# User manual

## Flow

### Entry Mode

By default the microwave is in entry mode, whereby the screen in clear, waiting for input.

|  |  |  |
| --- | --- | --- |
| Entry Mode | | |
| Button | Function | Description |
| 0-9 | Enter Time | 4 Digits may be entered at any point from 00:01 to 99:99 |
| \* | Start Microwave | Starts the microwave using the determine time |
| If no time has been entered, runs 1:00 by default |
| # | Clear Time | Clears the entered time |
| A | Select Power Level | Switches to the Power Level Selection screen |
| B | - | |
| C | - | |
| D | - | |

### Power Level Mode

Power Level Selection Screen, entered from entry mode, used to set the power of the microwave. If default is required, press # to return to entry mode

|  |  |  |
| --- | --- | --- |
| Power Level Selection | | |
| Button | Function | Description |
| 1 | 100% | Sets power level to 100% |
| 2 | 50% | Sets power level to 50% |
| 3 | 25% | Sets power level to 25% |
| 0, 4-9 | - | |
| \* | - | |
| # | Return | Returns to entry mode, retaining default power level |
| A | - | |
| B | - | |
| C | - | |
| D | - | |

### Running Mode

During the running mode, the timer will continue to countdown and display

|  |  |  |
| --- | --- | --- |
| Running Mode | | |
| Button | Function | Description |
| 0-9 | - | |
| \* | - | |
| # | Pause Time | Pauses running of microwave and enters Pause Mode |
| A | - | |
| B | - |  |
| C | Increment | Increments running time by 30 seconds |
| D | Decrement | Decrements running time by 30 seconds |

### Pause Mode

|  |  |  |
| --- | --- | --- |
| Pause Mode | | |
| Button | Function | Description |
| 0-9 | - | |
| \* | Start | Resumes running of microwave, re-enters Running Mode |
| # | Stop | Clears the running time and returns to entered screen |
| A | - | |
| B | - | |
| C | - | |
| D | - | |

### Finished Mode

Upon finishing cooking, the microwave enters finished mode, displaying “Done Remove Food”

|  |  |  |
| --- | --- | --- |
| Finished Mode | | |
| Button | Function | Description |
| 0-9 | - | |
| \* | - | |
| #\* | Stop | Returns to entry mode |
| A | - | |
| B | - | |
| C | - | |
| D | - | |

\*- Opening the door will also stop and return the microwave to Entry Mode

### Open / Close

Opening and closing the doors is accomplished by using the left and right push buttons:

* Left Push Button – Open Door
* Right Push Button – Close Door

## Wiring

The components of the Microwave emulator are to be connected as follows using the CSE board provided.

### KEYPAD

R0-R3 => PL0-PL3

C0-C3 => PL4-PL7

### LED BAR

LED0-LED7 => PC0-PC7

### LCD

BE-RS => PA4-PA7

D0-D7 => PF0-PF7

BL => PE2 (PWM)

### MOTOR

Mot => PB0

### INPUTS

PB0 => RDX4

PB1 => RDX3