

274 Church Street  
Onehunga

System Control Engineering NZ Ltd



THE GAS BIZZ BULLETIN

July 2009

# We have a new website!!!

The gas combustion and control specialists

SYSTEM CONTROL ENGINEERING NZ LTD.  
Phone: 09 636 1401

- Home** Welcome to System Control Engineering Ltd.
- Find us** System Control Engineering NZ Ltd has serviced the Gas and Combustion industries since its inception in 1981. The company imports and distributes a wide range of gas and combustion products from around the world to serve the requirements of the New Zealand market.
- Contact**
- Newsletter** News  
Please check the [newsletter](#) page for any recent updates and specials.
- Products** Products  
Product catalog will open in a new window



MOTEC

## [www.systemcontrol.co.nz](http://www.systemcontrol.co.nz)

Online Product Catalogue

Previous Newsletters and Contact details

# Hot Water Cylinder Thermostats

Don't forget that we still stock the Robertshaw Hot water Cylinder Thermostat.



**ONLY \$130.00**  
(Trade Price(+  
Freight + GST))

## Robertshaw

Phone: 09 636 1401 Fax: 09 636 1525  
 Email: [sales@systemcontrol.co.nz](mailto:sales@systemcontrol.co.nz)  
[www.systemcontrol.co.nz](http://www.systemcontrol.co.nz)



# Dave's Technical Tip

FOLLOW ON FROM JUNE TECHNICAL TIP

## ELECTRONIC FLAME SAFEGUARD SYSTEMS FOR DOMESTIC AND COMMERCIAL GAS APPLIANCES.

Safety is the watchword of the Gas Industry and to that end all appliances must light/operate safely, failsafe on flame failure and typically require a manual reset to re-start the appliance after flame failure.

Automatic start-up, ignition and flame monitoring is easily achieved by a "flat pack" control such as the **Brahma CE12U** linked to gas solenoids. The Brahma control produces an ignition spark and supplies power output to solenoid valves and this type of control is the basis of most electric/gas control systems which are operated by time clock or 24 hour, 7 day thermostat such as the **White Rodgers BLUR 90 Touch screen**.

The sequence of operation is:

1. A pause or pre-purge when the power is switched-on. This may be 1.5 seconds or up to 30 seconds to enable any un-burnt gas to vent before any attempt for ignition is started.
2. Ignition spark and gas release to achieve pilot or main flame.

A stable flame must be present to give a strong signal through the flame rod to the control. The flame is part of an electrical circuit and if un-stable, breaks the circuit causing flame failure and lock-out.

3. The flame rod/probe monitors the flame continually and loss of the flame results in shut-down in 1-3 seconds.

Some control units have a single probe which serves as a dual spark and flame detector, termed DSI ( direct spark ignition) and can be 12volt d.c., 24volt dc.

These control systems can operate a domestic oven, a gas fire or a pizza oven.

Trouble-shooting of electronic flame safeguards is centered around the condition of the spark and detection probes.

Systems independent of battery or mains/transformer ( SCE supply 240 x 24volt step-down transformers), power supply can be powered by a thermo-pile generating 750 milli-volts coupled to a milli-volt gas valve.

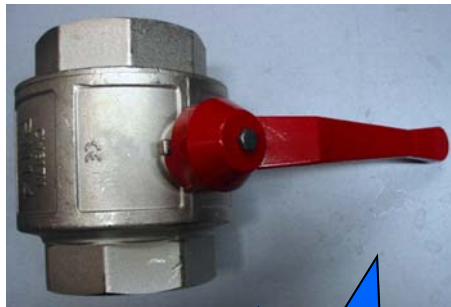
Commercial appliances such as deep fat fryers will also be protected by an over-temperature thermostat which if activated will require a manual reset.

# For Sale

**BRAND NEW!!!**

**2 ONLY**

**4" BSP Lever Arm Ball Valves  
Parallel Threads (Not suitable for gas application)**



**Only \$200.00 each + Freight + GST**

## Quote of the Month

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Leak Detectors  
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