LASKOMEX®

Installation and activation
MVC-6850

1. Monitor use

MVC-6850 is a monitor with receiver operating in DUPLEX system – it is not required to press any pushbuttons to carry on the conversation.
Monitor MVC-6850 is dedicated to digital entry phone systems produced by Laskomex (CD-2501, CD-2502 and CD-3100). It also co-operates with floor panels with color camera which work in Commax analog system.
A colour camera can be used alternatively with floor panel; its power demand should not exceed 250mA at supply voltage 12V DC (CAM2).
Monitor can control gate drive by short circuit the external terminal to the ground.

2. Installation of monitor

Monitor should be installed inside the building at a height ensuring comfortable use by all users. In a place where the monitor will be installed a metal frame should be mounted by means of strut pegs and screws (elements delivered with standard equipment).
Connecting wires should be routed through a cutout in the mounting frame center. Then wires should be connected to appropriate terminals in the backside of monitor.
Finally, the monitor should be hung on the frame and pulled downwards to protect it against falling down.

Monitor should be connected with power supply cut off!

Prior to monitor hanging the number should be programmed – description below in item 4.

Monitor can be supplied directly from individual power supply adaptor **13,5V DC/1A** (dwg.5) or from video signal distributor CVR-2 to which central feeder is connected **15V DC/4A** (dwg.4).
Central feeder enables supplying distributor CVR-2 and 4 monitors connected to its outputs.

Lengths and diameters of wires between distributor CVR-2 and monitor supplied centrally are shown in table 1. At a distance longer than 30m individual monitor power supply adaptors should be used. Then the requirements applying to audio and video line wires given in service instruction for CD system should be met.
It is recommended to use spiral wires UTP cat.5.

Terminal	Distance	
	<15m	<30m
L+,L-,C+,C-	0,5mm	
GS,VS	0,5mm	2x0,5mm

Table 1 Minimal wires diameters depending on distance between
CVR-2 and monitor supplied centrally

Diagram showing connection of the monitor to CD system and floor panel (or alternatively colour camera) is presented in dwg. 4 and 5, location of function pushbuttons - in fig. 1 and arrangement of receptacles and monitor control elements - in dwg.2.
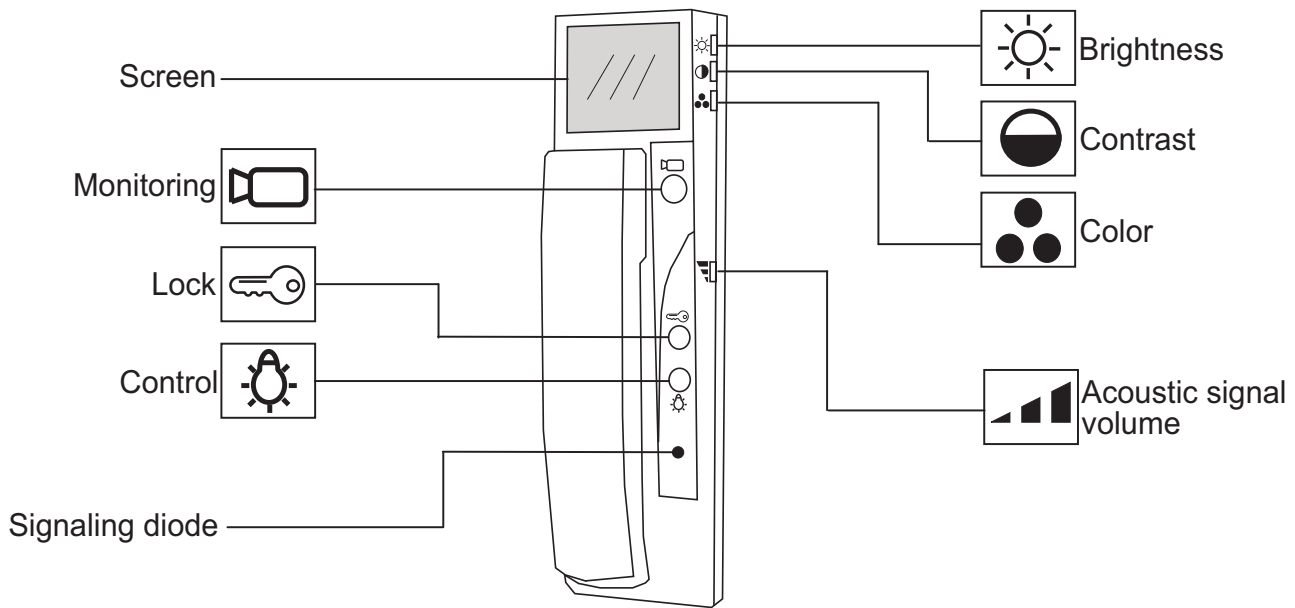
Dwg. 1 MVC-6850 monitor view
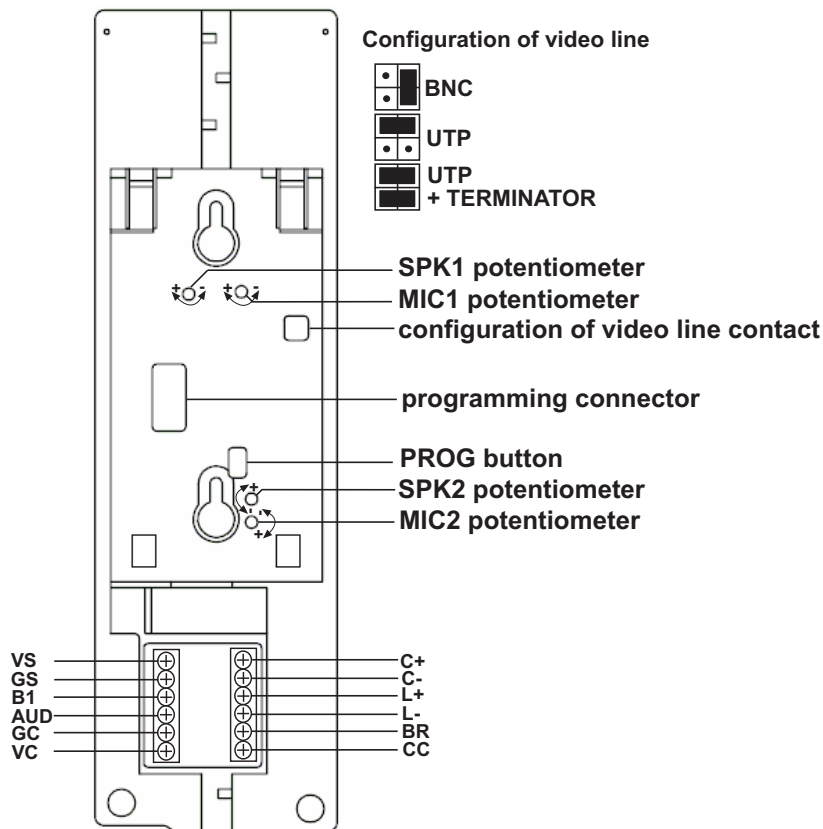
Dwg. 2 MVC-6850 monitor view - backside

Floor panel with color camera working in Commax analog system (not included in the delivered set)

Vandal proof panel with colour camera and integrated light source (LED), loudspeaker, microphone and call pushbutton. In the panel there is transmitter releasing the electro-catch after pressing the pushbutton in the monitor.

1 Red audio

2 Blue GND

3 Yellow +12V

4 White Video 1V p-p
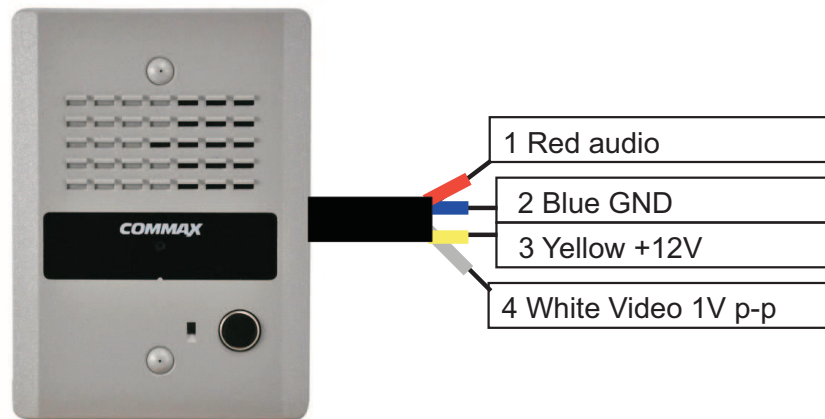
Dwg. 3 Floor panel with color camera, Commax type (DRC-4CG).

Service of "installation procedure" (requires activation in CD system)

During activated monitoring from the camera of CD system and hung up receiver we should press quickly five times pushbutton CONTROL (signalling diode will light also in red) and then pick up the receiver and press pushbutton LOCK. Electronic cassette of CD system will search monitor – after founding it monitor number will be reproduced in the loudspeaker. Sound signals will be generated according to the number of hundreds, tens and unities of the programmed number. Longer break means passing to next digit in the programmed number and longer duration of sound signal means zero value of a given digit.

If pushbutton LOCK is not pressed within 30 sec the procedure will be stopped automatically. After finishing of number reconstruction it is possible to select calling signal for this monitor by sequential pressing pushbutton LOCK; short press of receiver`s hook causes changing calling volume. Four volume modes are possible: quiet, intermediate, loud and increasing (three short signals of increasing frequency).

After having made the changes the receiver should be hung up, then the centre will call back to monitor and the fitter will be able to check the functioning of acoustic track and electro-catch.

3. Gate drive control

Pressing a PROG button causes a short circuit terminal BR to the GND. Two modes of gate drive control are possible - only during conversation and with receiver picked up. To change this mode pushbutton PROG (backside of monitor) should be pressed during pushbutton CONTROL pressed and the receiver hung up. Another pushbutton PROG keystroke switches mode. Actual mode is signalled by signalling diode - green color means gate drive control during conversation and red color means gate drive control with receiver picked up. Gate drive control during conversation is default mode.

It is recommended itself use relay to control any external device. To secure relay against supertension polarized diode should be connected parallel to coil of repeater (see dwg. 4).

CAUTION!!
To terminal BR don't connect any source of voltage!

4. Monitor programming

In standard delivery in each monitor number 63 is programmed. This is a test number and even in apartment 63 it should be programmed again.
Programming should be done directly after monitor connection and before its mounting.

Programming should be done when monitor power supply is on.

Note!
In the monitor apartment numbers within a range 1...255 can be programmed. Programming a number bigger than 255 is not possible. Number "0" should not be programmed! Each such attempt will cause programming of default number "63".

Programming is done by means of pushbuttons: PROG (in the monitor rear part), LOCK and CONTROL as well as two colour LED.
Functions of pushbuttons during programming monitor number:

PROG   - entering programming mode
CONTROL   - entering programmed value
LOCK   - confirmation of entered value, passing to next programming stage

Arrangement of pushbuttons and signalling diode is shown on dwg. 1 and 2.

Programming new number requires the following activities:

4.1. We should press three times pushbutton PROG on a plate in the monitor rear part (see dwg.2) – this should be done within 3 sec. Monitor passes to programming mode which is siganalled by a short flash of LED diode.

4.2. *Setting number of hundreds*. Pushbutton CONTROL should be pressed as many times as there are hundreds in the programmed number (0,1 or 2). Each pressing is signalled by green flashing of LED diode. Then entering number of hundreds should be finished by pressing pushbutton LOCK which will be confirmed by longer flashing of a diode. If the number of hundreds is equal to 0 (programmed number smaller than 100) pushbutton LOCK should be pressed immediately and the next step should be realized – entering the number of tens.

4.3. *Setting number of tens*. Pushbutton CONTROL should be pressed as many times as there are tens in the programmed number (0,1 or 2). Each pressing is signalled by green flashing of LED diode. Then entering number of tens should be finished by pressing pushbutton LOCK which will be confirmed by longer flashing of a diode. If the number of tens is equal to 0 pushbutton LOCK should be pressed immediately and the next step should be realized – entering the number of unities.

4.4. *Setting number of unities.* Pushbutton CONTROL should be pressed as many times as there are unities in the programmed number. Each pressing is signalled by green flashing of LED diode. Then entering number of unities should be finished by pressing pushbutton LOCK which will be confirmed by longer flashing of a diode. If the number of unities is equal to 0 pushbutton LOCK should be pressed immediately.

4.5. *Finishing the programming procedure. Checking the number.*
Green diode starts flashing as many times as there are hundreds, tens and unities in the programmed number. Longer break means passing to next digit in the programmed number while longer flashing of red diode means a zero value of a given digit. After finishing reproducing the programmed number the diode will light at the same time in two colours, then one colour will extinguish and the colour of a diode will correspond to volume level of acoustic signal before starting the programming procedure.

4.6. If the number is not programmed within 30 sec the procedure will be stopped automatically and monitor number will not be changed.

5. Checking the monitor number

To check the monitor programmed number pushbutton LOCK should be pressed and holded in waiting mode (no audio or video connection) and with receiver hung up. A diode will light in colour comforms to gate drive control mode, next it will light for a moment in both colours and then the programmed number will be reproduced according to item 4.5.

6. Configuration of video line

Depending on the topology of video signal transmission system there are available three set-ups of video line configurations. This is done by means of jumpers available in the cut-out in the rear part of monitor casing (see dwg. 2 or sticker on the monitor rear part).
- BNC - set the jumper in this position if video signal is sent by a concentric cable.
- UTP - set the jumper in this position if video signal is sent by UTP spiral cable.
- UTP+TERMINATOR - set the jumper in this position if video signal is sent by UTP spiral cable and the monitor is located at the end of video bus bar or is the only line load.

7. Monitor control

Monitor is equipped with three step control of acoustic signals (calling from external panel, calling from floor panel, door bell), colour saturation, contrast and picture brightness.
Three pushbuttons on the right side of monitor are used for step control of contrast, saturation and brightness.
Volume of acoustic signalization can be changed by switch on the right side of monitor. Upper position means loud signal, middle position – quiet and lower position means switched off signalling which is also signaling by red color of signalling diode.

Note!
In special cases audio signal can be corrected by means of the following potentiometers available after the monitor rear casing has been taken off:

- SPK1   - correction of loudness level of a signal coming from external panel
- MIC1   - correction of loudness level of a signal going to external panel
- SPK2   - correction of loudness level of a signal coming from floor panel
- MIC2   - correction of loudness level of a signal going to floor panel

8. Technical data

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El. supply:	13,5V DC/1A
Screen diagonal:	2,36"
Protection degree:	IP30
Operating temperature:	(0 – 40) °C
Dimensions:	270x80x50 mm
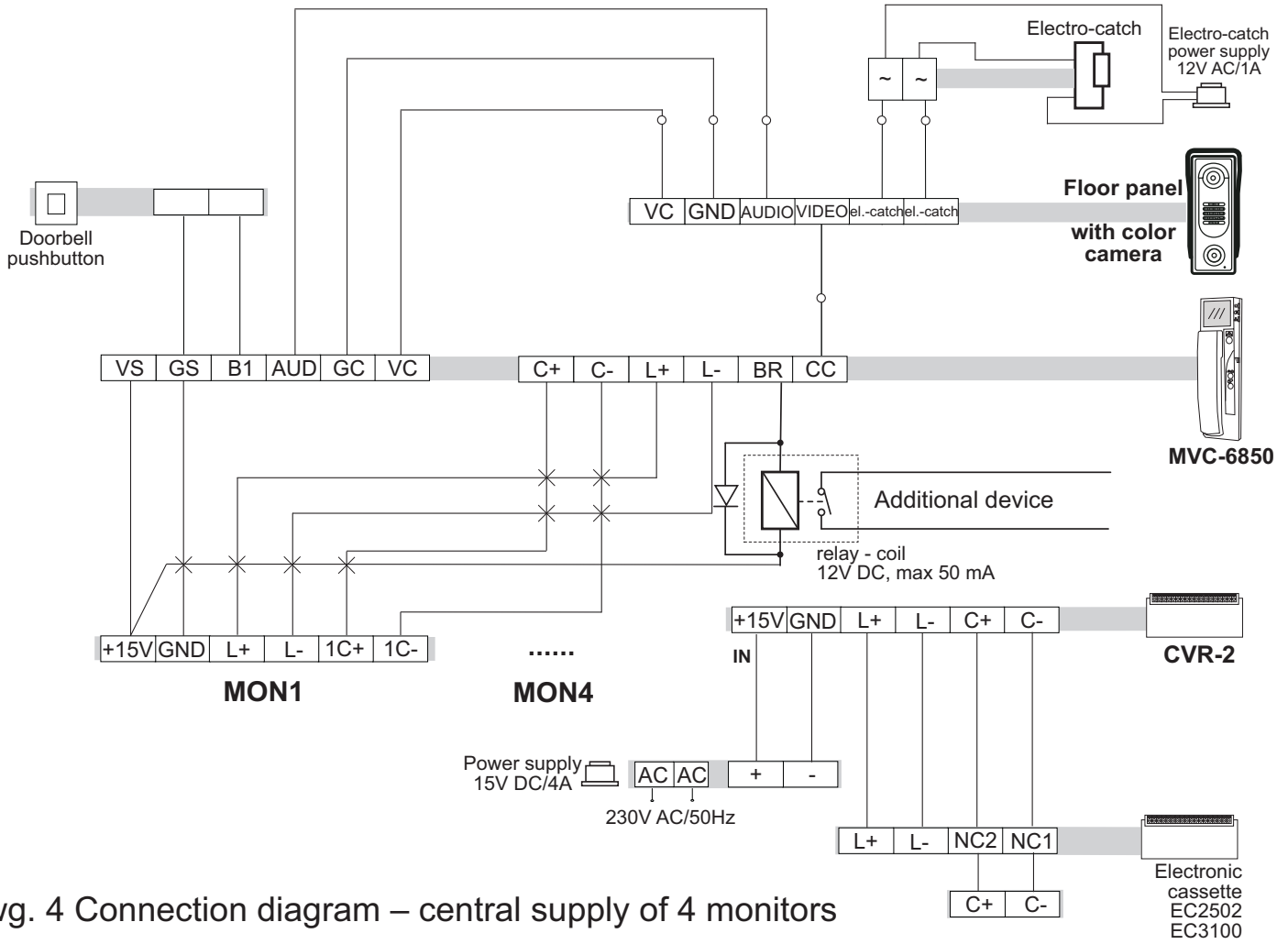
Dwg. 4 Connection diagram – central supply of 4 monitors
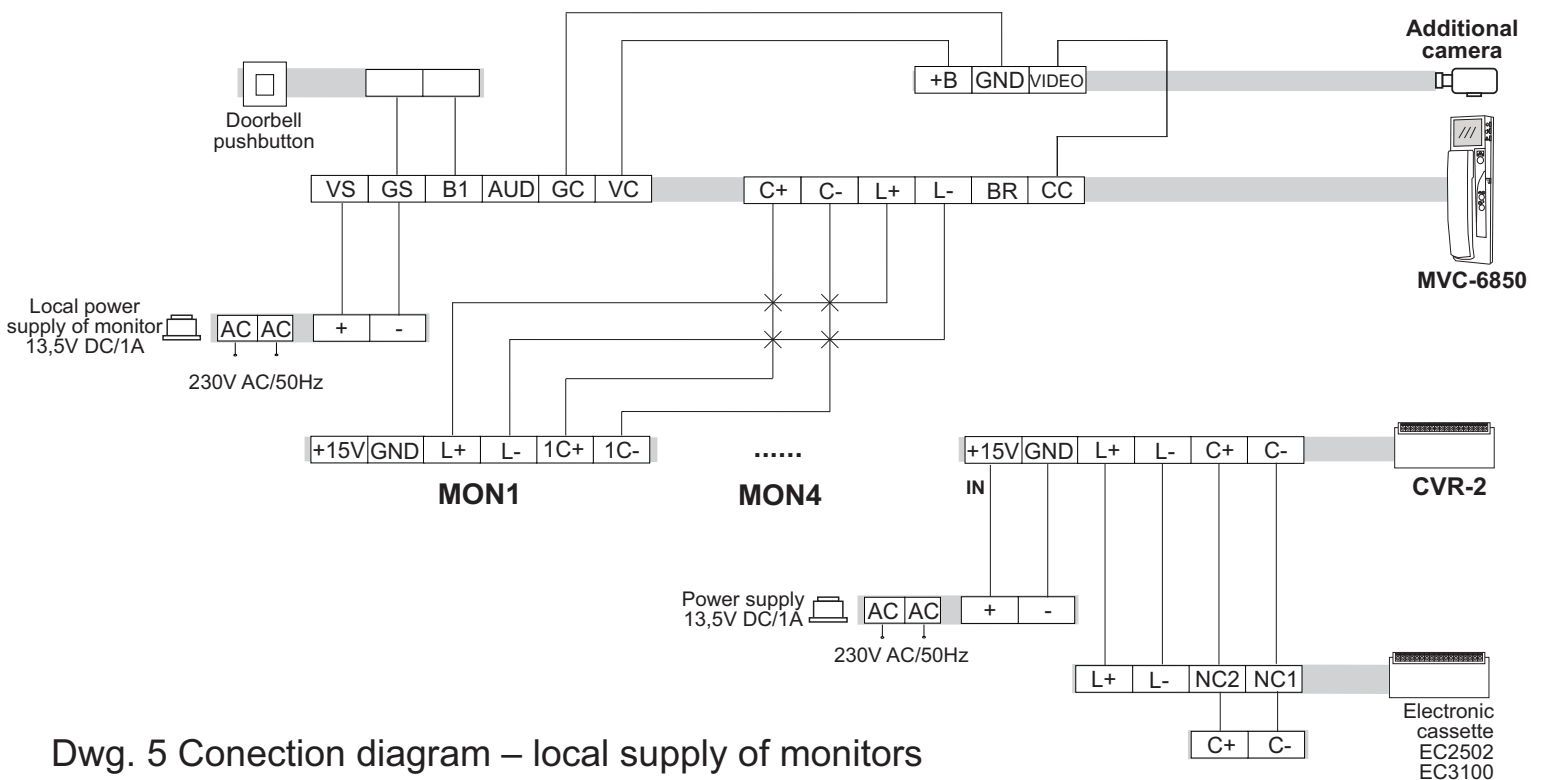
Dwg. 5 Conection diagram – local supply of monitors

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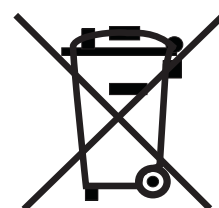
List of collecting units of used Laskomex equipment is available on **www.laskomex.com.pl** website or telephone No. **42 671 88 68**.

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.

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