



Video door phone set

Bastion Orion II

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1. Safety of operation and maintenance

- Before installing and using the video door phone, read the assembly and operating manual.
- Electrical installation should be made in accordance with PN-IEC 60364-1 standard by an authorized person.
- Electrical installation should be made in such a way as to prevent exposure to direct lightning discharge.
- Video door phone elements should be used as intended. Using video door phone elements for other purposes, including with equipment other than specified in the manual or connecting them in other manner than prescribed by the manufacturer may lead to their damage, fire or electric shock.
- Do not cover the openings in the monitor housings.
- Do not insert any metal items in the openings in the monitor housing and the feeder as it may lead to electric shock or fire.
- The external panel should be installed in a place with low noise level.
- Video door phone elements should be connected to an electrical installation when the feeder is disconnected from the power network.

2. Purpose and characteristic of video door phone

- Video door phone Bastion Orion II is designed for single family houses, companies, institutions and service providers.
- Two monitors may be connected to the external panel.
- **To one calling button in panel you can connect two monitors. External panel have two calling button.**
- The video doorphone is a hands-free device featuring a colour display. The half-duplex voice communication requires no manual channel switching: the direction is switched by voice.
- The external panel is mounted in wall.
- The panel is equipped with a colour camera and a LED display facilitating viewing visitors' faces at night.

3. Elements of Apus II video door phone set:

Monitor MVC-7002

This is a hands-free (loudspeaking) monitor with a 5.8" colour display with brightness, saturation and volume adjustment, turning on the camera view and triggering the door release.

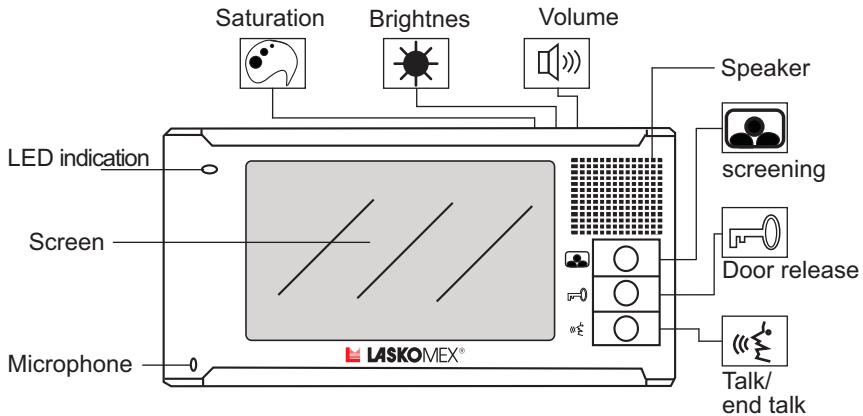
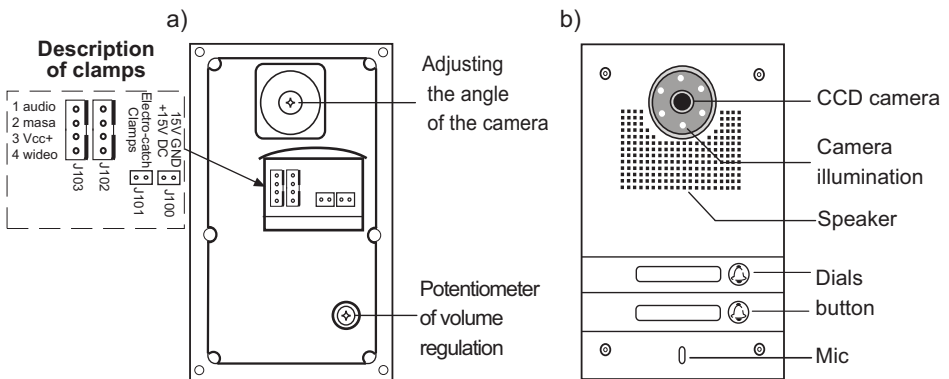


Fig 1. MVC-7002 video monitor

BVC-7002 outdoor panel

A vandal-proof stainless steel panel with a colour camera, camera illuminator, speaker, microphone and calling button. The camera position can be adjusted both horizontally and vertically. The panel is flush-mounted and equipped with a door strike relay activated on pressing the monitor button.



Rys 2. External panel BVC-7002: a) behind, b) front c) **Description of clamps**

KSAD 1500120W1EU or GP005E-150-100 power adapted

A 15V DC/1.2A or 15V DC/1A power adapter with IP40 protection grade. One of them supplies power to the monitor and second supplies powers to the outdoor panel.

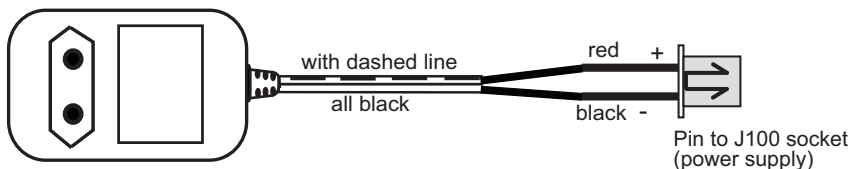


Fig. 3. KSAD 1500120W1EU or GP005E-150-100 power adapter

The package also includes:

- monitor holding bracket
- mounting screws
- wires with connectors necessary to connect the kit

Additional components **not included** in the basic kit:

Electro-catch

Electro-catch of 12V AC/1A max. should be used in the video door phone. While selecting the electro-catch, take into account the mechanical build and type (left or right) of the door or gate to be blocked. Electro-catch of Openers&Closers company may be used (technical details at: www.laskomex.com.pl).

Feeder to electro-catch

ACV feeder: 12V AC/800 mA to mount on a DIN rail. Used to power to electro-catch.

4. Before the assembly**Specify the places where video door phone elements are to be mounted.**

- Mount the monitor in a place not exposed to strong light (e.g. close to the lamp, window etc.) as it may obstruct viewing image on the screen.
- Do not mount the monitor in place where it could be exposed to humidity e.g. in bathrooms.
- Do not mount the monitor near the sources of strong electromagnetic interference (wiring, TV sets etc.)
- Do not mount the monitor in heating sources - stoves, radiators etc.
- The external panel should be mounted in such a place that the camera lens is not directed to light source (sun, strong lamp post) because it will significantly obstruct or prevent viewing the visitors' faces.
- The image on the screen depends on the height the panel is mounted at. The recommended height is ca. 150 cm. Such height allows for viewing the face of an adult of average height standing ca. 50 cm from the panel. The assembly height should be determined on a trial basis.
- Do not mount the external panel at the distance exceeding 100 m from monitor (with

the appropriate cable sections).

- Mount the feeder inside, in a place not exposed to humidity.
- The above recommendations relate to both the monitor feeder and door strike feeder. The door strike feeder may be mounted near the external panel (e.g. in the installation box of fence pillar).

Electric installation of video door phone.

Elements of video door phone may be connected with any cable with section meeting the requirements specified in Table 1.

Coaxial cable 75Ω should be used to transmit video signal. The coaxial cable should be connected as presented in Figure 7.

The maximum distance between the external panel and the monitor should not exceed 100 m.

To put down in the ground and outside the room it is necessary to use the damp-proof cables. The number of wires in the cables is shown on the single line diagram (fig. 4).

NOTE: It is necessary to pay special attention on quality of connection's wires and also on proper isolation of every connection especially when weather conditions appears. It is recommended to use hermetic cable box and shrink wrap in the place of joint the wires.

Maladjustment to those recommendation may lead to the impropriety activity of the door phone set.

Connection		Distance		
		<20m	<50m	<100m
outdoor station - monitor	+Vcc,masa,audio	0,2mm ²	0,44mm ²	0,75mm ²
	video	Coaxial cable		
monitor - monitor	+Vcc,masa,audio	0,2mm ²	_____	
	video	Coaxial cable	_____	
power adapter - outdoor station, power adapter - monitor		1mm ²	1.5mm ²	_____
Power adapter - 230V		maximum 4m,		1mm ²

Table 1. Minimum cable section according to the distance between door phone elements

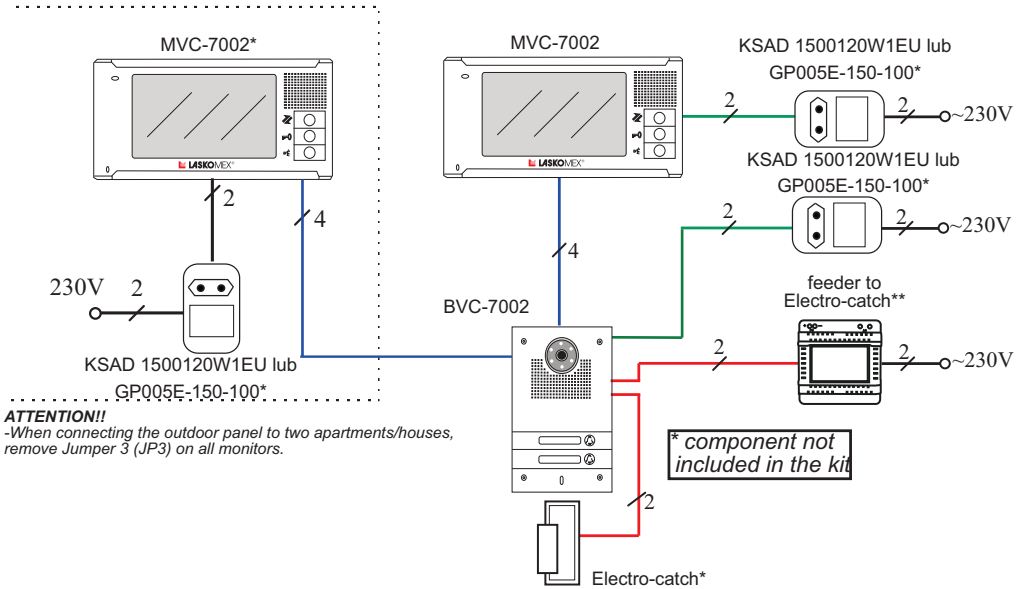


Figure 4. Connection of Orion II video door phone - single line diagram.

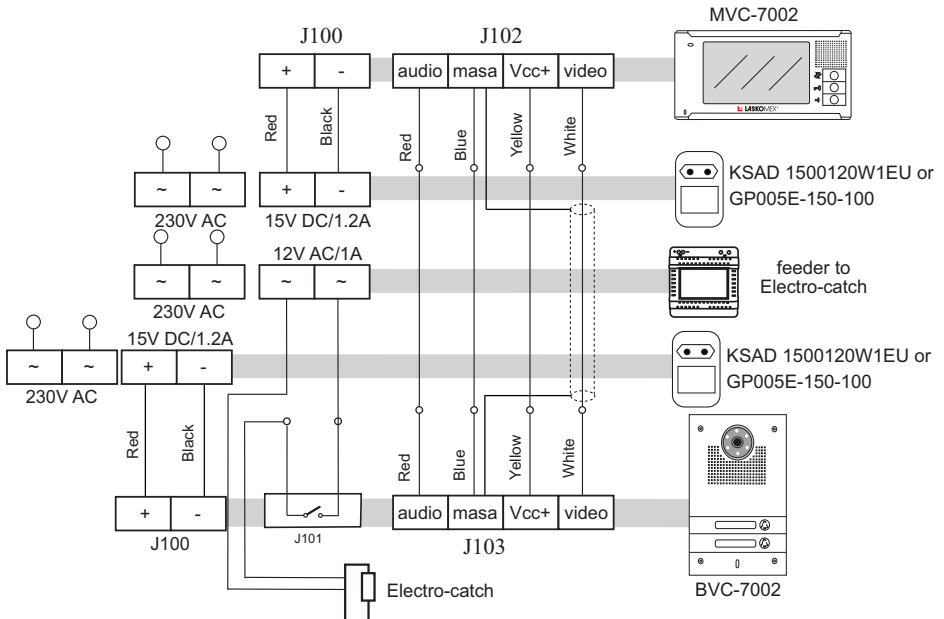
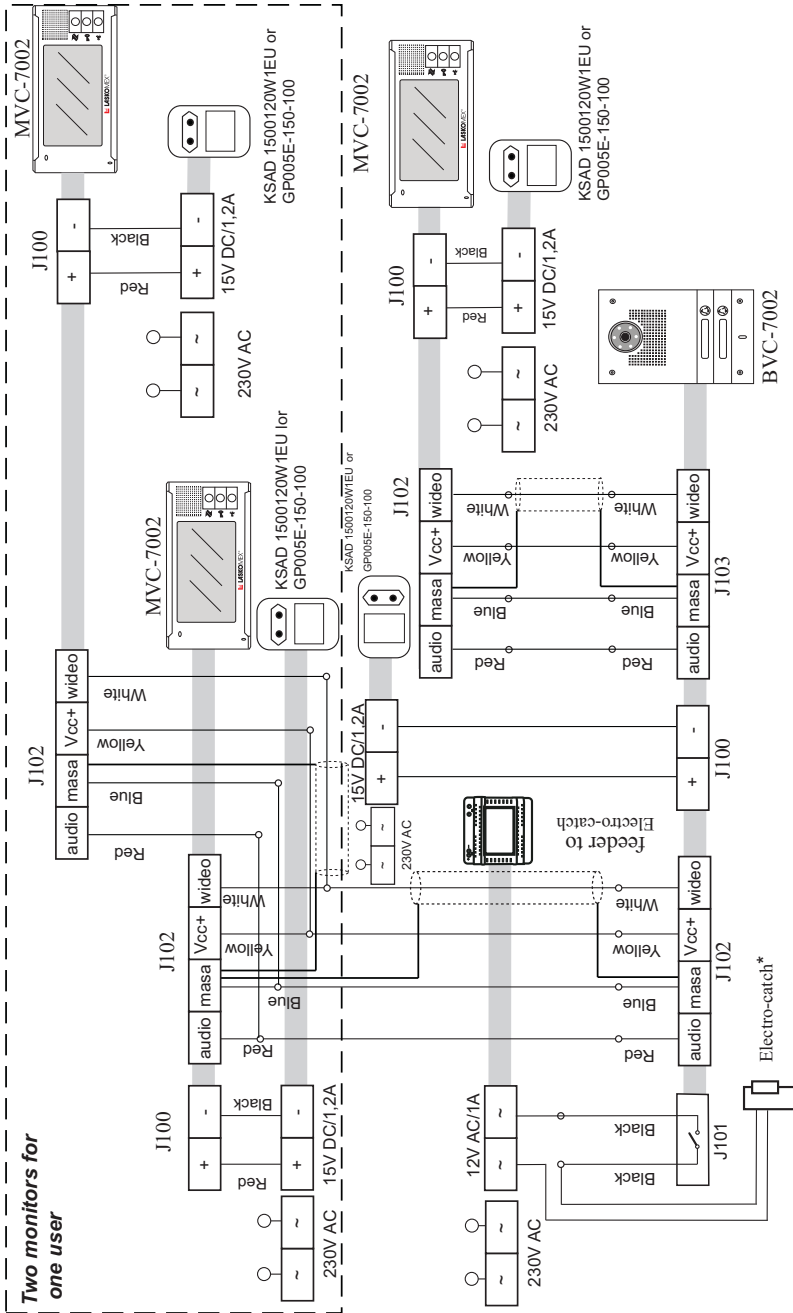


Figure 5. Block diagram of connecting elements of Orion II video door phone



ATTENTION!!
 -When connecting the outdoor panel to two apartments/houses, remove Jumper 3 (JP3) on all monitors.

Fig. 6. Block diagram of connections between the Orion II video doorphone kit components and the additional monitor

5. Installing and connecting the video doorphone components

Installing and connecting the MVC-7002 monitor

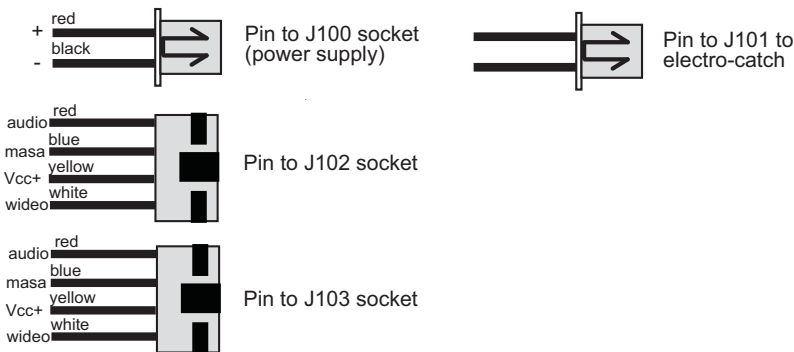
For easier installation, all the wires of the video doorphone can be run to a standard cable box installed in the wall. Once mounted, the monitor should cover the whole box. This will make it easier to install and mount the monitor.

- The monitor is mounted on a metal holding bracket fixed to the wall. To fix the bracket, place it against the wall in the intended place of installation and mark holes for rawl plugs.
- Drill the holes as marked and fix the bracket to the wall using rawl plugs.
- Connect the wires to the J102 socket connector provided with the kit, as shown in the diagram, by soldering them to the wiring system. Protect all soldered connections and isolated portions of the wires against short-circuit with a shrinking sleeve or insulating tape. Plug the connectors to the sockets.
- Mount the monitor on the holding bracket.

Installing and connecting the additional monitor

For connecting two MVC-7002 monitors to a single outdoor panel, run a separate power supply (J100 socket) to the additional monitor and connect the two monitors. See Figure 4, 5 and 6. Set jumper JP2 in the last most remote monitor from external panel.

JP2 - Matching impedance to the coaxial cable.



Rys 7. Connectors in MVC-7002 monitor

Installing and connecting the BVC-7002 panel.

- Unscrew the screws holding the panel to the casing.
- Place the casing at the intended place of installation, make a 242x112x46 mm cut-out in the wall, and run the wires of the wiring system to the cut-out (see Fig. 8b). The camera lens should be placed at a height of approx. 150 cm (see Fig. 8a).
- Make a circular hole in the casing, pull the wiring system cable through the hole and affix the casing to the cut-out in the wall (Fig. 8c).
- Connect the wires as shown in the diagram. Solder the coloured wires going from the outdoor panel (see Figure 2 and 5) to the wiring system of the phone. Protect all soldered connections and isolated portions of the wires against short-circuit with a shrinking sleeve or insulating tape.

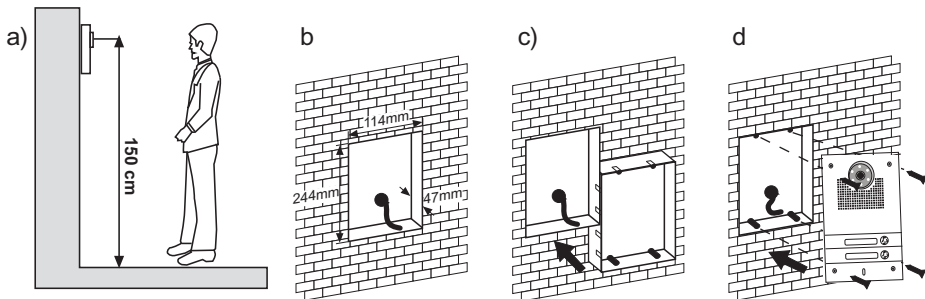


Fig. 8. Outdoor panel installation

Installing and connecting the power adapter

The wire marked with a grey dotted line is plus, and the solid white one is minus – see Fig. 3. The wires should be connected according to the connection diagram.



Fig 9. Power socket connector of the J100 monitor

Installing and connecting the door release

The door release is controlled by the relay in the outdoor panel and must be powered from a AC power adapter.


Install the door release in the gate or the entrance door according to the manufacturer's recommendations. Then proceed to connect the wires in the outdoor panel (two black wires), power adapter wires and the door release, as shown in the connection diagram (see Figures 5, 6).


6. Video doorphone operation


- The upper calling button controls the J103 socket in the panel, and the lower button controls the J102 socket.
- Pressing the calling button on the outdoor panel triggers a calling signal in the monitor and switches on the camera view (if the additional monitor has been installed, the camera view will display on both monitors).
- To switch on voice communication, press the button «☎» (talk, see Fig. 1). In two-monitor installations, if voice communication has been established by one of the monitors, the other one will switch off after approx. 1 minute.
- If voice communication is not activated after the calling, the monitor will automatically switch off after approx. 1 minute.

- The talk time is limited to approx. 120 seconds, after which the phone will automatically hang up.

- To hang up, press the button «☎» (talk) again.
- The door release can be activated at any time during the conversation by pressing the button «☎» on the monitor. The release continues while the button remains pressed.
- The camera view on the monitor can be switched on at any moment by pressing the

button  (view). Pressing the button again will switch the view to the next entrance, and pressing the button yet again will switch off the camera view.

- sequential operation. To activate voice communication in the camera view mode, press the button  (talk).

- To accept a redirected call, press the button  (talk).

- The MVC-7002 monitor features controls for volume, brightness and colour saturation adjustment (see Fig. 1).

7. Video doorphone maintenance

Components of the video doorphone should be cleaned with a wet cloth or with cleaning agents designed for plastics.

ATTENTION!

Do not use solvents or abrasive cleaners, as they can result in permanent damage to the surface of the casing! Avoid any contact of doorphone components with water or cleaning agents, as this might result in damaging the device and electric shock!

8. Technical data

Monitor MVC-7002

Screen size	5,8"
Dimension	220x110x28mm
Supply voltage	15V DC/0.8A
Operation temperature	0°C...40°C

BVC-7002 external panel

Dimension	250x120x50mm
Operation temperature	-20°C...55°C
Degree of protection	IP55
Supply voltage	15V DC/0.12A
Angle of view vertical/horizon	82°, 62°
Angle adjustment	+/- 15° horizon, +/-10° vertical

Power supply

	1500120W1EU or
Input voltage	230V AC
Output voltage	15V DC/1,2A max.
Dimension	81x43x67mm
Operation temperature	0°C...40°C
Degree of protection	IP40

GP005E-150-100

Input voltage	230V AC
Output voltage	15V/1A
Dimension	81x43x67mm
Operation temperature	0°C...40°C
Degree of protection	IP40

INSTRUCTION ON ENVIRONMENT PROTECTION

This product was marked with a symbol of crossed dustbin according to European Directive 2002/96/WE on used electric and electronic equipment. Used equipment cannot be placed with other wastes from households. Product user is obliged to give it to the firm which collects used electronic or electric equipment such as local collection points, shops, places appointed by the producer or commune waste collection units.



List of collecting units of used Laskomex equipment is available on www.laskomex.com.pl website or telephone No. 42 671 88 68.

Product packing should be removed according to environment protection regulations.

Remember!

Selective collection and recycling of used electronic and electric equipment considerably contributes to the protection of human health and life as well as protection of natural environment.

Return of packaging materials for the material recycling saves raw materials and reduces generating of wastes.