

## Models CRX400 and CHX700 Temperature Controllers Operating Instructions

The four digit display normally shows the process temperature to the nearest degree. It also is used to display the temperature setpoint or the programming functions list.

There are three buttons below the digital display:

\* ∇ Δ

To view the setpoint, press the \* button; the display will show the setpoint in flashing numbers as long as the \* button is held down. To change the setpoint, press and hold the \* button, then press the Δ button to increase or press the ∇ button to decrease. The process temperature display will return when you release the buttons.

Pressing the Δ and ∇ buttons together enters program mode which is used by the factory to set the tuning and special features of the controller. *We discourage the user from altering these functions.* If you should accidentally enter program mode, wait 60 seconds and it will revert to normal operation.

The recommended maximum temperature for the CRX400 is 130° C. Above that temperature, the reaction coil begins to lose strength. There is a thermal safety switch that shuts off the heater at about 150° C.

The recommended maximum temperature for the CHX700 is 100° C. There is a thermal safety switch that shuts off the heater at about 110° C.



### FUSES:

For continued protection against fire and electrical hazard, use only the recommended type fuse.

100-120V instruments use a 250V, 1A time-delay fuse, North American type (UL/CSA), Cat. No. 3543-0013.

200-240V instruments use a 250V, 0.5A time-delay fuse, type IEC-127, Cat. No. 3543-0011.

#### REPLACEMENT REACTORS FOR CRX400:

<u>Volume</u>	<u>100-120V</u>	<u>200-240V</u>
0.15 mL	1100-3401	1100-3402
0.5 mL	1100-2660	1100-2661
1.0 mL	1100-3411	1100-3412
1.4 mL	1100-2659	1100-2658
3.0 mL, knitted	1100-2681	1100-2682

Other volumes are available by special order; call or write Pickering Laboratories.

To remove a reactor, first disconnect the main power cord to protect against electrical shock. Disconnect the reactor tubing, and remove the fittings. Remove the top cover. Disconnect the electrical snap connector on the reactor. Remove the screw on the left side holding the reactor. Lift out the old reactor. Install the new reactor in the reverse sequence.

#### REPLACING THE COLUMN HEATER FOR CHX700:

To protect against electrical shock, first disconnect the main power cord. Remove the four screws holding the top cover, and lift off the cover. Carefully observe the orientation of the strain-relief bushing so that you will re-install it correctly. The connecting cord lifts out of the slot in the back panel; remove the strain relief bushing from the cable. Disconnect the electrical snap connector. Attach the new electrical cable. Place the strain relief bushing around the cable, and press it into the slot on the rear panel. The bushing should firmly hold the cable when it is correctly oriented. Replace the top cover.

#### SPARE PARTS FOR CHX700:

<u>Cat. No.</u>	<u>Description</u>
1100-0409	Heat exchanger plate
3102-9030	Filter assembly
3102-9047	Replacement filter frit, 0.5 $\mu$

While the CRX400 and CHX700 have a similar electrical and control system, the factory programming of the controllers is different.