Manuals+ — User Manuals Simplified.

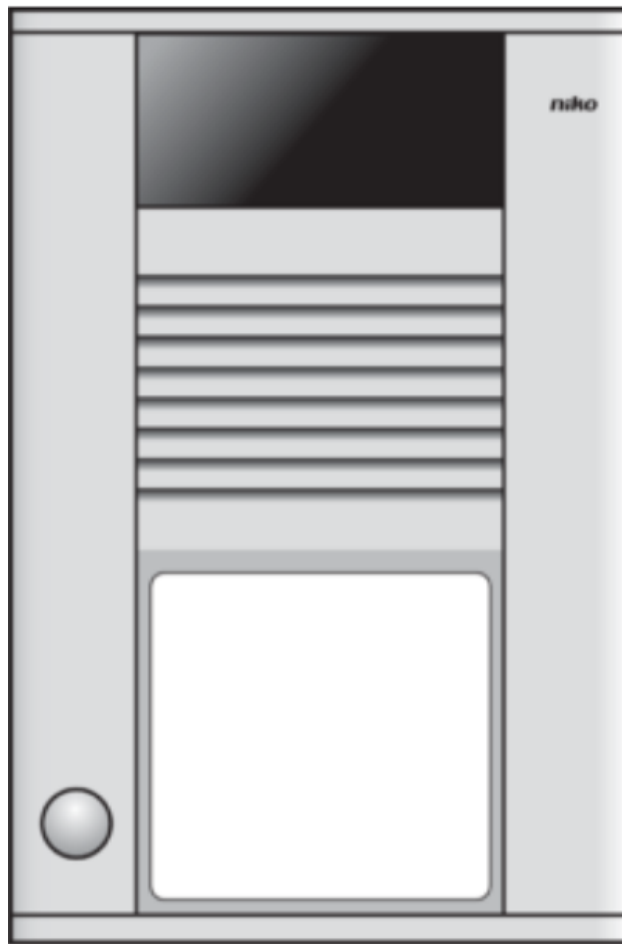# niko 10-30X Video External Unit Instruction Manual

Contents

niko 10-30X Video External Unit

Product Information

The product is a video intercom system with the model numbers 10-30X, 10-31X, and 10-32X. It consists of various components, including an in-wall box, camera, speaker, key opening, connector for service device, mounting screws, microphone, nameplate, EEPROM memory, potentiometers for speaker and microphone, and name cards. The video intercom system requires a 5-wire connection and it is recommended to use twisted cables for optimal video quality. The diameter of the cable's wires determines the maximum distance between the power source and the video intercom.

There are different power options depending on the number of indoor and outdoor units. The recommended power supplies are 10-806 (for up to 3 indoor video units without parallel operation or splitters) and 10-801 & 10-805-01 (for more than 3 indoor video units). For detailed installations, it is advised to contact Niko.

Product Usage Instructions

1. Do not install the video intercom system while it is under power. Connect the device to the power source only after complete installation.
2. Anchor the in-wall box to the wall at a height of 160 to 170 cm from the ground for the camera.
3. Remove the vandal-resistant nameplate.
4. Connect the cables to the detachable screw connector at the back of the device according to the connection diagram on page 5.
5. Attach the outdoor unit to the in-wall box. Do not seal the device with silicone or any other sealant as condensation water should be able to drain.
6. Fill in the supplied blank name cards and slide them behind the white plastic film of the nameplate.
7. Place the nameplate back into the outdoor unit.

To adjust the volume at the outdoor unit, there are two potentiometers located under the nameplate. One controls the speaker volume, and the other controls the microphone volume at the indoor unit.

The default programmed times for the system are as follows: speaking time after starting a conversation (maximum 2 minutes), duration of active camera image (80 seconds), duration of signaled call from an outdoor unit (2 minutes). For maintenance and troubleshooting, check the presence of specific voltages using a multimeter. Refer to the manual for instructions on resolving common issues such as negative tone when pressing the call button or distorted and unrecognizable video image.

Read the complete manual before carrying out the installation and activating the system.

DESCRIPTION

This video external unit from the Access Control Standard range is a standard part of a system with one or more internal units and a power supply. More information on how the product is integrated into a complete system can be found in the technical catalogue. The external unit is a flush-mounted unit and as such has an ultra flat and elegant appearance. Depending on the type ordered, the external unit has 1 to 24 bell push-buttons, arranged vertically in one, two or three columns. All types are described in the table under 'Technical data'. The external unit is provided with a camera and an adjustable microphone and loudspeaker. All programming is stored on a removable EEPROM. It also has a continuously illuminated vandalproof nameplate.

PARTS

Basic components
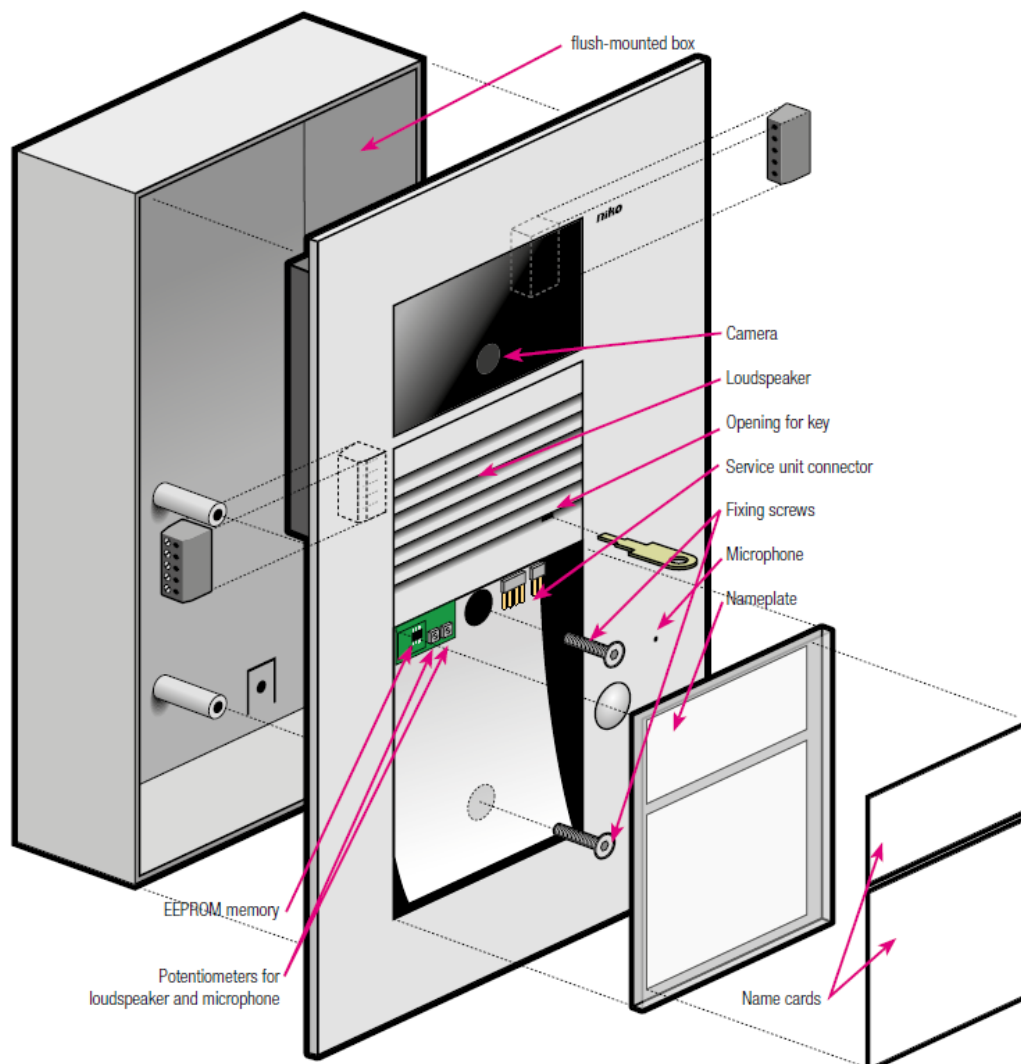
Additional accessories

The video external unit uses 5-wire cabling. Use a twisted cable for optimum quality of the video image. Also pay attention to the diameter of the conductors in the cable as it will determine the maximum distance that can be bridged between the power supply and the video external unit.

Niko recommends the use of the following cables for installation of the video external unit:

- JYSTY (-F2) min. 3 x 2 x 0.8mm (max. distance 200m);
- TVVF (-F2) min. 3 x 2 x 0.8mm (max. distance 200m);
- TPVF min. 3 x 2 x 0.6mm (max. distance 100m);
- UTP/FTP/STP 4 x 2 x 0.5mm (max. distance 70m).

Function of the wires to be connected:

- **terminals a & b:** communication bus (24 VDC)
- **terminals V1 & V2:** video signal
- **terminal P (& b):** extra power supply (26 VDC)

Power supply to be used:

| Power supply	Max # video internal units	Max # video external units	Max # intercom internal units	Max # intercom external units
10-806	3 (no parallel operation, no splitters)	1	3	1
10-801 & 10-805-01	>3	>1	>3	>1

Note

- 1 DC voltage power supply 10-805-01 is used for every 30 video monitors
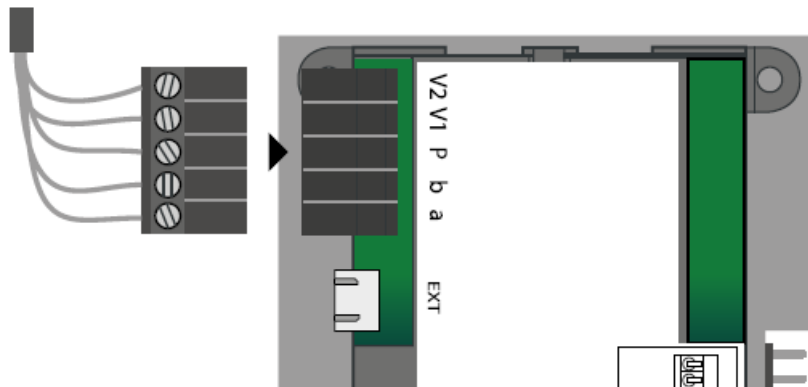- for large systems, contact Niko

MOUNTING

Note: Disconnect all power before installing the video external unit. Do not connect the unit to the power supply until installation is complete.

1. Anchor the flush mounting box in the wall. The recommended installation height for the camera is 160 to 170 cm from the ground.
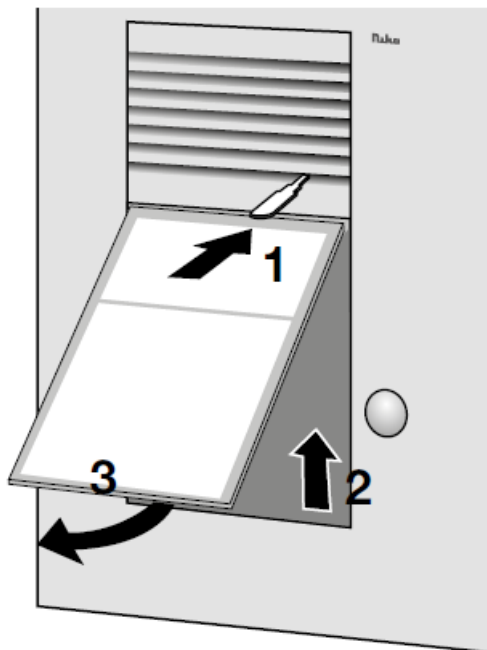
2. Remove the vandalproof nameplate.

3. Connect the cabling to the removable screw connector at the rear of the unit as shown on the wiring diagram.
   - **Note:** In a single system, use the same colour code for the same terminals (a, b, P, …) for all products of the Access Control Standard range.
4. Mount the external unit on the flush mounting box.
   - Do not seal the appliance with silicone or any other sealer. Any condensation water must be able to drain out.
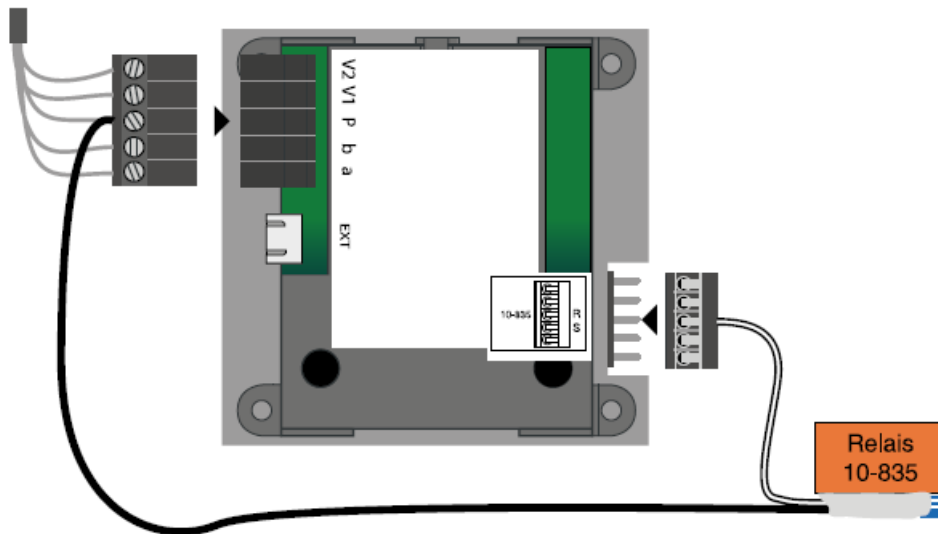5. You can fill out the provided blank namecards and insert them behind the white plastic foil of the nameplate.
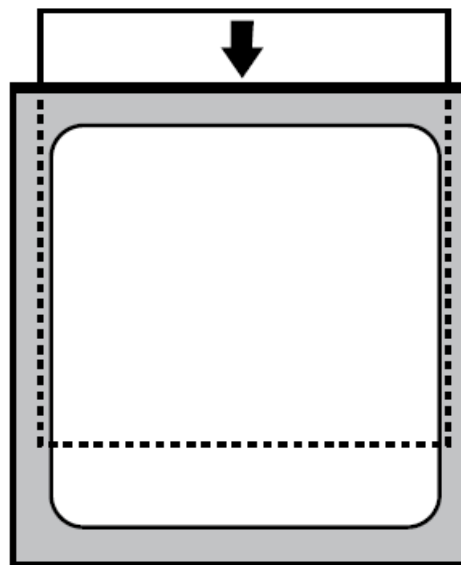
6. Reinsert the nameplate into the external unit.

Connecting an extra door opener relay

A door opener relay can optionally be connected to the external unit between terminals R and P. This relay must be present in the following cases:

- if several external units are used
- if the external unit is to be provided with a local door opener contact

PROGRAMMING and OPERATION

Programming the bell push-button

- Programming of the bell push-buttons is described in detail in the manual of the system power supply (10-801, 10-802 or 10-806) or of the service unit (10-870).
- If you use the service unit, tear off the serial number to be found behind the nameplate under the white foil of the video external unit or the packing box, and stick it on the installation diagram.
- You can program up to 2 internal units in the memory location of each bell push-button. If you want to program more internal units, you will need to apply master-slave progamming to the internal units, as described in the service unit or internal unit manual.
- A non-programmed bell push-button will switch the light relay of the power supply.

General operation

- If everything has been connected correctly and power up is applied, the LED of the external unit will light up.
- When picking up the receiver of an internal unit, communication with the external unit should be possible at all times.

If you press a:

- Non-programmed bell push-button, you will hear a high beep and the light relay of the power supply is operated.
- Programmed bell push-button, you will hear the bell ringing at the external and the internal unit. The image of

the visitor is displayed on the video internal unit.

Adjusting the volume on the external unit

There are 2 potentiometers under the nameplate with which you can adjust the volume on the external unit.

- potentiometer for loudspeaker (volume on external unit)
- potentiometer for microphone (volume on internal unit)

Setting times

By default, the following times are programmed:

- Speech time after initiating a call…………………………………………. Max 2min
- Time that the camera image remains active……………………………. 80sec
- Time that a call from an external unit remains indicated…………… 2min

You can also set other times via

- the power supply. For more information on programming via the power supply, see manual of the power supply.
- the service unit. For more information on programming via the service unit, see manual of the service unit (10-870).
- the relay

MAINTENANCE

With the following maintenance tips Niko wants to prevent the surface of your product being damaged due to improper handling.
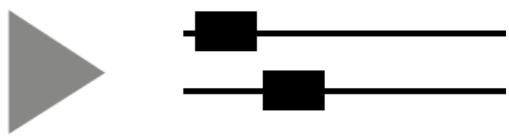
- Clean the product with a little soap and a damp cloth.
- Never use:
  - abrasive sponges or abrasive detergents;
  - maintenance products that contain solvents or acids, or cleaning products containing acetic acid.
  - Damage by improper handling is not covered by the guarantee.

TROUBLESHOOTING

Using a multimeter, first check whether the following voltages are present:

- between b and a: …………………………….. approx. +24 VDC
- between b and P: …………………………… approx. +24 VDC
- between M and P: …………………………… approx. +24 VDC
- between b and V1 or V2: …………………… approx. +5 VDC

○ (b or M = mass)

Problem	Cause	Check and/or remedy
negative tone when pressing the bell push-button	programming error or associated internal unit not installed correctly	Erase programming and re program
	Installation in programming mode	Quit programming mode
speech & function (e.g. door opener function) are OK, but there is no image	The internal or external unit receives no power.	Check cabling on power supply, internal and external unit with the wiring diagram.
Image completely distorted and unrecognisable, striping	V1 / V2 reversed	Reverse conductors.

If the external unit needs to be replaced, you can exchange the EEPROMs of the units, so that the programming is retained.

TECHNICAL DATA

Operating temperature	-20°C to 50°C
Front plate material	Aluminium (3mm)
Flush mounting box material	Galvanized steel
Nameplate	5mm thick acryl glass
Current consumption external unit	Active I(P)= 155mA; passive I(P)=140mA
Camera	CMOS Sensor 380 lines Light sensitivity 0 lux (IR on); 1 lux (IR off) Focus f=2.0mm F 2.5 Diagonal opening angle: 130° Video output: 1Vpp, symmetrical; 1Vss FBAS

Dimensions of external unit /Dimensions of flush mounting box

Reference	# bell push-buttons	# columns	h (mm)	w (mm)	d (mm)	h (mm)	w (mm)	d (mm)
10-301	1	1	252	150	3	203	126	40
10-302	2	1	252	150	3	203	126	40
10-303	3	1	252	150	3	203	126	40
10-304	4	1	252	150	3	203	126	40
10-306	6	1	296	150	3	247	126	40
10-308	8	1	340	150	3	291	126	40
10-310	10	2	274	274	3	225	250	40
10-312	12	2	296	274	3	247	250	40
10-314	14	2	318	274	3	269	250	40
10-316	16	2	340	274	3	291	250	40
10-318	18	3	296	398	3	247	374	40
10-321	21	3	318	398	3	269	374	40
10-324	24	3	340	398	3	291	374	40

WARNINGS REGARDING INSTALLATION

The installation of products that will permanently be part of the electrical installation and which include dangerous voltages, shallbe carried out by a qualified installer and in accordance with the applicable regulations. This user manual must be presented tothe user. It should be included in the electrical installation file and it should be passed on to any new owners. Additional copies are available on the Niko website or via Niko customer services.
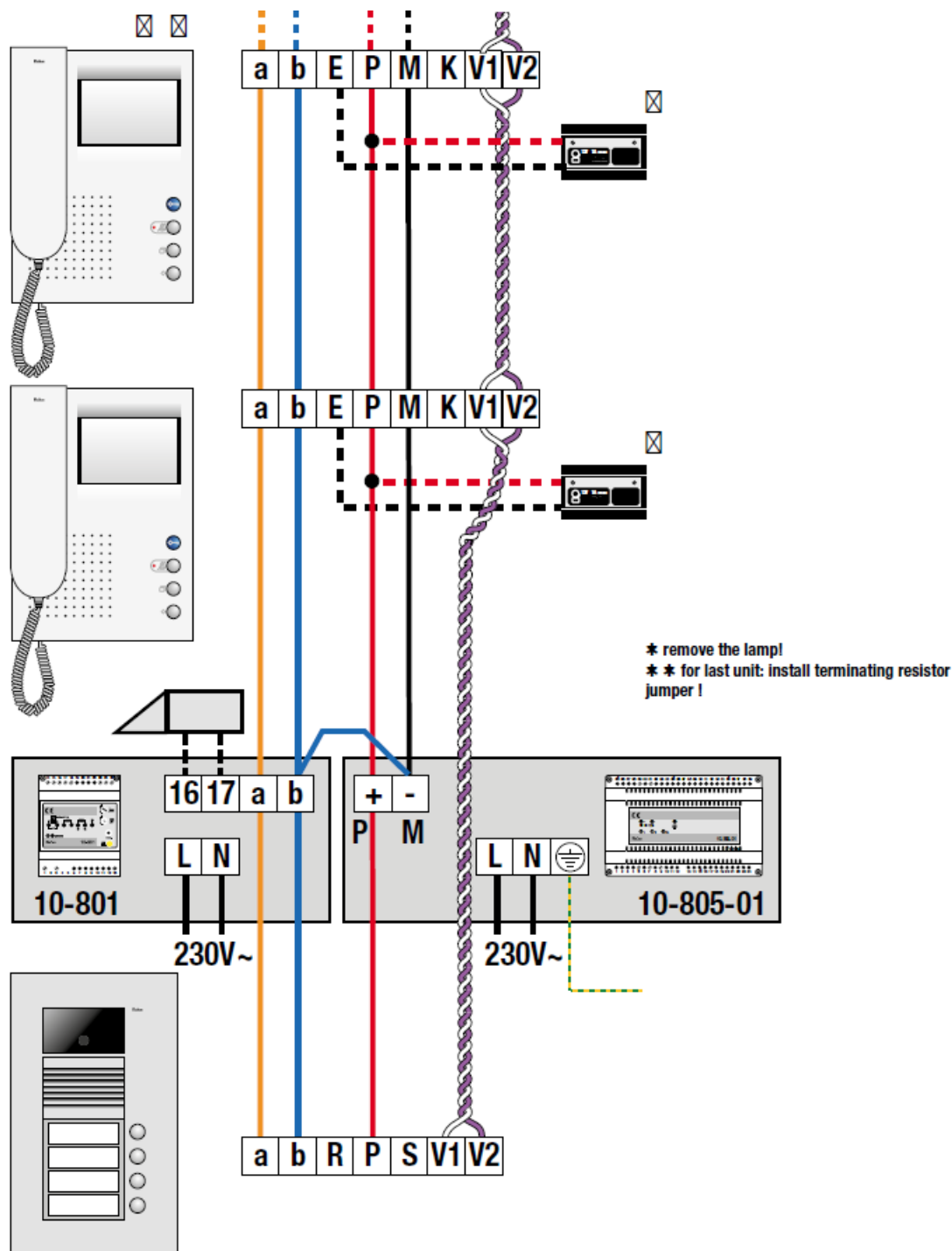
CE-MARKING

This product complies with all of the relevant European guidelines and regulations. For radio equipment Niko nv declares that the radio equipment in this manual conforms with the 2014/53/EU directive. If applicable, the full text of the EU Declaration of Conformity can be found on **www.niko.eu**.

ENVIRONMENT

This product and/or the batteries provided cannot be deposited in non-recyclable waste. Take your discarded product to a recognised collection point. Just like producers and importers, you too play an important role in the promotion of sorting, recycling and reuse of discarded electrical and electronic equipment. To finance the rubbish collection and waste treatment, the government levies recycling charges in certain cases (included in the price of this product).

WIRING DIAGRAM

* remove the lamp!
** for last unit: install terminating resistor jumper !

| a | b | E | P | M | K | V1 | V2 |

| a | b | E | P | M | K | V1 | V2 |

| 16 | 17 | a | b |

| + | - |
| P | M |

| L | N |

10-801

230V~

| L | N | ⏚ |

10-805-01

230V~

| a | b | R | P | S | V1 | V2 |

SUPPORT & CONTACT

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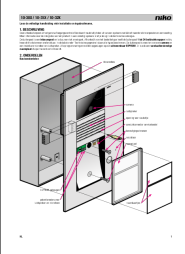- **support@niko.eu**

DISCLAIMER

Niko prepares its manuals with the greatest care and strives to make them as complete, correct and up-to-date as possible. Nevertheless, some deficiencies may subsist. Niko cannot be held responsible for this, other than within the legal limits. Please inform us of any deficiencies in the manuals by contacting Niko customer services at **support@niko.eu**.

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Documents / Resources

niko 10-30X Video External Unit [pdf] Instruction Manual
10-30X, 10-31X, 10-32X, 10-30X Video External Unit, Video External Unit, External Unit

References

- **⚑ Niko - home automation, switches, socket outlets and detector**