USER GUIDE
5100 SERIES HYDRONIC SYSTEM

OPERATING YOUR HEATER

ROOM TEMPERATURE CONTROL
During normal operation, the heating system will show C, P, or A followed by the current discharge water temperature. Room temperature control is maintained by the room thermostat(s). When room temperature drops below the set point, the thermostat sends a signal to the heating system and the primary loop pump is energized. The system monitors the discharge water temperature and operates the core blower as needed to achieve the desired discharge water temperature. The system then delivers this heated water to the area from which the heat call originated.

CHARGING THE BRICK CORE
The heater charges the brick core automatically, based on outdoor temperature and energy usage. As the outdoor temperature decreases, heating requirements increase, and the heating system stores more heat accordingly.

TURNING THE HEATER OFF AND ON
The element (charging) circuits can be turned OFF by switching all the 60-amp breakers located on the front of the electrical panel to the DOWN position. To turn the element circuits ON, switch all the 60-amp breakers to the UP position. The 15-amp breaker MUST remain ON to operate controls in the system if needing to energize the primary loop pump during the off-season to prevent the pump from seizing; using the system in conjunction with a heat pump or air conditioner; using the system to control other loads; or using the optional Steffes Time Clock Module.

MAINTENANCE & CLEANING
General cleaning of the system's cabinet should be conducted at the user's discretion. It is important to monitor water levels/pressure (PSI) as low water levels cause poor performance and possible damage to the system. Ask the installer of the equipment for information on how to measure these levels.

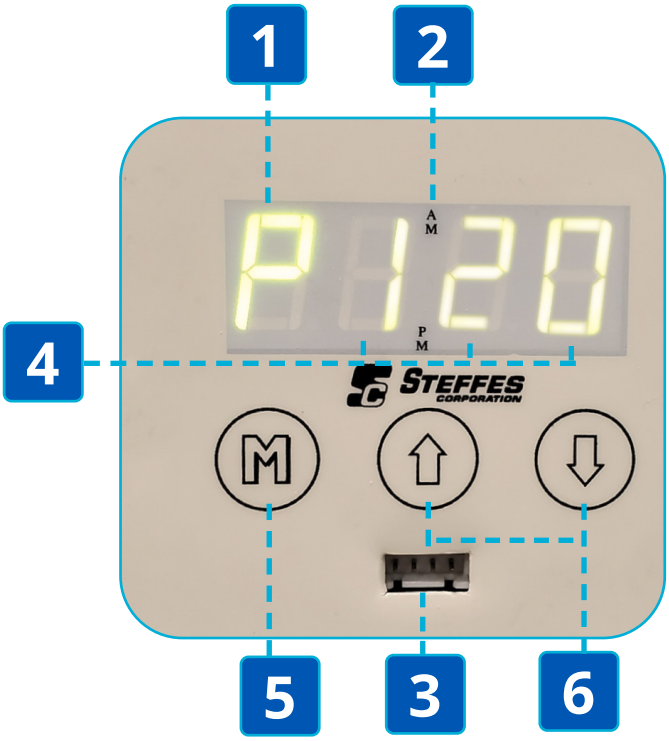
If a heat pump or air conditioner is interfaced with the Comfort Plus Hydronic, the indoor coil of these devices should be cleaned periodically, to maintain system efficiency. Follow the manufacturer's cleaning recommendation for these devices.

If utilizing the Steffes Air Handler with the 5100 series, periodically check and replace the air filter. Regular replacement of the air filter and cleaning of coils will provide better air flow and optimum efficiency and performance.

MINIMUM CLEARANCES
Minimum Clearances of 3" on back and right side, 1" on bottom, 6" on top; and 36" from front and left side must be maintained for proper heater operation.

TROUBLESHOOTING
If the heater displays an error code or is not operating as it has in the past, contact your local Steffes dealer. To find a dealer near you, visit www.steffes.com and type in your postal code on the ETS Dealer Locator page.

5100 SERIES HEATER DISPLAY KEY



1 PEAK STATUS

The letter displayed indicates:

Peak (P)
During this period, the system is not allowed to charge. In time-of-use (TOU) areas, the heater can charge, ***the cost of power will be more expensive***.

Charge (C)
During this period, the system is allowed to charge, and ***the power costs are at their lowest***.

Anticipated Peak (A)
This is often referred to as a pre-peak, mid-peak, or shoulder charge period. It is generally used in time-of-use (TOU) areas where there is a three-tiered rate. ***Electricity used during this period is less expensive than during peak but more expensive than during charge.***

2 AM & PM INDICATORS

Between the second and third digits of the display, two dots are used to indicate a.m. and p.m. times when using a Steffes time clock module. When the heater is programmed for a time clock module, the lights will illuminate. One of the lights will be solid, and the other light will flash. For example, if the heater is set for 7 p.m., the light next to the p.m. flashes. If it is set for 7 a.m., the a.m. light flashes.

3 PROGRAMMING PORT

Allows qualified technicians external access for advanced operating modes, updating software, and troubleshooting.

4 CURRENT OUTLET WATER TEMPERATURE

The number following the C, P, or A is the current discharge water temperature as sensed by the discharge water temperature sensor.

5 M BUTTON

The M button is used to access menus. To see the HELP menu, press and release the M button. For more information on the HELP menu, refer to: https://youtu.be/51IpRkNhCGw

6 UP & DOWN ARROW BUTTONS

When in the Operation and HELP menu, the up and down arrow buttons are used to scroll through the entries in the menu.

OPERATING STATUS:

Press the up arrow to access the operating status.

Outdoor Temperature - indicates current outdoor temperature.

Heat Call Status - indicates the current heat call status as determined by the room thermostat(s). The display shows the highest heat call value present.

Brick Core Charge Level - indicates the current percentage of heat stored in the brick core. CL: _ represents zero percent and CL:F represents a full core charge level.

Targeted Brick Core Charge Level- indicates the current percentage of brick core charge being targeted by the system. tL: _ represents a target level of zero percent and tL:F represents a full core charge target level.