

## Solar Energy operated Motorised Valves

*Most readily available  
Free Solar Energy Source*

*Small Sized stand-alone system*

*Reduce dependability on  
non-renewable sources / Electricity*

*Save Electricity Transmission  
& Distribution Cost*

*Non Polluting*

- Solar Panel With Battery
- Valve Control Unit

- GSM Based Control System
- Operates Various Valves

Solar energy is the most readily available source of energy. It does not belong to anybody and is, therefore, free. It is also the most important of the non-conventional sources of energy because it is non-polluting and, therefore, helps in lessening the greenhouse effect.

However small sized stand-alone systems and roof top systems are being operated in various locations.

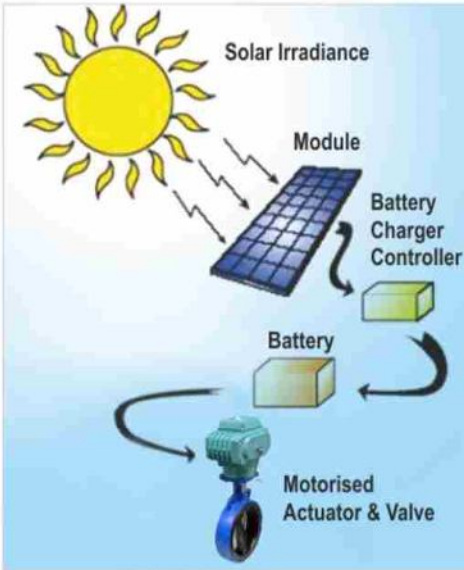
We use Solar energy to meet our electricity requirements to operate motorised valves. Through Solar Photovoltaic cells, solar radiation gets converted into DC electricity directly. This electricity can either be used as it is or can be stored in the battery. This stored electrical energy used to operate motorised valves.

Solar energy reduce our dependence on non-renewable sources of energy and make our environment cleaner.





# VALVE CONTROL UNIT WITH BATTERY AND SOLAR PANEL GSM BASED CONTROL SYSTEM



## Specifications

1. Operating Voltage : 12VDC With Inbuilt battery
2. Battery Charging : Through Solar Panel
3. Indications : Battery Charging, Valve Open and Valve Close
4. Control Output : 24VDC for Motor for Opening/Closing
5. Mains ON/OFF : Rocker Switch Provided
6. Auto/Man Selection : Selector Switch Provided
7. Auto Mode : Operates as per command given through mobile phone
8. Manual Mode : Operates through local Push buttons
9. Valve Type : Butterfly Valve, Ball Valve, Damper, Globe Valve

## About The System:

GSM based control unit has one Power Supply unit and external Solar panel. GSM control unit consists of GSM receiver module and micro controller based control circuit. Power Supply unit consists of battery, Battery charger circuit, power supply circuit and Motor

control circuit. The solar panel connected with power supply unit charge the battery fitted inside. This battery power is used for the functioning of the system. The system works based on GSM signal in Auto mode and through push buttons in Manual mode. SIM card is inserted in the GSM module (any SIM card can be used with available network). The GSM module receives the command from mobile phone and it gives the signal to the micro controller based control card. This control card drives the motor control circuit to operate the valve.

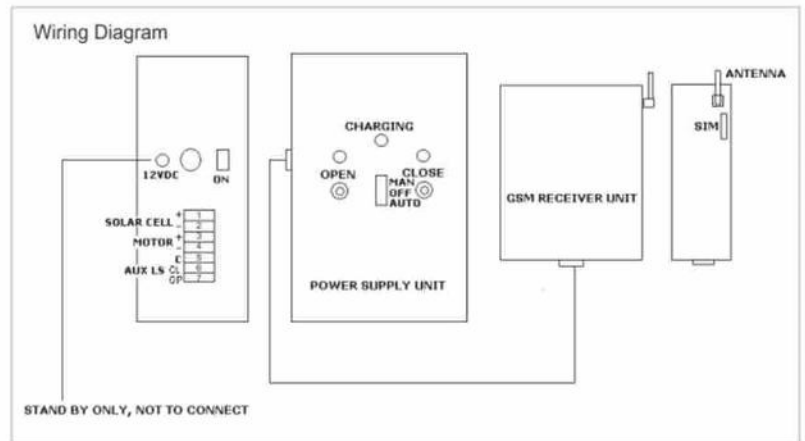
**Note :** Option is provided to connect external 12VDC. This is only for emergency condition, if the battery is drained fully. Otherwise not required connect.

## Operating Instructions:

The connections between the System, Solar panel and the valve actuator should be made as per the wiring diagram. Switch ON the system. The battery charging LED indications glows and when charging completes the LED flashes intermediately. System has the facility of Manual and Auto mode operation. In manual mode, controls Opening/Closing function of the Valve through local push buttons fitted on control unit. In auto mode, the valve operates by mobile phone through GSM network. If you give the Open command message, the Valve opens and if you give the Close command message, the Valve Closes. The Valve Open/Close indications glow respectively.

## How to control the Valve Functions through mobile:

It is very easy to control the opening and closing functions of the valve using a mobile phone. By typing the Text Messages and sending to the particular number the valve operation can be controlled. The format of the Text Messages for different functions and how to use these at different level is explained in our service manual. Any other SIM of available network and that phone number can be used for sending the messages. The SIM slot is provided in the unit and shown in the diagram. At any time the SIM can be easily replaced.



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