RELAY CONTROLLER

LOGIC introduces micro-controller based Relay controller unit which is the new addition to its product range. This device helps to control the electric appliances like motor and projector through local keypad or Remote Keypad or RS 232 interface by sitting in single place.

Model Available:

LC- 4 RLC	4 RELAY CONTROL
LC- 8 RLC	8 RELAY CONTROL

1.Features

INSTALLATION	Easy to install-plug in and play type
COMPATIBILITY	Can switch 230VAC/8A devices
SELECTION	Individual Relay controlled through ▪ Individual local keypad ▪ RS232 Interface ▪ Remote keypad (Optional)
INDICATION	LED indication for all Relays
UNIT IDENTITY CODE	3 bit Dip switch (For RS232)
EXCLUSIVE RELAY OPERATION	Set of Two relays will operate in pair. If one is ON then other will be OFF. 4 pairs are available in 8 Relay controller
MULTIPLE UNIT OPERATION	Using Unit Identifier, up to 48 Relays can be operated through single RS232 Controller.
MEMORY	Memory retention is provided.
ISOLATION	RS232 and Relays are optically isolated

9. Specification:

MODEL	LG- 4 RLC	LG – 8 RLC
No. of Relays	4	8
Output-3 PIN Captive Screw 230v,8A(L,N,E) Output 4 Pin Captive Screw(F,L,N,E)	2 2	4 4
LED indication	Power and Relay 1to 4	Power and Relay 1to 8
Keypad Selection	1 to 4	1 to 8
Manual/RS232 Select switch	DIP Switch	DIP Switch
RS232 Interface	D9F	D9F
Unit Identifier Code	3 Bits(Switch 6,7,8)	3 Bits(Switch 6,7,8)
Exclusive Relay Mode	2 Bits	2 Bits
Main Input	230VAC	230VAC
Dimension (RACK 19 INCH)	1U	1U
Input Power Terminal Block 230VAC	1	1

The simple commands used for selecting the Relays are

RELAY	DECIMAL (Set by DIP Switch 6,7,8)	ASCII
1 ON	1! or 1@ or 1# or 1$	31,21
2 ON	2! or 2@ or 2# or 2$	32,21
3 ON	3! or 3@ or 3# or 3$	33,21
4 ON	4! or 4@ or 4# or 4$	34,21
5 ON	5! or 5@ or 5# or 5$	35,21
6 ON	6! or 6@ or 6# or 6$	36,21
7 ON	7! or 7@ or 7# or 7$	37,21
8 ON	8! or 8@ or 8# or 8$	38,21
1 OFF	a! or a@ or a# or a$	61,21
2 OFF	b! or b@ or b# or b$	62,21
3 OFF	c! or c@ or c# or c$	63,21
4 OFF	d! or d@ or d# or d$	64,21
5 OFF	e! or e@ or e# or e$	65,21
6 OFF	f! or f@ or f# or f$	66,21
7 OFF	g! or g@ or g# or g$	67,21
8 OFF	h! or h@ or h# or h$	68,21
ALL OFF	o! or o@ or o# or o$	30,21
ALL ON	0! or 0@ or 0# or 0$	4F,21
RELAY 2,4,6 8 ON	x! or x@ or x# or x$	78,21
RELAY 1,3,5,7 ON	y! or y@ or y# or y$	79,21

Communication parameters are 9600 baud rate, 8-bit, 1 stop bit and no parity.

If "%" command is given instead of !,@,#,$ & ?; then it override the Dip Switch for ! or @ or # or $ or & or ?;.

2. Normal / Exclusive Mode Selection

DIP SWITCH	POSITION	OPERATION
1.	OFF ON	Relay 1 & 2 Normal Mode Operation Relay 1 & 2 Exclusive Mode Operation
2.	OFF ON	Relay 3 & 4 Normal Mode Operation Relay 3 & 4 Exclusive Mode Operation
3.	OFF ON	Relay 5 & 6 Normal Mode Operation Relay 5 & 6 Exclusive Mode Operation
4.	OFF ON	Relay 7 & 8 Normal Mode Operation Relay 7 & 8 Exclusive Mode Operation

In **Normal mode** operation all relay will work independently. 4 connectors are provided so that 4 relay output connected to 4 different loads. For Operation in normal mode do not use F of Relay 1 and Relay 3.

In **Exclusive mode** two relays will work in pair. If one is ON then another will OFF and vice versa. If relay1 is ON then relay2 is OFF and vice versa. Used for motor operation.

At the rear end L is relay 1 contact used for reversing the motor. F is relay 2 contact used for forwarding the motor.

3.Operation in Exclusive Mode for Relay 1 & 2:

- Keep the dip switch 1 to ON.
  Use Relay 1 connector 4 Pin Captive Screw for motor. (Do not use Relay 2 Connector if motor used).

- Connect common of motor to N.
  Connect Forward wire to F
  Connect Reverse wire to L
  Connect Earth to E
- Press Key 1 for reverse motor drive and press Key 2 for forward motor drive.

NOTE:
1) Similarly for Relay 3 & 4, Relay 5 & 6, Relay 7 & 8.
2) For Operation in normal mode do not use F of Relay 1, Relay 3, Relay 5 and Relay 8.

4. Unit Identity Code Selection (Only For RS232 C Command)

DIP SWITCH 6	DIP SWITCH 7	DIP SWITCH 8	UNIT IDENTIFIER CODE
OFF	OFF	OFF	No serial (Keypad)
ON	OFF	OFF	!
OFF	ON	OFF	#
ON	ON	OFF	@
OFF	OFF	ON	$
ON	OFF	ON	&
OFF	ON	ON	;
ON	ON	ON	?

5. Front Keys Operation

DIP SWITCH 5		
OFF	Press to ON or OFF	Toggle Mode (Normal Operation)
ON	Press continuous to ON Release to OFF	

NOTE: When dip switch 5 is ON at power ON condition all relays will be in OFF condition and there is no option for Exclusive Mode

6. Memory:

Memory retention is provided to the unit. The Relay condition remains as per last selected when power goes OFF.

7. OPERATION:

Manual Mode: When DIP switch 5 is OFF unit operates in Normal mode.

Local Keypad: Keypad controls the required output from the front panel by pressing the individual key. By pressing the key Relay will toggle between ON and OFF.

Remote Keypad: Rear panel has a D9 male connector. Particular Relay can be operated by shorting the respective pin to pin 9 through contact switch.

8. Remote RS232 Interface:

Keep the select rear panel to RS232 mode. If the dipswitch 6,7,8 is not OFF than it is in RS232 mode. D9 female connector from rear panel is used for selecting the relay drive through RS232 interface.

D-9 female	Signal
3	Rx
5	GND

LOGIC

OPERATING MANUAL

RELAY CONTROLLER

LG- 4 RLC / LG-8 RLC

Online Instruments, Bangalore