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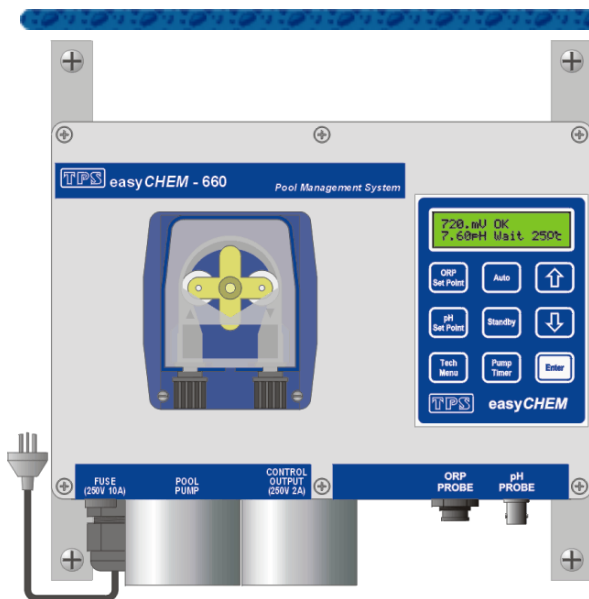
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easyCHEM 660

TPS Australia - Quality hand-made instruments since 1968.

Nothing's as cool, as a freshwater pool™

easyCHEM 660 ORP and pH Controller for Pools and Spas with Timer Output for Pool Pump



[Full Size Image](#)

[Illustration of Typical Full Installation](#)

- ◆ *Automatic controller for ORP and pH in Swimming and Spa Pools.*
- ◆ *The easyCHEM 660 has 1 inbuilt peristaltic pump and 1 mains power Control Output, making installation a breeze.*
- ◆ *Supplied with sensors, calibration standards and all accessories required for installation and operation.*
- ◆ *Fast and easy to install.*
- ◆ *Fully waterproof design.*
- ◆ *Easy to use.*
- ◆ *Designed for domestic and small commercial pool installations.*
- ◆ *To see how quick and easy the easyCHEM 770 is to install, ask for a copy of the the installation guide.*

Features

Benefits

1 Inbuilt Pump and 1 Mains Power Control Output

The inbuilt peristaltic pump can be set to control ORP and the mains power output to control pH or vice versa.

This provides maximum flexibility for many pool installations. Some examples of how this could be set up include...

- ◆ Inbuilt pump adds Chlorine and mains output controls CO₂ valve

for pH.

- ◆ Inbuilt pump adds Acid and mains output controls Salt Chlorinator.
- ◆ Inbuilt pump adds Acid and mains output controls larger Chlorine pump for large commercial pool.

Pool Pump Timer Output

Pump Timer controls the main pool pump. Unit offers Summer, Winter, Auto and Custom modes.

Summer mode pumps 4 hours in the morning, 4 hours in the afternoon.

Winter mode pumps 4 hours in the afternoon only.

Auto mode automatically changes to Winter mode on 15th May and returns to Summer mode on 15th August. (15th November & 15th February respectively for the Northern Hemisphere). These dates can be customised by the user.

Custom mode allows user to enter 1 or 2 pumping cycles per day at times of their choice.

Installer does not have to purchase and install a separate pool timer. Just one power point is required. Saves installation time & money.

Ensures controller only adds chemicals when the pump is actually running.

Clock has battery back-up so no need to reset in case of power failure.

Inbuilt Peristaltic Dosing Pump

Peristaltic pumps are far more reliable than solenoid valves. If a valve on the suction side of a pump leaks when it supposed to be closed, that whole drum of chemical will be dosed into the pool.

Peristaltic pumps have positive displacement, so injection can occur in the return line, after the filter and any heating equipment.

The benefit of peristaltic pumps is therefore higher reliability and longer life for other pool equipment.

Unit is fully calibrated and has most the common set-up defaults when it leaves the factory.

Easy Pool Size entry sets up correct automatic control function. Choice of the following settings...

Installation is simplified. Just mount the controller and tee piece, connect the probes and switch it on. The default

Spa
20,000 Litres
50,000 Litres
100,000 Litres

settings are suitable for pools between 50,000 and 100,000 Litres.

Saves time. Prevents errors.

Unit provides easy control set-up by inputting pool size for other size pools and spas.

Single probe and chemical injection tee

The single probe mounting and chemical injection assembly is made from a standard 50mm PVC Tee. Reduction bushes are supplied in the kit for 40mm pipe installations.

The installer saves time and money by breaking into the return line at only one point. No special tools or drilling etc are required.

Fully waterproof enclosure.

The easyCHEM 660 has been independently tested for conformance with IP25 weather resistance. The sensor connectors are IP65 (hose-proof).

Makes the easyCHEM 660 suitable for outdoor use without a separate shelter.

Reliability is dramatically improved by the use of a completely waterproof enclosure. The superior design of the 24VDC pumps means the entire unit runs cooler than other brands which use 240V AC pumps.

32 character alphanumeric display

User-friendly text messages in simple English are provided for control status, alarms, set-up messages etc. No obscure codes or flashing lights which confuse most people.

The menu system makes it a breeze to change settings or check operation of the unit.

Full function keypad

All day-to-day operations are directly accessed with a single keypad button, simplifying operation. More complex set-up tasks are accessed via a separate "Tech Menu" key.

Super-Chlorinate Function

Operator can enter how many litres of Chlorine they wish to add.

The pool pump is always run for 4 hours when super chlorination is complete,

End-user or pool service professional does not need to handle liquid chemicals for super-chlorination. The easyCHEM 660 handles it for you, and returns to normal control operation

ensuring total mixing.

afterwards.

This function is available only when the inbuilt pump is set to ORP (Chlorine) or the control output is set to Liquid Chlorine.

Pool Backwashing Function

The easyCHEM 660 prompts the user to set the filter control to Backwash, Rinse and Normal Filtration as required. The pool pump is switched off whenever the filter control is being changed.

Makes backwashing simple for home users, helping to ensure clean, hygienic water.

Chemical addition is disabled while backwashing.

Pump to Waste Function

The easyCHEM 660 prompts the user to set the filter control to "Pump to Waste" and Normal Filtration as required. The pool pump is switched off whenever the filter control is being changed.

Makes draining the pool simple for home users. Normally only used after periods of heavy rain.

Chemical addition is disabled while pumping to waste.

Dosing Pump ShutOFF feature

If the Chlorine and/or Acid pumps pump chemicals continuously for more than a user-selectable time, the pump (s) will shut down.

Stops the pumps operating dry when the chemical drum is empty.

Stops whole drums of chemical being added to a pool in case there is an instrument or probe fault.

Alarm Function

If the ORP and/or pH readings go beyond the Set Point(s) by a preset amount for a preset time, the internal beeper will sound and the display will show an alarm message. The easyCHEM 660 continues automatic control to attempt to bring the reading back within the Set Point.

Safeguards against overdosing or underdosing in case of instrument or probe fault.

Service/Calibration Interval Message

Displays a friendly message at factory-set intervals, informing the user that it's time to check and calibrate the sensors

Ensures that the unit is regularly maintained and calibrated, providing for the best possible accuracy and

(every 3 months) and lubricate pump tubes (annually). pool water quality.

Specifications

ORP

Range : 0 to 999 mV
Resolution : 1 mV
Accuracy : +/-1 mV

pH

Ranges : 2.00 to 12.00 pH
Resolution : 0.01 pH
Accuracy : +/-0.02 pH

Temperature

Range : -10.0 to 120.0 °C
Resolution : 0.1 °C
Accuracy : +/-0.2 °C

Temperature Compensation

Automatic Temperature Compensation for pH. Uses temperature sensor built into ORP sensor

Calibration

Automatic calibration for all parameters, with automatic standards recognition.

Enclosure

Tough ABS enclosure tested to IP24. Temperature sensor connector is rated to IP65.

Display

32 Character alphanumeric LCD with user-friendly menu system and full-text messages.

Dimensions

265 x 185 x 130 mm (controller only)

Mass

Instrument only : Approx 1 kg
Full Kit : Approx 5 kg

Environment

Temperature : 0 to 45 °C
Humidity : 0 to 95% R.H.

Peristaltic Pump

- ◆ 1 x built-in Peristaltic Pump.
1.8L/Hr with small tubes
6.1L/hr with large tubes
- ◆ Chemical resistant Santoprene pump tubing

Control Output

220/240V AC, 2A maximum
Can be factory-set for 110/120 V AC

Calendar Clock

24 Hour Calendar Clock.
Battery back-up in case of power failure will last for >10 years.

Power

220/240V AC, 5 watts max for controller.
Can be factory-set for 110/120 V AC

Ordering Information

easyCHEM 660 Controller.....117661

Kit Includes

pH Sensor, 2m.....111230
ORP/Temp Sensor, 2m.....111263
pH7.00 Buffer, 200mL.....121387
pH4.00 Buffer, 200mL.....121381
231mV ORP Standard.....121309
Sensor/Injection Tee.....117904
50 to 40mm Bushes x 2.....NPBR5040
Pump Suction Tube, 2m.....116358
Pump Output Tube, 2m.....116360
Drum Lid + tube fitting.....116362
Tube weight for drum.....116354
easyCHEM 660 Handbook.....130050

Part No
Part No

Spares
Pump Tube assembly, 1.8L/Hr.116353
Pump Tube assembly, 6.1L/Hr.116352
Pump Tube Lubricant, 3mL....130103

No other items are required to install and operate the easyCHEM 660.



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TPS reserves the right to change any part of this specification without notice.

Version 1.0

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Aqua-TDS-pH

easyCHEM 100

easyCHEM 400

easyCHEM 110

easyCHEM 220

easyCHEM 330

easyCHEM 550

easyCHEM 660

easyCHEM 770

poolCHEM

poolCHEM-1

poolCHEM-2

Send mail to tps@tps.com.au with questions or comments about this web site.

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