# **Ensupra Electricity Usage Monitor**

• Function Description: Plug the Ensupra Monitor into a home power 230 VAC plug socket. It will start working. Plug your electric appliances or equipment to the Power Monitor. Power Meter measures power in Watts and electrical energy consumption in KW-hr. It shows cost of operating appliance and help users reduce the power bill and carbon emissions with monitoring and controlling power usages. You get the control over how much power you are consuming for your items like TV, Refrigerator, Microwave oven, etc. It has advanced feature of history bar graph of past Days/Weeks/Months daily consumption. This provides proper prospective of electrical usage.



# • Operation Steps:

Firstly remove the plastic pull tab from the battery compartment cover so that data is stored when the meter is removed from power or during power failure.

- By Pressing "ENERGY" button repeatedly, LCD display will show Volts, Current in Amp, Power in Watt, Frequency, and Power Factor
- By pressing "HISTORY" button repeatedly, LED display shows Consumption, KWH (unit of electricity) Daily, Weekly & Monthly. By pressing "COST" button repeatedly, LED display shows Power in Watt at the top line and at the 2<sup>nd</sup> line it shows Total Cost, Tariff or electrical rate, Multi Tariff information (advanced feature), Carbon dioxide information, Time elapsed, Total KWH

Reset Button (Red): Press the small red button inside with a pencil or nail to reset all the historical data

## • Setup Clock:

To set clock, :press "COST/-" button to see the time screen, then keep pressing "SET/OK" button for 3 seconds,  $\Theta$  will be flashing. Press "HISTORY" to select the digit position. Press "ENERGY/+"or "COST/-"setting to change the digits. Finally, press "OK" button to finish, it will logout the current setup after 10 seconds if no any action and save the old setting.

COST START

Setting Time of Tariff 2 : Press "HISTORY" button to choose the twinkle number(the second rank of LCD), then press "ENERGY/+" or "COST/-"botton to set rate(range:0.000  $\sim$  9999COST/KWH). When selected, .press "OK" button to set.

COST

Time of Tariff 2 setting: Go to "TIME START" screen, press "HISTORY". Select the correct position ,press "ENERGY/+"or "COST/-"to setting of the time. When you finished selection of digits, press "OK" button.

COST START

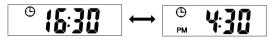
# Clock & Electric Display:

Turn on the power supply, LCD displays the clock in second rank Press"COST/-" to see the electric rate set by you

Cumulative time: When is Power clocking and recording energy use data... in more than 2W, the product will start

Accumulative electric power range: 0.000KWH∼9999KWH

12/24H exchange, in clock screen, press "HISTORY" and "ENERGY/+" together and keeping more than 3 seconds:



# • Setup Tariff (Electrical rate, \$ per KWH)

Press "COST/-" to go back to tariff screen and then, keep pressing "SET/OK" for 3 seconds.

When "TARIFF 1"flashes, press "ENERGY/+"or "COST/-"select "TARIFF 1" or "DUAL TARIFF", then press "HISTORY" to confirm.

You use "HISTROY" button to move to the digit position and "ENERGY/+" and "COST/-"to change the number. Press "SET/OK" button for set

If you have selected simple tariff "TARIFF 1", you just need to set the rate of "TARIFF 1", then press "SET/OK" button for saving all parameters. It will enter into initial LCD displayed mode.

The range starts from 0.00 COST/KWH. After you set it, press "SET/OK" to confirm. For example, you may set 0.14 for \$0.14 per Kwh rate of electricity of your area



If you have selected "DUAL TARIFF", Press "HISTORY" to the correct position, then press "ENERGY/+" or "COST/-" to the setting.

Setting Time of Tariff 1: In "TIME START" screen, press "HISTORY" select the correct position by pressing "ENERGY/+" or "COST/-". to the setting of the time. When you are done with settings, press "OK" button.



2.5 Accumulative electric charge range: 0.00COST~9999COST



2.6 Cost of Tariff 1: 0.00COST/KWH~9999COST/KWH



2.7Time of Tariff 1:



2.8Cost of Tariff 2: 0.00COST/KWH~9999COST/KWH



2.9Time of Tariff 2



2.10 Volume Kg of CO2 0.00~9999KG GO2/KWH



2.11 Total Volume Kg of CO20.00~9999KG CO2



# 4.OVERLOAD setting:

Press"ENERGY/+" button to select the "OVERLOAD" screen, Press"ENERGY" button more than three seconds, it will enter into "OVERLOAD" watts. When "W" flashes .press "ENERGY/+" or "COST/-"to setting "W" or "A"

### Remark:

A. If you press the button but don't do any response, it will quit the OVERLOAD automatically.

automatically.

By When current load power exceed the overload parameter which was set before, the 
"OVERLOAD" will keep twinkling, it means dangerous and have safety concerns. 
The system regard as initial parameter 3680W.

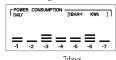
**5 CO2 setting:** Press "COST/-" to Co2 screen, then keep pressing "SET/OK" for 3 seconds to settings:

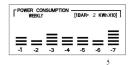


Press "HISTORY" to select the position, then press "ENERGY/+"or "COST/-" to setting, then, press "SET/OK" to save

# 6, History bar graph of past 7 days/weeks/months consumption.

Press "HISTORY" to change the screen.





Normal operation voltage: 230VAC/50Hz/3680W

Load current: MAX 16A

Timing display range: 0 second~9999 days

Power display range: 0.000~9999W

Voltage display range:  $0.000{\sim}9999V$ 

Current display range: 0.000~9999A

Rate of electricity range: 0.000~9999COST/KWH (Can fraction of dollar, like \$0.18

for 18 cents per KWH(units of electricity))

Total cost consume range : \$0.000~9999K

Total energy consume range:  $0.000{\sim}9999KWH$ 

# • Working condition:

Working Voltage: 230VAC Voltage Frequency: 50Hz Working Current: ≤16A

# • Exception Analysis:

1.Please check whether the power meter and power supply is in good connection

2.Please check whether the power meter and electric appliance is in good connection.

3.Please check the battery in the power meter whether can be normally used.

4. Press " RESET" button to reset defaults.

# • warning:

1. Only to be used indoor.

- 2. Only to be used in dry conditions
- 3. Only to be used within max load.



#### 7 months

6.1 The initial setup1bar=1KWH, if the real power consumption is too big to display by 1KWH, it will change to 2/3 KWH automatically.

### [1BAR=1523KWh X10] **→**[1BAR=1 **KW**h →[1BAR= 2 KWh **→**[1BAR= **3KW**h

→[1BAR= 5 KWh

→[1BAR=1 KWh X10]

→[1BAR=15 KWh →[1BAR= 2 KWh X10]

→[1BAR= 3KWh X10]

→[1BAR= 5 KWh X10]

# 6.2 The power consumption of days/weeks/months.

**6.2.1:** To see the day's energy consumption in last 7 days: press "HISTORY" for 3 seconds when screen in "daily" mode. press "ENERGY/+" or "COST/-" to select the day you want. The day's energy consumption will display in the second rank.

**6.2.2:** To see week's energy consumption in last 7 weeks: press "HISTORY" for 3 seconds when screen in "weekly", press "ENERGY/+"or "COST/-" to select the week you want. The week's energy consumption will display in the second rank

**6.2.3:**To seel month's energy consumption in last 7 months: press "HISTORY" for 3 seconds when screen in "monthly", press "ENERGY/+" or "COST/-"to select the month you want. The month's energy consumption will display in the second rank.

# 7, How to fast clear/ delete data:

- 7.1. Press "ENERGY/+" and "COST/-" for 3 seconds until the screen is flashing,
- 7.2. Then press the "SET/OK" for 3 seconds. All the number will be deleted.

## • Technical Parameters: