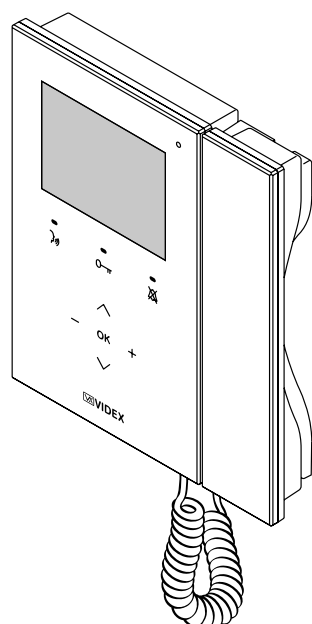
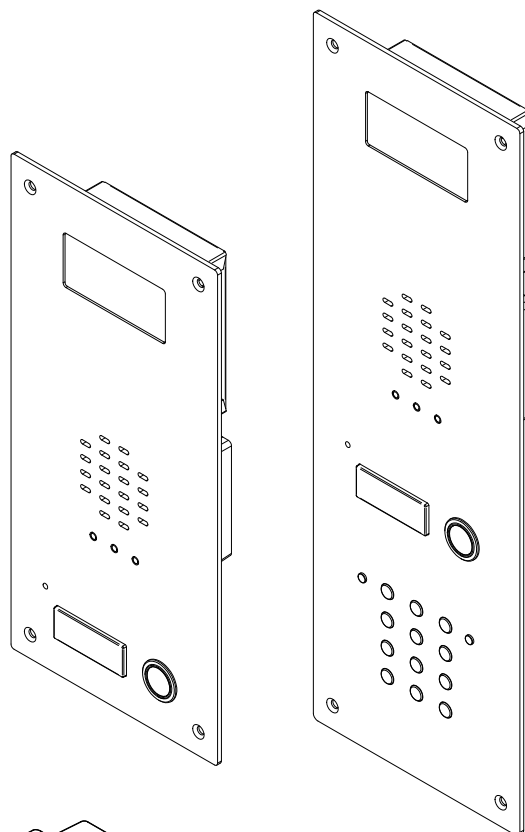


VIDEOKIT

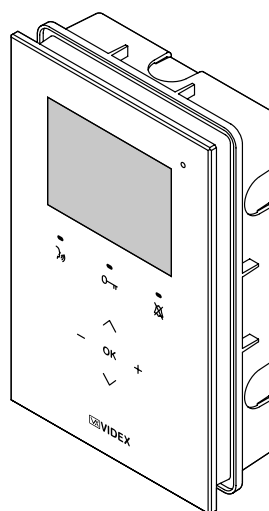
VRVK/KRISTALLO SERIES

One Way Vandal Resistant Videokit

VRVK-1
VRVKC-1



KRV76



KRV78

Installation handbook

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DECLARATION OF RESPONSIBILITY

This manual has been written and revised carefully. The instructions and the descriptions which are included in it are referred to VIDEX parts and are correct at the time of print. However, subsequent VIDEX parts and manuals, can be subject to changes without notice. VIDEX Electronics S.p.A. cannot be held responsible for damages caused directly or indirectly by errors, omissions or discrepancies between the VIDEX parts and the Manual.

Introduction

VRVK-1/KRV78

ONE WAY VIDEOKIT WITH COLOUR VIDEOPHONE AND CAMERA

The VRVK is a range of videokits that use a special vandal resistant plate (the speaker unit is a specific module while the camera is a standard module) and the Kristallo Series videophone Art. KRV78 which is specific for this range of videokit and VK4K range.

As a result of using microprocessor technology in the door panel and videophone, a number of additional features have been added to enhance the operation of the videokits and give greater feedback to the visitor and user.

- Programmable door open and conversation time.
- Expandable to 4 entrance panels (requires an additional relay Art.506N for each entrance panel).
- Connections for a push to exit button.
- Two methods of operating the electric lock:- 1) Dry contact relay, 2) capacitor discharge circuit.
- Facility for the connection of other modules supplied by 12Vdc (300mA max).
- Programmable number of call tone rings from 2 to a maximum of 8.
- Input for local door bell push button.
- Programmable timed privacy function from 15 minutes to a maximum of 8 hours.
- Door open status LED (additional wire required from the door to the videophone).
- Up to 4 videophones can be connected in parallel, all with intercommunication facility.
- Videophones can have a maximum of two additional audio telephone handsets connected in parallel.
- Camera recall on all systems, with selective recall on systems with multiple entrances.
- Door panel camera can be adjusted horizontally and vertically (10 degrees).

The kit comprises of:

- 1 Colour Camera module that includes a high quality colour CCD camera with auto iris lens, infrared LEDs for illumination.
- 1 Specific speaker unit module which includes the audio amplifiers and the connections for up to 2 call buttons;
- 1 4000 series two module flush mounting box;
- 1 Kristallo Series Art. KRV78 Flush mount hands free videomonitor using 3.5" full colour active matrix LCD display with OSD (On Screen Display) for video door entry systems using composite (coax cable) or balanced (twisted pair) video signal. All buttons use capacitive touch sensor technology, 3 of these buttons have multiple direct functions such as "door-open/concierge-call", "answer/camera recall/simplex conversation" and "privacy/call reject/service/programming and adjustment menu access"). 3 LEDs give visual indication of operations while the other 5 buttons allow navigation of the programming menu's. Programmable options: loudspeaker volume, call tone volume, picture contrast, brightness and hue, privacy duration, call tone melody, number of rings, address and video mode. Also includes a local bell function. Available in black (add to the product code "/B") or white (add to the product code "/W") finishes.
- 1 Art. KRV981 wall flush mounting box for Kristallo® Series videointercoms flush mounting version.
- 1 Regulated power supply with mains voltage 230Vac 50/60Hz and outputs 12Vdc, 18Vdc and 13Vac.

VRVKC-1/KRV78

ONE WAY VIDEOKIT COLOUR PLUS A CODELOCK MODULE

As VRVK-1/KRV78 but with 3 modules flush mounting box plus a vandal resistant line stand-alone code lock module. The user can open the door from outside by typing the relevant access code into the keypad.

VRVK-1/KRV76

ONE WAY VIDEOKIT WITH COLOUR VIDEOPHONE AND CAMERA

As VRVK-1/KRV78 but with Art KVR76 (as Art.KRV78 but surface mount version with telephone handset).

VRVKC-1/KRV76

ONE WAY VIDEOKIT COLOUR PLUS A CODELOCK MODULE

As VRVKC-1/KRV78 but with Art KVR76 (as Art.KRV78 but surface mount version with telephone handset).

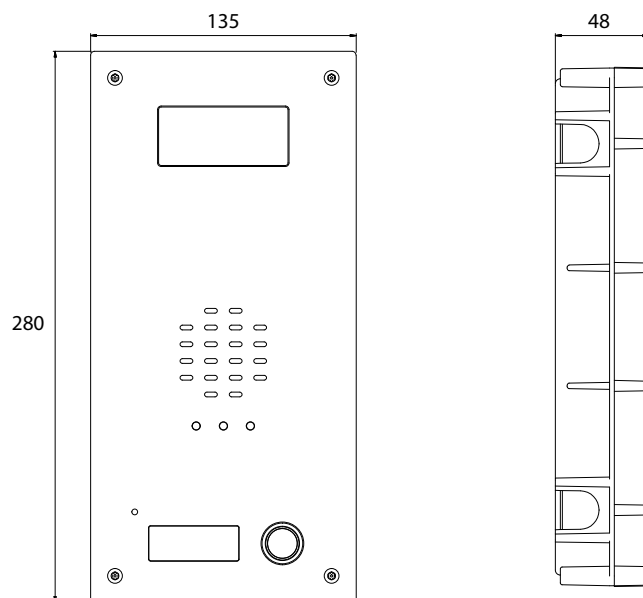


Fig. 1 - VRVK-1

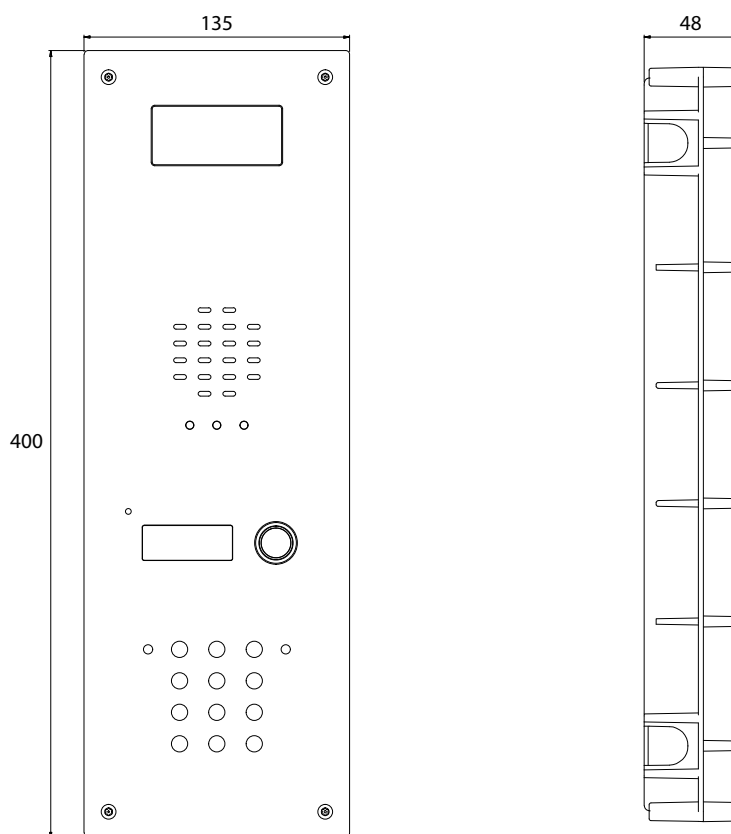


Fig. 2 - VRVKC-1

General directions for installation

CONNECTION TO MAINS

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.

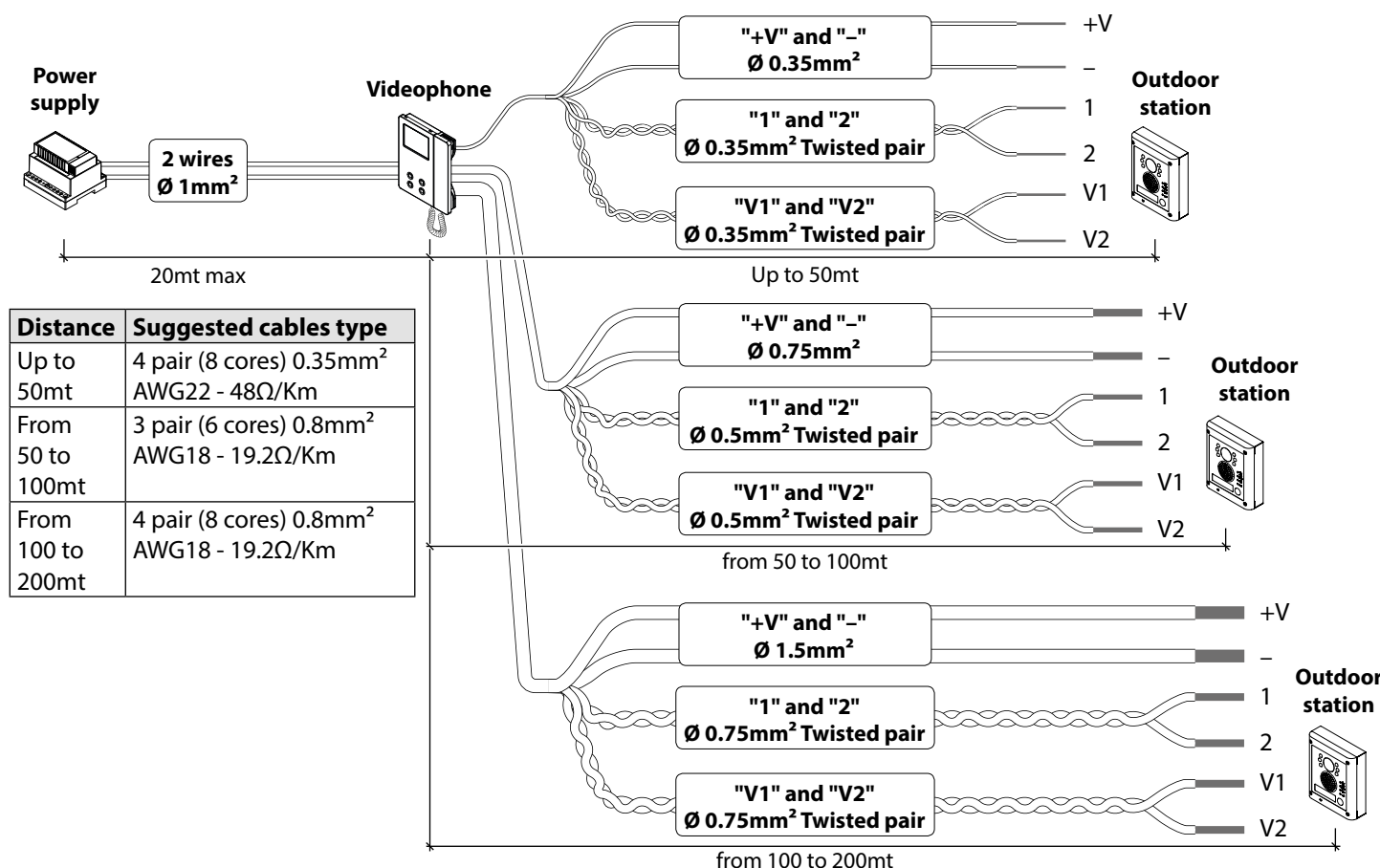
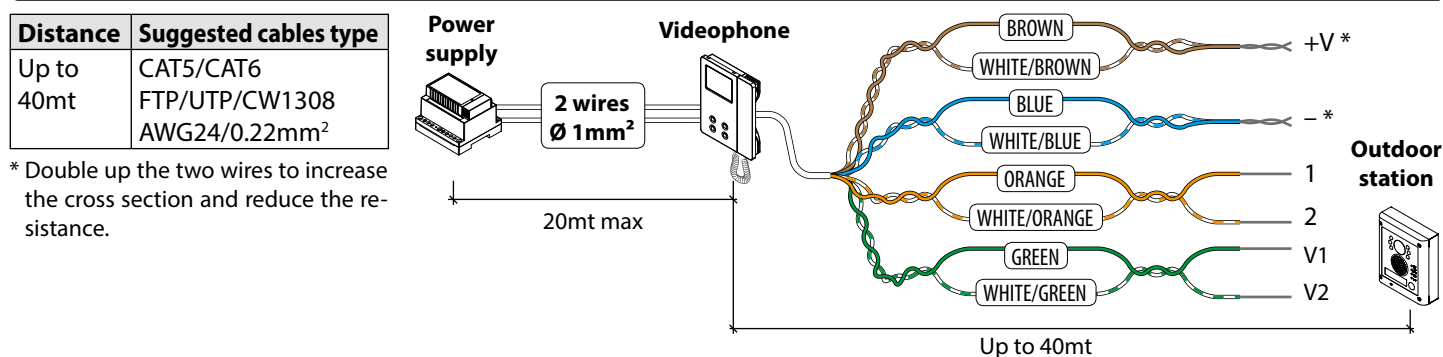
POWER SUPPLY INSTALLATION

- 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;
- After completing the wiring, double check all connections then restore the mains.

CABLE SIZE

Video connections and Audio connections must be wired in twisted pair: pair the video lines (terminals/signals "V1" and "V2"), pair the audio lines (terminals /signals "1" and "2").

⚠ IMPORTANT NOTE: SOLID COPPER CABLES MUST BE USED. COPPER COATED STEEL (CCS) AND COPPER COATED ALUMINIUM (CCA) CAN NOT BE USED ON THE SYSTEM.



Troubleshooting guide

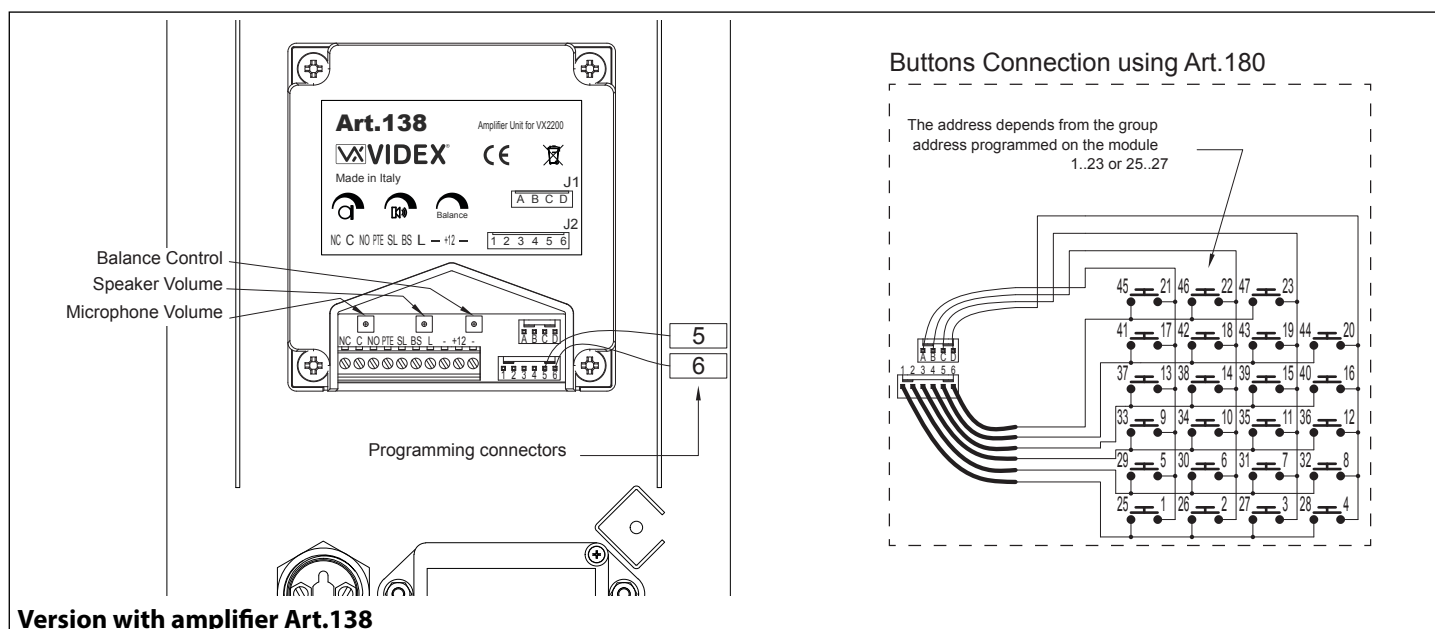
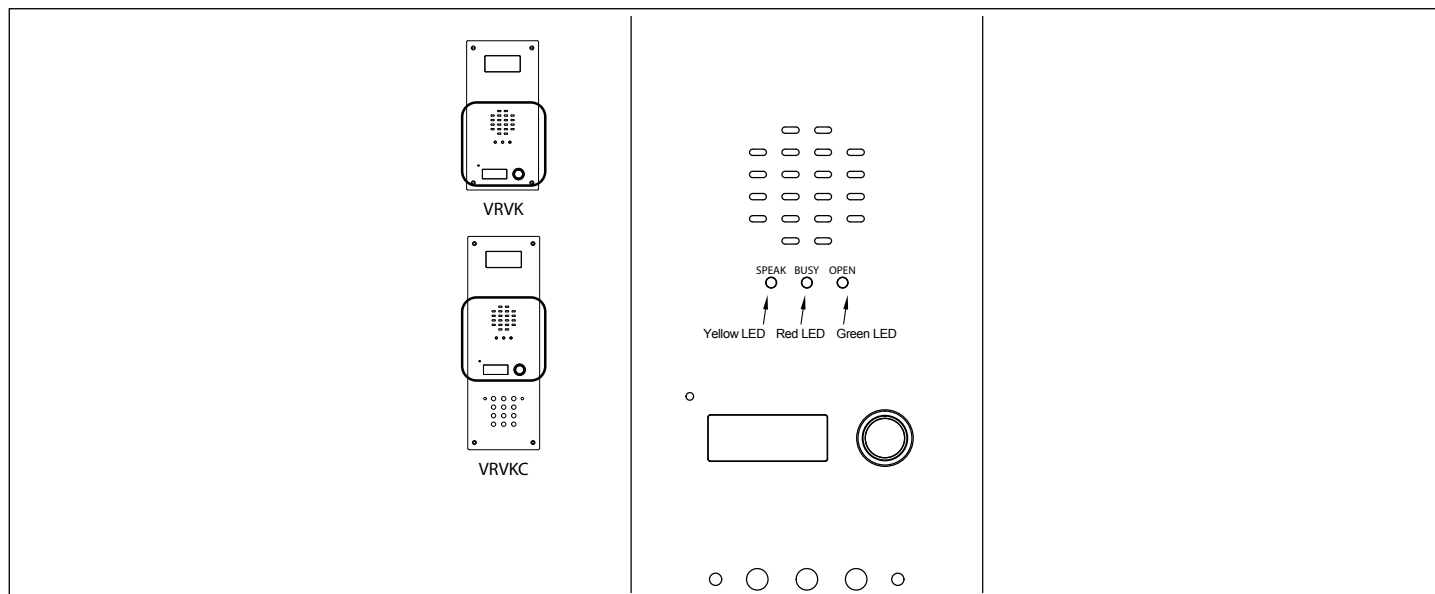
In case of system failure, try the following preliminary checks:

- Check that the cables are connected as shown in the installation diagram and that the cables are firmly fixed into the relevant terminals;
- Check that the mains voltage is available on terminals 230Vac (or 127Vac) and 0 of the power transformer Art. 850K;
- Check the 24Vac voltage output of the power transformer Art. 850K. If this voltage is not available it could be the 1,6A fuse, in this case remove the mains voltage, remove possible short-circuits or overload sources then replace the fuse with an equal or equivalent one.
- Check that the voltage between the terminals "+" and "-" of the speaker unit is between 16 and 20Vdc.

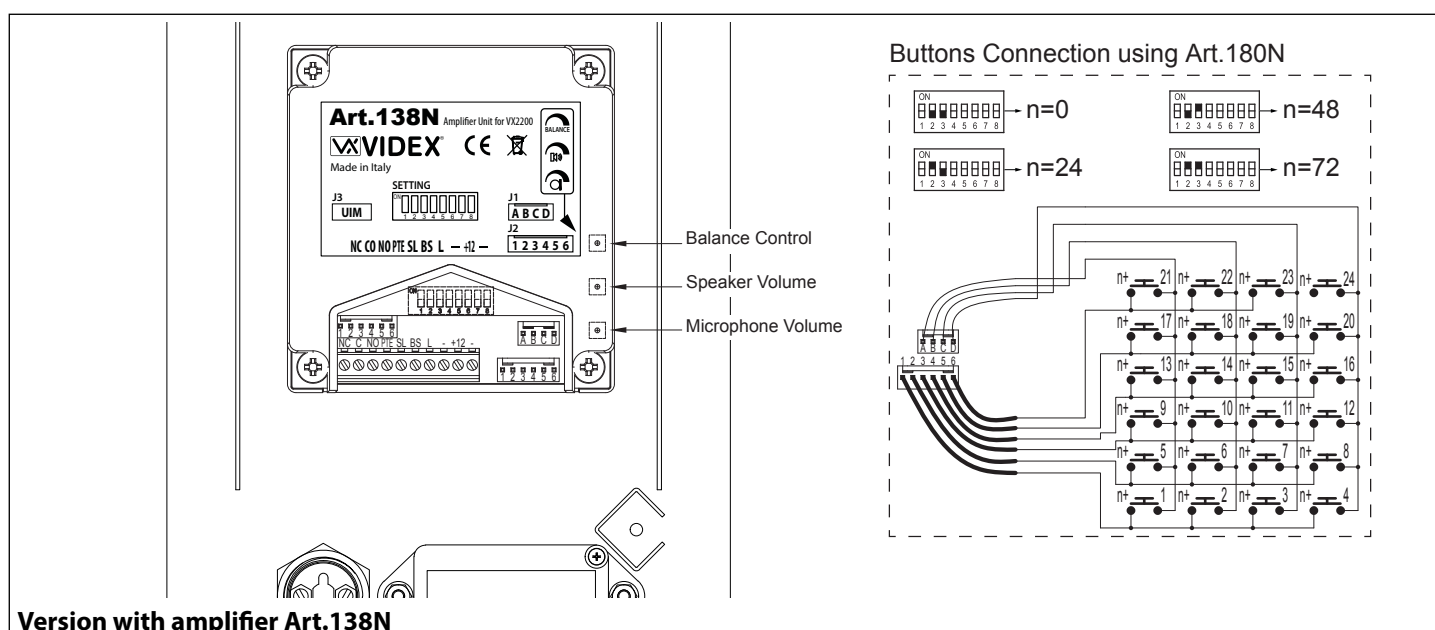
If the problem persists try the tests in the following table or contact technical support.

SYMPTOM	CAUSE	SOLUTION
The door station is not able to call the extension (the bell LED is switched on for 2 seconds):	• Wrong connection between door station and the videophone • Cable size too small. • Programmed videophone address incorrect. • You have changed the videophone address without power down the system.	• Check the 6 common wire connections especially wire "1" (speech line/data). • Increase cable size or double up using two wires for each connection. • Check videophone address on dip-switches. • Power down the system then power up again to detect the new videophone address.
External call works but when answered the communication fails:	• Cable size too small.	• Increase cable size or double up using two wires for each signal.
During the conversation it is not possible to open the door:	• Cable size too small.	• Increase cable size or double up using two wires for each signal.
During the conversation it is not possible to open the door but the key LED on the door station switches on for the programmed time:	• Incorrect position of J2 jumper. • Electric lock wires unconnected or in short. • Wrong electric lock type.	• Check J2 position on the door station. • Check connection. • Check that the electric lock type (ac or dc) is suitable for the J2 position chosen.
Speech only from outside to inside:	• Wire "2" broken or in short.	• Check connection of wire "2".
Low volume of speech:	• Volume trimmers of door station require adjustment.	• Adjust the trimmers until the required volume is reached.
Noise over the speech line during the conversation:	• The 6 common wires are cabled together with 230 or 380Vac power lines. • The 6 common wires are cabled together with 24Vac videophone power supply wires.	• Separate the 6 common wires from the high voltages cables. • Separate the 6 common wires from the two 24Vac wires or cable them together only for a short distance.
Camera recall service does not work:	• Camera recall button pressed for a number of times different from the ID of the door station to be switched on.	• Check the ID (1..4) of the door station to be recalled and press the camera recall button as many time as the ID value.
Intercommunicating call does not work:	• "Key" button pressed for a number of times different from the videophone address value.	• Check the address of the videophone you are calling and try again.
The video shown on the monitor is of a bad quality and the image is distorted or double	• V1,V2 signals unconnected, reversed or shorted. • The switches of the two way dip-switch are not both in ON position. • V1,V2 of the last Art. 316N (if present) not closed with 75 Ohm resistor.	• Check that the wires are not broken or shorted. • Set both switches to the ON position. • Use 2x 75 Ohm resistors to connect V1 & V2 to 0V.
Local call does not work:	• Wrong connection or call button broken.	• Check connection or replace the button.

Speaker unit



Version with amplifier Art.138



Version with amplifier Art.138N

Speaker unit

DESCRIPTION

The Art. 138 unit is a digital front panel based on a "2 wire" BUS intercom system for the VX2200 system.
The Art. 138 works exclusively with 3000 Series intercoms (except Art.316x versions) and videophones.

OPERATION

When a call button is pressed, the Art. 138 unit will generate the CODED address corresponding to the button (i.e. the button connected between "A" and "1" corresponds to ID PHONE 1 or 25 according to the address group programmed "1..23" or "25..47"). The code must correspond to the PHONE ID (address programmed on the 8 way dip-switch inside each telephone) of the telephone being called.

To call a user:

press the relevant button to call the user:

- 5 quick beeps indicates that the system is busy;
- A slow intermittent acoustic signal indicates that the call is in progress: the call will stop if answered or if the conversation time (programmable)
- expires or if the call is cancelled by another call;
- The call being answered is indicated by the yellow LED switching on and a short intermittent acoustic signal plus the green LED switching on indicates that the door is open.
- If a wrong push button is pressed or if there is no answer, a new call (pressing for approx. 2 seconds) will erase the previous one.

TERMINALS	
NC	Relay normally closed contact
C	Relay common contact
NO	Relay normally open contact
PTE	Active low input (when active enable the door open relay)
SL	Active low output (active during the call)
BS	Active low input/output (busy signal)
L	BUS line data input
—	BUS line ground input
+12	+12Vdc power supply input
—	Power supply ground input
1..6	Button matrix column terminals (commons)
A..D	Button matrix row terminals

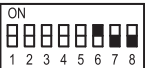
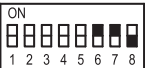
PROGRAMMING – WITH AMPLIFIER MODULE ART.VX138N

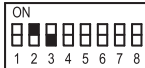
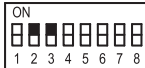
The programming enables the unit to be programmed as a MASTER or SLAVE (When more units are connected to the same bus only one must be master while the others must be slave), the button matrix address group to be programmed (1-24, 25-48, 49-72 or 73-96), the "CONVERSATION TIME" (1 or 2 minutes), the "RELAY TIME" (1 or 6 seconds), the UNIT ID (1..8 Each door should have a unique ID) that is used for selective camera recall and to show on the concierge (if installed in the system) display the ID of the door panel that is calling. The programming is carried out through the 8 dip-switch bank on the back of the module (please note that any changes to the programming requires to power off then power on again the module).

CONFIGURATION OF THE UNIT AS A MASTER OR A SLAVE:			
SWITCH	NR.1	SETTING UP	
	OFF	= Slave	
	ON	= Master (default)	

Switches 2 & 3 define the range of Phone IDs generated by the unit when the call buttons are pressed. For example with dip-switch 2 and 3 both OFF, the push button connected between the VX2203 terminals "1" and "a" generates the ID PHONE 1 while the same push button, with dip-switch 2 ON and dipswitch 3 OFF, will generate the PHONE ID 65.

PROGRAMMING THE CONVERSATION TIME:			
SWITCH	NR.4	SETTING UP	
	OFF	= 1 min	
	ON	= 2 min	

PROGRAMMING THE DEVICE NUMBER:				
SWITCH	NR.6	NR.7	NR.8	SETTING UP
	OFF	OFF	OFF	= 1
	ON	OFF	OFF	= 2
	OFF	ON	OFF	= 3
	ON	ON	OFF	= 4
	OFF	OFF	ON	= 5
	ON	OFF	ON	= 6
	OFF	ON	ON	= 7
	ON	ON	ON	= 8

PROGRAMMING OF THE 24 PUSH BUTTONS GROUP:			
SWITCH	NR.2	NR.3	SETTING UP
	OFF	OFF	= from 1 to 24
	ON	OFF	= from 25 to 48
	OFF	ON	= from 49 to 72
	ON	ON	= from 73 to 96

PROGRAMMING THE DOOR OPENING TIME:			
SWITCH	NR.5	SETTING UP	
	OFF	= 2 seconds	
	ON	= 6 seconds	

The device number is used by the digital concierge to show from which entrance calls are made.

PROGRAMMING NOTES

In case of a wrong Master/Slave configuration, the following problems can occur:

- if the unit should be a Master but is configured as a Slave, the error is signalled by an acoustic intermittent signal until the problem is resolved;
- if the unit must be Slave but is configured as Master, the impedance of the system will have a lack of balance, causing feedback ("Larsen" effect).

When a system uses a concierge unit VX2210-1 the push button combined to the Phone ID 1 is reserved to call the concierge in day or night mode.

Speaker unit

PROGRAMMING – WITH AMPLIFIER MODULE ART.VX138

The programming enables the unit to be programmed as a MASTER or SLAVE (When more units are connected to the same bus only one must be master while the others must be slave), the button matrix address group to be programmed, the "CALL TIME" (from 15 to 100 seconds max), the "CONVERSATION TIME" (from 30 to 200 seconds max), the "RELAY TIME" (from 2.5 to 25 seconds max), the UNIT ID (1..10 Each door should have a uniqueID).

The programming is carried out through the two connectors (5 and 6) on the back of the module.

1. Power down the module;
2. Plug one of the connectors (5 or 6) into the four pin connector (A..D) in order to reach the required programming option (see table below);
3. Power up the module, listen and note the number of beeps emitted then check the setting in the table below (i.e. with the link "5-C/19" "2 beeps" means CALL TIME set to 30 seconds);
4. Repeat the switching on and off of the module until the number of beeps emitted corresponds to the required settings. (i.e. if you need to change the "UNIT ID" from 1 to 4, select the connection 6-B / 22 then switch the module on and off 3 times so that you hear four beeps on the final power up).

PROGRAMMING TABLE										
Connection/ button	1	2	3	4	5	6	7	8	9	10
MASTER / SLAVE – FACTORY PRESET "MASTER"										
5-A / 17	Master	Slave								
ADDRESS GROUP – FACTORY PRESET "1-23"										
5-B / 18	1-23	25-47								
CALL TIME (SECONDS) – FACTORY PRESET "40"										
5-C / 19	10	20	30	40	50	60	70	80	90	100
CONVERSATION TIME (SECONDS) – FACTORY PRESET "60"										
5-D / 20	20	40	60	80	100	120	140	160	180	200
DOOR RELAY TIME (SECONDS) – FACTORY PRESET "5"										
6-A / 21	2.5	5	7.5	10	12.5	15	17.5	20	22.5	25
UNIT ID – FACTORY PRESET "1"										
6-B / 22	1	2	3	4	5	6	7	8	9	10

PROGRAMMING NOTES

In case of a wrong Master/Slave configuration, the following problems can occur:

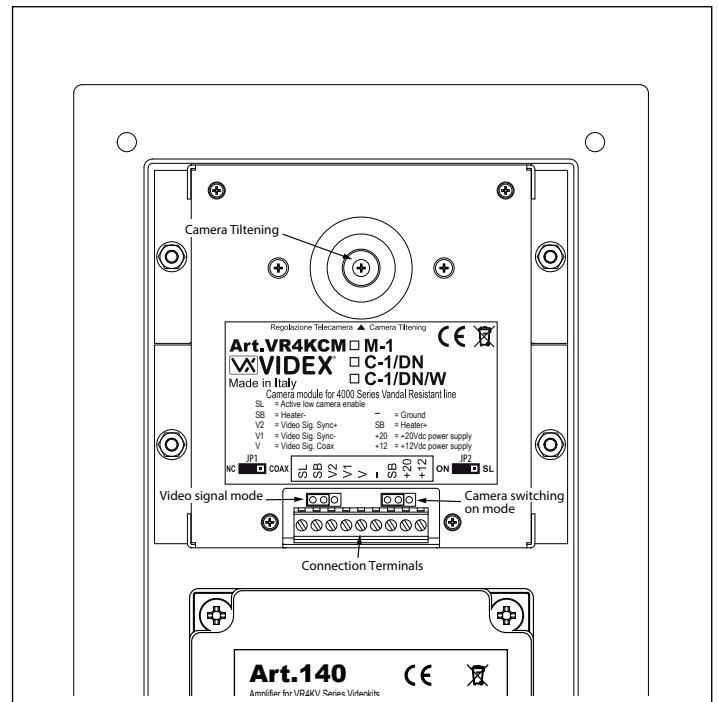
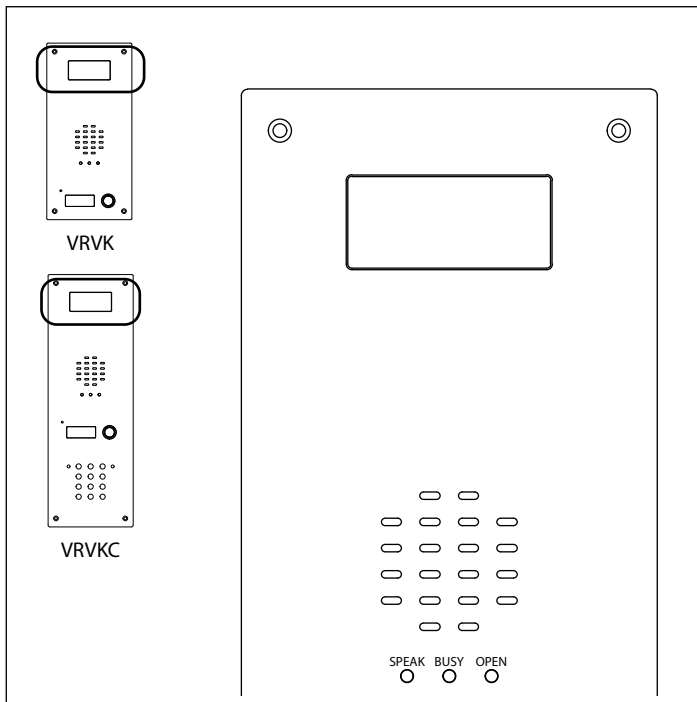
- a. if the unit should be a Master but is configured as a Slave, the error is signalled by an acoustic intermittent signal until the problem is resolved;
- b. if the unit must be Slave but is configured as Master, the impedance of the system will have a lack of balance, causing feedback ("Larsen" effect).

When a system uses a concierge unit VX2210-1 the push button combined to the Phone ID 1 is reserved to call the concierge in day or night mode.

TECHNICAL SPECIFICATIONS

- Memory capacity: up to 23 users
- Working voltage: 13 Vdc +/-10%
- Max. absorption: approx 350 mA
- Working temperature: -10° +50 C°

Camera module



SIGNALS (TERMINALS)

SL	Active low input to enable the camera lightning (the jumper JP2 must be moved in "SL" position)
SB	Heater ground input
V2	Balanced video signal sync-
V1	Balanced video signal sync+
V	Coax video signal
—	Ground input
SB	Heater plus input 12V
+20	20Vdc power supply input
+12	12Vdc power supply input

SETTING

The **JP1** jumper sets the video signal mode:

- **NC** = Balanced video signal (terminals "V1" and "V2");
- **COAX** = Coax video signal (terminals "V" and "—");

The **JP2** jumper sets the camera switching on mode:

- **ON** = The camera switches on if supplied on either +12 & — or +20 & — power supply inputs;
- **SL** = The camera switches on when a 0V is applied to the SL terminal (a permanent 12 or 20Vdc is required on either +12 & — or +20 & —);

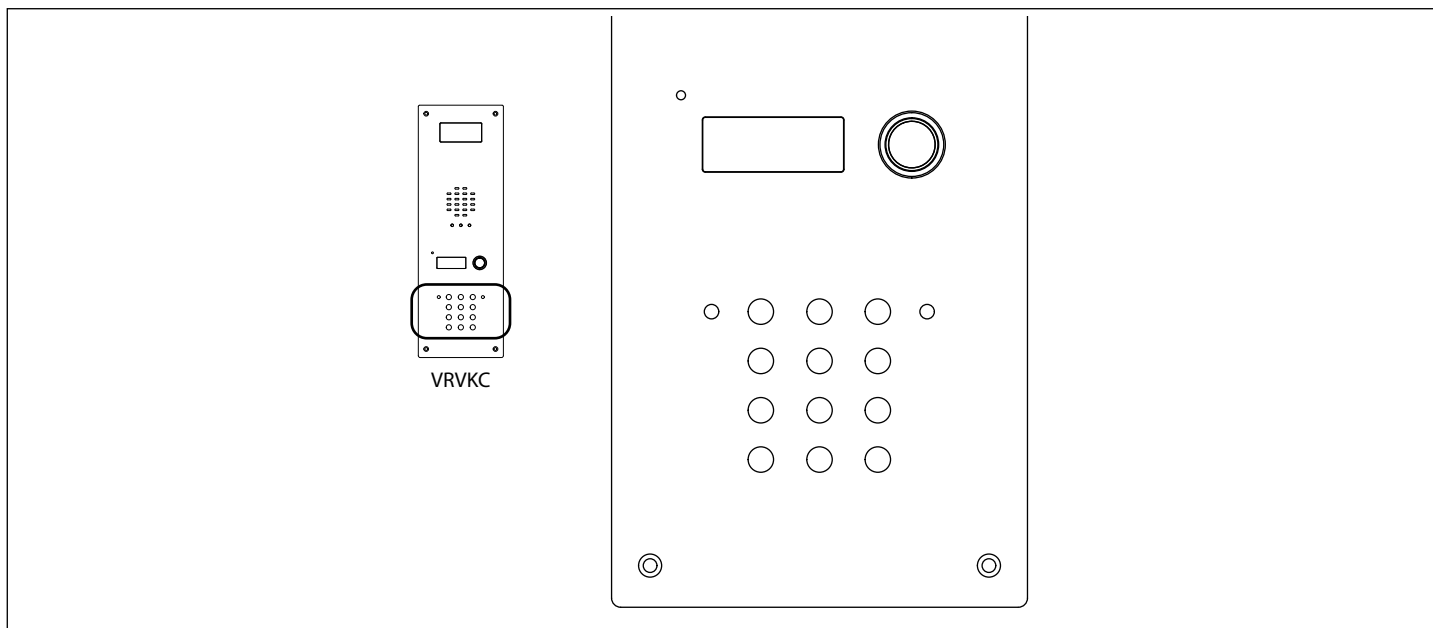
The camera angle adjustment is available on all camera models except wide version.

TECHNICAL SPECIFICATION

Power consumption: Operating: 100mA

Working Temperature: -10 +50°C

Digital Codelock



CODELOCK UNIT MODULES

The module features 12 stainless steel buttons (Keys **0 - 9**, **ENTER** and **CLEAR**), 2 LED's for progress information during use and programming and a brushed finish stainless steel front plate. With two integral relays each with common, normally open and normally closed connections and two inputs to enable the external triggering of relays one and two (for example, push to exit button). Key presses are signalled both acoustically and visually while each button press has a tactile feel. Entering the correct code followed by ENTER will activate the relevant relay. Programming is carried out through the same keypad following a simple programming menu. The module can be combined with other 4000 Series Vandal resistant modules (for Art.VR4KCLM-1) in an audio or video intercom system.

MAIN FEATURES

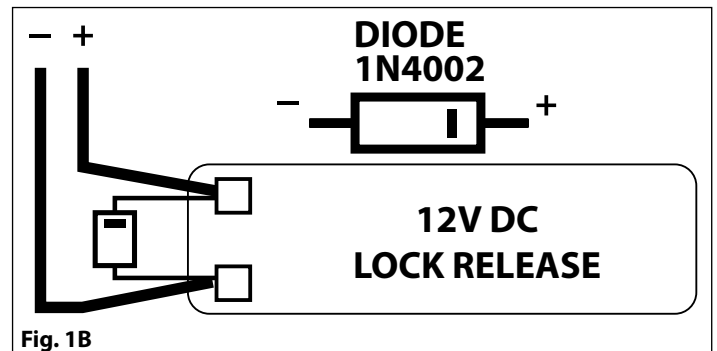
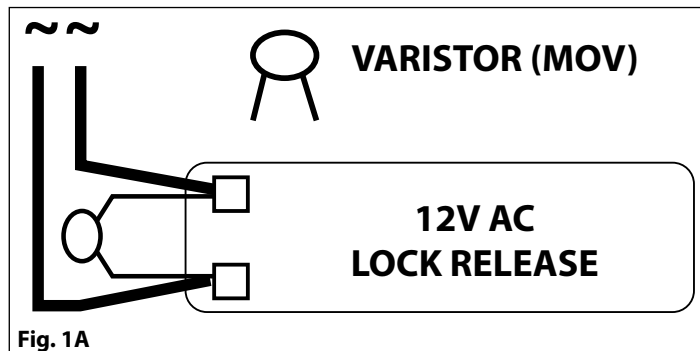
- 2 C, NC, NO relay outputs (24Vac/dc – 5A max);
- 2 Programmable secret codes (one for each relay);
- Each relay can be set to be activated for a specific time (01 to 99 seconds) or to work as latch;
- Two active low inputs to command directly the relay 1 and 2;
- Programming menu guarded by a 4-8 digit programmable engineer's code;
- Visual and Acoustic signal during operating and programming;

GENERAL DIRECTIONS FOR INSTALLATION

- In order to achieve the best results from the schematics described it is necessary to install only original VIDEX equipment, strictly keeping to the items indicated on each schematic and follow these General Directions for Installation:
- The system must be installed according to national rules in force, in any case the running of cables of any intercom unit must be carried out separately from the mains;
- All multipair cables should be compliant to CW1308 specification (0.5mm twisted pair telephone cable).
- Cables for speech line and service should have a max resistance of 10 Ohm
- Lock release wires should be doubled up (Lock release wires and power supply wires should have a max resistance of 3 Ohm);
- The cable sizes above can be used for distances up to 50m. On distances above 50m the cable sizes should be increased to keep the overall resistance of the cable below the RESISTANCES indicated above;
- Double check the connections before power up;
- Power up the system then check all functions.

LOCK RELEASE BACK EMF PROTECTION

A varistor must be fitted across the terminals on AC lock release (**Fig.1A**) and a diode must be fitted across the terminals on a DC lock release (**Fig.1B**) to suppress back EMF voltages. Connect the components to the lock releases as shown in figures.



BUZZER BACK EMF

When using intercoms with buzzer call (Art.924/926, SMART1/2, 3101/2, 3001/2 and 3021/2) add one 0,1uF capacitor between terminals 3 and 6 on the telephone.

BUILT-IN RELAYS – BACK EMF PROTECTION

The codelocks includes selectable back EMF protection on the relays. The jumpers marked MOV (One jumper for each relay) are used to select the protection type. When using a fail secure lock with connections C & NO the jumper should be in the NO position. When using a fail open lock with connections C & NC the jumper should be in the NC position and when using the codelock to trigger a gate controller or another third party controller the jumper should be removed completely (This disables the protection on the relay).

PROGRAMMING (SEE ALSO THE RELEVANT FLOW CHART)

- Enter the "ENGINEER'S CODE": first time type six times "1" (111111 factory preset) and press **"ENTER"** (The red LED will illuminate);
- Confirm "ENGINEER'S CODE" (typing again the same) or type the new code (4 to 8 digits) then press **"ENTER"** (Melody). Pressing twice the **"ENTER"** button without changing the "ENGINEER'S CODE", will exit from the programming;
- Enter the code (4 to 8 digits) to enable "RELAY 1" or re-enter the existing code then press **"ENTER"** (Melody);
- Enter the "RELAY 1" operation time (2 digits 01 to 99 I.E. 05=5 seconds, 00= remain open time) or re-enter the existing time then press **"ENTER"** (Melody);
- Enter the code (4 to 8 digits) to enable "RELAY 2" or re-enter the existing code then press **"ENTER"** (Melody);
- Enter the "RELAY 2" operation time (2 digits 01 to 99 I.E. 05=5 seconds, 00= remain open time) or re-enter the existing time then press **"ENTER"** (Melody);
- The system is ready to use (the red LED will be off).

PROGRAMMING NOTES

- After pressing enter following a command, press **ENTER** a further twice to exit the programming menu.

RETURN SYSTEM TO PRESET ENGINEER'S FACTORY CODE

- Turn off power to code lock;
- Keep **"ENTER"** button pressed while turning the power back on;
- Release **"ENTER"** button;
- The engineer's code is now set to **"111111"** (six times one).

OPERATION

- Type in the programmed code and press **"ENTER"**;
- If the code is correct, the green LED will illuminate for approx. 2 seconds and the relay relevant to the code will operate for the programmed time;
- If a wrong code is entered, a continuous melody will sound for 4 or more seconds, according to the number of mistakes;
- To switch off any relay while operating, type in the relevant code then press the **"CLEAR"** button;

OPERATION NOTES

- To operate relays together, set the same code for each relay;
- If a wrong code is entered, the system will lock out for 5 seconds which will increase each time a wrong code is entered. The system will operate only when the correct code is entered.

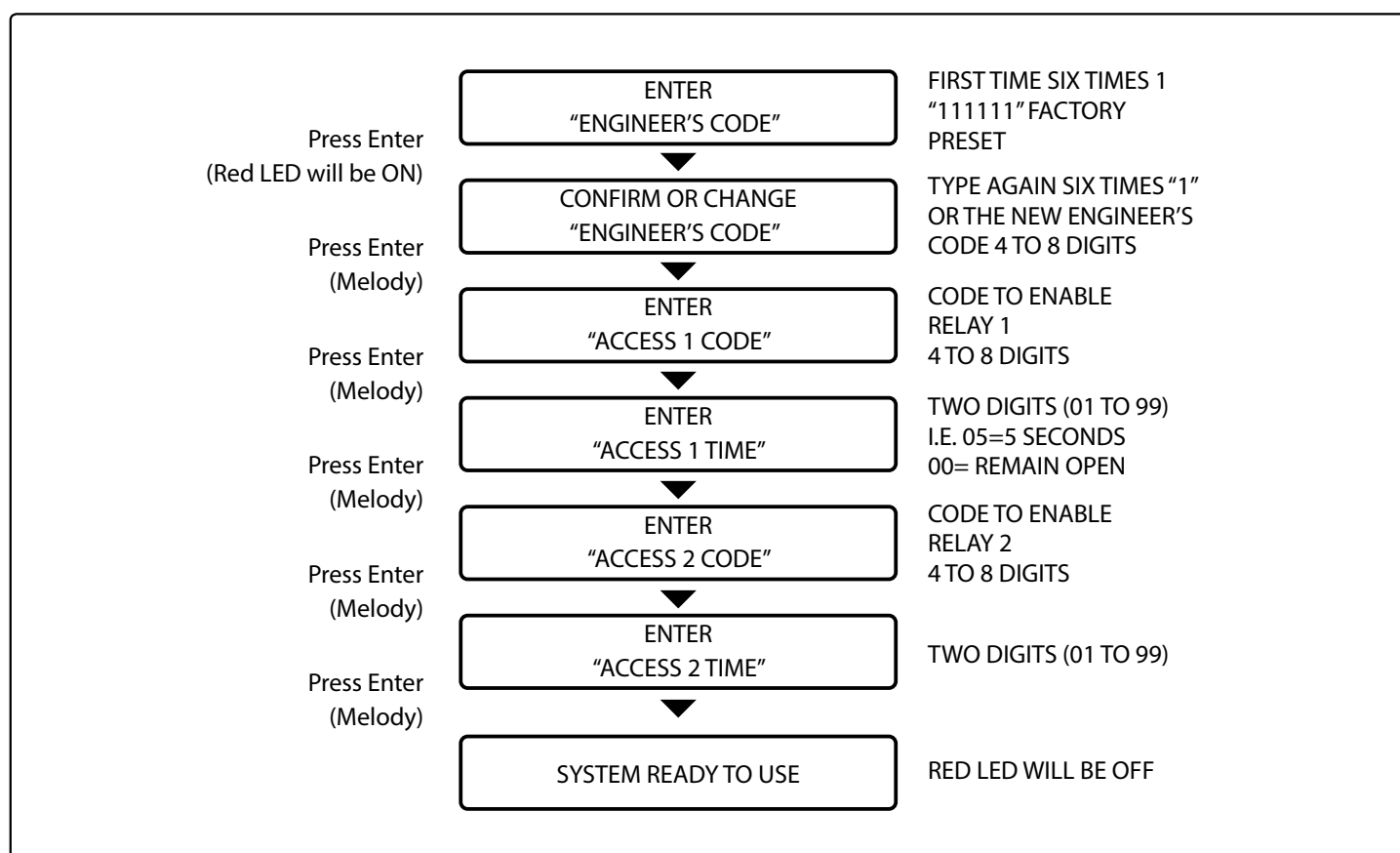
TERMINALS

SW2	Relay 2 command signal (active low)
SW1	Relay 1 command signal (active low)
NC2	Relay 2 normally closed contact
NO2	Relay 2 normally open contact
C2	Relay 2 common contact
NC1	Relay 1 normally closed contact
NO1	Relay 1 normally open contact
C1	Relay 1 common contact
—	12/24Vac/dc power input
+	

TECHNICAL SPECIFICATION

Power Supply: 12/24 Vac/dc – 2VA
 Power Consumption: 50mA max
 Working Temperature: -10 +50° C

PROGRAMMING FLOW CHART



Flush mounting door station installation

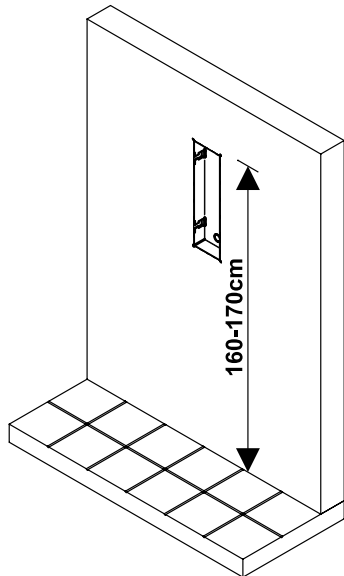


Fig. 1 -

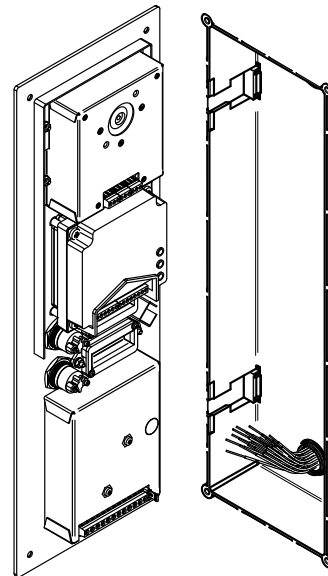


Fig. 2 -

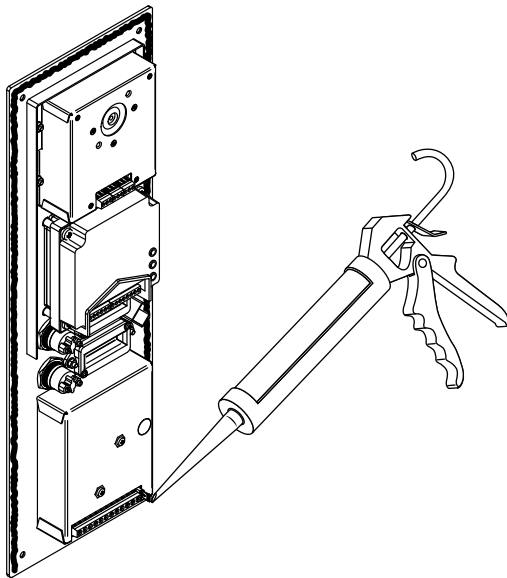


Fig. 3 -

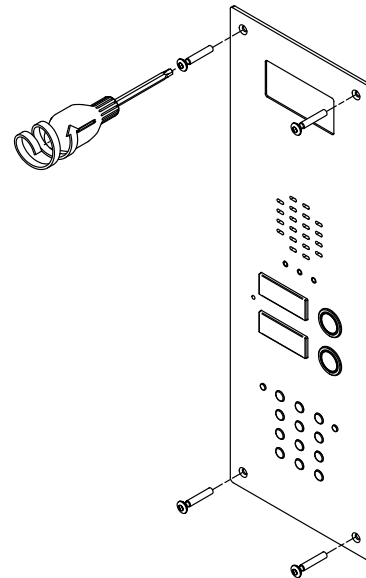


Fig. 4 -

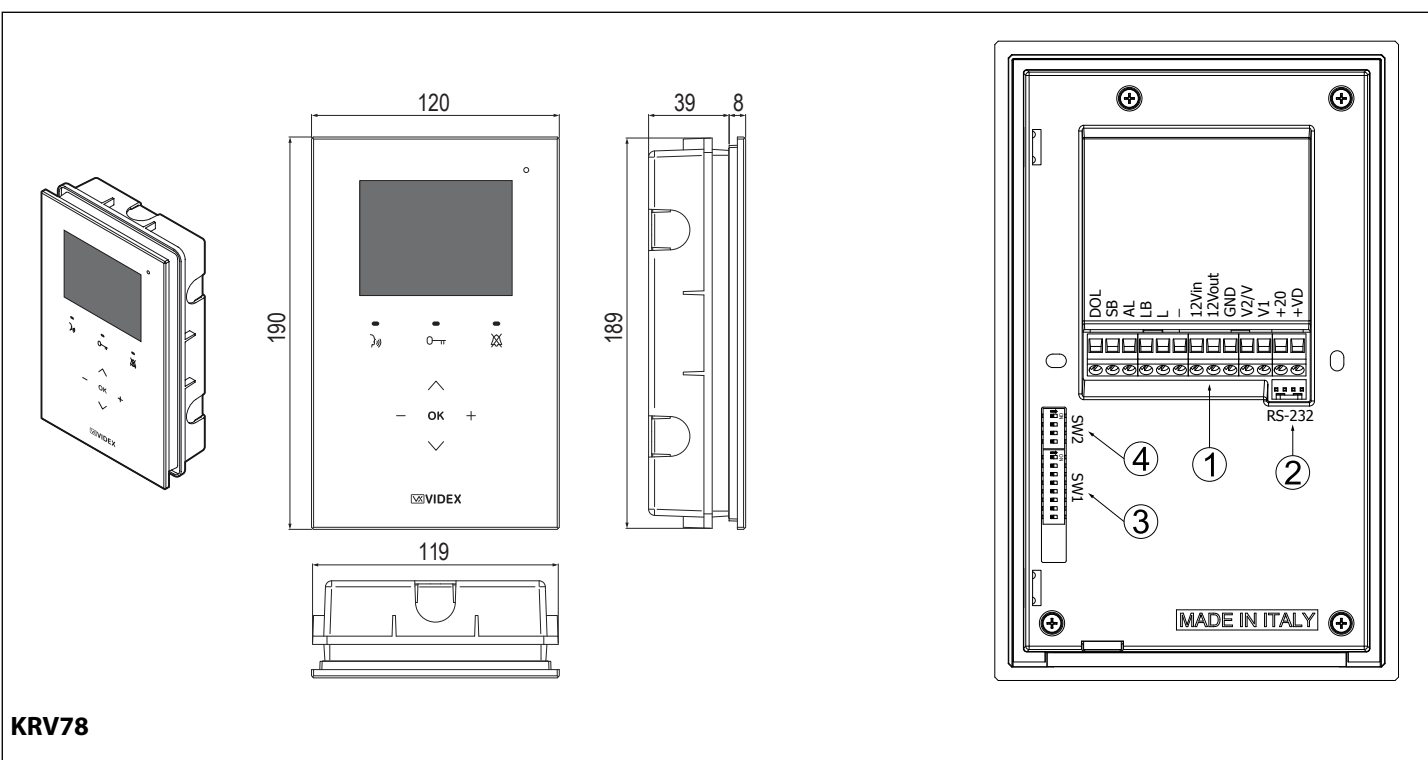
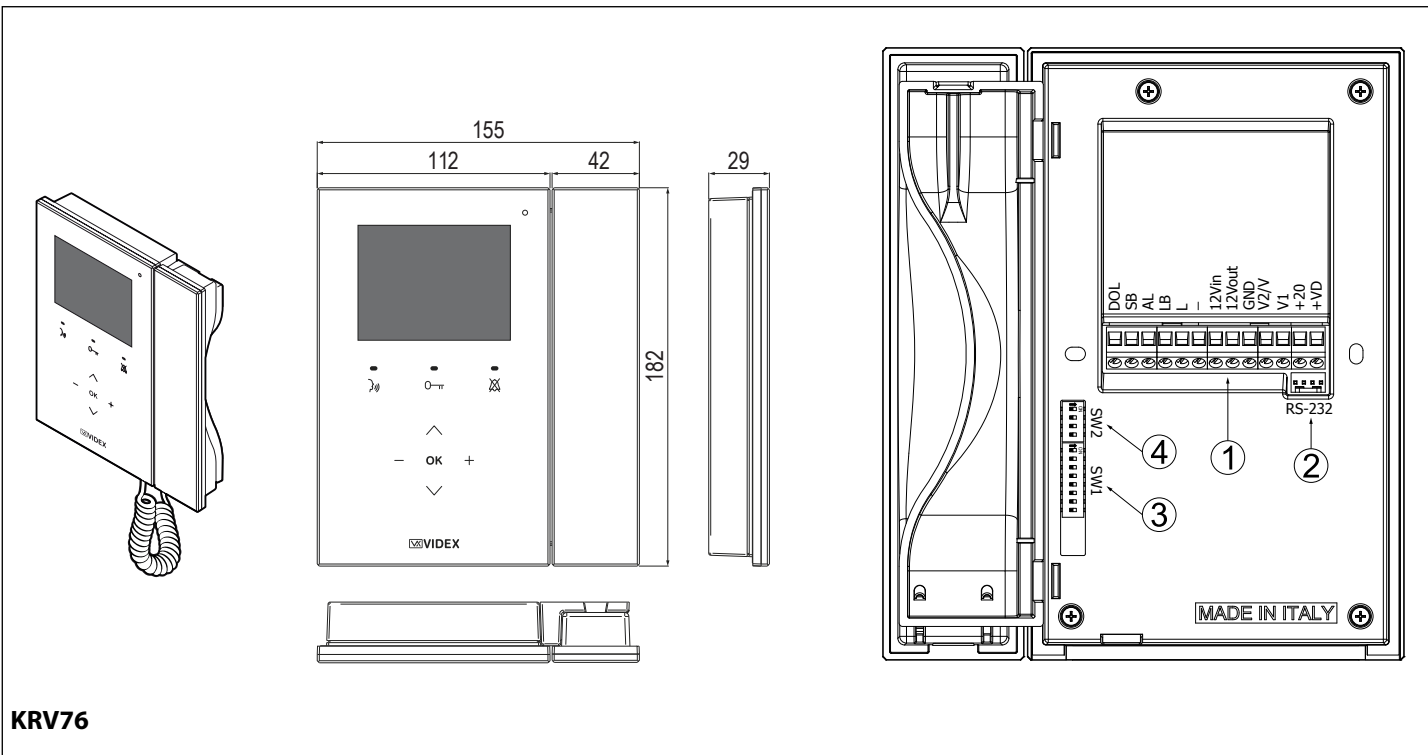
1. Embed the flush mounting box into the wall (160-170 cm between the top of the box and the floor level as shown on the **Fig. 1**) passing the cables (**Fig. 2**) through a previously opened hole in the box;
2. Make all the connections and test the system.

 **In order to prevent water ingress we highly recommend using a silicon sealant between the plate and the wall (Fig. 3);**

3. Fix the plate to the flush mounting box using the screwdriver provided (torx end) and the pin machine torx screws (**Fig. 4**).
Note: do not over tighten the screws more than necessary.

Art. KRV78-KRV76

Handsfree videophones for systems using composite video signal (coax) or balanced (two wires)



LEGEND

- ① Connection terminals
- ② Serial Port RS-232
- ③ 8 Way dip switch bank to set videophone address
- ④ 4 Way dip switch bank to set video mode

DESCRIPTION

Intelligent Hands free video monitor for the VX2200 digital system using 3,5" OSD full colour active matrix LCD monitor, with touch sensitive buttons for "door open / concierge call", "answer/camera recall", "privacy / service" 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 handsfree mode. Additional features include a real time clock, a temperature sensor and a serial RS232 port for future integration with home automation systems.

The following programmable options are available via the OSD menu's and navigation buttons:

- Call tone volume (3 levels);
- Speech volume (8 levels);
- Picture Brightness (8 levels);
- Picture Contrast (8 levels);
- Picture Hue (8 levels);
- Date & time;
- Privacy duration (from 30 minutes to 20 hours or unlimited);
- Call melodies (9 available);
- Number of rings (from 1 to 9);
- Intercommunication mode.

The videophone address and the video mode are set by the 8 way and 4 way dip-switch banks available on the rear side of the videophone.

Additionally the Kristallo has an input for local door bell and alarm.

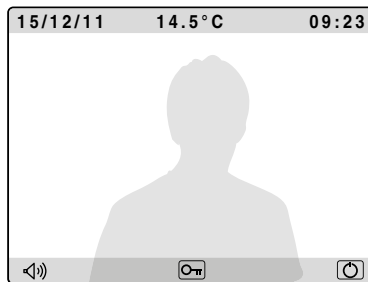
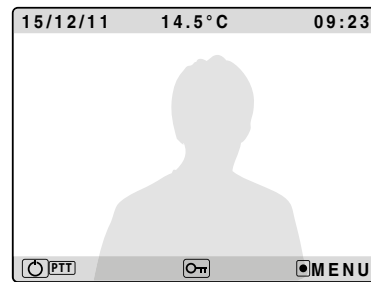
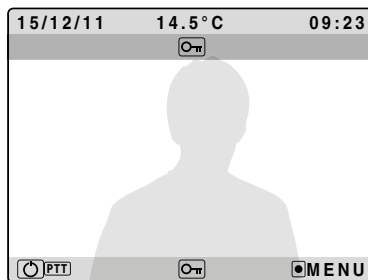
PUSH BUTTONS AND CONTROLS

	• 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). • 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. • 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. • 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.
	• During a conversation, 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 "DL" is connected, the "door open" LED next to the button will also be illuminated. • When the system is in stand-by, a button press will book a call to the concierge (If available)
	• 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. • 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. • During an incoming call, press this button to reject the call. The visitor doesn't receive any warning of the call rejected. • During a conversation, press and keep pressed this button until the videophone emits a beep and the display shows the "SRV" icon on the top of the display under the date, time & temperature row: the auxiliary output is operated and the terminal "SB" is shorted to ground for 2 seconds. • 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.
	Menu navigation 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.
	When the system is in stand-by (No calls on the system), operation of this button to intercommunicate with other extensions. Press as many time as the PHONE ID or the EXT. ID (it depends from the intercommunication mode) of the videophone to call.

OPERATION**RECEIVING A CALL**

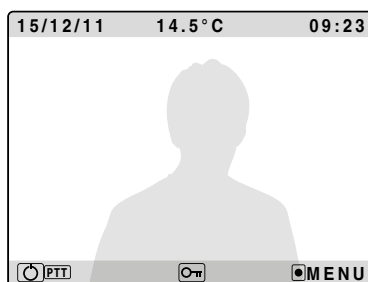
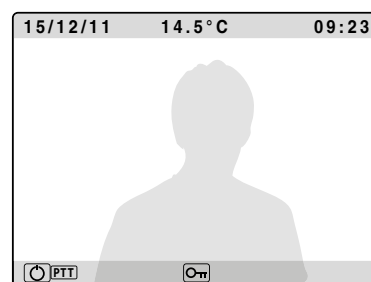
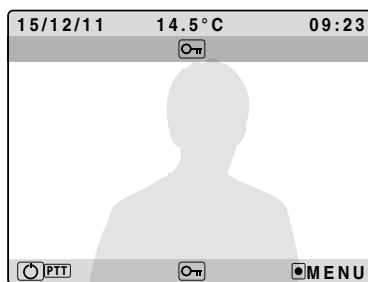
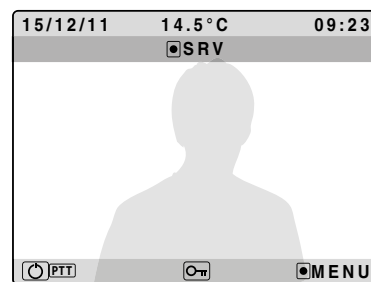
During a call the display switches on showing the screen on the right:

- 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  Fig1.b;
- To reject the call without informing the visitor press the button  Fig1c.

**Fig. 1****Fig. 1A****Fig. 1B****Fig. 1C****DURING THE CONVERSATION**

During the conversation Fig.2:

- To switch from hands free to push to talk mode, keep pressed the  until the related LED starts to flash slowly Fig.2a. 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  button Fig.2b;
- To enable the secondary service keep pressed the  button until the activation signals (call tone plus message) are received Fig.2c;
- To enter into programming menu press the  button Fig.3.

**Fig. 2****Fig. 2A****Fig. 2B****Fig. 2C**

Handsfree videophones for systems using composite video signal (coax) or balanced (two wires)

ADJUSTMENTS PROGRAMMING MENU

In the programming menu you can set:

- The speech volume (8 levels Fig.3);
- The picture brightness (8 levels Fig.3a);
- The picture contrast (8 levels Fig.3b);
- The picture hue (8 levels Fig.3c);

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.

PARAMETERS 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.

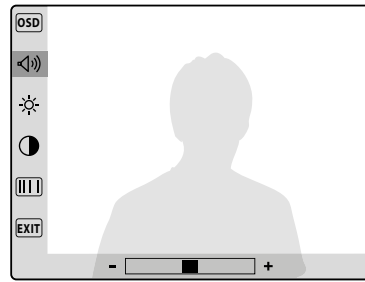


Fig. 3

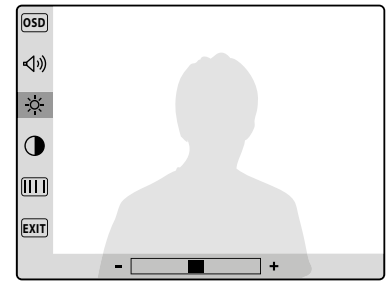


Fig. 3A

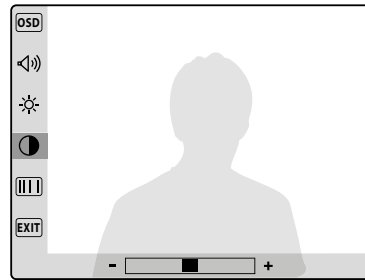


Fig. 3B

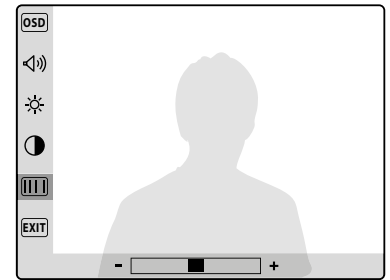


Fig. 3C

PROGRAMMINGS MENU

When the system is in stand-by, keep pressed the button $\boxtimes$ until the monitor switches on showing the screen to the left.

The first programming option is the date & time Fig.4:

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

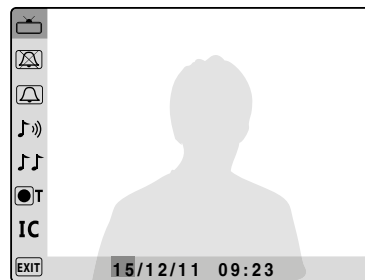


Fig. 4

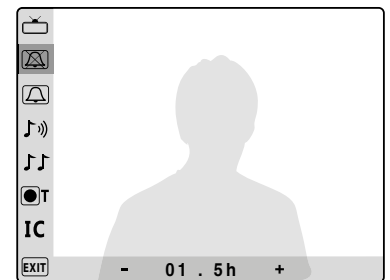


Fig. 4A

The second programming option is the privacy duration Fig.4a (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 $\boxtimes$);
- confirm the value by the **OK** or $\vee$. The system jump to next programming option.

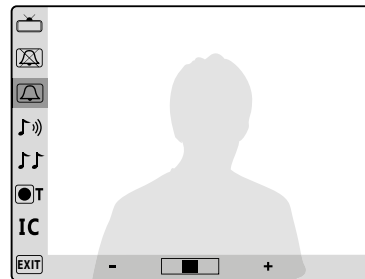


Fig. 4B

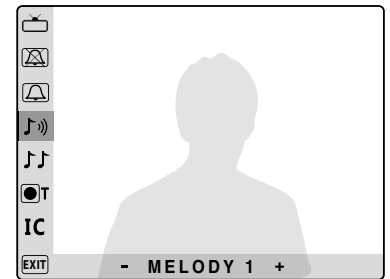


Fig. 4C

Proceed in the same way for the other programming options: **call tone volume** (3 level Fig.4b), **melody** (9 options Fig.4c), **number of rings** (for 1 to 9 Fig.4d) and **service button duration** (0 or from 1 to 99 seconds Fig.4e from firmware 2.3 and later).

The "Service Button Duration" has a special programming:

- From 1 to 99 it indicates the number of seconds during which the "SB" output is active when the service is enabled.
- By setting 0 value, the service operates in two ways :
 1. When the videophone is in stand-by, a "Local Bell" call ("LB" input terminal) automatically enables the "SB" output for 30 seconds approx.;
 2. When the videophone is switched on, by activating the service, the "SB" output terminal is enabled for 20 seconds.

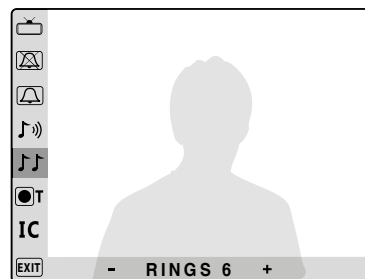


Fig. 4D

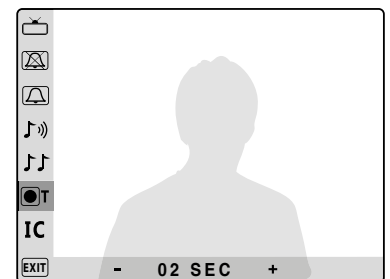


Fig. 4E

Handsfree videophones for systems using composite video signal (coax) or balanced (two wires)

The last setting is the intercommunication mode "IC" (from firmware 3.0 and later). Two intercommunication modes are available:

- To set the intercommunication for different apartments (videophones with different PHONE ID) press the button  until you select the "APT. MODE" (Fig.4F). In stand-by mode, by pressing the button  one or more times you will be able to call the videophones with PHONE ID from 1 to 9.
- To set the intercommunication among extensions in the same apartment (videophones with the same PHONE ID but with different EXT. ID) select an EXTENSION ID for this device from 1 to 9 (Fig.4G) by pressing the buttons  and . In stand-by mode, by pressing the button  one or more times you will be able to call the videophones with EXT. ID from 1 to 9 within the same apartment.

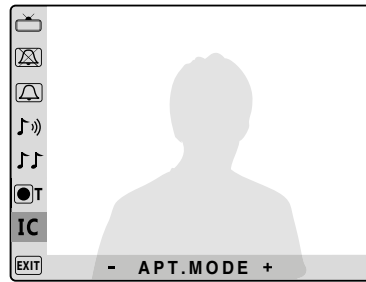


Fig. 4F

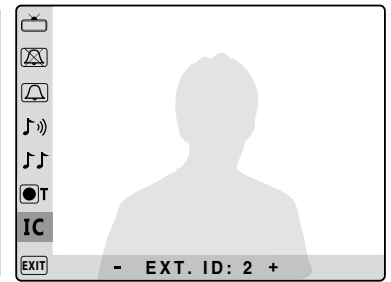


Fig. 4G

Once "EXIT" is selected, press **OK** to exit or press the button  to continue to change other programming options.

NOTE

From any of the two OSD menu's, if the videophone switches off because of the timeout, the changes will not be stored.

VIDEO MODE SW2

The video mode setup is carried out by the 4 way Dip-Switch accessible from the rear side of the videophone.

Switches 3 and 4 adjust the video signal impedance. when using more than one videomonitor in parallel (without a video splitter) put both switches in the OFF position on all but the last videomonitor (end of line).

VIDEO MODE	
Switches 1,2	Mode
	Coax
	Balanced

75 OHM VIDEO TERMINATION	
Switches 3,4	Termination
	Enabled
	Disabled

VIDEOMONITOR ADDRESS SETUP SW1

Each videomonitor must be address is binary (PHONE ID) using the 8 way dip switches located on the rear of the unit. Each switch correspond to one bit which can have a value 0 (OFF) or 1 (ON). Each bit corresponds to a decimal weight depending on the position: Switch 1 = decimal 1, 2=2, 3=4, 4=8, 5=16, 6=32, 7=64, 8=128. I.E. to set the address 37, put switches 1, 3 and 6 on (1+4+32=37).

SWITCHES								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	OFF	ON	ON	OFF	ON	OFF	OFF	1	0	1	1	0	1	0	0	180

Handsfree videophones for systems using composite video signal (coax) or balanced (two wires)

TERMINALS	
DOL	12Vdc input to supply "door open" LED
SB	Open collector output (active low) for service call button. When the monitor is switched on, keep pressed  the button until the service is enabled. Once enabled the output remains active for 2s approx
AL	Active low input for alarm signal. When active, the system sends the alarm to the concierge if installed and enables the Art.512DR if installed and properly configured for the alarm management
LB	Active low input for local call "Local Bell"
L	BUS DATA line input
—	BUS Ground line input
12Vin	Stand-by +12Vdc power supply input
12Vout	+12Vdc stabilized output
GND	Power supply ground input / coax video ground
V2/V	Balanced video signal V2 sync.(balanced video signal mode) Composite video signal (coax video signal mode)
V1	Balanced video signal V1 sync
+20	+20Vdc power supply input
+VD	+12Vdc power supply output for video distributor Art.894/Art. 894N

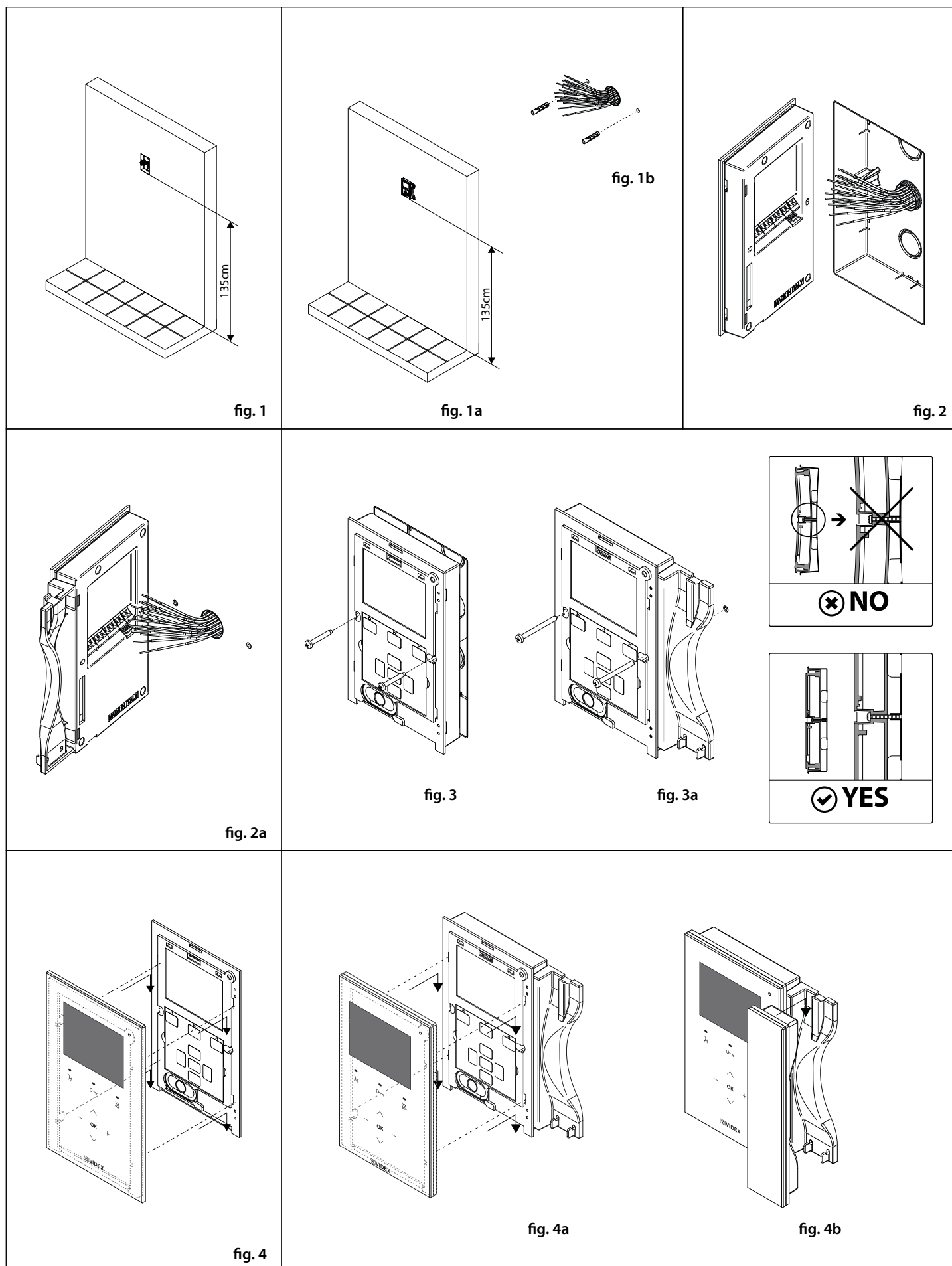
NOTE

When connecting the 12Vin & 12VOut an addition Art. 893N1 PSU is required for every 50 devices.

TECHNICAL SPECIFICATION

Working voltage:	17÷20Vdc
	12÷14Vdc
Power consumption:	6mA in stand-by (on 12Vdc)
	200mA Max (on 12Vdc)
	250mA Max (on 20Vdc)
Working temperature:	-10°C +50°C

Kristallo Series 3.5" flush and surface videomonitor wall mounting instructions



Kristallo Series 3.5" Flush and surface videomonitor wall mounting instructions

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 a vertical position at 135cm 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.

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

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 135cm height from the floor and mark the fixing holes. Make the holes (5mm diameter) and insert the provided wall plugs as shown in **figure 1b**.
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 3a**, once the wires are connected, fix the videophone to the wall using a Phillips screwdriver and the two screws provided.

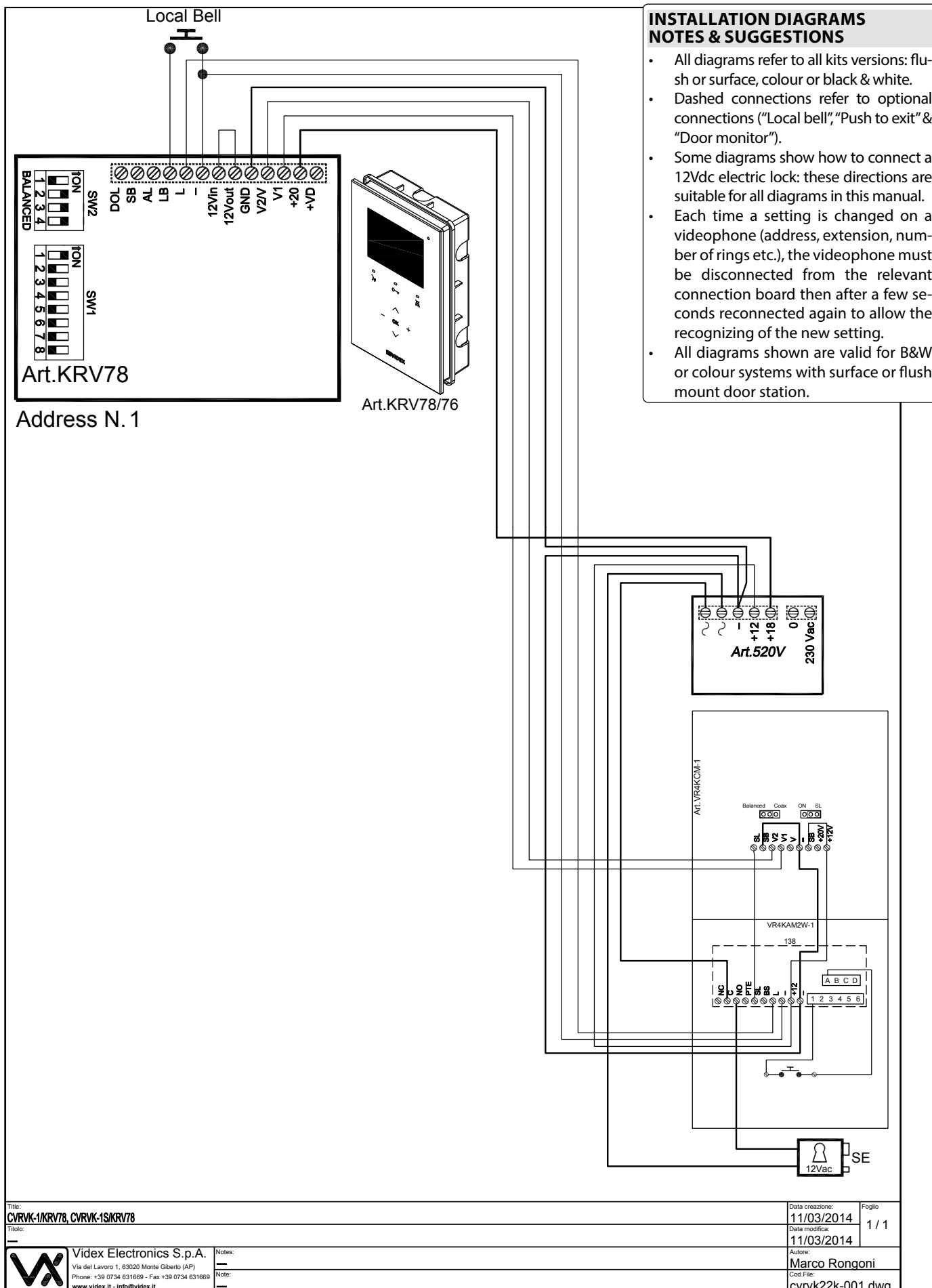
 **In order to avoid malfunctions, please do not over tighten the fixing screws shown in figure 3a.**

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 4a** and hang the handset as shown in **figure 4b**.
5. Test the system for correct operation.

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 **figure 4a** 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 **figure 4a** and **4a**; before the display turns off;
- When the display turns off the setting is done and the system is ready for use.



Title: CVRVK-1KRV78, CVRVK-1SKRV78

Titolo:



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Notes:

Note:

Data creazione:

11/03/2014

Data modifica:

11/03/2014

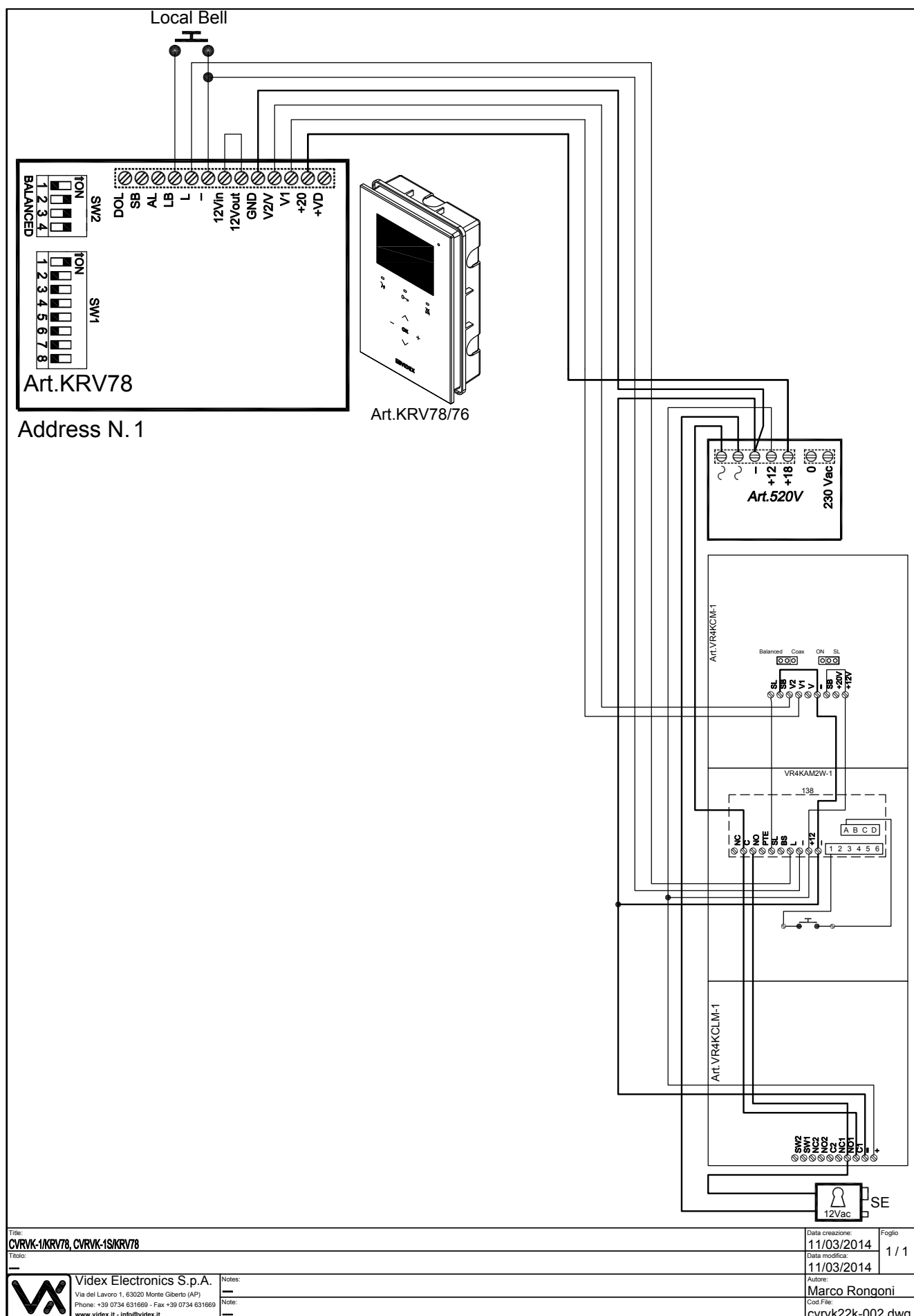
Autore:

Marco Rongoni

Cod. File:

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Title: CVRVK-1KRV78, CVRVK-1SKRV78

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Data creazione:

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