

Installation Guide GSM-doorbell



CAUTION: This unit contains electrostatic components. These can easily be damaged if not handled correctly. Therefore, wear the grounded ESD wristband when installing the GSM-doorbell.

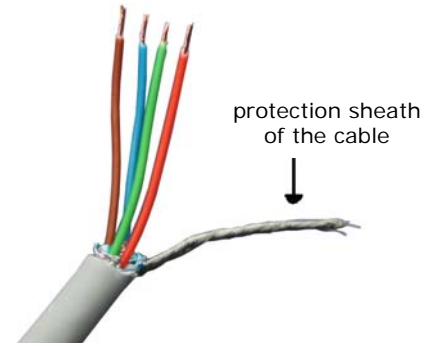
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INSTALLATION INSTRUCTIONS

The intercoms in this guide have been tested using a cable with a protection sheath. A protected UTP cable (SSTP) will be sufficient (shown on image).

Keep the ends of the cables as short as possible to minimize the chance of operating errors.



ATTENTION: remove the access code (PIN code) from your SIM-card before placing it in the GSM-doorbell.

Installation of the GSM-doorbell in 6 steps:

1. Open the GSM-doorbell.
2. Insert the SIM card.
3. Connect the intercom.
4. Connect the electrical connection(s) of the lock(s).
5. Connect the power supply.
6. Attach the GSM-doorbell.

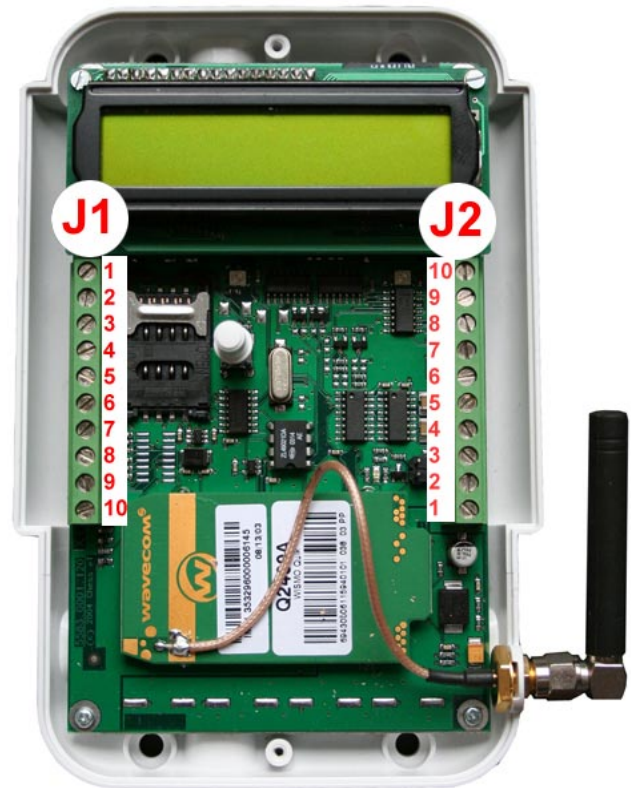
Step 1: Open the GSM-doorbell

- Unscrew the 2 screws on the front of the GSM-doorbell and take off the front cover.
- Prepare 4 holes where the GSM-doorbell is going to be attached. Make sure that the GSM-doorbell will be attached straight like the cover picture. However, do not yet attach the GSM-doorbell to the wall.

Step 2: Insert the SIM card

- Take out the SIM card from its packaging.
- Slide the metal grip of the SIM card holder downwards (away from the display) and flip-over the plastic SIM card holder.
- Place the SIM card in the plastic SIM card holder.
- Slide the SIM card as far as possible inside the plastic SIM card holder.
- Place the plastic SIM card holder back into its original position, including the metal grip.

ATTENTION: Make sure that the SIM-card is placed with the chip downwards and with the cut-out corner near the J1-1 connection point.



Step 3: Connect the intercom

- The wiring diagrams are shown on pages 6-10.
- Guide the intercom wires to the area where the GSM doorbell will be placed and lead the wires through the back side of the GSM-doorbell.
- Connect the wires to the connection points dedicated to the intercom (J2 1 to 4, see pages 6-10).

ATTENTION: The numbers of the connection points are as follow (see page 3):

The connections on the **left** have the numbers J1-1 to J1-10, starting with J1-1 at the top.

The connections on the **right** have the numbers J2-10 to J2-1, ending with J2-1 at the bottom!

Step 4: Connect the electrical lock

- Guide the wires of the electrical lock to the area where the GSM doorbell will be placed and lead the wires through the back side of the GSM-doorbell.
- Connect the wires to the connection points dedicated to the lock (J1 3 and 4, see pages 6-10).

Step 5: Connect the power supply

- Guide the wires through the back side of the GSM-doorbell.
- Connect the wires to the connection points dedicated to the power supply (J1 1 and 2, see pages 6-10).

ATTENTION: After connecting all wires, plug in the power supply of the GSM-doorbell first, followed by the intercom system, and finally the electrical lock.

Step 6: Attach the GSM-doorbell

- Attach the GSM-doorbell with 4 screws to the 4 previously prepared holes.
- Connect the front cover of the GSM-doorbell with two screws.



IMPORTANT

- Always have a **Torx screwdriver NO. 7** available. Torx screws are in some cases used to connect the casing of the GSM-doorbell.
- Always use protected cables for the installation of the GSM-doorbell.
- To achieve the best results, a condenser (type 47uF / 35 V) should be installed. The 'negative' short 'leg' (on the white side) to be connected to J2-2. The 'positive' long 'leg' (on the black side) to be connected to J2-1.



Torx NR. 7



TECHNICAL SPECIFICATIONS

Connection number	Function	Description	Connection number	Function	Description
J1-1	DC IN+	+5 V	J2-10	DANGLE	
J1-2	DC IN -	GND	J2-9	DANGLE	
J1-3	LOCK 1+	+12 V lock 1	J2-8	INTERCOM2_ALT	Speaker 2 output
J1-4	LOCK 1 SWITCHED	Lock 1 ON/OFF	J2-7	INTERCOM2_MIC	Microphone 2 input
J1-5	LOCK 2+	+12 V lock 2	J2-6	INTERCOM2_GND	Ground intercom 2
J1-6	LOCK 2 SWITCHED	Lock 2 ON/OFF	J2-5	INTERCOM2_I_KNOP	Doorbell 2 security
J1-7	RS232_RX	R x D serial TTL	J2-4	INTERCOM1_ALT	Speaker 1 output
J1-8	RS232_TX	T x D serial TTL	J2-3	INTERCOM1_MIC	Microphone 1 input
J1-9	RS232_CTS	CTS serial TTL	J2-2	INTERCOM1_GND	Ground intercom 1
J1-10	RS232_RTS	RTS serial TTL	J2-1	INTERCOM1_I_KNOP	Doorbell 1 security

Table 1: Explanation of the GSM-doorbell connections.

Item	Value	Unit
Voltage switching max.	50	V
Current switching max.	500	mA
Current carry max.	1,2	A

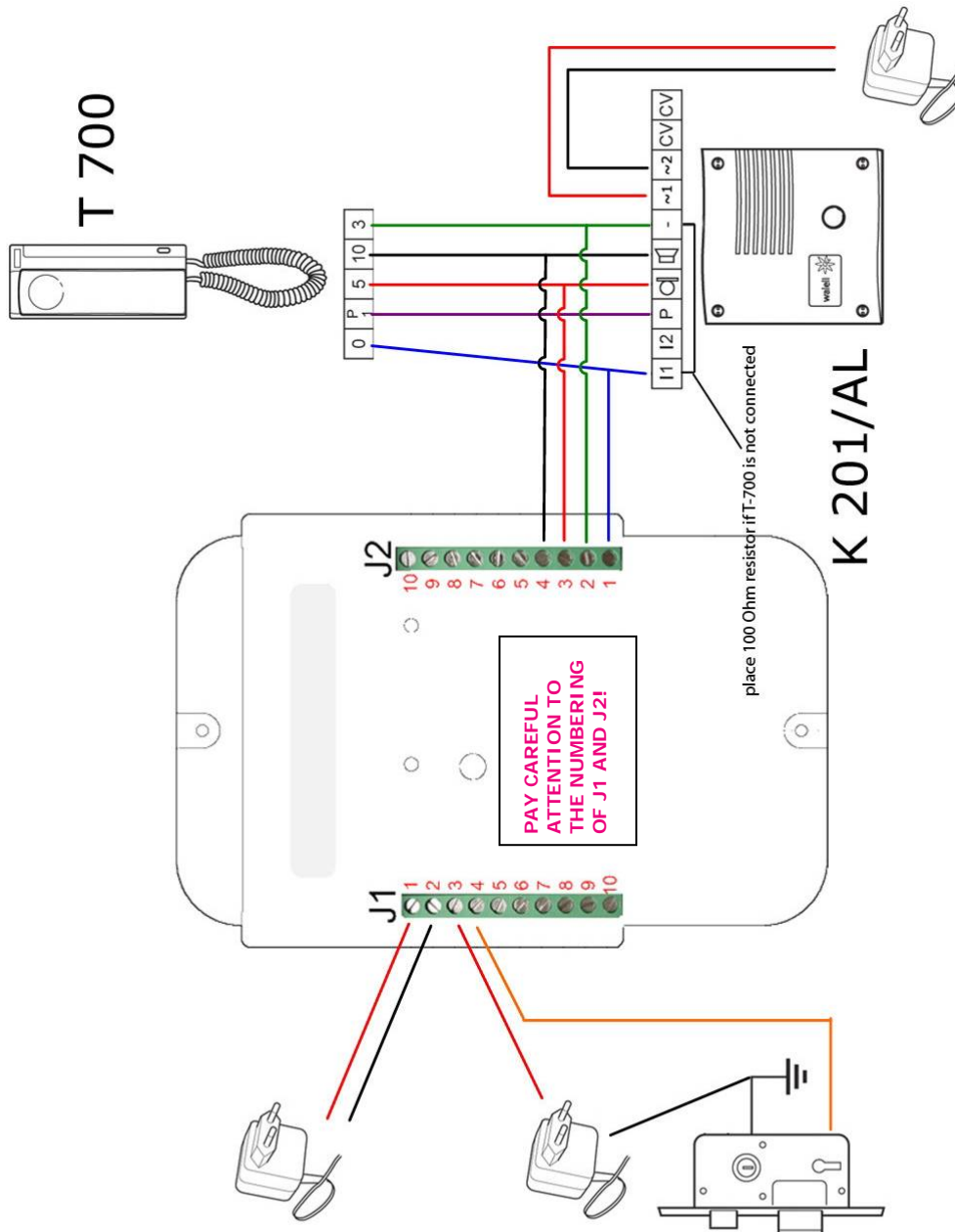
Table 2: Specifications of the door lock relay.

Item	Value	Unit
Voltage In	5,0 +/- 5%	V
Current switching max.	300	mA
Current carry max.	500	mA

Table 3: Specifications Voltage In of the GSM-doorbell system.

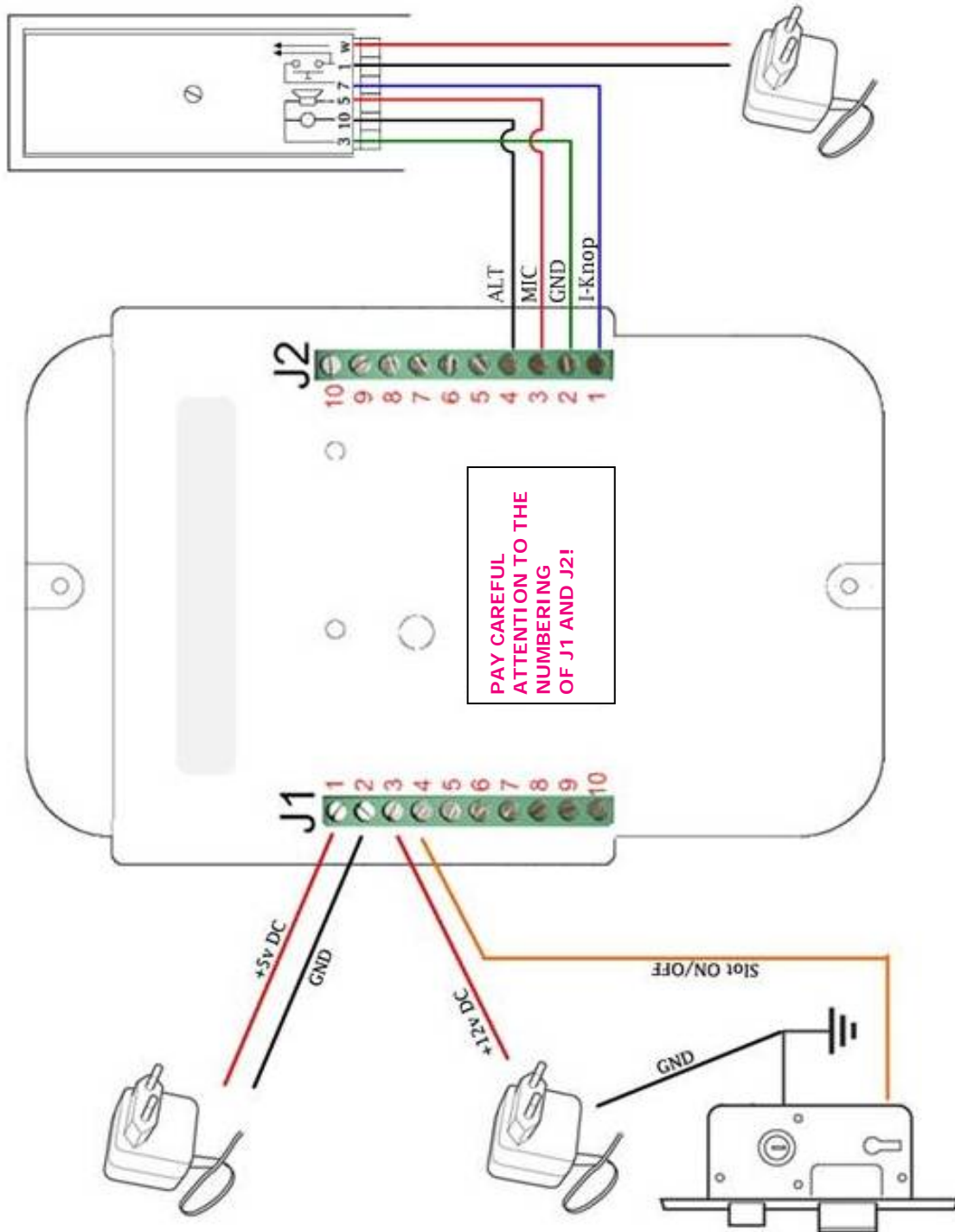
CONNECTION SCHEMATICS FOR RECOMMENDED INTERCOM SYSTEMS

Intercom (Golmar K-201/AL)



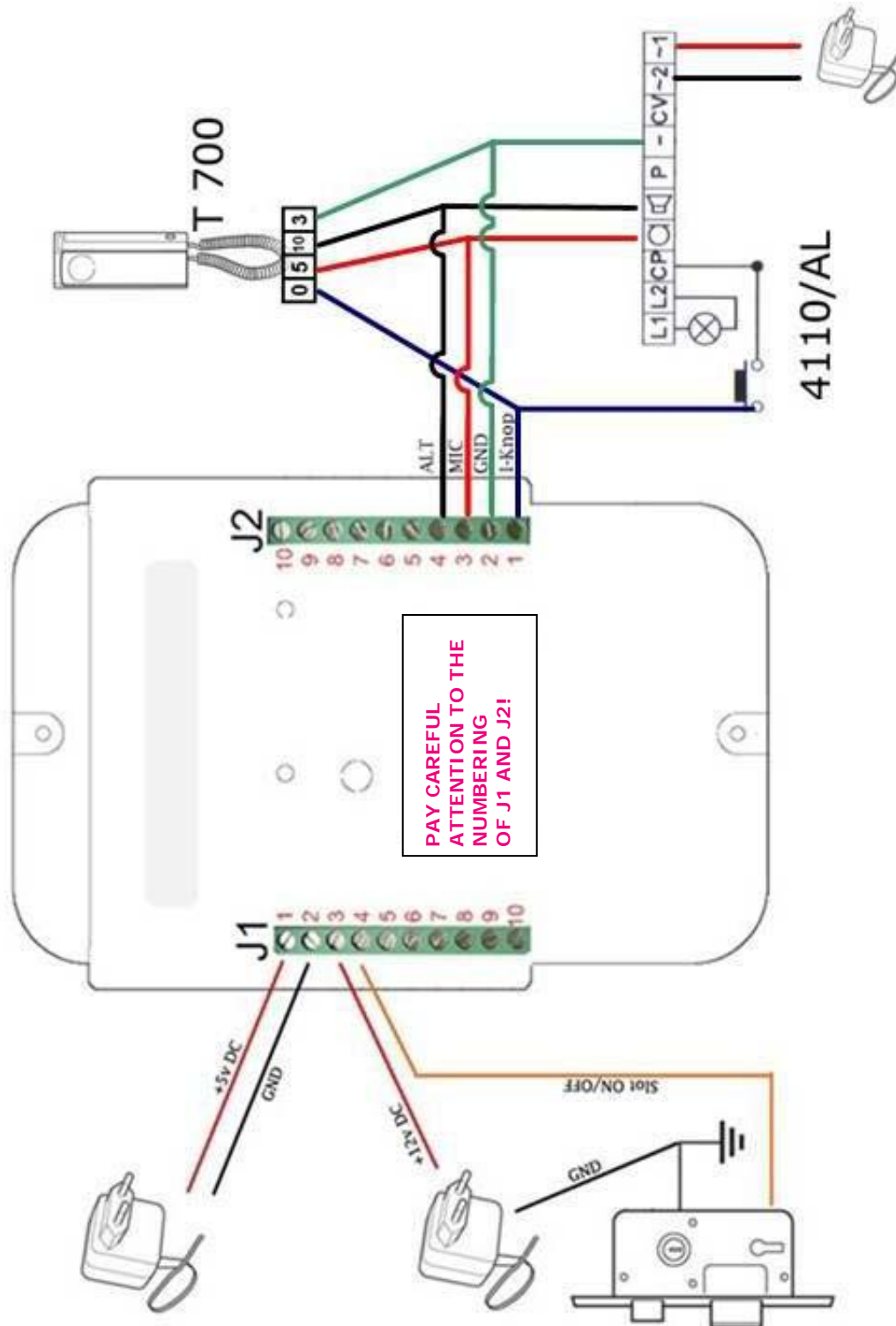
- If the handset is not connected a 100 Ohm resistor needs to be placed between the GND connection (-) and the door ringer connection (L1).
- To guarantee the best sound quality, it is recommended to attach a longer antenna to the GSM-doorbell.
- Protected cables need to be used when connecting the intercom (for example a SFTP cable). The protection sheath of the cable needs to be connected to the GND connection (J2-2) of the GSM-doorbell to guarantee a high quality speech connection.

Intercom (Golmar K-BO841/S)



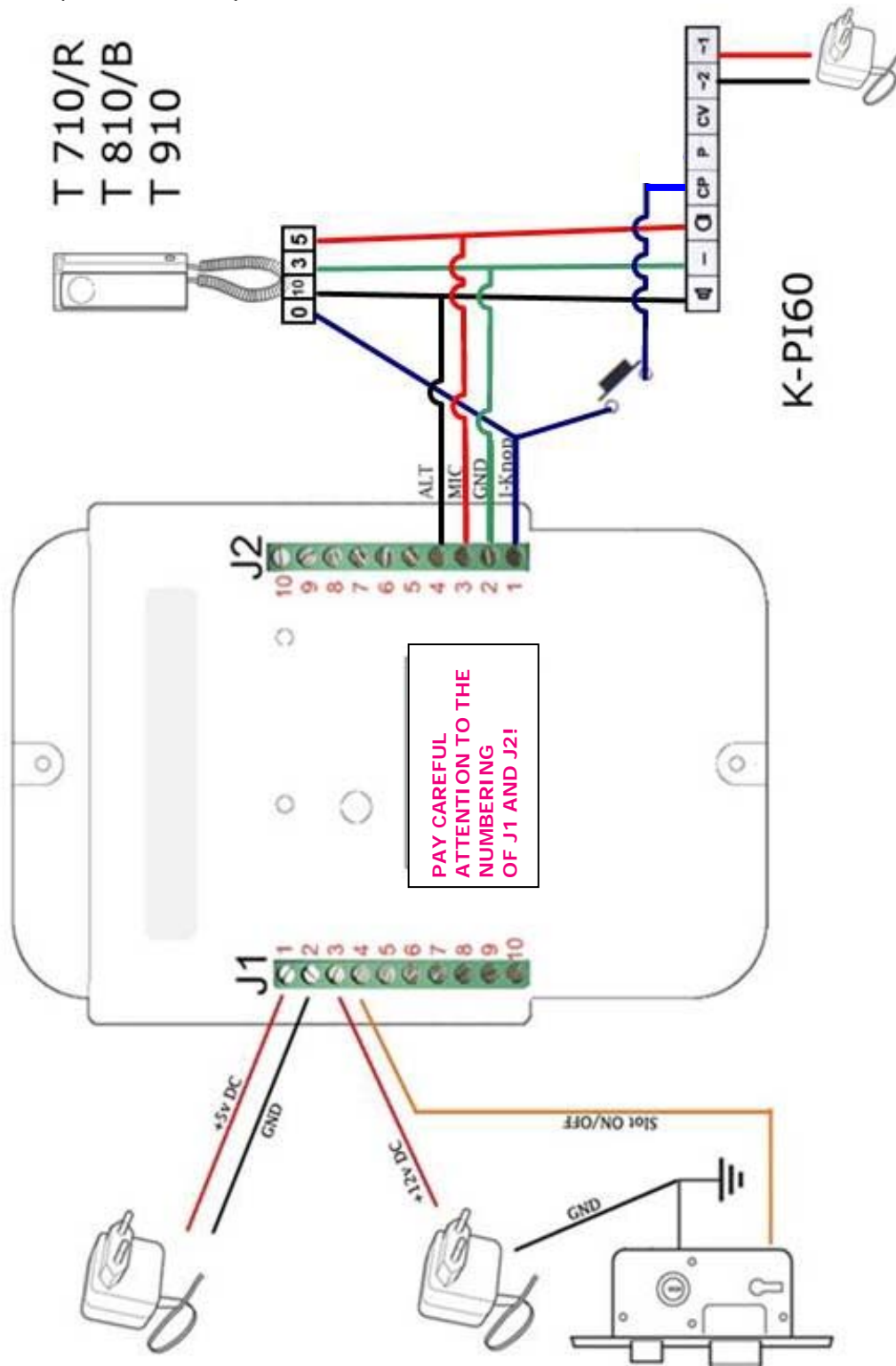
- To guarantee the best sound quality, it is recommended to attach a longer antenna to the GSM-doorbell.
- Protected cables need to be used when connecting the intercom (for example a SFTP cable). The protection sheath of the cable needs to be connected to the GND connection (J2-2) of the GSM-doorbell to guarantee a high quality speech connection.

Intercom (Golmar 4110/AL)



- To guarantee the best sound quality, it is recommended to attach a longer antenna to the GSM-doorbell.
- Protected cables need to be used when connecting the intercom (for example a SFTP cable). The protection sheath of the cable needs to be connected to the GND connection (J2-2) of the GSM-doorbell to guarantee a high quality speech connection.

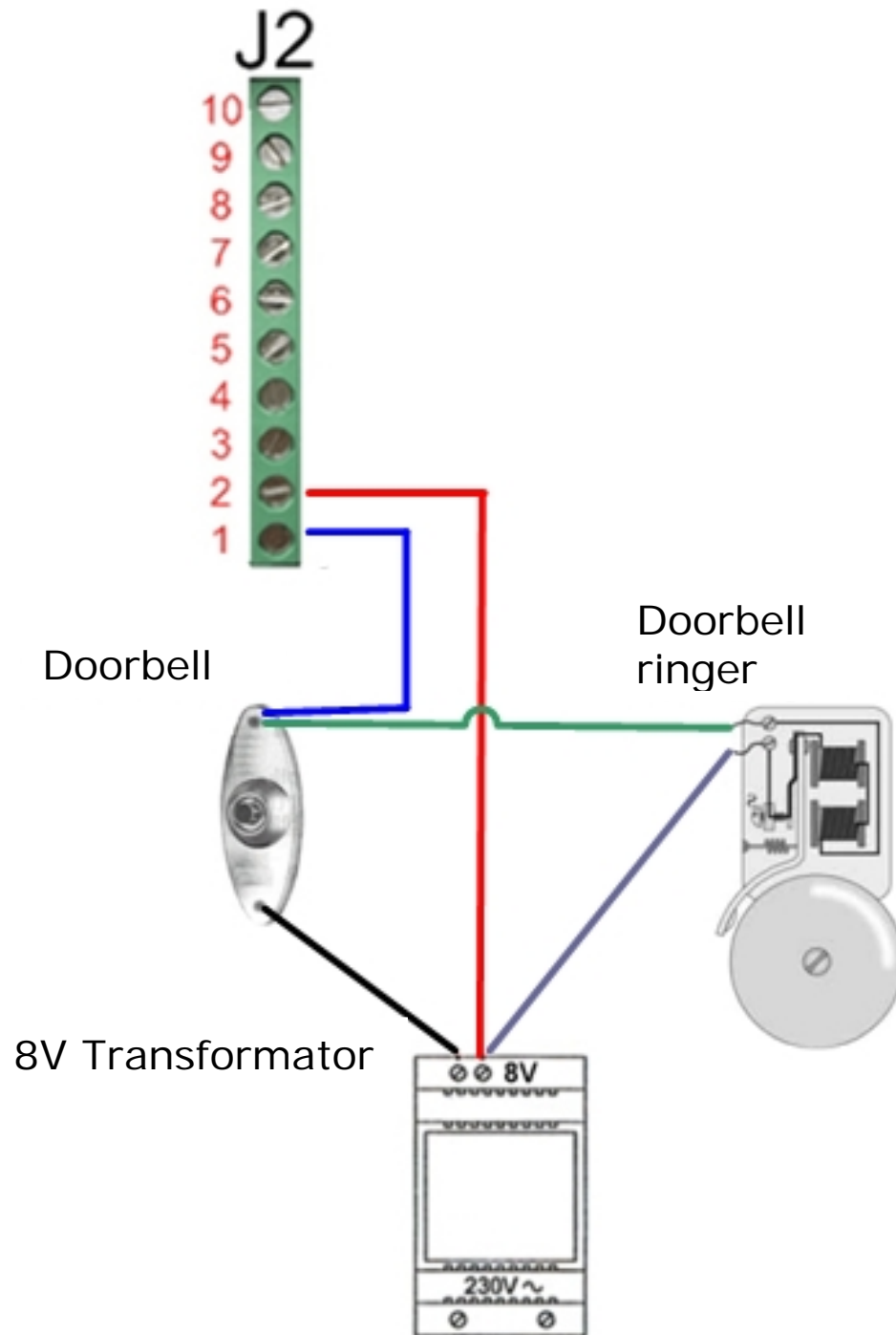
Intercom (Golmar PI60)



- To guarantee the best sound quality, it is recommended to attach a longer antenna to the GSM-doorbell.
- Protected cables need to be used when connecting the intercom (for example a SFTP cable). The protection sheath of the cable needs to be connected to the GND connection (J2-2) of the GSM-doorbell to guarantee a high quality speech connection.

Standard 8-Volt Doorbell

GSM-doorbell



PROGRAM MANUAL FOR THE GSM-DOORBELL

How do you:

Manually switch on the GSM-doorbell:

- Shortly press the button of the GSM-doorbell.

Remotely switch on the GSM-doorbell:

1. Activate or deactivate the GSM-doorbell:

- Dial the number of the GSM-doorbell.
- Dial *pincode1# to get to the main menu. The standard pincode1 is *0000#.
- Dial 1.
- Dial 1 to activate the GSM-doorbell.
- Dial 0 to deactivate the GSM-doorbell.

2. To change the number of the GSM-doorbell:

- Dial the number of the GSM-doorbell.
- Dial pincode1 to get to the main menu. (*pincode1#)
- Dial 2.
- Dial the new (mobile) phone number (*number#). The phone number must always start with a "0". If this is not the case use your country code.
- Dial for the second time the new (mobile) phone number (*number#).

3. Change Pincode1:

- Dial the number of the GSM-doorbell.
- Dial pincode1 to get to the main menu. (*pincode1#)
- Dial 3.
- Dial the new 4 digit pincode1 (*pincode1#).
- Dial for the second time the new 4 digit pincode1 (*pincode1#).

4. Change Pincode2:

- Dial the number of the GSM-doorbell.
- Dial pincode1 to get to the main menu. (*pincode1#)
- Dial 4.
- Dial the new 4 digit pincode2 (*pincode2#).
- Dial for the second time the new 4 digit pincode2 (*pincode2#).

5. Change Pincode SMS:

- Dial the number of the GSM-doorbell.
- Dial pincode1 to get to the main menu. (*pincode1#)
- Dial 5.
- Dial the new 4 digit pinsms (*pinsms#).
- Dial for the second time the new 4 digit pinsms (*pinsms#).

6. Open door 1 or 2:

- Dial the number of the GSM-doorbell.
- Dial pincode1 to get to the main menu. (*pincode1#)
- Dial 6.
- Dial 1 to open door 1.
- Dial 2 to open door 2.

7. To program number recognition of Number 1:

- Dial the number of the GSM-doorbell.
- Dial pincode1 to get to the main menu. (*pincode1#)
- Dial 7.
- Dial Number 1 (*Number1#). The phone number must always start with a "0". If this is not the case use your country code.
- Dial for the second time Number 1 (*Number1#).

8. To program number recognition of Number 2:

- Dial the number of the GSM-doorbell.
- Dial pincode1 to get to the main menu. (*pincode1#)
- Dial 8.
- Dial Number 2 (*Number2#). The phone number must always start with a "0". If this is not the case use your country code.
- Dial for the second time Number 2 (*Number2#).

9. To program number recognition of Number 3:

- Dial the number of the GSM-doorbell.
- Dial pincode1 to get to the main menu. (*pincode1#)
- Dial 9.
- Dial Number 3 (*Number3#). The phone number must always start with a "0". If this is not the case use your country code.
- Dial for the second time Number 3 (*Number3#).

To open the door for a visitor:

When the GSM-doorbell is calling you;

- Answer the phone to speak to the visitor.

When you would like to open a door:

- Dial pincode 1 (or 2) depending on which door you would like to open and disconnect.

QUESTIONS & ANSWERS

The GSM-doorbell won't switch on.

- Check if the cables are connected properly.
- Deactivate the pincode of the SIM card. (use your mobile phone to do this)
- Reset the GSM-doorbell and cut the power supply of the GSM-doorbell for 30 seconds.

It is not possible to program the GSM-doorbell. The pincode or other commands are not accepted by the GSM-doorbell. It seems that the DTMF codes are not recognized.

- The likely cause is a poor reception of the GSM-signal.
- Check the general reception of your mobile phone in the area. If the reception is low, find another location with a better reception.
- Connect an extended antenna to your GSM-doorbell to improve the reception. (not enclosed)

The GSM-doorbell calls automatically without a signal from the doorbell.

- Check the wires of the GSM-doorbell. Make sure there is no connection between a wire and the casing of the GSM-doorbell or of the intercom.
- First make a connection from the GSM-doorbell to the intercom inside, and after that to the intercom outside. (instead of a connection from the GSM-doorbell to the intercom outside and after that to the intercom inside). Connect a condenser to connection J2-1 and J2-2.

The GSM-doorbell is correctly connected but it doesn't call to a mobile phone when someone rings the doorbell.

- Activate the GSM-doorbell and check if the right telephone number is displayed on the GSM-doorbell.
- Check the reception of the SIM card of the GSM-doorbell.
- Is there enough credit on the prepaid card to enable the GSM-doorbell to call?
- Check if it is possible to call and to receive calls with the SIM card.
- Connect the inside intercom phone. (also when it is not used)

There is a poor connection between the intercom and the GSM-doorbell while everything is connected correctly.

The GSM-Doorbell works in principle with every 4-wire analogue intercom system with a common negative. In particular, intercom systems of Golmar seem to offer the best speech connection. These are further described in this installation guide. If you want to use a different kind of analogue 4-wire intercom than Golmar, please first test if a good speech connection can be obtained.

Caution!

- Never exchange the SIM card of the GSM doorbell when the power is still on the unit!