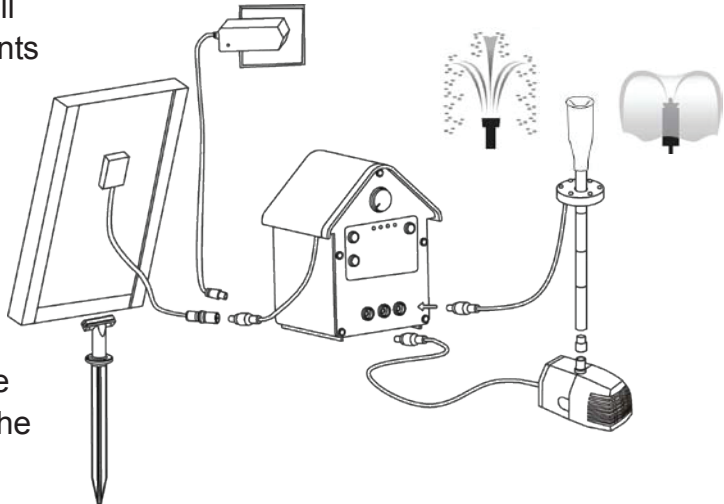


SOLAR HYBRID PUMP

USER'S MANUAL AD40170

1. BEFORE YOU BEGIN – ASSEMBLY

- Unpack all components carefully.



- Attach the stake to the panel

- Connect the Solar Panel to the Battery Control Housing.
- **Fully charge the unit** using direct sunlight (minimum 8 hours) **or** the hybrid charging unit plugged into an **indoor** power receptacle. This charger activates an indicator light, red when charging then green when the charging cycle is complete.

2. PREPARATION FOR USE, FOR FOUNTAINS

- Install the pump in the fountain reservoir area ensuring it is completely submersed in water.
- Connect the pump cable to the appropriate socket of the Battery Control housing.
- Connect the optional LED light cable to the socket of the Battery Control housing. (If required)
- Choose an appropriate location for the solar panel that will allow the best possible exposure to sunlight.

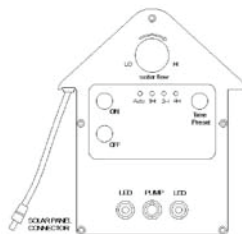
3. PREPARATION FOR USE, FOR PONDS

- Choose the style of fountain head as needed, and number of extension tubes required for proper height.
- Connect fountain head and/or LED light to the pump as required.
- Connect the pump cable to the appropriate socket of the Battery Control housing.
- Connect the LED light cable to the socket on Battery Control housing.
- Place the pump under water, ensuring it is **fully submersed**. Adjust height of unit so fountain head is just above the water surface.
- Choose an appropriate location for the Solar Panel that allows the best possible exposure to sunlight.

4. OPERATING INSTRUCTIONS

Turning on / adjusting settings of the pump system:

- Pushing the “on” button on the Control House sets the unit to **“Auto”** by default. This setting will run the unit until the battery is flat. (**Note:** LED lights use a sensor, operating only at night)
- **We recommend** using a pre-determined run time by pressing the “Time Preset” button to cycle through the available settings.
- Using the preset run times greatly increases battery efficiency and lifespan, and gives a more consistent performance of the unit.
- When choosing a time preset, the memory function is engaged, and will turn the unit back on daily at the time it was set.
- Pump flow is adjusted using the round dial on top of the unit. Reducing the pump flow increases the available battery power.
- When battery is low, all red indicator lights will blink.

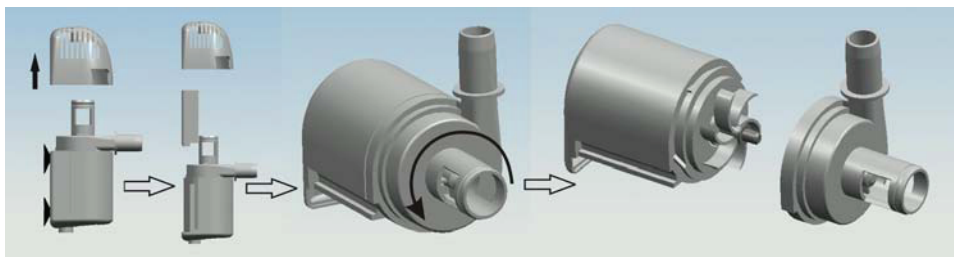


Clearing the Memory function

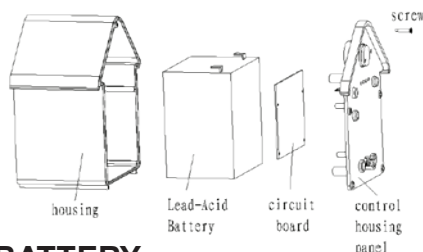
- ✧ Pushing the “off” button will clear the time preset memory.
- ✧ When the unit is re-activated using the methods above, the system resets to the time of this re-activation daily.

5. CLEANING AND MAINTENANCE

Solar panel: Regular cleaning of the panel with a soft cloth is advised to maintain optimum conversion of the sun's energy into direct current.



Pump: To prevent build up of sediment, scale or dirt in the impeller or filter, remove the pump cover and the impeller cover. Clean parts with a soft brush, and mild soap and water.



6. REPLACING BATTERY

The rechargeable battery is sealed inside the Battery Control Housing, and has an intended life span of approximately 18 months.

Replacements are available through our customer service department.

CAUTIONS / WARNINGS

- ✧ Any alteration of the product or the components will void warranty.
- ✧ Do not connect the pump directly to any AC voltage power; it is intended ONLY for DC Voltage power.
- ✧ The Hybrid Charging Cable is intended for INDOOR USE ONLY.
- ✧ Operate in freshwater only (never above 50°C)
- ✧ Keep away from flammable liquids.
- ✧ Do not strike the solar panel.
- ✧ Do not let the pump run dry.

7. TROUBLE SHOOTING

(a) Pump does not operate when solar panel is in full sunlight.

Check: All Wiring and connections from pump to the solar panel.

Check: If Impeller is blocked with debris, clean the pump as described in previous section.

(b) Pump does operate but there is no water running through the fountain head.

Check: Build up of sediment or scale in the tubes or the filter.
Clean the tubes and the filter.

(c) Operating time is shorter than preset time.

Not enough electricity stored in the battery. Charge properly.

8. TECHNICAL DATA

Item Number	AD40170
Solar Module	8W
Pump (Voltage)	DC 12 - 20V
Maximum Water lift	2 meters
Maximum Flow Rate	800 L/H
LED light (Voltage)	DC 12V
Rechargeable Battery	Lead Acid 12V - 4AH

WARRANTY

- ✧ Pump is covered by a one year limited warranty
- ✧ Solar Panel is covered by a one year limited warranty.
- ✧ Battery and Lights are covered for 90 days.

For more information on our solar items, please visit our web site:

www.angelodecor.com

To contact us regarding this unit, your options include:

Email: info@angelodecor.com

Phone: 780 – 453 6646

Fax: 780 – 453 6620