

# LS4 LEVEL SWITCH

## Instruction Manual



## DESCRIPTION


The LS4 Controller is designed to monitor and top up the operating level of a Swimming Pool or Spa from a water tank or mains pressure.

## INSTALLATION INSTRUCTIONS

THIS APPLIANCE IS NOT INTENDED FOR USE BY YOUNG CHILDREN OR INFIRM PERSONS WITHOUT SUPERVISION. PLEASE ENSURE THAT YOUNG CHILDREN ARE SUPERVISED TO ENSURE THEY DO NOT PLAY WITH THE APPLIANCE.

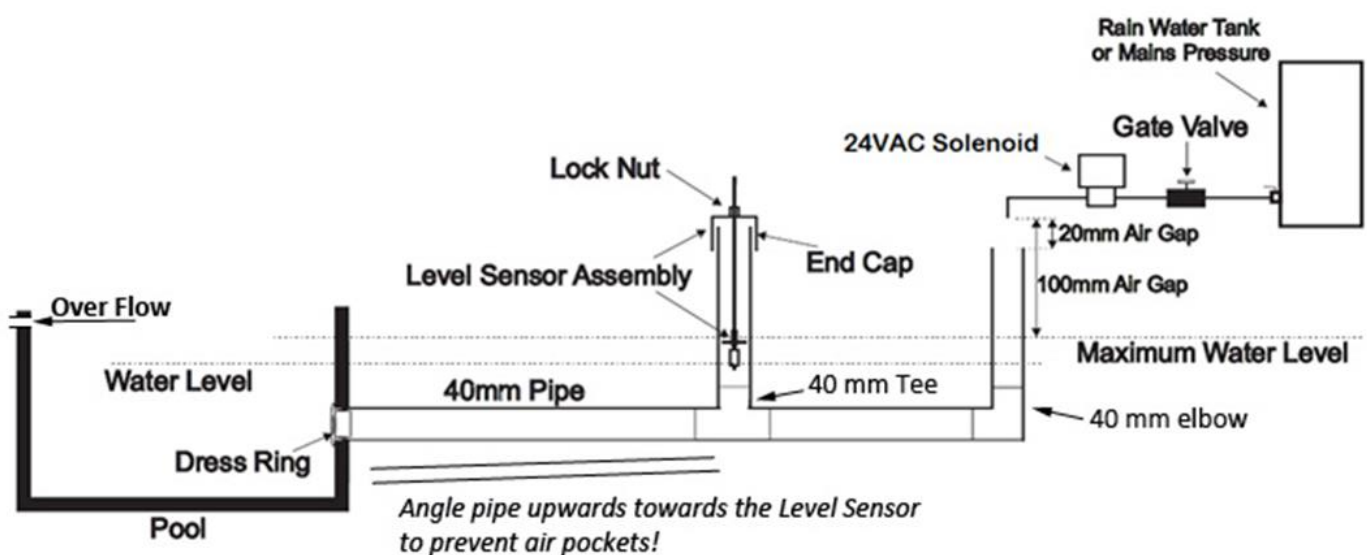


*Ideally, as with all pool equipment, the controller should be installed out of direct weather.*

<p><b>CONTROLLER MOUNTING</b></p>	<p>Find a suitable location to mount the control box.</p> <p>The controller should be no closer than 3 metres from the water's edge and a minimum 600mm above ground. The power cable is 1.8m long and should be plugged directly into a general power outlet, <b>not into an extension lead.</b></p> <p>Lift-up the two mounting tabs and use two appropriate screws to mount the control box to the wall</p> <p>To remove unit, undo the screws slightly, push the controller upwards and gently pull away from structure.</p>
<p><b>LEVEL SWITCH</b></p>	<p>The level switch is plugged into the socket marked SWITCH.</p>
<p><b>SOLENOID VALVE</b></p>	<p>The solenoid valve is plugged into the socket marked VALVE, [connect to the Left hand &amp; Middle terminals of the VALVE socket only, no polarity].</p> <div data-bbox="341 913 756 1151" style="border: 1px solid black; padding: 5px;"> <p>Specifications:</p> <p>Input 230-240VAC 50HZ 6W  Output 18-24VAC Max 6 VA  IP23 Valve Max. Pressure 1200kPa</p>  <p><u>Double Insulated Water Circuit</u></p> </div>

## PLUMBING DIAGRAM

### Typical Level Sensor Installation



Fill Pool or Spa to correct operating level before setting water level sensor.  
Tap end cap over 40mm pipe - **DO NOT GLUE.** To adjust sensor loosen locknut and slide centre black tube up or down as desired, tighten locknut.

## OPERATING INSTRUCTIONS

The level sensor unit monitors the water level and if low, the solenoid valve is turned on for 5 minutes. This process will repeat until the sensor detects that the pool is at the required level.

*Note - The Level Sensor will require 45 seconds in a constant state to begin reading e.g. if water level has dropped below sensor for 45 seconds, the unit will then begin filling. The Filling LED will blink during the 45 second testing period.*

*Note: - The controller will continue to fill for a set period of 5 minutes even if part way through the fill period, the pool reaches the desired level.*

<p style="text-align: center;"><b>SETTING THE SYSTEM</b></p>	<ol style="list-style-type: none"> <li>1. To set the system, fill the Pool or Spa to the desired level.</li> <li>2. Press the SELECT button till the TEST light is illuminated.</li> <li>3. Loosen the Black Locking Nut on top of the Level Sensor Assembly and slide the black centre rod all the way up – the FILL Light should be ON.</li> <li>4. Slowly slide the centre rod down till the FILL Light is OFF, tighten the Locking Nut.</li> </ol> <p>Your LS4 Controller is now ready to use.</p> <p><b><u>Note: As with any Automated Filling Device, ensure that an Overflow provision is installed in the pool, spa or tank. This will prevent overfilling.</u></b></p> <p><i>Note: If 5 minutes is too long for the Spa fill time, reduce the flow rate by closing the gate/isolating valve. [With gravity feed system the minimum water pressure of 25kPa is required for the 24VAC solenoid to operate.]</i></p>
<p style="text-align: center;"><b>NOTES</b></p>	<ol style="list-style-type: none"> <li>1. Should power be interrupted for any reason, the controller will resume normal operation when power is restored.</li> <li>2. Degree of protection against moisture: IP23.</li> <li>3. Store pool chemicals safely, at least 3 metres away from all pool equipment.</li> <li>4. <b>Ensure an overflow provision is installed into the system.</b></li> <li>5. Ensure the pipe running from the pool to the sensor pipe is installed at a constant angle upwards towards the sensor. Undulations in this pipe may lead to air bubbles being trapped in the pipe. This may cause an incorrect reading, and lead to overfilling. [see Plumbing diagram]</li> <li>6. Do not fill water into the level sensor pipe. This may lead to an incorrect level reading. Always install a separate filling tube. [see Plumbing diagram]</li> <li>7. There <b>MUST</b> be a gate/isolating valve installed before the solenoid valve. [see Plumbing diagram]</li> <li>8. <i>Level Sensors are available in different lengths and can be custom made to a specified length. Please ask your supplier if you are after a custom length.</i></li> </ol>

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## WARRANTY

- This range of product is covered by a limited 2 year warranty against component failure or faulty workmanship from the date of installation.
- Faulty units should be returned in the first instance to the dealer from which the unit was purchased. [Return to Base]
- Damage to the unit due to misuse, power surges, corrosion from pool chemical fumes, lightning strikes and or installation that is not in accordance with the manufacturer's instruction may void the warranty.
- Warranty does not include on-site labour or travel costs to or from installation site.

If the power cord is damaged, do not use the controller. Return the unit to the supplier for repair.

### CUSTOMER RECORD (To be retained by the customer)

DEALER/INSTALLER NAME

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SERIAL NUMBER

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DATE INSTALLED

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For service assistance visit [www.dontek.com.au](http://www.dontek.com.au)

## TROUBLE SHOOTING

### NO POWER TO LED LIGHTS:

Power point is faulty. Test power point with a known working appliance. If the power point is operational, check the controller in another power point and if there is still no power then send the controller for repair.

### FILLING FAULTS:

#### POOL WILL NOT FILL:

The controller will only ever run for the purpose of automatic filling if the pool is below the desired level set with the level switch.

Check and make sure that the controller has power.

Make sure that the fill light is lit [solid light] and you can hear the solenoid working or see water going into the filling pipe. If controller Fill light is on but no water is going into the fill pipe, the solenoid may need to be replaced.

Check and make sure that both the level sensor and the water solenoid are plugged into the controller in their appropriate locations and check the wiring into the plugs.

Check and ensure that the level sensor is set to the appropriate level, otherwise adjust level sensor to required depth [see Setting the System]. May need to flush any air out of the pipework if sensor keeps reading incorrectly.

Check the water inlet tap or isolating valve to ensure they are not closed.

Make sure there is no blockage in the pipe leading back to the level sensor and fill point.

You can check the level switch by unscrewing the wires from the plug and install a loop of wire. If the controller starts filling, then there is an issue with the level switch and it needs replacing. If the controller doesn't start filling, there may be an issue with the controller. Send the controller in to be repaired.

#### POOL IS OVER FILLING:

Partially close the isolating tap [before the solenoid] to reduce the amount of water put into the system.

Make sure there are no **Undulations** in the pipework between the pool and the level sensor.

Test level sensor by loosening the locking nut and sliding the level sensor downwards. Make sure the fill light goes out. Re-set level sensor to suit appropriate system water level. If the fill light doesn't go out, the level sensor may need to be replaced. May need to flush any air out of the pipework, if the sensor keeps reading incorrectly.

Check controller – is fill light on -no, is there water filling into the fill pipe – if yes, Then the solenoid needs to be replaced.

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