

WITH



Full Weather Station with Radio Controlled Clock and Projection (Model #: PS-L02 / PS-L02U)

8/8/03, 12:16 PM

**User Manual** 

PS-L02\_GB-final.p65

PS-L02\_GB-final.p65 2

8/8/03, 12:16 PM



TABLE OF CONTENTS	
About this guide	2
Product overview	3
Getting started	
Batteries	
AC power adapter	8
Switch between modes	9
Change settings	9
Remote unit setup	9
Clock	
Alarm	11
Calendar	
Moon phase	12
Barometer	
Weather forecast	14
Temperature & humidity	14
Backlight	17

Projector	18
Reset system	19
Safety and care	
Warnings	20
Troubleshooting	
Specifications	22
Additional resources	25

## **ABOUT THIS GUIDE**

Congratulations on your selection of the Philippe Starck with Oregon Scientific Full Weather Station with Radio Controlled Clock and Projection (PS-L02 / PS-L02U). This powerful device bundles time keeping, alarm, indoor and wireless outdoor temperature and humidity monitoring, weather forecasting, and projection features into a single tool you can use from the convenience of your home.

Keep this manual handy as you use your new product. It contains practical step-by-step instructions, as well as technical specifications and warnings you should know. In this box, you will find:

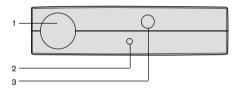
- Main unit
- Remote sensor
- Batteries
- AC/DC power adapter

2



# **PRODUCT OVERVIEW**

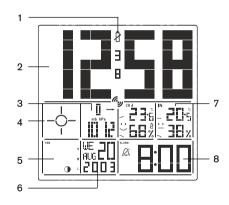
## **TOP VIEW**



# **DESCRIPTIONS**

- Snooze / Light button (→ 12, 17, 18, 19)
   Light sensor (→ 17)
   Projection lens (→ 18)

# LCD DISPLAY



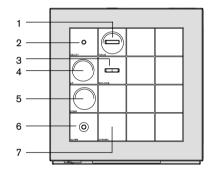
## **DESCRIPTIONS**

- Low batteries icon ( $\rightarrow$  8) Clock ( $\rightarrow$  10)
- Barometer (→ 13)
- Weather forecast (→ 14)
- Moon phase (→ 12) 5.
- Calendar ( $\rightarrow$  12) Temperature and humidity ( $\rightarrow$  14)
- . Alarm (→ 11)

4

6

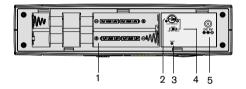
## **BACK VIEW**



## **BUTTON DESCRIPTIONS**

- 1. Focus focus projector (→ 19)
- 2. Select switch modes / change settings
- 3. Rotation rotate projector (→ 19)
- 4. Up increase setting / activate auto-synch ( $\rightarrow$  11)
- Down decrease setting / deactivate auto-synch (→ 11)
- 6. Alarm –activate / deactivate alarm (→ 11)
- 7. Channel switch remote unit (→ 15)

# **BOTTOM VIEW**

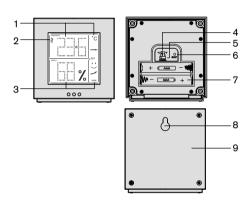


## **DESCRIPTIONS**

- Battery compartment (→ 8)
- Light sensitivity knob (→ 18)
- Reset button (→ 8, 19)
- 4. Backlight switch (→ 17)
  5. DC power input jack (→ 8)

**NOTE** AC power adapter not shown.

# REMOTE UNIT



9

## **DESCRIPTIONS**

- Temperature / Trend display 1.
- Low battery icon Humidity / Trend / Comfort Level display 2. 3.
- 4. °C / °F switches
- 5. Channel switches
- Reset button
- 6. 7. Battery compartment
- Wall-mount hole
- Battery compartment lid

#### **GETTING STARTED**

#### **BATTERIES**

Batteries for the remote and main units are supplied with this product. Replace them whenever the low battery signal (§) displays. Remove the battery compartment lid on the bottom of the main unit, and insert the batteries. Use a small Phillips screwdriver to remove the remote unit compartment lid. Be sure to match the correct polarity, as shown in the battery compartment. Before you close the lid, press the **RESET** button with the point of a blunt object (such as a ball point pen).

10

**NOTE** Insert the batteries in the remote unit before you set up the main unit. Do not use rechargeable batteries.

#### AC POWER ADAPTER

An AC power adapter is supplied for use with the main unit. You must connect the power adapter if you wish to use the continuous projection or backlight features. The jack is located in the battery compartment.

**NOTE** If the AC power becomes unavailable, the unit will automatically switch to battery power.

#### **SWITCH BETWEEN MODES**

Press **SELECT.** The select mode will flash. The display will stop flashing if no key is pressed within 5 seconds.

#### **CHANGE SETTINGS**

Press and hold **SELECT** for 2 seconds. Then, press **UP** or **DOWN** to change each setting. Press **SELECT** to switch options.

## **REMOTE UNIT SET UP**

Up to 3 remote units can be used with this product to monitor outdoor temperature and humidity. The measurement unit (°C or °F) and channel number (1, 2, or 3) switches are located in the battery compartment, and should be set prior to installation.

11

**NOTE** Additional remote units sold separately. If you are using more than one remote unit, be sure to select a different channel number for each unit.

#### INSTALLATION

Mount the remote unit on a flat surface using the recess holes on the back of the unit.

#### For best results:

- Before you insert the batteries, select the measurement unit and channel number first.
- Place the unit out of direct sunlight and moisture.
- Do not place the remote unit more than 20 30 meters (60 90 feet) from the main (indoor) unit.

 Position the unit so that it faces the main (indoor) unit. Minimize obstructions such as doors, walls, and furniture.

You may need to experiment with various locations to get the best reception.

## **CLOCK**

This product can automatically synchronize the date and time with official time-keeping organizations in Frankfurt, Germany (PS-L02) or Rugby, England (PS-L02U). When the unit is within 1500 km (932 miles) of a RF signal, the reception icon will blink during reception.

## RECEPTION

Reception takes 2-10 minutes to complete. Once complete, the icon will stop blinking.

Strong signal	Weak signal	No signal
- <del>/</del> -	- <u>/-</u>	**

**NOTE** For best results, place the unit away from metal or electrical objects, and near a window with a clear view to the sky.

## TO DISABLE OR ENABLE AUTO-SYNCHRONIZATION

In Clock mode, press **DOWN** for 2 seconds to disable the auto-synchronization. The unit will not respond to radio signals until you reactivate the synchronization.

To enable auto-reception, press **UP** for 2 seconds.

#### SET OR CHANGE THE CLOCK

- Press **SELECT** to switch to the Clock Mode.
  The time will flash.
- Press and hold **SELECT** for 2 seconds to enter the setting mode.
- Select the 12/24-hour format, hour, and minute.
   Press UP or DOWN to change the setting.
   Press SELECT to confirm.

## **ALARM**

When activated, the Melody Alarm starts quietly, then gradually becomes louder. It shuts off after two minutes. The LCD display lights up for the first 8 seconds.

#### **SET ALARM**

- Press SELECT several times until the Alarm area flashes.
- Press and hold **SELECT** for 2 seconds to enter the setting mode.
- 4. Press **SELECT** again when you are finished.

## SNOOZE

Press the **SNOOZE/LIGHT** button the top of the unit to temporarily disable the alarm for 8 minutes. The alarm icon will blink while Snooze is activated.

#### TO TURN THE ALARM OFF OR ON

Press any button to stop the alarm.

To turn the alarm off completely (deactivate it for the next day), press **ALARM**.

#### **CALENDAR**

#### SET DATE

Clock auto-synchronization must be deactivated before you manually set the date.  $(\rightarrow 11)$ 

- Press SELECT several times until the calendar area flashes.
- Press and hold **SELECT** for 2 seconds to enter the calendar setting mode.
- Select the year, month, date, and language. Press UP or DOWN to change the setting. Press SELECT to confirm.

**NOTE** The language options are (E) English, (F) French, (D) German, (I) Italian, and (S) Spanish.

## **MOON PHASE**

Press **SELECT** until the Calendar Area flashes. Then, press **UP** or **DOWN** to change the date and view the corresponding moon phase.

## **BAROMETER**

This product tracks barometric pressure changes over the past 24 hours to provide the weather forecast (→ 14) and a trend line showing the direction of barometric change. Barometric changes are measured by the main (indoor) unit.

#### **BAROMETRIC TREND**

The barometric trend arrow for the last 30 minutes is always displayed.

Trend	Description	Pressure change (mb/hPa)	
		1 hr	6 hr
1	Rising	+1	+3
<u> </u>	Steady	Steady	Steady
1	Failing	-1	ფ

## **VIEW THE LAST 24 HOURS**

Press **SELECT** 2 times until the Barometer Area flashes. Then, press **UP** or **DOWN** to view the last 24 hours history.

15

## **SET UNIT AND ALTITUDE**

You can set the unit of measurement (mb/hPa or inHg) and altitude. Setting the altitude allows the product to take more accurate barometric measurements.

- Press **SELECT** 2 times until the Barometer Area flashes.
- 2. Press and hold SELECT for 2 seconds.
- Select altitude (-100 meters to 2500 meters in increments of 10) and the unit of measurement (mb/hPa or inHg). Press UP or DOWN to change the setting. Press SELECT to confirm.

## **WEATHER FORECAST**

This product forecasts the next 12 to 24 hours of weather within a 30 to 50 km (19 - 31 mile) radius with 70 to 75 percent accuracy. The weather forecast is always displayed.

Clear	Partly Cloudy	Cloudy	Rainy
-\$-	B	$\left\{ \right\}$	

#### **TEMPERATURE AND HUMIDITY**

With the press of a button, you can check the current indoor or outdoor temperature, humidity percentage, comfort level, trend, and record measurements.

Outdoor measurements are collected by the remote unit.

Temperature is give at the top; humidity is below.

## **VIEW MIN / MAX / CURRENT MEASUREMENTS**

Press **SELECT** 3 times until the Temperature and Humidity Areas flash. Press **UP** or **DOWN** to scan the readings.

## **CLEAR MIN / MAX MEASUREMENTS**

While viewing Min/Max measurements, press and hold **UP** or **DOWN** for 2 seconds until a beep sounds. This clears the previous measurements from the memory.

#### **SELECT REMOTE UNIT CHANNEL**

While in the Temperature / Humidity Mode, press **CHANNEL** to switch between CH 1, 2, or 3, or press and hold **CHANNEL** for 2 seconds to enter Auto scan mode. If only 1 remote unit is in use, you will not be able to change channels or Auto scan. If you select "Auto", the channel will change every 3 seconds. To deactivate, press and hold **CHANNEL** for 2 seconds again.

#### **SENSOR SEARCHING**

If there is no remote unit signal, the temperature and humidity measurement will be blank. Check the remote unit batteries, or press and hold **UP** and **DOWN** for 2 seconds to search for the remote unit(s).

Searching	No sensor	Sensor found
- 4-	•	2

NOTE Signals from household electrical appliances such as doorbells and home security systems can cause temporary reception failures between the indoor and outdoor units. This is normal and does not affect the general performance of the product. Reception will automatically resume once the interference ends.

## COMFORT ZONE

The indoor and outdoor comfort zones are shown for the following conditions.

Zone	Temperature	Relative Humidity
$\asymp$	Any	>70%
Wet		
• •	Any	<40%
Dry		
Comfort	20 – 25 ° C (68 - 77 ° F)	40 – 70%

## **TRENDS**

The trend arrow for the last 30 minutes always displays. Indoor and outdoor temperature and humidity trends are shown separately.

Trend	Temperature	Relative Humidity
_	+0.5 °C	+3%
<b>-</b>	Steady	Steady
	-0.5 °C	-3%

19

## **SET UNIT**

While in Temperature / Humidity Mode, press **SELECT** for 2 seconds. Press **UP** or **DOWN** to switch between °C and °F. Press **SELECT** to confirm.

## **BACKLIGHT**

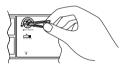
Press **SNOOZE/LIGHT** to illuminate the backlight for 5 seconds.

## **CONTINUOUS BACKLIGHT**

The AC power adapter must be plugged in to use this feature ( $\rightarrow$  8).

 The BACKLIGHT switch is located in the battery compartment. Move it to the "ON" position to enable the continuous backlight.
 Move it to the "OFF" position to disable.

- Move it to the "AUTO" position to enable continuous backlight controlled by light intensity. When activated, the backlight will be on whenever the unit perceives that the room is dark.
- The **Light Sensitivity knob** is located in the battery compartment. Rotate to adjust.



 When activated, the continuous backlight will be half as bright as usual. To achieve full brightness, press SNOOZE/LIGHT.

20

## **PROJECTOR**

This product has a built-in projector for viewing time and alarm status at night.

**NOTE** The maximum projection range is 2 meters (6 feet). The image gets larger the farther you display it.

#### **PROJECT TIME / ALARM STATUS**

In a darkened room, press **SNOOZE/LIGHT** to display the time and alarm status for 5 seconds.

## **FLIP IMAGE**

Press **SNOOZE/LIGHT** again while the projector is on.

#### **ROTATE IMAGE**

The **ROTATION** switch is located on the back of the unit. Rotate to adjust.

#### **FOCUS IMAGE**

The **FOCUS** switch is located on the back of the unit. Rotate to adjust.

#### **CONTINUOUS PROJECTION**

The AC power adapter must be plugged in to use this feature ( $\rightarrow$  8).

Press and hold **SNOOZE/LIGHT** for 2 seconds when the projection is on. When activated, the time and alarm atatus will project continuously

21

Press and hold **SNOOZE/LIGHT** for 2 seconds again to deactivate.

## **RESET SYSTEM**

The **RESET** buttons are located in the battery compartments for the main and remote units. Press these buttons with the tip of a blunt object (such as a ball point pen) whenever you change the batteries, or whenever performance is not behaving as expected (e.g., unable to establish radio frequency link with remote unit or automatic clock, etc.) This will return all settings to default value, and you will lose all stored information (minimum / maximum temperature and humidity, etc.).

## **SAFETY AND CARE**

Wash the unit with a slightly damp cloth and mild detergent. Avoid dropping the unit or placing it in a location where the AC power adapter will be stepped on.

## **WARNINGS**

This product is designed to give you years of service if handled properly. Observe the following guidelines:

- Never immerse the unit in water. This can cause electrical shock and damage the unit.
- Do not subject the main unit to extreme force, shock, or fluctuations in temperature or humidity.
- Do not tamper with the internal components.
- Do not mix new and old batteries or batteries of different types.

- Do not use rechargeable batteries with this product.
- Remove the batteries if storing this product for a long period of time.
- Do not scratch the LCD display.
- Do not make any changes or modifications to this product. Unauthorized changes may void your right to use the product.
- The content of this user manual are subject to change without notice.
- Images not drawn to scale.

## **TROUBLESHOOTING**

Check here before contacting our customer service department.

Problem	Symptom	Remedy
Temp	Shows "LLL" or "HHH"	Temperature is out-of-range.
Calendar	Strange date / month	Change language (→ 12)
Backlight	No continuous backlight	Plug in AC power adapter. Check the BACKLIGHT switch. (→ 8, 17)
Projector	No	Plug in AC power

Problem	Symptom	Remedy
	continuous backlight or projection	adapter (→ 8, 17, 18)
Remote unit	Cannot locate remote unit	Check batteries (→ 8)
		Check location (→ 9)
	Cannot change channel	Check sensors. Only one sensor is working (→ 15)
Clock	Cannot auto- synchronize	Remove batteries.     Press <b>RESET</b> . All memory items will return to default.

Problem	Symptom	Remedy
		3. Replace batteries. 4. Place clock near window / away from electrical devices, and wait 10 – 20 minutes.  (1) 10 - 10 minutes.
		If it still fails, you may be too far from a signal.
	Cannot change clock	Disable auto- synchronization (→ 11)
Baro	Strange reading	Set altitude / unit (→ 14)

24

# **SPECIFICATIONS**

## Main unit dimensions

L x W x H 181 x 45 x 185.3 mm

(7.1 x 1.77 x 7.3 inches)

Weight 914 grams with battery

## Remote unit dimensions

L x W x H 75 x 35 x 78.3mm (3 x 1.4 x 3.1 inches) Weight 136 grams with battery Temperature Memory Minimum / maximum °C or °F Unit Trend 3% change Main unit: -5 °C to 50 °C (23 °F to Range 122 °F) Barometer Remote Unit: -20 °C to 60 °C (-4 °F Unit mb/hPa or inHg to 140 °F) Range 500 to 1050mb Resolution 0.1 °C (0.2° F) (14.77 to 31.01 inHg) 20 °C to 25 °C (68 °F to 77 °F) Resolution 1mb (0.03 inHg) Comfort -100 to 2500 meters (-328 to 8202 (see also, Relative humidity) Altitude Memory Minimum / maximum feet) Trend +/- 0.5 °C (+/- 0.9 °F) change Display Rainy, cloudy, partly cloudy, sunny Memory 24 hour Relative humidity 1mb change in 1 hour or 3mb Trend Range Main & Remote Unit: 25% to 95% change in 6 hours Resolution 1%

40% to 70% (see also, Temperature)

25

Comfort

Remote unit

RF frequency 433 MHz

Range 30 meters (98 feet) with no

obstructions

Transmission approximately every 40 seconds

Channel No. 1, 2, or 3 Unit °C or °F

Radio-controlled clock

Synchronization Auto or disabled

Clock display HH:MM:SS

Hour format 12hr AM/PM (MSF format)

24hr (DCF format)

Calendar DD/MMM; weekday selection in 5

languages (E, D, F, I, S)

Moon phase High, medium, and low tide Alarm 7 melody; 2 minute crescendo

Snooze 8 minutes

**Projector** 

Display Current time / alarm status Rotation 180° and image flip

Focusing Manual

Projection 5-second or continuous

Power

Main unit 4 x UM-3 (AA) 1.5V alkaline

batteries (back-up)

AC/DC 6V power adapter

(for normal operation and continuous

backlight and projector)

Remote unit 2 x UM-4 (AAA) 1.5V alkaline

batteries

24

## **ADDITIONAL RESOURCES**

Visit our website (www.oregonscientific.com) to learn more about your new product and other Oregon Scientific products such as digital cameras, hand-held organizers, health and fitness gear, and weather stations. The website also includes contact information for our customer service department, in case you need to reach us.

#### **EC-DECLARATION OF CONFORMITY**

This product contains the approved transmitter module **TX 07** and complies with the essential requirements of Article 3 of the R&TTE 1999/5/EC Directives, if used for its intended use and that the following standard(s) has/have been applied:

Radio frequency spectrum (Article 3.2 of the R&TTE Directive)

applied standard(s)

ETSI EN 300 220-3 (Ver. 1.1.1):2000-09

Electromagnetic compatibility (Article 3.1.b of the R&TTE Directive)

applied standard(s)

ETSI EN 301 489-1-3 (Ver. 1.4.1):2002-08

Safety of information technology equipment (Article 3.1.a of the R&TTE directive)

applied standard(s)

EN 60950:2000

26

Additional information:

The product is therefore conform with the Low Voltage Directive 73/23/EC, the EMC Directive 89/336/EC and R&TTE Directive 1999/5/EC (appendix II) and carries the respective CE marking.

VS-Villingen / Germany August 2003 Gerhard Preis R&TTE Representative of manufacturer

**C** € 0682 **①** 

#### **RTT&E Compliant Countries:**

All EC Countries, Switzerland (H), and Norway (N)

© 2003 Oregon Scientific. All rights reserved.

28

PS-L02\_GB-final.p65

8/8/03, 12:17 PM