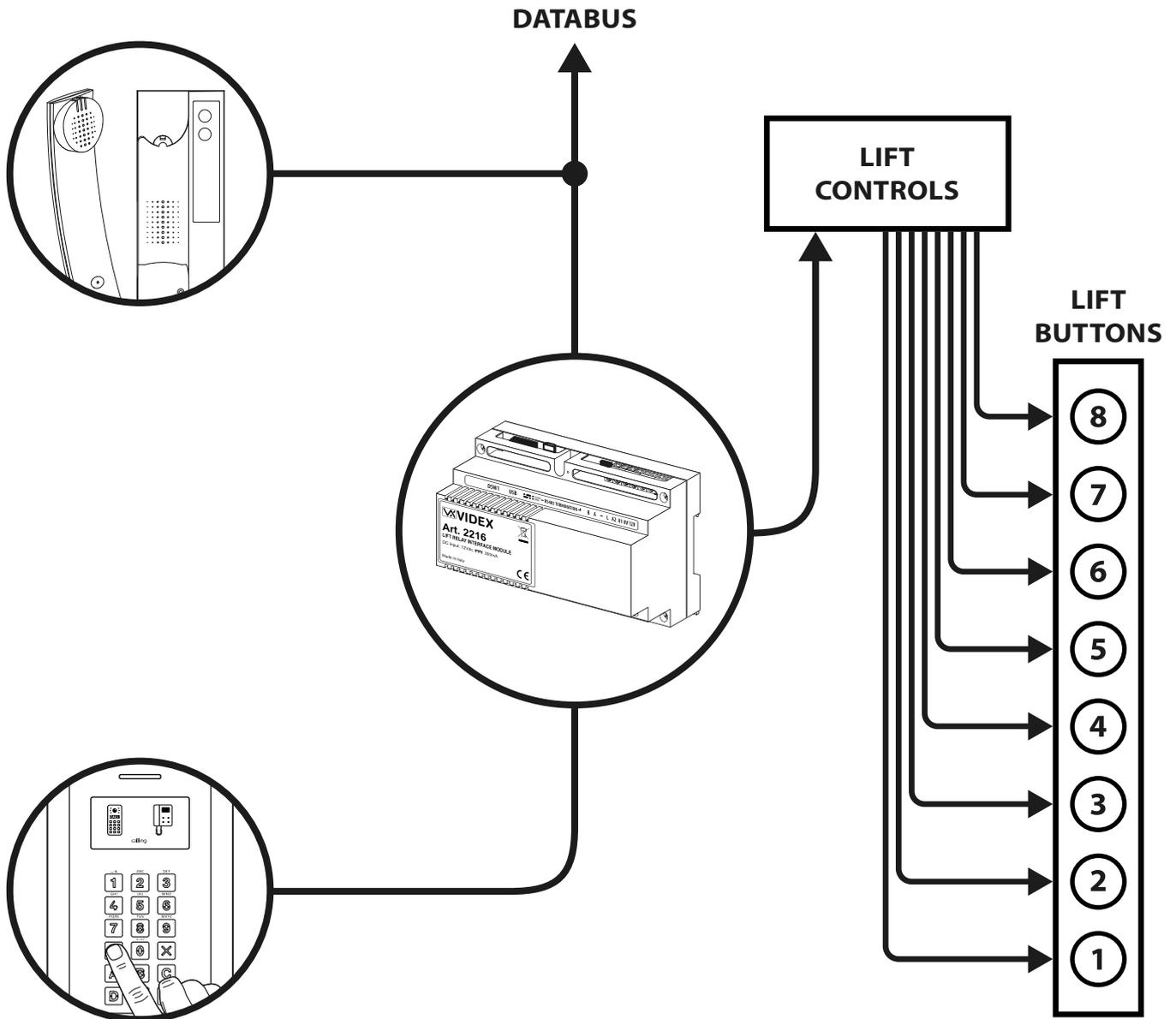


VX2200 LIFT INTERFACE

Lift Interface Module for the VX2200 Digital System

ART.2216



Technical Manual



Contents

Introduction	2
System Components.....	3
Art. 2216 Technical Information	5
Wiring Diagrams	8
Auxiliary Inputs	11
USB & RS485 Connection	12
General Directions for Installation.....	13
Programming the Lift Interface.....	16
Troubleshooting & General Information	19
Notes.....	21

Introduction

MANUAL INTRODUCTION

The information in this manual is intended as an installation and commissioning guide for the Art.2216 lift interface module. This manual should be read carefully before the installation commences. Any damage caused to the equipment due to faulty installation where the information in this manual has not been followed is not the responsibility of Videx Security Ltd.

⚠ IMPORTANT: IT IS RECOMMENDED THAT ANY CABLING AND VIDEX PRODUCTS BE INSTALLED BY A COMPETENT AND QUALIFIED ELECTRICIAN, SECURITY INSTALLATION SPECIALIST OR COMMUNICATIONS ENGINEER.

For UK customers Videx run free training courses for engineers who are unfamiliar or who have not installed this product before. Technical help is also available for UK customers on tel: 0191 224 3174 during office hours (8:30am - 5:00pm MON to FRI) or via e-mail: tech@videxuk.com and for all overseas customers on tel: +39 0734 631669 or via e-mail: technical@videx.it.

A copy of this Technical Manual can also be downloaded from the Videx websites:

For UK customers www.videxuk.com and for overseas customers www.videx.it.

MANUFACTURER



VIDEX ELECTRONICS S.P.A.

Via del Lavoro, 1 - 63846 Monte Gilberto (FM) Italy
 Tel: (+39) 0734-631699 - Fax: (+39) 0734-632475
www.videx.it - info@videx.it

CUSTOMER SUPPORT

All Countries:
VIDEX ELECTRONICS S.P.A.
www.videx.it - technical@videx.it
 Tel: +39 0734-631699 - Fax: +39 0734-632475

UK Customers:
VIDEX SECURITY LTD.
www.videxuk.com - tech@videxuk.com
 Tech Line: 0191 224 3174 - Fax: 0191 224 1559

CE 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 2014/30/EU (EMC); 2014/35/EU (LVD); 2011/65/EU (RoHS); CE marking 93/68/EEC.

System Components

DESCRIPTION

For the Art.2216 lift interface module to work it requires a 12Vdc power supply (refer to **Table A**) and any of the available intercom panels from the VX2200 range (refer to **Table B**). When the lift interface is used in 'main BUS' mode it can be used with the VX2200 block exchange module, Art.2206N (refer to **Table C**) for larger multiple entrance systems.

Like other devices for the digital VX2200 2 wire bus system the lift interface module connects to the 2 wire databus L and -. Programming of the module is carried out via the **2X00PC** software (version **7.1.0.1** or later).

COMPATIBLE POWER SUPPLIES AND CONTROL CABINETS

The following table shows the range of 12Vdc power supplies and control cabinets that can be used with the Art.2216 module:

Table A

Power Supply	Description
HDR-15-12	Slim line, 12Vdc 1.25A power supply (surface DIN rail mount, 1.5 modules A Type DIN box).
Art.521B	13.8Vdc, 13Vac, 1A power supply with battery back up facility (surface DIN rail mount, 9 modules A Type DIN box).
Cabinet Type	Description
2291A series (audio cabinets)	Multiple entrance audio control cabinets, lockable CAB1 or CAB2 powder coated steel cabinets including fitted 12-14Vdc power supply with battery back up facility (surface mount), with or without digital timeclock and single door or multi-entrance switching card.
2291V series (video cabinets)	Multi-entrance video control cabinets, lockable CAB1 powder coated steel cabinets including fitted 12-14Vdc power supply with battery back up facility (surface mount), video PSU, with or without digital timeclock and single door or multi-entrance switching card.

COMPATIBLE VX2200 INTERCOM PANELS

The following table shows the range of VX2200 intercom panels that can be used with the Art.2216 module:

Table B

Functional Panel Type	Description
Art.4203-n (audio)	4000 series modular range audio panel, where n = 0, 1, 2, 1D or 2D buttons. When using the Art.4203-0 the appropriate 4000 series button module(s) will also be required (Art.4842, Art.4842D, Art.4843, Art.4843D, Art.4844, Art.4844D, Art.4845 and Art.4845D) depending on the size of the system.
Art.4284-n (audio & video)	4000 series modular range video panel, where n = 0/C, 1/C or 2/C buttons. When using the Art.4284-0/C the appropriate 4000 series button module(s) will also be required (Art.4042, Art.4042D, Art.4043, Art.4043D, Art.4044, Art.4044D, Art.4045 and Art.4045D) depending on the size of the system.
Art.8203-n (audio)	8000 series modular range audio panel, where n = 0, 1 or 2 buttons. When using the Art.8203-0 the appropriate 8000 series button module(s) will also be required (Art.8842, Art.8842D, Art.8843, Art.8843D, Art.8844, Art.8844D, Art.8845 and Art.8845D) depending on the size of the system.
Art.VR4KAM2W-n (audio)	Vandal Resistant 4000 series modular range audio panel, where n = 0, 1, 2, 3 or 1NP buttons. When using the Art.VRKAM2W-0 the appropriate VR4K series button module(s) will also be required (Art. VR4KBM-4, Art.VR4KBM-5, Art.VR4KBM-6, Art.VR4KBM-7, Art.VR4KBM-8, Art.VR4KBM-9, Art.VR4KBM-2NP, Art.VR4KBM-3NP and Art.VR4KBM-4NP) depending on the size of the system.
VR120/138-n (audio)	Vandal Resistant VR120 series audio panel, where n = the number of call buttons required (up to 24).
VR120/138-n/CL (audio + codelock)	Vandal Resistant VR120 series audio panel with codelock facility, where n = the number of call buttons required (up to 24).
VR120/138-n/PR (audio + proximity)	Vandal Resistant VR120 series audio panel with proximity reader, where n = the number of call buttons required (up to 24).
VR120/138-n/V (audio & video)	Vandal Resistant VR120 series video panel, where n = the number of call buttons required (up to 24).
VR120/138-n/V/CL (audio & video + codelock)	Vandal Resistant VR120 series video panel with codelock facility, where n = the number of call buttons required (up to 24).
VR120/138-n/V/PR (audio & video + proximity)	Vandal Resistant VR120 series video panel with proximity reader, where n = the number of call buttons required (up to 24).

System Components

Digital Panel Type	Description
Art.4202 series (audio)	4000 series modular range, digital audio panel (with A-F alpha-numeric keypad, Art.4202 or name scroll facility, Art.4202/R).
Art.4202V series (audio & video)	4000 series modular range, digital video panel (with A-F alpha-numeric keypad, Art.4202V or name scroll facility, Art.4202/RV or name scroll facility).
Art.8202 series (audio)	8000 series modular range, digital audio panel (with A-H alpha-numeric keypad, Art.8202 or name scroll facility, Art.8202R).
SP300-1 series (audio)	Vandal Resistant 2200 digital audio panel and bezel box.
SP301-1C series (audio & video)	Vandal Resistant 2200 digital video panel with colour camera and bezel box.
Art.4212 series (audio)	Vandal Resistant 4000 series modular range, digital audio panel (with A-F alpha-numeric keypad, Art.4212 or name scroll facility, Art.4212R and proximity). Including Art.4212/UK and Art.4212R/UK.
Art.4212V series (audio & video)	Vandal Resistant 4000 series modular range, digital video panel (with A-F alpha-numeric keypad, Art.4212V or name scroll facility, Art.4212RV and proximity). Including Art.4212V/UK and Art.4212RV/UK.

COMPATIBLE VX2200 BLOCK EXCHANGE DEVICE

The following table shows a brief description of the block exchange module that can be used with the Art.2216 module:

Table C

Power Supply	Description
Art.2206N (audio & video)	Digital VX2200 block exchange device for use on multi-level and multi-entrance audio and video systems (surface DIN rail mount, 9 modules A Type DIN box).

Further technical information on all the Videx products listed in tables **A**, **B** and **C** can be found in any accompanying installation documents and/or technical manuals, in particular the following VX2200 digital system technical manual:

VX2K2HDIGSYS version 1.1

Art. 2216 Technical Information

ART. 2216 MODULE

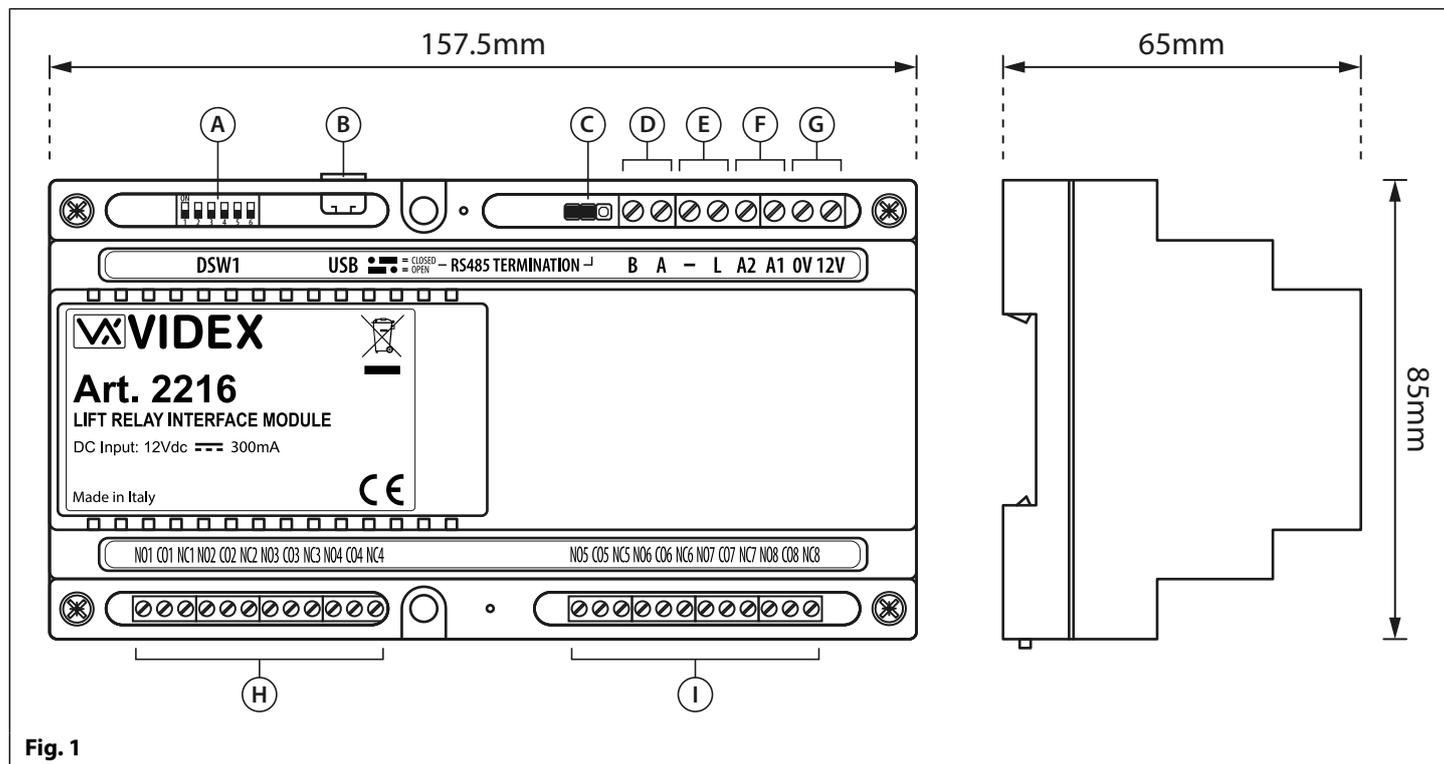


Fig. 1

DESCRIPTION

The Art.2216 is an eight relay (RLY1 - RLY8) lift interface module for the VX2200 digital system, **Fig.1**, that can be fully programmed to allow any phone ID to be able to activate a floor relay (corresponding to the floor where the audiophone or videophone is located) from one or more entrance panels when the user in the apartment operates the door release key on their audiophone or videophone.

Up to sixteen Art.2216 devices can be connected to the same L and - databus allowing for up to 128 floors (8 floors per device).

Programming and setup of the module is carried out using PC software and a series of 6 dip-switches **DSW1**, (**Fig.1**, **A**).

The module can be powered from 12Vdc and is built in a 9 module DIN box type A (85mm [W] x 157.5mm [L] x 65mm [D]) manufactured from ABS plastics.

MODULE OPERATION

A caller makes a call to an apartment and when answered can have a conversation with the user in the apartment. If the caller is to be granted access the user can press the key button on the audiophone or videophone which will instigate two operations:

1. Grant access to the caller by activating the relay on the entrance panel.
2. Activate a relay on the Art.2216 which corresponds to the floor the apartment is located on. This relay can be used to interface with a lift controller in order to call the lift and restrict the caller's access to only this floor.

RS485 BUS TERMINATION JUMPER (JP1)

The jumper **JP1** is located on the top side of the module, **Fig.1**, **C**, and is used to set the RS485 bus termination of the module. By default it is set in the **OPEN** position (across to the left), however can be set to the **CLOSED** position (across to the right), **Fig.2**. The RS485 terminals can be used as an alternative method of programming the Art.2216 module when connected via an Art.481 and using the **2X00PC** software.

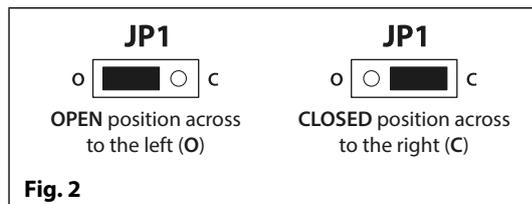


Fig. 2

USB PORT

The micro USB port located on the top side of the module, **Fig.1**, **B**, is used to carry out programming of the module via the **2X00PC** software (version 7.1.0.1 or later).

Art. 2216 Technical Information

DIP-SWITCH SETTINGS (DSW1)

IMPORTANT NOTE: Please note that the black area represents the dip-switch position: ON = , OFF =

The dip-switches SW1 to SW4 (**Fig.1, A**) sets up the unit ID of the Art.2216 module and the floor number (i.e. the relay number from RLY1 to RLY8 that will activate when triggered from an apartment on that particular floor).

Setting Device Number and Floor Number						
Art.2216 Device No. (Unit ID)	Floor Number	SW1	SW2	SW3	SW4	Switch Position
1	1 - 8	OFF	OFF	OFF	OFF	
2	9 - 16	ON	OFF	OFF	OFF	
3	17 - 24	OFF	ON	OFF	OFF	
4	25 - 32	ON	ON	OFF	OFF	
5	33 - 40	OFF	OFF	ON	OFF	
6	41 - 48	ON	OFF	ON	OFF	
7	49 - 56	OFF	ON	ON	OFF	
8	57 - 64	ON	ON	ON	OFF	
9	65 - 72	OFF	OFF	OFF	ON	
10	73 - 80	ON	OFF	OFF	ON	
11	81 - 88	OFF	ON	OFF	ON	
12	89 - 96	ON	ON	OFF	ON	
13	97 - 104	OFF	OFF	ON	ON	
14	105 - 112	ON	OFF	ON	ON	
15	113 - 120	OFF	ON	ON	ON	
16	121 - 128	ON	ON	ON	ON	

SW5 is used to setup the relay time of relays RLY1 to RLY8.

Setting Relay Time		
Time (secs)	SW5	Switch Position
1 second	OFF	
5 seconds	ON	

Art. 2216 Technical Information

SW6 is used to setup the BUS operating mode of the Art.2216 module. When used on multiple entrance systems where Art.2206N block exchange devices are used then switch SW6 can be set to 'main BUS' mode.

Setting the BUS Operating Mode		
Mode	SW6	Switch Position
Local BUS (default)	OFF	
Main BUS	ON	

AUXILIARY INPUTS (A1, A2)

A1: When short to 0V (GND) auxiliary input 1 will switch **OFF** all 8 relays and disable communication.

A2: When short to 0V (GND) auxiliary input 2 will switch **ON** all 8 relays and disable communication.

Further examples on how to use the auxiliary inputs can be found on page 11, **Fig.5**.

TERMINAL CONNECTIONS

Terminal	Description	
12V	12Vdc power input.	
0V	0V ground power input.	
A1	Auxiliary input 1 (switched 0V).	
A2	Auxiliary input 2 (switched 0V).	
L	BUS line data input.	
-	BUS line ground input.	
A	RS485 bus terminals (for alternative method of programming via an Art.481 RS485 USB converter and also left for future expansion).	
B		
NO1, CO1 & NC1	RLY1: normally open, common & normally closed relay contacts.	Relay contacts: 5A@24Vdc 6A@120Vac 2A@240Vac
NO2, CO2 & NC2	RLY2: normally open, common & normally closed relay contacts.	
NO3, CO3 & NC3	RLY3: normally open, common & normally closed relay contacts.	
NO4, CO4 & NC4	RLY4: normally open, common & normally closed relay contacts.	
NO5, CO5 & NC5	RLY5: normally open, common & normally closed relay contacts.	
NO6, CO6 & NC6	RLY6: normally open, common & normally closed relay contacts.	
NO7, CO7 & NC7	RLY7: normally open, common & normally closed relay contacts.	
NO8, CO8 & NC8	RLY8: normally open, common & normally closed relay contacts.	

TECHNICAL SPECIFICATION

Working voltage:	12Vdc +/- 10%
Current consumption:	approx. 300mA max.
Memory capacity:	up to 998 memory locations max.
Module settings:	via 6 way dip-switch (DSW1 , unit ID setup, relay time setup and BUS operating mode)
Programming method:	via micro USB port or RS485 connection using 2X00PC software (version 7.1.0.1 or later)
Unit ID's:	up to 16 max., (module ID.1 - module ID.16)
RS485 connection:	Yes, (A / B)
RS485 termination:	Yes, (JP1)
USB port:	Yes, micro USB
Number of floors:	8 floors per module (1 floor per relay)
Dry contact relays:	8, (C , NC and NO , 5A @ 24Vdc, 6A @ 120Vac and 2A @ 240Vac)
Mounting:	surface, wall mount or DIN rail
Dimensions:	85mm [W] x 157.5mm [L] x 65mm [D]
Working temperature:	-10 +50°C

Wiring Diagrams

DIGITAL PANEL CONNECTIONS (LOCAL BUS MODE)

The following wiring diagram, **Fig.3/1** & **Fig.3/2**, shows the connections for an **Art.4212** digital panel and connections to **Art.3171** audiophones over several floors (4 audiophones per floor). In the example the lift interface has been setup as unit **ID.1** (local BUS mode) where each audiophone can only operate the respective relay (**RLY1 - RLY8**) on the **Art.2216** which corresponds to the floor where the audiophone is located, e.g. audiophones on floor 3 would only be able to operate relay 3 on the **Art.2216** lift interface.

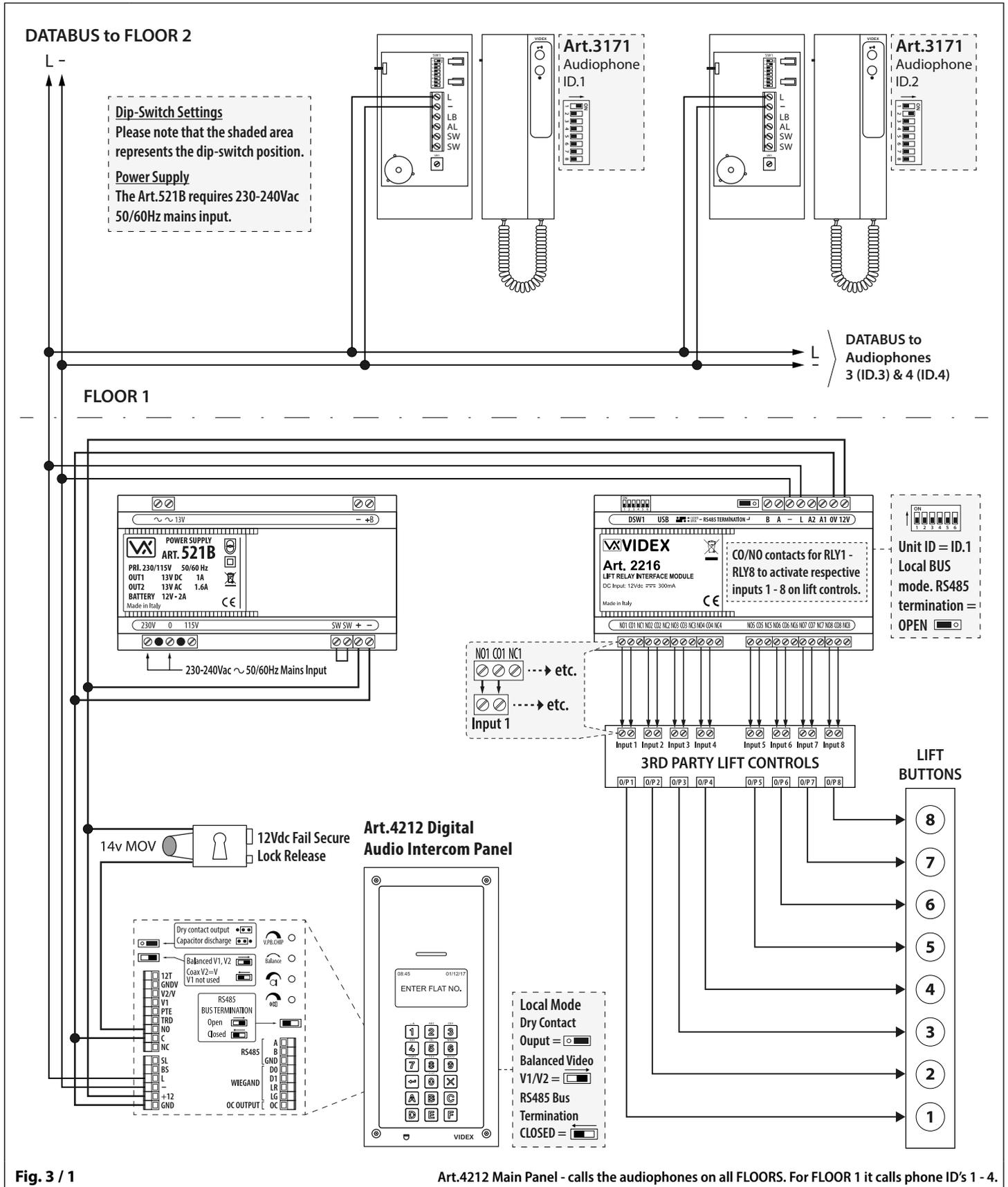


Fig. 3 / 1

Art.4212 Main Panel - calls the audiophones on all FLOORS. For FLOOR 1 it calls phone ID's 1 - 4.

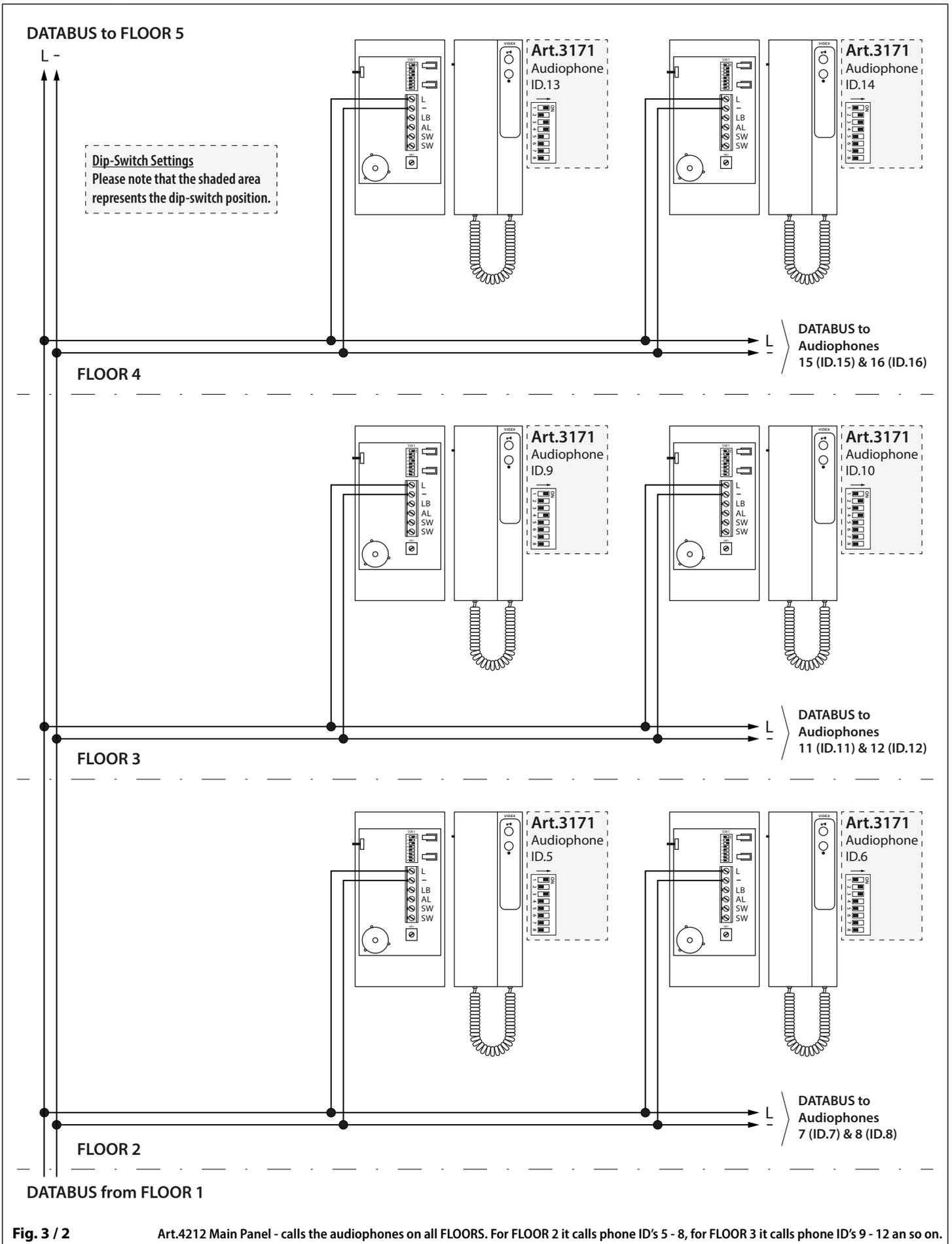


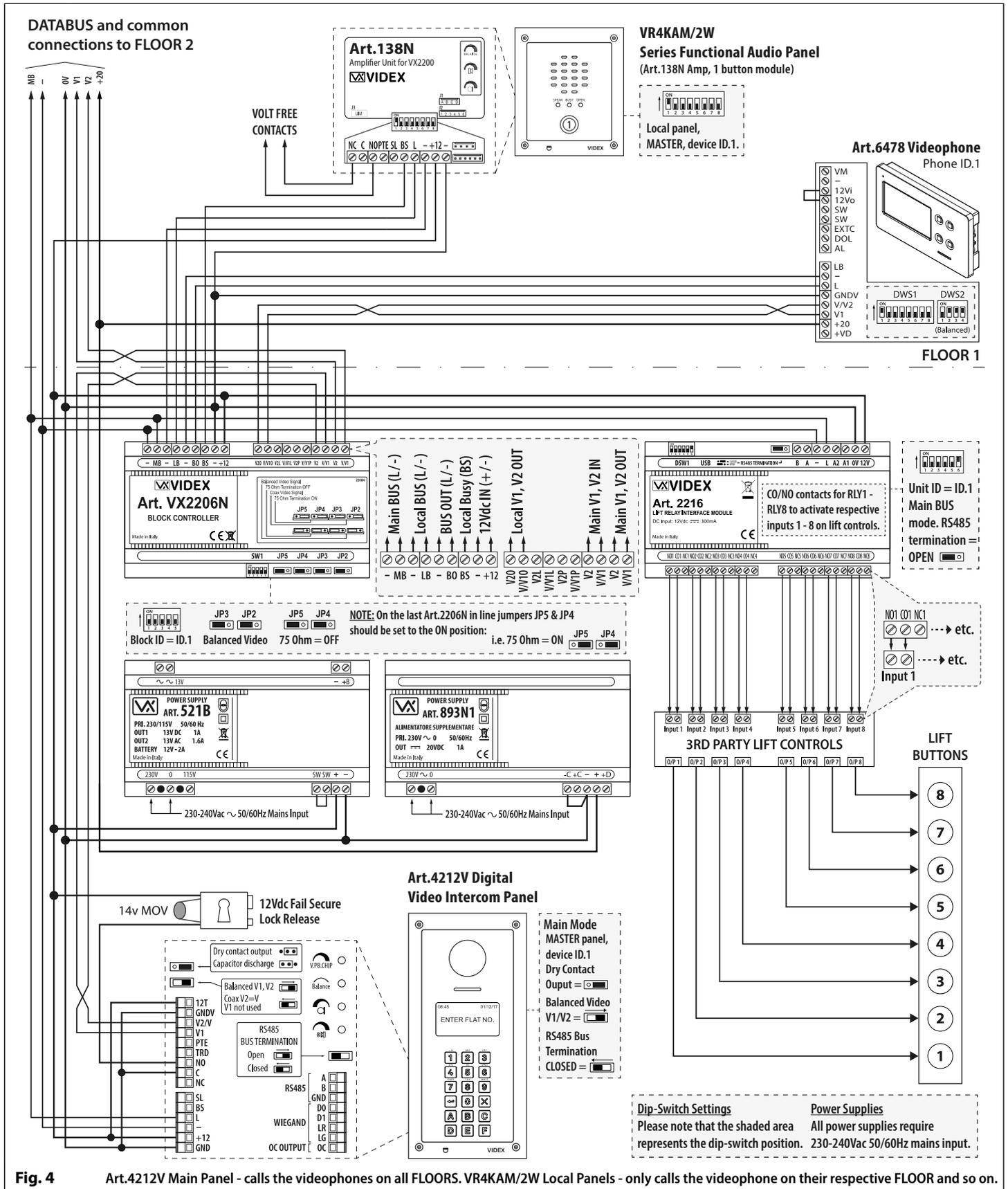
Fig. 3 / 2

Art.4212 Main Panel - calls the audiophones on all FLOORS. For FLOOR 2 it calls phone ID's 5 - 8, for FLOOR 3 it calls phone ID's 9 - 12 and so on.

Wiring Diagrams

DIGITAL PANEL CONNECTIONS (MAIN BUS MODE)

Fig.4 shows the connections for an Art.4212V digital panel, connections for a local VR4KAM/2W audio panel, connections for an Art.2206N block exchange device and connections for an Art.6478 videophone. In the example the lift interface has been setup as unit ID.1 (main BUS mode), where the CO/NO contacts for relays RLY1 - RLY8 of the lift interface are connected to the respective inputs 1 - 8 of the lift controls which are to activate the corresponding lift buttons 1 - 8.



Auxiliary Inputs

AUXILIARY INPUTS A1 AND A2

There are two auxiliary inputs A1 and A2 both of which are switched 0V inputs.

When auxiliary input A1 is triggered with a permanent 0V (GND) it will switch **OFF** all the relay outputs RLY1 - RLY8 (essentially disabling the relays) and also disable communication to the lift interface. During this time if a call is made from an entry panel to an apartment and answered, the lock button on the audio or videophone is pressed only the relay on the entry panel will be triggered.

When auxiliary input A2 is triggered with a permanent 0V (GND) it will switch **ON** all the relay outputs RLY1 - RLY8 (latching them all to the **NO** position) and also disable communication to the lift interface. Similarly like when A1 input is triggered, when a call is made from an entry panel to an apartment and answered then the lock button pressed on the audio or videophone then only the relay on the entry panel will be triggered.

It should be noted that the communication and status of the relays (RLY1 - RLY8) will remain in either of the conditions mentioned above so as long as there is a permanent switched 0V (GND) applied to either the A1 or A2 input respectively. This feature of the lift interface is particularly useful, for example, if an override keyswitch is required for the lift controls/buttons in case of an emergency, refer to the example **Fig.5**. While communication to the lift interface is disabled the normal operation of the VX2200 system can still take place, i.e. calls from the entrance panels can still call the apartments and speech and lock release are not affected.

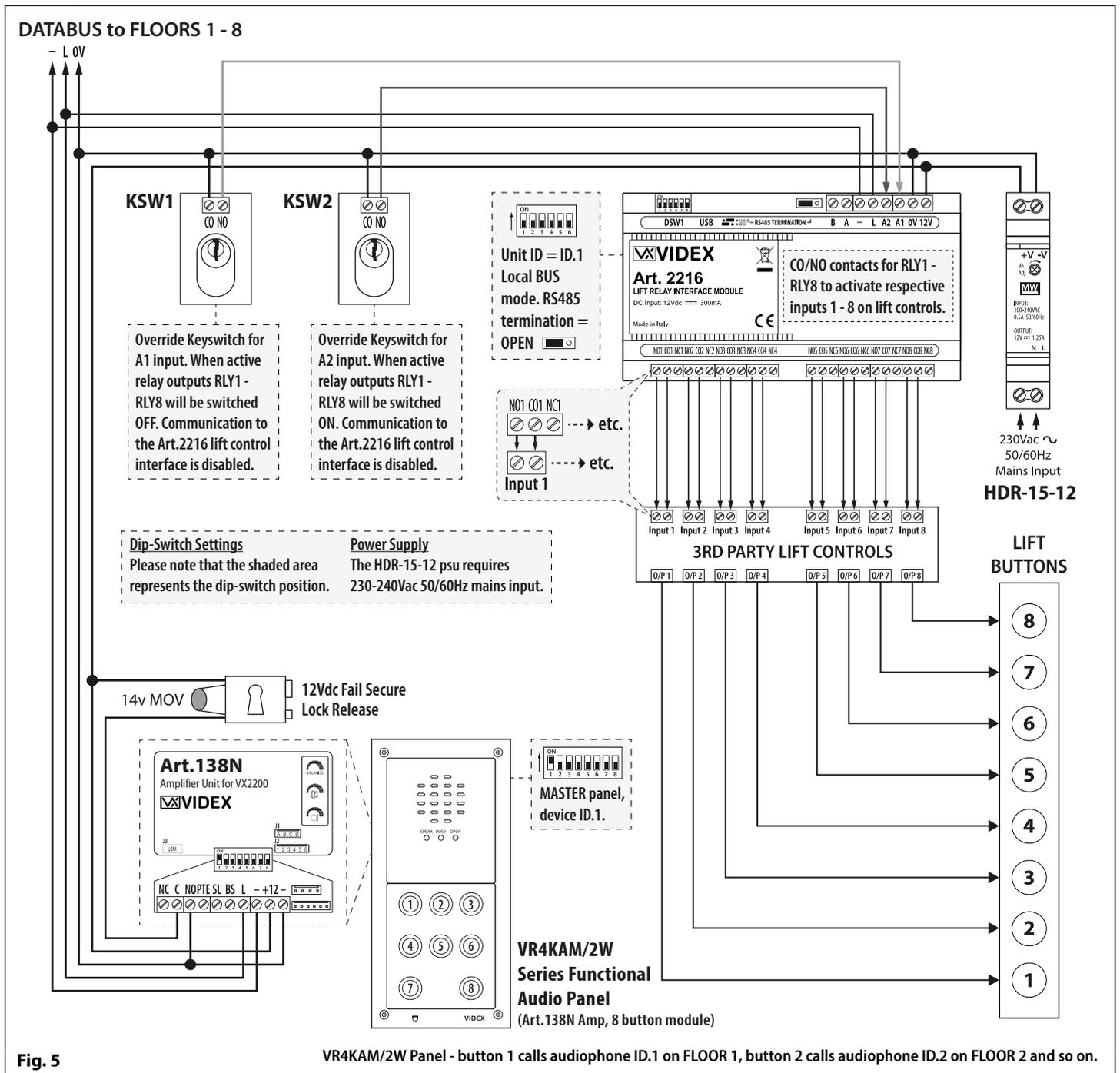


Fig. 5 VR4KAM/2W Panel - button 1 calls audiophone ID.1 on FLOOR 1, button 2 calls audiophone ID.2 on FLOOR 2 and so on.

USB & RS485 Connection

CONNECTIONS TO A PC

The Art.2216 lift interface module includes two options for connecting to a PC: via a USB connection or via an RS485 connection. Both methods of connection are to allow for ease of programming (and in the case of the RS485 connection it has also been left for future expansion). Programming of the module is carried out via the **2X00PC** software (version **7.1.0.1** or later).

OPTION 1: USB CONNECTION

The module can be connected using a standard micro-USB to USB cable as shown in **Fig.6**.

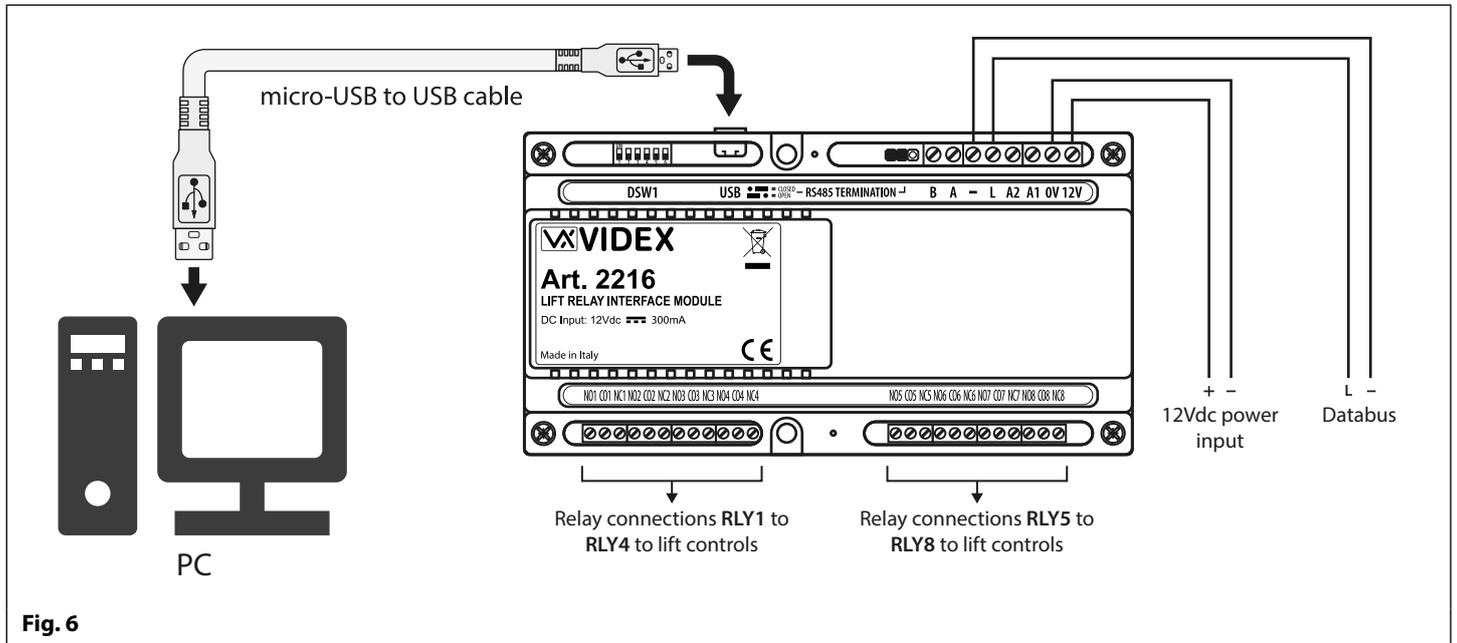


Fig. 6

OPTION 2: RS485 CONNECTION

The lift interface module can also be connected using an RS485 bus connection via an RS485 to USB converter (Art.481) as shown in **Fig.7**.

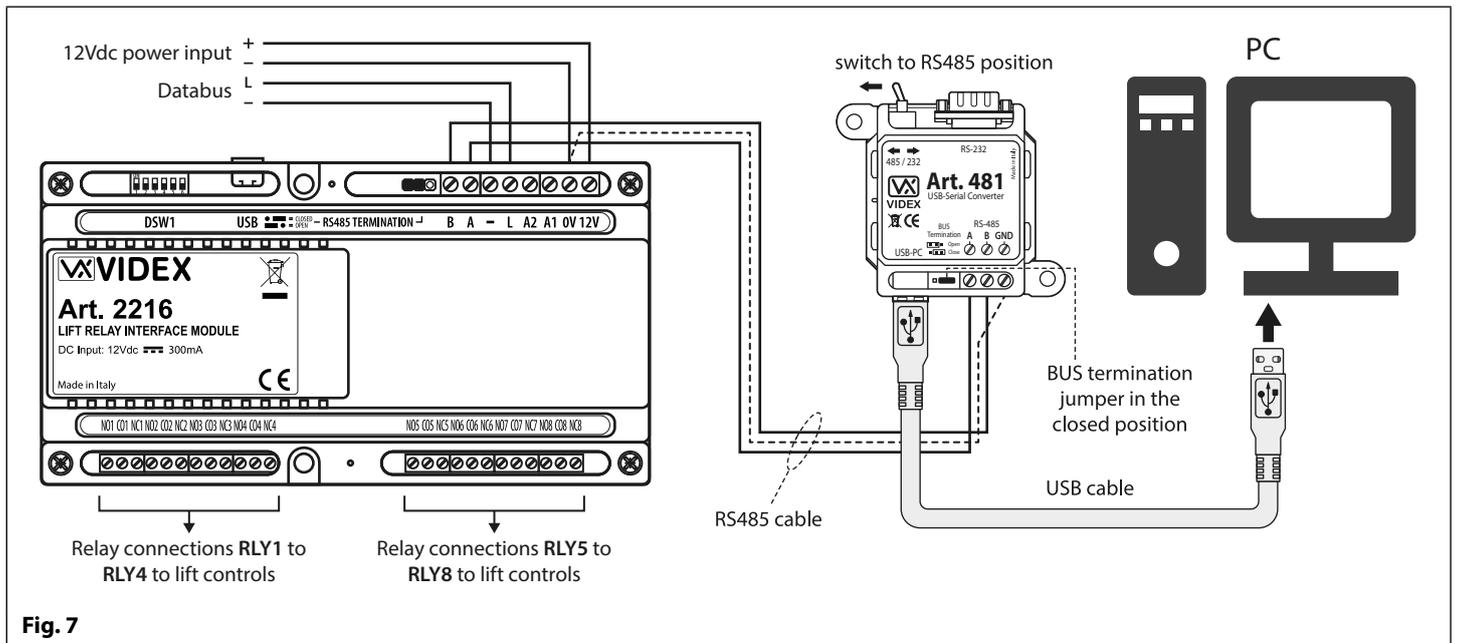


Fig. 7

In the example above (**Fig.7**) over short distances when connecting via the RS485 bus terminals the RS485 termination jumper JP1 on the lift interface can be left in the **OPEN** position, also the RS485 bus termination jumper on the Art.481 can be left in the **OPEN** position. When connecting via RS485 over greater distances the RS485 termination jumpers on both devices can be set to the **CLOSED** position, also refer to **Fig.9** and **Fig.10** and **RS485 connection** notes on page 13.

General Directions for Installation

CABLE SIZE GUIDE

POWER SUPPLY AND LIFT CONTROL CONNECTIONS

Refer to the table below for the connections for the power supply output to the Art.2216 interface module and the relay output connections (RLY1 - RLY8) to the lift controls.

Distance	20m	50m	100m
Cross Sectional Area (CSA)	0.5mm ²	1.0mm ²	1.5mm ²

Ideally the power supply should be located as close as possible to the lift interface module for best performance. The maximum acceptable resistance for the above cables = 3Ω or less for best possible performance.

For other VX2200 system devices refer to the following table. It is recommended that a twisted pair cable is used for the L and -databus connections and for balanced video signal connections V1 and V2 (for video systems).

VX2200 System Cable Requirements				
Connections	50m	100m	200m	300m
L	0.4mm ²	0.5mm ²	0.75mm ²	1.0mm ²
-	0.4mm ²	0.5mm ²	0.75mm ²	1.0mm ²
V1 *	0.35mm ²	0.5mm ²	0.75mm ²	1.0mm ²
V2 *	0.35mm ²	0.5mm ²	0.75mm ²	1.0mm ²
+20V *	0.5mm ²	0.75mm ²	1.0mm ²	1.5mm ²
GNDV *	0.5mm ²	0.75mm ²	1.0mm ²	1.5mm ²
+12V	0.4mm ²	0.75mm ²	1.0mm ²	1.5mm ²
GND	0.4mm ²	0.75mm ²	1.0mm ²	1.5mm ²
All others **	0.25mm ²	0.35mm ²	0.5mm ²	0.75mm ²

* - these connections are only required on video systems. ** - these are optional connections (e.g. door monitoring LED).

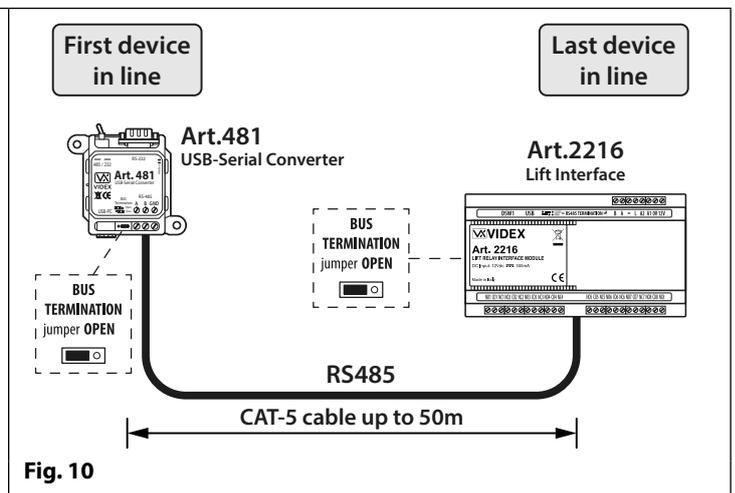
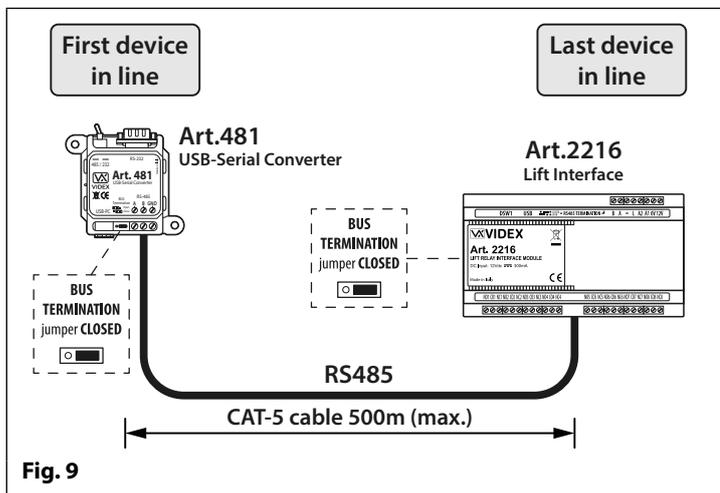
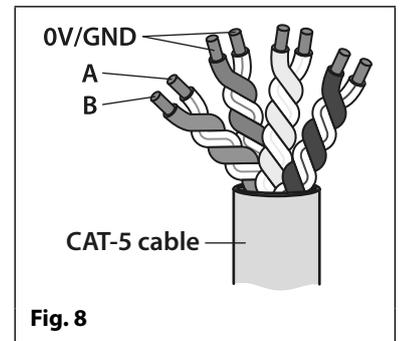
The maximum acceptable resistance for all the above connections (except +20V and GNDV) = 7.5 Ohms or less and the maximum acceptable resistance for the video connections +20V and GNDV = 5 Ohms or less for best possible performance. Please note that all cable sizes shown in the tables above are the minimum cable requirements.

RS485 CONNECTIONS

A CAT-5 cable is acceptable where 1 pair is used for the 0V/GND connection and a second pair is split between the A and B connections (i.e. 1 core of the pair is used for the A terminal, 1 core of the pair is used for the B terminal, see Fig.8).

The total overall distance between the first RS485 device in line, the Art.481, and the last RS485 device in line, the Art.2216, should be no more than 500m max. for the best possible performance, see Fig.9. In this instance over a long distance it is important that the end of line RS485 bus termination jumpers of both devices are set to the CLOSED position.

When the RS485 bus connections are run over a shorter distance (up to 50m approx.) then the RS485 bus termination jumpers of both devices can be set to the OPEN position, Fig.10, also refer to Fig.7 and notes on page 12.



General Directions for Installation

IMPORTANT NOTE: Only bare copper (BC) cable should be used (solid or stranded is acceptable). Please be aware that when selecting a cable the following **should NOT** be used: Copper Coated Steel (CCS) and Copper Clad Aluminium (CCA). While these types of cable may offer a low cost solution they will have a higher resistance than pure copper cable and can affect the overall performance of the system therefore Videx **DO NOT** recommend these types of cable.

Further cabling information can be found the technical manual VX2200Blocks1-2 and is also provided in any accompanying installation instructions with the various VX2200 system components.

GENERAL INSTALLATION NOTES

- Check that all components are free from damage before installing (**do not proceed with installation in the event of damage**).
- Keep all packaging away from children (**please dispose of any excess waste and packaging responsibly**).
- **Do not obstruct** the ventilation openings or slots on any of the devices.
- All connections to mains voltages must be made to the current national standards (I.E.E. wiring regulations for the UK or the appropriate standards of your country if installing overseas).
- Install an appropriate fused spur or isolation switch to isolate the mains.
- Isolate the mains before carrying out any maintenance work on the system.
- Avoid water ingress into the rear of the module, always seal the module frame after installation using a suitable silicon based sealant.
- All intercom and access control cables must be routed separately from the mains (ideally in a separate cable tray or duct).

CONNECTION TO MAINS, SAFETY AND GUIDANCE NOTES

⚠ IMPORTANT: PLEASE READ THESE INSTRUCTIONS CAREFULLY BEFORE COMMENCING WITH THE INSTALLATION.

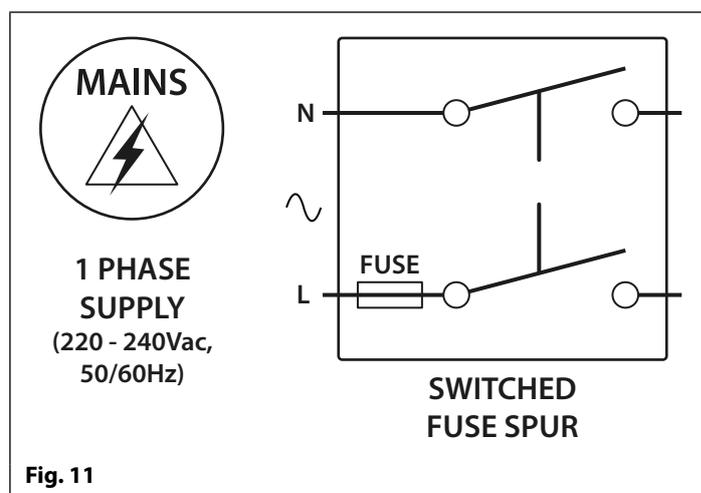
⚠ IMPORTANT: IT IS RECOMMENDED THAT ANY CABLING AND VIDEX PRODUCTS BE INSTALLED BY A COMPETENT AND QUALIFIED ELECTRICIAN, SECURITY INSTALLATION SPECIALIST OR COMMUNICATIONS ENGINEER.

- **DO NOT** install any Videx product in areas where the following may be present or occur:
- Excessive oil or a grease laden atmosphere.
- Corrosive or flammable gases, liquids or vapours.
- Possible obstructions which would prevent or hinder the access and/or removal of the Videx product.

MAINS CONNECTION

The system **MUST** be installed in accordance with the current I.E.E. regulations (in particular I.E.E. Wiring regulations BS7671 for the UK), or the appropriate standards of your country if installing overseas, in particular Videx recommends:

- Connecting the system to the mains through an all-pole circuit breaker (refer to **Fig.11**) which shall have contact separation of at least 3mm in each pole and shall disconnect all poles simultaneously.
- That the all-pole circuit breaker shall be placed in such a way to allow for easy access and the switch shall remain readily operable.
- Ensuring that the mains supply (Voltage, Frequency and Phase) complies with the product rating label (this is usually located on the topside of the power supply).
- Isolating the mains before carrying out any maintenance work on the system.



POWER SUPPLY INSTALLATION

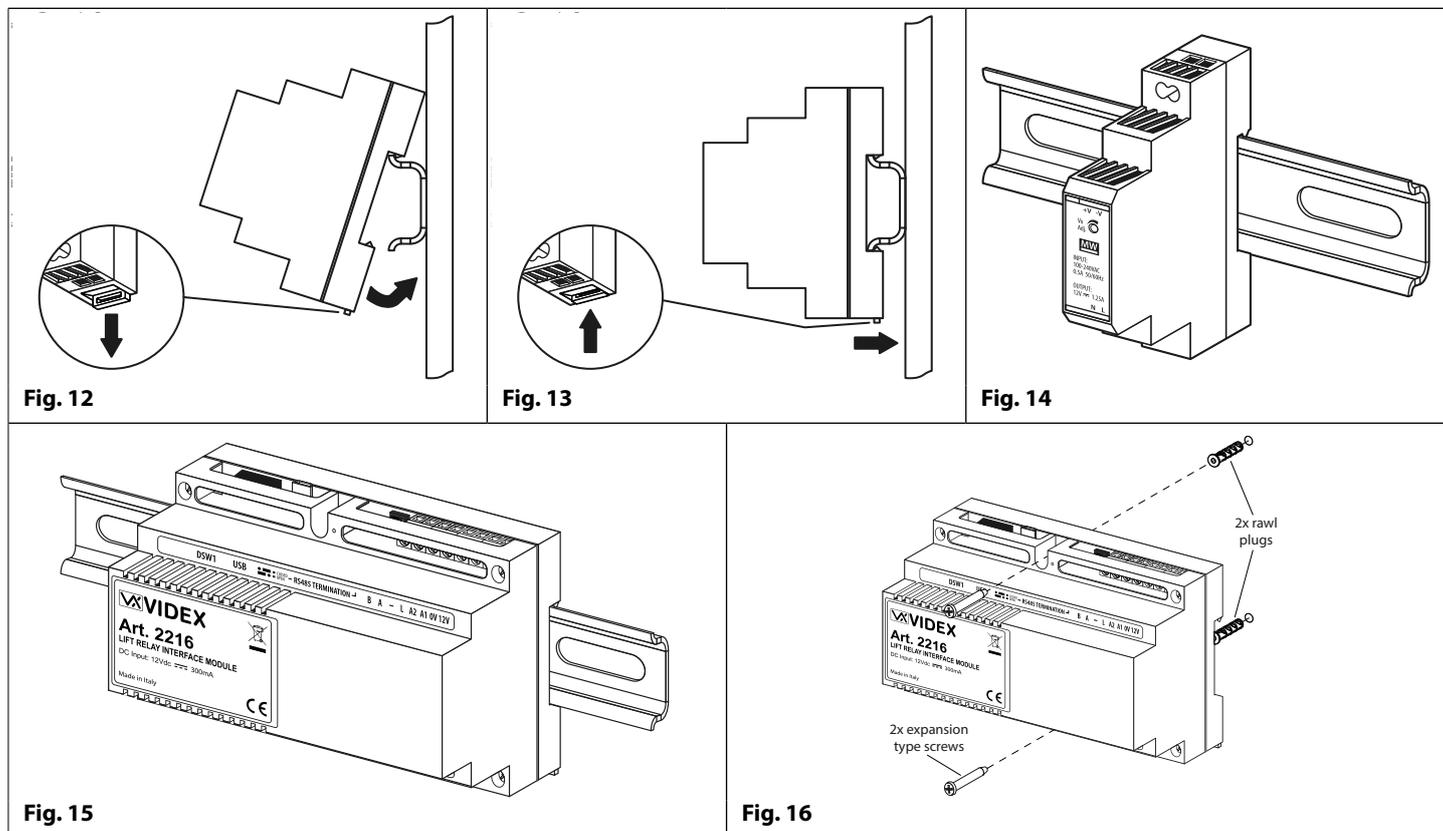
Follow the steps below when fitting a DIN type power supply, in the example a HDR-15-12 (12Vdc 1.25A) power supply.

- Fix the power supply to a DIN rail (following **Fig.12**, **Fig.13** and **Fig.14**).
- Switch **OFF** the mains using the circuit breaker (mentioned previously) and then make the connections as required shown on

General Directions for Installation

the various wiring diagrams throughout this manual.

- Check the connections and secure the wires into the terminals ensuring that the low voltage (signal) cables are routed separately from the high voltage (mains) cables.
- If applicable replace the terminal covers and fix them back into place using the relevant screws.
- When all connections are made restore the mains supply.



MOUNTING THE ART.2216 LIFT INTERFACE MODULE

The Art.2216 lift interface module can also be mounted to a DIN rail, **Fig.15**, following the same steps for mounting a DIN type power supply (described above and following **Fig.12**, **Fig.13** and **Fig.14**) and then making the necessary terminal connections shown in the various wiring diagrams on pages 8 - 10 (depending on the system setup and configuration).

The lift interface can also be mounted directly to a solid wall using 2x rawl plugs and 2x expansion type screws, see **Fig.16** (2x40mm, Ø3.5mm self-tapping masonry screws and 2x40mm, Ø4mm nylon rawl plugs will suffice).

MOUNTING A CONTROL CABINET (2291 SERIES)

If using a 2291 series cabinet to power the lift interface module it is recommended that when mounting the cabinet directly to the wall the following are used: 3x flat head self-tapping countersunk masonry/concrete screws with at least a Ø5mm - Ø5.5mm (diameter) and between 40 - 50mm length. 3x expansion type rawl plugs (for use in solid walls) with at least a Ø5.5mm - Ø6mm and between 35 - 40mm length. 6x M5 size flat metal washers (2 washers per fixing position).

When mounting the 2291 series cabinet just sat off the wall the following should be used: 3x flat head self-tapping countersunk masonry/concrete screws with at least a Ø5mm - Ø5.5mm (diameter) and between 50 - 60mm length. 3x expansion type rawl plugs (for use in solid walls) with at least a Ø5.5mm - Ø6mm and between 35 - 40mm length. 3x nylon spacers with at least an internal diameter Ø6mm and between 10 - 15mm length. 6x M5 size flat metal washers (2 washers per fixing position).

Further details on how to suitably mount a 2291 series control cabinet can be found in the following technical manual:

CAB_ENUK_V1.3 (or later).

Programming the Lift Interface

PROGRAMMING USING THE PC SOFTWARE

The Art.2216 module can be programmed via the micro USB connection using the **2X00PC** software (version 7.1.0.1 or later). Before connecting the module to the PC the software must first be installed with the relevant drivers.

IMPORTANT NOTE: The **2X00PC** software is a windows based software package and therefore does not support **MAC** or **Android** devices. The minimum PC requirements are: **Windows 7 (Service Pack 1)** or later and should have the **.NET 4** framework installed.

USB DRIVER INSTALLATION

First install the USB drivers for the micro USB cable. Follow the steps below to install the driver:

1. Insert the software installation CD into the CD-ROM drive of the PC;
2. Select 'RUN' from the start menu;
3. Type in '**D:\CDM21224_setup.exe**' then press the 'OK' button (where **D:** in this example is the CD-ROM drive of the PC being used, please note that this may vary from PC to PC);
4. The relevant driver for the USB cable will be installed.

2X00PC SOFTWARE INSTALLATION

After the USB driver has been installed follow the steps below to install the PC software:

1. Insert the software installation CD into the CD-ROM drive of the PC (if it hasn't already been done);
2. Select 'RUN' from the start menu;
3. Type in '**D:\setup.exe**' then press the 'OK' button (where **D:** in this example is the CD-ROM drive of the PC being used, please note that this may vary from PC to PC);
4. After a brief period the **2X00PC** setup wizard window will appear;
5. Follow the on screen instructions to complete the software installation;
6. The **2X00PC** software icon will appear on the PC's desktop.

LAUNCHING THE SOFTWARE

After the USB drivers and the software have been installed and the lift interface connected to the PC (following either **Fig.6** or **Fig.7** connection options on page 12) simply double click on the **2X00PC** desktop icon to launch the program.

When the main programmer screen loads up if the lift interface has been detected by the software up it will be shown at the bottom left corner of the screen indicated by a green 'detected' square, **Fig.17**.



Fig. 17

MAIN PROGRAMMER SCREEN TOP MENU

At the top of the main programmer screen there are 10 drop down menu options: **File, System, Download, Upload, Sort, Language, Auto Fill, Communication, Baud** and **About**. The **Sort** and **Auto Fill** options are 'grayed' out as these menu options are not available for the lift interface, refer to **Fig.18**.

Drop Down Menus:

- File**
- When selected a drop down menu will appear with the following options: **New, Open, Open Recent, Save, Save As, Print, Import Old Dat** and **Exit**.
 - **New** - selecting this option will allow a new file to be created and then saved.
 - **Open** - selecting this option will open an existing file that has previously been saved (the file path location and filename will be shown at the top of the programmer screen, refer to **Fig.18**).
 - **Open Recent** - when selected this option expands further to show a drop down list of the most recent files that have previously been opened. To open a file from the expanded list highlight and click on the file required.
 - **Save** - selecting this option from the menu will save the file that is currently open.
 - **Save As** - selecting this option from the menu will allow the file that is currently open to be saved in a specific file path and location.
 - **Print** - selecting this option from the menu allows the current file's parameters/settings of the lift interface to be printed out.
 - **Import Old Dat** - selecting this option from the menu allows an old .dat file to be imported.
 - **Exit** - selecting this option from the menu exits and closes the **2X00PC** software.
- System**
- When selected a drop down list of VX2200 devices that are compatible with the **2X00PC** software will appear and will show a 'tick' (highlighted in blue) next to the device name, in this case the 'tick' will be shown next to the Art.2216 lift interface on the drop down list.

Programming the Lift Interface

- Download** - When this option is selected from the top menu it will show a further option to **Download All**. This menu option can be used to download all the parameters/settings currently stored in the lift interface.
- Upload** - When this option is selected from the top menu it will show a drop down list with options to **Upload All** and **Speed**. Selecting **Upload All** will upload all the parameters/settings into the lift interface. The **Speed** option expands to show another drop down list where the upload speed, 1 - 9, can be selected.
- Language** - This shows the language used for the PC software and by default is already in English.
- Communication** - When selected a drop down menu will appear with the following options: **Comm Port**, **Refresh List**, **Check Connection** and **Manually Connect**. The options from the drop down list can be used to help resolve any connection and communication issues between the lift interface and the PC.
- **Comm Port** - selecting this option expands further to show a drop down list of possible comm ports that the lift interface may be connected to and allows an alternative one to be selected if experiencing connection and communication issues.
 - **Refresh List** - selecting this option will refresh the **Comm Port** drop down list (**please note**: the comm port that the lift interface is connected to should already be included in the drop down list).
 - **Check Connection** - this menu option can be selected after the **Comm Port** drop down list has been refreshed and the required **Comm Port** has been selected. It is used to check the connection and communication between the lift interface and the PC if the connection is lost or the device is shown as being offline (this is usually shown at the bottom left corner of the screen indicated by a red 'Not Detected' square, refer to **Fig.19**).
 - **Manually Connect** - although shown in the drop down list this option is not applicable (this option is generally used to manually connect the **2X00PC** software to other VX2200 devices that can be used with the software).
- Baud** - The default baud rate **19200** will already be selected from the drop down list. It is the rate at which the bits per second are transferred within the data transmission, in this case the bits of data (i.e. the programmed parameters) being transferred between the PC software and the lift interface. When the PC software first loads up it will automatically check through the comm ports, searching under different baud rates to see if the lift interface is connected.
- About** - This option simply confirms the current version of **2X00PC** software is being used.

APARTMENTS SCREEN

While the dip-switches (**DSW1**) on the lift interface are used to setup the unit ID, relay time and BUS operating mode (previously described on pages 5 - 7), the **2X00PC** software is used to program the parameters of the lift interface. In the example, **Fig.18**, the main apartments screen each memory location (1 - 998) in the lift interface can be programmed with the following parameters:

- Apt No.** - This is the apartment number that can activate the lift interface (6 digits max).
- Phone ID** - This is the phone ID of the audiophone and/or videophone that can be called from the entrance panels on the system (3 digits max). The phone ID is based on the 8 way dip-switch setting of the phone. Details on how to setup the phone ID of the audiophone and/or videophone can be found in any accompanying technical documents or installation instructions.
- Block ID** - The block ID (1 - 16) is used only if an **Art.2206N** block exchange device is required on the system (2 digits max). The block ID is based on the 5 way dip-switch setting of the block exchanger. The setup of the **Art.2206N** can be found in any accompanying technical documents or installation instructions. Also refer to the example wiring diagram, **Fig.4** on page 10.
- Name** - This is an optional programming field and can be the apartment name or name of the user in the apartment (16 characters max).
- Floor** - The floor number can be programmed in this field and indicates on which floor the apartments are located (in the example, **Fig.18**, the apartments 1 - 4 are located on floor 1, apartments 5 - 8 are located on floor 2 and so on). During a call to an apartment when the lock button on the audiophone or videophone is pressed the corresponding relay (**RLY1** - **RLY8**) on the lift interface will be triggered i.e. phones located on floor 1 will trigger **RLY1**, phones on floor 5 will trigger **RLY5** etc.

To the right of the **FLOOR** field there are 16 check boxes (**panel ID's for lift control**) that are used to select (i.e. the check box is ticked) the entry panel that will be required to activate the lift controls when an apartment on a particular floor has been called.

The panel ID can be setup directly on the entry panel itself. To setup the panel ID refer to the accompanying installation instructions or appropriate technical manual(s) that came with the entry panel (also see **Table B** on pages 3 and 4 for a full list of compatible panel types that can be used with the lift interface).

Troubleshooting & General Information

PROGRAMMER SCREEN CONNECTION STATUS INDICATION AND PROGRESS BAR

At the bottom of the main programmer screen is the connection status and progress bar to indicate if the 2X00PC software is connected to the lift interface module. It also shows the progress of an upload or download to and from the lift interface module. The following notes describe the different statuses that the software might show:

- **NOT DETECTED:** see **Fig.19**, this indicates that the lift interface has not been detected by the 2X00PC software and is not connected. Note that when the connection status is showing as **NOT DETECTED** some of the top menu options are 'grayed' out and not available. These menu options will only become available when the software is connected to the lift interface and showing as **DETECTED**, see **Fig.20**.

To get the software to detect the lift interface first check the comm port setting by:

1. Clicking on **Communication** from the top menu and select **Comm Port** from the drop down list.
2. Check to see if the comm port being used on the PC is on the expanded drop down list.
3. If the comm port is not shown on the expanded drop down list click on **Refresh List**.
4. Check again to see if the comm port is now shown on the expanded drop down list, if so select it from the expanded drop down list.
5. Click on **Check Connection**.
6. After a brief pause (while the software searches for the lift interface on the selected comm port) the connection status at the bottom left corner should now show **DETECTED** (indicated with a green square), **Fig.20**.

For more information on using the software features mentioned in the steps above refer to **Communication** notes on page 17.

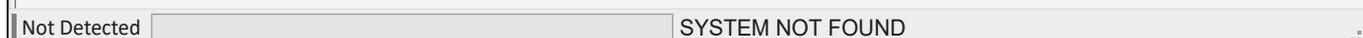


Fig. 19

- **DETECTED:** see **Fig.20**, this indicates that the lift interface has been detected by the software and is currently connected.



Fig. 20

- **UPLOADING:** see **Fig.21**, this indicates that the software is currently uploading the lift settings (i.e. apartment numbers, phone ID's, floor numbers etc. to the lift interface module.



Fig. 21

- **DOWNLOADING:** see **Fig.22**, this indicates that the software is currently downloading the lift settings (i.e. apartment numbers, phone ID's, floor numbers etc. from the lift interface module.



Fig. 22

OTHER MESSAGES AND ON SCREEN PROMPTS

If Connection is lost during Upload or Download

In the event that the connection between the software and lift interface is lost during an upload or download the connection status at the bottom of the programmer screen will still show that it is **DETECTED** and still either uploading or downloading (refer to **Fig.21** and **Fig.22** above), however an onscreen prompt window will appear, **Fig.23**, indicating that the upload or download has failed.

Please note that the location value displayed, in this example location 80, will vary depending on how far the upload or download was progressing.

Click on **OK**, the status indication at the bottom of the screen will change to **NOT DETECTED**, see **Fig.19**. Follow steps 1 - 6 described above to try and re-establish communication between the software and the lift interface.

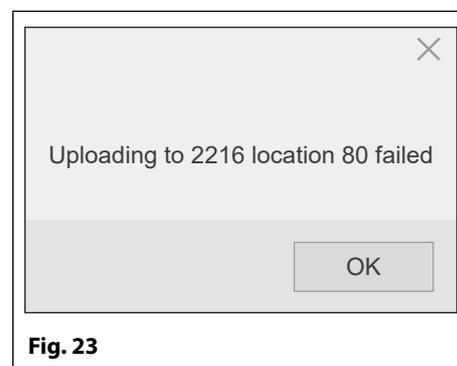


Fig. 23

Also check the power connections to the lift interface and the output power of the power supply is giving out 12Vdc, in case the power has dropped off or been lost. If necessary remake any wiring connections. Close down the 2X00PC software and try re-launching it again.

Troubleshooting & General Information

IMPORTANT NOTE: The suggestions covered in this troubleshooting section primarily covers the system checks to try for the Art.2216 lift interface module. Since the lift interface will be connected to a functional or digital panel it is always recommended that you also refer to the troubleshooting section on any accompanying technical documents for the intercom panel and for the audiophones or videophones being installed, as there may be solutions to the problems that you've encountered covered in those documents that may not necessarily be covered here.

FURTHER READING

Additional VX2200 system setup and programming information (including the Art.2206N block exchange device) can be found in the following technical manual:

- **VX2K2HDIGSYS - Technical Manual Version 1.1** (or later version)

Additional VX2200 cabling information can be found in the following technical manual:

- **VX2200Blocks 1-2**

Other accompanying Technical Documents for any VX2200 system component, which may include (but not limited to):

- **VX2200 Control Cabinets and Compatible Power Supplies** (refer to table A on page 3 for model numbers)
- **VX2200 Functional Intercom Panels** (refer to table B on pages 3 and 4 for compatible panel types)
- **VX2200 Digital Intercom Panels** (refer to table B on pages 3 and 4 for compatible panel types)
- **VX2200 Audio devices** (3000 series audiophones, 5000 series hands-free apartment stations and audio Kristallo series)
- **VX2200 Video devices** (6200, 6300, 6400 and 6700 series videophones, 5000 series hands-free video Eclipse and video Kristallo series)

Additional information regarding connection to mains supply voltage can be found in the following regulations (for the UK only):

- **I.E.E. Wiring Regulations BS7671**

For overseas customers it is recommended that you consult with the relevant governing body for the appropriate regulations and standards of your country.

ENG DISPOSAL

In accordance with the Legislative Decree no. 49 of 14 March 2014 "Implementation of the Directive 2012/19/EU on waste electrical and electronic equipment (WEEE)".

The crossed-out bin symbol on the equipment or on the packaging indicates that when the product reaches the end of its lifetime, it must be collected separately from mixed municipal waste. The user must, therefore, dispose of the equipment at the end of its lifetime in the suitable waste collection centres or bring it to the retailer during the purchase of a new equipment of equivalent type at the ratio of one-to-one. Furthermore, the user is allowed to dispose of the WEEEs of very small size (domestic appliances without any external dimension exceeding 25 cm (9.84 inches) for free to the retailers, without any purchase obligation. The correct waste disposal of the WEEEs contributes to their reuse, recycling and recovery and avoids potential negative effects on the environment and human health due to the possible presence of dangerous substances within them.

**ITA SMALTIMENTO**

Ai sensi del Decreto Legislativo 14 marzo 2014, n° 49 "Attuazione della direttiva 2012/19/UE sui rifiuti di apparecchiature elettriche ed elettroniche (RAEE)".

Il simbolo del cassonetto barrato riportato sull'apparecchiatura o sulla sua confezione indica che il prodotto alla fine della propria vita utile deve essere raccolto separatamente dagli altri rifiuti urbani misti. L'utente dovrà, pertanto, conferire l'apparecchiatura giunta a fine vita presso gli idonei centri di raccolta differenziata oppure riconsegnarla al rivenditore al momento dell'acquisto di una nuova apparecchiatura di tipo equivalente, in ragione di uno a uno. L'utente ha, inoltre, la possibilità di conferire gratuitamente presso i distributori, senza alcun obbligo di acquisto, per i RAEE di piccolissime dimensioni (per le apparecchiature di tipo domestico con nessuna dimensione esterna superiore a 25 cm). L'adeguata raccolta differenziata dei RAEE contribuisce al loro riutilizzo, riciclaggio e recupero ed evita potenziali effetti negativi sull'ambiente e sulla salute umana dovuti alla eventuale presenza di sostanze pericolose al loro interno.

FRA ÉLIMINATION

Conformément au décret législatif n° 49 du 14 mars 2014 relatif à l'« Application de la directive 2012/19 / UE relative aux déchets d'équipements électriques et électroniques (DEEE) ».

Le symbole de la poubelle barrée sur l'équipement ou sur son emballage indique que le produit en fin de vie utile doit être collecté séparément des autres déchets municipaux en mélange. L'utilisateur doit donc remettre l'équipement en fin de vie aux centres de collecte appropriés ou le restituer au revendeur lors de l'achat d'un nouveau type d'équipement équivalent, dans le rapport de un à un. De plus, l'utilisateur a la possibilité de conférer gratuitement aux distributeurs, sans aucune obligation d'achat, de très petits DEEE (pour les appareils ménagers sans dimensions extérieures supérieures à 25 cm). La collecte séparée adéquate des DEEE contribue à leur réutilisation, leur recyclage et leur valorisation et évite les éventuels effets négatifs sur l'environnement et la santé humaine en raison de la présence possible de substances dangereuses dans ceux-ci.

SPA ELIMINACIÓN

De conformidad con el Decreto legislativo n. 49 de 14 de marzo 2014 "Aplicación de la Directiva 2012/19/UE relativa a residuos de aparatos eléctricos y electrónicos (RAEE)".

El símbolo del contenedor tachado indicado sobre los aparatos o sobre los embalajes señala que el producto al final de su vida útil debe ser recogido separadamente de otros residuos municipales mezclados. Por tanto, el usuario deberá conferir los aparatos al final de su vida útil en los apropiados centros de recogida selectiva o devolverlos al revendedor al momento de la compra de nuevos aparatos equivalentes, en una relación de uno a uno. Además, el usuario tiene la posibilidad de entregar sin cargo a los distribuidores, sin ninguna obligación de compra, los RAEEs muy pequeños (para electrodomésticos sin dimensiones externas superiores a 25 cm).

La recogida selectiva apropiada de los RAEEs contribuye a su reutilización, reciclaje y valorización y evita potenciales impactos negativos sobre el medio ambiente y la salud humana debidos a la posible presencia de sustancias peligrosas dentro de ellos.

NLD VERWIJDERING

In overeenstemming met het Wetsbesluit nr. 49 van 14 maart 2015 "Implementatie van de Richtlijn 2012/19/EU inzake afgedankte elektrische en elektronische apparaten (AEEA)".

Het doorgekruiste vuilnisbaksymbool op het apparaat of de verpakking geeft aan dat het product aan het einde van zijn levensduur niet samen met het gewone huisvuil weggegooid mag worden. De gebruiker moet het apparaat aan het einde van zijn levensduur inleveren bij een gepast inzamelpunt of de winkel waar hij een nieuw apparaat van een gelijksoortig type zal kopen. De gebruiker kan tevens AEEA's van een zeer klein formaat (huishoudapparaten met een buitenafmeting kleiner dan 25 cm (9,84 inch)) gratis en zonder enige aankoopverplichting bij handelaars inleveren. Een juiste verwijdering van AEEA's draagt bij tot hergebruik, recycling en terugwinning, en voorkomt potentiële negatieve effecten op het milieu en de menselijke gezondheid door de mogelijke aanwezigheid van gevaarlijke stoffen.

MANUFACTURER FABBRICANTE FABRICANT FABRICANTE FABRIKANT الشركة المصنعة	VIDEX ELECTRONICS S.P.A. Via del Lavoro, 1 63846 Monte Giberto (FM) Italy Tel (+39) 0734 631669 Fax (+39) 0734 632475 www.videx.it - info@videx.it	
CUSTOMER SUPPORT SUPPORTO CLIENTI SUPPORTS CLIENTS ATENCIÓN AL CLIENTE KLANTENDIENST خدمة العملاء	VIDEX ELECTRONICS S.P.A. www.videx.it - technical@videx.it Tel: +39 0734-631669 Fax: +39 0734-632475	UK Customers only: VIDEX SECURITY LTD www.videxuk.com Tech Line: 0191 224 3174 Fax: 0191 224 1559

*Main UK office:***VIDEX SECURITY LTD**

1 Osprey Trinity Park
Trinity Way
LONDON E4 8TD
Phone: (+44) 0870 300 1240
Fax: (+44) 020 8523 5825
www.videxuk.com
marketing@videxuk.com

*Northern UK office:***VIDEX SECURITY LTD**

Unit 4-7
Chillingham Industrial Estate
Chapman Street
NEWCASTLE UPON TYNE - NE6 2XX
Tech Line: (+44) 0191 224 3174
Phone: (+44) 0870 300 1240
Fax: (+44) 0191 224 1559

*Greece office:***VIDEX HELLAS Electronics**

48 Filolaou Str.
11633 ATHENS
Phone: (+30) 210 7521028
(+30) 210 7521998
Fax: (+30) 210 7560712
www.videx.gr
videx@videx.gr

*Danish office:***VIDEX DANMARK**

Hammershusgade 15
DK-2100 COPENHAGEN
Phone: (+45) 39 29 80 00
Fax: (+45) 39 27 77 75
www.videx.dk
videx@videx.dk

*Benelux office:***NESTOR COMPANY NV**

E3 laan, 93
B-9800 Deinze
Phone: (+32) 9 380 40 20
Fax: (+32) 9 380 40 25
www.videx.be
info@videx.be

*Dutch office:***NESTOR COMPANY BV**

Business Center Twente (BCT)
Grotestraat, 64
NL-7622 GM Borne
www.videxintercom.nl
info@videxintercom.nl



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 2014/30/EU (EMC); 2014/35/EU (LVD); 2011/65/EU (RoHS); CE marking 93/68/EEC.

Le produit est marqué CE à preuve de sa conformité et peut être distribué librement à l'intérieur des pays membres de l'union européenne EU. Ce produit est conforme aux directives européennes 2014/30/EU (EMC); 2014/35/EU (LVD); 2011/65/EU (RoHS); marquage CE 93/68/EEC.

Het product heeft de CE-markering om de conformiteit ervan aan te tonen en is bestemd voor distributie binnen de lidstaten van de EU zonder beperkingen. Dit product volgt de bepalingen van de Europese Richtlijnen 2014/30/EU (EMC); 2014/35/EU (LVD); 2011/65/EU (RoHS); CE-markering 93/68/EEC.

Il prodotto è marchiato CE a dimostrazione della sua conformità e può essere distribuito liberamente all'interno dei paesi membri dell'Unione Europea UE. Questo prodotto è conforme alle direttive Europee: 2014/30/UE (EMC); 2014/35/UE (LVD); 2011/65/UE (RoHS); marcatura CE 93/68/EEC.

El producto lleva la marca CE que demuestra su conformidad y puede ser distribuido en todos los estados miembros de la unión europea UE. Este producto cumple con las Directivas Europeas 2014/30/EU (EMC); 2014/35/EU (LVD); 2011/65/EU (RoHS); marca CE 93/68/EEC.

يحمل المنتج علامة التوافق الأوروبي CE لإظهار توافقه مع المواصفات ذات الصلة وإمكانية توزيعه في كافة دول الإتحاد الأوروبي بدون أية قيود. يلبّي هذا المنتج جميع متطلبات التوجيهات الأوروبية 2014/30/UE (EMC); 2014/35/UE (LVD); 2011/65/UE (RoHS); علامة المطابقة للمواصفات الأوروبية 93/68/EEC.



66251878-EN