

## Index

INDEX ........................................................................................................................................................................ 3
INTRODUCTION .............................................................................................................................................................. 4
ART.4302N.................................................................................................................................................................... 5
Digital Call Panel ..................................................................................................................................................................................................... 5
ART.4303N..................................................................................................................................................................... 8
SPEAKER UNIT MODULE WITH BUILT-IN FUNCTIONAL TO DIGITAL INTERFACE........................................................................................................................................ 8
ART.4330N................................................................................................................................................................. 11
CAMERA MODULE SPECIFIC FOR VX2300 DIGITAL SYSTEM ............................................................................................................................................... 11
ART. 3181 ..................................................................................................................................................................... 12
DIGITAL InTERCOM FOR VX2300 2 WIRE SYStem............................................................................................................................................................. 12
ART. 3183 ...................................................................................................................................................................... 14
DIGITAL INTERCOM FOR VX2300 2 WIRE SYSTEM........................................................................................................................................................... 14
ART. 3381 .................................................................................................................................................................... 16
DIGITAL VIDEOPHONE FOR VX2300 2 WIRE SYSTEM........................................................................................................................................................ 16
ART.SL5488 .................................................................................................................................................................. 19
SLIM HANDS FREE VIDEOMONITOR................................................................................................................................................................................. 19
ART.SL5488N ......................................................................................................................................................... 23
SLIM HANDS FREE VIDEOMONITOR................................................................................................................................................................................ 23
ART. 3686 .................................................................................................................................................................. 27
DIGITAL VIDEOPHONE ................................................................................................................................................................................................... 27
ART. 6286 .................................................................................................................................................................. 31
DIGITAL VIDEOPHONE....................................................................................................................................................................................................... 31
ART. 5188 ................................................................................................................................................................... 35
HANDS FREE INTERCOM FOR VX2300............................................................................................................................................................................ 35
ART.KRV88/KRV86 ....................................................................................................................................................... 39
KRISTALLO VIDEOPHONES .............................................................................................................................................................................................. 39
ART.317N.................................................................................................................................................................. 45
Active/passive four way distribution box............................................................................................................................................................... 45
ART. 318 ................................................................................................................................................................. 46
Two way Passive distribution box............................................................................................................................................................................ 46
ART. 2315 ....................................................................................................................................................................... 47
BUS BOOSTER AND VIDEO SIGNAL AMPLIFIER................................................................................................................................................................... 47
ART.2301N................................................................................................................................................................. 48
EntRANCES EXCHANGER FOR VX2300 dIGITAL SYSTEMS.................................................................................................................................................. 48
ART. 2306 ................................................................................................................................................................... 49
BLock Exchanger.................................................................................................................................................................................................... 49
ART. 2305 ..................................................................................................................................................................... 51
EXTENSION RELAY FOR VX2300 DIGITAL SYSTEMS ...................................................................................................................................................................... 51
ART. 2380 ................................................................................................................................................................... 52
INTERFACE "2 WIRE" To "4+1" AUDIo SYSTEM ................................................................................................................................................................ 52
ART.2321-2321/P ................................................................................................................................................... 54
POWER SUPPLIES FOR VX2300..................................................................................................................................................................................... 54
ART. 2322 ..................................................................................................................................................................... 55
POWER SUPPLY CONVERTER FROM BUS LINE TO 12 VDC ................................................................................................................................................ 55
GENERAL DIRECTIONS FOR INSTALLATION ............................................................................................................. 56

VX2300 2 Wire Video Digital System

## Introduction

The VX2300 VIDEX Digital system is a complete video door entry system based on a two wire BUS.
The main features are the following:

- 2 wire bus (not polarity conscious);
- Up to 200 meters VIDEX specific cable or 100 meters using standard telephone cable;
- Up to 8 video outdoor stations (b\&w or colour camera);
- Digital or functional front panels;
- Digital front panels with speech playback and PC programming facilities;

■ Up to 100 extensions (maximum 100 units in total on the system, either intercoms, videointercoms or peripherals);

- Up to 4 devices on each extension (maintaining the maximum 100 units in total on the system);
- Intercommunication between devices on the same extension or between devices with different extension;
- Local door bell facility;
- Active floor divider (With floor isolation);
- Availability of relay modules for extra services directly connected to the bus;
- Electric lock powered by the outdoor station.


## Art.4302N Digital Call Panel



## DESCRIPTION

The digital call panel includes a B\&W CCD camera (horizontal and vertical adjustment 10 degrees) with auto iris lens complete with LED's for illumination, a $2 \times 16$ character LCD display with back lighting, keypad illumination plus a keypad with 15 or 18 push buttons depending on the panel version. The panel with the repertory name has 15 buttons 3 of which for the repertory management, 10 numeric buttons (0..9) plus "ENTER \& CLEAR". While the standard panel has 18 buttons, 10 numeric buttons (0..9) plus "ENTER \& CLEAR" and 6 alphabetic buttons (A..F). Both version have speech board (with volume adjustment) facility which guides the visitor through verbal messages. The panel allows the connection of an external coax camera for which provide also the 12Vdc power supply (150mA max). You can set, between the panel built-in camera and the external, which is the main camera by the switch 1 of the two way dip-switch bank located near the connection terminals: the main camera is the one from which the video came on a call or camera recall, anyway the other camera can be switched by the proper videophone push button.
The panel is also available with colour camera (suffix "/color" to the product code). The camera illumination LEDs are infrared for B\&W cameras and white light for colour cameras.

## Panel details

a. Panel camera (colour or B\&W) with illumination LEDs
b. Panel loudspeaker
c. Panel display
d. Illumination LEDs for keypad
e. Panel keypad
f. Camera orientation adjustment
g. Connection terminals and 2 way dip-switch (only switch 1 is used)
h. Serial RS-232 connector (for PC connection)
i. Balance, Loudspeaker volume and Microphone volume trimmers
j. Speech board volume trimmer

| CONNECTION TERMINALS |  |
| :--- | :--- |
| Terminal | Description |
| NC | Built-in relay "normally closed" contact |
| VLI | Signal used for electric lock opening in "capacitor discharge" mode |
| VLO |  |
| COM | Built-in relay "normally open" contact |
| NO | Ground signal |
| - | Bus connection terminals |
| BUS | Active low "Time Clock" signal. When active the "trade code" is enabled |
| BUS | Active low "Push to Exit" signal. When activated switches the built-in "door open" relay |
| TRD | Video signal input (Coax centre core) |
| PTE | 12Vdc 150mA max output to supply the external camera if necessary |
| VID2 | Video signal ground (Coax screen and 0V to camera) |
| +V2 |  |
| GND |  |

The programming of the unit can be carried out from the panel keypad or a PC via RS-232 serial connection and the PC programming software. The programming step 6.3 is only available if the panel is programmed as "MAIN" (main door panel in a system with main entrance and secondary entrances using Art. 2306 exchangers). On systems with main and secondary entrances, panels at the main entrances must be set as "MAIN" while panels at the block entrances must be set as "STAND." (standard). The main door panels call all the apartments on the system so for each apartment the block address (2306 address) must be programmed in addition to the device address.

\section*{| PROGRAMMING VIA PANEL KEYPAD |
| :--- |
| Prg. <br> Step |
| Display | Operation}



## Notes

${ }_{1}$ The trade code is the door opening code reserved to periodic visitors like postman, milkman etc. The trade code only works if the TRD input is shorted to ground.
2 Memory locations " 0 " and "999" are reserved to store respectively the "stand-by logo" and the "switched logo" that are two message of 16 characters each that are alternatively shown on the display when the unit is in stand-by mode. These messages may be customized to provide help to the visitors.
3 The ID PHONE is the binary address of the unit set on the 8 way dip-switch.
In mode one the speech board is disabled, in mode 2 the numbers are said digit by digit while in mode 3 the numbers are said as per pronunciation.
5 Each of the 2 test modes make a call to the intercoms/videophones stored in memory to check if it answers.
In mode 1 the unit performs a quick test without switching on the intercoms/videophones and exits the test when the first error is encountered (the display shows the related error code (see table below). In mode 2 it makes the same tests as mode 1 but when an error is encountered it is signalled for 5 seconds with the error code then the test continues until all apartments are tested.

| Test Mode: Error Codes Table |  |
| :---: | :--- |
| Code | Message / Description |
| 1 | Called User not available in the system: the device related to the user is not recognized in the system |
| 2 | Called User is present but does not answer: the device related to the user is recognized in the system but does not answer |
| 3 | Other transmissions recognized on the BUS: because of an intercommunicating conversation or a call from another door panel. |
| 4 | Called User in privacy mode: the intercom/videophone called is in "privacy" mode. |
| 5 | The end of conversation is not recognized: The intercom/videophone related to the user does not recognize the end of conversation |

TO SET MAIN CAMERA \& AUDIO/VIDEO CALL

| Switch Position | Description |
| :---: | :---: |
|  | The main camera is the door panel built-in camera: during a call or a camera recall the video shown by the monitor is the video coming from the door panel built in camera. To switch to the external camera (if connected) operate the videophone proper button. |
|  | The main camera is the external camera: during a call or a camera recall the video shown by the monitor is the video coming from the external camera. To switch to the door panel built-in camera operate the videophone proper button. |
|  | The call starts the video and the audio (default position for audio/video door panels). |
| $\square=O N$ $O N$ $O N$ <br> $\square=O F F$ $\square$ 4 <br> 1   <br> SW   | The call starts the audio only (when an audio panel is used in a video door entry system, this option avoid that a call from the audio panel switches on the monitor of the called videophone). |


| SPECIFICATION |  |
| :--- | :--- |
| Housing/Mounting Size of two modules 4000 Series / 4000 Series Modular System <br> Push Buttons 12 buttons Keypad <br> Programming Yes, carried out through the panel keypad or via PC through serial RS-232 connection <br> Controls Yes, balance trimmer plus microphone, Ioudspeaker volume trimmer <br> Interfaces Yes, one serial RS-232 interface for pc connection <br> Memory Yes, can be stored up to 250 users for a maximum of 100 flats <br> Power Supply Supplied by the bus <br> Working Temperature $-10+50^{\circ} \mathrm{C}$. |  |

## CUSTOMER SUPPORT INFORMATION

## All Countries Customers

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The product is CE marked demonstrating its conformity and is for distribution within all member states of the EU with no restrictions.
This product follows the provisions of the European Directives
89/336/EEC \& 92/31/EEC (EMC),
73/23/EEC (LVD) and 93/68/EEC (CE marking).

## UK Customers

VIDEX Security LTD
www.videx-security.com
Tech Line 01912243174
Fax 01912241559

## Art.4303N <br> Speaker unit module with built-in functional to digital interface



Fig. 1

## DESCRIPTION

Functional speaker module for up to 64 traditional call buttons. The unit circuitry incorporates :

- The transmitting amplifier with condenser microphone and volume control;
- The receiving amplifier with volume control;
- The audio balance circuit with the "BALANCE" control;
- The enslavement relay to enable the electric lock (3 contacts: common, normally open and normally closed). It can also operate as capacitor discharge to power directly the electric lock;
- The call buttons from 0 to a maximum of 2 depending on the module version;
- The illumination LEDs for the card name holder.

The module is available in 3 versions according to the number of built-in push buttons.

## Module Details:

a. Loudspeaker;
b. Call push button (0 up to 2 according to the model);
c. Card name holder;
d. Microphone;
e. Balance control;
f. Loudspeaker volume Control;
g. Microphone volume control;
h. Door relay operating mode jumper;

- Lower position for capacitor discharge;
- Upper position for dry contacts;
i. Connector to supply button expansion modules
- 3 modules can be connected between LD1 and GND;
- 3 modules can be connected between LD2 and GND;
$-+V$ is 30 V output with no current regulation to supply 3 button expansion modules connected in series
j. Dip-switch to carry out the following programming:
- Door station ID (switches 1 to 3);
- Door opening time (switch 4);
- Conversation time (switch 5);
- Offset (switch 6);
- Camera selection order (switch 7);
- 2306 block mode (switch 8);
k. System connection terminals;
I. CNV connector to link to Art. 4330 N camera module;
m. Wires to configure built-in buttons:
- White = Common;
- Red = P1;
- Blue = P2



## BUTTONS LAYOUT

As factory preset, built-in buttons are configured to call address 1 or $1 \& 2$ but the setup may be changed by altering the position of the 3 wires shown in figure 2 with reference " $m$ ".


Art.4303N-1


Art.4303N-2

## FRONT LEDS SIGNALLING DESCRIPTION

| Symbol | Description |
| :--- | :--- | | When illuminated, indicates that it is not possible to make a call because a call or a conversation is in progress (from the out- |
| :--- |
| door station from which you are calling or from another outdoor station on systems with multiple entrances). The LED will be |
| off when the system is in stand-by |, | If illuminated, indicates that the call from the outdoor station is in progress. The LED will switch OFF when the call is an- |
| :--- |
| swered or after the programmed number of rings. |

## PROGRAMMING

The programming consists of the following settings:

- Unit ID (1..8);
- Door Opening Time (2 or 6 seconds);
- Conversation Time (1 or 2 minutes);
- Buttons Matrix start address (1 or 65);
- Default Camera (4330N or External);
- Door Open Relay operating mode (capacitor discharge or dry contacts).

First 5 settings are carried out through the first 7 switches of the 8 way dip-switch (reference $j$ on figure 2 ) while the $6^{\text {th }}$ setting is carried out through the jumper (reference $h$ on figure 2) both accessible from the rear side of the module.

| Unit ID |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
| Switches Position |  |  |  |  |
|  |  |  | 8 = OFF | $8=O N$ |
| 1 | 2 | 3 | ID | ID |
| OFF | OFF | OFF | 1 | 9 |
| ON | OFF | OFF | 2 | 10 |
| OFF | ON | OFF | 3 | 11 |
| ON | ON | OFF | 4 | 12 |
| OFF | OFF | ON | 5 | 13 |
| ON | OFF | ON | 6 | 14 |
| OFF | ON | ON | 7 | 15 |
| ON | ON | ON | 8 | 16 |


| Door Opening Time |  |
| :---: | :---: |
|  | $\square_{45678}$ |
| Switches | Seconds |
| 4 | 2 |
| ON | 6 |


| Conversation Time |  |
| :---: | :---: |
|  |  |
| Switches | Minutes |
| 5 |  |
| OFF | 1 |
| ON | 2 |


| Matrix Button Start Address |  |
| :---: | :---: |
|  |  |
| $\begin{gathered} \hline \text { Switches } \\ \hline 6 \end{gathered}$ | Start Address |
| OFF | 1 |
| ON | 65 |


| *Main Camera |  |
| :---: | :---: |
|  |  |
| Switches | Main Camera |
| 7 |  |
| OFF | 4330N |
| ON | External |


| Door Open Relay <br> Operating Mode |  |  |
| :--- | :--- | :--- |
| Jumper <br> Position | Operating <br> Mode |  |
| Upper | M | Dry contacts |
| Lower | 0 | Capacitor ** <br> Discharge |

* This setting, when the door station includes the camera module 4330 N and a second external camera, establishes which camera is the main camera from which the video signal will come from at the beginning of the call. The video signal can be switched to the secondary camera at any time by pressing the specific button on the videophone or videomonitor.
** When set as capacitor discharge, connect the electric lock between terminals "GND" and "NO".

| SIGNALS ON SYSTEM CONNECTION TERMINALS |  |  |  |
| :---: | :---: | :---: | :---: |
| Terminal | Description | Terminal | Description |
| 1 | Common terminal for addresses $1 . .8$ (switch $6=$ OFF) or $65 . .72$ (switch $6=0 N$ ) | $E$ | Addresses 5,13,21,29,37,45,53, 61 (switch 6 = OFF) |
|  |  |  | Addresses 69,77,85,93,101,109,117, 125 (switch 6 = ON) |
| 2 | Common terminal for addresses $9 . .16$ (switch $6=$ OFF) or 73.80 (switch $6=0 N$ ) | $F$ | Addresses 6,14,22,30,38,46,54, 62 (switch 6 = OFF) |
|  |  |  | Addresses 70,78,86,94,102,110,118, 126 (switch $6=0 N$ ) |
| 3 | Common terminal for addresses $17 . .24$ (switch 6 = OFF) or $81 . .88$ (switch $6=$ ON) | G | Addresses 7,15,23,31,39,47,55, 63 (switch 6 = OFF) |
|  |  |  | Addresses 71,79,87,95,103,111,119, 127 (switch 6 = ON) |
| 4 | Common terminal for addresses $25 . .32$ (switch $6=$ OFF) or $89 . .96$ (switch 6 = ON) | H | Addresses 8,16,24,32,40,48,56, 64 (switch 6 = OFF) |
|  |  |  | Addresses 72,80,88,96,104,112,120, 128 (switch 6 = ON) |
| 5 | Common terminal for addresses $33 . .40$ (switch $6=$ OFF) or $97 . .104$ (switch $6=O N$ ) | BUS | BUS Connection terminals |
| 6 | Common terminal for addresses $41 . .48$ (switch 6 = OFF) or 105.. 112 (switch $6=0 N$ ) | BUS |  |
| 7 | Common terminal for addresses $49 . .56$ (switch 6 = OFF) or 113.. 120 (switch $6=0 N$ ) | PTE | Active low input push to exit signal |
| 8 | Common terminal for addresses $57 . .64$ (switch 6 = OFF) or 121.. 128 (switch $6=0 N$ ) | GND | Ground |
| A | Addresses 1,9,17,25,33,41,49, 57 (switch 6 = OFF) | C | Door open relay common contact |
|  | Addresses 65,73,81,89,97,105,113, 121 (switch 6 = ON) |  |  |
| B | Addresses 2,10,18,26,34,42,50, 58 (switch 6 = OFF) | NC | Door open relay normally closed contact |
|  | Addresses 66,74,82,90,98,106,114, 122 (switch 6 = ON) |  |  |
| C | Addresses 3,11,19,27,35,43,51, 59 (switch 6 = OFF) | NO | Door open relay normally open contact |
|  | Addresses 67,75,83,91,99,107,115, 123 (switch 6 = ON) |  |  |
| D | Addresses 4,12,20,28,36,44,52, 60 (switch 6 = OFF) | VAUX | 35Vdc power supply input (if used, the module is powered locally and not from the BUS) |
|  | Addresses 68,76,84,92,100,108,116, 124 (switch 6 = ON) |  |  |

## BUTTONS MATRIX

The button, when pressed, will generate a call to a specific address according to the terminals to which the button is connected: i.e. a button connected between terminals " 2 " and " $B$ ", when pressed will generate a call to the address 10 if the dip-switch $6=$ OFF or a call to the address 74 if the switch 6=ON.


## Art.4330N Camera module specific for VX2300 Digital System



## DESCRIPTION

This module is equipped with a CCD camera with auto iris lens complete with LED's for illumination. The module is available in black and white or colour version (put "/color" after the product code). The illumination LED's are infrared for B\&W cameras and white light for colour cameras. The camera has horizontal and vertical adjustment (10 degrees). The module has a coax video signal input for an external additional camera (switched from the videophone or video monitor) with a facility to power the external camera directly.

## Module Details:

a. Camera window;
b. Illumination LEDs (white light or infrared depending on camera type);
c. Camera horizontal and vertical adjustment;
d. CNV connector to link between the camera and the Art. 4303 N using the supplied cable;
e. External camera power supply setup jumper:

- In left position (factory preset) the external camera is powered from an external power supply
- In right position, the external camera is powered from the terminal +V2 (12Vdc) \& GND
f. External camera connections:
- VID2 Video signal input (Coax centre core);
- GND Video signal ground (Coax screen and OV to camera);
- +V2 12Vdc 150mA max output to supply the external camera if necessary.

SPECIFICATION

| Housing/Mounting | One 4000 Series Module / 4000 Series Modular System |
| :--- | :--- |
| Push Buttons | N/A |
| Programming | N/A |
| Controls | Camera orientation adjustment |
| Front plate Finishes | Mirror stainless steel (standard), Anodized Aluminium (add /a after the product code) or High Brass (add /HB) |
| Power Supply | Supplied by the relevant speaker unit module |
| Working Temperature | $-10+50^{\circ} \mathrm{C}$ |

[^0]
## Art. 3181 Digital intercom for VX2300 2 Wire System



## DESCRIPTION

Intelligent intercom with "door open/intercommunicating call" push button (key), bus relay (Art.2305) activation button (dot), "privacy ON-OFF" switch, "door open" and "privacy on" LEDs and call tone volume control (3 levels). To reduce bus current all apartment devices are in a sleep mode when not used. In case a user forgot to replace the handset, each operation must be executed within 10 seconds of lifting the handset otherwise the handset returns to its sleep state. To then perform an operation it would be necessary to hang up the handset and pick it up again.
PUSH BUTTONS, LEDS AND CONTROLS (FIG.1)

| a | Door open push button - Intercommunicating call. For an intercommunicating call, pick up the handset and press as many times as the <br> extension or address value to call (see SW3 Intercommunication Settings). |
| :--- | :--- |
| b | Activate bus relay board Art. 2305 push button. To activate a bus relay pick up the handset and press as many times as the address val- <br> ue of the relay. |
| $c$ | Door Open LED. Switched ON if the door is open. Its operation depends on additional connections. |
| $d$ | Privacy ON LED. Switched ON when the privacy service is active |
| e | Privacy ON-OFF switch. The privacy duration time can be programmed. If the intercom is programmed for a specific privacy duration, <br> after the service is enabled to "ON" (red LED ON), the service will automatically turn off when the time expires. |
| $f$ | Call tone volume control (3 levels) |


| DIP-SWITCHES AND JUMPERS (FIG.2) |  |
| :--- | :--- |
| SW1 | Switches from 1 to 7 are used for unit address (from 1 to 127 binary coded). Last switch (8) is not used |
| SW2 | Switches 1,2 and 3 are used to set privacy duration time. Switch 4 is not used. |
| SW3 | Switches 1,2 and 3 are used to for intercommunication settings. Switch 4 is not used. |
| S1 | Impedance terminator. The jumper must be normally closed. When more videophones/intercoms are connected in parallel (from a pe- <br> ripheral to another and so on until the last) the jumper must be open for all the intercoms except for the last following the connection or- <br> der. |

## PROGRAMMING

After each programming operation carried out through dip-switches or jumpers it is necessary to temporary disconnect the phone from the BUS or from the power supply if locally powered.
SW1 - INTERCOM ADDRESS

| Switches Status |  |  |  |  |  |  | Binary Code - Decimal Value |  |  |  |  |  |  | Decimal Code |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 7 | 6 | 5 | 4 | 3 | 2 | 1 | 64 | 32 | 16 | 8 | 4 | 2 | 1 |  |
| OFF | OFF | OFF | OFF | OFF | OFF | ON | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| OFF | OFF | OFF | OFF | OFF | ON | OFF | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 |
| OFF | OFF | OFF | OFF | OFF | ON | ON | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 3 |
| OFF | OFF | OFF | OFF | ON | OFF | OFF | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 4 |
| OFF | ON | OFF | OFF | ON | OFF | ON | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 37 |
| ON | ON | OFF | OFF | OFF | ON | ON | 1 | - | 0 | 0 | 0 | - | 1 | 99 |

The table above shows how to set the address of the phone. Considering that $O N=1$ and $O F F=0$, multiply each digit for the relevant decimal weight then add values obtained to get the address: E.g. as highlighted in the table OFF,ON,OFF,OFF,ON, OFF,ON in binary is equal to 0100101 then adding each digit for the relevant decimal weight you obtain the address 37.
Note
The maximum number of units allowed is 100 but the address of each unit can be a value between 1 and 127


| SW | ERC | UNI | N S |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Switches Status |  |  |  | Intercommunication Mode (switch 1) |  |
| 1 | 2 | 3 | 4 |  |  |
| OFF | OFF | OFF |  | Intercommunication allowed between units (same unit address) inside the same flat. To call an extension pick up the handset then press the "door open" button as many times as the extension value (Eg. extension 2 two times, 3 three times etc). Each intercom/videophone in the same apartment must have a different extension address, the master address must always be set except when one of the intercom/videophone is set for apartment intercommunication (i.e. in a 3 intercom/videophone installation, one of the intercom/videophone must have the extension address 1 while the others must have different addresses) <br> Intercommunication allowed between videophones (different apartment). To call an extension pick up the handset then press the "door open" button as many times as the address value (Eg. extension 10 ten times, 12 twelve times etc) | 1 (master) |
|  | ON | OFF |  |  | 2 (slave) |
|  | OFF | ON |  |  | 3 (slave) |
|  | ON | ON |  |  | 4 (slave) |
| ON | OFF | OFF |  |  | C- |

NOTE: Extension 1 is mandatory. On systems with more than one device in an apartment, each device must have a unique extension ID.
On installations where there are more than one intercom/videophone in the same apartment and intercommunication between different apartments is required, only one intercom/videophone may be set with this function (SW3.1=ON, SW3.2=OFF, SW3.3=OFF). The other intercom/videophones in the apartment must be set for local intercommunication with extension addresses "2-4" (slaves). From the intercom/videophone set for intercommunication with other apartments it will be not possible to intercommunicate within the apartment but slave extensions 2-4 will be able to intercommunicate with each other.

## NUMBER OF RINGS

The number of rings can be set to 3 (factory preset) or 6 .
To change the number of rings proceed as follow:

- Disconnect the power supply from the system;
- Short the terminals "LB" and "GND";
- Reconnect the power supply to the system checking the privacy on LED and then remove the short between terminals "LB" and "GND";
- The number of LED flashes will be 1 for 3 rings or 2 for 6 rings.

Each time this operation is carried out the number of rings is switched between the values 3 and 6 .

| SIGNALS ON CONNECTION TERMINALS |  |
| :--- | :--- |
| Signal | Description |
| BUS | Bus contacts |
| BUS |  |
| LED- | Door open LED ground signal input |
| LED+ | Door open LED power supply input (+12Vdc) |
| GND | Ground signal |
| GND | Ground signal |
| AL | Alarm input (not implemented) |
| LB | Local Bell contact (put a push button between this terminal and the relevant GND terminal) |

## SPECIFICATION

Housing/Mounting
Push Buttons
Programming
Controls
Power Supply
Working Temperature

## 3000 Series Intercoms / direct wall mounting

 Yes, twoYes, carried out by the dip-switches inside the intercom
Call tone volume and privacy ON-OFF switch
Supplied by the BUS line
$-10+50^{\circ} \mathrm{C}$

## CUSTOMER SUPPORT INFORMATION

## All Countries Customers

## VIDEX Electronics S.p.A.

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## UK Customers <br> VIDEX Security LTD

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Fax 01912241559

The product is CE marked demonstrating its conformity and is for distribution within all member states of the EU with no restrictions.
This product follows the provisions of the European Directives
89/336/EEC \& 92/31/EEC (EMC),
73/23/EEC (LVD) and 93/68/EEC (CE marking)

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89/336/EEC \& 92/31/EEC (EMC),
73/23/EEC (LVD) e 93/68/EEC (Marcatura CE)

## Art. 3183 Digital intercom for VX2300 2 Wire System

(

## DESCRIPTION

Intelligent intercom with "door open/intercommunicating call" push button (key), bus relay (Art.2305) activation button (dot) and call tone volume control (3 levels). To reduce bus current all apartment devices are in a sleep mode when not used. In case a user forgot to replace the handset, each operation must be executed within 10 seconds of lifting the handset otherwise the handset returns to its sleep state. To then perform an operation it would be necessary to hang up the handset and pick it up again.
PUSH BUTTONS, LEDS AND CONTROLS (FIG.1)

| a | Door open push button - Intercommunicating call. For an intercommunicating call, pick up the handset and press as many times as the <br> extension or address value to call (see SW3 Intercommunication Settings). |
| :--- | :--- |
| b | Activate bus relay board Art. 2305 push button. To activate a bus relay pick up the handset and press as many times as the address val- <br> ue of the relay. |
| c | Call tone volume control (3 levels) |


| DIP-SWITCHES AND JUMPERS (FIG.2) |  |
| :--- | :--- |
| SW1 | Switches from 1 to 7 are used for unit address (from 1 to 127 binary coded). Last switch (8) is not used |
| SW3 | Switches 1,2 and 3 are used to for intercommunication settings. Switch 4 is not used. |
| S1 | Impedance terminator. The jumper must be normally closed. When more videophones/intercoms are connected in parallel (from a pe- <br> ripheral to another and so on until the last) the jumper must be open for all the intercoms except for the last following the connection or- <br> der. |

## PROGRAMMING

After each programming operation carried out through dip-switches or jumpers it is necessary to temporary disconnect the phone from the BUS or from the power supply if locally powered.

| SW1 - INTERCOM ADDRESS |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Switches Status |  |  |  |  |  |  | Binary Code - Decimal Value |  |  |  |  |  |  | $\begin{gathered} \text { Decimal } \\ \text { Code } \\ \hline \end{gathered}$ |
| 7 | 6 | 5 | 4 | 3 | 2 | 1 | 64 | 32 | 16 | 8 | 4 | 2 | 1 |  |
| OFF | OFF | OFF | OFF | OFF | OFF | ON | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| OFF | OFF | OFF | OFF | OFF | ON | OFF | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 |
| OFF | OFF | OFF | OFF | OFF | ON | ON | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 3 |
| OFF | OFF | OFF | OFF | ON | OFF | OFF | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 4 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OFF | ON | OFF | OFF | ON | OFF | ON | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 37 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ON | ON | OFF | OFF | OFF | ON | ON | 1 | - | 0 | 0 | $\bigcirc$ | -1 | 1 | 99 |

[^1]| SW | ERC | UNI | N |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Switches Status |  |  |  | Intercommunication Mode (switch 1) | Videophone Extension (switches 2,3) |
| 1 | 2 | 3 | 4 |  |  |
| OFF | OFF | OFF |  | Intercommunication allowed between videophones (same unit address) inside the same flat. To call an extension pick up the handset then press the "door open" button as many times as the extension value (Eg. extension 2 two times, 3 three times etc). Each intercom/videophone in the same apartment must have a different extension address, the master address must always be set except when one of the intercom/videophone is set for apartment intercommunication (i.e. in a 3 intercom/videophone installation, one of the intercom/videophone must have the extension address 1 while the others must have different addresses) <br> Intercommunication allowed between videophones (different apartment). To call an extension pick up the handset then press the "door open" button as many times as the address value (Eg. extension 10 ten times, 12 twelve times etc) | 1 (master) |
|  | ON | OFF |  |  | 2 (slave) |
|  | OFF | ON |  |  | 3 (slave) |
|  | ON | ON |  |  | 4 (slave) |
| ON | OFF | OFF |  |  | C- |

NOTE: Extension 1 is mandatory. On systems with more than one device in an apartment, each device must have a unique extension ID. On installations where there are more than one intercom/videophone in the same apartment and intercommunication between different apartments is required, only one intercom/videophone may be set with this function (SW3.1=ON, SW3.2=OFF, SW3.3=OFF). The other intercom/videophones in the apartment must be set for local intercommunication with extension addresses "2-4" (slaves). From the intercom/videophone set for intercommunication with other apartments it will be not possible to intercommunicate within the apartment but slave extensions 2-4 will be able to intercommunicate with each other.

## NUMBER OF RINGS

The number of rings can be set to 3 (factory preset) or 6 .
To change the number of rings proceed as follow:

- Disconnect the power supply from the system;
- Short the terminals " $L B$ " and "GND";
- Reconnect the power supply to the system checking the number of emitted beeps then remove the short between terminals " $L B$ " and " $G N D$ ";
- The number of emitted beeps will be 1 for 3 rings or 2 for 6 rings.

Each time this operation is carried out the number of rings is switched between the values 3 and 6 .

| SIGNALS ON CONNECTION TERMINALS |  |
| :--- | :--- |
| Signal | Description |
| LB | Local Bell contact (put a push button between this terminal and the relevant GND terminal) |
| AL | Alarm input (not implemented) |
| GND | Ground signal |
| BUS | Bus contacts |
| BUS |  |

SPECIFICATION
Housing/Mounting
Push Buttons
Programming
Controls
Power Supply
Working Temperature

## 3000 Series Intercoms / direct wall mounting

Yes, two
Yes, carried out by the dip-switches inside the intercom
Call tone volume
Supplied by the BUS line
$-10+50^{\circ} \mathrm{C}$

## CUSTOMER SUPPORT INFORMATION

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The product is CE marked demonstrating its conformity and is for distribution within member states of the EU with no restrictions.
This product follows the provisions of the European Directives
89/336/EEC \& 92/31/EEC (EMC),
89/336/EEC \& 92/31/EEC (EMC),
73/23/EEC (LVD) and 93/68/EEC (CE marking).
prodotto è marchiato CE a dimostrazione della sua conformità e può essere distribuito iberamente all'interno dei paesi membri dell'unione europea EU
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73/23/EEC (LVD) e 93/68/EEC (Marcatura CE).

## Art. 3381 Digital videophone for vx2300 2 Wire System



DESCRIPTION
Intelligent videophone with 4" flat screen B\&W monitor with "door open" and "camera recall" push buttons, bus relay enable button, service button, "privacy ON-OFF" button plus "privacy on" and "door open" LEDs. Controls: 3 levels of call tone volume (both main and local) plus contrast and brightness. The videophone is available also in colour version Art. 3481 which uses a 3,5" active matrix LCD monitor. To reduce bus current all apartment devices are in a sleep mode when not used. In case a user forgot to replace the handset, each operation must be executed within 10 seconds of lifting the handset otherwise the handset returns to its sleep state. To then perform an operation it would be necessary to hang up the handset and pick it upagain.

| PUSH BUTTONS, LEDS AND CONTROLS (FIG.1) |  |
| :--- | :--- |
| a | Door open push button - Intercommunicating call. For an intercommunicating call, pick up the handset and press as many times as the <br> extension or address value to call (see SW3 Intercommunication Settings). |
|  Camera recall push button. Pick up the handset and press as many times as the DEVICE N. of the door station to switch on. <br>  If the door station uses the Art.4303N plus the Art.4330N, pressing this button during a conversation switches the video signal coming <br> from the camera module to the video signal coming from the camera module input for external camera. <br> $d$ Activate bus relay board Art.2305 push button. To activate a bus relay pick up the handset and press as many times as the address val- <br> ue of the relay. <br> $e$ Service push button. <br> $f$ Privacy ON-OFF push button. The privacy duration time can be programmed. <br> $g$ Privacy ON LED. Switched ON when the privacy service is active. <br> $h$ Door Open LED. Switched ON if the door is open. Its correct operation depend from correct connection (terminals 1 and 18) <br> $i$ Call tone volume control (3 levels) <br> $l$ Contrast control (left decrease, right increase)$\quad$ Brightness control (left decrease, right increase) |  |


| DIP-SWITCHES AND SWITCHES (FIG.2) |  |
| :--- | :--- |
| SW1 | Switches from 1 to 7 are used for unit address (from 1 to 127 binary coded). Last switch (8) is not used |
| SW2 | Switches 1,2 and 3 are used to set privacy duration time. Switch 4 is not used. |
| SW3 | Switches 1,2 and 3 are used for intercommunication settings. Switch 4 is used to set the slave mode. |
| SW | Impedance terminator. The standard position is "close". When more videophones are connected in parallel (from a videophone to anoth- <br> er and so on until the last) it must be set to "open" for all the videophones except for the last following the connection order. |

## PROGRAMMING

After each programming operation carried out through dip-switches or jumpers it is necessary to temporary disconnect the videophone from the BUS or from the power supply if locally powered.

## NUMBER OF RINGS

The number of rings can be set to 3 (factory preset) or 6 .
To change the number of rings proceed as follow:

- Unplug the flat cable from the pcb connection board;
- Put in short the terminals 13 and 14;
- Plug-in the flat cable checking the privacy on LED and remove the short between terminals 13 and 14;
- The number of LED flashes will be 1 for 3 rings or 2 for 6 rings.

Each time this operation is carried out the number of rings is switched between the values 3 and 6 .
SW1 - VIDEOPHONE ADDRESS

| Switches Status |  |  |  |  |  |  | Binary Code - Decimal Weight |  |  |  |  |  |  | Address |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 7 | 6 | 5 | 4 | 3 | 2 | 1 | 64 | 32 | 16 | 8 | 4 | 2 | 1 |  |
| OFF | OFF | OFF | OFF | OFF | OFF | ON | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| OFF | OFF | OFF | OFF | OFF | ON | OFF | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 |
| OFF | OFF | OFF | OFF | OFF | ON | ON | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 3 |
| OFF | OFF | OFF | OFF | ON | OFF | OFF | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 4 |
| OFF | ON | OFF | OFF | ON | OFF | ON | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 37 |
| ON | ON | OFF | OFF | OFFF | ON | ON | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 99 |

The table above shows how to set the address of the videophone. Considering that ON $=1$ and $O F F=0$, multiply each digit for the relevant decimal weight then sum values obtained to get the address: E.g. as highlighted in the table OFF,ON,OFF,OFF,ON, OFF,ON in binary is equal to 0100101 then multiplying each digit for the relevant decimal weight you obtain the address that is 37 .

Note
The maximum number of units allowed is 100 but the address of each unit can be a value between 1 and 127 .



[^2] On installations where there are more than one intercom/videophone in the same apartment and intercommunication between different apartments is required, only one intercom/videophone may be set with this function (SW3.1=ON, SW3.2=OFF, SW3.3=OFF). The other intercom/videophones in the apartment must be set for local intercommunication with extension addresses "2-4" (slaves). From the intercom/videophone set for intercommunication with other apartments it will be not possible to intercommunicate within the apartment but slave extensions 2-4 will be able to intercommunicate with each other.

As 3000 series videophones also this version uses the Art. 3980 connection board.

| $\text { Fig. } 3$ |  | Remove R1 resistor |
| :---: | :---: | :---: |
| SIGNALS ON TERMINALS OF ART. 3980 CONNECTION BOARD |  |  |
| Terminal | Signal | Description |
| 1 | -LD | Door open LED ground signal input |
| 2 | AL | Alarm input (not implemented) |
| 3 | S | Contacts for "S" service push button. Linked together when the button is pressed |
| 4 | S |  |
| 5 | GND | Ground signal |
| 6 | - |  |
| 7 | - |  |
| 8 | - |  |
| 9 | Vin | Auxiliary power supply input (for local power supply) |
| 10 | - |  |
| 11 | BUS | Bus contacts |
| 12 | BUS |  |
| 13 | - | Local bell contacts |
| 14 | LB |  |
| 15 | - |  |
| 16 | - |  |
| 17 | - |  |
| 18 | +LD | Door open LED power supply (12Vdc) |

SPECIFICATION
Housing/Mounting Push buttons Programming Controls
Power Supply Working Temperature
3000 Series Videophones / mounting plate plus connection board
Yes, 5
Yes, carried out by the dip-switches located on the rear of the videophone Call tone volume, contrast and brightness
Supplied by the BUS line
$-10+50^{\circ} \mathrm{C}$

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89/336/EEC \& $92 / 31 / E E C$ (EMC),
73/23/EEC (LVD) e 93/68/EEC (Marcatura CE)

## Art.SL5488 Slim Hands Free Videomonitor



## DESCRIPTION

An intelligent Hands-free surface video monitor employing a colour 3.5" active matrix LCD display, with push buttons for "door open/intercommunicating call", "answer/camera recall", "privacy on/off", "BUS relay activation" and 2 service buttons plus 4 LED's associated with 4 main buttons. In addition to the above the unit has controls for loudspeaker volume, call tone volume, brightness and hue with programmable number of rings, privacy duration and intercommunication mode.

| PUSH BUTTONS, LEDS AND CONTROLS (FIG.1) |  |
| :---: | :---: |
| S1 | Service push button - When pressed, shorts terminal "S1" to terminal "GND" (ground). |
| $\bigcirc$ | Bus Relay Button to Activate bus relay board Art.2305. To activate a bus relay press as many times as the address value of the relay. |
| O | Answer button - On an incoming call, operation of this button allows the user to answer and converse with the visitor. LED 2 will illuminate. |
|  | Camera recall button - Press as many times as the DEVICE N. of the door station to switch on. |
|  | Switch off button - With the system switched on (monitor on), momentary operation of the button will switch the video monitor off. The videomonitor will also automatically switch off after a time delay if the button is not pressed. LED 2 will switch off. |
|  | Simplex button - Pressing and holding the button for more than 3 seconds will switch the videomonitor into SIMPLEX speech mode. Press and hold the button to speak to the caller (LED 2 will flash rapidly), release the button to listen (LED 2 will flash slowly). If the button is not pressed for 10 seconds the videomonitor will switch off. The videomonitor will revert to duplex speech when another call is made. |
| S2 | When pressed, shorts terminal "S2" to Terminal "GND" (ground). |
| $x$ | Privacy on-off button: <br> - If the monitor is switched on, press and keep pressed this button for more than 3 seconds to enable/disable the service. The relative LED will illuminate when the privacy service is enabled. <br> - If the monitor is switched off, keep this button pressed together with the "speak" button $\begin{aligned} & \text { ® } \\ & \text { until the privacy LED switches ON. }\end{aligned}$ |
|  | Camera select button - With a conversation in progress, press to switch from door station camera to external camera (requires Art. 4330 N and external camera) and viceversa. |
| - | Intercommunicating call button - For an intercommunicating call, when the videomonitor is in stand-by, press as many times as the extension or address value to call. |
|  | Door open button - During a call, operation of this button will activate the "door open" relay (NO1, NC1, COM1). LED 4 will illuminate if terminal 6 has been connected to a door contact. |
| 1 | LED for programming purposes |
| 2 | LED relating to the operation of the answer/switch off/camera recall/simplex button |
| 3 | LED relating to the operation of privacy button |
| 4 | LED relating to the operation of door open button(powered from the connection terminal "6" of Art.5980) |
| 1 | Loudspeaker volume control |
| 4 | Call tone volume control |
| 类 | Brightness control |
| $\bigcirc$ | Colour intensity control |

## PROGRAMMING

The videomonitor setup consists of the following settings:

- Number of Rings;
- Privacy duration;
- Melody selection;
- Unit address (1..127, switches 1 to 7 of SW1);
- Bus Termination (open or close, switch 8 of SW1);
- Intercommunication mode (between apartments or within apartment switch 1 of SW3);
- Extension address (1..4, switches 2,3 of SW3);
- Slave mode (switch 4 of SW3);
- Privacy duration (switches 1,2 and 3 of SW2)

The programming of the number of rings, privacy duration and melody are carried out through the videomonitor push buttons, all other settings are carried out on the two dip-switch banks (SW1 and SW3) on the rear side of the video monitor (the back cover need to be removed).
Except the number of rings programming, it is necessary to remove temporary the power supply after making any other programming changes.

## NUMBER OF RINGS AND MELODY SELECTION

First of all make a camera recall to switch on the unit then proceed with the programming operation.To alter the number of rings and select the melody, the videomonitor must be in program mode. This is achieved by operating the two following buttons at the same time (left button of the volume control and the right button of the colour intensity control) see Fig.1A 8 small buttons towards the bottom of the face plate (far left button and far right button together). When the programming mode is entered LED 1 (Fig.1A) starts flashing. This will automatically reset after 20 seconds of idle time.

## Number of rings

- When in the programming mode press and hold the "Es" button, LED 1 will stop flashing and LED 3 (Fig.1A) will start to flash showing the number of rings (each flash $=1$ ring i.e. 6 flashes $=6$ rings)
- Once the value of rings has been reached release the "今گ" button.
- Wait approx 10 seconds for LED 1 to stop flashing to signal that the new value is stored and program mode has exited.


## Privacy duration

- When in the programming mode press and hold the "x" button, LED 1 will stop flashing and LED 3 (Fig.1) will start to flash showing the number of times the button is pressed (each flash $=15$ minutes i.e. 8 flashes $=2$ hours )
- Once the duration required has been reached release the "领" button.
- Wait approx 10 seconds for LED 1 to stop flashing to signal that the new value is stored and program mode has exited.


## Melody selection

- When in the programming mode, press left or right call tone volume control buttons (press the left button to navigate backward or the right button to navigate forward in the melodies selection menù) until the videomonitor plays the selected melody (during the melody play the LED1 stops flashing);
- Before press again one of the two buttons to select previous (left button) or next (right button) melody, wait for LED1 starts flashing again then press and hold pressed one button until the selected melody is played;
- Once reached the required melody, Wait approx 10 seconds for LED 1 to stop flashing to signal that the new value is stored and program mode has exited.


## Notes

The second melody increases its volume at each ring: first ring starts at minimum volume level up to the maximum volume level on the last ring. Are available 4 levels of volume: if are set 6 rings, the fourth, the fifth and the sixth will be emitted at the maximum volume level.

VIDEOMONITOR ADDRESS - SW1.1.. 7
 you obtain the address that is 37 .

| Switches Status |  |  |  |  |  |  | Binary Code - Decimal Weight |  |  |  |  |  |  | Address |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 7 | 6 | 5 | 4 | 3 | 2 | 1 | 64 | 32 | 16 | 8 | 4 | 2 | 1 |  |
| OFF | OFF | OFF | OFF | OFF | OFF | ON | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| OFF | OFF | OFF | OFF | OFF | ON | OFF | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 |
| OFF | OFF | OFF | OFF | OFF | ON | ON | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 3 |
| OFF | OFF | OFF | OFF | ON | OFF | OFF | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 4 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OFF | ON | OFF | OFF | ON | OFF | ON | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 37 |
| $O N$ | ON | ON | ON | ON | ON | ON | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 127 |

## Note

The maximum number of units allowed is 100 but the address of each unit can be a value between 1 and 127 .

## BUS TERMINATION - SW1.8



SW1.8

ON The factory preset for this switch is ON: termination enabled. In case of more units (intercoms, videophones or video monitors) in a parallel connection (bus wires are connected to the terminals of the first unit then from this to the second and so on up to 4 units max) switch 8 must be set to ON only for the last unit in the chain while on all other units must be set to OFF (bus termination disabled).

## INTERCOMMUNICATION MODE - SW3.1



This switch establishes the intercommunication mode: in OFF position (default) intercommunication is between units in the same apartment (same addresses but different extension); in ON position the intercommunication is between units in different apartments (different addresses).

On installations where there are more than one intercom/videophone in the same apartment and intercommunication between different apartments is required, only one intercom/videophone may be set with this function (SW3.1=ON, SW3.2=OFF, SW3.3=OFF). The other intercom/videophones in the apartment must be set for local intercommunication with extension addresses "2-4" (slaves). From the intercom/videophone set for intercommunication with other apartments it will be not possible to intercommunicate within the apartment but slave extensions 2-4 will be able to intercommunicate with each other.

## EXTENSION NO - SW3.2.. 3

If the intercommunication between apartments is enabled (switch 1 of SW3 $=O N$ ) leave these two switches in default position (both to OFF). Otherwise, if the intercommunication is between the same apartment (switch 1 of SW3 = OFF), set the extension addresses starting always from 1 . During the external call, all video monitors in the same flat will ring but the video will be shown only from the videmononitor with extension address 1.

| $\mathbf{2}$ | $\mathbf{3}$ | Extension No. |
| :---: | :---: | :--- |
| OFF | OFF | 1 (default, master) |
| ON | OFF | 2 (slave) |
| OFF | ON | 3 (slave) |
| ON | ON | 4 (slave) |

SLAVE MODE - SW3.4

SW3. 4

This set up concerns the answering mode of the video monitor when there is more than one unit (max 4) in the same apartment. OFF (default) = during a call, only the video monitor with extension 1 (master) will show the video. ON = the video monitor will be switched on independently of the extension address: in this case the video monitor must be supplied locally using a power supply Art. 2321 and connecting respectively BUS+ to terminal 14 and BUS- to terminal 11 of the pcb connection board provided (the local power supply is required starting from the third slave videophone when are used all colour videophones). If you set ON this switch for one slave videophone, you must set ON the same switch also for the relevant master videophone.

## VIDEOMONITOR CONNECTION BOARD ART. 5980

SIGNAL ON CONNECTION TERMINALS

| Terminal | Signal | Description |
| :---: | :---: | :---: |
| 1 | GND | Ground |
| 2 | BUS1 | Bus input |
| 3 | S1 | Terminal controlled by the S1 button, connects terminals 3 and 5 until is pressed |
| 4 | BUS2 | Bus input |
| 5 | S1 | Terminal controlled by the S1 button, connects terminals 3 and 5 until is pressed |
| 6 | LED | Auxiliary LED power supply input (12Vdc) |
| 7 | S2 | Terminal controlled by the S2 button, connects terminals 7 and 17 until is pressed |
| 8 | GND | Ground |
| 9 | GND | Ground |
| 10 | LB | Local bell input (active low) |
| 11 | GND | Ground |
| 12 | $>$ |  |
| 13 | - |  |
| 14 | +VAUX | Auxiliary power supply input (to be used when the switch 4 of SW3 is set to ON) |
| 15 | - |  |
| 16 | $>$ |  |
| 17 | S2 | Terminal controlled by the S2 button, connects terminals 7 and 17 until is pressed |
| 18 | AL | Alarm input (not implemented yet) |
| 19 |  |  |
| 20 | $><$ |  |




Fig. 2


- To install Art.SL5478 it is necessary to open it. Follow picture n.4: turn screw " $G$ ", pull cover " $D$ " and lift it up (or push it forward if the videomonitor is in horizontal position), then disconnect plug "E" (Fig.3) from plug "F" on the connection board housed on the bottom "A".
- Put the bottom "A" against the wall at 135 cm from the finished floor (Fig.1). All cables must be fed through hole "H" (Fig.2).
- Leaving approximately 135 cm from the finished floor, fit the bottom "A" against the wall and mark the fixing holes considering that the cables must fed through the opening "H" (Fig.2)
- Make the holes, and fix bottom " $A$ " on the wall using the two wall plugs " $B$ " and the two screws " $C$ " as shown in figure 2.
- Make all connections as per provided diagram.
- As shown in figure 3, move cover " $D$ " close to bottom " $A$ ", connect plug " $E$ " to plug " $F$ " on the connection board then proceed with the next step.
- Hook cover " $D$ " to bottom " $A$ " by using the two clips "J" (Fig.2) as shown in figure 4 then push down cover " $D$ " towards bottom " $A$ ". Then proceed with system testing.
- When finished the testing, fix cover "D" at the bottom "A" using the screw "G" (Fig.4).


## SPECIFICATION

Housing/Mounting Push buttons
Programming
Controls
Power Supply
Working Temperature

## 5000 Series Videophones / mounting plate plus connection board

Yes, 6
Yes, carried out by the dip-switches located on the rear of the videophone
Loudspeake and call tone volume, brightness and hue
Supplied by the BUS line
$-10+50^{\circ} \mathrm{C}$

## All Countries Customers

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$c \epsilon$

## Art.SL5488N Slim Hands Free Videomonitor



## DESCRIPTION

An intelligent Hands-free surface video monitor employing a colour 3.5" active matrix LCD display, with push buttons for "door open/intercommunicating call", "answer/camera recall", "privacy on/off", "BUS relay activation" and 2 service buttons plus 4 LED's associated with 4 main buttons. In addition to the above the unit has controls for loudspeaker volume, call tone volume, brightness and hue with programmable number of rings, privacy duration and intercommunication mode.

| PUSH BUTTONS, LEDS AND CONTROLS (FIG.1) |  |
| :---: | :---: |
| S1 | Service push button - When pressed, shorts terminal "S1" to terminal "GND" (ground). |
| $\bigcirc$ | Bus Relay Button to Activate bus relay board Art.2305. To activate a bus relay press as many times as the address value of the relay. |
| $\bigcirc$ | Answer button - On an incoming call, operation of this button allows the user to answer and converse with the visitor. LED 2 will illuminate. |
|  | Camera recall button - Press as many times as the DEVICE N. of the door station to switch on. |
|  | Switch off button - With the system switched on (monitor on), momentary operation of the button will switch the video monitor off. The videomonitor will also automatically switch off after a time delay if the button is not pressed. LED 2 will switch off. |
|  | Simplex button - Pressing and holding the button for more than 3 seconds will switch the videomonitor into SIMPLEX speech mode. Press and hold the button to speak to the caller (LED 2 will flash rapidly), release the button to listen (LED 2 will flash slowly). If the button is not pressed for 10 seconds the videomonitor will switch off. The videomonitor will revert to duplex speech when another call is made. |
| S2 | When pressed, shorts terminal "S2" to Terminal "GND" (ground). |
| X | Privacy on-off button: press and keep pressed this button until the relevant LED switches ON/OFF to enable/disable the service. |
|  | Camera select button - With a conversation in progress, press to switch from door station camera to external camera (requires Art. 4330 N and external camera) and viceversa. |
| O-1 | Intercommunicating call button - For an intercommunicating call, when the videomonitor is in stand-by, press as many times as the extension or address value to call. |
|  | Door open button - During a call, operation of this button will activate the "door open" relay (NO1, NC1, COM1). LED 4 will illuminate if terminal 6 has been connected to a door contact. |
| 1 | LED for programming purposes |
| 2 | LED relating to the operation of the answer/switch off/camera recall/simplex button |
| 3 | LED relating to the operation of privacy button |
| 4 | LED relating to the operation of door open button(powered from the connection terminal "6" of Art.5980) |
| 1 | Loudspeaker volume control |
| $\triangle$ | Call tone volume control |
| 米 | Brightness control |
| $\bigcirc$ | Colour intensity control |

## PROGRAMMING

The videomonitor setup consists of the following settings:

- Number of Rings;
- Privacy duration;
- Melody selection;
- Unit address (1..255, switches 1 to 8 of SW1);
- Bus Termination (open or close, switch SEL1 position "Term.OFF" or "Term.ON");
- Use with distribution box Art. 317 (JP1 Closed if the videophone is connected to one Art.317)
- Intercommunication mode (between apartments or within apartment switch 1 of SW3);
- Extension address (1..4, switches 2,3 of SW3);
- Slave mode (switch 4 of SW3);
- Privacy duration (switches 1,2 and 3 of SW2)

The programming of the number of rings, privacy duration and melody are carried out through the videomonitor push buttons, all other settings are carried out on the two dip-switch banks (SW1 and SW3) on the rear side of the video monitor (the back cover need to be removed).
Except the number of rings programming, it is necessary to remove temporary the power supply after making any other programming changes.

## NUMBER OF RINGS AND MELODY SELECTION

First of all make a camera recall to switch on the unit then proceed with the programming operation.To alter the number of rings and select the melody, the videomonitor must be in program mode. This is achieved by operating the two following buttons at the same time (left button of the volume control and the right button of the colour intensity control) see Fig.1A 8 small buttons towards the bottom of the face plate (far left button and far right button together). When the programming mode is entered LED 1 (Fig.1A) starts flashing. This will automatically reset after 20 seconds of idle time.

## Number of rings

- When in the programming mode press and hold the "ی" button, LED 1 will stop flashing and LED 3 (Fig.1A) will start to flash showing the number of rings (each flash $=1$ ring i.e. 6 flashes $=6$ rings)
- Once the value of rings has been reached release the "今ः" button.
- Wait approx 10 seconds for LED 1 to stop flashing to signal that the new value is stored and program mode has exited.


## Privacy duration

- When in the programming mode press and hold the "x" button, LED 1 will stop flashing and LED 3 (Fig.1) will start to flash showing the number of times the button is pressed (each flash $=15$ minutes i.e. 8 flashes $=2$ hours )
- Once the duration required has been reached release the "胝" button.
- Wait approx 10 seconds for LED 1 to stop flashing to signal that the new value is stored and program mode has exited.


## Melody selection

- When in the programming mode, press left or right call tone volume control buttons (press the left button to navigate backward or the right button to navigate forward in the melodies selection menù) until the videomonitor plays the selected melody (during the melody play the LED1 stops flashing);
- Before press again one of the two buttons to select previous (left button) or next (right button) melody, wait for LED1 starts flashing again then press and hold pressed one button until the selected melody is played;
- Once reached the required melody, Wait approx 10 seconds for LED 1 to stop flashing to signal that the new value is stored and program mode has exited.


## Notes

The second melody increases its volume at each ring: first ring starts at minimum volume level up to the maximum volume level on the last ring. Are available 4 levels of volume: if are set 6 rings, the fourth, the fifth and the sixth will be emitted at the maximum volume level.

## VIDEOMONITOR ADDRESS - SW1.1.. 8



The table above shows how to set the address of the videophone. Considering that ON $=1$ and OFF $=0$, multiply each digit for the relevant decimal weight then sum values obtained to get the address: E.g. as highlighted in the table OFF,ON,OFF,OFF,ON, OFF,ON in binary is equal to 0100101 then multiplying each digit for the relevant decimal weight you obtain the address that is 37 .

| Switches Status |  |  |  |  |  |  |  | Binary Code - Decimal Weight |  |  |  |  |  |  |  | Address |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 | 128 | 64 | 32 | 16 | 8 | 4 | 2 | 1 |  |
| OFF | OFF | OFF | OFF | OFF | OFF | OFF | ON | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| OFF | OFF | OFF | OFF | OFF | OFF | ON | OFF | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 |
| OFF | OFF | OFF | OFF | OFF | OFF | ON | ON | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 3 |
| OFF | OFF | OFF | OFF | OFF | ON | OFF | OFF | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 4 |
| OFF | OFF | ON | OFF | OFF | ON | OFF | ON | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 37 |
| ON | ON | ON | ON | ON | ON | ON | ON | 1 | 1 | 1 | 1 | 1 | 1 | 1 | -1 | 255 |

## Note

The maximum number of units allowed is 100 but the address of each unit can be a value between 1 and 127 .

## BUS TERMINATION - SWITCH SEL1

SEL1 $\quad$ TD Term.ON The factory preset for this switch is "Term.ON": termination enabled. In case of more units (intercoms, videophones or video
 monitors) in a parallel connection (bus wires are connected to the terminals of the first unit then from this to the second and so on up to 4 units max) SEL1 must be set to "Term.ON" only for the last unit in the chain while on all other units must be set to "Term.OFF" (bus termination disabled).
USING WITH ART. 317 - JP1
JP1 Without Art. 317 The factory preset for this jumper is open: Videophone not connected to the Art.317. If the videophone is connected to an old
JP1 With Art. 317

## INTERCOMMUNICATION MODE - SW3.1



This switch establishes the intercommunication mode: in OFF position (default) intercommunication is between units in the same apartment (same addresses but different extension); in ON position the intercommunication is between units in different apartments (different addresses).

On installations where there are more than one intercom/videophone in the same apartment and intercommunication between different apartments is required, only one intercom/videophone may be set with this function (SW3.1=ON, SW3.2=OFF, SW3.3=OFF). The other intercom/videophones in the apartment must be set for local intercommunication with extension addresses "2-4" (slaves). From the intercom/videophone set for intercommunication with other apartments it will be not possible to intercommunicate within the apartment but slave extensions 2-4 will be able to intercommunicate with each other.

## EXTENSION NO - SW3.2.. 3

If the intercommunication between apartments is enabled (switch 1 of SW3 $=O N$ ) leave these two switches in default position (both to OFF). Otherwise, if the intercommunication is between the same apartment (switch 1 of SW3 = OFF), set the extension addresses starting always from 1. During the external call, all video monitors in the same flat will ring but the video will be shown only from the videmononitor with extension address 1.

| $\mathbf{2}$ | $\mathbf{3}$ | Extension No. |
| :---: | :---: | :--- |
| OFF | OFF | 1 (default, master) |
| ON | OFF | 2 (slave) |
| OFF | ON | 3 (slave) |
| ON | ON | 4 (slave) |

SLAVE MODE - SW3.4


This set up concerns the answering mode of the video monitor when there is more than one unit (max 4) in the same apartment. OFF (default) = during a call, only the video monitor with extension 1 (master) will show the video. ON = the video monitor will be switched on independently of the extension address: in this case the video monitor must be supplied locally using a power supply Art. 2321 and connecting respectively BUS+ to terminal 14 and BUS- to terminal 11 of the pcb connection board provided with the Art. 5980 (the local power supply is required for each black \& white slave videophone or starting from the third slave videophone when are used all colour videophones). If you set ON this switch for one slave videophone, you must set ON the same switch also for the relevant master videophone.

## VIDEOMONITOR CONNECTION BOARD ART. 5980

## SIGNAL ON CONNECTION TERMINALS

| Terminal | Signal | Description |
| :---: | :---: | :---: |
| 1 | GND | Ground |
| 2 | BUS1 | Bus input |
| 3 | S1 | Terminal controlled by the S1 button, connects terminals 3 and 5 until is pressed |
| 4 | BUS2 | Bus input |
| 5 | S1 | Terminal controlled by the S1 button, connects terminals 3 and 5 until is pressed |
| 6 | LED | Auxiliary LED power supply input (12Vdc) |
| 7 | S2 | Terminal controlled by the S2 button, connects terminals 7 and 17 until is pressed |
| 8 | GND | Ground |
| 9 | GND | Ground |
| 10 | LB | Local bell input (active low) |
| 11 | GND | Ground |
| 12 | $3$ |  |
| 13 |  |  |
| 14 | +VAUX | Auxiliary power supply input (to be used when the switch 4 of SW3 is set to ON) |
| 15 | +12VM | +12Vdc power supply input for the version with memory board option |
| 16 |  |  |
| 17 | S2 | Terminal controlled by the S2 button, connects terminals 7 and 17 until is pressed |
| 18 | AL | Alarm input (not implemented yet) |
| 19 |  |  |
| 20 | $8$ |  |




Fig. 2


- To install Art.SL5478 it is necessary to open it. Follow picture n.4: turn screw " $G$ ", pull cover " $D$ " and lift it up (or push it forward if the videomonitor is in horizontal position), then disconnect plug "E" (Fig.3) from plug "F" on the connection board housed on the bottom "A".
- Put the bottom "A" against the wall at 135 cm from the finished floor (Fig.1). All cables must be fed through hole "H" (Fig.2).
- Leaving approximately 135 cm from the finished floor, fit the bottom "A" against the wall and mark the fixing holes considering that the cables must fed through the opening "H" (Fig.2)
- Make the holes, and fix bottom " $A$ " on the wall using the two wall plugs " $B$ " and the two screws " $C$ " as shown in figure 2.
- Make all connections as per provided diagram.
- As shown in figure 3, move cover " $D$ " close to bottom " $A$ ", connect plug " $E$ " to plug " $F$ " on the connection board then proceed with the next step.
- Hook cover " $D$ " to bottom " $A$ " by using the two clips "J" (Fig.2) as shown in figure 4 then push down cover " $D$ " towards bottom " $A$ ". Then proceed with system testing.
- When finished the testing, fix cover "D" at the bottom "A" using the screw "G" (Fig.4).


## SPECIFICATION

Housing/Mounting Push buttons
Programming
Controls
Power Supply
Working Temperature

## 5000 Series Videophones / mounting plate plus connection board

Yes, 6
Yes, carried out by the dip-switches located on the rear of the videophone
Loudspeake and call tone volume, brightness and hue
Supplied by the BUS line
$-10+50^{\circ} \mathrm{C}$

## All Countries Customers

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$c \epsilon$

## Art. 3686 Digital Videophone



## DESCRIPTION

An intelligent Videophone using 3.5" full colour active matrix LCD monitor for VX2300. Including 3 buttons "camera recall", "dooropen/intercommunicating call", "privacy/service" plus 3 LED's* for visual indication of all functions. Adjustments \& programmable options: call tone volume on 3 levels (low, medium, high), picture hue, brightness and contrast, call tone melody, number of rings, privacy duration and address. Also includes a local bell function. The Art. 3686 is surface mount and requires the Art. 5980 connection board and wall mounting plate.

| PUSH BUTTONS, LEDS AND CONTROLS (FIG.1) |  |
| :---: | :---: |
|  | Camera recall push button. Pick up the handset and press as many times as the DEVICE N. of the door station to switch on. |
| E | Camera switch push button. If the door station uses the Art.4303N plus the Art.4330N, pressing this button during a conversation switches the video signal coming from the camera module to the video signal coming from the camera module input for external camera. During the conversation, press and keep pressed the button until the camera switches. Repeat the operation to switch back to main camera. |
| 0- | Door open push button. Press this button to open the door when you are in conversation. |
|  | Dry contact relay push button. During a conversation, keep pressed this button for more than 3 seconds to close the dry contacts relay (terminals " 3 " and " 5 " on Art. 5980 PCB connection board). The internal link remains closed while the button remains pressed (Max $50 \mathrm{Vdc} @ 100 \mathrm{~mA}$ ). |
|  | Intercommunication push button. For an intercommunicating call, pick up the handset and press as many times as the extension or address value to call (see SW3 Intercommunication Settings). |
| $x$ | Privacy ON-OFF push button. To enable the function press this button when the videophone is in stand-by. The service is automatically disabled when the programmed time expires (the privacy duration time can be programmed) or manually by pressing again the button. |
|  | Activate bus relay board Art. 2305 push button. To activate a bus relay, during a conversation, press this button quickly as many times as the address value of the relay. |
| LED ${ }^{\text {P }}$ : | ON LED. It illuminates when the videophone is switched ON. |
| LED 0- | Generic use LED. It is controlled from the terminals " 6 " and " 7 " of the PCB connection board Art.5980. Normally used to signal the door status (open or closed). |
| LED 炎 | PRIVACY ON LED. It illuminates when the privacy service is enabled. |
| - - $\bigcirc$ | Call tone volume control (3 levels). |
| 类 | Brightness control. |
| $\bigcirc$ | Colour intensity control. |
| JP1 | Jumper for future expansion (must remain closed). |
| TR1 | Contrast control trimmer (rotate left to increase or right to decrease. |
| SWCH1 | Bus termination switch (Left position = BUS termination active, Right position = BUS termination disabled) |

## PROGRAMMING

The videophone setup consists of the following settings:

- Number of Rings;
- Melody selection;
- Privacy duration;
- Unit address (1..127, switches 1 to 7 of SW1);
- Bus Termination (open or close, switch SWCH1);
- Intercommunication mode (between apartments or within apartment, switch 1 of SW3);
- Extension address (1..4, switches 2,3 of SW3);
- Slave mode (switch 4 of SW3);

The programming of the number of rings, melody and privacy duration are carried out through the videophone push buttons, all other settings are carried out on the two dip-switch banks (SW1 and SW3) on the rear side of the video monitor (all the settings can be done without opening the videophone).
It is necessary to remove temporary the power supply after making any programming changes.

## NUMBER OF RINGS, MELODY SELECTION AND PRIVACY DURATION

To make these changes, it is necessary to pick up the handset first when the system is in stand-by.

## Number of rings

- Keep pressed the "§s" button until the two LEDs 气s and switch on.
- Press the " $\boldsymbol{\leqslant} \leqslant$ " button for the number of times corresponding to the required number of rings to set. A beep confirms each time the button is pressed.
- Once the required number of rings is reached, wait approx 5 seconds for the two LED's to switch off.. The new value is stored.


## Melody selection

- Keep pressed the "0-m" button until the two LEDs $\boldsymbol{\Gamma} \leqslant$ and $x^{2}$ switch on. The unit emits the current selected melody.
- Press the "0-" button and keep it pressed to listen the next melody. Repeat the operation until the required melody is found.
- Once the required melody is found, wait approx 5 seconds for the two LED's to switch off. The new melody is set.


## Privacy duration

- Keep pressed the "x" button until the two LEDs $\boldsymbol{F} \leqslant$ and . are switched on.
- Press the "x" button for the number of times corresponding to the required privacy duration to set. Each time the button is pressed, the duration is increased by 15 minutes: i.e. to set 2 hours, press the button 8 times.
- Once the required privacy time is reached, wait approx 5 seconds for the two LED's to switch off. The new duration is set.

VIDEOPHONE ADDRESS - SW1.1.. 7
 you obtain the address that is 37 .

| Switches Status |  |  |  |  |  |  | Binary Code - Decimal Weight |  |  |  |  |  |  | Address |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 7 | 6 | 5 | 4 | 3 | 2 | 1 | 64 | 32 | 16 | 8 | 4 | 2 | 1 |  |
| OFF | OFF | OFF | OFF | OFF | OFF | ON | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| OFF | OFF | OFF | OFF | OFF | ON | OFF | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 |
| OFF | OFF | OFF | OFF | OFF | ON | ON | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 3 |
| OFF | OFF | OFF | OFF | ON | OFF | OFF | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 4 |
| OFF | ON | OFF | OFF | ON | OFF | ON | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 37 |
| ON | ON | ON | ON | ON | ON | ON | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 127 |

## Note

The maximum number of units allowed is 100 but the address of each unit can be a value between 1 and 127 .

## VIDEOPHONE END OF LINE TERMIANTION - SWCH1

Looking at the videophone from the rear:


Move the switch to the left position to enable the bus termination
Move the switch to the right position to disable the bus termination In case of more units (intercoms, videophones or video monitors) in a parallel connection (bus wires are connected to the terminals of the first unit then from this to the second and so on up to 4 units max) the BUS termination must be enabled only for the last unit in the chain while on all other units it must be set to disabled.


On installations where there are more than one intercom/videophone in the same apartment and intercommunication between different apartments is required, only one intercom/videophone may be set with this function (SW3.1=ON, SW3.2=OFF, SW3.3=OFF). The other intercom/videophones in the apartment must be set for local intercommunication with extension addresses "2-4" (slaves). From the intercom/videophone set for intercommunication with other apartments it will not be possible to intercommunicate within the apartment but slave extensions 2-4 will be able to intercommunicate with each other within the apartment.

## EXTENSION NO - SW3.2.. 3

If the intercommunication between apartments is enabled (switch 1 of $\mathrm{SW} 3=O N$ ) leave these two switches in default position (both to OFF). Otherwise, if the intercommunication is between the same apartment (switch 1 of SW3 = OFF), set the extension addresses starting always from 1 . During the external call, all video monitors in the same flat will ring but the video will be shown only from the videophone with extension address 1.

| $\mathbf{2}$ | $\mathbf{3}$ | Extension No. |
| :---: | :---: | :--- |
| OFF | OFF | 1 (default, master) |
| ON | OFF | 2 (slave) |
| OFF | ON | 3 (slave) |
| ON | ON | 4 (slave) |



## SLAVE MODE-SW3. 4



ON This set up concerns the answering mode of the video monitor when there is more than one unit (max 4) in the same apartment. OFF (default) = during a call, only the video monitor with extension 1 (master) will show the video. ON = the video monitor will be switched on independently of the extension address: in this case the video monitor must be supplied locally using a power supply Art. 2321 and connecting respectively BUS+ to terminal 14 and BUS- to terminal 11 on the Art. 5980 pcb connection board (the local power supply is required starting from the third slave videophone when they are all colour videophones). If you set for one slave videophone, you must set ON the same switch also for the relevant master videophone.

## VIDEOPHONE CONNECTION BOARD ART. 5980

SIGNAL ON CONNECTION TERMINALS

| Terminal | Signal | Description |
| :---: | :---: | :---: |
| 1 | GND | Ground |
| 2 | BUS1 | Bus input |
| 3 | C | Dry contacts relay common contact (during a conversation, keep pressed the button $\mathbf{0} \boldsymbol{\pi}$ for more than 3 seconds to enable the internal link between terminals " 3 " and " 5 " - the link remains until the button is released) Max 50Vdc @ 100 mA |
| 4 | BUS2 | Bus input |
| 5 | NO | Dry contacts relay normally open contact (during a conversation, keep pressed the button $\mathbf{0}$ - for more than 3 seconds to enable the internal link between terminals " 3 " and " 5 " - the link remains until the button is released) Max 50Vdc @ 100 mA |
| 6 | DOL | Auxiliary LED power supply input (+12Vdc) |
| 7 | DOL | Auxiliary LED power supply input (ground) |
| 8 | GND | Ground |
| 9 | GND | Ground |
| 10 | LB | Local bell input (active low) |
| 11 | GND | Ground |
| 12 |  |  |
| 13 |  |  |
| 14 | +VAUX | Auxiliary power supply input (to be used when the switch 4 of SW3 is set to ON) |
| 15 |  |  |
| 16 |  |  |
| 17 |  |  |
| 18 | AL | Alarm input (not implemented yet) |
| 19 | AL-LB_GND | Ground output for use in combination with "AL" \& "LB" active low inputs |
| 20 |  |  |



- Cables must be fed through the opening "e" (Fig. 2A) of the mounting plate "c", which should be fitted approximately 135 cm from finished floor level as shown in Fig 1;
- Place the mounting plate "c" against the wall feeding the wire group "d" through opening "e" of the mounting plate and mark the fixing holes "a" (Fig. 2A)
- Drill the fixing holes "a", insert the wall plugs "b" then with the cables threaded through opening " $e$ " fix the mounting plate " $c$ " to the wall with the 4 screws provided "f" (Fig. 2A).
- Hook the pcb connection board " $g$ " to the mounting plate " c "as shown in Fig2B and connect the wires (using the screwdriver provided) to the terminals as shown in the diagram provided;
- Once the wires are connected, hook the videophone "h" to the Mounting plate "c" as shown in Fig. 3.

Connect the Plug "I" on the ribbon cable from the videophone to the plug "l" on the PCB connection board " $g$ ";
Place the videophone " $h$ " against the 4 hooks " $m$ " on the mounting plate " $c$ " (in line with the 4 openings " $n$ " on the rear side of the videophone Fig. 4) and push down as suggested by the pointers in Fig. 3, the videophone will lock into place;

- To remove the videophone, hold it firmly and push the unit in an upward direction until the videophone " $h$ " unlocks from the mounting plate " c "

| SPECIFICATION |  |
| :--- | :--- |
| Housing/Mounting 3600 Series Videophones / mounting plate plus connection board <br> Push buttons Yes, 3 <br> Programming Yes, carried out by the buttons and the dip-switches located on the rear of the videophone <br> Controls Call tone volume, brightness and hue <br> Power Supply Supplied by the BUS line <br> Working Temperature $-10+50^{\circ} \mathrm{C}$ |  |

## CUSTOMER SUPPORT INFORMATION

[^3]UK Customers
VIDEX Security LTD
Tech Line 01912243174
Fax 01912241559

Il prodotto è marchiato CE a dimostrazione della sua conformità e può essere distribui-
to liberamente all'interno dei paesi membri dell'unione europea EU.
Questo prodotto è conforme alle direttive Europee
89/336/EEC \& 92/31/EEC (EMC),
73/23/EEC (LVD) e 93/68/EEC (Marcatura CE).

## Art. 6286 Digital Videophone



## DESCRIPTION

An intelligent Videophone using 3.5" full colour active matrix LCD monitor for VX2300. Including 4 buttons "service", "privacy/bus relay activation", "dooropen/intercommunicating call" and "camera recall" plus 3 LED's* for visual indication of all functions. Adjustments \& programmable options: call tone volume on 3 levels (low, medium, high), picture hue, brightness and contrast, call tone melody, number of rings, privacy duration and address. Also includes a local bell function. The Art. 6286 is surface mount.

| PUSH BUTTONS, LEDS AND CONTROLS (FIG.1) |  |
| :---: | :---: |
| S | Service push button. When pressed it links internally the terminals "C" and "NO" on the connection terminals. |
| $x$ | Privacy ON-OFF push button. To enable the function press this button when the videophone is in stand-by. The service is automatically disabled when the programmed time expires (the privacy duration time can be programmed) or manually by pressing again the button. |
|  | Activate bus relay board Art. 2305 push button. To activate a bus relay, during a conversation, press this button quickly as many times as the address value of the relay. |
| $0 \sim$ | Door open push button. Press this button to open the door when you are in conversation. |
|  | Intercommunication push button. For an intercommunicating call, pick up the handset and press as many times as the extension or address value to call (see SW3 Intercommunication Settings). |
| $\bigcirc$ | Camera recall push button. Pick up the handset and press as many times as the DEVICE N. of the door station to switch on. |
|  | Camera switch push button. If the door station uses the Art.4303N plus the Art.4330N, pressing this button during a conversation switches the video signal coming from the camera module to the video signal coming from the camera module input for external camera. During the conversation, press and keep pressed the button until the camera switches. Repeat the operation to switch back to main camera. |
| LED ${ }^{\text {K }}$ | PRIVACY ON LED. It illuminates when the privacy service is enabled. |
| LED ${ }^{-\cdots}$ | Generic use LED. It is controlled from the terminals "+DOL" and "-DOL". Normally used to signal the door status (open or closed). |
| LED | ON LED. It illuminates when the videophone is switched ON. |
| Q - SW1 | Call tone volume control (3 levels). |
|  | Brightness control (sliding wheel). |
| PT2 | Colour intensity control trimmer (rotate left to increase or right to decrease). |
| PT3 | Contrast control trimmer (rotate left to increase or right to decrease) |
| VR1 | Microphone volume control trimmer (rotate left to increase or right to decrease) |
| SW | Bus termination switch (Right position = BUS termination active, Left position = BUS termination disabled) |

## PROGRAMMING

The videophone setup consists of the following settings:

- Number of Rings;
- Melody selection;
- Privacy duration;
- Unit address (1..127, switches 1 to 7 of SW1);
- Bus Termination (open or close, switch SW);
- Intercommunication mode (between apartments or within apartment, switch 1 of SW3);
- Extension address (1..4, switches 2,3 of SW3);
- Slave mode (switch 4 of SW3);

The programming of the number of rings, melody and privacy duration are carried out through the videophone push buttons, all other settings are carried out on the two dip-switch banks (SW1 and SW3) on the rear side of the video monitor (all the settings can be done without opening the videophone).
It is necessary to remove temporary the power supply after making any programming changes.

## NUMBER OF RINGS, MELODY SELECTION AND PRIVACY DURATION

To make these changes, it is necessary to pick up the handset first when the system is in stand-by.

## Number of rings

- Keep pressed the " $\bigcirc$ " button until the two LEDs $\bigcirc$ and switch on.
- Press the " O " button for the number of times corresponding to the required number of rings to set. A beep confirms each time the button is pressed.
- Once the required number of rings is reached, wait approx 5 seconds for the two LED's to switch off.. The new value is stored.


## Melody selection

- Keep pressed the " 0 "" button until the two LEDs $\bigcirc$ and switch on. The unit emits the current selected melody.
- Press the " 0 "" button and keep it pressed to listen the next melody. Repeat the operation until the required melody is found.
- Once the required melody is found, wait approx 5 seconds for the two LED's to switch off. The new melody is set.


## Privacy duration

- Keep pressed the "x" button until the two LEDs $\bigcirc$ and are switched on.
- Press the "x" button for the number of times corresponding to the required privacy duration to set. Each time the button is pressed, the duration is increased by 15 minutes: i.e. to set 2 hours, press the button 8 times.
- Once the required privacy time is reached, wait approx 5 seconds for the two LED's to switch off. The new duration is set.

VIDEOPHONE ADDRESS - SW1.1.. 7
 you obtain the address that is 37 .

| Switches Status |  |  |  |  |  |  | Binary Code - Decimal Weight |  |  |  |  |  |  | Address |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 7 | 6 | 5 | 4 | 3 | 2 | 1 | 64 | 32 | 16 | 8 | 4 | 2 | 1 |  |
| OFF | OFF | OFF | OFF | OFF | OFF | ON | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| OFF | OFF | OFF | OFF | OFF | ON | OFF | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 |
| OFF | OFF | OFF | OFF | OFF | ON | ON | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 3 |
| OFF | OFF | OFF | OFF | ON | OFF | OFF | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 4 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OFF | ON | OFF | OFF | ON | OFF | ON | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 37 |
| ON | ON | ON | ON | ON | ON | ON | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 127 |

## Note

The maximum number of units allowed is 100 but the address of each unit can be a value between 1 and 127 .
VIDEOPHONE END OF LINE TERMIANTION - SWCH1
Looking at the videophone from the rear:


Move the switch to the right position to enable the bus termination


Move the switch to the left position to disable the bus termination

In case of more units (intercoms, videophones or video monitors) in a parallel connection (bus wires are connected to the terminals of the first unit then from this to the second and so on up to 4 units max) the BUS termination must be enabled only for the last unit in the chain while on all other units it must be set to disabled.

## INTERCOMMUNICATION MODE - SW3.1

$\square=$ ON
$\square=O F F$
$\square$

On installations where there are more than one intercom/videophone in the same apartment and intercommunication between different apartments is required, only one intercom/videophone may be set with this function (SW3.1=ON, SW3.2=OFF, SW3.3=OFF). The other intercom/videophones in the apartment must be set for local intercommunication with extension addresses "2-4" (slaves). From the intercom/videophone set for intercommunication with other apartments it will not be possible to intercommunicate within the apartment but slave extensions 2-4 will be able to intercommunicate with each other within the apartment.

## EXTENSION NO - SW3.2.. 3

If the intercommunication between apartments is enabled (switch 1 of SW3 $=$ ON) leave these two switches in default position (both to OFF). Otherwise, if the intercommunication is between the same apartment (switch 1 of SW3 = OFF), set the extension addresses starting always from 1 . During the external call, all video monitors in the same flat will ring but the video will be shown only from the videophone with extension address 1.

| $\mathbf{2}$ | $\mathbf{3}$ | Extension No. |
| :---: | :---: | :--- |
| OFF | OFF | 1 (default, master) |
| ON | OFF | 2 (slave) |
| OFF | ON | 3 (slave) |
| ON | ON | 4 (slave) |



SLAVE MODE - SW3.4


This set up concerns the answering mode of the video monitor when there is more than one unit (max 4) in the same apartment. OFF (default) = during a call, only the video monitor with extension 1 (master) will show the video. ON = the video monitor will be switched on independently of the extension address: in this case the video monitor must be supplied locally using a power supply Art. 2321 and connecting respectively BUS+ to terminal +VAUX and BUS- to terminal GND on the connection terminals (the local power supply is required for each black \& white slave videophone or starting from the third slave videophone when they are all colour videophones). If you set for one slave videophone, you must set ON the same switch also for the relevant master videophone.

## VIDEOPHONE CONNECTIONS

SIGNAL ON CONNECTION TERMINALS

| Signal | Description |
| :--- | :--- |
| GND | Ground |
| BUS1 | Bus input |
| C | Dry contact Max 50Vdc @ 100mA. Internally linked to NO when the $\mathbf{S}$ button is pressed. |
| BUS2 | Bus input |
| NO | Dry contact Max 50Vdc @ 100mA. Internally linked to C when the $\mathbf{S}$ button is pressed. |
| +DOL | Auxiliary LED power supply input (+12Vdc) |
| -DOL | Auxiliary LED power supply input (ground) |
| GND | Ground |
| LB | Local bell input (active low) |
| GND | Ground |
| +VAUX | Auxiliary power supply input (to be used when the switch 4 of SW3 is set to ON) |
| +12VM | $+12 V d c ~ p o w e r ~ s u p p l y ~ i n p u t ~ f o r ~ v e r s i o n ~ w i t h ~ m e m o r y ~ b o a r d ~ o p t i o n ~$ |
| AL | Alarm input (not implemented yet) |
| AL-LB_GND | Ground output for use in combination with "AL" \& "LB" active low inputs |

VIDEOMONITOR WALL MOUNTING INSTRUCTIONS


- In order to install the videophone, it is necessary to remove the cover, which contains all the electronics, from the base: firstly disconnect thehandset from the videophone (by removing its plug from the videophone), then press lightly the bottom part of the videophone and simultaneously pulling outwards the upper part as shown in figure 1.
- Put the base of the unit on the wall at about 135 cm from the finished floor to match the points for the fixing holes "a" (figure 2) remembering that the wires "d" (figure 3) must be fed through the window "e" (figure 3). If you use the flush mounting box 503, embed it into the wall vertically at about 140cm from the finished floor and the base.
- Following figure 3, make the holes "a", insert the wall plugs "b" and fix the base with the screws "c" leadings the wires "d" into the window "e". If you have used the box 503, fix the base to the wall through the holes " $f$ " by using the screws " c ".
- As shown in figure 4A, connect the wires to the removable terminals following the provided installation diagram. Connect the terminal blocks to the electronics contained in the cover as shown in figure 4B. Reinsert the handset and test system before closing: Note: microphone volume, contrast and hue trimmers can be adjusted only if the videophone is open. Note while testing the system, it is advisable to hold the cover with your hand closing manually the hook switch of the handset (see figure 4B reference "a").
- Once testing is complete and all the necessary adjustments are made, disconnect the handset from the cover and close the unit as shown in figure 5: first hook it on the bottom part then on the upper side until you hear the clip.
- Reconnect the handset and hang it as shown in figure 6.

SPECIFICATION

| Housing/Mounting | 6200 Series Videophones / surface mount |
| :--- | :--- |
| Push buttons | Yes, 4 |
| Programming | Yes, carried out by the buttons and the dip-switches located on the rear of the videophone |
| Controls | Call tone volume, brightness and hue |
| Power Supply | Supplied by the BUS line |
| Working Temperature | $-10+50^{\circ} \mathrm{C}$ |

Push buttons
ramming
Power Supply
Working Temperature

## 6200 Series Videophones / surface mount

Yes, 4
Yes, carried out by the butons and the dip-switches located on the rear of the videophone
Supplied by the BUS line
$-10+50{ }^{\circ} \mathrm{C}$

## All Countries Customers

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> | UK Customers |
| :---: |
| VIDEX Security LTD |
| www.videx-security.com |
| Tech Line 01912243174 |
| Fax 01912241559 |

Il prodotto è marchiato CE a dimostrazione della sua conformità e può essere distribuito liberamente all'interno dei paesi membri dell'unione europea EU.
Questo prodotto è conforme alle direttive Europee
89/336/EEC \& 92/31/EEC (EMC),
73/23/EEC (LVD) e 93/68/EEC (Marcatura CE).

## Art.5188 Hands Free Intercom for VX2300



## DESCRIPTION

| PUSH BUTTONS, LEDS AND CONTROLS (FIG.1) |  |
| :---: | :---: |
| $\cdots$ | Bus Relay Button to Activate bus relay board Art.2305. To activate a bus relay press as many times as the address value of the relay. |
| S | Answer button - On an incoming call, operation of this button allows the user to answer and converse with the visitor. LED 2 will illuminate. |
|  | Camera recall button - Press as many times as the DEVICE N. of the door station to switch on. |
|  | Switch off button - With the system switched on, momentary operation of the button will switch the unit off. The intercom will also automatically switch off after a time delay if the button is not pressed. LED 2 will switch off. |
|  | Simplex button - Pressing and holding the button for more than 3 seconds will switch the intercom into SIMPLEX speech mode. Press and hold the button to speak to the caller (LED 2 will flash rapidly), release the button to listen (LED 2 will flash slowly). If the button is not pressed for 10 seconds the intercom will switch off. The intercom will revert to duplex speech when another call is made. |
| $x$ | Privacy on-off button: <br> - If the unit is switched on, press and keep pressed this button for more than 3 seconds to enable/disable the service. The relative $L E D$ will illuminate when the privacy service is enabled. <br> - If the unit is switched off, keep this button pressed together with the "speak" button $\begin{aligned} & \text { § until the privacy LED switches ON. }\end{aligned}$ |
| O- | Intercommunicating call button - For an intercommunicating call, when the intercom is in stand-by, press as many times as the extension or address value to call. |
|  | Door open button - During a call, operation of this button will activate the "door open" relay (NO1, NC1, COM1). LED 4 will illuminate if terminal 6 has been connected to a door contact. |
| 1 | Programming LED |
| 2 | LED relating to the operation of the answer/switch off/camera recall/simplex button |
| 3 | LED relating to the operation of privacy button |
| 4 | LED relating to the operation of door open button(powered from the connection terminal "2" \& GND "1" on the connection board) |
| T | Loudspeaker volume control |
| 4 | Call tone volume control |

## PROGRAMMING

The intercom setup consists of the following settings:

- Number of Rings;
- Privacy duration;
- Melody selection;
- Unit address (1..127, switches 1 to 7 of SW1);
- Intercommunication mode (between apartments or within apartment switch 1 of SW3);
- Extension address (1..4, switches 2,3 of SW3);
- Bus Termination (JP1 jumper on connection board);

The programming of the number of rings, melody and privacy duration are carried out through the intercom push buttons, all other settings are carried out on the two dip-switch banks (SW1 and SW3) on the rear side of the video monitor. The BUS termination depends on the position of JP1 on the connection board.
Except for when programming the number of rings, it is necessary to temporarily remove the power supply from the unit after making programming changes.

## NUMBER OF RINGS, PRIVACY DURATION AND MELODY SELECTION

First of all make a recall to switch on the unit then proceed with the programming operation. To alter the number of rings and select the melody, the intercom must be in program mode. This is achieved by pressing the two following buttons at the same time (left button of the volume control and the right button of the call tone volume control) see Fig.1.When the programming mode is entered LED 1 (Fig.1) starts flashing. This will automatically reset after 20 seconds of idle time.

## Number of rings

- When in the programming mode press and hold the "§ $\leqslant$ " button, LED 1 will stop flashing and LED 3 (Fig.1) will start to flash showing the number of rings (each flash $=1$ ring i.e. 6 flashes $=6$ rings)
- Once the value of rings has been reached release the "ःs" button.
- Wait approx 10 seconds for LED 1 to stop flashing to signal that the new value is stored and program mode has exited.


## Privacy duration

- When in the programming mode press and hold the "领" button, LED 1 will stop flashing and LED 3 (Fig.1) will start to flash showing the number of times the button is pressed (each flash = 15 minutes i.e. 8 flashes $=2$ hours )
- Once the duration required has been reached release the "猜" button.
- Wait approx 10 seconds for LED 1 to stop flashing to signal that the new value is stored and program mode has exited.


## Melody selection

- When in the programming mode, press left or right call tone volume control buttons (press the left button to navigate backward or the right button to navigate forward through the melodies selection menù) After each press, the melody will be played (during the melody play the LED1 stops flashing);
- Before pressing again one of the two buttons to select previous (left button) or next (right button) melody, wait for LED1 to start flashing again then press and hold one button until the selected melody is played;
- Once the required melody is reached, Wait approx 10 seconds for LED 1 to stop flashing to signal that the new value is stored and program mode has exited.


## Notes

The second melody increases its volume at each ring: first ring starts at minimum volume level and adjusts up to the maximum volume level on the last ring. There are 4 volume levels: Rings after this will all play at full volume.

INTERCOM ADDRESS - SW1.1.. 7


The table above shows how to set the address of the videophone. Considering that ON $=1$ and OFF $=0$, multiply each digit for the relevant decimal weight then add values obtained to get the address: E.g. as highlighted in the table OFF,ON,OFF,OFF,ON, OFF,ON in binary is equal to 0100101 then multiplying each digit for the relevant decimal weight you obtain the address that is 37 .

| Switches Status |  |  |  |  |  |  | Binary Code - Decimal Weight |  |  |  |  |  |  | Address |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 7 | 6 | 5 | 4 | 3 | 2 | 1 | 64 | 32 | 16 | 8 | 4 | 2 | 1 |  |
| OFF | OFF | OFF | OFF | OFF | OFF | ON | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| OFF | OFF | OFF | OFF | OFF | ON | OFF | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 |
| OFF | OFF | OFF | OFF | OFF | ON | ON | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 3 |
| OFF | OFF | OFF | OFF | ON | OFF | OFF | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 4 |
| OFF | ON | OFF | OFF | ON | OFF | ON | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 37 |
| ON | ON | ON | ON | ON | ON | ON | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 127 |

## Note

The maximum number of units allowed is 100 but the address of each unit can be a value between 1 and 127.
Set switch 8 to OFF position.

## INTERCOMMUNICATION MODE - SW3.1

|  | This switch establishes the intercommunication mode: in OFF position (default) intercommunication is between units in the same apartment (same addresses but different extension); in ON position the intercommunication is between units in different apartments (different addresses). |
| :---: | :---: |

On installations where there are more than one intercom/videophone in the same apartment and intercommunication between different apartments is required, only one intercom/videophone may be set with this function (SW3.1=ON, SW3.2=OFF, SW3.3=OFF). The other intercom/videophones in the apartment must be set for local intercommunication with extension addresses "2-4" (slaves). From the intercom/videophone set for intercommunication with other apartments it will be not possible to intercommunicate within the apartment but slave extensions 2-4 will be able to intercommunicate with each other.

## EXTENSION NO - SW3.2.. 3

If the intercommunication between apartments is enabled (switch 1 of SW3 $=$ ON) leave these two switches in default position (both to OFF). Otherwise, if the intercommunication is between the same apartment (switch 1 of SW3 = OFF), set the extension addresses starting always from 1.

| $\mathbf{2}$ | $\mathbf{3}$ | Extension No. |
| :---: | :---: | :--- |
| OFF | OFF | 1 (default, master) |
| ON | OFF | 2 (slave) |
| OFF | ON | 3 (slave) |
| ON | ON | 4 (slave) |



Notes: Set switch "4" to OFF position.

VX2300 2 Wire Video Digital System

## BUS LINE TERMINATION JP1

The factory preset for this jumper is "A" position: termination enabled. In case of more units (intercoms, videophones or video monitors) in a parallel connection (bus wires are connected to the terminals of the first unit then from this to the second and so on up to 4 units max) JP1 must be set to A position only for the last unit in the chain while on all other units must be set to B position (bus termination disabled). In case of units of different type, videophones, video monitor, hands free or standard intercoms etc. remains fixed the rule that the bus termination must be enabled only on the last unit in order of connection.

## INTERCOM CONNECTION BOARD



Fig. 2
SIGNAL ON CONNECTION TERMINALS

| Terminal | Signal |  |
| :---: | :---: | :--- |
| $\mathbf{1}$ | GND | Ground |
| $\mathbf{2}$ | LED | Auxiliary LED +12Vdc Input |
| $\mathbf{3}$ |  |  |
| $\mathbf{4}$ |  |  |
| $\mathbf{5}$ | LB | Local bell active low input |
| $\mathbf{6}$ | AL | Alarm input (not implemented yet) |
| $\mathbf{7}$ | BUS2 |  |
| $\mathbf{8}$ | Bus input |  |
| $\mathbf{9}$ | BUS1 |  |
| $\mathbf{1 0}$ | BUS1 | Bus input |

VX2300 2 Wire Video Digital System
ART. 5188 INTERCOM WALL MOUNTING INSTRUCTIONS


- As shown in Fig 1, looking at the rear of the intercom, insert the tip of a flat blade screwdriver into one of the two openings (Fig 1A) then slightly move the screwdriver in an upward direction to release the front from the back plate and opening the intercom unit (Fig 1B). Take care! The back plate of the intercom houses the pcb connection board which is normally connected to the pcb in the front of the intercom by the ribbon cable, the ribbon cable should not be connected when first opened.
- Place the back plate of the intercom against the wall at approximately 135 cm (Fig 2) above finished floor level, then mark the fixing holes taking into account that the cable group "a" must feed into the opening "b" (Fig 3).
- As shown in figure 3, fix the back plate of the intercom to the wall feeding the cable group "a" through opening "b".
- Using a flat blade screwdriver connect the wires to the pcb connection board "c" as shown in Figure 4, according to the installation diagram provided.
- Connect ribbon cable plug "d" from the front plate into plug "e" on the pcb connection board as shown in Figure 5.
- Close the intercom by hooking the front plate " $g$ " to the back plate " $h$ " as described below:
- Hook the top of the front plate " $\mathbf{g}$ " to the top of the back plate as shown by pointer " $A$ " in Figure 6.
" Move the lower side of the front plate " $g$ " towards the back plate" $h$ " and press until the unit locks into the back plate of the intercom.
To open the intercom once installed, firmly grasp the bottom sides of the front plate cover, pull forward in an upward direction to separate the front cover from the back plate as in Figure 6.
NB. Please take care when opening to avoid damage, remember that the ribbon cable connects the front plate to the back plate connector pcb.
SPECIFICATION

Housing/Mounting Push buttons Programming Controls
Power Supply Working Temperature

## 5000 Series Intercoms / direct wall mount

Yes, 4
Yes, carried out by the dip-switches located on the rear of the videophone
Loudspeaker and call tone volume
Supplied by the BUS line
$-10+50^{\circ} \mathrm{C}$

## All Countries Customers

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The product is CE marked demonstrating its conformity and is for distribution within all member states of the EU with no restrictions.
This product follows the provisions of the European Directives
89/336/EEC \& 92/31/EEC (EMC),
89/336/EEC \& 92/31/EEC (EMC),
73/23/EEC (LVD) and 93/68/EEC (CE marking).

Il prodotto è marchiato CE a dimostrazione della sua conformità e può essere distribuito liberamente all'interno dei paesi membri dell'unione europea EU.
Questo prodotto è conforme alle direttive Europee
89/336/EEC \& 92/31/EEC (EMC),
73/23/EEC (LVD) e 93/68/EEC (Marcatura CE).

## DESCRIPTION

Intelligent Hands free video monitor for the VX2300 digital system using 3,5" OSD full colour active matrix LCD monitor, with touch sensitive buttons for "door open / service", "answer/camera recall", "privacy / bus relay" plus 5 navigation menu buttons and 3 LEDs related to the videophone operation. For the surface version only (Art.KRV76), a handset can also be used in addition to the hands free mode. Additional features include a real time clock, a temperature sensor and a serial RS232 port for future integration with home automation systems.

| PUSH BUTTONS, LEDS AND CONTROLS (FIG.1) |  |
| :---: | :---: |
| $\beta, 1)$ | Answer Button - Press this button during an incoming call to open the speech in duplex mode allowing free speech with the caller in both directions (The related LED will illuminate). |
|  | Camera Recall Button - When the system is in standby, (No calls on the system) operation of this button will open the speech to the door station. The related LED will illuminate. Press as many time as the ID value of the door panel to connect to. |
|  | End Conversation Button - During a conversation, momentary operation of this button will end the call. The LED next to the button will switch off. The system will automatically switch off when the conversation time expires. |
|  | PTT Enable Button - Press and hold this button (more than 1 second), during an incoming call or a conversation in progress, to allow the user to answer a call from a visitor at the door station in SIMPLEX speech mode (The related LED will flash rapidly): releasing the button will allow the user to listen to the visitor (The LED will flash slowly). Press and hold the button when you talk to the visitor and release the button when you listen to the visitor. |
| $0-11$ | Door Open Button - During a conversation, momentary operation of this button will release the door from where the call originated. This will be confirmed by an acoustic tone and the key icon on the top of the screen under the date, time \& temperature row. If terminal "DOL" is connected, the "door open" LED next to the button will also be illuminated. |
|  | Aux Service Button - During a conversation, keep pressed this button to enable the auxiliary service relay. This will be confirmed by a message on the display: terminals "C" and "NO" are internally linked until the button is released. |
|  | Intercommunicating call button - For an intercommunicating call, when the intercom is in stand-by, press as many times as the extension number (intercommunication among the apartment units) or address value to call (intercommunication among all the units of different apartments). For videophones with handset the intercommunication can be hands free or conventional by picking up the handset before calling. |
| $y$ | Privacy Button - When the system is in stand-by, press this button to enable the service for the programmed time: the related LED will illuminate to signal the service enabled. During an incoming call, with the service enabled, the device does not emit any acoustic signal. The service is disabled when the programmed time expires or pressing again the button. |
|  | Programming Menu Button - With the system in stand-by, keep pressed this button until the monitor switches on showing the programming menu where you can set date \& time, privacy duration, call tone volume, melody and number of rings. Once the menu is enabled, proceed with settings by the menu navigation buttons. |
|  | Call Reject Button - During an incoming call, press this button to reject the call. The visitor doesn't receive any warning of the call rejected. |
|  | Adjustment Menu Button - During a conversation, press this button to enter a programming menu that allows to set speech volume, picture brightness, contrast and hue. Once the menu is enabled, proceed with settings by the menu navigation buttons. |
|  | Bus Relay Button - During a conversation, keep pressed this button until the display shows a yellow band at the bottom side. Select the BUS Relay to enable by the buttons "Plus" and "Minus" then press OK to enable the relay. |
| OK | Menu navigation buttons - these buttons to be used during adjustment and programming menus. Via these buttons you can set the date \& time, the melody, the number of rings and the privacy duration and you can adjust the speech and call tone volume and the picture brightness, contrast and hue. Use top \& down arrow to move along settings, plus and minus to alter settings and OK button to confirm. |
| , | Camera switch button - If the door station uses the Art.4303N plus the Art.4330N, pressing this button during a conversation switches |

## PROGRAMMING

The programming consists of a number of settings that in part are carried out by a specific OSD menu and the rest is carried out by the two dip-switch banks on the rear side of the videophone:

- Date \& Time (OSD);
- Privacy duration from 0 to 20 hours (OSD);
- Melody selection among 9 available (OSD);
- Number of rings from 1 to 9 (OSD);
- Unit address (1..127, switches 1 to 7 of SW1);
- Intercommunication mode (between apartments or within apartment switch 1 of SW3);
- Extension address (1..4, switches 2,3 of SW3);
- Slave mode (switch 4 of SW3);
- Bus Termination (switch to the right of the connection terminals).

Except OSD settings, it is necessary to remove temporary the power supply after making any other programming changes. PROGRAMMING OSD MENU



Fig.1a


Fig.1b

When the system is in stand-by, keep pressed the button until the monitor switches on showing the screen to the left
The first programming option is the date \& time Fig.1:

- change the values by the - and + buttons;
- use buttons $\wedge$ and $\vee$ to move between the fields to set (day, month, year, hours and minutes);
- confirm the setting by the OK button or the $\checkmark$ button when the field minutes is selected. The system goes to next programming step.

The second programming option is the privacy duration Fig.1a (from 0 to 20 hours):

- adjust the value by the buttons - and + ( $0=$ privacy duration unlimited, the service is disabled by pressing again the button $\infty$;
- confirm the value by the OK or $\vee$. The system jump to next programming option.

Proceed in the same way for the other programming options: call tone volume (3 level Fig.1b), melody (9 options Fig.1c) and number of rings (for 1 to 9 Fig.1d).

Note
From any of the two OSD menu's, if the videophone switches off because of the timeout, the controls and the programmings are not stored. VIDEOMONITOR ADDRESS - SW1.1.. 7
=ON ON ON The table above shows how to set the address of the videophone. Considering that ON $=1$ and OFF $=0$, multiply each


1234567 SW1.1..7
digit for the relevant decimal weight then sum values obtained to get the address: E.g. as highlighted in the table OFF,ON,OFF,OFF,ON, OFF,ON in binary is equal to 0100101 then multiplying each digit for the relevant decimal weight you obtain the address that is 37 .

| Switches Status |  |  |  |  |  |  | Binary Code - Decimal Weight |  |  |  |  |  |  | Address |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 7 | 6 | 5 | 4 | 3 | 2 | 1 | 64 | 32 | 16 | 8 | 4 | 2 | 1 |  |
| OFF | OFF | OFF | OFF | OFF | OFF | ON | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| OFF | OFF | OFF | OFF | OFF | ON | OFF | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 |
| OFF | OFF | OFF | OFF | OFF | ON | ON | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 3 |
| OFF | OFF | OFF | OFF | ON | OFF | OFF | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 4 |
| OFF | ON | OFF | OFF | ON | OFF | ON | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 37 |
| ON | ON | ON | ON | ON | ON | ON | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 127 |

The maximum number of units allowed is 100 but the address of each unit can be a value between 1 and 127

## INTERCOMMUNICATION MODE - SW3.1



This switch establishes the intercommunication mode: in OFF position (default) intercommunication is between units in the same apartment (same addresses but different extension); in ON position the intercommunication is between units in different apartments (different addresses).

On installations where there are more than one intercom/videophone in the same apartment and intercommunication between different apartments is required, only one intercom/videophone may be set with this function (SW3.1=ON, SW3.2=OFF, SW3.3=OFF). The other intercom/videophones in the apartment must be set for local intercommunication with extension addresses "2-4" (slaves). From the intercom/videophone set for intercommunication with other apartments it will be not possible to intercommunicate within the apartment but slave extensions 2-4 will be able to intercommunicate with each other.

## EXTENSION NO - SW3.2.. 3

If the intercommunication between apartments is enabled (switch 1 of SW3 $=$ ON) leave these two switches in default position (both to OFF). Otherwise, if the intercommunication is between the same apartment (switch 1 of SW3 = OFF), set the extension addresses starting always from 1. During the external call, all video monitors in the same flat will ring but the video will be shown only from the videmononitor with extension address 1.

| $\mathbf{2}$ | $\mathbf{3}$ | Extension No. |
| :---: | :---: | :--- |
| OFF | OFF | 1 (default, master) |
| ON | OFF | 2 (slave) |
| OFF | ON | 3 (slave) |
| ON | ON | 4 (slave) |



SLAVE MODE - SW3.4
=ON ON ON This set up concerns the answering mode of the video monitor when there is more than one unit (max 4) in the same apartment.


OF OFF (default) = during a call, only the video monitor with extension 1 (master) will show the video. ON = the video monitor will be switched on independently of the extension address: in this case the video monitor must be supplied locally using a power supply Art. 2321 and connecting respectively BUS+ to terminal +30Vaux and BUS- to terminal GND of the connection terminals (the local power supply is required starting from the third slave videophone when are used all colour videophones). If you set ON this switch for one slave videophone, you must set ON the same switch also for the relevant master videophone.

## BUS LINE TERMINATION

The factory pre-set is termination enabled. In case of more units (intercoms, videophones or video monitors) in a parallel connection (bus wires are connected to the terminals of the first unit then from this to the second and so on up to 4 units max) Termination must be enabled only for the last unit in the chain while on all other units must be disabled. In case of units of different type, videophones, video monitor, hands free or standard intercoms etc. remains fixed the rule that the bus termination must be enabled only on the last unit in order of connection.


Termination enabled (factory pre-set).


Termination disabled.


During a call the display switches on showing the screen on figure 2 :

- To answer in hands free mode press the ?, button Fig.1a (or pick up the handset on model KRV76);
- To open the door without speech to the visitor press the button O-I Fig1.b;
- To reject the call without informing the visitor press the button Fig1c

DURING THE CONVERSATION


During the conversation Fig.3:

- To switch from hands free to push to talk mode, keep pressed the , 3) until the related LED starts to flash slowly Fig.3a. Keep pressed the button to talk to the visitor (the LED flashes quickly) and release the button (the LED flashes slowly) to listen the visitor;
- To open the door press the O-" button Fig.3b;
- To enable the secondary service keep pressed the 0- $\quad$ button until the activation signals (call tone plus message) are received Fig.3c;
- To enable the BUS relay Art. 2305 (if connected on the pass) keep pressed the button until the display shows the picture in figure 3d then select the BUS relay to enable by the buttons - and + and confirm with OK button.
- To enter into programming menu press the button Fig. 4.

ADJUSTMENTS MENU


In the programming menu you can set:

- $\quad$ The speech volume (8 levels Fig.4);
- $\quad$ The picture brightness (8 levels Fig.4a);
- $\quad$ The picture contrast (8 levels Fig.4b);
- The picture hue (8 levels Fig.4c);

Adjust the selected option using the buttons - and + then confirm by the button OK to move to next option or use the $\wedge \vee$ buttons to navigate the options. With "EXIT" selected, press OK to exit from the menu or $\wedge$ do adjust other settings.


## FLUSH MOUNT KRISTALLO VIDEOPHONE

1. Protect the holes to fix the videophone to the flush mounting box then embed the flush mounting box in line with the wall in vertical position at 135 cm height from the floor as shown in figure 1.
2. As shown in figure 2, connect the wires using a flat screw driver then setup the dip-switches as per provided connection diagram or instruction sheet.
3. As shown in figure $3^{*}$, once the wires are connected, fix the videophone to the flush mounting box using a Phillips screwdriver and the two screws provided.
4. Once the videophone is fixed to the flush mounting box, place the front plate against the videophone by inserting the hooks in the corresponding openings and hook the plate by pushing it down as shown in figure 4.
5. Test the system for correct operation.

## SURFACE MOUNT KRISTALLO VIDEOPHONE

1. As shown in figure 1a, place the videophone against the wall at 135 cm height from the floor and mark the fixing holes. Make the holes (5mm diameter) and insert the provided wall plugs as shown in figure $1 b$.
2. As shown in figure 2a, connect the wires using a flat screw driver then setup the dip-switches as per provided connection diagram or instruction sheet.
3. As shown in figure $3 a^{\star}$, once the wires are connected, fix the videophone to the wall using a Phillips screwdriver and the two screws provided.
4. Once the videophone is fixed to the wall, place the front plate against the videophone by inserting the hooks in the corresponding openings and hook the plate by pushing it down as shown in figure $4 a$ and hang the handset as shown in figure $4 b$.
5. Test the system for correct operation.

## NOTEs

*In order to avoid malfunctions, please, do not over tighten the fixing screws shown in pictures 3 and 3 a.

TOUCH SENSITIVE KEYS ADJUSTMENT
Cleansing the panel with the plate on or removing the plate for any reason may cause the touch sensitive buttons to lose their adjustment. If you detect any malfunctions, we suggest you proceed as follows:

- Remove the front plate doing the contrary of what is shown in fig. 4 and 4a;
- Touch the touch sensitive button area ( the first of the three areas aligned in horizontal way from the right side )until the display turns on (about 5 seconds);
- Touch the touch sensitive OK button area repeatedly until the pointer is on "EXIT";
- Hang up the front plate as shown in picture 4 and 4a before the display turns off;
- When the display turns off the setting is done and the system is ready for use.


## CONNECTION

SIGNAL ON CONNECTION TERMINALS

| AL | Alarm input (not implemented yet) |
| :--- | :--- |
| LB | Local bell input (active low) |
| LB_AL | Ground output for use in combination with "AL" \& "LB" active low inputs |
| DOL | Auxiliary LED power supply input (+12Vdc - normally used as "DOOR OPEN" LED) |
| C | Dry contacts relay common contact (during a conversation, keep pressed the button 0- " for more than 3 seconds to enable the in- <br> ternal link between terminals "C" and "NO" - the link remains until the button is released) Max 50Vdc @ 100mA. |
| NO | Dry contacts relay normally open contact (during a conversation, keep pressed the button 0- " for more than 3 seconds to enable the <br> internal link between terminals "C" and "NO" - the link remains until the button is released) Max 50Vdc @ 100mA |
| $\mathbf{+ 3 0 V a u x}$ | Auxiliary 30Vdc power supply input (to be used when the switch 4 of SW3 is set to ON when more videophone have the same ad- <br> dress and must be switched ON at the same time). |
| GND | 30Vdc power supply ground |
| $\mathbf{+ 1 2 V a u x}$ | Auxiliary 12Vdc power supply input for memory board version (not implemented yet) |
| GND | 12Vdc power supply ground |
| BUS | Bus input terminal |
| BUS | Bus input terminal |

Note
The KRV88 and KRV86 videophones must be used in combination with Art. 318 passive video distributor.

## RESTORING FACTORY PRESET

To restore factory preset, proceed as follows:

- Cut off power supply;
- Make a short between "LB" and "GND" terminals;
- Restore power supply and wait until LED blinks twice before remove the short.

The unit parameters are restored to factory preset.

| SPECIFICATION |  |
| :--- | :--- |
| Housing/Mounting 5000 Series Videophones / mounting plate plus connection board <br> Push buttons Yes, 6 <br> Programming Yes, carried out by the dip-switches located on the rear of the videophone <br> Controls Loudspeake and call tone volume, brightness and hue <br> Power Supply Supplied by the BUS line <br> Working Temperature $-10+50^{\circ} \mathrm{C}$ |  |

## CUSTOMER SUPPORT INFORMATION

## All Countries Customers

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73/23/EEC (LVD) e 93/68/EEC (Marcatura CE).

## Art.317N Active/passive four way distribution box



Fig. 1


## DESCRIPTION

The unit distributes the bus signal to 4 outputs linked to videophones or intercoms. A switch ("AMP>") allows to enable (active) or disable (passive) the amplification. If active, the amplification can be adjusted in a linear way by a built-in trimmer. To make the amplification adjustment easy, the related positions corresponding to a low level, a medium level and to a high level are marked. The amplification only effects the 4 outputs and not the loop through output. Art. 317 N also includes a bus isolation feature which isolates Art. 317 from the rest of the bus in case a short on one of its outputs occurs. This prevents a short from happening in any apartment impairing the whole system. In case of short on any BUS output the LED LD1 switches ON.

| CONNECTION TERMINALS AND JUMPERS |  |
| :--- | :--- |
| Terminal/Jumper | Description |
| BUS IN | Bus input terminals |
| BUS OUT | Bus output terminals (loop through to next distributor) |
| BUS OUT 1 | Videophone/Intercom bus output 1 |
| BUS OUT 2 | Videophone/Intercom bus output 2 |
| BUS OUT 3 | Videophone/Intercom bus output 3 |
| BUS OUT 4 | Videophone/Intercom bus output 4 |
| S1 | Close/Open bus output jumper for BUS OUT 1. Move to close when BUS OUT 1 is not used. |
| S2 | Close/Open bus output jumper for BUS OUT 2. Move to close when BUS OUT 2 is not used. |
| S3 | Close/Open bus output jumper for BUS OUT 3. Move to close when BUS OUT 3 is not used. |
| S4 | Close/Open bus output jumper for BUS OUT 4. Move to close when BUS OUT 4 is not used. |
| S5 | Close/Open bus through output. If the distributor is the last in line move to close otherwise leave open. |
| AMP> | Enable (upper position toward the BUS output terminals) or Disable (lower position) the amplification on the BUS OUTPUTS <br> from 1 to 4. |
| AMPLIFICATION | Set the required level of amplification choosing between low, medium and high. |


| SPECIFICATION |  |  |
| :---: | :---: | :---: |
| Housing/Mounting | Plastic box 70x110x30mm / direct wall mounting |  |
| Push Buttons | N/A |  |
| Programming | N/A |  |
| Controls | Outputs amplification (3 levels) |  |
| Power Supply | Supplied by the BUS line |  |
| Working Temperature | $-10+50^{\circ} \mathrm{C}$ |  |
| CUSTOMER SUPPORT INFORMATION |  |  |
| All Countries Customers |  | UK Customers |
| VIDEX Electronics S.p.A. |  | VIDEX Security LTD |
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## Art. 318 Two way passive distribution box



## DESCRIPTION

The unit distributes the bus signal to 2 outputs linked to videophones or intercoms. It is a passive distributor, so there is no possibility to adjust the video amplification. The device is suitable for small systems with a maximum distance between door panel and the last monitor of 70 metres.

## CONNECTION TERMINALS AND JUMPERS

| Terminal/Jumper | Description |
| :--- | :--- |
| BUS IN | Bus input terminals |
| BUS OUT | Bus output terminals (to next distrbutor) |
| BUS OUT 1 | Videophone/Intercom bus output 1 |
| BUS OUT 2 | Videophone/Intercom bus output 2 |
| BL | Close/Open bus output jumper. If the distributor is the last move to close otherwise leave open. |


| SPECIFICATION |  |
| :---: | :---: |
| Housing/Mounting | Plastic box 50x60x20mm / direct wall mounting |
| Push Buttons | N/A |
| Programming | N/A |
| Controls | N/A |
| Power Supply | Supplied by the BUS line |
| Working Temperature | $-10+50^{\circ} \mathrm{C}$ |

## All Countries Customers

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## Art.2315 BUS booster and video signal amplifier



Fig. 1

## DESCRIPTION

The Art. 2315 restores the voltage levels of the BUS line and amplifies the video signal (3 levels: H=high, M=medium and L=low). The BUS line must be interrupted and connected to the BUS-IN input, then the signal from the BUS-OUT will be amplified. Connect to the PS input a power supply Art. 2321. We suggest the use of the BUS booster in installations which are not using the VIDEX CM2 cable and it is necessary to reach large cables distances. (i.e. Using CAT5, distances greater than 70m).

| CONNECTION TERMINALS AND JUMPERS |  |
| :--- | :--- |
| Terminal/Jumper | Description |
| BUS IN | BUS line input |
| BUS OUT | BUS line output |
| PS | Power supply input (use Art.2321) |
| AMPLIFICATION | Video signal amplification, 3 levels = high, medium and low |

## SPECIFICATION

| Housing/Mounting | Plastic box 50x60x20mm / direct wall mounting |
| :--- | :--- |
| Push Buttons | N/A |
| Programming | N/A |
| Controls | Video signal amplification (3 levels) |
| Power Supply | Requires local 2321 PSU. |
| Working Temperature | $-10+50^{\circ} \mathrm{C}$ |

## Art. 2301 N Entrances exchanger for VX2300 digital systems



## DESCRIPTION

This unit is required for systems with 2 or more entrances (4 maximum). The Art.2301N has 4 inputs (IN1..IN4) each with adjustable amplification ("L" = low, " $M$ " = medium and " $H$ " = high) to compensate for different door station distances. The AUX input enables a second 2301N device to be connected to expand the system up to 8 entrances. When connecting $2 x 2301 \mathrm{~N}$ the polarity of the bus between the Art. 2301 N 's must be observed. When connecting $2 \times 2301 N$ 's the BUS output of the second exchanger must be linked to the AUX input of the first exchanger and then onto the apartments from the BUS output of the first exchanger. The polarities are not relevant if there is only one 2301 N .
The power supply inputs are PS1and PS2. The Art.2321/P with its jumper set to V2 should be used. For systems with up to 4 entrances and 50 videophones only one power supply is required connected to PS1. For larger systems connect a power supply to each of the two inputs (PS1 \& PS2).
When $2 \times 2301 \mathrm{~N}$, the $2 \times 2321 / \mathrm{P}$ power supplies only connect to the 2301 N at which the AUX connection is used. (The one supplying the apartments).

| CONNECTION TERMINALS AND JUMPERS |  |
| :--- | :--- |
| Terminal/Jumper | Description |
| BUS- | BUS Output (observe the polarities only when linked to the AUX input of a second 2301N) |
| BUS+ | Auxiliary BUS input to carry out systems up to 8 entrances linking together two 2301N (observe the polarities when connect- |
| ing the BUS output of the first exchanger to the AUX of the second BUS- with AUX- and BUS+ with AUX + ) |  |


| SPECIFICATION |  |  |
| :---: | :---: | :---: |
| Housing/MountingPush Buttons | 9 Module A Type DIN box / DIN Bar or directly to the wall |  |
|  | N/A |  |
| Programming | N/A |  |
| Controls | Signal amplification on 3 levels for each bus input |  |
| Power Supply | From specific power supply or from the bus |  |
| Working Temperature | $-10+50^{\circ} \mathrm{C}$ |  |
| CUSTOMER SUPPORT INFORMATION |  |  |
| All Countries Customers |  | UK Customers |
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## Art.2306N Block exchanger



## DESCRIPTION

The block exchanger is used on 2 level systems where there are main entrances that call every apartment and local block entrances that only call the apartments within that block. One 2306 is required for each block.
The BUS line coming from the main entrance (which may be digital or traditional panels) must be connected to the BUS-M input (there are two sets of BUS-M connections to allow the BUS-M to be connected to several 2306 units in series. BUS-O connects to the riser towards the apartments and BUSL connects to the local block door panels. The function of the switcher is to connect the BUS-O to either the BUS-L or the BUS-M depending on the source of the call.
Jumpers $\mathbf{J 4}$ adjusts the amplification on the main bus (BUS-M). High medium and low amplification is available. Jumper J2 is an end of line jumper for the main bus (BUS-M). This should be in the $\mathbf{O}$ position for all but the last 2306 (In order of connection) while on the last it should be in the $\mathbf{C}$ position. The 8 way dip-switch is used to set the exchangers address (from 1 to 8 using switches 1 to 4) and the door panel type at the main entrance (digital or traditional on switch 8). Switches 5-7 are not used at the moment. The PS connection is for the power supply which will power the exchanger and the devices connected to it. There are two LED's for diagnostic purpose to check correct connections at the BUS-M and PS inputs.
The Art. 2306 makes each block a stand-alone installation (each block may work separately but also communicate with a communal entrance(s)) Each block may have up to 100 users and each system can have a maximum of eight blocks allowing an installation to reach up to 800 users (Note: When using traditional main panels the limit is 80 users).

| CONNECTION TERMINALS, LEDS AND JUMPERS |  |
| :--- | :--- |
| Terminal/Jumper | Description |
| DIP-SW | 8 Way dip switch used to set the exchanger address (switches from 1 to 4) and the main door panel type (switch 8) |
| J4 | BUS-M input amplification (3 levels: H = High, L = Low and M = Medium) |
| MBL | BUS Master LED: if the LED is switched OFF, disconnect the mains and reverse the wires connected at the BUS-M input - <br> N.B. Disconnect the link between each exchanger and starting with the one connected to the main panel(s) check <br> the LED. If it is off, power down and reverse the cables then connect the next exchange and repeat the LED check <br> until all LED's are on. |
| J2 | BUS-M line termination (C = Closed, O = Open): when more than one exchanger is used move J2 to "C" position only on the <br> last exchanger in order of connection and leave the others in the "O" position. |
| BUS-M | Main BUS input from the main entrance or from another block exchanger (Two sets on terminals for pass through connec- <br> tions to the next 2306) |
| BUS-L | Local BUS input from the door panel relative to the block (or from a 2301N if the block has more than one door panel) <br> PS <br> Power supply input: for blocks with 1 door panel and a maximum of 20 videophones use the Art.2321, use the Art.2321/P in <br> all oases. |
| PSL | Power Supply LED: if switched ON means the polarity is correct at the PS input (if the LED is switched OFF, disconnect <br> the system from the mains and reverse the connection of the wires at the PS input) |

PROGRAMMING
The 8 way dip-switch enables the setting of the device address and the main door panel type selection.

|  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Switch status |  |  |  | Block | With Sw8 = ON |
| 1 | 2 | 3 | 4 | Address | Addresses |
| ON | OFF | OFF | OFF | 1 | 1.10 |
| OFF | ON | OFF | OFF | 2 | 11.20 |
| ON | ON | OFF | OFF | 3 | $21 . .30$ |
| OFF | OFF | ON | OFF | 4 | $31 . .40$ |
| ON | OFF | ON | OFF | 5 | $41 . .50$ |
| OFF | ON | ON | OFF | 6 | $51 . .60$ |
| ON | ON | ON | OFF | 7 | $61 . .70$ |
| OFF | OFF | OFF | ON | 8 | 71.80 |

When the block is set to work with a main door panel of traditional type (4303N), switch 8 on the 4303 N must be set to ON (Main entrances only). Each block can have a maximum of 10 apartments and the range of the addresses for each block is limited depending on the 2306 address (i.e. the intercoms/videophones/relay connected to the block with 2306 address 1 have apartment addresses between 1 \& 10, block with 2306 address 3 must have apartment addresses between 21 and 30 etc).

|  |  |
| :---: | :---: |
| Switch Status | Main door panel type |
| *OFF | Digital main door panel (4302, 4302V, 4302R, 4302RV) |
| ON | Traditional main door panel (4303) |

* On the digital panels connected to the main bus (BUS-M) enable the "main" mode in the programming menu. When "main" mode is enabled the user programming requests to enter the block address in addition to the device (intercom/videophone/relay) address.


## CONTROLS

Jumpers J4 and J2 are used to adjust the signal amplification and the termination of the main BUS (BUS-M).

| J4 BUS-M Amplification |  |
| :---: | :---: |
| Position | Amplification level |
|  | Low |
|  | Medium |
|  | High |


| J2 BUS-M Termination |  |
| :---: | :---: |
| Position | Termination |
| $\begin{aligned} & \mathrm{J} 2 \\ & \cup O \end{aligned}$ |  |
|  | Disabled |
| $\stackrel{J 2}{\cup O}$ |  |
|  | Enabled |


| SPECIFICATION |  |
| :--- | :--- |
| Housing/Mounting | 9 Module A Type DIN box / DIN Bar or directly to the wall |
| Push Buttons | N/A |
| Programming | By 8 way dip-switch |
| Controls | Amplification (J4) and termination (J2) main bus line BUS-M |
| Power Supply | From specific power supply |
| Working Temperature | $-10+50^{\circ} \mathrm{C}$ |

## CUSTOMER SUPPORT INFORMATION

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## Art. 2305 Extension Relay for vx2300 digital systems



## DESCRIPTION

This unit can be connected directly to the bus and has two operating modes: general purpose extension relay and apartment extension relay for additional sounders. As general purpose extension relay, the built-in relays are controlled by the relevant button of the intercom or videophone while as extension sounder relay, relay one will operate on each ring and relay two will operate for the duration of the call.

| CONNECTION TERMINALS \& DIP-SWITCHES |  |
| :--- | :--- |
| Terminal/Jumper | Description |
| BUS | Input/Output bus connection terminals |
| BUS | Input/Output bus connection terminals |
| C2 | Relay 2 common contact |
| NO2 | Relay 2 normally open contact |
| NC2 | Relay 2 normally closed contact |
| C1 | Relay 1 common contact |
| NO1 | Relay 1 normally open contact |
| NC1 | Relay 1 normally closed contact |
| DIP-SW | 8 way dip-switch to set the relay operating mode |

## PROGRAMMING

The operating mode is set by switch 8 as shown below. Note: After making changes to the dip-switch settings it is necessary to disconnect it from the bus (or power the system down) and then reconnect before the changes will take affect.

GENERAL PURPOSE EXTENSION RELAY - SWITCH 8 = OFF
When the unit is set as general purpose extension relay, switches 1 to 6 are used to set the relays addresses and activation times.

| Switches |  | Relay 1,2 |
| :--- | :---: | :---: |
| $\mathbf{1}$ | $\mathbf{2}$ | Addresses |
| OFF | OFF | 1,2 |
| ON | OFF | 3,4 |
| OFF | ON | 5,6 |
| ON | ON | 7,8 |


| Switches |  | Relay 1 <br> Time |
| :--- | :---: | :---: |
| $\mathbf{3}$ | $\mathbf{4}$ |  |
| OFF | OFF | 2 seconds |
| ON | OFF | 4 seconds |
| OFF | ON | 16 seconds |
| ON | ON | 32 seconds |


| Switches |  | Relay 2 <br> Time |
| :--- | :---: | :---: |
| $\mathbf{5}$ | $\mathbf{6}$ | timen |
| OFF | OFF | 2 seconds |
| ON | OFF | 4 seconds |
| OFF | ON | 16 seconds |
| ON | ON | 32 seconds |

Switch 7 is not used.
For example if switch 1 is set to ON and switch 2 is set to OFF (addresses 3 \& 4), pressing the "dot" button on the intercom (or "double dot" on the videophone) 3 times will operate relay one while pressing 4 times will operate relay two.

## EXTENSION SOUNDER RELAY - SWITCH 8 = ON

When the unit is set in this mode, switches from 1 to 7 ( 8 is not used but set to on) are used to set the address of the unit: the address of the unit is set to the same address as the videophone or intercom it that apartment (refer to intercom/videophone SW1 settings).
When the apartment is called, relay 1 will operate 4 times (once for each ring) while relay 2 will energise for the duration of the call (Approx. 60 seconds). The relays revert to the de-energised state if the call is cancelled or the user ends the call.

## SPECIFICATION

| Housing/Mounting | 5 Module A Type DIN box / DIN bar or directly to the wall |
| :--- | :--- |
| Push Buttons | N/A |
| Programming | Yes, carried out by the 8 way dip-switch |
| Controls | N/A |
| Power Supply | from the bus |
| Working Temperature | $-10+50^{\circ} \mathrm{C}$ |
| Dry contacts relay | Max $24 \mathrm{Vac} / \mathrm{dc} 5 \mathrm{~A}$ |

## CUSTOMER SUPPORT INFORMATION

## All Countries Customers

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## Art. 2380 Interface " 2 Wire" to " $4+1$ " audio system



## DESCRIPTION

Interface to connect 4+ 1 audio devices to the VX2300 "2 Wire" Bus (For example the Art. 380 telephone interface or the Art.275/2W PABX interface) Using the items listed above (380, 275/2W) it is possible to use a conventional household telephone as a standard intercom.
The operating mode of the telephone depends on the connected device and on the connections made, refer to the instructions of the Art. 380 or Art275.

| DIP-SWITCHES AND JUMPERS (FIG.1) |  |
| :--- | :--- |
| SW1 | Switches from 1 to 7 are used for unit address (from 1 to 127 binary coded). Last switch (8) is not used |
| SW2 | Switches 1,2 and 3 are used to set privacy duration time. Switch 4 is used to set the "Priv" signal operating mode |
| SW3 | Switches 1,2 and 3 are used for intercommunication settings. Switch 4 is not used |
| S1 | Impedance terminator. The jumper must be normally closed. When more videophones/intercoms are connected in parallel (from a pe- <br> ripheral to another and so on until the last) the jumper must be open for all the intercoms except for the last following the order of connec- <br> tion. |

## PROGRAMMING

After each programming operation carried out through dip-switches or jumpers it is necessary to temporary disconnect the device from the BUS or from the power supply if locally powered.
SW1 - DEVICE ADDRESS

| Switches Status |  |  |  |  |  |  | Binary Code - Decimal Value |  |  |  |  |  |  | Decimal Code |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 7 | 6 | 5 | 4 | 3 | 2 | 1 | 64 | 32 | 16 | 8 | 4 | 2 | 1 |  |
| OFF | OFF | OFF | OFF | OFF | OFF | ON | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| OFF | OFF | OFF | OFF | OFF | ON | OFF | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 |
| OFF | OFF | OFF | OFF | OFF | ON | ON | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 3 |
| OFF | OFF | OFF | OFF | ON | OFF | OFF | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 4 |
| OFF | ON | OFF | OFF | ON | OFF | ON | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 37 |
|  | ON | OFF | OFF | OFF | ON | ON | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 99 |

The table above shows how to set the address of the device. Considering that ON $=1$ and OFF $=0$, multiply each digit for the relevant decimal weight then sum the values obtained to get the address: E.g. as highlighted in the table OFF,ON,OFF,OFF,ON, OFF,ON in binary is equal to 0100101 then multiplying each digit for the relevant decimal weight you obtain the address that is 37.

Note
The maximum number of units allowed is 100 but the address of each unit can be a value between 1 and 127 .

| SW2 - PRIVACY DURATION TIME |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Switches Status |  |  |  | Privacy Mode (switch 1) | Privacy Duration (switches 2,3) |
| 1 | 2 | 3 | 4 |  |  |
| OFF | OFF | OFF |  |  | 15 minutes |
|  | ON | OFF |  |  | 1 hour |
|  | OFF | ON |  |  | 4 hours |
|  | ON | ON |  |  | 8 hours |
| ON |  |  |  | The privacy duration time is set by switches 2 and 3. When enabled the privacy service will be disabled when the set time expires or the switch is moved back to off. <br> No privacy time expiration: the privacy service is enabled or disabled only by the slide switch. <br> The "Priv" terminal works as an open collector output to signal the status of the privacy service. When the service is enabled the "Priv" output shorts to ground. This mode must be set when the Art. 2380 is connected in parallel (with the same address) to one or more intercoms/videophones. Make a link between terminals "Priv" and "2". |  |
|  |  |  | ON |  |  |
|  |  |  | OFF |  |  |


|  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Switches Status |  |  |  | Intercommunication Mode (switch 1) | Unit Extension (switches 2,3) |
| 1 | 2 | 3 | 4 |  |  |
| OFF | OFF | OFF |  | Intercommunication allowed between units (same unit address) inside the same flat. To call an extension pick up the handset then press the "door open" button as many times as the extension value (Eg. extension 2 two times, 3 three times etc). Each intercom/videophone in the same apartment must have a different extension address, the master address must always be set except when one of the intercom/videophone is set for apartment intercommunication (i.e. in a 3 intercom/videophone installation, one of the intercom/videophone must have the extension address 1 while the others must have different addresses) | 1 (master) |
|  | ON | OFF |  |  | 2 (slave) |
|  | OFF | ON |  |  | 3 (slave) |
|  | ON | ON |  |  | 4 (slave) |
| ON | OFF | OFF |  | Intercommunication allowed between videophones (different apartment). To call an extension pick up the handset then press the "door open" button as many times as the address value (Eg. extension 10 ten times, 12 twelve times etc) | - |
|  |  |  | OFF | The operation is not altered. |  |
|  |  |  | ON | The Art. 2380 delays of 20 seconds the call toward the " $4+1$ " interface to which is connected the Art.275/2W or Art.380. During a call, If the Art. 2380 is in parallel connection with an intercom or a videophone, answering from the intercom/videophone stops the call toward the " $4+1$ " interface. |  |

NOTE: Extension 1 is mandatory. On systems with more than one device in an apartment, each device must have a unique extension ID. On installations where there are more than one intercom/videophone in the same apartment and intercommunication between different apartments is required, only one intercom/videophone may be set with this function (SW3.1=ON, SW3.2=OFF, SW3.3=OFF). The other intercom/videophones in the apartment must be set for local intercommunication with extension addresses "2-4" (slaves). From the intercom/videophone set for intercommunication with other apartments it will be not possible to intercommunicate within the apartment but slave extensions 2-4 will be able to intercommunicate with each other.

| SIGNALS ON CONNECTION TERMINALS |  |
| :--- | :--- |
| Signal | Description |
| BUS | BUS connection terminals |
| BUS | Speech line in |
| $\mathbf{2}$ | Speech line out |
| $\mathbf{1}$ | Speech ground |
| $\mathbf{3}$ | Call output |
| $\mathbf{4}$ | Ground |
| $\mathbf{G N D}$ | Active low input "door open" command |
| $\mathbf{5}$ | Auxiliary active low input 2. When active (OV) switches the status of privacy service. |
| A2in | Auxiliary active low input 1. When active (OV) the relay with address 1 of the Art.2305 if installed in the system will activate. |
| A1in | +12Vdc Output |
| $\mathbf{+ 1 2 V o u t}$ | With SW2.4 = OFF, it works as an open collector output that signals the privacy service status. Internal link to ground when the privacy <br> service is active. |
| Priv | With SW2.4 = ON, required setting when the Art.2380 is in a parallel (same address) connection with other devices it must be linked to <br> terminal two. |

## SPECIFICATION

| Housing/Mounting | 9 Module A Type DIN box |
| :--- | :--- |
| Push Buttons | N/A |
| Programming | Yes, carried out through dip-switches |
| Controls | N/A |
| Power Supply | Supplied from the BUS |
| Working Temperature | $-10+50^{\circ} \mathrm{C}$ |

## CUSTOMER SUPPORT INFORMATION

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## Art.2321-2321/P Power supplies for Vx2300



These two units are specific power supplies for VX2300 digital system. The 2321 can be used for systems with 1 entrance up to 20 users while the 2321/P is for systems with more than 1 entrance and up to 100 users.

| CONNECTION TERMINALS AND JUMPERS |  |
| :--- | :--- |
| Terminal/Jumper | Description |
| $\mathbf{0}$ | Mains input |
| $\boldsymbol{\sim} \mathbf{2 3 0 V}$ | BUS terminals |
| BUS + | BUS terminals (only Art.2321/P) |
| BUS - | Jumper to adjust the output voltage (only Art.2321/P). V1=Low, V2=Medium, V3=Maximum. Set to maximum (V3) when the |
| BUS + | unit is used together with 2301 N, otherwise leave in a low or medium position |

## CONNECTION TO MAINS AND POWER SUPPLY MOUNTING INSTRACTIONS

The system must be installed according to national rules in force, in particular we recommend to:

- Connect the system to the mains through an all-pole circuit breaker which shall have contact separation of at least 3mm in each pole and shall disconnect all poles simultaneously;
- The all-pole circuit breaker shall be placed for easy access and the switch shall remain readily operable.


## POWER SUPPLY INSTALLATION

- Remove the terminal side covers by unscrewing the retaining screws;
- Fix the power supply to a DIN bar or directly to the wall using two expansion type screws;
- Switch off the mains using the circuit breaker mentioned above and then make the connections as shown on the installation diagrams;
- Check the connections and secure the wires into the terminals;
- Replace the terminal covers and fix them using the relevant screws;
- When all connections are made, restore the mains.

| SPECIFICATION |  |  |
| :---: | :---: | :---: |
| Housing/MountingPush Buttons | 9 Module A Type DIN box (Art.2321) - 12 Module A Type DIN box (Art.2321/P) / DIN Bar or directly to the wall |  |
|  | N/A |  |
| Programming | N/A |  |
| Controls | Voltage amplification (3 levels) |  |
| Power Supply | 230Vac |  |
| Working Temperature | $-10+50^{\circ} \mathrm{C}$ |  |
| CUSTOMER SUPPORT INFORMATION |  |  |
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## Art. 2322 Power supply converter from BUS line to 12 Vdc



## DESCRIPTION

When this unit is connected to the BUS line it generates a $+12 \mathrm{Vdc}-100 \mathrm{~mA}$ power source. This unit can be used to supply peripherals such as the Art. 4800 without the need for an additional power supply. Please note: The peripherals must not require more than 100 mA .

## CONNECTION TERMINALS

| Terminal/Jumper | Description |
| :--- | :--- |
| BUS | BUS line inputs |
| BUS | (2Vdc -100 mA output |
| $\mathbf{1 2 V +}$ |  |
| $\mathbf{1 2 V}$-(OV) |  |


| SPECIFICATION |  |
| :--- | :--- |
| Housing/Mounting | Plastic box $50 \times 60 \times 20 \mathrm{~mm}$ / direct wall mounting |
| Push Buttons | N/A |
| Programming | N/A |
| Controls | N/A |
| Power Supply | Supplied by the BUS line |
| Working Temperature | $-10+50^{\circ} \mathrm{C}$ |

CUSTOMER SUPPORT INFORMATION

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Questo prodotto è conforme alle direttive Europee
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73/23/EEC (LVD) e 93/68/EEC (Marcatura CE).

## General Directions for Installation

## CABLE TYPES AND CROSS SECTIONAL AREAS

The VX2300 digital system can use several types of cables but depending on their specification will allow different distances up 400 meters maximum. We do not recommend the use of shielded cables because of the high eddy capacitance. It is also not advised to double up on cables as this will also increase the capacitance. The following table specifies values of resistance, capacitance and maximum distances achievable for several types of cables (capacitance and resistance values are referring to 100 metres of cable).

| Cable Type** | Section ( $\mathbf{m m}^{\mathbf{2}}$ ) | Resistance (Ohm) | Capacity (nF) | *Maximum Distance (meters) |
| :--- | :--- | :--- | :--- | :--- |
| VIDEX CM2 | 0.50 | 3.2 | 8 | 200m |
| CAT5 UTP/CW1308 | 0.22 | 8 | 4.9 | 70 m |
| Std Telephone Cable | 0.28 | 6.5 | 5.5 | 100 m |
| Two wire | $2.8 / 1$ | 6.5 | 70 m |  |

* Between the power supply and the furthest door station or between the power supply and the furthest videophone.
** To carry out the installation, it is compulsory that the video intercom system cables are not carried along with mains or other high power supply cables because if they are directly exposed to electromagnetic interference this may cause noises on audio/video and lost of functionality over digital communications. In case it is not possible to carry the cables as requested, or in case it necessary to use the existing cables, we suggest to evaluate the feasibility of the installation before.

In case of use of cables not in conformity with above specification it is possible to experience deterioration of digital and video signals. We suggest to use twisted cables with maximum resistance of 10 Ohm/100m for each wire (between the farthest door station and the farthest videophone) and maximum capacitance of 40 nF (this value must be computed considering all the cables used in the system; the capacitance/metres value is normally specified on the cable package or directly on the cable).

## BUS DEVICES SETUP AND VIDEO DISTRIBUTION

- Any device on the system (door station, intercom, videophone, relay etc.) for which the programming is carried out through one or more dip-switches, to store the new setup, must be disconnected from the power supply for 1 minute at least.
- When you have more than one device in the same apartment, all the devices must be connected to the same video distributor (Art.317): this means that you cannot use two video distributors Art. 318 for one apartment where you have 4 videophones/intercoms.
- Once the system is wired, proceed to test the system. If it is required to adjust the level of the video signal, you can operate the devices on the system where it is possible to make this adjustment like entrances exchanger, block exchanger, bus booster and video distributors.


## HOW TO CONNECT LOCAL POWER SUPPLY

The drawing below shows how to connect a local power supply when required (i.e. when you have 4 videophones with the same address that must be switched on at the same time). In both cases switch 4 of SW3 must be set to the ON position.
NOTE! OBSERVE CONNECTION POLARITIES AS SHOWN IN THE DIAGRAM BELOW.


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ADDRESSES 128.. 255 TABLE FOR DIP-SWITCH BANKS WITH ON POSITION DOWN







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Addresses 1.. 255 Table for dip-switch banks with ON position up
Tabella indirizzi per 1.. 255 per banchi dip-switch con ON verso l'alto




Extension N. 1 Videophone: 1

N.B.

Dopo ogni cambiamento nella programmazione del posto esterno, del videocitofono o del relè, è necessario togliere l'alimentazione al sistema e ripristinarla affinchè le variazioni vengano recepite dai rispettivi dispositivi.

After each change on the programming of the door station, videophone or any other device connected to the system it is necessary to restart the system (power off then power on).

To next
Art 318 At. 318

N.B.

Chiudere la linea BUS sull'ultimo distributore. Close the bus line on the last video distributor


| Title: |
| :--- |
| VX2300 Video door entry system for "n" users with one entrance using digital front panel |

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[^1]:    The table above shows how to set the address of the phone. Considering that ON $=1$ and OFF $=0$, multiply each digit for the relevant decimal weight then add values obtained to get the address: E.g. as highlighted in the table OFF,ON,OFF,OFF,ON, OFF,ON in binary is equal to 0100101 then adding each digit for the relevant decimal weight you obtain the address 37.
    Note
    The maximum number of units allowed is 100 but the address of each unit can be a value between 1 and 127

[^2]:    NOTE: Extension 1 is mandatory. On systems with more than one device in an apartment, each device must have a unique extension ID.

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