# ⇒ Programming Procedure

### Level-1 (User Level)

Press **PGM** key for 2-3 secs. to enter this mode. The display shows:



Note that the leftmost digit will be blinking.

To change the parameter, to say '0036' follow the steps as given:

- 1) First press the shift key '◀' until the blinking shifts to the tens place.



- 3) Now press the shift key ' $\blacktriangleleft$ ' again to shift the blinking to the last digit.
- 4) Repeat step 2 to increment the last digit to '6'. Now the display will show the required value:

-	Fα	) r	
0	0	3	6

5) Now, press the **PGM** key to save the current parameter value and the display will show the next parameter i.e the Total time (in mins.) as shown below:

1	r E	V		
0	0	2	1	

6) This parameter can also be changed similar to the above steps and once the required value is displayed, press set key to save the new value and exit the setting mode. Now the unit will go into the standby mode where the upper display will show the process temperature and the lower display will show the process time.

#### Level-2 (Hold Time Setting)

Press the ' $\triangleleft$ ' key and ' $\checkmark$ ' key simultaneously for 7~8 secs. to enter this mode. The display will show the first parameter i.e. the Hold Time -1 Setting in seconds.

H	ΗI	_ d	1	
0	0	1	0	

Change the parameter if required similar to the level 1 programming and press **PGM** key To show the next parameter i.e. the Hold Tme-2 in seconds

Н	[ L	d	2
0	0	0	6

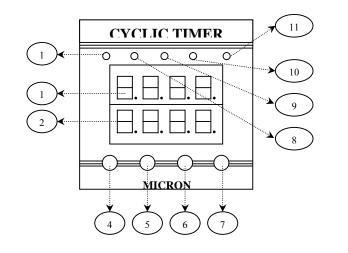
After Changing the parameter press **PGM** key to accept and come out of the programming mode

The limits for the parameters are as given below:

Displayed	Description	Limits	
Code	Description	Min.	Max.
For	Forward Time in minutes	0000 mins	0099 mins.
r e V	Reverse Time in minutes	0000 mins	0099 mins
HLd1	Hold Time1 in seconds	0000 secs.	0099 secs.
HLd2	Hold Time 2 in seconds	0000 secs.	0099 secs.

Note that any attempt to set the parameters below or above the given limits will result in the value resetting to the lower or higher limit.

### $\Rightarrow$ Front Panel Description



- $1 \rightarrow$  Upper Display shows the Status of the current timer 4-digit Red LED
- $2 \rightarrow$  Lower Display shows the elapsed time.: 4-Digit Red LED.
- $3 \rightarrow PGM$  LED to indicate that the unit is in programming mode
- 4 → Program Key (**PGM**): dual function key for entering/exiting program mode.
- 5  $\rightarrow$  Increment Key ( $\blacktriangle$ ): increments the blinking digit by one count in program mode.
- 6 → Decrement Key (♥): decrements the blinking digit by one count in program mode.
- $7 \rightarrow$  Shift Key ( $\triangleleft$ ): Shifts the blinking to the digit on left side.
- 8 → Forward time status which if ON indicates that the forward timer Relay is ON.Also a message "For" is shown on the upper 7 segment display
- 9 → Hold1 time status which if ON indicates that the Hold time after Forward timer and before Reverse timer is ON.A message "HLd1" is shown on the upper 7 segment display to show this status of unit.
- 10 → Reverse time status which if ON indicates that the Reverse timer Relay is ON.Also a message "rEV" is shown on the upper 7 segment display
- 11 → Hold2 time status which if ON indicates that the Hold time after Reverse timer and before Forward timer is ON.A message "HLd2" is shown on the upper 7 segment display to show this status of unit.

Note that the  $\blacktriangle$ /RST key has dual functional properties. If it is pressed for more than 2-3 seconds the timer section of the unit will reset to 00 and start again .



# $\Rightarrow$ Introduction

This 4 - in -1 timer has basically two main timer set points for forward and reverse times having individual relay outputs. In addition, It also has two hold times HLd1 and HLd2 which provide the delay timing between the two main time settings. The main timers are settable in minutes, whereas the hold times can be also set for a maximum of 99 seconds. The status of the timer which is currently ON is continuously shown on the upper display and its elapsed time is indicated in the lower display. The timing is shown in the min:secs. format.

## $\Rightarrow$ Specifications

1. Main timers Range	:	0 ~ 99 minutes.
2. Hold timers Range	:	0 ~ 99 seconds
3. Resolution	:	1second
8. Memory Retention	:	About 100 years
9. Power Supply	:	230V AC,50Hz. ± 10%
10. Timer Relay Outputs	:	2 nos. Relays 1C/0, 5A, 230V AC resistive contacts
<b>11.Cutout Dimensions</b>	:	92mm(H) x 92mm(W)
12. Overall Dimensions	:	96mm(H) x 96mm(W) x 115mm(D)

#### Important Note:

Please note that on power ON, the unit will first execute the Hold-2 timer i.e. initially, both the forward and reverse relay will remain OFF for a duration of Hold-2 setting. This feature is introduced as a safety measure so that the relays Outputs will not turn ON instantly after switching ON the instrument.

Logical Flow Diagram:

