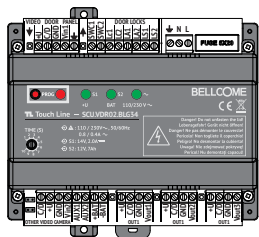
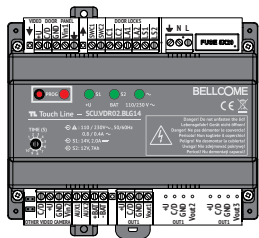


4 wires

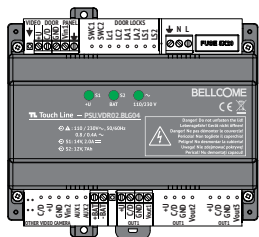
BELLCOME TL Touch Line



SCU.VDR02.xxy34



SCU.VDR02.xxy14



PSU.VDR02.xxy04

CENTRAL SUPPLY AND COMMAND UNIT – VIDEO
POWER SUPPLY UNIT – VIDEO
User manual

EN

0 EN Contents

- 1 Safety instructions
- 2 Description of the central supply and command unit (SCU)
- 3 Functions of the central supply and command unit (SCU)
- 4 Description and functions of the power supply unit (PSU)
- 5 Recommended cables. Installation.
- 6 Setting the programming mode for the **Touch Line** video door phone system
- 7 Warranty

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1 EN Safety instructions

- 1. ATTENTION!** The installation, maintenance and connection of the central supply and command unit (**SCU**) or of the power supply unit (**PSU**) to the 110 V/ 230 V – 50 Hz/ 60 Hz power network is done only by authorized personnel!
- 2. ATTENTION!** It is mandatory to use a 3 x 0,75 cable and 2 automatic fuses (6A) to power the central unit (**SCU**) or the supply unit (**PSU**) from the 110V/230V - 50Hz/60Hz power network.
- 3. ATTENTION!** The S1 safety fuses must be disconnected during the mounting, connection and service to the central unit (**SCU**) or the supply unit (**PSU**).
- 4. ATTENTION! DO NOT DISMANTLE THE FRONT LID OF THE CENTRAL UNIT (SCU) or of the SUPPLY UNIT (PSU)! RISK OF ELECTRIC SHOCK!** Only the protection cases of the connections can be dismantled during mounting or service.
- 5. IMPORTANT!** The S1 fuses remain disconnected when the L, N, \perp connections are made to the **SCU** or **PSU**, and when the **L1, N1** connections are made to the S1 fuses. After the connections are made, the protection lids of the connections are mounted.
- 6. DO NOT TOUCH** the metallic parts of the wires or the connection terminals of the central unit (**SCU**), of the supply unit (**PSU**) or of the fuses. First, you have to disconnect the 6A fuses (**POWER OFF**) from the power network and then you can work with the central unit (**SCU**) or the supply unit (**PSU**).
- 7. ATTENTION!** Do not supply components of the installation separately (outdoor panel, terminals etc.) at voltage higher than 14 Vd.c. or directly from the network (230 V/ 50 Hz or 110 V/ 60 Hz) **RISK OF ELECTRIC SHOCK** and damage of the installation.
- 8. PAY ATTENTION at the polarity of the BAT battery terminals** (max. 7 Ah/ 12 Vd.c.) when connecting it to the central unit (**SCU**) or the supply unit (**PSU**).

2 | EN Description of the central supply and command unit (SCU)

NOTE: For the video door phone systems with **1 Family** and the systems with **more than 3 Families**, the central supply unit with **1 OUTPUT - SCU.VDR02.xxG14** will be used, which has only output **OUT1** for **Family 1** or a connection box. The central supply unit with **3 OUTPUTS - SCU.VDR02.xxG34** will be used for the video door phone systems with **2 and 3 families**, being fitted with two more outputs – **OUT2** and **OUT3**. The two central units have similar functions.

SWC1, SWC2
Connection of exit button

VIDEO DOOR PANEL,
Connection of the cable from the outdoor panel

PROG Programming mode setting/resetting button

LED PROG Red, the panels and terminals are in programming mode

TIME Lock opening time adjustment (max. 10s)

JP2 Connected jumper for recording Vcam images on DVR

JP1 Disconnected Jumper for connecting the Vcam at the system

ANOTHER VIDEO CAMERA
Analog, PAL, CMOS/ CCD, 1 Vp.p. with adapting video transformer

LC1, LC2 Connection of direct current lock max. 0.8A/ 24 Vd.c.

LA1, LA2 Connection of alternating current lock max. 5A/ 24 Va.c.

LS1, LS2 Connection of electromagnetic lock max. 3A/24 Vd.c.

L, N, ⚡ Connection to the 110/ 230 Va.c. - 50/ 60 Hz network

FUSE, Electrical network fuse 1.6 Aa.c.

LED ~ Green, presence of 110/ 230 Va.c. 50/ 60 Hz voltage

LED BAT Green, max. 7Ah - 12V rechargeable battery, connected to the SCU

LED +U Green, +13.5 Vd.c. +/-5% voltage presence

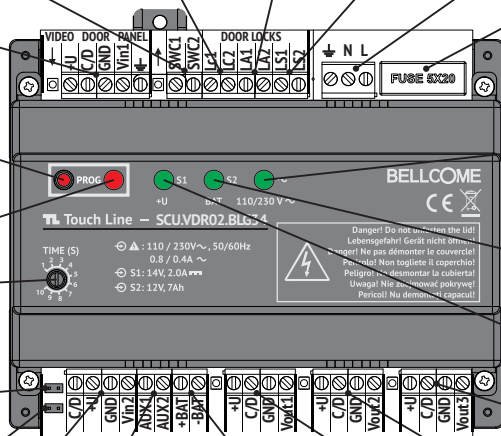
OUT3
Connection of cable to the Fam. 3 terminal or VCB

AUX1, AUX2
Connection of additional installations: auto gate, garage, outdoor lights etc. (relay contact)

+BAT, -BAT
Connection of 12Vc.c., max. 7Ah rechargeable battery

OUT1
Connection of cable to the Fam. 1 terminal or VCB

OUT2
Connection of cable to the Fam. 2 terminal or VCB



2.1 | EN | Electrical and mechanical features

- Power supply voltage: 110/ 230 Va.c. - 50/ 60 Hz
- Output voltage: 13.5 Vd.c. +/- 5% max. 2Ad.c.
- Overload protection for the input and output current
- Network overvoltage protection
- EMI filter (electromagnetic compatibility)

- Dimensions: (L) 130 x (l) 141 x (h) 73 mm
- Weight: 0.4 Kg
- Case: PA6.6 + FS 10% (fireproof)
- UL certified printed circuit board
- Operating temperature range: 0° – 40° C

IMPORTANT: SCU.VDR02.xxG34 also has the role of video connection box for systems of 2 and 3 Families. **Fam. 1** is connected to **OUT1**, **Fam. 2** is connected to **OUT2** and **Fam. 3** is connected to **OUT3**.








EN | 3 | Functions of the central supply and command unit (SCU)

A. JOINT FUNCTIONS for SCU.VDR02.xxG14 and SCU.VDR02.xxG34:

- 1. Power supply** connected to L, N, PE . 110/ 230 Va.c. - 0,8/ 0,4 Aa.c. - 50/ 60 Hz
- 2. Operating voltage** for the functioning of the entire video door phone system (+U -GND): **13.5 Vd.c./ max. 2 Ad.c.**
- 3. Outdoor panel** connected to: +U, C/D, Vin1, GND (VIDEO DOOR PANEL)
- 4. Family 1** connected to: +U, C/D, Vout1, GND (OUT1). Protected for a maximum current of 0.75 Ad.c.
- 5. Family 2** connected to: +U, C/D, Vout2, GND (OUT2). Protected for a maximum current of 0.75 Ad.c.
- 6. Family 3** connected to: +U, C/D, Vout3, GND (OUT3). Protected for a maximum current of 0.75 Ad.c.
- 7. Additional video camera** – Vcam connected to: +U, Vin2, GND (ANOTHER VIDEO CAMERA) **Jumper JP1 must be disconnected!**
- 8. Digital Video Recorder** – DVR for Vcam connected to: +U, Vin2, GND (ANOTHER VIDEO CAMERA) **Jumper JP2 must be connected!**
- 9. Direct current lock** connected to: LC1, LC2 (DOOR LOCKS) protected for a maximum current of 0.75 Ad.c.
Door locked: Ulock = 0 Vd.c. Door open: Ulock = 12 Vd.c./ max. 0.75 Ad.c./ max. 10 sec.
- 10. Alternating current locks** connected to: LA1, LA2 (DOOR LOCKS) not protected to overload. The lock command relay stands a maximum of 5 Aa.c./ 24 Va.c. The command of the alternating current lock requires a 110/ 230 Va.c. additional voltage transformer, with secondary and safety fuses of maximum 24 Va.c. Door locked: Ulock = 0 Va.c./ indefinite time.
Door open: Ulock = 12 Vc.a./ 24 Vc.a./ max. 5,0 Aca./ max. 10 sec.
- 11. Electromagnetic lock for continuous current.** It is connected to the LS1, LS2 (DOOR LOCKS) terminals, not protected to overload. The electromagnetic lock command relay stands a maximum of 3 Ad.c./ 24 Vd.c. Door locked: Ulock = 12 Vc.c./ 24Vc.c./ max. 3,0 Acc./ indefinite time. Door open: Ulock = 0 Vc.c./ max. 10 sec. In case of failure of the power network, the door remains open!
The command of the electromagnetic lock requires a source of direct current and the necessary safety fuses.

- 12. Additional devices** (open auto gate, garage door, outdoor lights etc.) connected to the **AUX1, AUX2** terminals. The relay issues a one second impulse (the **AUX** relay closes the contact for one second).
- 13. Rechargeable battery** (12 V.c./ max. 7 Ah) connected to the **+BAT, -BAT** terminals for the installation to function in case of failure.
- 14. EXIT button**, reclosing, connected to the **SWC1, SWC2** terminals, for opening the lock when exiting the lobby of the building.

B. TROUBLESHOOTING and SERVICE for the Touch Line video door phone system

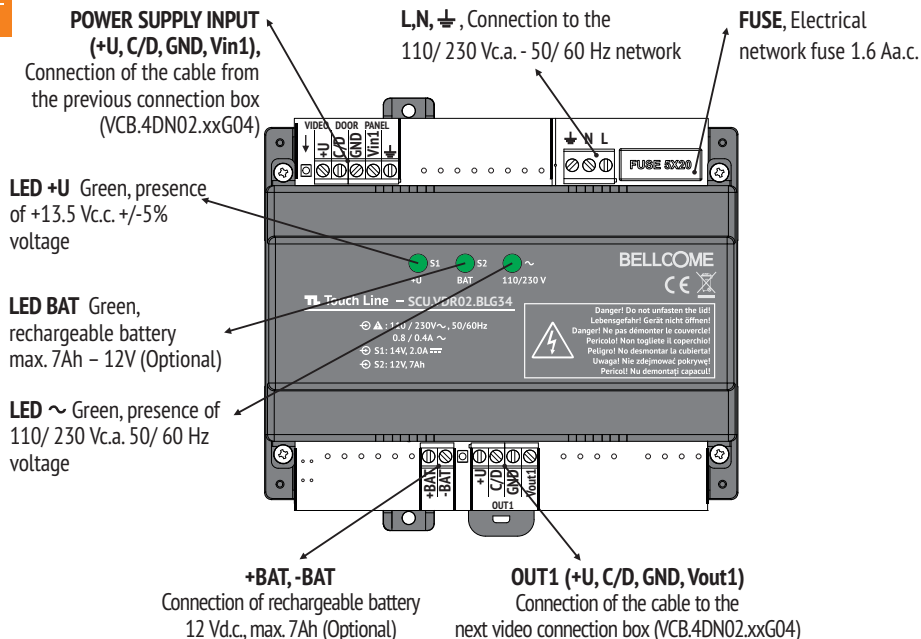
- 1. Normal functioning mode, without BAT:** the Network  and **+U** LEDs are Green. The **PROG** and **BAT** LEDs are turned off.
- 2. Normal functioning mode, with BAT connected:** the Network , **BAT** and **+U** LEDs are Green.
- 3. The system functions only on battery** (the system functions correctly until the full discharge of the battery): the **BAT** LED is Green, the Network  and **+U** LEDs are turned off. Check the fuses on the **SCU** (FUSE T-1, 6A) and 2x6A from the Network .
- 4. The system functions with a broken battery.** The Network , **+U** LEDs are Green, the **BAT** LED is turned off. Change the battery!
- 5. The outdoor panel does not function** (the Red LED from the video camera does not blink, the call keys are not backlighted): The Network , **BAT** and **+U** LEDs are Green. The LED of the outdoor panel is Red. Check the continuity and the accuracy of the **+U** and **GND** connections from the **SCU** to the panel.
- 6. A terminal does not function** (the keys are not backlighted when touched, there is no image and sound): the Network , **BAT** and **+U** LEDs are Green. One of the **OUT1, OUT2** or **OUT3** LEDs is Red. Check the continuity and accuracy of the **+U** or **GND** connections from the **SCU** to the terminal.
- 7. The direct current lock does not function (LC1, LC2),** the LED is Red: check the accuracy of the connections to the lock.
- 8. The display of the terminal is Blue** (during call, the terminal is Blue, sound is present): check the continuity and accuracy of the **Vin, Vout** and **GND** connections from the outdoor panel to the video terminal.
- 9. The terminals are not called, the PROG LED is Red:** check the continuity and the accuracy of the **C/D, +U** and **GND** connections from the outdoor panel to the video terminal.
- 10. The terminal cannot be called** (the terminal has the wrong address. The terminal at Family 1 is called): reprogram the terminal with the correct address (the number of the apartment) according to the procedure in the user manual of the terminal.

4 EN Description and functions of the power supply unit (PSU)

IMPORTANT: • The **PSU.VDR02.xxG04** power supply unit is used in the **Touch Line** video door phone systems, when the +U power voltage measured at the last terminal (apartment) drops below 12 Vd.c., due to the high power intake of the video terminals.

• The **PSU.VDR02.xxG04** supply unit is connected at the middle or at the end of the installation. The cable from the previous connection box (or from the SCU central unit) is connected to the **+U, C/D, GND, Vin1** (VIDEO DOOR PANEL) terminals, and the cable that goes to the next connection boxes and terminals is connected to the **+U, C/D, GND, Vout1** (OUT1) terminals. The voltage in the entire installation must be above 12 Vd.c.

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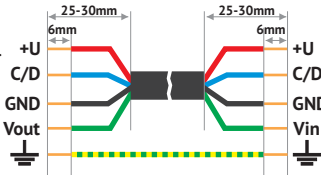
5 EN Recommended cables. Installation.

1. The central/power supply units will be installed in electrical cabinets specially built inside the building. They can be mounted on 46277-3, EN50022, IEC60715 DIN rail or directly with 2 M 3x12 screws, on the inside wall of the cabinet.
 2. **ATTENTION!** For mounting, operation and service/maintenance, it is mandatory to comply with the SAFETY INSTRUCTIONS presented in Ch. 1 of this user manual.
 3. To connect the **SCU** central/ **PSU** power supply unit (L, N, \perp) to the 110 V/ 230 V – 50 Hz /60 Hz power network, it is mandatory to use a H05VV-F4G 0.75 cable and two 6A automatic fuses.
- Depending on the maximum distance between the outdoor panel and the last video terminal, the recommended cables at installation are the following:

Option 1) 4 wires x 0.5 mm² (type H03VV-F4G 0.5) for maximum 75 lm

Option 2) 4 wires x 0.75 mm² (type H05VV-F4G 0.75) for maximum 150 lm

1. Connections to the Outdoor panel
2. Connections from the Central Unit to the Terminals

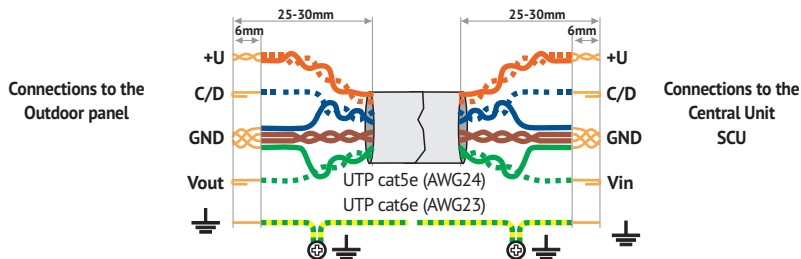


1. Connections to the Central Unit
2. Connections to the Terminals

Beispiel: + U = Rot, C / D = Blau, GND = Schwarz, Vin / Vout = Grün.

***Important:** Maintain the same colors for the same connections. Out of electrical security reasons, we recommend installing a grounding cable between the panel and the SCU.

Option 3) UTP cat5e (AWG24) maximum 250 lm. The wires will be arranged as per the below model:



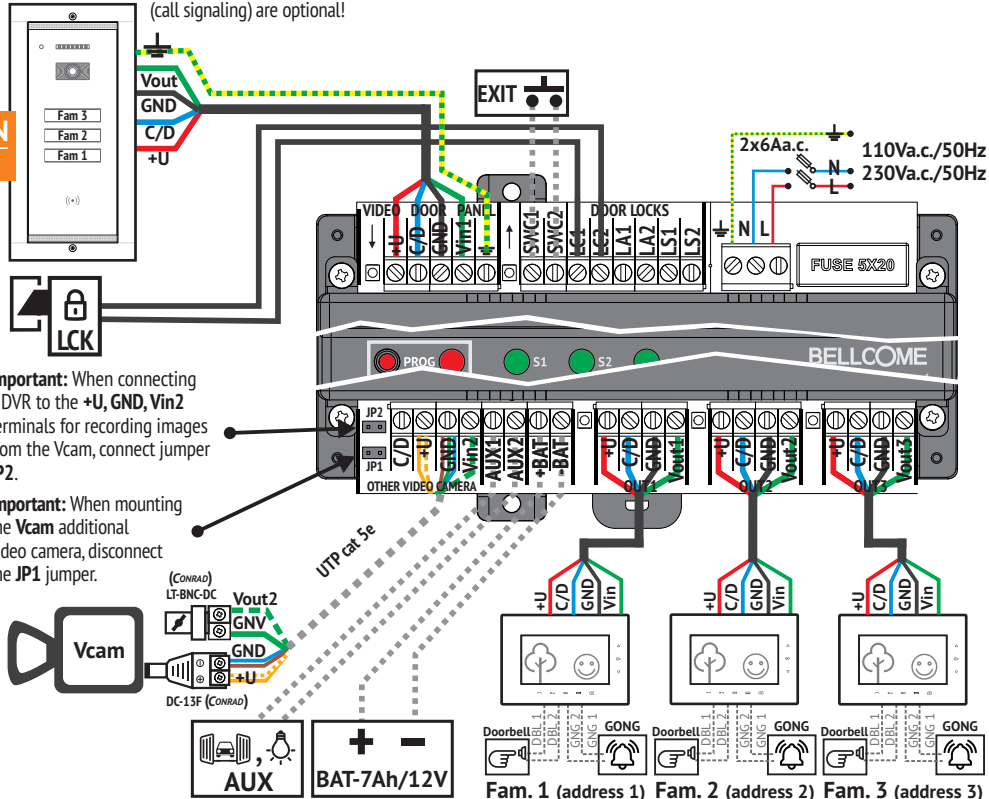
5.1 EN Connection of the panel and the terminals to the central unit (SCU)

NOTE: The below diagram presents the configuration for a video door phone system with 3 Families, with a central unit with 3 OUTPUTS – SCU.VDR02.xxG34.

2. The central unit with 1 OUTPUT – SCU.VDR02.xxG14 is connected identically, lacking only the connections for **OUT2** and **OUT3**.

3. The **EXIT** (exit button) + Vcam (external video camera) + AUX (additional devices) + BAT (rechargeable battery) + Doorbell + GONG (call signaling) are optional!

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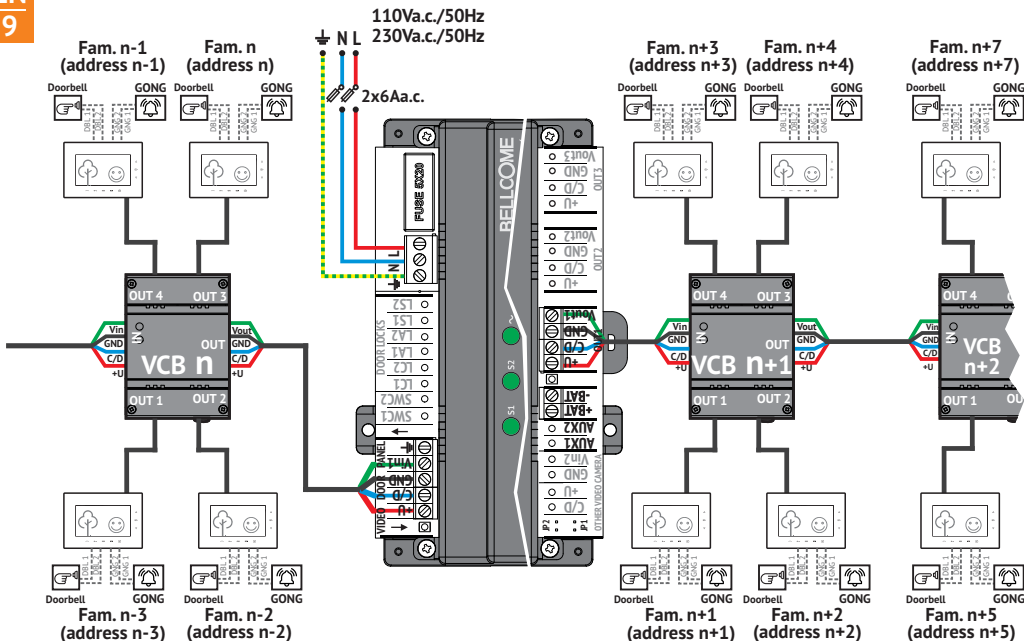
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Connection diagram of the power supply unit (PSU) in the video door phone systems from buildings with multiple families

IMPORTANT: ● The PSU.VDR02.xxG04 power supply unit is used in the **Touch Line** video door phone systems, when the +U power voltage measured at the last terminal (apartment) drops below 12 Vd.c., due to the high power intake of the video terminals.

- The **PSU.VDR02.xxG04** supply unit is connected at the middle or at the end of the installation. The cable from the previous connection box (or from the SCU central unit) is connected to the **+U, C/D, GND, Vin1** (VIDEO DOOR PANEL) terminals, and the cable that goes to the next connection boxes and terminals is connected to the **+U, C/D, GND, Vout1** (OUT1) terminals. The voltage in the entire installation must be above 12 Vd.c.

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6 EN Setting the programming mode for the Touch Line video door phone system

IMPORTANT: The programming mode is set from the **SCU**, by long pressing (2-3 sec.) the **PROG.** button

PROG. button



The **PROG** Red LED turns on and remains on during the entire programming phase.

You can program:

- 1) The address of the terminal** (apartment number) from 0002 to 9999. Programming can be done manually, according to the procedure from the user manual for the Touch Line audio-video terminals, or using a special programmer, supplied by the manufacturer. All terminals are programmed from the factory with **Address 1**.
- 2) The address of the 2, 3 or 4 outdoor panels**, when a building has multiple entrances. The outdoor panels are programmed from the factory with **Address 1**.
- 3) The storage/deletion/addition of the RFID access TAGs/CARDS.**

Exiting programming mode is done by short pressing the **PROG.** button. The **PROG** Red LED turns off.

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7 EN Warranty

1. Warranty is granted for hidden defects and/or the equipment not functioning according to the present user manual, in compliance with the current legislation and based on the purchase documents.
2. No warranty is granted for damages due to mounting performed by unauthorized personnel and by inappropriate use.

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ISO 9001:2008
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