

SERVICE FUNCTIONS:

Start-up Diagnostic: All lights, displays and non-volatile memory are checked on start-up. "EE" will flash in the display if a fault is found.

Pool Sensor Fault Diagnosis: "Er" display indicates a faulty pool sensor. Both sensors are non-polar 4.7K Ohm at 25°C thermistor with these temp/resistance ohm readings: 10°C - 9535, 20°C - 5902, 30°C - 3770, 40°C - 2480.

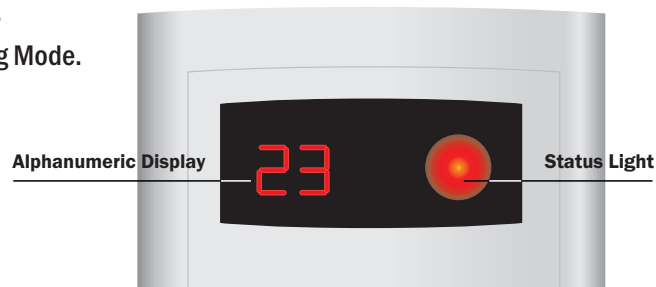
Electrical Specifications: ΔT on 6°C. ΔT off at 2°C. Max relay overload 230V-10A

Readout Calibration: To fine tune the temperature readings hold TEMP SET button down for 10 seconds until the display flashes. Pressing the up or down arrow buttons will change the units base settings one degree each press. While in standby, the display reads the last recorded temperature.

Service Lock-Out Mode: Hold AUTO & MAN buttons down for 10 seconds (LO appears in display). Controller will remain in Lock-Out for 2 hours before reverting to normal automatic operation.

ALPHANUMERIC DISPLAY DIAGNOSTIC MESSAGES:

- 00** Roof Temp Sensor - 00 can indicate something has happened to the Roof Temp Sensor and it is close to open circuit.
- 00** Set Temp Button - 00 can also indicate that the button has been depressed for too long and the system needs to be re-calibrated.
- 01** Roof Temp Sensor reading too high.
- 99** Roof Temp Sensor damaged and close to short circuit.
- Er** [Steady] Faulty Cold Sensor.
- Er** [Flashing] Faulty Roof Sensor.
- CO** Continuous Operation.
- LO** Service lock-Out.
- EE** Software Fault.
- W** Winter Mode.
- ES** Energy Saving Mode.



Sunbather SunSwitch Operating Instructions



SERVICE CONTACTS
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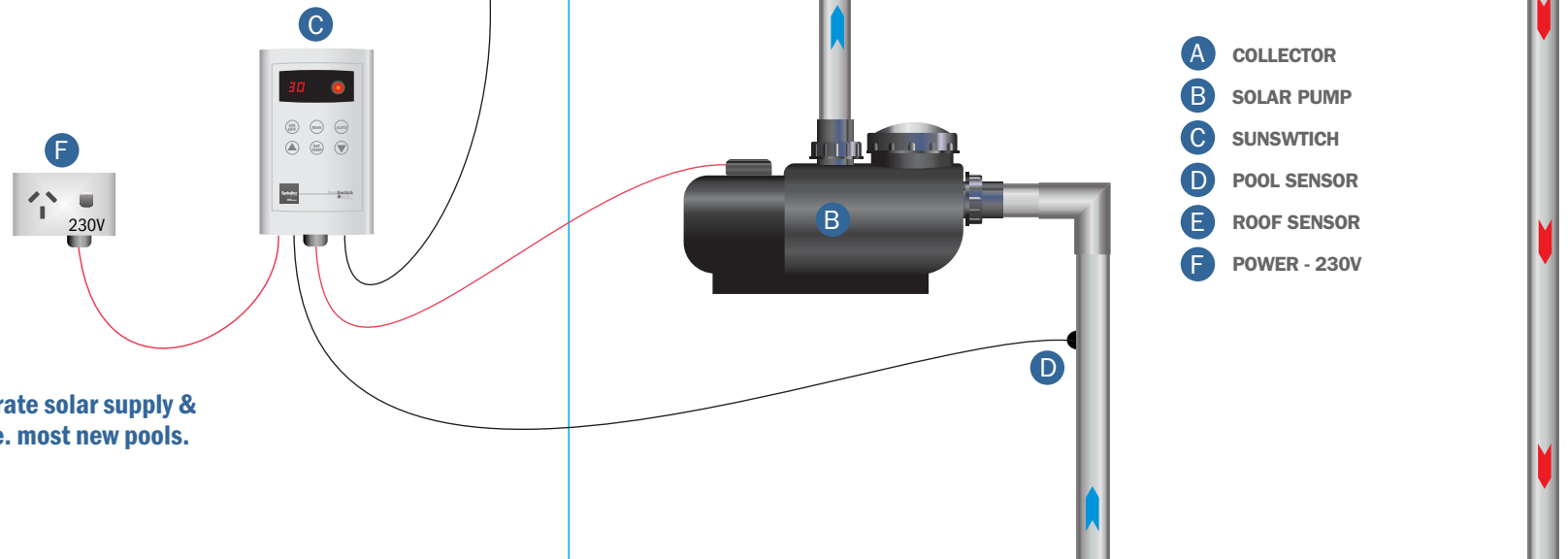
SUNSWITCH INSTALLATION INSTRUCTIONS - OPTION 1.

- Step 1** Fix wall mounting bracket on a vertical wall protected from direct rain and sun.
- Step 2** Locate **Roof Sensor** (15.0m) on separate solar pad fixed adjacent to the solar collector. This pad must receive similar sun to the solar collector but not be in contact with it.
- Step 3** A 'barb and grommet' sensor pocket well is provided. Drill 13mm hole and install it into a section of pipework before the solar collector take-off and insert the **Pool Sensor** (1.8m) into the well.
- Step 4** Connect both Pool and Roof sensors to the colour-matched connections on the controller. Then slide unit into mounting bracket.
- Step 5** Plug in solar circulation pump and switch ON. Set the Pool Temp to 30°C for the initial start up.

- NOTES:**
- [a] Joins in sensor cables must be soldered and waterproofed.
 - [b] SunSwitches are NOT designed to switch DC motors or Multi-speed pumps as damage may occur to the electronics.
 - [c] Do not coil up excess sensor wire as this weakens the signals. Always cut and join to give the correct length.
 - [d] For any repairs simply return to the place of purchase.



Installation Video



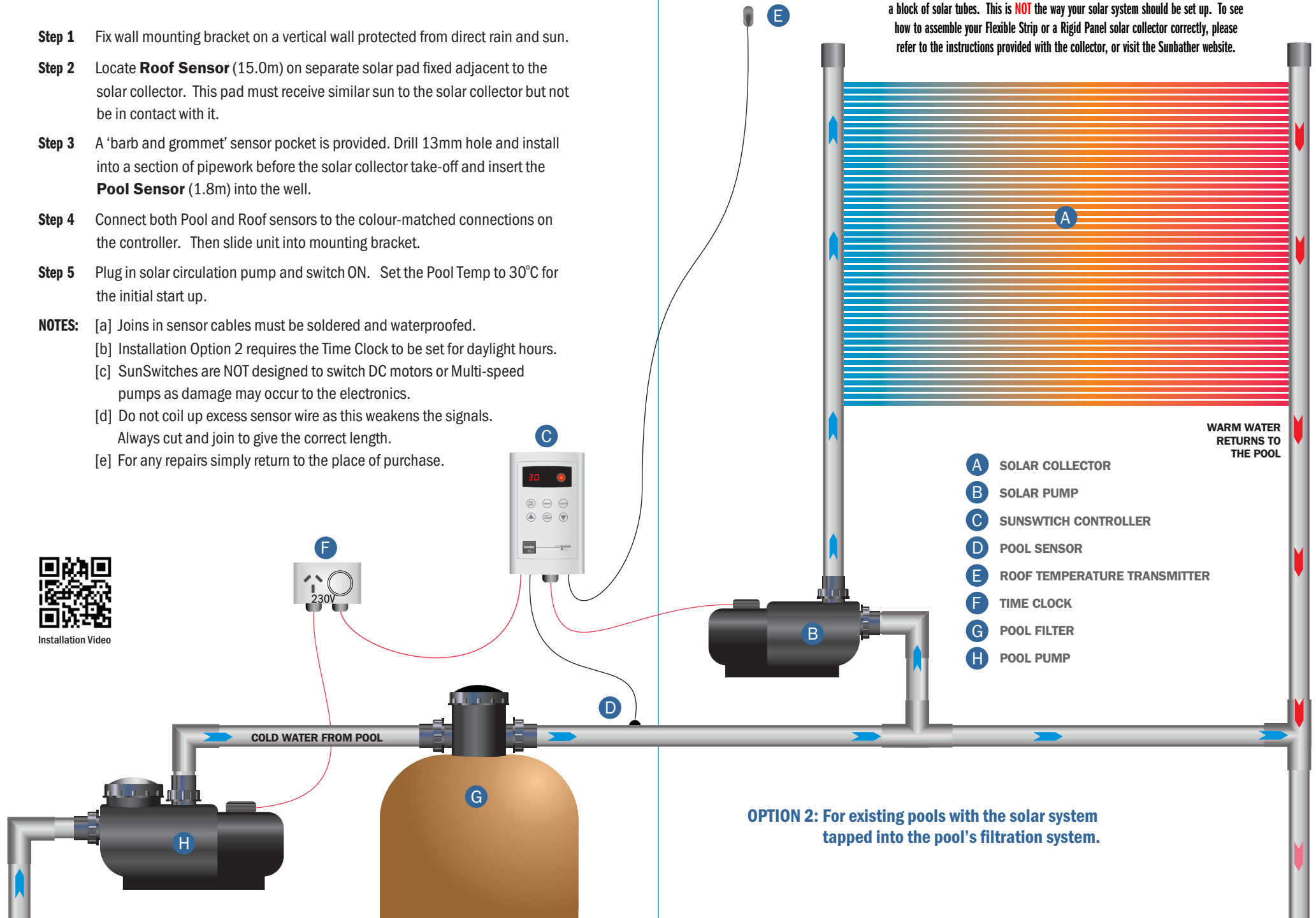
SUNSWITCH INSTALLATION INSTRUCTIONS - OPTION 2.

- Step 1** Fix wall mounting bracket on a vertical wall protected from direct rain and sun.
- Step 2** Locate **Roof Sensor** (15.0m) on separate solar pad fixed adjacent to the solar collector. This pad must receive similar sun to the solar collector but not be in contact with it.
- Step 3** A 'barb and grommet' sensor pocket is provided. Drill 13mm hole and install into a section of pipework before the solar collector take-off and insert the **Pool Sensor** (1.8m) into the well.
- Step 4** Connect both Pool and Roof sensors to the colour-matched connections on the controller. Then slide unit into mounting bracket.
- Step 5** Plug in solar circulation pump and switch ON. Set the Pool Temp to 30°C for the initial start up.

- NOTES:**
- [a] Joins in sensor cables must be soldered and waterproofed.
 - [b] Installation Option 2 requires the Time Clock to be set for daylight hours.
 - [c] SunSwitches are NOT designed to switch DC motors or Multi-speed pumps as damage may occur to the electronics.
 - [d] Do not coil up excess sensor wire as this weakens the signals.
Always cut and join to give the correct length.
 - [e] For any repairs simply return to the place of purchase.



Installation Video



OPTION 2: For existing pools with the solar system tapped into the pool's filtration system.

PRIMARY FUNCTIONS:

To Switch ON:



Push the ON/OFF button once to switch the unit ON (pool temperature will then display).

For Automatic Operation:

Press the AUTO button once for fully automatic operation (status light will then display).

In this mode the controller automatically switches the solar pump to heat the pool when weather conditions are favorable. The status light pulses when the pump is on standby and remains on when the pump is running.

To Select the Desired Temperature:

Press the **SET TEMP** button down and scroll up  or down  with the arrow buttons until the desired pool temperature is displayed.

The display reverts back to reading the pool water temperature after 5 seconds.

The pool set temperature can be read anytime by pressing the **SET TEMP** button.

SECONDARY FUNCTIONS:

MANUAL:

Press **MAN** to run the solar pump (flashing status light indicates Manual mode).



Press **AUTO** to exit Manual mode or wait 30 minutes for unit to revert back to Automatic.

For continuous Manual operation, hold the **MAN** button down for 10 seconds. "CO" will appear in the display. Press **AUTO** to revert back to Automatic mode.

WINTER MODE:

Press **ON/OFF** for 10 seconds ("W" will appear in the display) and the solar pump will run for 10 minutes each day, from the time of setting. Press **ON/OFF** again to exit winter mode.

ROOF/POOL TEMPERATURE:

Press and hold the Up Arrow  for 3 seconds to display the roof sensor temperature for 5 seconds. Press and hold the Down Arrow  for 3 seconds to display the pool sensor temperature for 5 seconds.

HEAT & COOL MODE:

Press **AUTO** for 10 seconds (display pulses continuously when in Heat & Cool mode). Push **AUTO** again to revert to normal operation.

ENERGY SAVING MODE:

"ES" appears in the display when ENERGY SAVING mode is working:

When the Set Temp has been reached, the letters "ES" and the pool temperature will alternate in the display.

This is not an error message - it indicates "Energy Saving Mode" has been achieved.

While in "ES" mode the pump will NOT run for 2.5 hours.

After 2.5 hours the pump will run for 3 minutes to check the pool water temperature and then revert to normal automatic operation or remain in "ES" for another 2.5 hour period.

