VIDEX®
TECHNOLOGY FOR THE FUTURE

VIDEOKIT
VRVK/5456 SERIES
"6 Wire" bus one way, two way vandal resistant videokit

VRVK
VRVKC

5456

Installation handbook

⚠️ **We recommend**
This equipment is installed by a Competent Electrician, Security or Communications Engineer.

Index

Introduction

The VRVK is a new range of videokits that use the 4000 Series external door station, 4000 Series vandal resistant modules (the speaker unit is a specific module while the camera is a standard module) and the 5000 Series videophone Art. 5456 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.

- Disability friendly, visual and acoustic signals from the door panel to inform the visitor of call status (call made, ringing, speak, door open).
- 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).

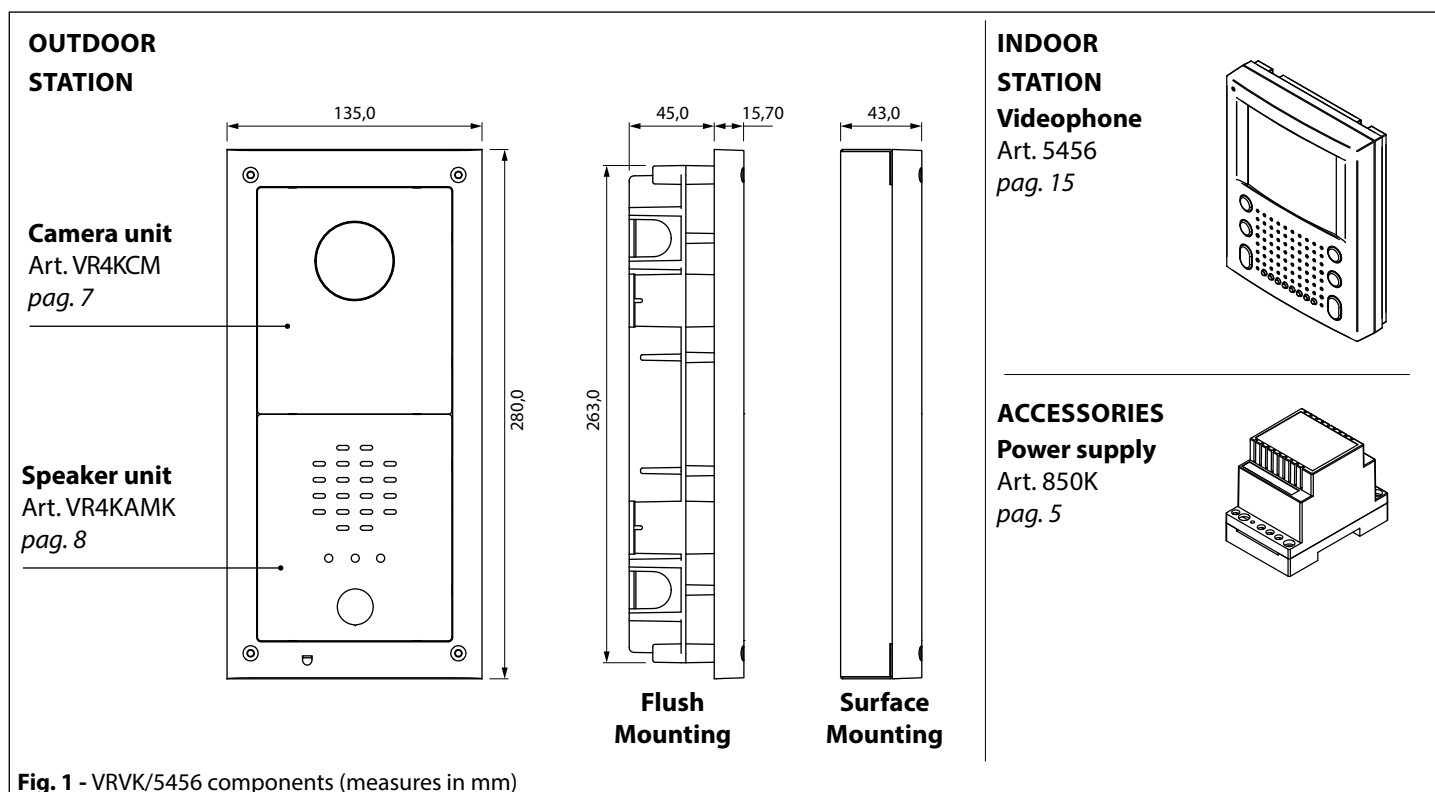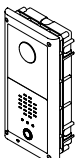# System components and available versions VRVK/5456 Colour videokit.

OUTDOOR STATION

135,0

45,0   15,70   43,0

280,0

263,0

Camera unit
Art. VR4KCM
pag. 7

Speaker unit
Art. VR4KAMK
pag. 8

Flush Mounting

Surface Mounting

INDOOR STATION
Videophone
Art. 5456
pag. 15

ACCESSORIES
Power supply
Art. 850K
pag. 5
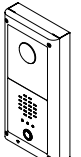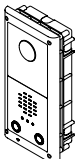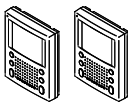
Fig. 1 - VRVK/5456 components (measures in mm)

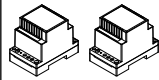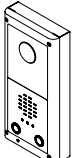|			
ONE WAY VERSIONS	**VRVK-1/5456 - flush mounting**		
	1 Outdoor station composed of: 1 Art. VR4KCM: Camera unit 1 Art. VR4KAMK-1: 1 button speaker unit 1 Art. 4852: Flush mounting box	**1 Colour videophone** Art. 5456	**1 Power supply** Art. 850K
	VRVK-1S/5456 - surface mounting		
	1 Outdoor station composed of: 1 Art. VR4KCM: Camera unit 1 Art. VR4KAMK-1: 1 button speaker unit 1 Art. 4882: Surface mounting box	**1 Colour videophone** Art. 5456	**1 Power supply** Art. 850K
TWO WAY VERSIONS	**VRVK-2/5456 - flush mounting**		
	1 Outdoor station composed of: 1 Art. VR4KCM: Camera unit 1 Art. VR4KAMK-2: 2 button speaker unit 1 Art. 4852: Flush mounting box	**2 Colour videophones** Art. 5456	**2 Power supplies** Art. 850K
	VRVK-2S/5456 - surface mounting		
	1 Outdoor station composed of: 1 Art. VR4KCM: Camera unit 1 Art. VR4KAMK-2: 2 button speaker unit 1 Art. 4882: Surface mounting box	**2 Colour videophones** Art. 5456	**2 Power supplies** Art. 850K

VRVKC/5456 Colour videokit plus a codelock module.

OUTDOOR STATION

135,0 | 45,0 | 15,70 | 43,0

Camera unit
Art. VR4KCM
pag. 7

400,40

383,40

Speaker unit
Art. VR4KAMK
pag. 8

Codelock module
Art. VR4KCL
pag. 10

Flush Mounting

Surface Mounting

INDOOR STATION
Videophone
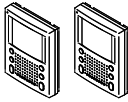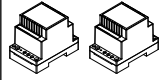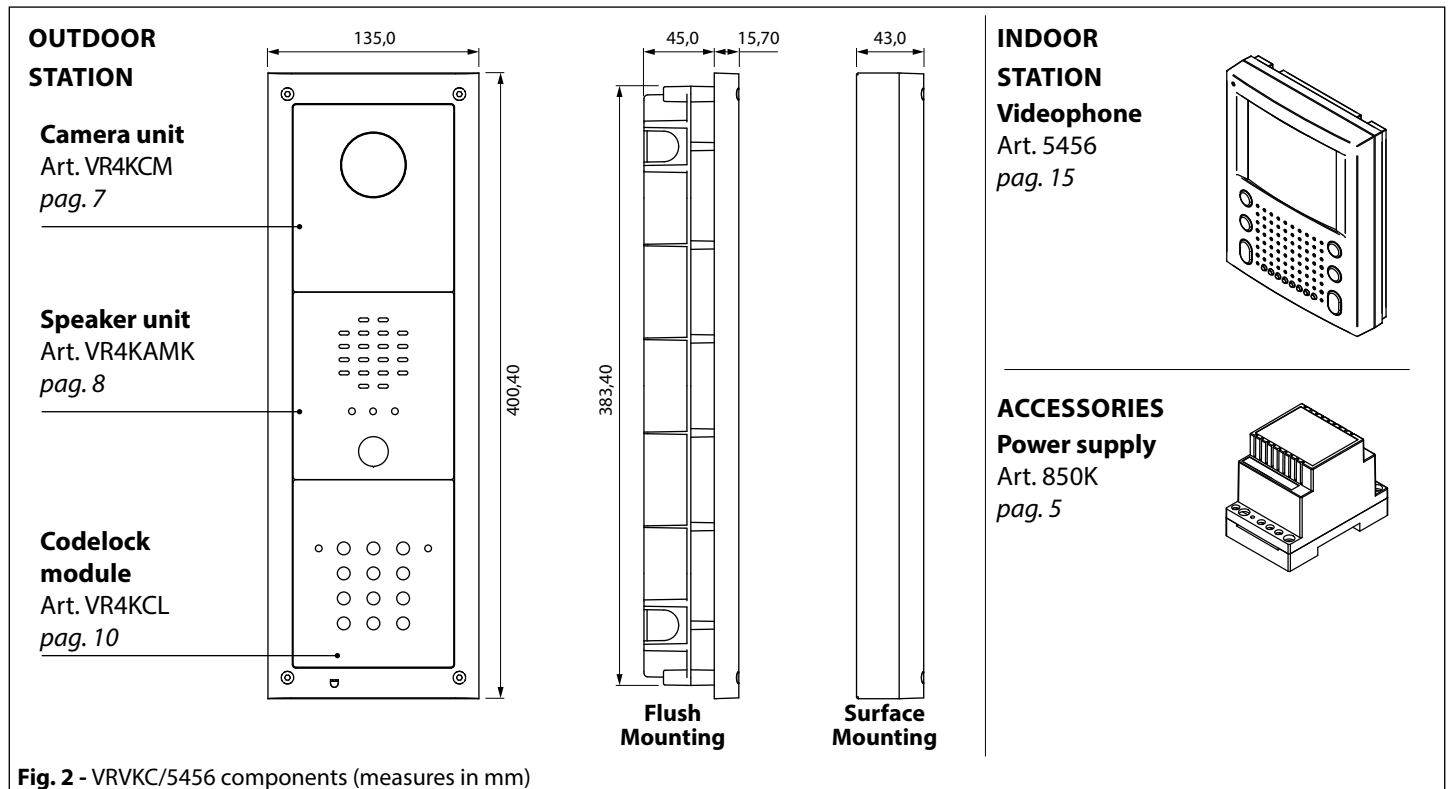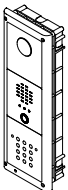Art. 5456
pag. 15

ACCESSORIES
Power supply
Art. 850K
pag. 5
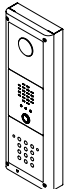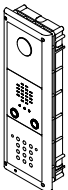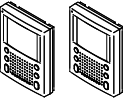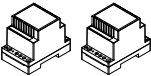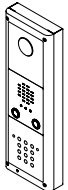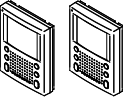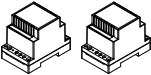
Fig. 2 - VRVKC/5456 components (measures in mm)

ONE WAY VERSIONS	**VRVKC-1/5456 - flush mounting**		
	1 Outdoor station composed of: 1 Art. VR4KCM: Camera unit 1 Art. VR4KAMK-1: 1 button speaker unit 1 Art. VR4KCLM-1: Codelock module 1 Art. 4853: Flush mounting box	**1 Colour videophone** Art. 5456	**1 Power supply** Art. 850K
	VRVKC-1S/5456 - surface mounting		
	1 Outdoor station composed of: 1 Art. VR4KCM: Camera unit 1 Art. VR4KAMK-1: 1 button speaker unit 1 Art. VR4KCLM-1: Codelock module 1 Art. 4883: Surface mounting box	**1 Colour videophone** Art. 5456	**1 Power supply** Art. 850K
TWO WAY VERSIONS	**VRVKC-2/5456 - flush mounting**		
	1 Outdoor station composed of: 1 Art. VR4KCM: Camera unit 1 Art. VR4KAMK-2: 2 button speaker unit 1 Art. VR4KCLM-1: Codelock module 1 Art. 4853: Flush mounting box	**2 Colour videophones** Art. 5456	**2 Power supplies** Art. 850K
	VRVKC-2S/5456 - surface mounting		
	1 Outdoor station composed of: 1 Art. VR4KCM: Camera unit 1 Art. VR4KAMK-2: 2 button speaker unit 1 Art. VR4KCLM-1: Codelock module 1 Art. 4883: Surface mounting box	**2 Colour videophones** Art. 5456	**2 Power supplies** Art. 850K

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;
- When all connections are made, restore the mains.

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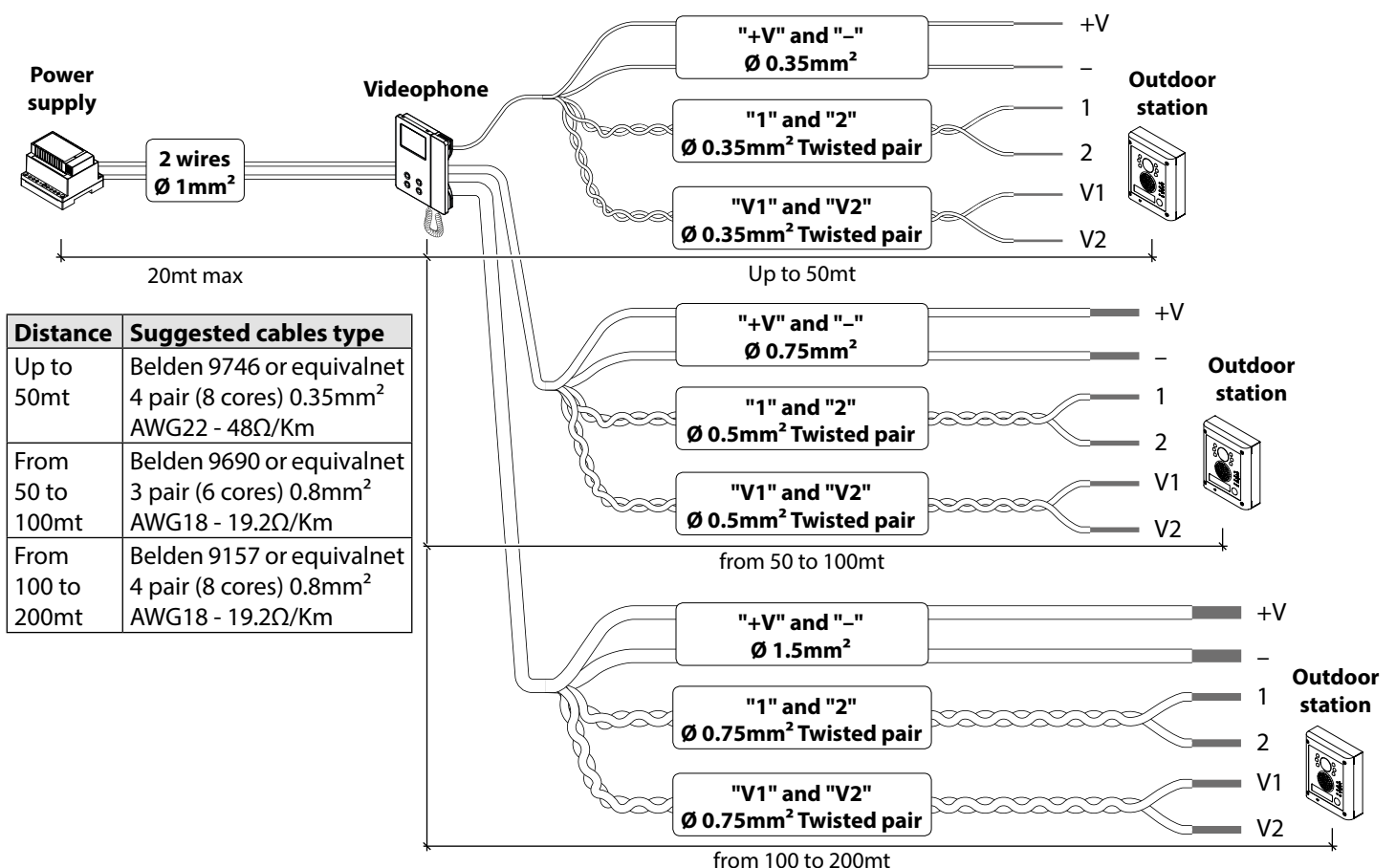**Video connections and Audio connections must be wired in twisted pair: pair the video lines (terminals/signals "V1" and "V2"), pair the audio lines (terminals /signals "1" and "2").**

Power supply — Videophone

BROWN — +V *
WHITE/BROWN
BLUE — – *
WHITE/BLUE
ORANGE — 1
WHITE/ORANGE — 2
GREEN — V1
WHITE/GREEN — V2

2 wires Ø 1mm²

* Couple the two wires to double the section.

Outdoor station

20mt max

Up to 40mt

Distance	Suggested cables type
Up to 40mt	CAT5/CAT6 FTP/UTP AWG24

Power supply — Videophone

"+V" and "–" Ø 0.35mm² — +V / –
"1" and "2" Ø 0.35mm² Twisted pair — 1 / 2
"V1" and "V2" Ø 0.35mm² Twisted pair — V1 / V2

2 wires Ø 1mm²

Outdoor station

20mt max

Up to 50mt

"+V" and "–" Ø 0.75mm² — +V / –
"1" and "2" Ø 0.5mm² Twisted pair — 1 / 2
"V1" and "V2" Ø 0.5mm² Twisted pair — V1 / V2

Outdoor station

from 50 to 100mt

"+V" and "–" Ø 1.5mm² — +V / –
"1" and "2" Ø 0.75mm² Twisted pair — 1 / 2
"V1" and "V2" Ø 0.75mm² Twisted pair — V1 / V2

Outdoor station

from 100 to 200mt

Distance	Suggested cables type
Up to 50mt	Belden 9746 or equivalnet 4 pair (8 cores) 0.35mm² AWG22 - 48Ω/Km
From 50 to 100mt	Belden 9690 or equivalnet 3 pair (6 cores) 0.8mm² AWG18 - 19.2Ω/Km
From 100 to 200mt	Belden 9157 or equivalnet 4 pair (8 cores) 0.8mm² AWG18 - 19.2Ω/Km

Troubleshooting guide

In case of system failure, try the following preliminary checks:
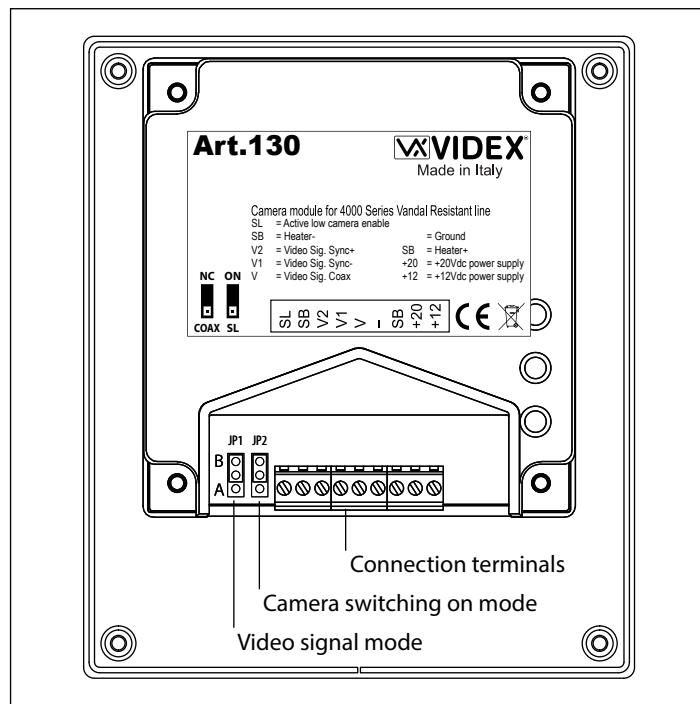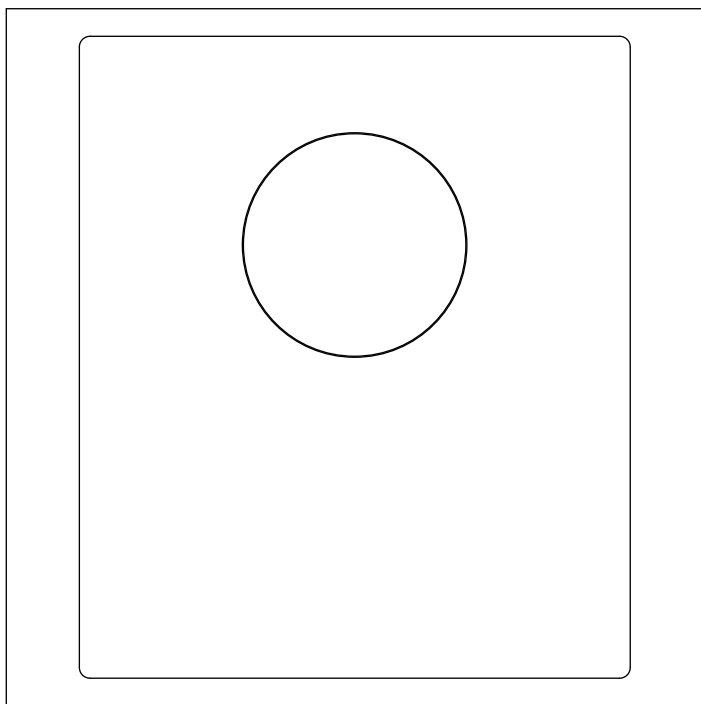- Check that the cables are connected as shown in the installation diagram and that the cables are firmly fixed into the relevant terminals;
- Check that the mains voltage is available on terminals 230Vac (or 127Vac) and 0 of the power transformer Art. 850K;
- Check the 24Vac voltage output of the power 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.

Connection terminals
Camera switching on mode
Video signal mode

DESCRIPTION

4000 Series vandal resistant camera module (Brushed 2.5mm 12 gauge stainless steel fascia).

The Art. VR4KCM includes a colour CCD high quality day/night wide angle camera. The wide camera has a horizontal viewing angle of 170 degrees. The infrared illumination LEDs are mounted around the camera.

The Art. VR4KCM can be used in video door entry systems: traditional (combined with Art. VR4KAM), VX2200 (combined with Art. VR4KAM2W) or Videokit (combined with Art. VR4KAMK).

The camera can be set for composite video signal (coax cable) or for balanced video (twisted pair cable).

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 & —);
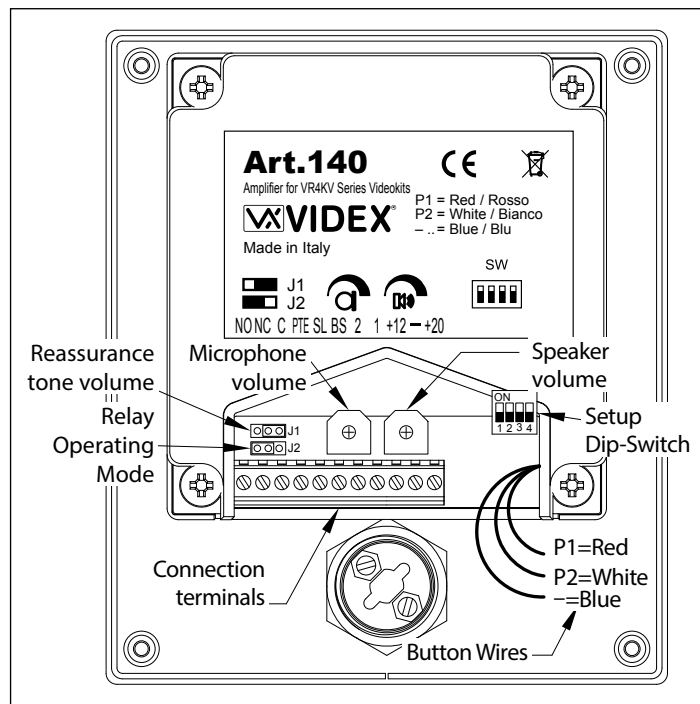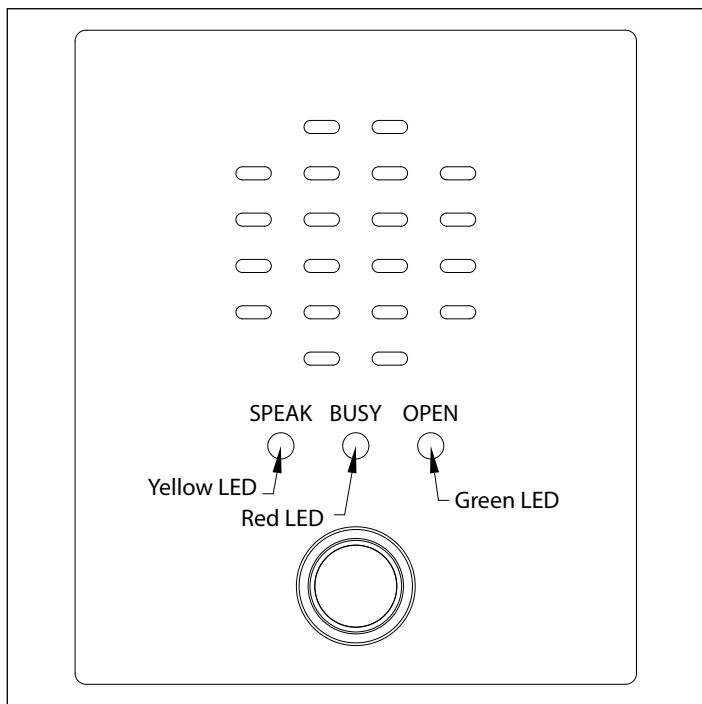
TECHNICAL SPECIFICATION

Power consumption while operating: 100mA
Working Temperature: -10 +50°C
Tensione di alimentazione: 12Vdc/24Vdc

Art.140
Amplifier for VR4KV Series Videokits

VIDEX®
Made in Italy

P1 = Red / Rosso
P2 = White / Bianco
_ .. = Blue / Blu

SW

NO NC C PTE SL BS 2 1 +12 _ +20

Reassurance tone volume
Microphone volume
Speaker volume
Relay Operating Mode
Setup Dip-Switch
Connection terminals
P1=Red
P2=White
_=Blue
Button Wires

SPEAK BUSY OPEN

Yellow LED
Red LED
Green LED

LEDS	
YELLOW	Illuminates during the conversation.
RED	Illuminates when the speaker unit is operating or when other speaker units in the same system are operating to signal the busy state of the system.
GREEN	Illuminates when the door opens for the duration of the door opening time.

CONTROLS (SPEAKER & MICROPHONE VOLUME)	
((⊠	Trimmer to adjust the speaker volume. Rotate clockwise to increase or anti-clockwise to decrease.
◯∎	Trimmer to adjust the microphonez volume. Rotate clockwise to increase or anti-clockwise to decrease.

SETTINGS (DIP-SWITCH & JUMPERS)

4 WAY DIP-SWITCH

First two switches are used to set the speaker unit address: the speaker unit address is required for camera recall operation on 2 or more entrance systems.

	Switches 1,2		Unit Address
ON ∎=ON ∎=OFF SW	OFF	OFF	1
	ON	OFF	2
	OFF	ON	3
	ON	ON	4

	Switch 3	Conversation Time
ON ∎=ON ∎=OFF SW	OFF	60 seconds
	ON	120 seconds

	Switch 4	Door opening time (J2 = "L" position)
ON ∎=ON ∎=OFF SW	OFF	2 seconds
	ON	6 seconds

JUMPERS J1, J2

	J1 Position	Call tone reassurance volume
▭ J1	Right	High
	Left	Low

	J2 Position	Door open relay operating mode
▭ J1	Right	Dry contacts
	Left	Capacitor discharge

When the door open relay operating mode is set to "capacitor discharge"*, one terminal of the electric lock must be connected to ground while the second must be connected to "NO" terminal. The "NO" terminal will supply a temporary voltage when the speaker unit receives the door open command. In "dry contact" mode the "NO" terminal is internally linked to "C" terminal when the speaker unit receives the door open command.

* When "capacitor discharge" operating mode is set, one terminal of the electric lock must be connected to the ground while the second one must be connected to "NO" terminal. The "NO" terminal will supply a temporary voltage when the speaker unit receives the door open command (we suggest to use a 12Vac/dc 1A max electric lock). Setting "dry contacts" operating mode, when the speaker unit receives the door open command, the "NO" terminal will be internally linked to the "C" terminal for the programmed time (switch 4 of the 4 way dip-switch bank).

SIGNALS (TERMINALS)	
NO	Door open relay normally open contact
NC	Door open relay normally closed contact
C	Door open relay common contact
PTE	Active low input to control directly the door open relay
SL	Active low output to enable the enslavement relay for video signal exchange (active with a call in progress)
BS	Input/Output busy signal (approx 12V in stand-by, approx 0V with a call in progress)
2	Speech line output from the microphone (approx 12V in stand-by, approx 3V with a conversation in progress)
1	Speech line input toward the loudspeaker and data signal (approx 12V in stand-by, approx 5V with a conversation in progress)
+12	12Vdc 0.3A max output to supply accessories
—	Power input ground
+20	Power input 16÷20Vdc

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.VR4KCL) in an audio or video intercom system.
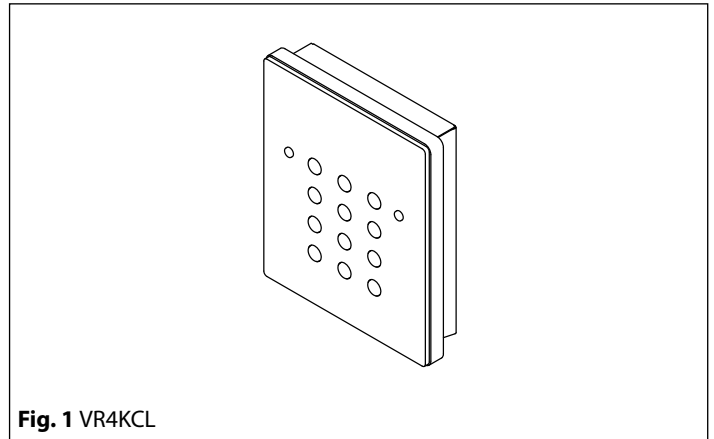

**Fig. 1** VR4KCL

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.

Fig. 1A

Fig. 1B
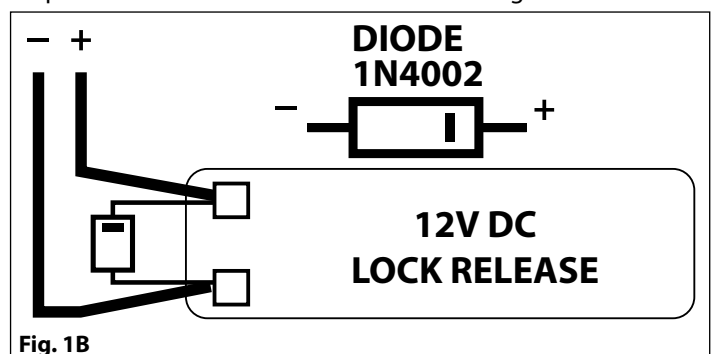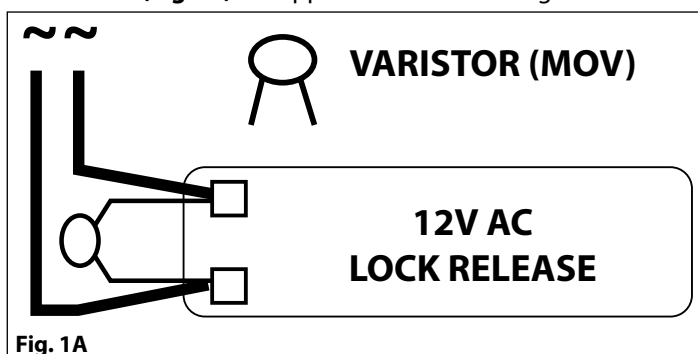
BUZZER BACK EMF

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).
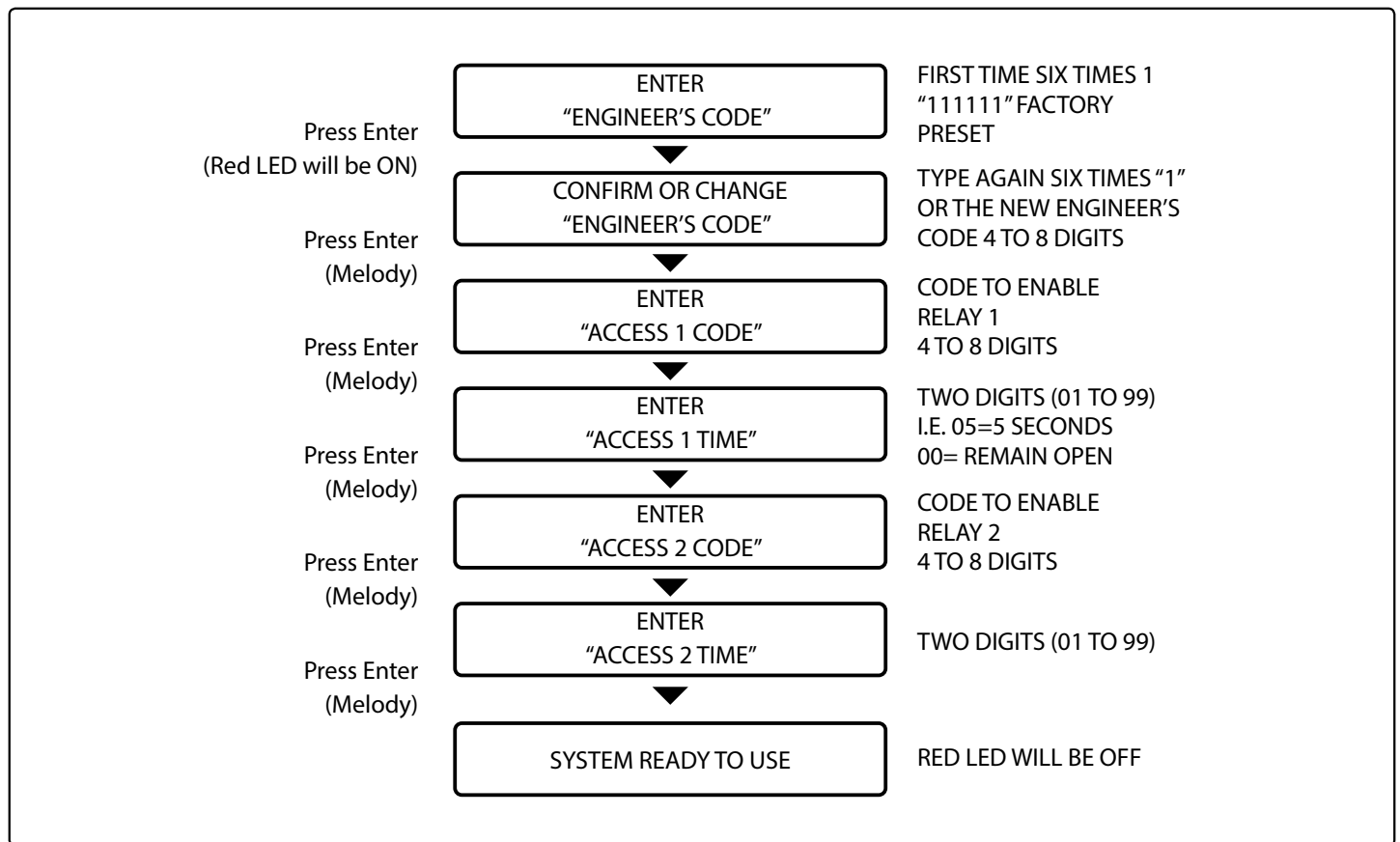
OPERATION

- 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.

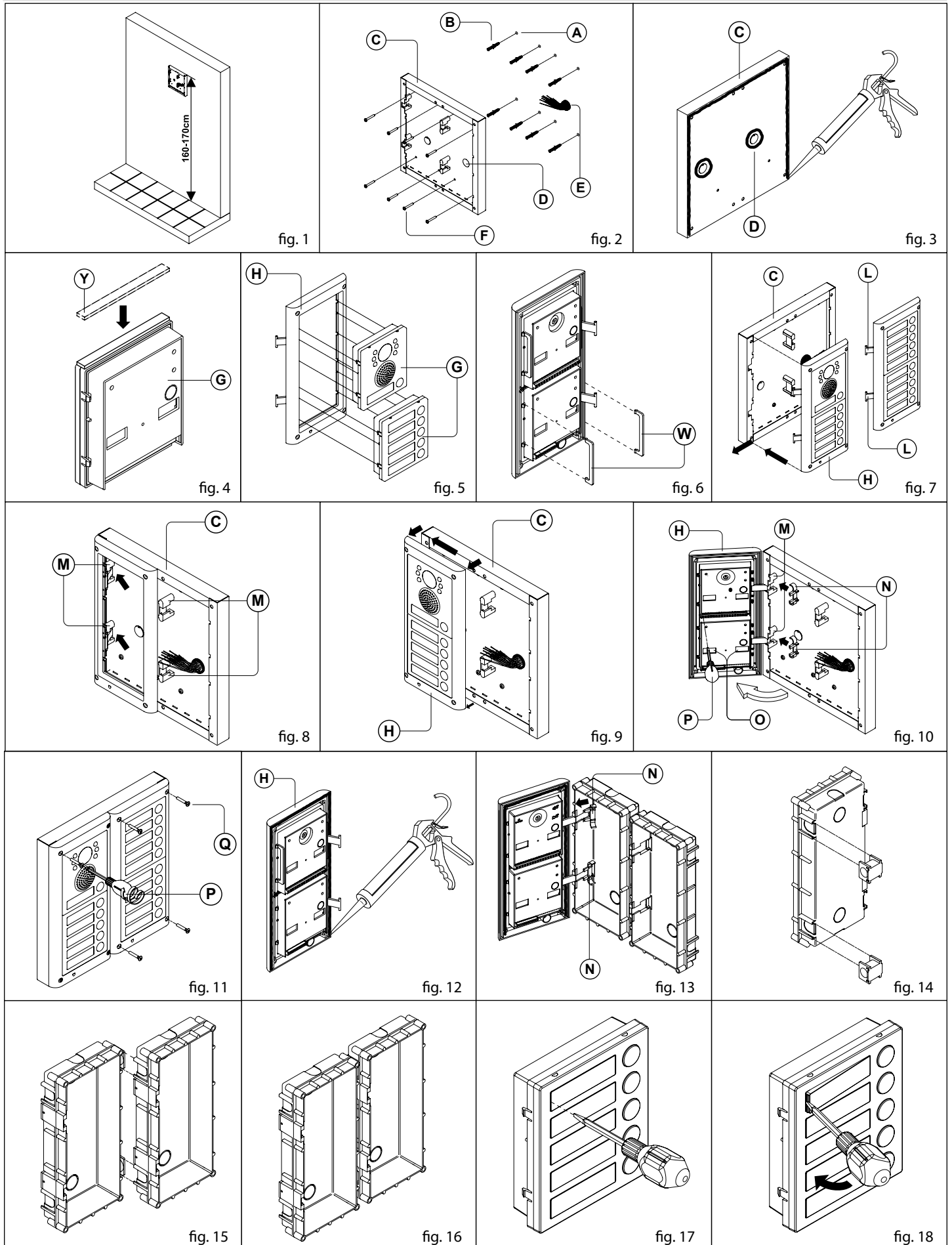| TERMINALS	
SW2	Relay 2 command signal (active low)
SW1	Relay 1 command signal (active low)
NC2	Relay 2 normally closed contact
NO2	Relay 2 normally open contact
C2	Relay 2 common contact
NC1	Relay 1 normally closed contact
NO1	Relay 1 normally open contact
C1	Relay 1 common contact
— +	12/24Vac/dc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

FLOW CHART

	ENTER "ENGINEER'S CODE"	FIRST TIME SIX TIMES 1 "111111" FACTORY PRESET
Press Enter (Red LED will be ON)	CONFIRM OR CHANGE "ENGINEER'S CODE"	TYPE AGAIN SIX TIMES "1" OR THE NEW ENGINEER'S CODE 4 TO 8 DIGITS
Press Enter (Melody)	ENTER "ACCESS 1 CODE"	CODE TO ENABLE RELAY 1 4 TO 8 DIGITS
Press Enter (Melody)	ENTER "ACCESS 1 TIME"	TWO DIGITS (01 TO 99) I.E. 05=5 SECONDS 00= REMAIN OPEN
Press Enter (Melody)	ENTER "ACCESS 2 CODE"	CODE TO ENABLE RELAY 2 4 TO 8 DIGITS
Press Enter (Melody)	ENTER "ACCESS 2 TIME"	TWO DIGITS (01 TO 99)
Press Enter (Melody)	SYSTEM READY TO USE	RED LED WILL BE OFF

TECHNICAL SPECIFICATION

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

EXAMPLE: INSTALLING A FOUR MODULE OUTDOOR STATION

fig. 1

fig. 2

fig. 3

fig. 4

fig. 5

fig. 6

fig. 7

fig. 8

fig. 9

fig. 10

fig. 11

fig. 12

fig. 13

fig. 14

fig. 15

fig. 16

fig. 17

fig. 18

INSTALLING A SURFACE MOUNT DOOR STATION

1. Place the surface box against the wall (165-170cm between the top of the box and the floor level as shown in **Fig. 1**) and mark the fixing holes for the wall plugs and the hole for the cables **E (fig. 2)**. Observe the orientation of the box with the hinge on the left;

> ⚠ **In order to prevent water ingress we highly recommend using a silicon sealant between the wall and the back box C (Fig.3) and around all holes D (Fig.3);**

2. As shown on **Fig. 2,** drill the fixing holes **A,** insert the wall plugs **B** and feed the cables **E** through the surface box opening **D**, fix surface box **C** to the wall using the screws **F**;
3. Apply the **Y** silicon sealant on top of each module as shown in **Fig. 4;**
4. Before installation of the module support frame, hook the modules **G** to the support frame **H** as shown in **Fig. 5** then, as shown in **Fig. 6,** fit the two anti-tampering locks **W** for each module (do the same for the second module support frame);
5. When you have more than one support frame, hook the support frame to the surface box starting from the left. For convenience we will described how to attach the left frame but the same must be carried out for the right frame. As shown in **Fig. 7,** hook the module support frame **H** (complete with modules) to the surface box **C** moving the frame as suggested from pointers. Ensure that the pivots **L (Fig. 7)** go inside the relevant housing **M** as shown in **Fig. 8;**
6. As shown on **Fig. 9,** pull back the module support frame **H** while moving it slightly to the left as suggested by the pointers;
7. As shown in **Fig. 10,** open the module support frame **H** as suggested by the pointer, hook the hinge locks **N** to the hinges **M,** make the required connections using the screwdriver provided **P** (flat blade end) and make the required adjustment by adjusting the settings (through openings **O**) and adjust trimmers;
8. Repeat the same operations described above for the second module support frame (or for the third if available);
9. When the system has been tested and is working correctly, move back the module support frames carefully, fix them to the surface box using the screwdriver provided **P** (torx end) and the pin machine torx screws **Q (Fig. 11)**. **Note: do not over tighten the screws more than is necessary.**

INSTALLING A FLUSH MOUNTING DOOR STATION

When flush mounting and the number of modules is greater than 3, the required back boxes need to be linked together (before embedding them in the wall) as shown on **Fig. 14, 15 and 16:**
- Arrange the back boxes and remove knockouts to allow cables to be fed from one back box to the other;
- Hook the spacers to first back box then hook the second back box to obtain the result shown on **Fig. 16;**
1. Protect the module support frame fixing holes from dust then embed the back box into the wall (165-170cm between the top of the box and the floor level as shown on the **Fig. 1**) feeding the cables **E (Fig. 2)** through a previously opened hole in the box. Observe the direction of the box ensuring the hinge is on the left and take care that the box profile is in line with the finished wall profile;

> ⚠ **In order to prevent water ingress we highly recommend using a silicon sealant between the wall and the back box H (Fig.12);**

2. Continue from step **4** of surface mounting instructions , but at step **7** hook the hinge locks **N** as shown on **Fig. 13.**

> ⚠ **Note: if additional holes are made in the surface box, oxidation problems may appear unless the unprotected metal is coated with a protective paint.**
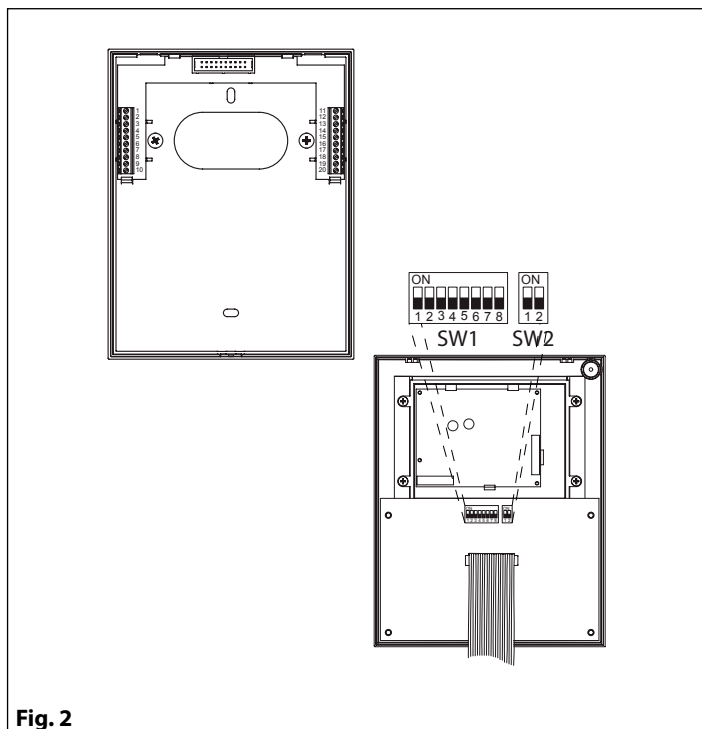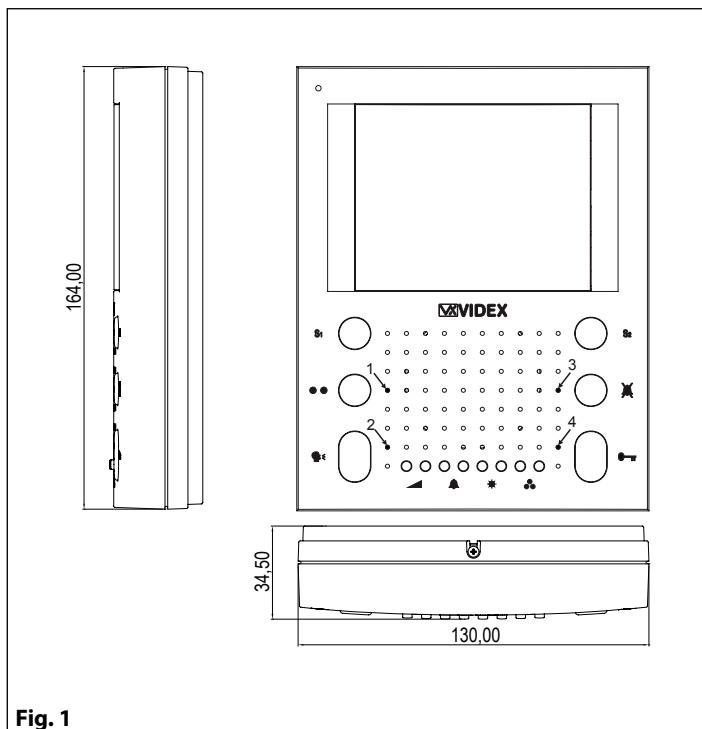
NOTES
- The screwdriver's blade has two sides, one flat and one torx, to select one of them unplug the blade from the screwdriver body and plug it into the required side.
- The example shows the use of only one back box bottom hole for wires, this is done to keep file drawings clear. Naturally the installer can use the left hole or the right or both if required.

HOW TO REMOVE THE CARD NAME HOLDER
- To avoid damage to the module front plate, tape the side that will be in contact with the screwdriver blade;
- Insert the screwdriver (flat side) into the card-holder hole as shown in **Fig. 17;**
- Move the screwdriver to the left as shown in **Fig. 18** to extract the card name holder;
- Edit the card name then replace it inside the holder and refit: insert the holder inside its housing from the left or right side then push the other side until it clips into place.

Fig. 1

Fig. 2

PUSH BUTTONS	
S₁	Service push button. When pressed shorts terminal "16" to the common terminal "18".
• •	Service push button. When pressed shorts terminal "17" to the common terminal "18".
🗣	Answer button: press & release this button during a call to answer in hands free mode. Simplex button - Pressing and holding the button for more than 3 seconds will switch the videomonitor into SIMPLEX speech mode. Press and hold the button to speak to the caller (LED 2 will flash rapidly), release the button to listen (LED 2 will flash owly). If the button is not pressed for 10 seconds the videomonitor will switch off. The videomonitor will revert to duplex speech when another call is made. Switch off button - With the system switched on (monitor on), momentary operation of the button will switch the video monitor off. The videomonitor will also automatically switch off after a time delay if the button is not pressed. LED 2 will switch off. Camera recall button. In case of more entrances, press the button 1, 2, 3 or 4 times to switch on door unit with ID 1, 2, 3 or 4.
S₂	Service push button. When pressed shorts terminal "19" to the common terminal "18".
✗	Privacy ON-OFF button. Enable/Disable the privacy service, the service is automatically disabled when the programmed privacy time expires.
0━	Door-open / intercommunicating call button. Intercommunication only works when the system is in stand-by condition. Switch 4 of the SW1 dipswitch selects the type of intercommunication: OFF Intercommunication between two apartments - pick up the handset and press the key button to call the videophone(s) in the other apartment. A busy tone will signal that the other videophone is in conversation with the doorstation and so cannot be called. ON Intercommunication between videophones in the same apartment - pick up the handset and press the key button one, two, three or four times to call videophone with extension address 1, 2, 3 or 4 (Set on dip-switch 2&3 of SW1). Any intercommunicating conversation is always interrupted by an external call (i.e. External calls take priority).

LEDS		
1	Aux LED for generic use (terminal "20")	
2	LED relevant to the operation of the 🗣 button	
3	LED relevant to the operation of the ✕ button	
4	Aux LED for generic use (terminal "14")	

| CONTROLS		
◢	Loudspeaker volume control	
🔔	Call tone volume control	
✳	Brightness control	
⣿	Colour intensity control	

SETTINGS (DIP-SWITCH & JUMPERS)

First two switches are used to set the speaker unit address: the speaker unit address is required for camera recall operation on 2 or more entrance systems.

8 WAY DIP-SWITCH

	Switches 1	Apartment Address	
■=ON □=OFF SW1	OFF	1	
	ON	2	

	Switches 2,3	Extension Address	
■=ON □=OFF SW1	OFF	OFF	1
	ON	OFF	2
	OFF	ON	3
	ON	ON	4

	Switch 4	Intercommunication	
■=ON □=OFF SW1	OFF	Between videophones of the two apartment	
	ON	Between videophones in the same apartment	

	Switches 5,6	Number of Rings	
■=ON □=OFF SW1	OFF	OFF	2
	ON	OFF	4
	OFF	ON	6
	ON	ON	8

	Switches 7,8	Privacy duration time	
■=ON □=OFF SW1	OFF	OFF	15 minutes
	ON	OFF	1 hours
	OFF	ON	4 hours
	ON	ON	8 hours

MELODY PROGRAMMING

Press and hold (for approx 10 seconds) the " ⦵ "button until the LED next to the button illuminates and the unit plays the current programmed melody.
Press again the " ⦵ " button to listen to the available melodies (maximum 9).
Once the chosen melody has been reached, wait 5 seconds for a beep and the LED turning OFF. The new melody will be stored.

3000/3600 SERIES COMPATIBILITY

Art. 5456 is fully compatible with Art. 3456 and Art. 3656 and signals on the terminals (from 1 to 18) of both pcb connection boards are the same.
Terminals 19 and 20 are for connections not available in the other videophone models.
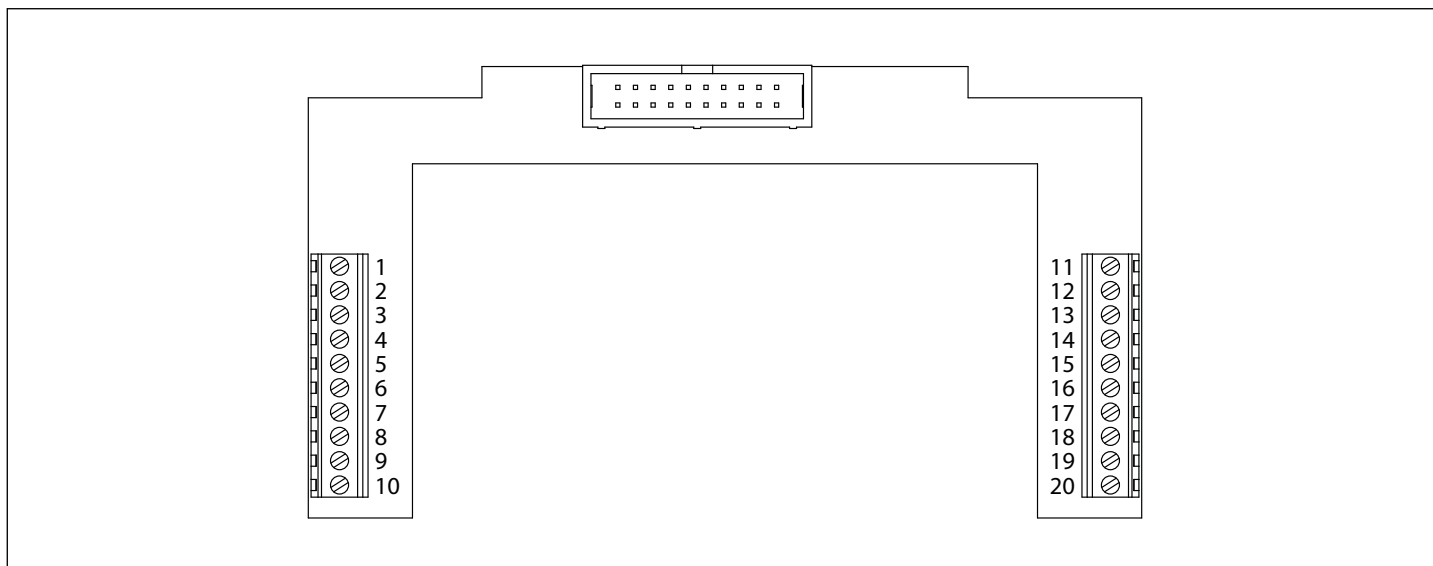
SIGNALS ON CONNECTION BOARD	
1	Speech line output from videomonitor's microphone and data signal (About 12V in stand-by, about 5V in conversation)
2	Speech line input toward the videomonitor's loudspeaker (About 12V in stand-by, about 3V in conversation)
3	Speech line input toward the loudspeaker of the parallel telephone (About 12V in stand-by, about 3V in conversation)
4	Balanced video signal 1 sync.−
5	Balanced video signal 2 sync.+
6	Power supply ground input
7	
8	20Vdc Input/Output (As input 16÷20Vdc 0,5A – as output 20Vdc 0,5A max)
9	24Vac 1A max power input
10	0Vac power input
11	Output ground for parallel telephone
12	Output call tone for parallel telephone
13	Input for door-open command from parallel telephone
14	12Vdc input for aux LED 4 (normally used to signal the "door open" status)
15	Local call input (5V in stand-by, 0V during local call)
16	"S1" button contact shorts to terminal "18" when pressed
17	" ● ● " button contact shorts to terminal "18" when pressed
18	Common contact for "S1", "S2" and " ● ● " buttons
19	"S2" button contact shorts to terminal "18" when pressed
20	12Vdc input for aux LED 1

NOTE: If the video intercom has the memory board, terminals from 16 to 20 cannot be used

TECHNICAL SPECIFICATION

Power Supply: 24Vac in or 20Vdc in
Power consumption: Stand-by: 50mA Max
                        Operating: 250mA Max
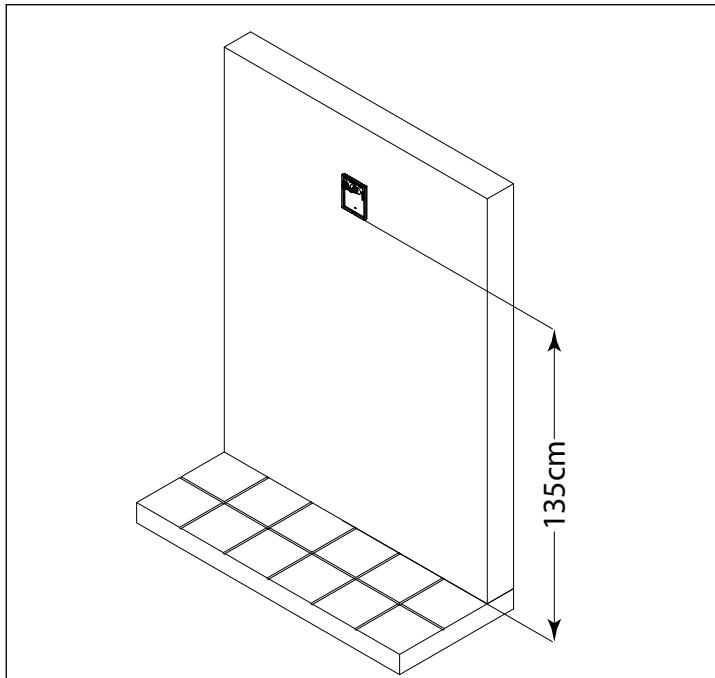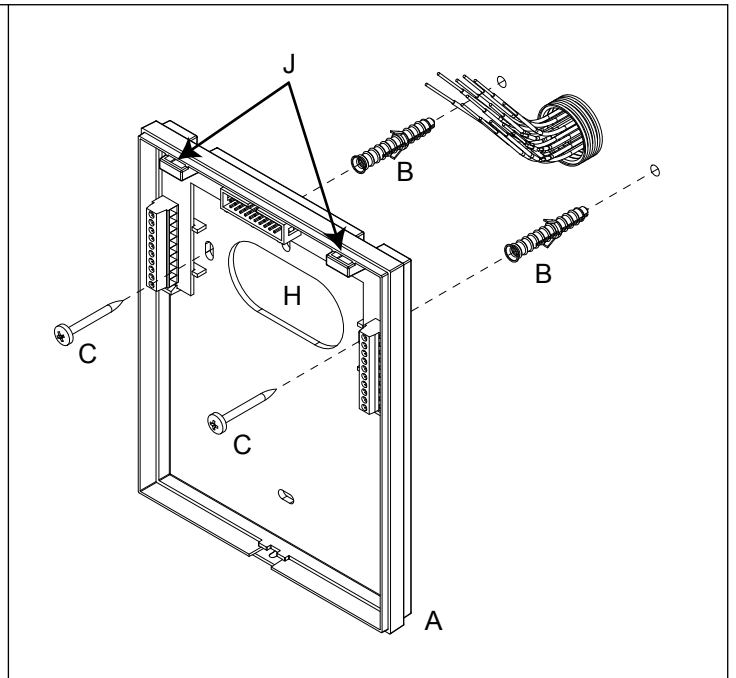**Working Temperature:**   -10 +50 °C
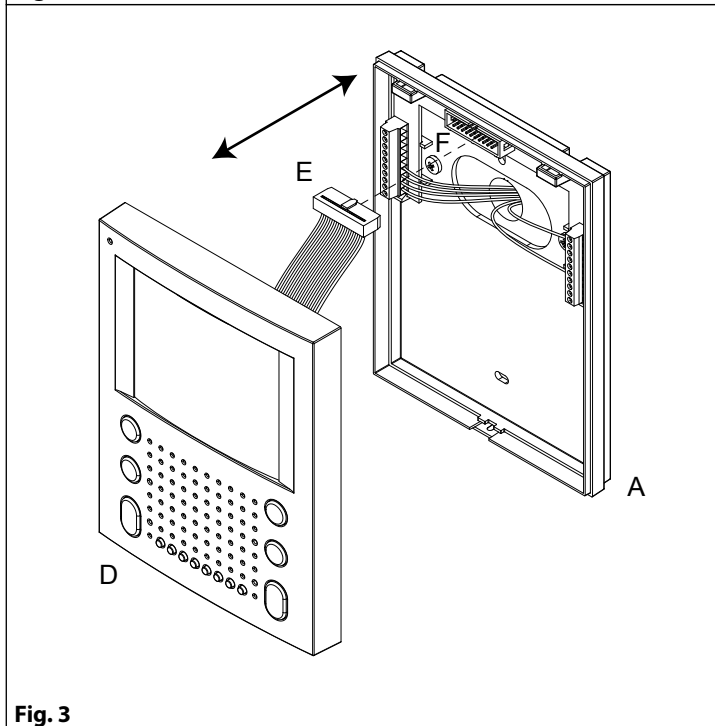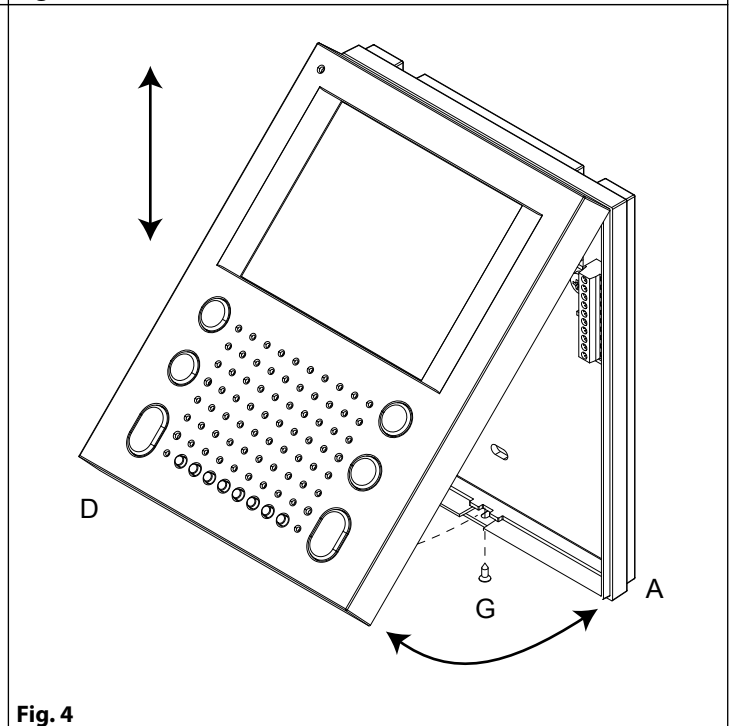
Fig. 1

Fig. 2

Fig. 3

Fig. 4

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

Installation diagrams

NOTES AND SUGGESTIONS

- All diagrams refer to all kits versions: flush or surface, colour or black & white.
- Dashed connections refer to optional connections ("Local bell", "Push to exit" & "Door monitor").
- Some diagrams show how to connect a 12Vdc electric lock: these directions are suitable for all diagrams in this manual.
- Each time a setting is changed on a videophone (address, extension, number of rings etc.), the videophone must be disconnected from the relevant connection board then after a few seconds reconnected again to allow the recognizing of the new setting.
- All diagrams shown are valid for B&W or colour systems with surface or flush mount door station.

DECLETION 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.
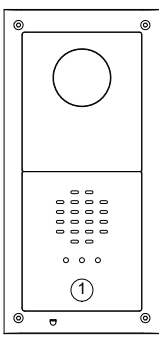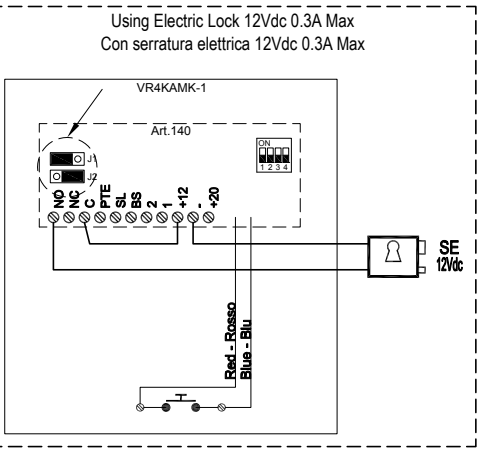
⚠ **WE RECOMMEND**
This equipment is installed by a Competent Electrician, Security on Communications Engineer

VIDEOKIT VRVK-1/5456, VRVK-1S/5456

Art.SL5456

to Art.SL5456

Local Bell

Art.850K

24V

230Vac   0   127Vac

Push to Exit

Art.VR4KCMC-N

Affinche qualsiasi modifica alle impostazioni dei dip switch del videocitofono o del posto esterno venga riconosciuta dal sistema, è necessario togliere l'alimentazione di rete all'impianto e restituirla.

In order to make the system recognize any modification of the videophone's and outdoor station's dip-switch setting temporarily disconnect the system from the mains and reconnect

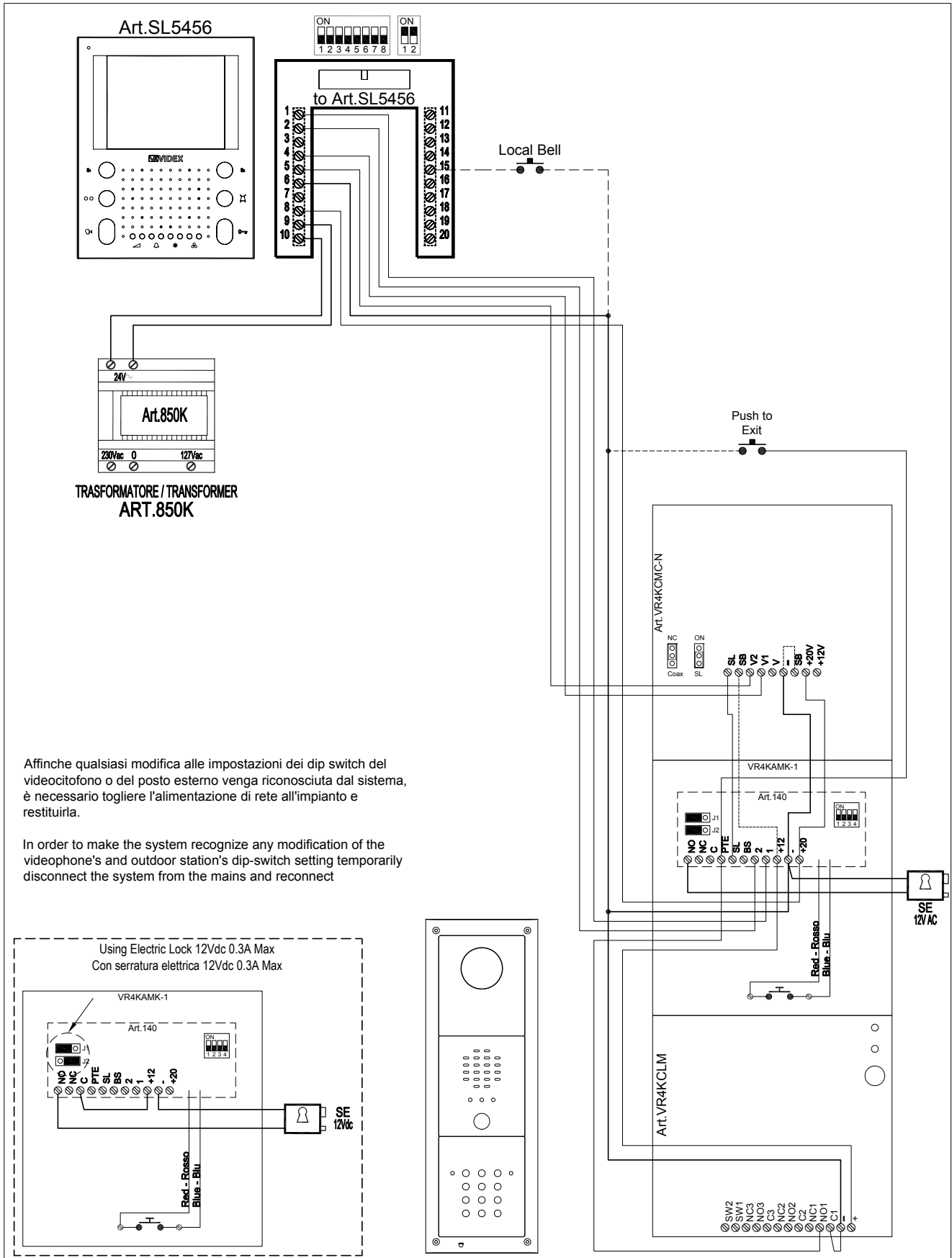Using Electric Lock 12Vdc 0.3A Max
Con serratura elettrica 12Vdc 0.3A Max

VR4KAMK-1

Art.140

NO NC C PTE SL BS 2 1 +12 - +20

SE 12Vdc

Red - Rosso
Blue - Blu

NC   ON
Coax   SL

SL SB V2 V1 - SB +20V +12V

VR4KAMK-1

Art.140

NO NC C PTE SL BS 2 1 +12 +20

Red - Rosso
Blue - Blu

SE 12V AC

Title:			Data creazione:	Foglio
CVR4KV-1/ ECLIPSE, CVR4KV-1S/ ECLIPSE			23/09/2015	1 / 1
Titolo:			Data modifica:	
.			23/09/2015	

Videx Electronics S.p.A.
Via del Lavoro 1, 63846 Monte Giberto (FM)
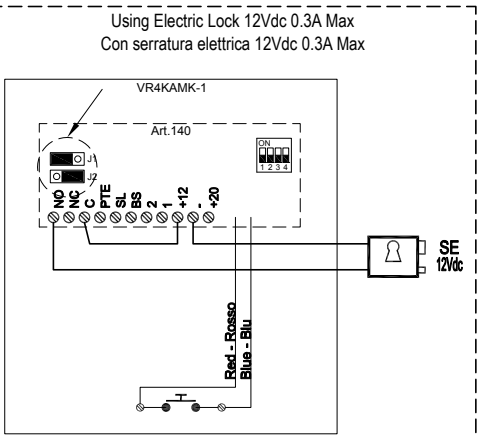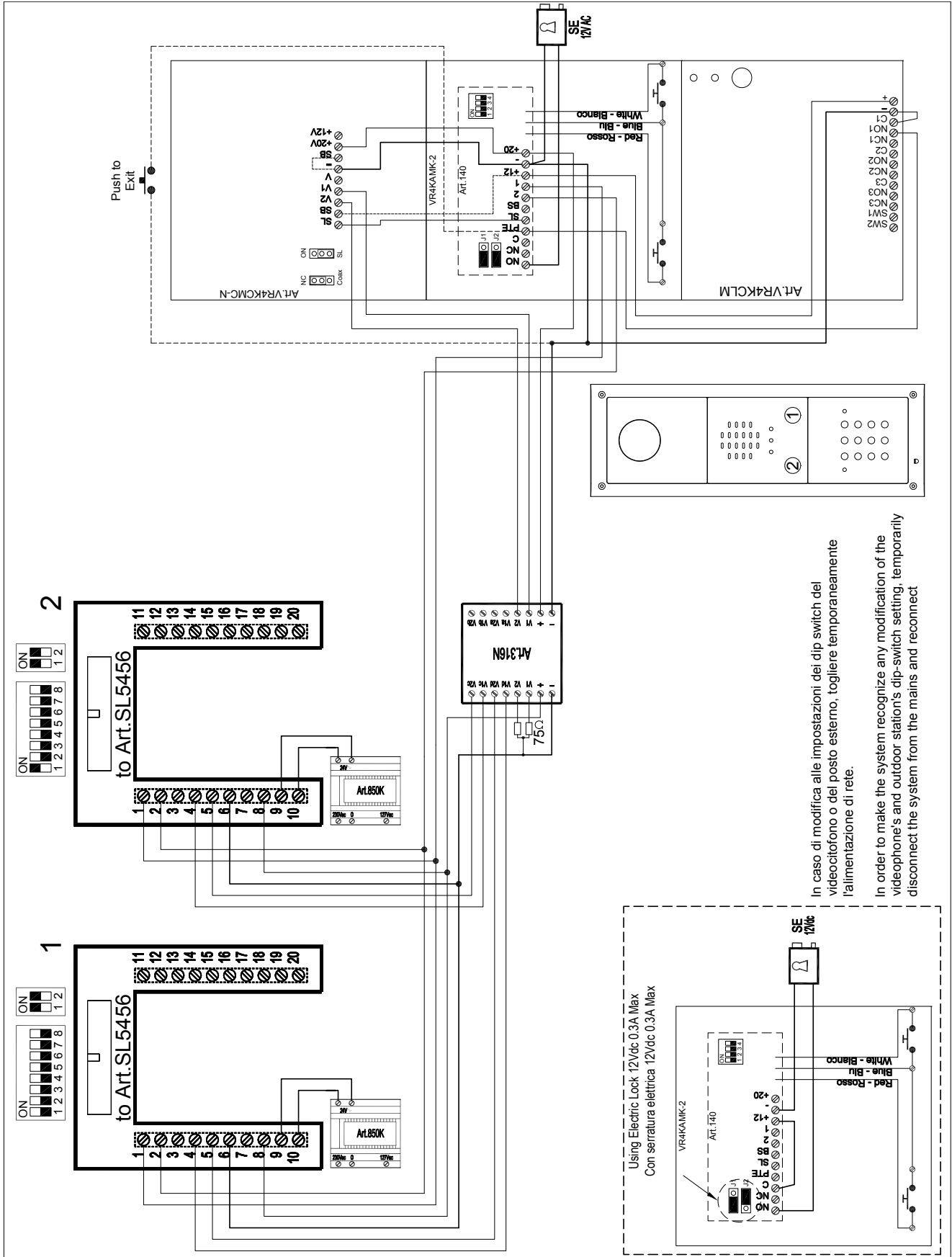Phone: +39 0734 631669 - Fax +39 0734 631669
www.videx.it - info@videx.it

Notes:
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Note:
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Autore:
Marco Rongoni
Cod.File:
vr4kv-001b-ecl.dwg
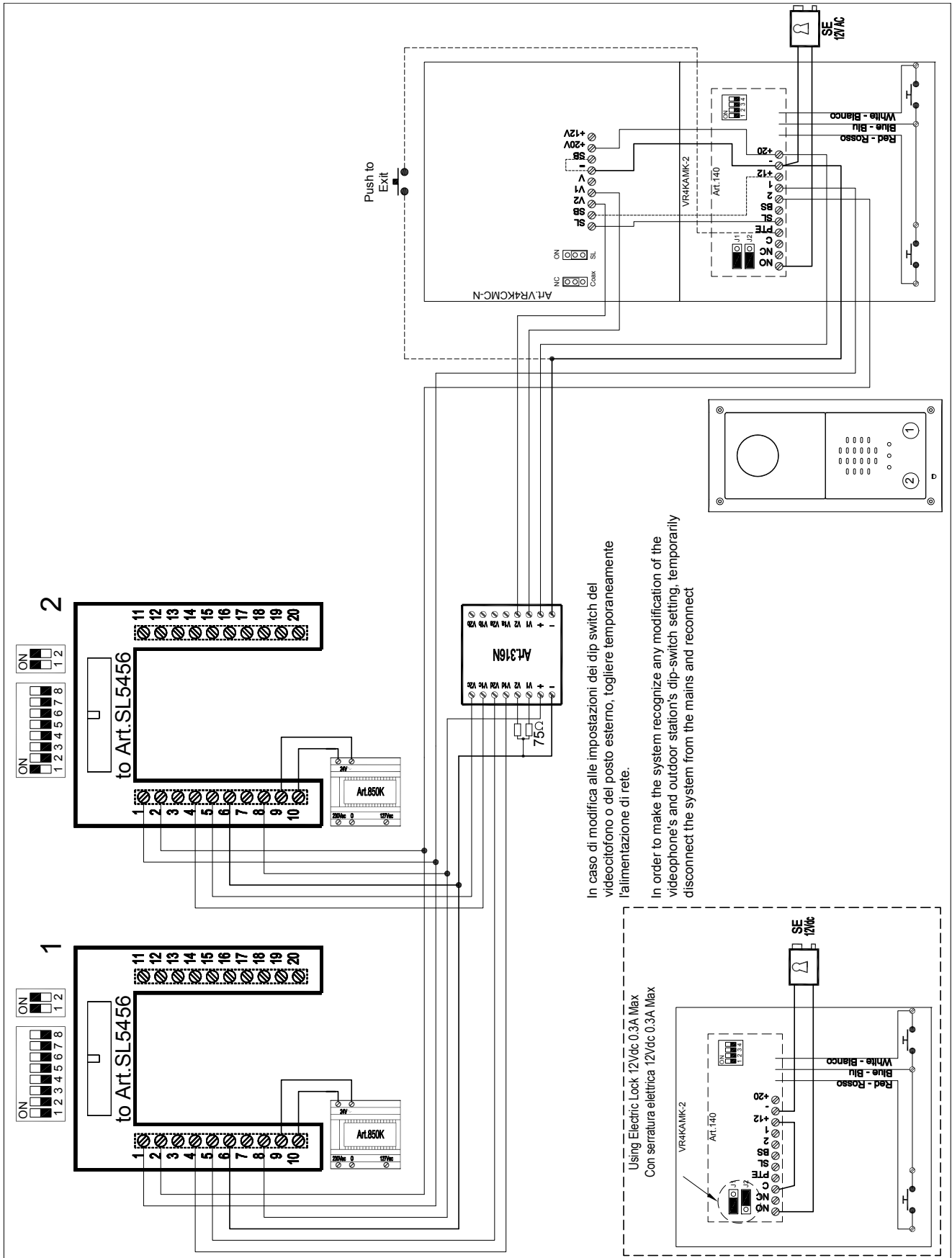
20

VIDEOKIT VRVK-2/5456, VRVK-2S/5456

In caso di modifica alle impostazioni dei dip switch del videocitofono o del posto esterno, togliere temporaneamente l'alimentazione di rete.

In order to make the system recognize any modification of the videophone's and outdoor station's dip-switch setting, temporarily disconnect the system from the mains and reconnect.
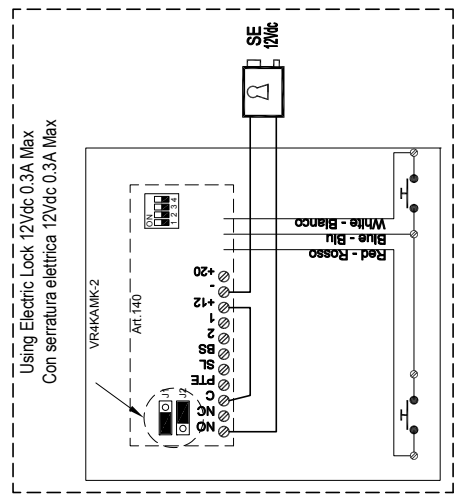
Using Electric Lock 12Vdc 0.3A Max
Con serratura elettrica 12Vdc 0.3A Max

Push to Exit

to Art.SL5456

Art.316N

75Ω

Art.850K
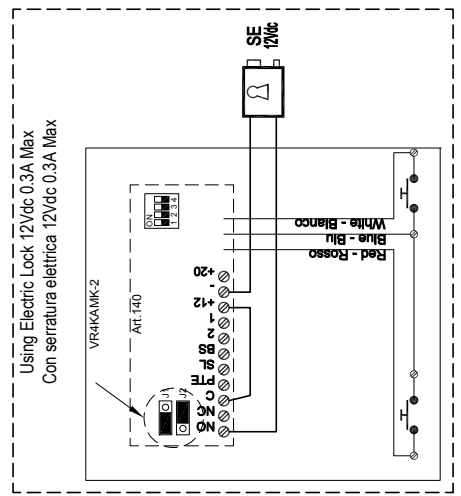
Title:			
CVR4KV-2/ECLIPSE, CVR4KV-2S/ECLIPSE			
Titolo:			
.			

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Notes: .
Note: .

Data creazione: 23/09/2015
Data modifica: 23/09/2015
Autore: Marco Rongoni
Cod.File: vr4kv-002b-ecl.dwg
Foglio 1 / 1

VIDEOKIT VRVKC-1/CL/5456, VRVKC-1S/CL/5456

Affinche qualsiasi modifica alle impostazioni dei dip switch del videocitofono o del posto esterno venga riconosciuta dal sistema, è necessario togliere l'alimentazione di rete all'impianto e restituirla.

In order to make the system recognize any modification of the videophone's and outdoor station's dip-switch setting temporarily disconnect the system from the mains and reconnect

TRASFORMATORE / TRANSFORMER
ART.850K

Using Electric Lock 12Vdc 0.3A Max
Con serratura elettrica 12Vdc 0.3A Max

Title: CVR4KV-1/CL/ECLIPSE, CVR4KV-1S/CL/ECLIPSE	Data creazione: 23/09/2015	Foglio
Titolo:	Data modifica: 23/09/2015	1 / 1

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Notes:
Note:

Autore: Marco Rongoni
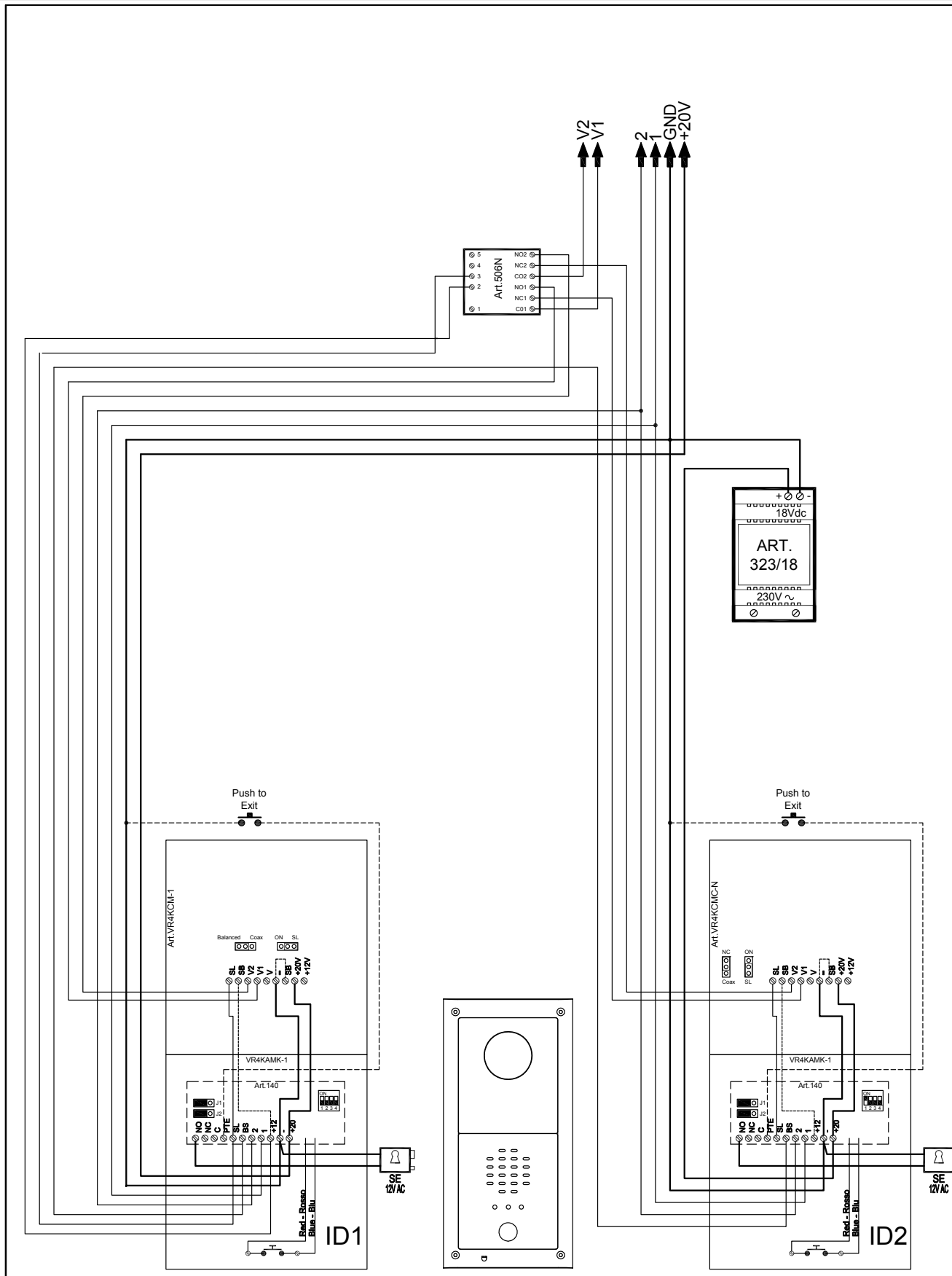Cod.File: vr4kv-003b-ecl.dwg

VIDEOKIT VRVKC-2/CL/5456, VRVKC-2S/CL/5456

SE 12V AC

Push to Exit

White - Bianco
Blue - Blu
Red - Rosso

VR4KAMK-2   Art.140

Art.VR4KCMC-N

Art.VR4KCLM

+12V
+20V
SB
V
V2
V1
SB
SL
+20
-
+12
-
2
1
SL
PTE
C
NC
NO

ON SL
NC Coax

C1
NO1
NC1
C2
NO2
NC2
C3
NO3
NC3
SW1
SW2

2

to Art.SL456

11 12 13 14 15 16 17 18 19 20

1 2 3 4 5 6 7 8 9 10

Art.850K
24V
230Vac 0 12Vdc

Art.316N
V1 V2 V1a V2a V1b V2b - +
- + V1 V2 V3a V2a V1b V2b

75Ω

In caso di modifica alle impostazioni dei dip switch del videocitofono o del posto esterno, togliere temporaneamente l'alimentazione di rete.

In order to make the system recognize any modification of the videophone's and outdoor station's dip-switch setting, temporarily disconnect the system from the mains and reconnect

1

to Art.SL456

11 12 13 14 15 16 17 18 19 20

1 2 3 4 5 6 7 8 9 10

Art.850K
24V
230Vac 0 12Vdc

Using Electric Lock 12Vdc 0.3A Max
Con serratura elettrica 12Vdc 0.3A Max

SE 12Vdc

White - Bianco
Blue - Blu
Red - Rosso

VR4KAMK-2   Art.140

+20
-
+12
-
2
1
SL
PTE
C
NC
NO

Title: CVR4KV-2/CL/Eclipse , CVR4KV-2S/CL/Eclipse	Data creazione: 23/09/2015	Foglio
Titolo:	Data modifica: 23/09/2015	1 / 1

VIDEOKIT VRVK-2/5456, VRVK-2S/5456 WITH ART. 316

In caso di modifica alle impostazioni dei dip switch del videocitofono o del posto esterno, togliere temporaneamente l'alimentazione di rete.

In order to make the system recognize any modification of the videophone's and outdoor station's dip-switch setting, temporarily disconnect the system from the mains and reconnect

Using Electric Lock 12Vdc 0.3A Max
Con serratura elettrica 12Vdc 0.3A Max

Title:			Data creazione:	Foglio
VRVK4K-2/5456, VRVK4K-2S/5456			22/10/2015	1 / 1
Titolo:			Data modifica:	
VRVK4K-2/5456, VRVK4K-2S/5456			22/10/2015	

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Notes:
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Note:
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Autore:
Marco Rongoni

Cod.File:
vrvk4k54h-001.dwg

TWO ENTRANCES SYSTEM INSTALLATION

Title:		Data creazione:	Foglio
VRVK-1/xxxxx, VRVK-1S/xxxxx with second door panel for two entrances system		29/10/2015	1 / 1
Titolo:		Data modifica:	
VRVK-1/xxxxx, VRVK-1S/xxxxx con secondo posto esterno per sistema a 2 ingressi		29/10/2015	
	Videex Electronics S.p.A.	Autore:	
	Via del Lavoro 1, 63846 Monte Giberto (FM)	Marco Rongoni	
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Notes: —

Note: —

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SYSTEM CERTIFICATION
ISO 9001
SGS
Cert. N. IT05/1217