



**RMG AUTOMATION**

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# **GSM 3 channel Relay Controller**

**Model : GSM3R**



## **User Manual**

Version 2.0-10/22



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# 1. INTRODUCTION

Our GSM 3 Channel Relay is a very simple device which can be used for various purposes such as authorized door access, controlling gates, switching of remote equipments, car parking systems etc. Just SMS from Authorized User number then you can activate the relays. Our GSM 3 Channel Relay is manufactured with advanced embedded micro controller technology and quality process.

# 2. DESCRIPTION

- **POWER ON/OFF SWITCH:** Used to Power ON/OFF the Relay controller.
- **POWER ON LED:** It indicates power supply to controller.
- **GSM SIGNAL LED:** It indicates the status of GSM network signal. If this LED blinks for every 3 seconds signals are good and available. If this LED blinks for less than 1 seconds or does not blink, signals are not available.
- **RELAY1 ON LED:** It glows when the relay 1 is in ON condition.
- **RELAY 2 ON LED:** It glows when the relay 2 is in ON condition.
- **RELAY 3 ON LED:** It glows when the relay 3 is in ON condition.
- **Fuse Holder:** It has 300mA fuse to protect the controller from power surges. If fuse fails replace them.
- **Antenna Connector:** It is used for connecting the given 3dbi antenna provided.
- **Terminals:**

1	Relay 1 - COMMON	BLUE PAIR WIRES
2	Relay 1 - NO (Normally Open)	
3	Relay 2 - COMMON	YELLOW PAIR WIRES
4	Relay 2 - NO (Normally Open)	
5	Relay 3 - COMMON	BLACK PAIR WIRES
6	Relay 3 - NO (Normally Open)	
7	Phase/R-Line	AC 230/440 V (RED & BLACK WIRE)
8	Neutral/L-Line	

# 3. TOOLS REQUIRED

- Drilling Machine
- Simple hammer
- Wooden gattas
- Insulation tape
- Screws for mounting units on wall
- Line tester
- Wire stripper,

## 4. INSTALLATION PROCEDURE

**Caution:** Switch off the main power while doing the Power Connection steps.

**Step 1:** Insert your GSM SIM in the SIM slot given as shown in the GSM controller. The GSM SIM that is used must support 2G and have a SMS plan.

**Step 2:** Wall mount the GSM 3 Relay by using the screws in the given slots on its sides near your load switch location.

**Step 3:** Connect AC 230V to Red and Black wires of GSM 3 relay unit respectively. (refer figure 1)

**Step 4:** Connect relay output wires to the switch/MCB of the loads in parallel as shown in figure 1.

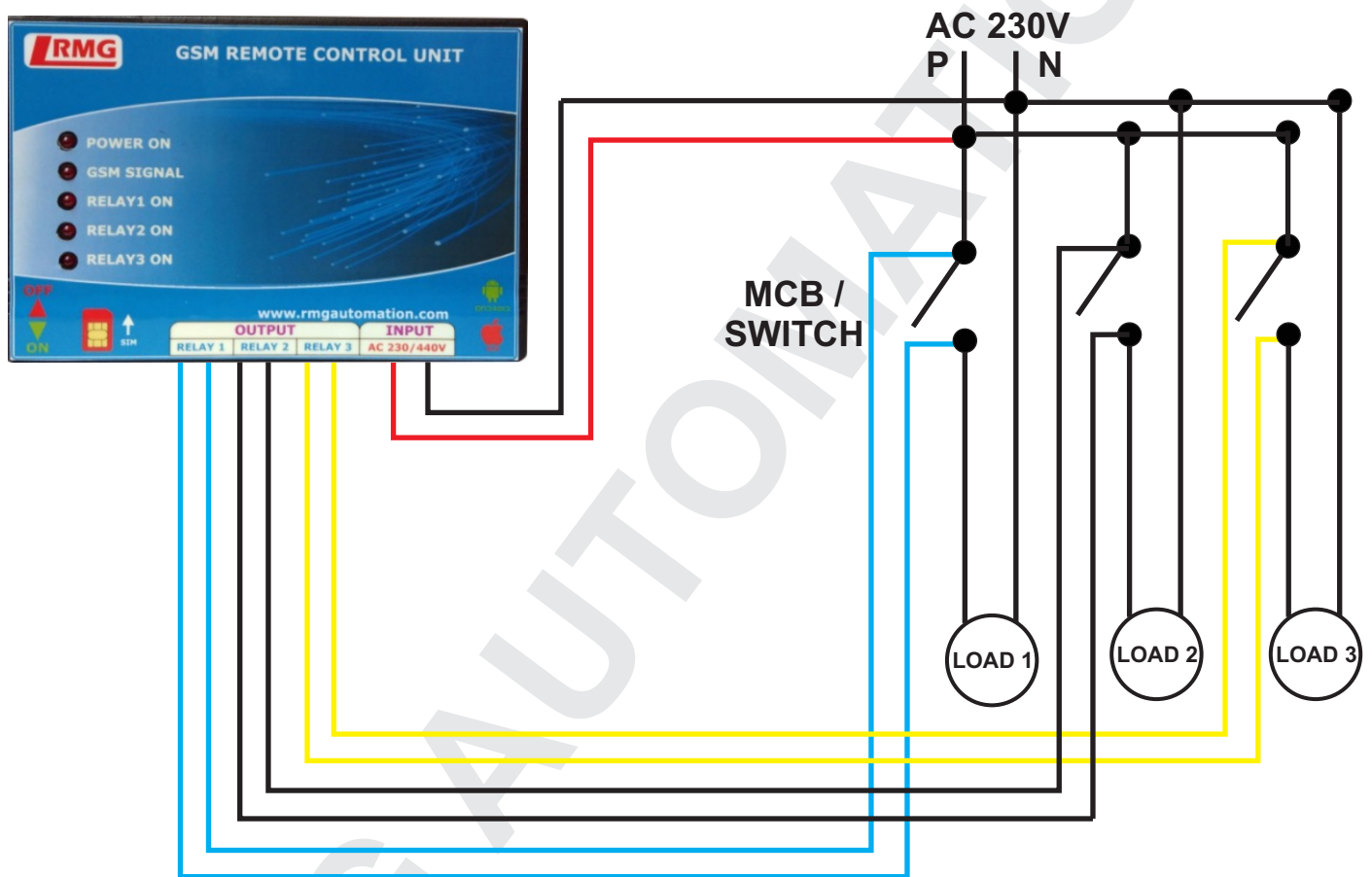


Figure1: Power & Load connection

**Note:** In case of doubts please call 044 - 43180017 or What's App 9940594413 from Monday to Saturday 10 am to 6 pm.

**Step 5:** Connect the antenna to the GSM unit and place it in open space. Do not keep the antenna inside the metal casing and must not be laid along with power wires.

This completes installation.

## 5. OPERATING PROCEDURE

- Switch ON the controller using on/off switch of the controller.
- Power ON LED lights up.
- GSM Signal LED blinks every one second trying to get connected to the network. Further, it blinks every 3 seconds ensuring that the GSM unit has been connected to the network.

### 1.MASTER USER REGISTRATION

Send SMS to the GSM SIM inserted into controller as "91YYYYYYYYYY" (Y is your 10 digit mobile number). Now you will receive a message on your mobile that your mobile number is registered successfully.(You can register up to 5 users, procedure for registration and other commands are given in "List of commands").

**Note:** PLEASE REGISTER THE 1ST USER NUMBER (MASTER USER) WITHOUT FAIL.

### 2.ACTIVATION FOR REGISTERED USER

Send SMS command 71 to activate for registered user. Now the GSM unit responds to the registered user only.

### 3.RELAY ON

Send SMS command 11 from your registered mobile number to TURN ON the relay 1, similarly use command 21, 31 to TURN ON relay 2 and relay 3. You will receive a message that relay is in ON condition.

### 4.RELAY OFF

Send SMS command 10 from your registered mobile number to TURN OFF relay 1, similarly use command 20, 30 to TURN OFF relay 2 and relay 3. You will receive a message that relay is in OFF condition.

- Other SMS commands are given below in "**List of SMS Commands**"

91[REDACTED]

RMG DOOR/GATE OPENER

\*\* 26/09/23,13:27:09 \*\*

Mobile No-1[REDACTED] is  
Registered Successfully

71

RMG DOOR/GATE OPENER

\*\* 26/09/23,13:27:43 \*\*

Activates for Registered Users  
Only.

11

RMG DOOR/GATE OPENER

\*\* 27/09/23,11:26:10 \*\*

Relay 1: ON

10

RMG DOOR/GATE OPENER

\*\* 27/09/23,11:28:18 \*\*

Relay 1: OFF

## 6. LIST OF SMS COMMANDS

SL. NO	SMS COMMAND	EXAMPLE	DESCRIPTION
1	00	00	It denotes Power ON Time
2	10	10	Relay 1 - OFF Condition
3	11	11	Relay 1 – ON condition
4	20	20	Relay 2 - OFF Condition
5	21	21	Relay 2 - OFF Condition
6	30	30	Relay 3 - OFF Condition
7	31	31	Relay 3 - OFF Condition
8	70	70	Activates for ANY USERS
9	71	71	Activates for REGISTERED USERS
10	80	80	It disables the AUTO REPLY SMS facility
11	81	81	It enables the AUTO REPLY SMS facility
12	90	90	It gives the registered users list.
13	9XY	919940594413 92YYYYYYYYYY 93YYYYYYYYYY 94YYYYYYYYYY 95YYYYYYYYYY	It helps to store the user numbers (X-User 1, 2, 3, 4, 5 YYYYYYYYYY-Mobile number).
14	*	*	It helps us to know the setting status.

## 7. TROUBLE SHOOTING METHODS

#	Error	Solutions
1	Power fail	<b>a.</b> Check whether input supply is correctly given. <b>b.</b> Check whether the GSM power switch position is "ON" Check fuse is in good condition. If fuse is failed or burnt replace it with 300 Milliamps. Don't use more than that.
2	Relay is not switching ON	<b>Start Relay:</b> <b>a.</b> Check whether connection of start relay wires are properly given. <b>b.</b> Check start relay - It must be Normally Open. Start relay will become closed for 1-3 seconds while motor ON. Verify it using continuity tester or Multi-meter.
4	SMS/CALL not working	<b>SIM card:</b> <b>a.</b> Check if SIM card is properly inserted as per the image shown in the GSM unit. <b>b.</b> Make sure that SIM Card has 2G support. Don't use SIM Cards that support 4G alone like JIO SIM. <b>GSM antenna location:</b> <b>a.</b> Keep it outside and don't enclose it. Antenna wire laying: <b>b.</b> Make sure that GSM antenna wire is laid separately. Don't take it along with power wires. <b>GSM signal LED:</b> <b>a.</b> Check if it is blinking for every 3 seconds – Network connected. <b>b.</b> If blinking every 1 second – Network Issue – Change another good network SIM card.
5	REPLY MESSAGE NOT COMING	Check the SIM balance and RECHARGE it.