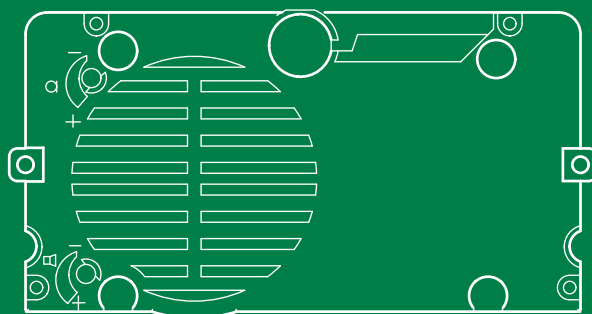
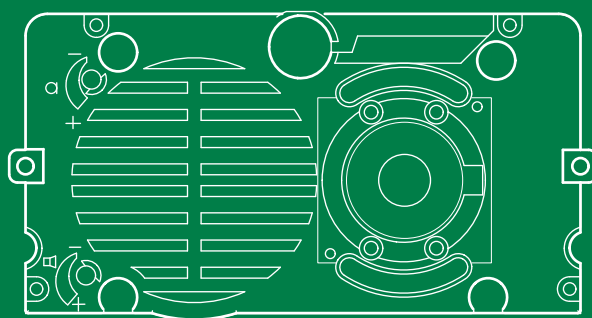


EN

TECHNICAL
MANUAL



Audio/video module for 2-wire system
Art. 4681 / 1621VC

 **Comelit**[®]
Passion. Technology. Design.

Warning

Intended use

This Comelit product is designed and manufactured for use in the creation of audio and video communication systems in residential, commercial, industrial and public buildings.

Installation

All activities connected to the installation of Comelit products must be carried out by qualified technical personnel, with careful observation of the indications provided in the Manuals / Instruction sheets supplied with those products. The product must be installed to the highest standards.

Wires

Disconnect the power supply before carrying out any operations on the wiring.

Use wires with a cross-section suited to the distances involved, observing the instructions provided in the system manual.

We advise against running the system wires through the same duct as power cables (230V or higher).

Safe usage

To ensure Comelit products are used safely:

- carefully observe the indications provided in the Manuals / Instruction sheets,
- make sure the system created using Comelit products has not been tampered with / damaged.

Maintenance

Comelit products do not require maintenance aside from routine cleaning, which should be carried out in accordance with the indications provided in the Manuals / Instruction sheets.

Any repairs must be carried out:

- for the products themselves, exclusively by **Comelit Group S.p.A.**,
- for the systems, by qualified technical personnel.

Do not use alcohol or aggressive products for cleaning purposes.

Disclaimer

Comelit Group S.p.A. does not assume any responsibility for

- any purpose other than the intended use,
- failure to observe the indications and warnings contained in this Manual / Instruction sheet.

Comelit Group S.p.A. reserves the right to change the information provided in this Manual / Instruction Sheet at any time and without prior notice.

Directives



The manufacturer, **Comelit Group S.p.A.**, hereby declares that this equipment conforms to the applicable directives. The full EU conformity declaration is available on the web page for the product.



In accordance with art. 26 of Italian Legislative Decree dated 14th March 2014, no. 49 "Implementation of directive 2012/19/EU on Waste Electrical and Electronic Equipment (WEEE)", the "crossed-out wheeled bin" symbol indicates that at the end of its useful life, this product must be separated from other waste before collection for disposal. The user should therefore take the exhausted appliance to suitable local collection centres for waste electrical and electronic products. As an alternative to handling this process yourself, you can take the appliance to your local equipment dealer when purchasing a new equivalent product. Electronics dealership businesses covering an area of 400 m² are also obliged to accept waste electronic products smaller than 25 cm for disposal, without any obligation to purchase. Suitable separated waste collection for the subsequent reuse of the appliance sent for recycling, processing and environmentally conscious disposal helps to avoid potential negative effects on the environment and human health, and encourages the reuse and recycling of the materials used in the construction of the appliance.

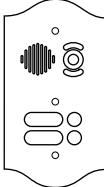
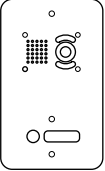
Table of contents

Warning	2
Description.....	4
Art. 4681 - Compatibility table.....	4
Art. 1621VC - Compatibility table	4
Cables for remote camera connection (Art. 1621VC only)	5
Technical specifications	6
Art. 4681	6
Art. 1621VC	6
External unit installation	7
Connections.....	9
4681, 1621VC connections	9
4681, 1621VC connections with separate power supply	9
Remote camera connection (Art. 1621VC only)	9
Variants	10
Module connection.....	11
External unit module consumption table	11
Ikall / Ikall Metal modules.....	12
Connection of button modules 33433, 33434, 33436, 33433M, 33434M, 33436M.....	12
Connection of Art. 3348B, 3348BM.....	12
Connection of Art. 3360B, 3360BM.....	12
Vandalcom modules.....	13
Connection of Art. 3064S and Art. 1172B	13
Connection of Art. 3064S and Art. 1172B with additional power supply 13	
Connection of Art. 3188A	14
Connection of Art. 3070S, 3072S	14
Modules for Single-plate external unit.....	15
Connection of Art. 3063D	15
Connection of Art. 3063D with additional power supply	15
Simplekey modules.....	16
Connection with Art. SK9015 for connection of readers Art. SK9000I and Art. SK9001I.....	16
Button programming.....	17
Special programmes	18
Installation information.....	20
System performance and layouts	20

Description

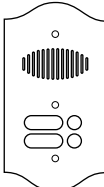
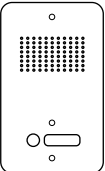
Article **4681** is a colour audio-video module which is compatible with Comelit "Building Kit" video entry systems (exclusively 2-wire), exclusively for use in conjunction with riser power supply unit Art. 1210.

It can be installed in Ikall, Ikall Metal, Vandalcom, Roma and "N" Series external units and can be finished with additional modules to meet all system requirements.

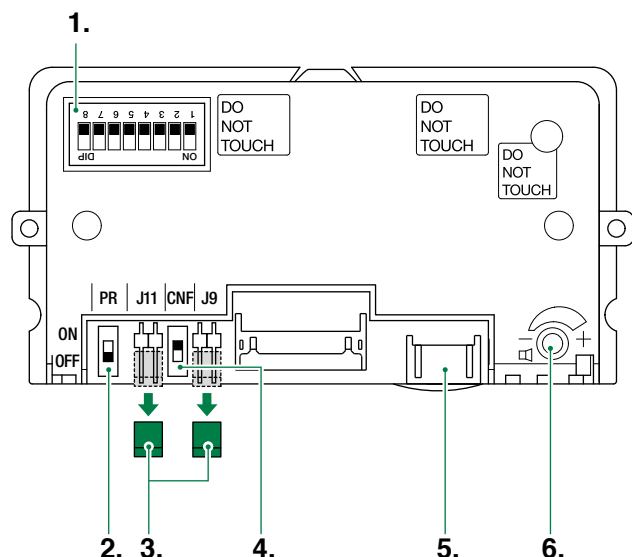
Art. 4681 - Compatibility table				
<i>Ikall</i>	<i>Ikall Metal</i>	<i>Vandalcom</i>	<i>Roma</i>	<i>"N" Series</i>
 33410	 33410M	 3268S/0	 32xx/RI	 30xxNV
 33411	 33411A	 33411M		
 33412	 33412A	 33412M		

Item **1621VC** is an audio module allowing connection of a remote colour PAL camera. It is compatible with Comelit "Building Kit" video entry systems (2 pure wires), exclusively for use in conjunction with riser power supply unit Art. 1210.

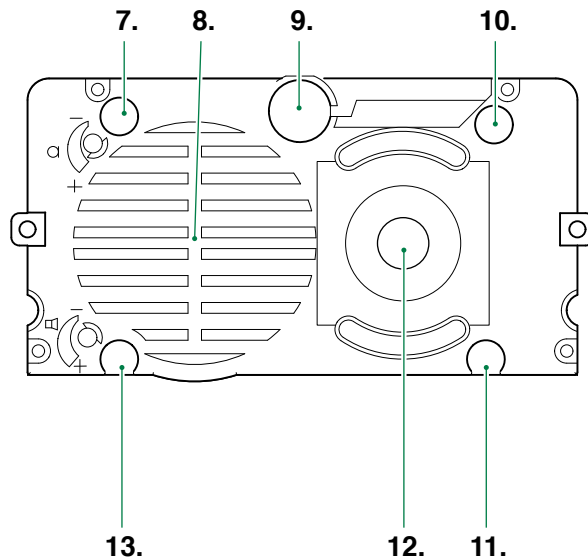
It can be installed in Ikall, Ikall Metal, Vandalcom, Roma and "N" Series external units and can be finished with additional modules capable of fulfilling all system requirements.

Art. 1621VC - Compatibility table				
<i>Ikall</i>	<i>Ikall Metal</i>	<i>Vandalcom</i>	<i>Roma</i>	<i>"N" Series</i>
 33400	 33400M	 3262S/0	 30xx/RI	 30xxNA
 33401	 33401A	 33401M		
 33402	 33402A	 33402M		

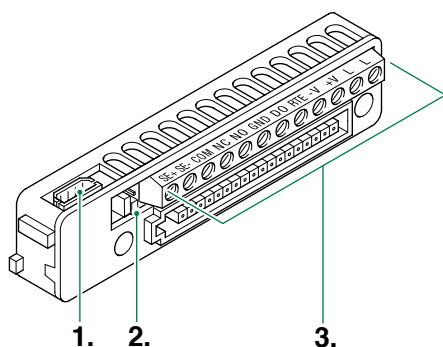
To make use of the indicator LEDs (busy, call sent, door opened, communication active) faceplates from kit 33400K are available to purchase separately for the IKALL series.



1. S1 DIP switches for function programming and setting the user code.
2. PR switch for input/output programming.
3. J11 and J9 jumper for power supply management. Remove both in the case of a separate power supply.
4. CNF switch for confirming special programmes.
5. The connector is reserved for module 1621VC, for the connection of the remote camera.
6. Loudspeaker volume control.

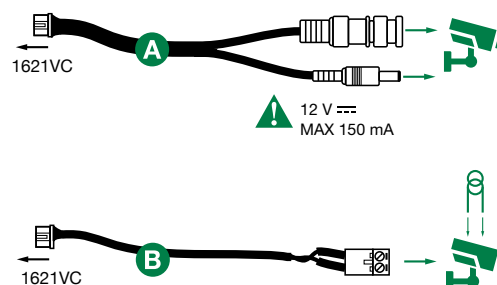


7. Indicator LED: call sent.
8. Speaker.
9. Microphone.
10. Indicator LED: system busy.
11. Indicator LED: sound activated.
12. Colour camera (with Art. 4681 only).
13. Indicator LED: lock-release activated.



1. 8-pole cable connector.
2. JP1 RC network management for door lock filter on relay contacts (see [“Variant for using the external unit relay/Variant for using a safety lock”](#)).
3. Terminal block for connection:

SE+	electric lock connection
SE-	common relay contact
COM	common relay contact
NC	normally closed relay contact
NO	normally open relay contact
GND	input reference negative for DO-RTE
DO	door opened signal input
RTE	local lock-release input
V-	power supply negative
V+	power supply positive
LL	bus line connection



Cables for remote camera connection (Art. 1621VC only)

Use cable **A** to power the camera from the external unit (12V-150 mA MAX).

Use cable **B** if the camera is powered separately.

Technical specifications

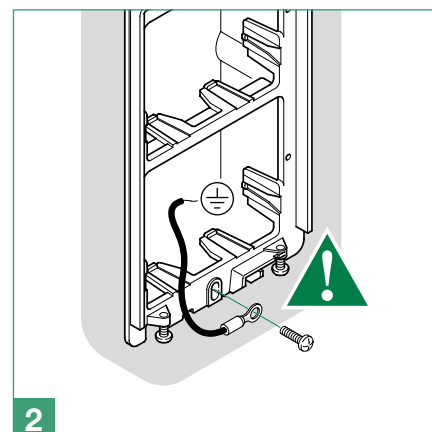
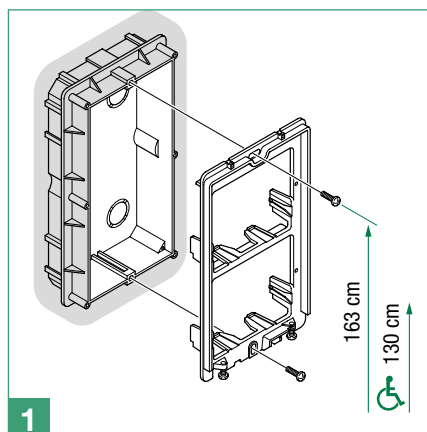
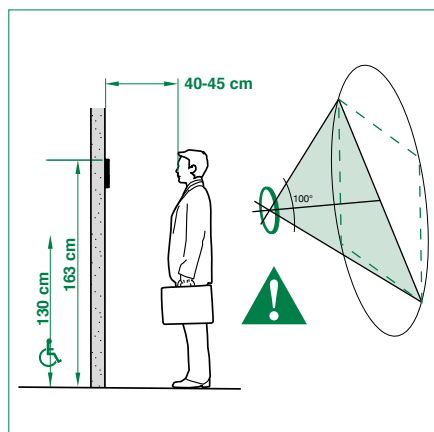
Art. 4681

MAIN SPECIFICATIONS	
Simplebus Top system	No
Compatible with the Building Kit System	Yes
Vip system	No
Audio system	No
Audio/video system	Yes
Camera	Colors
Video encoding	Mpeg
Type of sensor	1/3" CCD
Horizontal resolution (TVL)	540TVL
Minimum illumination	0,35lux
Lens size	3,6mm
Clamps	L L V+ V- RTE DO GND SE- SE+ COM NC NO
Microphone	Yes
Microphone volume control	No
Loudspeaker	Yes
Loudspeaker volume control	Yes
Relative humidity for operation	25 % - 75 %

Art. 1621VC

MAIN SPECIFICATIONS	
Simplebus Top system	No
Compatible with the Building Kit System	Yes
Vip system	No
Audio system	No
Audio/video system	Yes
Clamps	L L V+ V- RTE DO GND SE- SE+ COM NC NO
Microphone	Yes
Microphone volume control	No
Loudspeaker	Yes
Loudspeaker volume control	Yes
Relative humidity for operation	25 % - 75 %

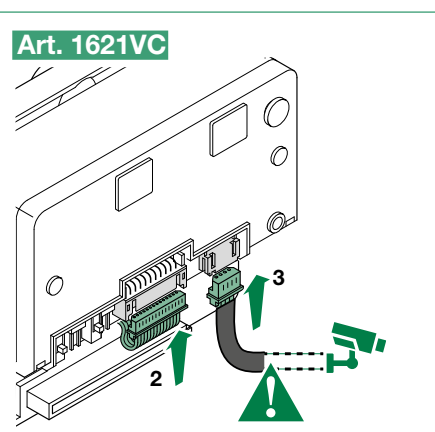
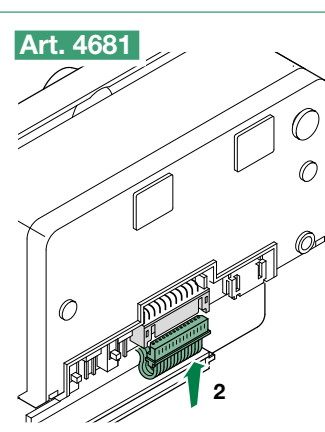
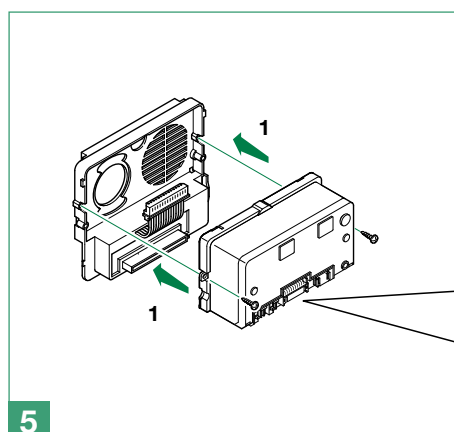
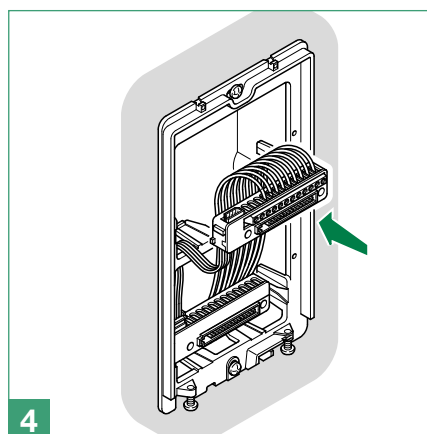
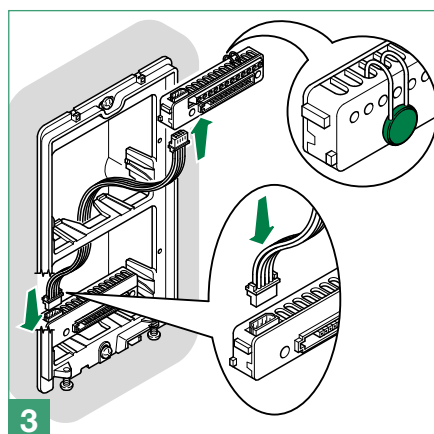
External unit installation

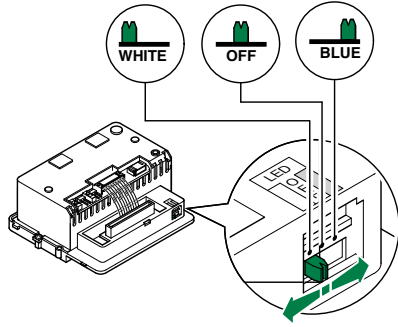


The camera must not be installed opposite bright light sources, or in places where the filmed subject is against the light.
In dim environments, we recommend additional lighting is provided.

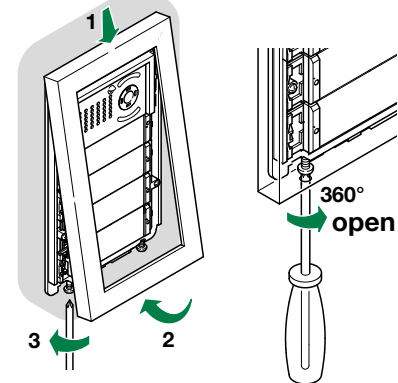
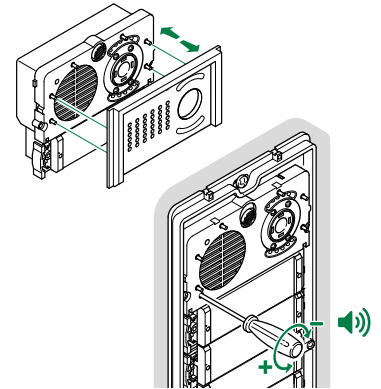
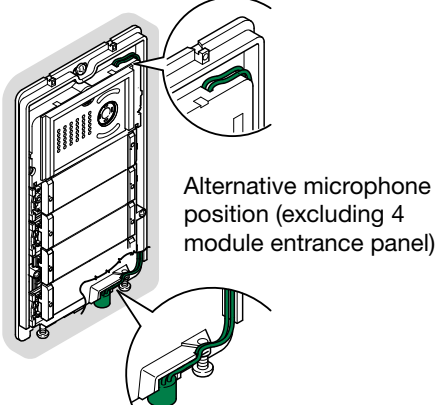
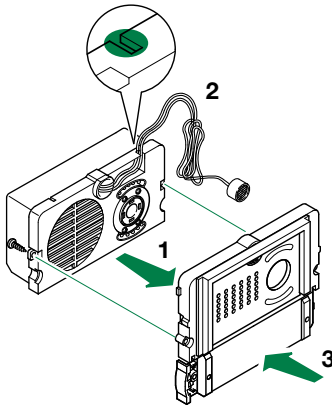
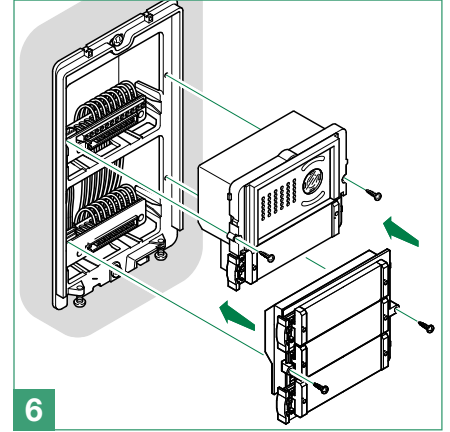
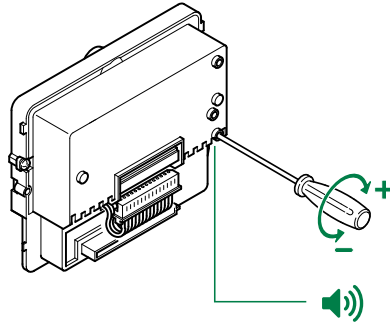


Connect the module support frame to earth.





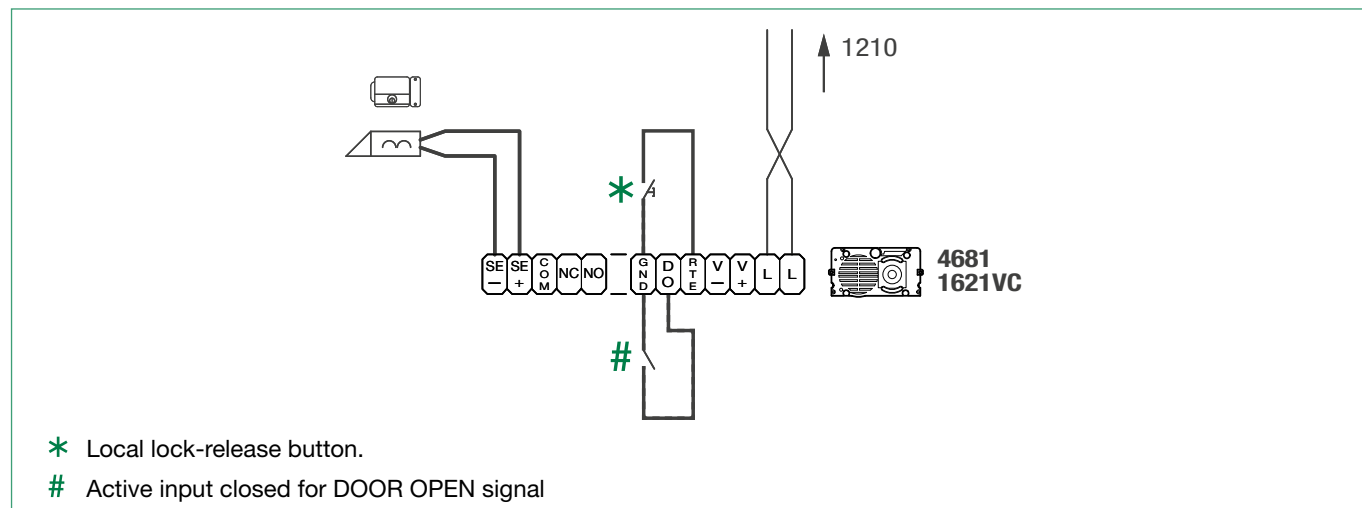
Nameplate LED lighting selection.



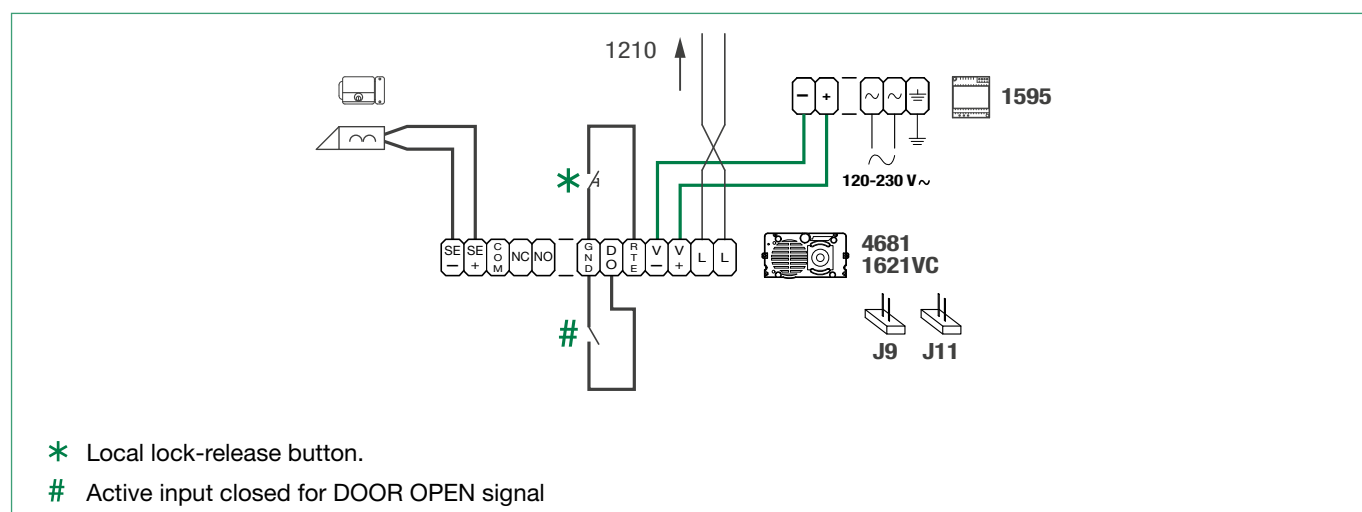
7 close

Connections

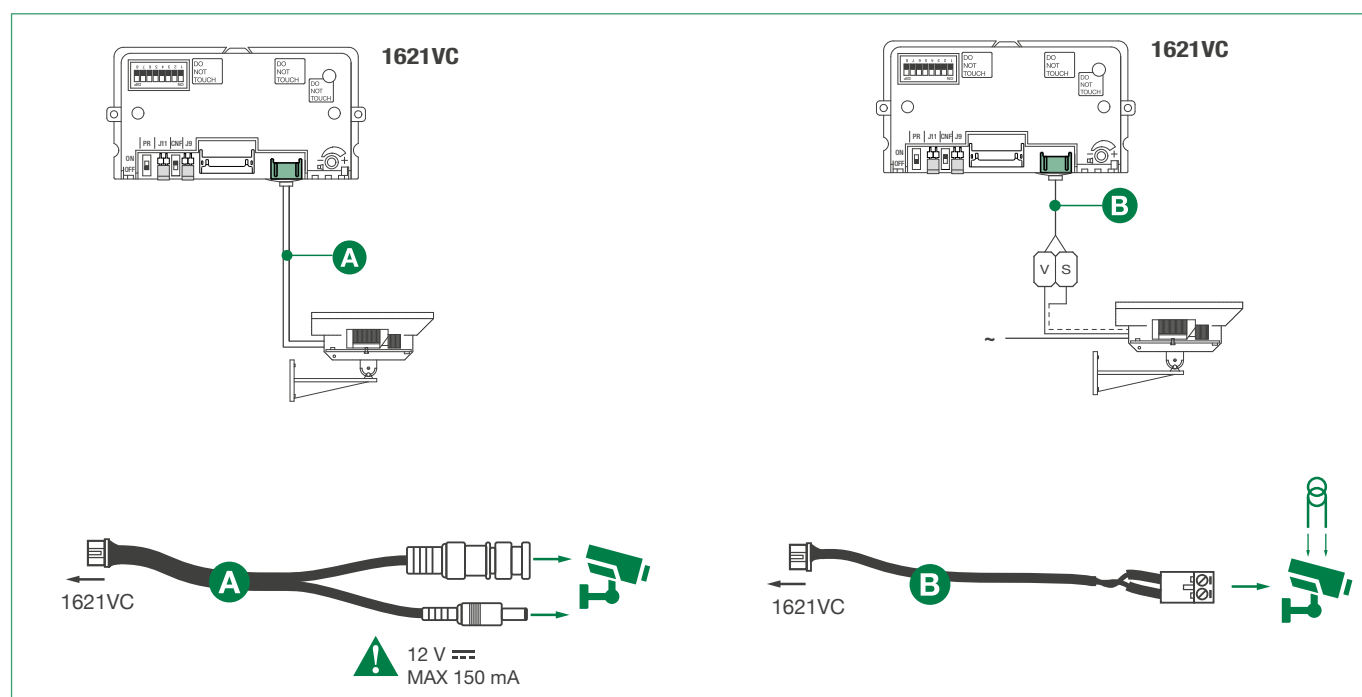
4681, 1621VC connections



4681, 1621VC connections with separate power supply



Remote camera connection (Art. 1621VC only)



Variants

Variant for using the external unit relay

“C.NC.NO relay activation on actuator command: 2 sec”

Set dip switches in permanent mode as shown in figure (Dip switch 8 ON, Dip switches 1,2,3,4,5,6,7 OFF)

Variant for using a safety lock

JP1

On C. NO contacts.

On C. NC contacts.

Excluded: voltage-free contact

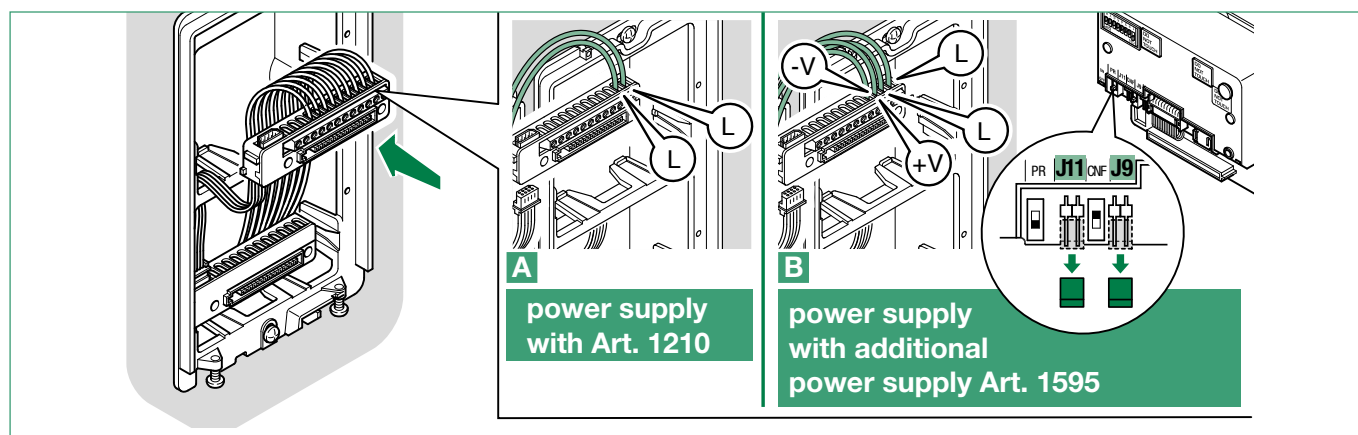
Module connection

On systems with Art. 4681/1621VC and power supply unit Art. 1210, the maximum current available for the external unit modules is 100 mA.



Calculate the total power consumption of the modules in your system configuration using the Consumption table.

If the total power consumption exceeds 100 mA, connect a supplementary power supply unit (Art. 1595) to the V+ and V- contacts of the external unit, as shown in the figure below (see [“4681, 1621VC connections with separate power supply”](#)). In any case, the total absorption must be lower than 500 mA.

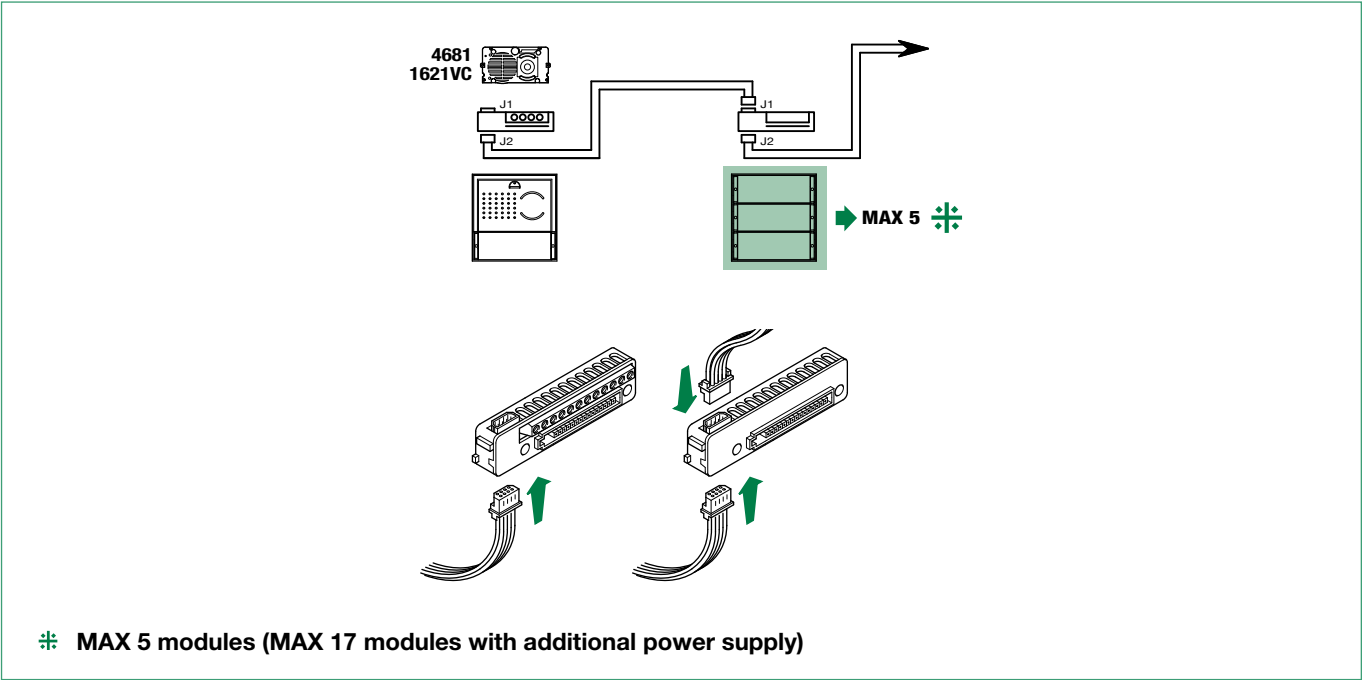


External unit module consumption table

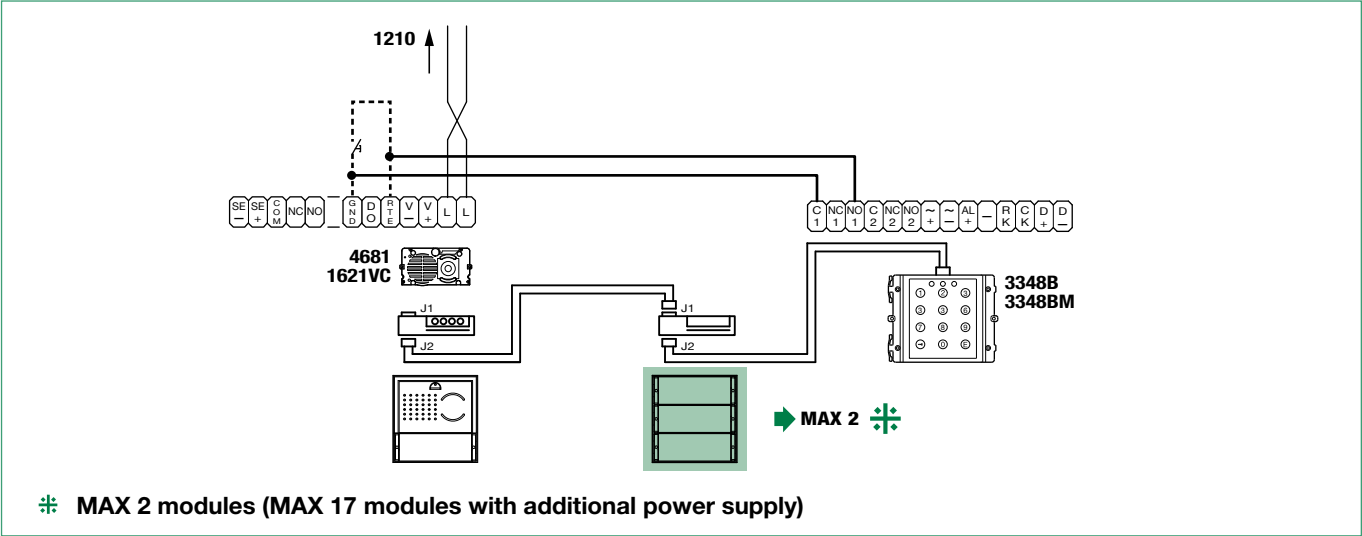
Code		Consumption
<i>Ikall and Ikall Metal modules</i>		
33433 / 33434 / 33436		20mA
33433M / 33434M / 33436M		20mA
3336 / 3336M		20mA
3339M		20mA
3348B		30mA
3348BM	with 1 bistable relay active	60mA
	with 2 bistable relays active	80mA
3360B		45mA
3060BM		45mA
3332 / 3332M		20mA
<i>Vandalcom modules</i>		
3262S/1/2 / 3268S/1/2 (con Art. 1172B)		8 mA
3064S (con Art. 1172B)		16 mA
3070S		only with 1595
3072S		only with 1595
<i>Modules for Single-plate external unit</i>		
3063D		8mA
1172B LED bulb		8mA
<i>Simplekey modules</i>		
SK9000I		50mA
SK9001I		50mA
ACM/R		60mA
ACM/500-2		60mA

Ikal / Ikal Metal modules

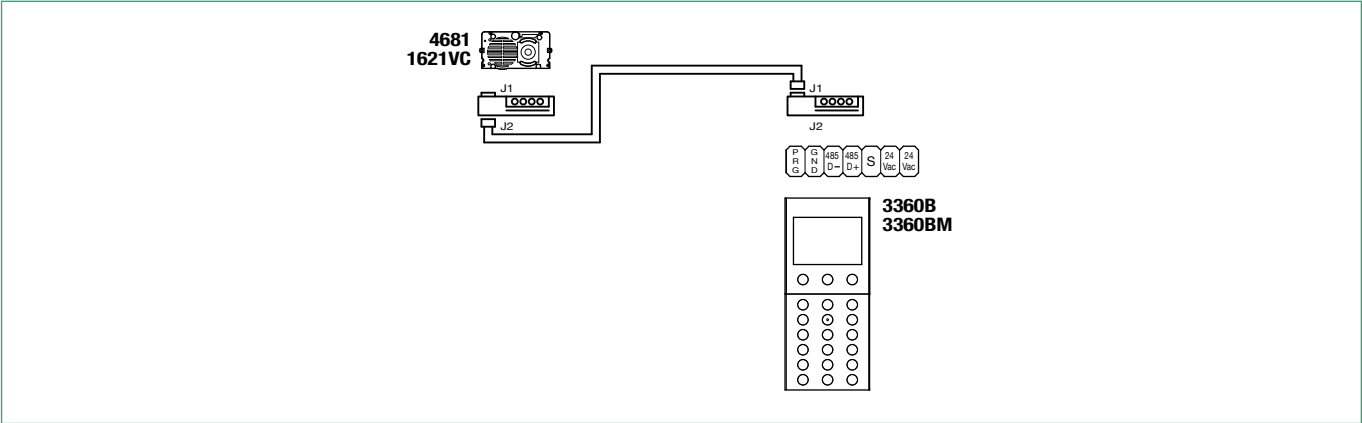
Connection of button modules 33433, 33434, 33436, 33433M, 33434M, 33436M



Connection of Art. 3348B, 3348BM

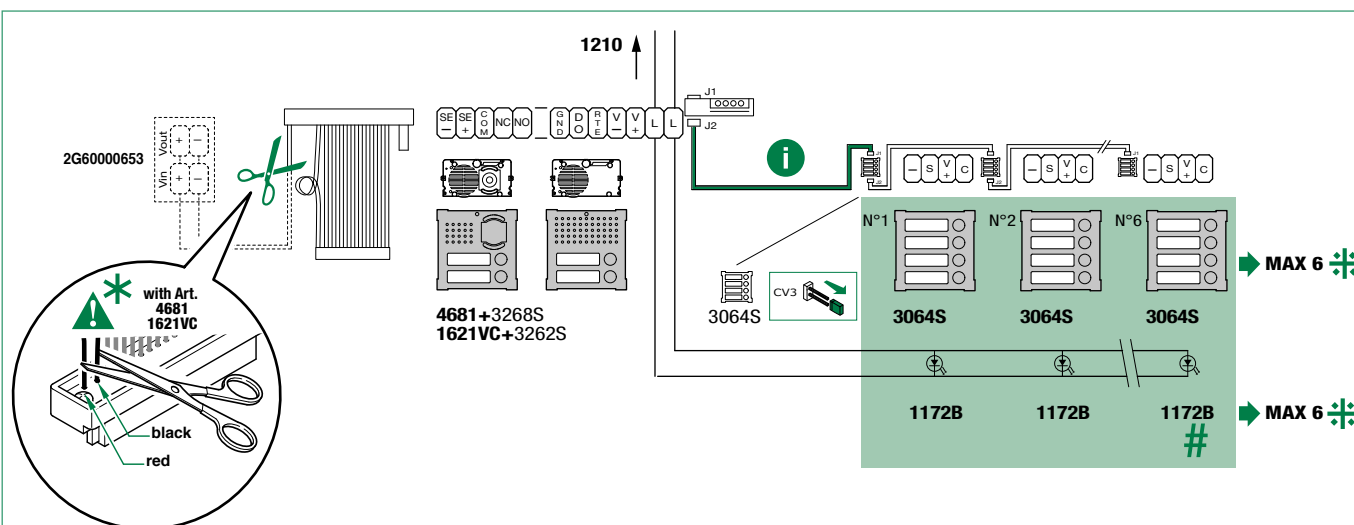


Connection of Art. 3360B, 3360BM



Vandalcom modules

Connection of Art. 3064S and Art. 1172B



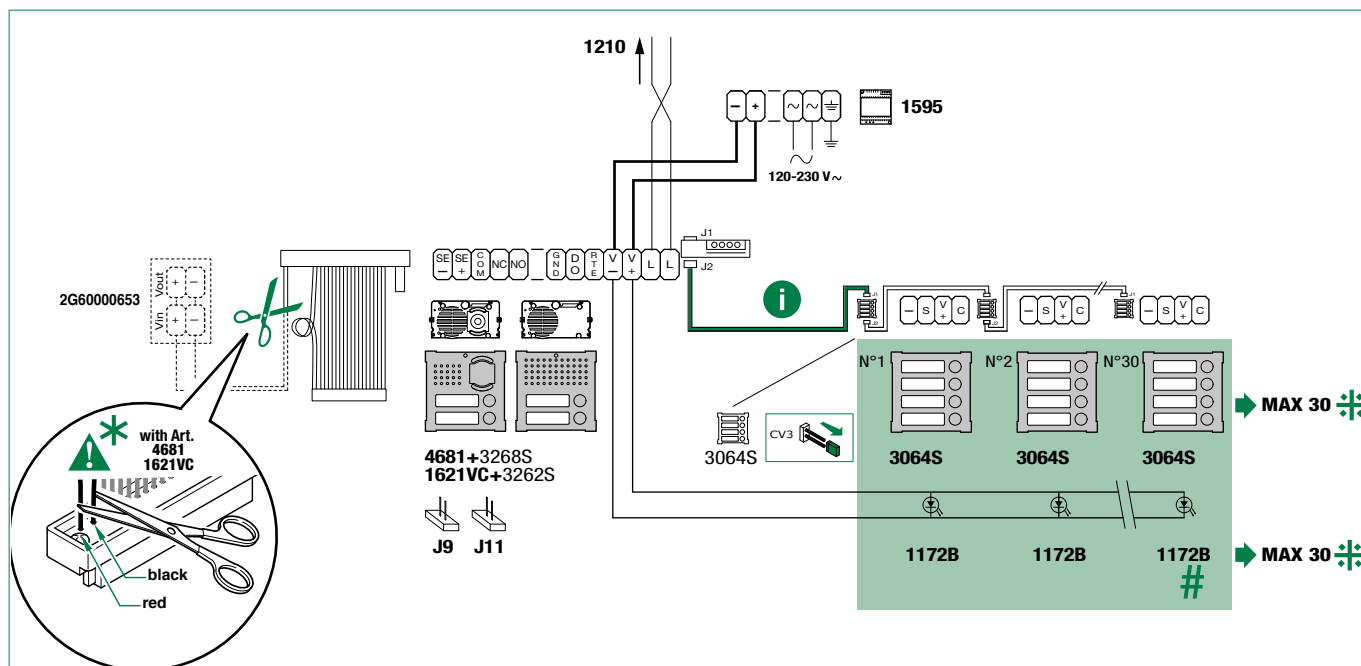
i Use the cable supplied with Art. 3262S, 3268S

* Insulate the cables after cutting them

⚡ MAX 6 Art. 3064S plus up to 6 Art. 1172B

Use bulb Art. 1172B for nameplate lighting. The bulb is polarised.

Connection of Art. 3064S and Art. 1172B with additional power supply



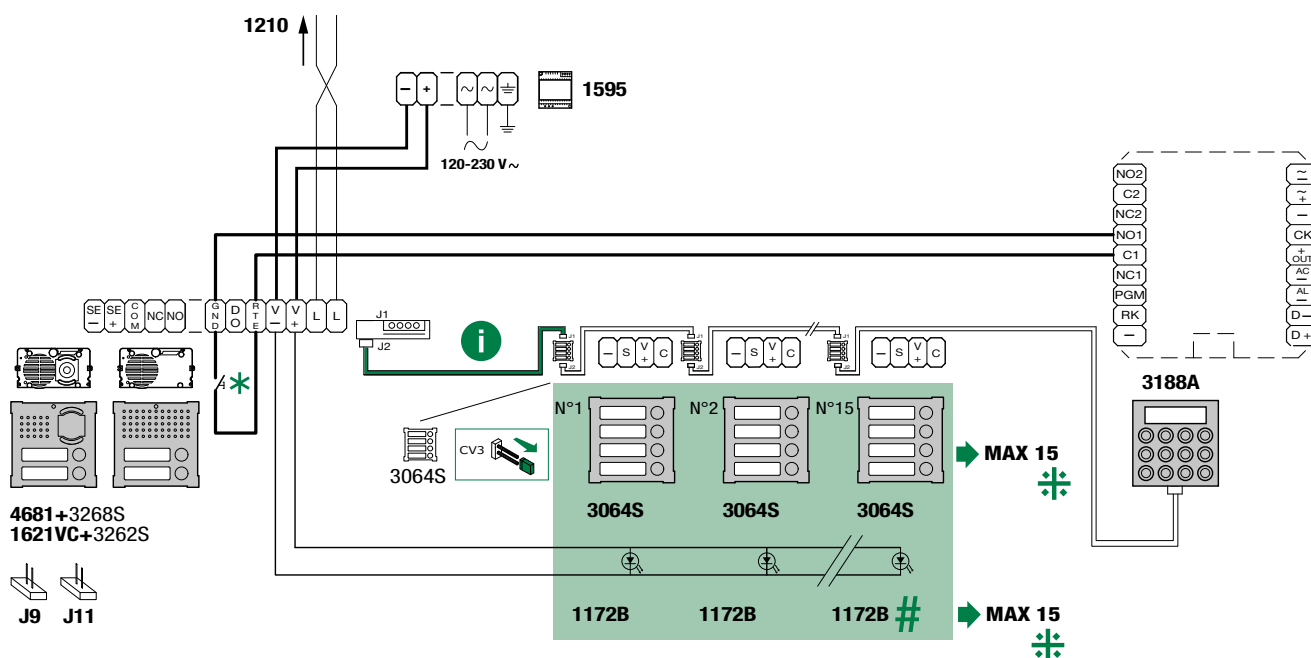
i Use the cable supplied with Art. 3262S, 3268S

* Insulate the cables after cutting them

⚡ MAX 30 Art. 3064S plus up to 30 Art. 1172B

Use bulb Art. 1172B for nameplate lighting. The bulb is polarised.

Connection of Art. 3188A

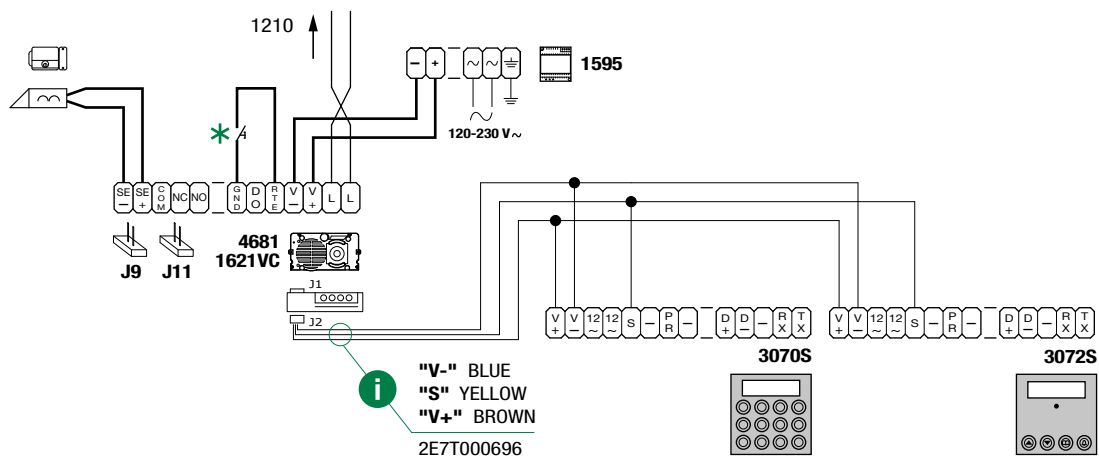


 **Use the cable supplied with Art. 3262S, Art. 3268S**

* Local lock-release button.

✦ **MAX 15.**

Connection of Art. 3070S, 3072S



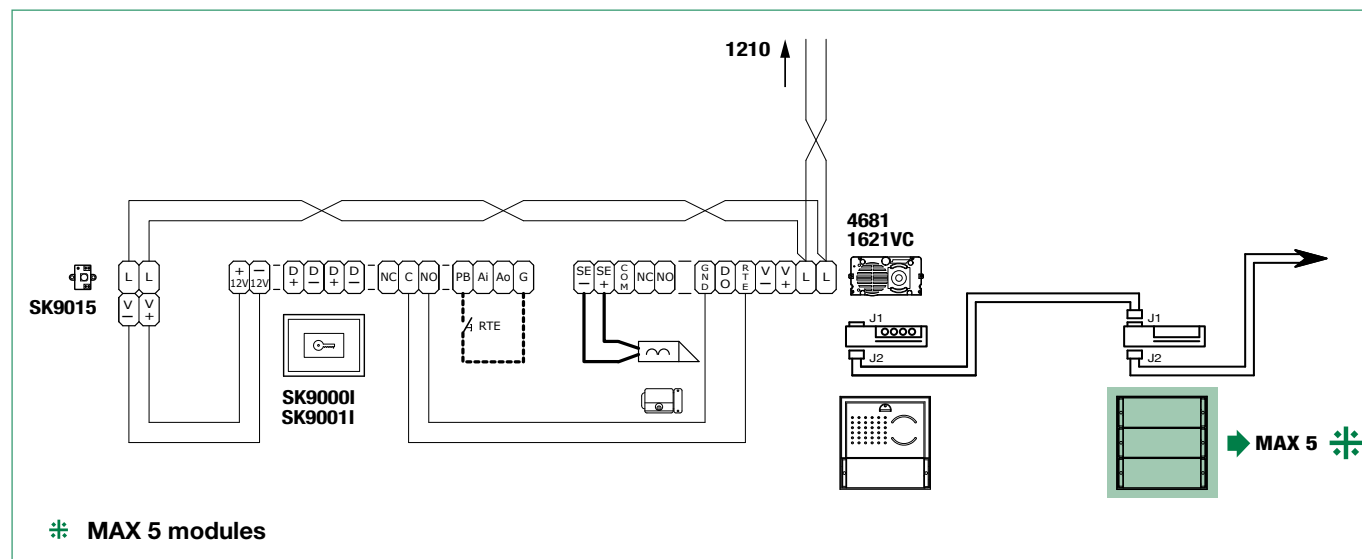
i Use the cable 2E7T000696 supplied with Art. 3070S and Art. 3072S

- * **Local lock-release button.**

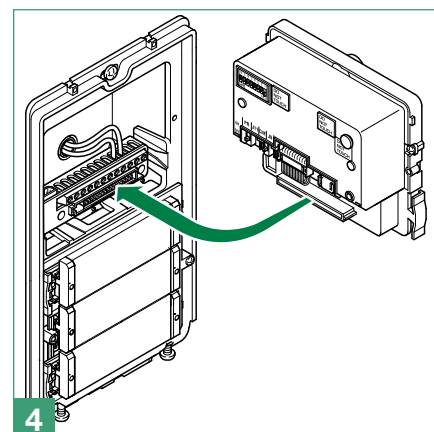
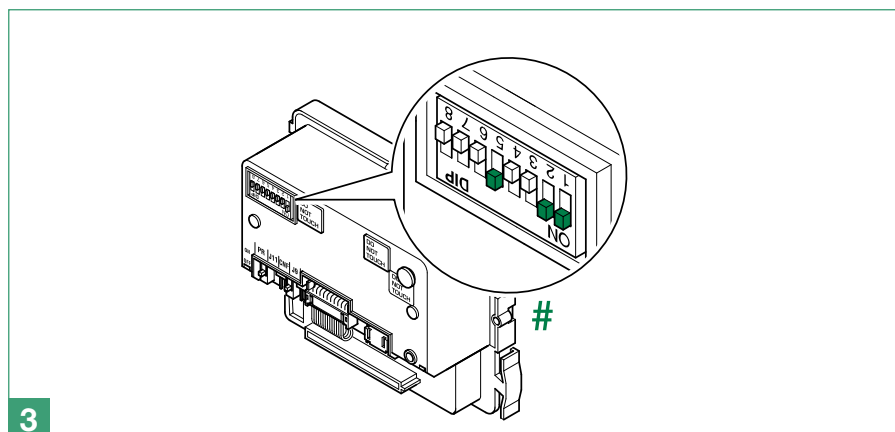
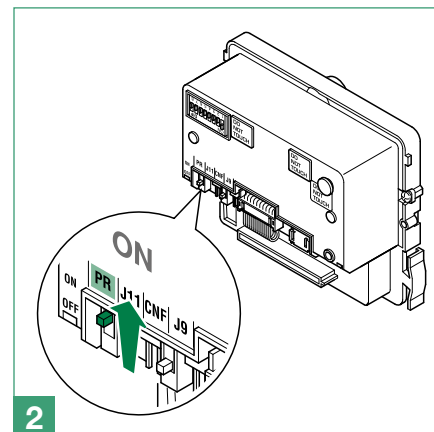
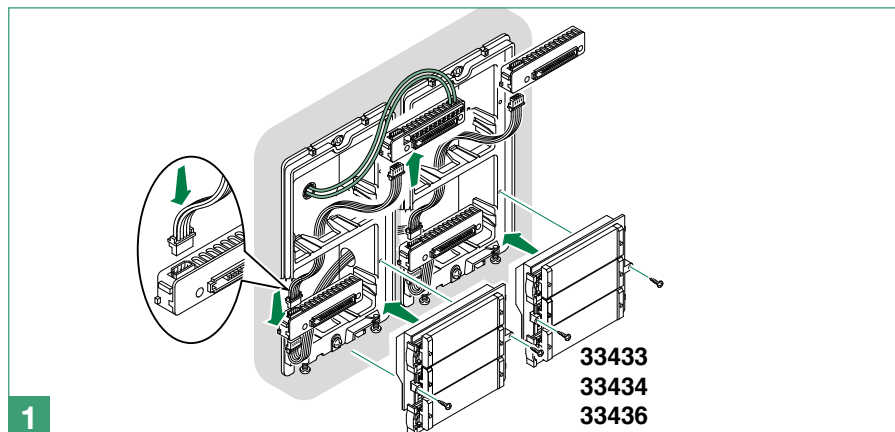
[illegible][illegible]

Simplekey modules

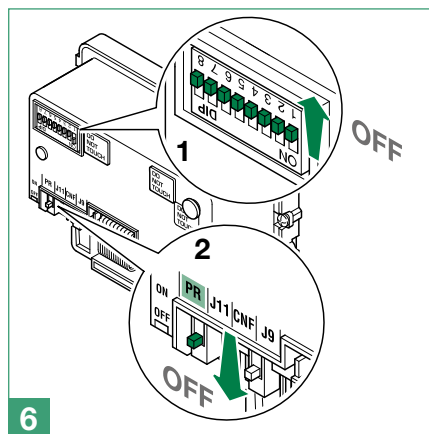
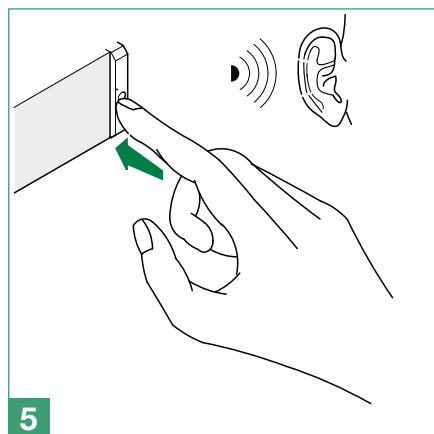
Connection with Art. SK9015 for connection of readers Art. SK9000I and Art. SK9001I



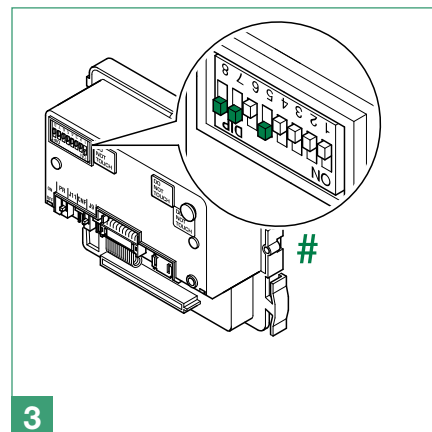
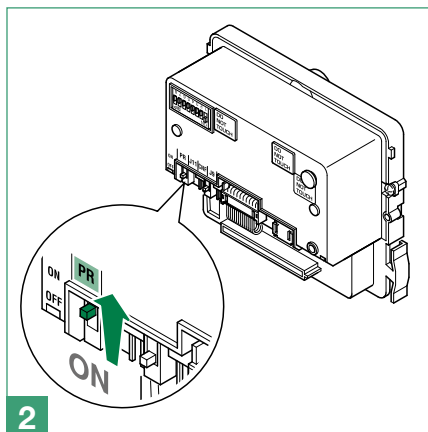
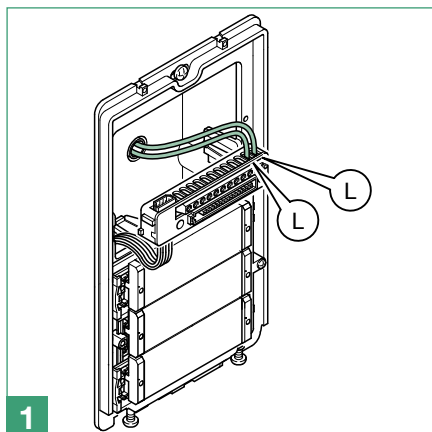
Button programming



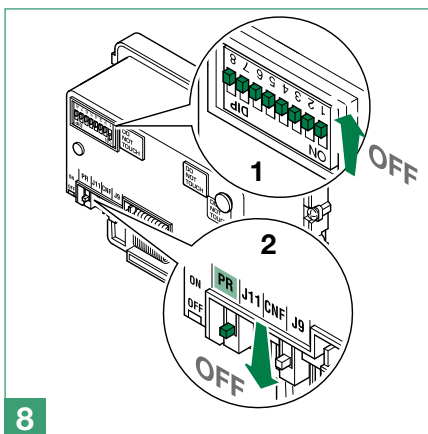
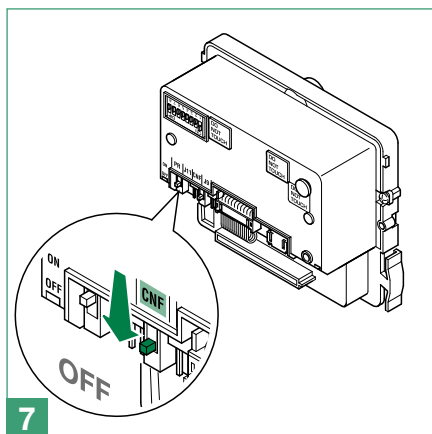
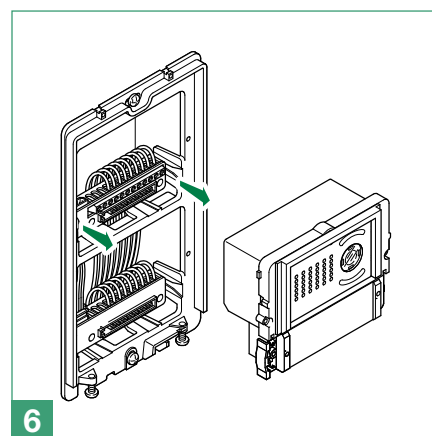
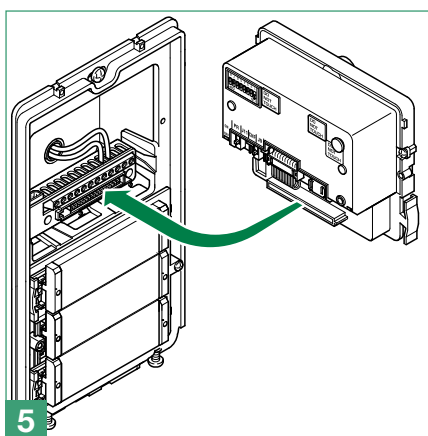
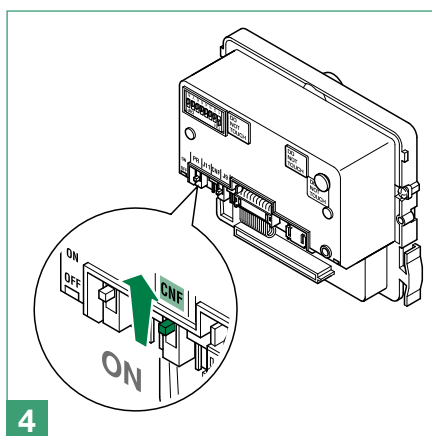
Set the user code using the dip switches; see [addressing table](#).



Special programmes



Set the dip switches for the function you wish to program, see the [table](#)



CODE	DIP SWITCHES ON	FUNCTIONS
		De-misting heating element
213	1,3,5,7,8	OFF (default)
212	3,5,7,8	ON
		Audio-visual messages
195	1,2,7,8	Hebrew
196	3,7,8	Polish
197	1,3,7,8	Catalan
198	2,3,7,8	Galician
199	1,2,3,7,8	Basque
206	2,3,4,7,8	Danish
207	1,2,3,4,7,8	Norwegian
211	1,2,5,7,8	Swedish
215	1,2,3,5,7,8	Italian
216	4,5,7,8	French
217	1,4,5,7,8	Spanish
218	2,4,5,7,8	Dutch
219	1,2,4,5,7,8	Greek
220	3,4,5,7,8	English
221	1,3,4,5,7,8	German
222	2,3,4,5,7,8	Portuguese
202	2,4,7,8	Enables voice message (door opened warning) when the RTE contact is closed
203	1,2,4,7,8	Disables voice message (door opened warning) when the RTE contact is closed (default setting)
210	2,5,7,8	Visual messages only
214	2,3,5,7,8	OFF (default)
		Actuator command management N.B. Art. 1256 in generic actuator mode must not be present in the system.
227	1,2,6,7,8	Actuator function on S serial line = enabled
228	3,6,7,8	Actuator function on S serial line = disabled (default)
229	1,3,6,7,8	C.NC.NO relay activation on actuator command: 2 sec
230	2,3,6,7,8	C.NC.NO relay activation on actuator command: 4 sec
231	1,2,3,6,7,8	C.NC.NO relay activation on actuator command: 8 sec
		Door lock
245	1,3,5,6,7,8	Door lock time: 2 sec + disabling tone (default)
246	2,3,5,6,7,8	Door lock time: 4 sec
247	1,2,3,5,6,7,8	Door lock time: 8 sec
248	4,5,6,7,8	Door lock confirmation tone: enabled
251	1,2,4,5,6,7,8	Relay C.NC.NO in parallel to SE (default)
252	3,4,5,6,7,8	Lock-release always enabled (default)
253	1,3,4,5,6,7,8	Lock-release only enabled for user called
		System functions
232	4,6,7,8	Awaiting response time: 60 sec (default)
233	1,4,6,7,8	Awaiting response time: 120 sec
234	2,4,6,7,8	Awaiting response time: 30 sec

235	1,2,4,6,7,8	Talk time: 90 sec. (default)
236	3,4,6,7,8	Talk time: 180 sec
237	1,3,4,6,7,8	Self-ignition: enabled (default)
238	2,3,4,6,7,8	Self-ignition: disabled
239	1,2,3,4,6,7,8	Confirmation tone on user call = enabled (default)
240	5,6,7,8	Confirmation tone on user call = disabled
243	1,2,5,6,7,8	Awaiting reset time: 10 sec (default)
244	3,5,6,7,8	Awaiting reset time: 1 sec
208	5,7,8	Enables "Reset wait time" on lock-release command (default)
209	1,5,7,8	Disables "awaiting reset time" on lock-release command (awaiting response time or talk time will be activated)
249	1,4,5,6,7,8	Call transmission: single (default)
250	2,4,5,6,7,8	Call transmission: triple
		System mode
0		Simplebus (default)
255	1,2,3,4,5,6,7,8	Simplebus Top (NO Art. 4681/4)
254	2,3,4,5,6,7,8	Restore default

Installation information

- The module Art. 4681 / Art. 1621VC operates by default as a main external unit (timed busy signal). To set it as a secondary external unit (busy signal active for the whole time the riser is in use), set all the selector DIP switches to ON.
- When a call is transmitted from the external unit, if a busy tone is heard instead of the ringtone, this means communication with another external unit is in progress.

System performance and layouts

For further information of system performance and to view installation layouts, click on the type of system that best meets your needs:

- [Building Kit audio/video system](#) for the creation of audio-video systems for *small apartment blocks*



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