: 00 ringing, reserved for the remote diagnostics system.

- Programming code *Time* ***On-Line***

  12xx Duration of conversation before auto-clear down
  Factory setting xx = 00 The telephone is not limited to any duration
  xx = 04 Auto-clear down after 4 minutes
  Up to xx = 99 Auto-clear down after 99 minutes

- Programming code ***Time Silence***

	13xx	Length of Silence prior to auto-clear down
Factory setting	xx = 00	The telephone does not clear down on silence
Example	xx = 30	Auto-clear down after 30 seconds
Up to	xx = 99	Auto-clear down after 99 seconds

Note: steady frequency tones, whether cadenced or not, are taken as silence.

- Programming code ***Ring Modulation***

	15xx	Type of ringing modulation
Factory setting	xx = 00	Pure frequency
	xx = 01	Mixed frequencies

- Programming code ***Push Button***

	17xx	Continuous time-button **M** pressed before line taken
Factory setting	xx = 00	Line taken immediately
Up to	xx = 98	Action deferred 9.8 seconds
If	xx = 99	button disabled

ATTENTION

DIRECT MEMORY ACCESS BY « R » BUTTON AND DIALLING CHAIN IS ONLY AVAILABLE IN HAND-FREE MODE

- Programming code ***T1***: CHAINING MODE

	20xx	Time in seconds before passing from M1 to M2 to chain autodialing
Factory setting	xx = 00	No number chaining
Up to	xx = 99	99 seconds on M1 before passing to M2

Note: during number chaining, there are two options - if T1 is an even number the loudspeaker reproduces the telephony on the line (dialling-tone, busy, dialling etc…). If T1 is an odd number the loudspeaker generates a cadenced calming tone and the indicator flashes to the same rhythm.

- Programming code ***T2***: CHAINING MODE

	21xx	Time in seconds before passing from M2 to M3, M3 to M4, up to M8 to chain autodial numbers
Factory setting	xx = 00	No number chaining
Up to	xx = 99	99 seconds on MX before passing to the next

Note: during the chaining of numbers in T2, it is the parity of T1 which determines the telephony on the loudspeaker.

Programming code ***Flashing***

	24xx	Duration of Flashing in hundredths of a second
Factory setting	xx = 27	270mS of Flashing
	xx = 00	No Flashing, button R becomes direct memory M1
Up to	xx = 99	990mS of Flashing

- Programming code ***TH Access***

	30xx	Thousands/hundreds of User Access Code
Factory setting	xx = 12	12
	xx = 10	Minimum value
Up to	xx = 99	Maximum value

Note: The Thousands must never have 0 (zero) as a value.

- Programming code ***TU Access***

	31xx	Tens and units of User Access Code
Factory setting	xx = 34	34
	xx = 00	Minimum value
Up to	xx = 99	Maximum value

Note: the User Access Code must comprise 4 digits, its value can be between 1000 and 9999. It is therefore programmed in 2 steps (30xx and 31xx).

CAUTION!

The User *ACCESS CODE* must neither begin with 0 (zero) nor be lost or access to programming will be impossible.

- Programming Code ***Cut Line***

	32xx	Continuous time button to be pressed for line clear down
Factory setting	xx = 20	Action deferred 2 seconds
	xx = 00	No clear down by pressing button
Up to	xx = 98	Action deferred 9.8 seconds
If	xx = 99	Clear down disabled

- Programming code ***MinTone***

	34xx	Minimum clear down tone frequency
Factory setting	xx = 30	300 Hz
	xx = 00	0 Hz
Up to	xx = 99	990 Hz

- Programming code ***MaxTone***

	35xx	Maximum clear down tone frequency
Factory setting	xx = 50	500 Hz
	xx = 00	0 Hz
Up to	xx = 99	990 Hz

- Programming code ***Memory***

	50xx	
	xx = 00 to 09	According to memory selected
followed by	#11#	Seeks tone
or	#10#	2-second pause before dialling
followed by	1 to 15 digits	Desired Autodial number
terminated by	*	Sequence terminator
Factory setting		All memories blank

To erase a memory:

	50xx	
	xx = 00 to 09	According to memory selected
terminated by	*	Sequence terminator

REMOTE CONTROL CODES

- Remote control code ***Test***

97xx	
xx = 00	Test microphone and loudspeaker

Telephone acknowledgement:
1-second transmission of frequency of 1244Hz
followed by:
1-second transmission of frequency of 622Hz

Note: at the end of this remote control sequence the telephone loudspeaker is cut.

- Remote control code ***Erase***

98xx	
xx = 00	Return telephone to factory setting

Telephone acknowledgement:

*	After about 1.3 sec
xx = 02	Memories M0-M9 erased

- Remote control code ***Special***

99xx	
xx = 00	Clear down the telephone automatically
xx = 01	Reinstate loudspeaker

Note: this remote control code is used to reactivate the telephone loudspeaker when it has been cut by a loudspeaker test (*9700*)

LE LAS

ELECTRONIQUE - TELEPHONIE - SIGNALISATION
ELECTRONICS - TELEPHONES - SIGNALLING

34/36, RUE ROGER SALENGRO - 94134 FONTENAY S/BOIS CEDEX
TÉLÉPHONE : (33) 01 48 76 62 62 - TÉLÉCOPIE (FAX) : (33) 01 48 76 83 04

DECLARATION DE CONFORMITE EN MATIERE DE SECURITE ELECTRIQUE, DE COMPATIBILITE ELECTROMAGNETIQUE

(ARTICLE 10 DES DIRECTIVES 73/23/CEE et 89/336/CEE)

ET DE PROTECTION POUR ATMOSPHERES EXPLOSIVES

(DIRECTIVE 94/9/CE)

NOM DU CONSTRUCTEUR : TELEPHONES LE LAS
34/36 rue Roger Salengro
94134 FONTENAY SOUS BOIS

DESIGNATION DU MATERIEL :

- POSTE TELEPHONIQUE ANTIDEFLAGRANT BLINDE ETANCHE TYPE 227 A1

Je soussigné,

Alain RIGAULT, Président Directeur Général

déclare que le matériel ci-dessus référencé est conforme aux normes :

- *DE SECURITE ELECTRIQUES*

  EN 60950 de 1992 Chapitre A1 A2
  EN 60 950 de 1997 Chapitre A3

- *DE COMPATIBILITE ELECTROMAGNETIQUES*

  EN 55022 D'août 1987 et EN 50082 - 1 de juin 1992 (postes analogiques)

- *DE PROTECTION POUR ATMOSPHERES EXPLOSIVES*

  EN 50014 de juin 1997 + Amendements 1 et 2
  EN 50019 d'août 1994
  EN 50020 de juin 2002
  EN 50028 de février 1987
  EN 50281-1-1 de septembre 1998 + Amendement 1

A FONTENAY SOUS BOIS, le 23 juin 2003

Alain RIGAULT

INERIS
INSTITUT NATIONAL DE L'ENVIRONNEMENT INDUSTRIEL ET DES RISQUES

Parc Technologique ALATA
B.P. N°2 - 60550 Verneuil-en-Halatte - France
Tél. : (33) 44 55 66 77 - Fax (33) 44 55 67 04
Télex : 140 094 F

(2) **Equipment and protection systems intended for use in potentially explosive atmospheres Directive 94/9/EC**

(1) EC-TYPE EXAMINATION CERTIFICATE

(3) **Number of the EC type examination certificate** **INERIS 03ATEX0118 X**

(4) **Protection system or equipment:**

Telephone Type 227A1

(5) **Manufacturer:** **LE LAS**

(6) **Address:** **34/36, rue Roger Salengro**
F - 94134 FONTENAY SOUS BOIS

(7) **This protection system or equipment and any other acceptable alternative of this one are described in the appendix of this certificate and the descriptive documents quoted in this appendix.**

(8) **The INERIS, notified body and identified under number 0080, in accordance with article 9 of Council Directive 94/9/EC of the 23rd March 1994, certifies that this protection system or equipment fulfils the Essential of Health and Safety Requirements relating to the design and construction of equipment and protection systems intended for use in potentially explosive atmospheres, described in appendix II of the Directive.**

The examinations and the tests are consigned in official report No P42772/03.

(9) **The respect of the Essential Health and Safety Requirements is ensured by:**

- **conformity with:**

EN 50 014	of June	1997 + Amendments 1 and 2
EN 50 019	of august	1994
EN 50 020	of June	2002
EN 50 028	of February	1987
EN 50 281-1-1	of September	1998 + Amendment 1

- **specific solutions adopted by the manufacturer to meet the Essential Health and Safety Requirements described in the descriptive documents.**

NOTE