

OPERATING INSTRUCTIONS FOR SHIMADEN SR92 TEMPERATURE CONTROL

(STEP BY STEP SOLUTIONS)

2025

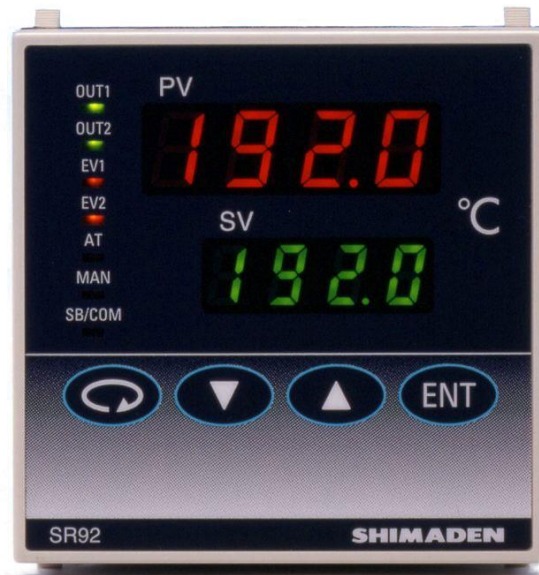




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1. OPERATING INSTRUCTIONS FOR A KILN FITTED WITH SR92 TEMPERATURE CONTROLLER (RESET AUTO CLOSE DOWN)

1. Power ON at wall isolator.
2. Push to initiate reset button.
3. Display will illuminate displaying controller type, control mode, maximum temperature of controller and then displaying ambient temperature and previous set point.
4. Actual internal temperature is P.V. red numbers. Set point is S.V. yellow numbers.
5. Use Δ or ∇ keys to select desired temperature. (S.V. yellow numbers. Yellow dot will start flashing.) Push ENT to register change. Yellow stops flashing.
6. Use energy regulator to control rate of temperature climb or put on 100% for maximum climb rate.
7. Kiln will turn off itself off when set temperature is reached

When using kiln for burnout, the ceramic vent blank off bung should be left out, this will help remove by-product from the chamber and help oxidise the elements.





2. FIRST FIRING OF KILN WITH SR92 TEMPERATURE CONTROL (RESET AUTO CLOSE DOWN)

For the first firing of a new kiln, it is recommended to carry out an empty, slow firing to a temperature approximately 10–15% below the kiln's maximum capacity. This process allows the cement to cure fully and helps remove residual moisture from the brickwork

Please ensure all bungs are left out during a dry out firing.

Ensure the kiln has cooled to ambient temperature before opening the door.

After a few firings the dark stain on the walls will disappear.

Our kiln elements are pin down with ceramic pins – **DO NOT REMOVE CERAMIC PINS.**

3. ENERGY REGULATOR

The energy regulator scutcheon plate is calibrated 0 – 100, this is %.

This is purely a retarding medium for controlling the rate of temperature increase, which it does by controlling the heat input to the kiln. It comprises an automatic switching device, the time periods during which the switch contacts are open and closed being infinitely variable. The length of time during which the contacts are closed is controlled by an adjusting knob, which is usually calibrated from 0 to 100 percent. When the knob is set to 25% the contacts are closed approximately 25 percent of the time the kiln temperature will rise at a somewhat slower rate than if on 50 or 75 percent when on 100 percent setting. The contacts are closed all the time and so the electricity supply to the elements is never interrupted, the kiln is therefore heating up at its maximum rate. A small indicator light is incorporated in the regulator, which is switched on when the regulator switch contacts are closed and switches off again when the contacts open. When the kiln elements are receiving electricity supply the indicator light therefore lights up and switches off again when the element supply is cut off.

An energy regulator is a very useful piece of equipment as the rate of temperature increase can be controlled so easily. Thus, if thick-walled pots are being fired, the rate of temperature increase can very easily be reduced. If a pyrometer is fitted to the kiln and one wished to maintain the kiln at a particular temperature, the energy regulator setting could be adjusted until a position was found at which the elements were switched on and off at a rate slow enough to prevent any further temperature rise, but fast enough to prevent the temperature from dropping. This procedure, however, should only be done for short periods as otherwise the temperature may begin to drift.

4. OPERATING A KILN WITH ONE ENERGY REGULATOR **ENERGY REGULATOR SETTINGS FOR FIRING OF GLOSS, BISCUIT & CHINA FIRING**

**ENSURE TO SET THE SR92 CONTROLLER TO THE MAXIMUM DESIRED TEMPERATURE.
 FOR EXAMPLE, IF YOU ARE AFTER A MAXIMUM TEMPERATURE FIRING OF 750°C, SET
 THE SR92 CONTROLLER AT 750°C**

Gloss firing Program

Option 1

<u>Energy Regulator</u>	<u>Time</u>
25%	2 hours
50%	2 hours
75%	2 hours
100%	Until kiln turns off at set temperature

Option 2

<u>Energy Regulator</u>	<u>Time</u>
25%	2 hours
50%	2 hours
75%	1 hour
100%	Until kiln turns off at set temperature

Bisque Firing Program

<u>Energy Regulator</u>	<u>Time</u>
0 – 5%	Overnight
10%	2 hours
40%	2 hours
50%	2 hours
60%	2 hours
80%	1 hour
100%	Until kiln turns off at set temperature

China Painting Program

<u>Energy Regulator</u>	<u>Time</u>
25%	1 hour
50%	1 hour
75%	1 hour
100%	Until kiln turns off at set temperature

CLOSE VENTS AT APPROXIMATELY 750°C ON ALL OF THE PROGRAMS ABOVE

Please note that these firing programs are only a suggestion, carrying out trial/test firings are required to suit your needs.



5. OPERATING A KILN WITH ONE ENERGY REGULATOR

Multiple energy regulators are used to balance the temperature in the kiln.

The energy regulator is calibrated 0 – 100, this is in %.

Each energy regulator controls one zone of the kiln. For example:-

e.g. The top energy regulator controls the top zone, the next energy regulator down controls the next zone down and so on.

e.g. If there are three energy regulators in the kiln, they would be divided into 3 zones if you have 6 energy regulators the kiln would be divided into 6 zones.

By adjusting the energy regulator you will be able to balance the temperature in the kiln.

If you have 3 energy regulators, you may set the top energy regulator on 80%, middle on 90% and bottom on 100%. Setting of the energy regulator is totally dependent on how the kiln is stacked, firing speed, firing temperature etc.

The function of the energy regulator is that it turns the section of the kiln on and of that it controls i.e.; when set at 75% that section will cycle on and of 75% of the on time thus allowing you to bring the kiln into the balance that you require.



6. WARRANTY

(Applicable only to products marketed and used within the Commonwealth of Australia.) Kiln has been thoroughly tested and inspected during manufacturing and is guaranteed against faulty materials and workmanship. Should there prove to be defective material or workmanship, within 12 months from date of purchase, it will be repaired free of charge, provided it is returned intact, freight paid to, Tetlow Kilns and Furnaces Pty Ltd. Naturally the warranty does not cover failure due to accidental damage, misuse, negligence, consequential damage, modification, or where the controller is not installed and operated in accordance with any statutory regulations, the appropriate installation code, or with details appearing on the controller rating plate. The warranty is valid wherever you live in Australia even if you move. For ready recognition of your warranty, record the date of purchase hereon and retain this for your record. Also retain proof of purchase as you may be asked to produce same in event of a service claim. This warranty is the sole guarantee by the manufacturers and they are not responsible for any other obligations assumed or expressed by any other person or persons.

No other remedy shall be available to the buyer (except the conditions contained in this warranty) for damage to kilns, ware or property, lost profits, or lost sales or any other consequential or accidental loss.

If service is required on this equipment on site, a service charge will be made according to time taken at normal trade rates including travelling time.

In case repair under guarantee is claimed, this guarantee must be tendered.

Please note that elements are not covered by guarantee.

For further information, you can contact us on:

 info@tetlow.com.au

 03 8545 8296

 405-409 Ferntree Gully, Mount Waverley VIC 3149

 www.tetlowkilns.com.au

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