



OPERATING MANUAL
FOR
8 I/O CONTROLLER

Milestone Electronics Pvt. Ltd.

8 I/O CONTROLLER

8 I/O CONTROLLER by Milestone is a device that helps person/s to control various electric appliances specifically for 'Look at me' application (MIC, Camera, etc.) sitting at multiple places through Input contact closure.

Models available

ML - 8 I/O

Features

INSTALLATION	Easy to install - plug and play kind.
COMPATIBILITY	Can switch upto 24V/500ma
SELECTION	Individual Relay controlled through <ul style="list-style-type: none">· Individual Local keypad· Individual Input Contact Closure
INDICATION	LED indication for working set.
UNIT IDENTITY CODE	3 Bit DIP Switch
MULTIPLE UNIT OPERATION	Using Unit Identifier, upto 64 O/P Contact Closure & 64 O/P send command (RS232 can be send using 64 I/P Contact Closure.
ISOLATION	Relays Output are optically isolated.

SPECIFICATIONS

MODEL	ML-8 I/O
NO. OF RELAYS FOR OUTPUT	8
OUTPUT CONTACT CLOSURE RATING	24V, 500ma
OUTPUT 3 PIN CAPTIVE SCREW (CONTACT CLOSURE)	8
LED INDICATION	1 to 8 and PWR
KEYPAD SELECTION	1 to 8
INPUT CONTACT CLOSURE I/P CONNECTOR (4 PIN CAPTURE SCREW)	3
RS232 OUT (3 PIN CAPTURE SCREW) INTERFACE	1
DIP SWITCH SETTING (4 BITS) UNIT IDENTIFIER CODE	3 Bits
MAINS INPUT (AC)	230 V
DIMENSION	Table Top
WEIGHT	2000 g

DIP SWITCH SELECTION

Unit Identity Code Selection

DIP SWITCH 1	DIP SWITCH 2	DIP SWITCH 3	UNIT IDENTIFIER CODE
OFF	OFF	OFF	A
ON	OFF	OFF	B
OFF	ON	OFF	C
ON	ON	OFF	D
OFF	OFF	ON	E
ON	OFF	ON	F
OFF	ON	ON	G
ON	ON	ON	H

OPERATION:

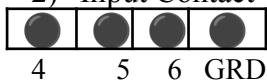
A. Local I/P Keypad & I/P Contact Closure

Controls the required output (O/P Relay Contact & Output RS232 Control) from the front panel keypad, (pressing the individual keypad will toggle the respective relay output (ON or OFF)) or through Input Contact Closure. (toggle between ON & OFF)

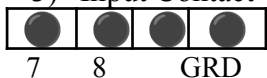
1) Input Contact Closure 1 to 3



2) Input Contact Closure 4 to 6



3) Input Contact Closure 7 to 8



E.g.: Short 1 & GRD (of Input Contact Closure) for O/P 1 contact closure ON/OFF (Toggle) & respective RS232 output for ON & OFF.

B. RS232 Input Interface & Response

3 pin capture screw is provided for RS232 IN & OUT.



The simple commands use to control through RS232 with its response are as follows

RELAY O/P Contact	RS232 I/P Command (RX)	HEX	RS232 Out Response (TX)
1 ON	1A (or B, C etc)	31, 41	1A! (or B, C etc)
1 OFF	aA (or B, C etc)	61, 41	aA! (or B, C etc)
2 ON	2A (or B, C etc)	32, 41	2A! (or B, C etc)
2 OFF	bA (or B, C etc)	62, 41	bA! (or B, C etc)
⋮			
⋮			
⋮			
8 ON	8A (or B, C etc)	38, 41	8A! (or B, C etc)
8 OFF	hA (or B, C etc)	68, 41	hA! (or B, C etc)
All OFF	0A (or B, C etc)	30, 41	0A! (or B, C etc)
All ON	OA (or B, C etc)	4F, 41	OA! (or B, C etc)

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

C. RS232 Output Interface through Input Contact Closure

3 pin capture screw is provided for RS232 output.



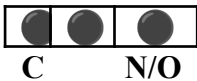
The simple commands send through RS232 Output are as follows

I/P Contact Closure	RELAY O/P Contact	RS232 O/P Command (TX)	HEX
1 (Toggle)	1 ON	1A! (or B, C, etc)	31, 41,21
	1 OFF	aA! (or B, C, etc)	31, 41,21
2 (Toggle)	2 ON	2A! (or B, C, etc)	31, 41,21
	2 OFF	bA! (or B, C, etc)	31, 41,21
⋮			
⋮			
⋮			
⋮			
8 (Toggle)	8 ON	8A! (or B, C, etc)	31, 41,21
	8 OFF	hA! (or B, C, etc)	31, 41,21

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

D. Output Contact Closure

3 Pin Output Captive Screw Details



Centre Point of all the Captive Screw is shorted.

At Power ON, all the relay status remains as per last selected when powered OFF (using battery backed memory feature).

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