

## IX. START-UP AND CHECK-OUT

- 1) Make sure that the system is free of leaks and that air is purged from the system.

### WARNING

Never attempt to fill a hot empty boiler

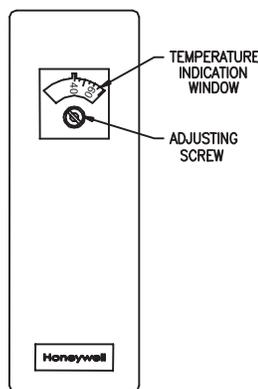
### IMPORTANT

Fix any leaks found before proceeding further. Leakage from the boiler piping can result in severe damage to the boiler.

- 2) Many soldering fluxes contain Zinc Chloride which can cause severe corrosion damage to stainless steel. After completing all domestic water connections, flush the Mega-Stor thoroughly before leaving the installation. This is particularly important if the Mega-Stor will be unused for an extended period of time after installation. Flush the Mega-Stor by drawing at least three times its volume from the tank.
- 3) Make sure that all electrical connections are correctly made and that no exposed high voltage wiring is present.
- 4) Temporarily disable the burner.
- 5) Make sure that each zone valve or circulator operates when, and only when, its thermostat calls for heat. Let each zone operate long enough to purge any remaining air from the system.
- 6) Re-enable the burner and allow the Mega-Stor zone to operate. Make sure that the Mega-Stor aquastat shuts down the zone when it is satisfied.
- 7) The setting of Mega-Stor aquastat temperature control determines the maximum water temperature in the tank. The differential of the control is a fixed 5°F with a 150°F maximum setting, set by the manufacturer to the lowest setting of 40°F.

For the most energy efficient operation, adjust the aquastat for the minimum water temperature necessary to meet domestic water needs. Because hot water presents a scald hazard, it is best to set the thermostat at 120°F or lower and raise it only if necessary to provide adequate hot water. See Table 9.2 for more information about scalding.

- a) Using a small flat screwdriver rotate the adjusting screw shown in Figure 9.1 until the desired temperature setting on the dial is aligned with the notch in the temperature indication window.
- b) After the water heater completes a heat-up cycle, check the water temperature at the faucet. Allow enough water to flow to ensure that the water temperature reflects the tank temperature. Adjust the water heater's temperature setting as necessary.
  - i) Adjusting to a lower temperature setting will not immediately affect the water temperature. Draw sufficient water or allow the water heater to sit until a heat-up cycle is initiated. Repeat steps a) and b).
  - ii) Adjusting to a higher temperature setting may not immediately affect the water temperature if a heat-up cycle begins, return to steps a) and b). If a heat-up cycle does not begin, draw sufficient water or allow the water heater to sit until a heat-up cycle is initiated. Repeat steps a) and b).



APPROXIMATE TIME/TEMPERATURE RELATIONSHIPS FOR SCALDING	
120°F	More than 5 minutes
125°F	1-1/2 to 2 minutes
130°F	About 30 seconds
135°F	About 10 seconds
140°F	Less than 5 seconds
145°F	Less than 3 seconds
150°F	About 1-1/2 seconds
155°F	About 1 second

**FIGURE 9.1: TEMPERATURE CONTROL**

**TABLE 9.2: SCALD RISK**

## X. MAINTENANCE

The Mega-Stor is an extremely simple device and as such requires very little maintenance. There are, however, several items which should be checked out on an annual or as needed basis to ensure a reliable supply of hot water:

- \* On an annual basis, remove the black cover over the handhole and make sure that the handhole cover is leak-tight.
- \* Make sure that the rest of the boiler and domestic water piping is free of leaks.
- \* If there is an oil lubricated circulator in the system, make sure that it is lubricated as called for by the circulator manufacturer.
- \* The Mega-Stor depends upon the boiler for a source of heat and is therefore only as reliable as the boiler. Make sure that the boiler is maintained in accordance with the boiler manufacturer's instructions.
- \* If a water treatment system is required to keep the water chemistry within the parameters shown in Table 10, make sure that this system is properly maintained.