

# HILLDAV

## ST315B



### SPECIFICATION

#### Power supply

Voltage range: 100 - 253V  
Frequency: 50/60Hz  
Phases: 1  
Power: Controller 3VA  
Fuse: 3.15A slow-blow  
HRC 20mm x 5mm  
ceramic

#### Enclosure

Size: 120x122x58mm

#### Error Handling

Thermocouple failure detection  
Thermocouple reversal detection  
Heater failure detection  
Kiln over-temperature detection  
Room over-temperature detection  
Lock-up on error facility

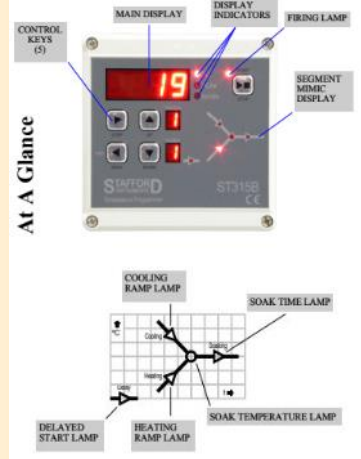
#### Temperature

0-1400°C with resolution of 1°C

#### Programs

9 programs each with 1-9 segment  
1 ramp & 1 soak per segment  
Ramp Rate: 1 to 999°C/hour or Full Power.  
Ramps can be heating or cooling.

### At A Glance



**\$ 995.00+ GST = \$1,094.50**

with 4 core cable, 4 pin plug, comp lead & 2 pin plug .

### FEATURES

- 9 programs—each with up to 9 segments
- 1 controlled heating / cooling ramps + soak per segment
- Suitable for ceramics or glass use
- Soak times up to nearly 100 hours
- Ramp rates from 1 to 999°C/hour + full
- Programs can be reviewed or altered while firing
- Program Pause & Segment Advance facilities
- Keyboard lockable
- Delayed start facility - up to 4 days
- Power failure recovery
- Energy used display
- Standard alarm / safety relay with alarm buzzer

### DESCRIPTION

#### GENERAL

The ST315B is a 9-program controller designed for pottery, ceramics & glass firing. Each program can have from 1 to 9 segments. It is fully adjustable with a detailed 5-lamp mimic display & continuous display of program & segment numbers. Each segment comprises ramps followed by a soak. Ramps can be heating or cooling. It executes a controlled ramp to temperature then. It soaks for the required period then executes the next segment. The end of the program is marked by selecting 'End' while entering a ramp rate. Natural cooling then follows.

#### CONFIGURATION

The ST315B is factory configured as a signal controller to drive kilns contactors. Such kilns are often fitted with an industry standard control socket and the ST315B can be supplied fitted with a mating controller plug and lead if required. Power controllers are used to directly switch power to smaller kilns (up to 5kW power rating) which do not have control gear.

## Tetlow kiln

This shows a Stafford Controller installed on a Tetlow K4 Kiln. The previous control was just an energy regulator, so the kiln did not have an Element Contactor. As most controllers can only switch about 2 amps, an element contactor was installed. The 4-pin socket was mounted on the side of the control box and the 2-pin socket connected direct to the thermocouple. The controller was mounted via a bracket, to keep it away from the heat of the kiln.



## Ward Kiln

This shows a Stafford controller installed on a Ward HPF4A kiln. The previous control was a Kiln Sitter, this was removed, and the 2-pin and 4-pin sockets were mounted in its place.





## Gare Kiln

This shows a Stafford Controller installed on a Gare Top Loading Kiln. The previous control was a Kiln Sitter and Energy Regulator, this was removed, and the 2-pin and 4-pin socket mounted in its place. Because of the heat, the controller was not mounted on the kiln.



As can be seen the Stafford Controller can be installed on most kilns, the cost of installation depends on the work to be done, the type of Thermocouple, and where the 4-pin and 2-pin socket can be mounted. Also, if the kiln needs an Element Contactor, if it's an old kiln it is best to replace the element contactor.



The Stafford is the controller we now use to replace the Harco Controller which is no longer available.

