Sun Touch™

Solar Pool & Spa Automation Control

Quick Reference

SOLAR ONLY MODE

To setup the SOLAR system follow Steps 1 - 5:

Step 1: System Time
1. Press **Menu > Right button** 3 times (**Time Set**).
2. Press **Up/Down button** to set Hours.
3. Press **Right button** to select Minutes.
4. Press **Up/Down button** to set Minutes.
5. Press **Left button** to save and exit.

Step 2: Set Water Temperature
1. Press **Menu > Up/Down button** to set Temp.
2. Press **Left button** to save and exit.

Step 3: Set Solar Freeze Protection
1. Press **Menu > Right button** > Solar Freeze.
2. Press **Up/Down button** to select **YES**.
3. Press **Left button** to save and exit.

Step 4: Set Cleaner Freeze Protection
1. Press **Menu > Right button** > Cleaner Freeze.
2. Press **Up/Down button** to select **YES**.
3. Press **Left button** to save and exit.

Step 5: Air Sensor *(Requires additional air sensor)*
1. Press **Menu > Right button** > Air Sensor.
2. Press **Up/Down button** to select **NO/YES**.
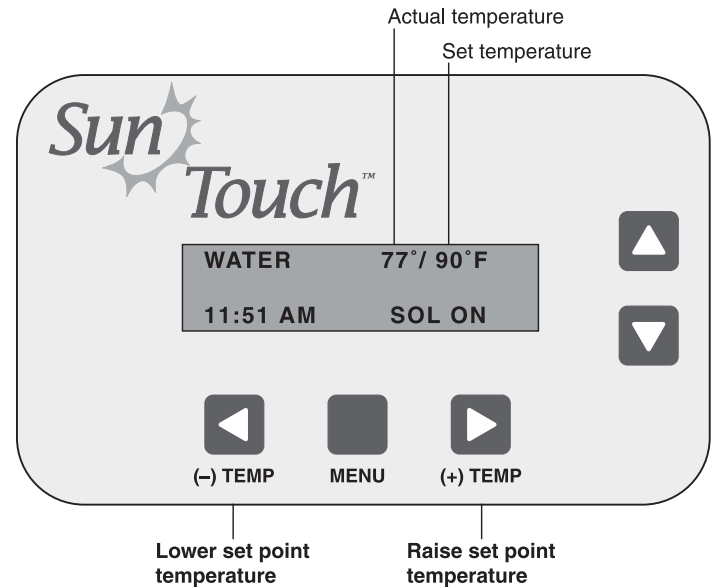3. Press **Left button** to save and exit.

SOLAR OPERATION

Setting Water Temperature: Adjust to the desired set temperature from 40° F to 104° F (or 4° C to 40° C). This allows the solar system to heat the water up to set point temperature. After the set point temperature is reached, the solar system is automatically switched off. To determine your optimum water temperature setting, set the "Set Temperature" settings to 100° F and observe the water temperature over a period of a few days. When the maximum desired temperature of the pool is reached, set the temperature again. Once this setting is identified, it will not be necessary to change the set temperature again.

Optimum Water Temperature: The solar roof sensor must be 6° higher than the water temperature. The pump must be ON for a few minutes for operation. When the roof sensor and the water temperature are within 3°, solar heat will switch off. This differential setting is adjustable in the "Stop Temp Diff" setting and is factory set at 3°, (see back page). This setting sets how close to the target set point temperature to switch off solar heat. Adjust the start and stop temperature deferential settings to start and stop solar water heating. Adjusting the differential will effect the performance of your solar system. See you solar professional for the optimum setting.

Pool Pressure Cleaner Delay: Whenever the solar system is turned on, an electronic delay automatically turns off the pool pressure cleaner for five minutes. This protects the pump from damage caused by air in the solar panels at system start-up. The pressure cleaner is connected to AUX 2 which will be always set to on.

Filter Pump Timer: The filter pump timer must be set so that the filter pump operates during the time of the day when solar energy is available.

MAIN SCREEN DISPLAY

Actual temperature
Set temperature

Sun Touch™

WATER   77°/ 90°F

11:51 AM   SOL ON

(–) TEMP   MENU   (+) TEMP

Lower set point temperature   **Raise set point temperature**

Main Screen: In "Solar Only" mode the main screen display toggles between the current outside air temperature, and the actual and set water temperature, and current solar status (SOL ON/OFF). The system time also displays as set in the "Time Set" menu.

Freeze Protection: In order to display the air temperature, an optional air sensor is required. The air sensor is also used for freeze protection. The filter pump and optional relay must be connected to an external time clock for freeze protection to work.

Normal Operating Mode: AUTO is displayed on the main screen what SunTouch "Solar Only" is in normal operating mode. This mode will automatically switch the system on whenever solar energy is available. SunTouch will heat the pool or spa (rotate the valve to solar position or turn on a booster pump) when solar heat is available and the "Set Water Temp" is set higher than the water temperature. The solar temperature start and stop differential settings are factory set at 6° and 3°. The solar roof sensor must be 6° higher than the water temperature. The pump must be ON for a few minutes for operation. When the roof sensor and the water temperature are within 3°, solar heat will switch off. This differential setting is adjustable in the "Stop Temp Diff" menu setting. Refer to your solar service professional for the optimum setting.

SOL ON: Displays when solar heat is available and water is circulating through the collector array. Solar heat is available when the set point water temp is higher than the solar temperature and the solar temperature is higher than the actual water temperature.

SOL OFF: Displays when solar heat is not available (i.e. when the set point water temp is lower than the solar temperature and the solar temperature is lower than the actual water temperature).

Note: For complete SunTouch installation instructions please see the SunTouch User's Guide (P/N 520785).

MENU SETTINGS

Start and Stop Temp Differentials: Adjust the start and stop temperature deferential settings to start and stop solar water heating.

Menu button: The Solar Status setting is displayed.

Right button: Press the button until the "Start Temperature Deferential" setting is displayed.

Up/Down button: The "Start Temp Diff" differential setting is factory set at 6°.

Right button: Move to the "Stop Temperature Differential" setting.

Up/Down button: The "Stop Temp Diff" differential setting is factory set at 3°. This setting sets how close to the target set point temperature to switch off solar heat.

Left button: Press the left button to return to the main status screen.

Solar Freeze protection: Enable freeze protection for the solar equipment.

Note: Air Sensor (freeze protection requirement): Freeze protection for solar systems requires an optional ambient air temperature sensor and relay for the filter pump and or cleaner pump override.

Menu button: The Set Water Temp setting is displayed.
Right button: Press the button until the Solar Freeze setting is displayed.

Up/Down button: Select "Yes" to enable solar freeze protection or "No" to disable freeze protection. If "Yes" is selected, the circuit will switch on if the air temperature drops to 36° F (2° C). This feature is used to protect the system plumbing from being damaged during freezing conditions. *Note: When freezing conditions are detected by the air sensor, the filter pump will be switched on and water will circulate continuously through the system.*
Left button: Press the Left button to return to the main status screen.

Cleaner Freeze protection: Use this feature to enable freeze protection for cleaner equipment.

Menu button: The Set Water Temp setting is displayed.
Right button: Press the button until the Cleaner Freeze setting is displayed.

Up/Down button: Select "Yes" to enable cleaner freeze protection or "No" to disable freeze protection. If "Yes" is selected, the circuit will switch on if the air temperature drops to 36° F (2° C). This feature is used to protect the cleaner equipment from being damaged during freezing conditions. *Note: When freezing conditions are detected by the air sensor, the filter pump will be switched on and water will circulate continuously through the system.*

Left button: Press the Left button to return to the main status screen.

Pentair Water
Pool and Spa®

PUMP & CHLORINATION SETUP

Pump and chlorinator settings can be accessed from the **POOL/SPA** menus.

To access these settings:

Selecting Pool/Spa Mode from Solar Only Mode:

1. Press **Menu > Right button** until System Mode.
2. Press **Up/Down button** to select **Pool/Spa**.

To access pump settings:

Pump (Single Speed)

1. Press **Menu button** until **Pumps 12/14** displays.
2. Press **Right button** select SINGLE SPEED.
3. Press **Left button** to exit to main screen.

Pump (Two-Speed)

1. Press **Menu button** until **Pumps 12/14** displays.
2. Press **Right button** select TWO SPEED.
3. Press **Left button** to exit to main screen.

IntelliFlo 4x160 Pump

1. Press **Menu button** until **Pumps 12/14** displays.
2. Press **Right button** select INTELLIFLO 4.

Adjust Pump Speed (4 adjustable speeds)

3. Press **Right button** to set speed (750-3400).
4. Press **Up/Down button** to adjust speed #1.
5. Press **Right button** to choose circuit for speed #1.
6. Press **Up/Down button** to select circuit/SPD #1.
7. Press **Right button** to adjust speed #2.
8. Repeat Steps 4-7 to adjust speed #3 and #4.
9. Press **Left button** to exit to main screen.

IntelliChlor Electronic Chlorine Generator

1. Press **Menu button > IntelliChlor 13/14** displays.
2. **Enable IntelliChlor:** Press **Right button**.
3. Press **Up/Down button** select YES.

Sanitizer Output Level for Pool and Spa:

Displays the percentage of time chlorine is produced per hour of pump run time. For example (60%) produces chlorine 60% of the hour; 36 minutes ON, 24 minutes OFF.

4. Press **Right button** to select POOL Sanitizer Output %.
5. Press **Up/Down button** adjust Sanitizer Output % for Pool (0-100%).
6. Press **Right button** to select SPA Sanitizer Output %.
7. Press **Up/Down button** adjust Sanitizer Output % for Spa (0-100%).

Super chlorination:

Displays the percentage of time chlorine is produced per hour of pump run time. For example (60%) produces chlorine 60% of the hour; 36 minutes ON, 24 minutes OFF.

8. Press **Right button**, select SUPER CHLR.
9. Press **Up/Down button**, select YES.
10. Press **Right button**, select RUN HOURS.
11. Press **Up/Down button**, set hours to run (0-72).

View Super Chlorination Status:

12. Press **Right button** to view Salt status ppm.
13. Press **Left button** to exit to main screen.

POOL/SPA MODE

Selecting Solar Only Mode (From Pool/Spa Mode):
1. Press **Menu button** until **Advanced 8/14** displays.
2. Press **Right button** to access Advanced menu.
3. Press **Right button** to System Mode.
4. Press **Up/Down button** and select **SOLAR ONLY**.