

PM Photometer

Data transfer via **Bluetooth®** or Infrared



The ultimate range
in Pool Photometers

For reliable pool relevant
water analysis

Highlights

- Intuitive operation
- Back-lit display
- User guide in German, English, French, Spanish, Italian, Portuguese, Polish & Indonesian
- Stores up to 1000 results
- One Time Zero (OTZ)
- **Bluetooth®** data transfer (PM 630)
- Infrared interface (PM 600 / PM 620) for IRiM data transfer
- Waterproof*)

*) as defined in IP 68, 1 hour at 0.1 meter

Active oxygen
Alkalinity-M (total)
Aluminium
Ammonia
Bromine
Chlorine
Chlorine dioxide
Copper
Cyanuric acid
Hardness, total
Hardness, calcium
Hydrogen peroxide

Iron
Iodine
Langelier Index
Ozone
pH
PHMB (Biguanide)
Phosphate
Sulphate
Sodium Hypochlorite
Urea
Water Balance

Photometers PM 600 / PM 620

The PM 600 and PM 620 photometer range brings pool testing to the next level for discerning pool operators. The ergonomic, portable, water-proof design enables users to select just one unit for accurate analysis of up to 34 parameters anytime and anyplace.

The **PM 600** focusses on the main pool parameters required for balanced water including: Alkalinity, Bromine, Chlorine, Cyanuric Acid, Iron, Calcium Hardness, Copper, Sodium Hypochlorite, Ozone and pH-value. Compatible with the tried and trusted Lovibond® Tablet reagents, it is designed to be robust, reliable yet easy-to-use for any pool operator.

The **PM 620** extends these capabilities to include up to 34 parameter variants from Acid Demand to Urea. Its unique design enables compatibility with Lovibond® Tablet, Liquid and Powder reagents, making it one of the most flexible and complete pool photometers available today.

Both units offer a large, back-lit graphic display to aid analysis by providing on-screen method prompts, information regarding test measurement range and reagent type and automatic countdown timers for accurate reaction periods. The internal memory is capable of storing up to 1000 results with date, time and sample ID. These results can be reviewed at any time and can be downloaded to a PC via an additional Infra-Red module (IRiM)*.

Supplied in a durable, portable case complete with accessories and space for additional reagents, both photometers provide immediate access to the accurate water analysis expected of the Lovibond® brand, clearly the best choice for water analysis.

* available as an option : IRiM (infrared interface Modul)

Photometer PM 630

The PM 630 introduces data management and **Bluetooth®** functionality to the highly proven PM 600 series of photometers. Already simplifying accurate water analysis with 34 pre-calibrated pool methods, the series has now been expanded to include **Bluetooth®** data transmission. Now, results can be quickly and easily transferred to smartphones and tablets.

The system is further enhanced by the free Lovibond® App, **AquaLX®**, enabling the immediate review, process and evaluation of measured results directly on-site. Data trends can be monitored with easy-to-view graphical displays with set minimum and maximum values. Any fluctuation to expected results is immediately visible and instant action can be taken.

Furthermore, additional personalized information, such as the name of the pool and the pool engineer can be recorded, providing a complete information record of the measurement.

Bluetooth® is a wireless technology subject to regional approval. The use of the PM 630 with **Bluetooth®** is currently only permitted within Europe, the USA, and in Canada. The use of the PM 630 will also be possible in other regions in the future. For current regions and further information, visit: www.lovibond.com/bluetooth

Regions in which the PM 630 with **Bluetooth®** can currently be used (status: 01/2015): within Europe (according R&TTE Directive 1999/5/EC); USA (according to FCC part 15, comprised in FCC ID QOQBLE113); Canada (comprised in IC 5123A-BGTBLE113)

Technical Data

Display	Graphic-display
Interfaces	Infrared ¹ (PM 600 / PM 620), Bluetooth® 4.0 (PM 630), RJ45 socket for Internet updates ²
Optics	LEDs, interference filters (IF) and photo sensor in transparent sample chamber
Wavelength Accuracy	± 1 nm
Photometric Accuracy*	2 % FS (T = 20 °C – 25 °C)
Photometric Resolution	0.005 A
Operation	Acid and solvent resistant, touch-sensitive keypad with audible feedback via integrated beeper
Power Supply	4 batteries (Mignon AA/LR6); Operation time: approx. 26 h continuous operation or 3500 tests
Auto-Off	approx. 20 minutes after last keypress with audible signal
Dimensions	approx. 210 x 95 x 45 mm (unit) approx. 395 x 295 x 106 mm (case)
Weight (unit)	approx. 450 g
Ambient Conditions	5–40 °C at max. 30–90 % rel. humidity (non condensing)
Language Selection	German, English, French, Spanish, Italian, Portuguese, Polish, Indonesian ; additional languages via Internet update
Memory Capacity	approx. 500 data sets (PM 630) approx. 1000 data sets (PM 600, PM 620)
Approval	CE

¹ optional available: IRiM (Infrared Interface Modul)

² optional available: connection cable with integrated electronics (RS 232 / RJ-45 plug)

* tested with standard solutions

Records can be transferred at the touch of a button by email either as a graphic or database record, simplifying the transfer, management and sharing of results.

AquaLX® compliments the Langelier Index App, **PoolM8**, which negates the need for complex calculations for Balanced Water. By simply entering the results of the parameters (pH; Total Alkalinity; Calcium Hardness; Total Dissolved Solid; Temperature.), the App automatically determines and displays the results which can then be saved to create a history and, again, shared via email.

Both Lovibond® Apps are available for Android™ and iOS®.

 **Please see pages 88 onwards for reagents (order codes)**

Reference Standard Kits

The reference standards are designed to check the accuracy and the reliability of the results.

It is not possible to calibrate the photometer with the reference standards.

The shelf life of reference standards is two years from the date of production, provided that storage and use are in accordance with the instructions provided.

Reference Standard Kit Chlorine 21 56 30
0.2* and 1.0* mg/l
for tablet and VARIO methods ¹⁾

Reference Standard Kit Chlorine 21 56 35
0.5* and 2.0* mg/l
for tablet methods only

Reference Standard Kit Chlorine 21 56 36
1.0* and 4.0* mg/l
for tablet methods only

Reference Standard Kit pH 21 56 65
7.45* pH

* Approximate figure, actual figure specified in certificate of analysis enclosed

¹⁾ The standard values mentioned in kit 215630 for the VARIO method are for photometer PM 620 only, because this method is not available on the PM 600

Verification Standard Kit

The verification standard kit for the photometers PM 600 / 620 / 630 is designed to assure the user of the accuracy and the reliability of the results related to the integrated wave lengths.

The shelf life of the verification standard kit is two years from the date of production, provided that storage and use are in accordance with the instructions provided.

Measurements are taken in mAbs.

Verification Standard Kit 21 56 80

Delivery Content

- Instrument in carrying case
- 4 batteries (AA)
- 3 round vials 24 mm ø
- 1 syringe, 1 brush, 1 stirring rod
- 1 plastic beaker 100 ml
- Warranty information
- Certificate of Compliance
- Instruction Manual
- **PM 600** (13 parameter, infrared)
- 100 tablet reagents each for chlorine (free, combined, total), pH value, calcium hardness, alkalinity-M
Order code: 21 40 60
- **PM 620** (34 parameter, infrared)
- 100 tablet reagents each for chlorine (free, combined, total), pH value, cyanuric acid, alkalinity-M
Order code: 21 40 65
- **PM 630** (34 parameter, **Bluetooth®**)
- 100 tablet reagents each for chlorine (free, combined, total), pH value, cyanuric acid, alkalinity-M
Order code: 21 40 70