



# EnviroLine

## CONTROLS

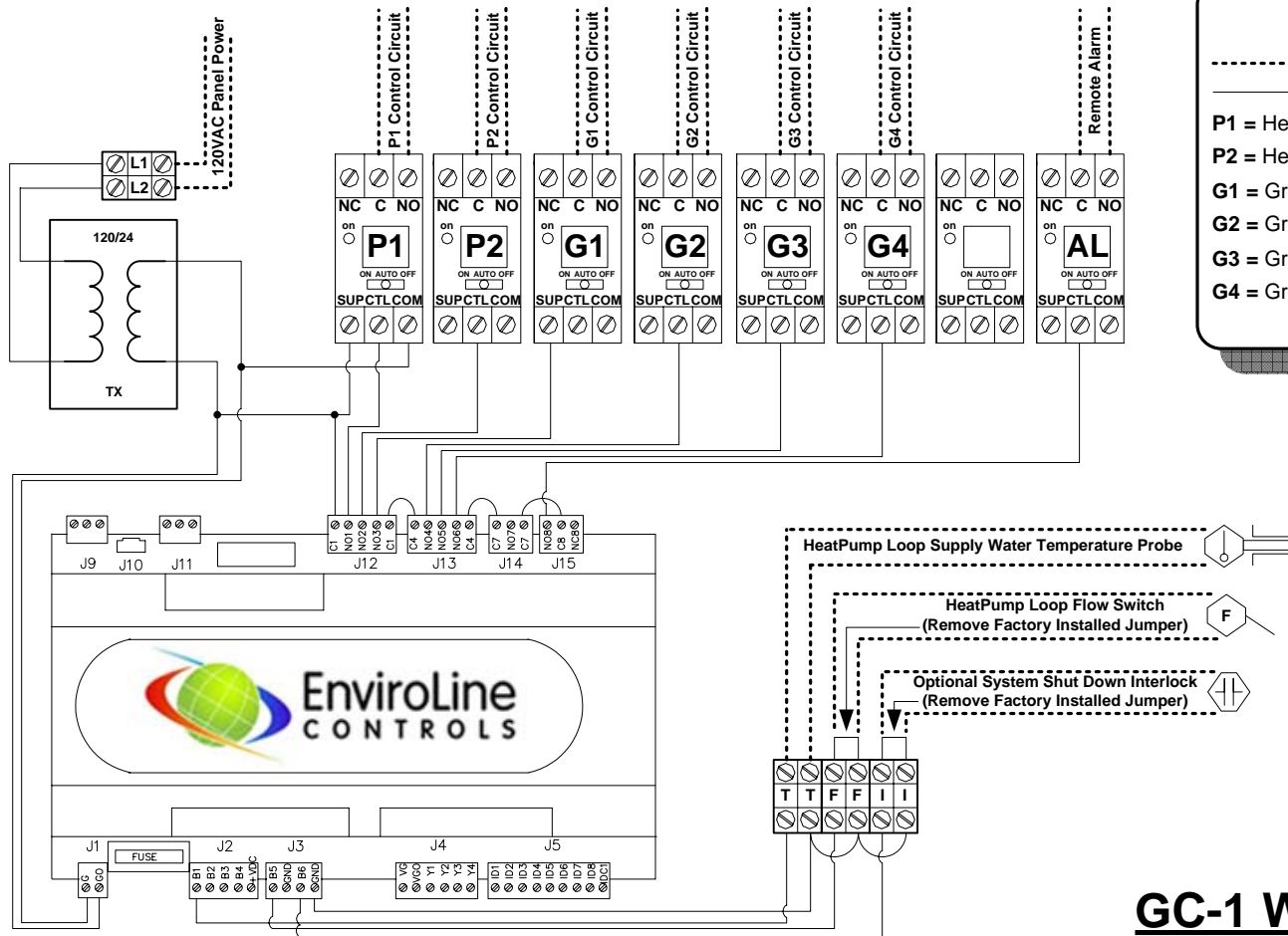
## Hardware Installation Guide

### General Wiring Recommendations:

- All wiring must comply with electrical wiring diagrams as well as national and local electrical codes.
- **De-energize all power before installation or service.**
- Do not connect the common terminals to ground.
- Do not connect analog/digital inputs or outputs to ground (temperature sensor)
- Stranded 18 gauge wire is recommended for extending the temperature sensor wiring.
- Flow switch wiring is based on a minimum of 18 gauge wire and a maximum of 14 gauge wire.

### Relay Wiring:

- The SPDT contacts have a resistive rating of 10 Amps @ 120 Vac (7 Amps @ 24 Vdc).
- When the relay coil energizes, the “NO” contacts are switched to closed position supplying power to turn on the load.
- When the switch is in the “ON” position the relay coil is energized continuously.
- **When the switch is in the “AUTO” position the relay is allowed to operate automatically as designed.**
- When the switch is in the “OFF” position the relay coil will never energize to switch the load.



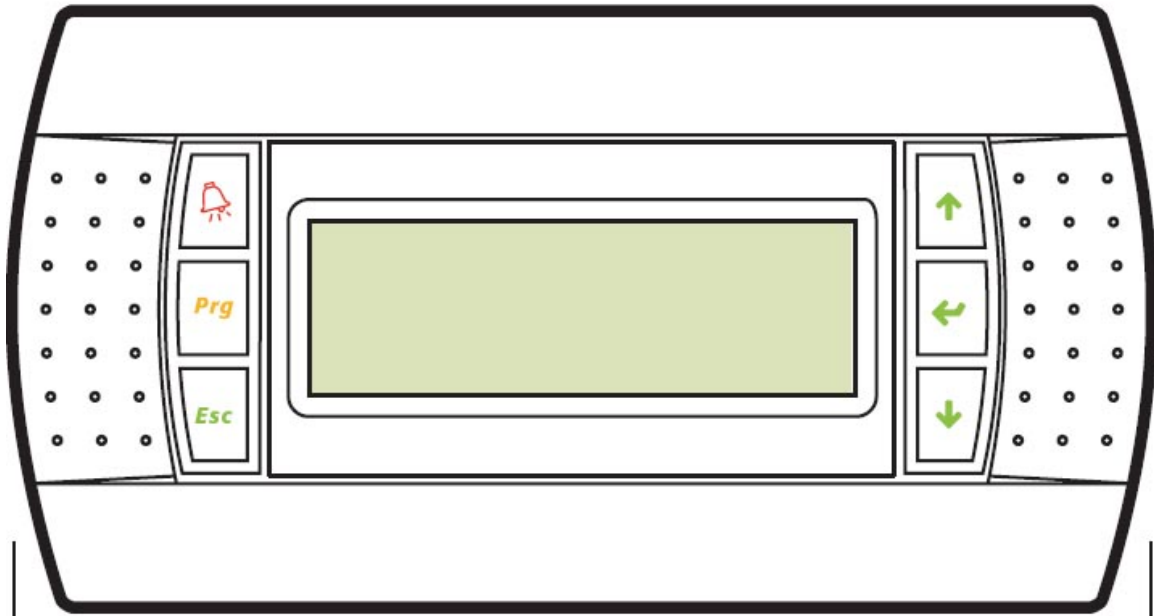
**Legend:**

- Field Wiring
- \_\_\_\_\_ Factory Wiring

**P1 = HeatPump Loop Pump#1**  
**P2 = HeatPump Loop Pump#2**  
**G1 = Ground Loop Pump#1**  
**G2 = Ground Loop Pump#2**  
**G3 = Ground Loop Pump#3**  
**G4 = Ground Loop Pump#4**

## GC-1 Wiring Detail

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Alarm button is used to view any active alarms and to silence alarm buzzer.



Program button (must be held in for at least 2 seconds) will take the user to the system setup password screen. Upon entering the right password of 9000, the user will be taken to page 1 of the system setup parameters.



Escape button will always take the user back to the 1<sup>st</sup> screen of each section. Once in the 1<sup>st</sup> screen, using the escape key one more time will take the user back to the main/home screen.



Up arrow button can be used to navigate between different screens, change editable selections, or increase numeric editable values. It is only possible to navigate between screens if/when the cursor is at the top left hand corner of the LCD screen. When changing editable Selections or Numeric values they will wrap around when they hit their high limit and start increasing from their low limit values.



Enter button is used to move between editable parameters as well as accepting the changes to the editable fields. If the user needs to change a particular editable parameter, they need to use the Enter button until the cursor is placed on the desired parameter, then use the Up arrow or Down arrow buttons to make the desired changes and then accept the changes by using the Enter button one more time. Parameters such as time and date work slightly differently, as the user changes all items required and at the bottom of screen they will be prompted to accept the changes by toggling a Yes or No menu item. Only after changing this last parameter to Yes and then using the Enter button will the changes take affect.



Down arrow button can be used to navigate between different screens, change editable selections, or decrease numeric editable values. It is only possible to navigate between screens if/when the cursor is at the top left hand corner of the LCD screen. When changing editable Selections or Numeric values they will wrap around when they hit their low limit and start decreasing from their high limit values.



Pressing Program and Enter buttons at the same and holding for a minimum of 10 seconds will take the user to factory reset screen. Initiating a factory reset command will set the display unit to DegC, make the cooling and heating setpoints 21.0 degC and 5 5.0 DegC respectively, make lead pumps both on the heatpump loop and geothermal loop to be the 1<sup>st</sup> pump, allow rotation of pumps, and resets other parameters.



Pressing Alarm and Program button at the same time and holding for a minimum of 15 seconds will take the user to advanced pages' password screen.