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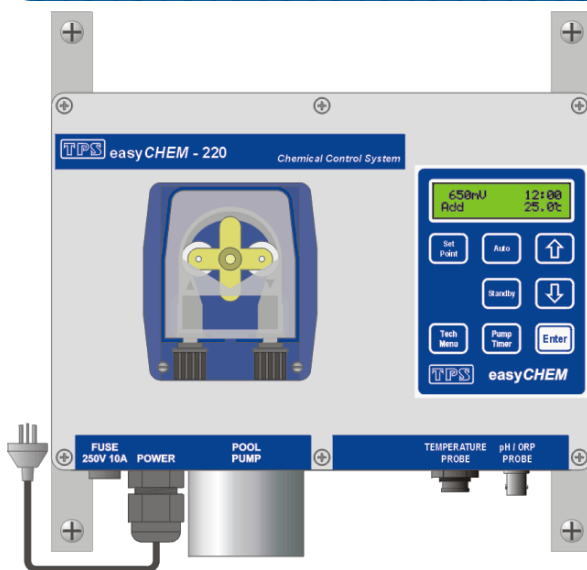
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## easyCHEM 220

TPS Australia - Quality hand-made instruments since 1968.

*Nothing's as cool, as a freshwater pool™*

### easyCHEM 220 Chlorine OR Acid Controller with inbuilt Dosing Pump and Timer Output for Pool Pump



[Full Size Image](#)

[Illustration of Typical Full Installation](#)

- ◆ *Automatic controller for ORP OR pH in Swimming and Spa Pools. The easyCHEM 220 has an inbuilt peristaltic pump, 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 220 is to install, ask for a copy of the the installation guide.*

#### Features

*Factory-supplied as ORP or pH controller, but can be re-configured by dealer*

#### Benefits

Standard kits are supplied with exactly the right accessories for installation and operation.

Re-configuration by dealer means less stock holdings, therefore better cash flow for the dealer.

***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 chemical 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...

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

Installation is simplified. Just mount the controller and tee piece, connect the probes and switch it on. The default 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 220 has been independently tested for conformance with IP25 weather resistance. The sensor connectors are IP65 (hose-proof).

Makes the easyCHEM 220 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 (Chlorine version only)***

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

End-user or pool service professional does not need to handle liquid chemicals for super-chlorination. The easyCHEM 220 handles it for you, and returns to normal control operation afterwards.

The pool pump is always run for 4 hours when super chlorination is complete, ensuring total mixing.

***Pool Backwashing Function***

The easyCHEM 220 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 220 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 Dosing pump adds chemicals continuously for more than a user-selectable time, the pump will shut down.

Stops the pump 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 or pH reading goes beyond the Set Point by a preset amount for a preset time, the internal beeper will sound and the display will show an alarm message. The easyCHEM 220 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 (every 3 months) and lubricate pump tubes (annually).

Ensures that the unit is regularly maintained and calibrated, providing for the best possible accuracy and pool water quality.

## **Specifications**

### ***ORP***

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

### ***Display***

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

### ***pH***

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

### ***Dimensions***

265 x 185 x 130 mm (controller only)

### ***Mass***

Instrument only : Approx 1 kg  
Full Kit : Approx 3.5 kg

### ***Temperature***

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

### Temperature Compensation

Automatic Temperature Compensation for pH. Uses separate temperature sensor.

### Calibration

Automatic calibration for all parameters, with automatic standards recognition for ORP or pH.

### Enclosure

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

### Environment

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

### Peristaltic Pumps

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

### 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

Part No	Part No
easyCHEM 220C (Chlorine)....117221	easyCHEM 220A (Acid).....117222

### easyCHEM 220C Kit Includes

ORP Sensor, 2m.....111258  
 Temperature Sensor, 2m.....124230  
 231mV ORP Standard.....121309  
 Sensor/Injection Tee.....117903  
 50 to 40mm Bushes x 2.....NPBR5040  
 Pump Suction Tube, 2m.....116358  
 Pump Output Tube, 2m.....116360  
 Drum Lid + tube fittings....116362  
 Tube weights for drum.....116354  
 easyCHEM 220 Handbook.....130050

### Spares

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

### easyCHEM 220A Kit Includes

pH Sensor, 2m.....111230  
 Temperature Sensor, 2m.....124230  
 pH7.00 Buffer, 200mL.....121387  
 pH4.00 Buffer, 200mL.....121381  
 Sensor/Injection Tee.....117903  
 50 to 40mm Bushes x 2.....NPBR5040  
 Pump Suction Tube, 2m.....116358  
 Pump Output Tube, 2m.....116360  
 Drum Lid + tube fittings....116362  
 Tube weights for drum.....116354  
 easyCHEM 220 Handbook.....130050

### 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 220.**



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Web Author : Michael Schimkat

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