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La Marzocco PID Modifications Instructions

1. Change temperature units

a. Remove temperature type mask.

- i. Press and hold "SEL" key until "P-n1" is displayed.
- ii. Press  key to display "dSP5".
- iii. Press the "SEL" key once.
 1. Current setting of (example "212") is now displayed.
- iv. Press  key to correct setting of "208".
- v. Press "SEL" key once, "dSP5" will be displayed and the controller is now programmed to allow change from Celsius to Fahrenheit.

b. Change temperature type from Celsius to Fahrenheit.

- i. Press and hold "SEL" key for 5 seconds until "P" is displayed.
- ii. Press  key to display "P-F".
- iii. Press the "SEL" key once.
 1. Current setting of "C" is now displayed.
- iv. Press  key to correct setting of "F".
- v. Press "SEL" key once, "P-F" will be displayed and the controller is now programmed to Fahrenheit units.

2. Change input for probe type

- a. Press and hold "SEL" key for 5 seconds until "P" is displayed.
- b. Press  key to display "P-n2".
- c. Press the "SEL" key once.
 - i. Current setting is now displayed.
- d. Press  key to correct setting.
 - i. Use setting "2".
- e. Press "SEL" key once, P-n2 will be displayed and the controller is now programmed for probe type.

3. Range of measurement

a. Change low range of measurement to 32 degrees.

- i. Press and hold "SEL" key for 3 seconds until "P" is displayed.
- ii. Press  key to display "P-SL".
- iii. Press the "SEL" key once.
 1. Current setting is now displayed.
- iv. Press  key to correct setting of "32".
- v. Press "SEL" key once, "P-SL" will be displayed and the controller is now programmed for the low control range.



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- b. Change high range of measurement to 220 degrees.
 - i. Press and hold “SEL” key for 3 seconds until “P” is displayed.
 - ii. Press  key to display “P-SU”.
 - iii. Press the “SEL” key once.
 1. Current setting is now displayed.
 - iv. Press  key to correct setting of “220”.
 - v. Press “SEL” key once, “P-SU” will be displayed and the controller is now programmed for the correct low measurement range of 220 degrees.

4. Change Minimum and Maximum Set Values
 - a. Change low range set value.
 - i. Press and hold “SEL” key for 5 seconds until “P-nl” is displayed.
 - ii. Press  key to display “Sv-L”.
 - iii. Press the “SEL” key once.
 1. Current setting is now displayed.
 - iv. Press  key to setting of “170”.
 - v. Press “SEL” key once, “Sv-L” will be displayed and the controller is now programmed to allow a minimum temperature of 170 degrees.
 - b. Change high range set value.
 - i. Press and hold “SEL” key for 5 seconds until “P-nl” is displayed.
 - ii. Press  key to display “Sv-H”.
 - iii. Press the “SEL” key once.
 1. Current setting is now displayed.
 - iv. Press  key to setting of “220”.
 - v. Press “SEL” key once, “Sv-H” will be displayed and the controller is now programmed to allow a maximum temperature of 220 degrees.

5. Change control algorithm from PID to SELF
 - a. Press and hold “SEL” key for 3 seconds until “P” is displayed.
 - b. Press  key to display “Ctrl”.
 - c. Press the “SEL” key once.
 - i. Current setting is now displayed.
 - d. Press  key twice to correct setting to “SELF”.
 - e. Press “SEL” key once, “CTRl” will be displayed and the controller is now programmed for control algorithm type.

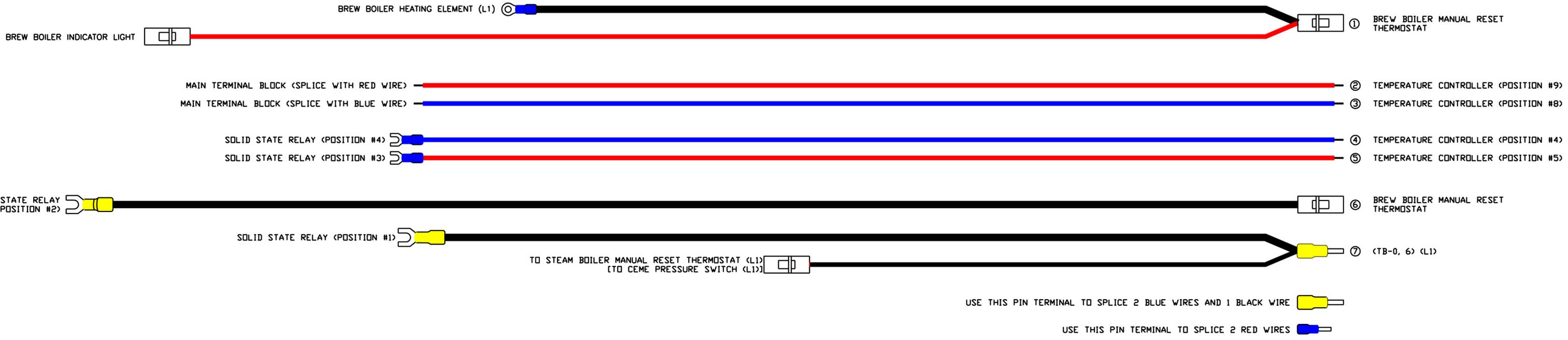
6. Confirm programming
 - a. Press and hold “SEL” key for 2 seconds until “Stby” is displayed.



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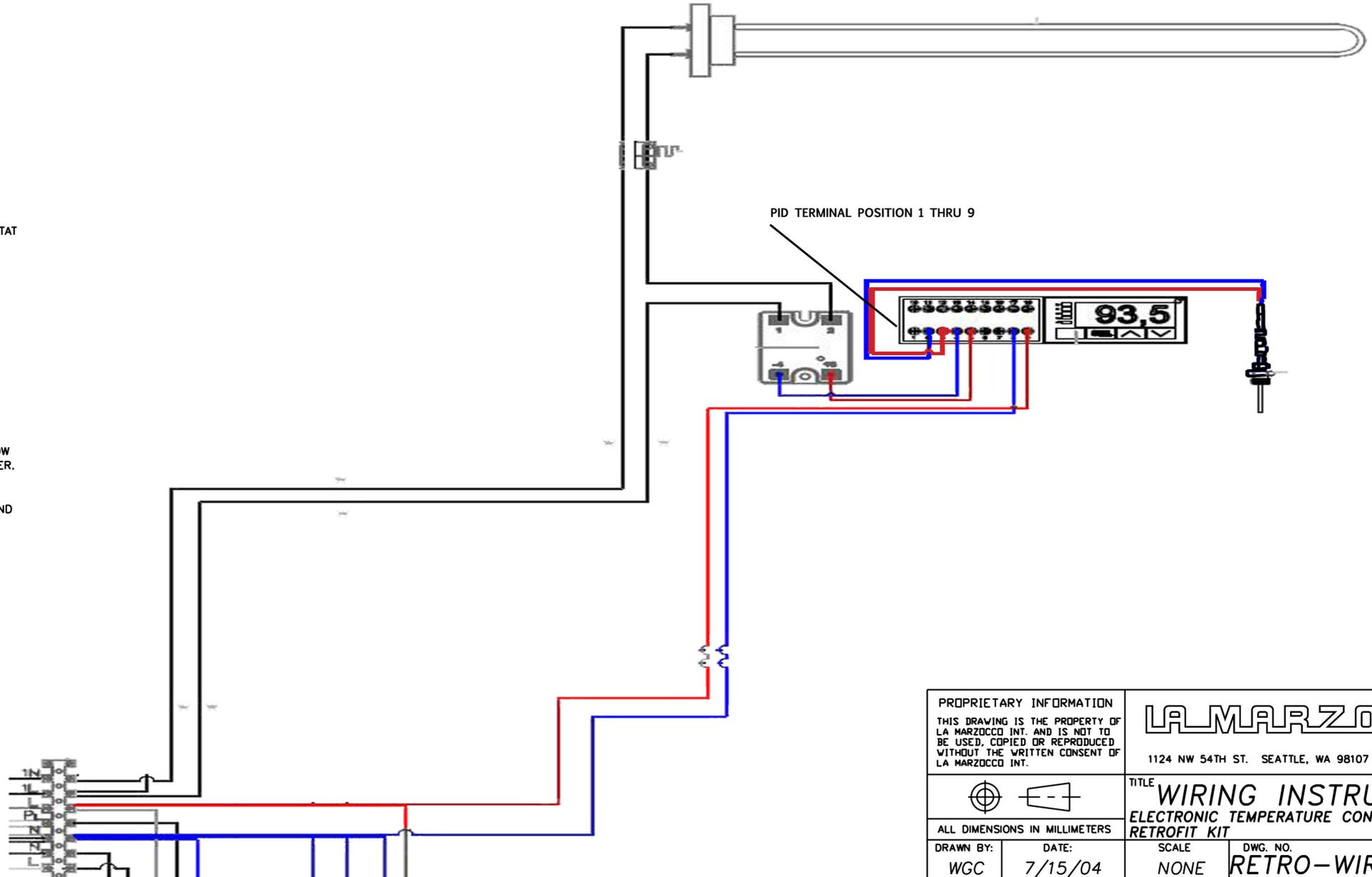
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- b. Press  key to display “LoC”.
 - c. Press the “SEL” key once.
 - d. Current setting of “0” is now displayed.
 - e. Press  key to correct setting to “2”.
 - f. Press “SEL” key once, “LoC” will be displayed after that, any setting other than the SV cannot be changed from the front panel.
 - g. If you want to display the operation status, press and hold the “SEL” key for 2 seconds. The SV (set temperature) will be displayed on the display area upper left not in the digital display.
 - h. If un-operated state continues, the PV (current temperature) will be displayed.
7. Set desired temperature
- a. Press “SEL” key for momentarily “170” will be displayed.
 - b. Press  key to set your desired temperature.
 - c. Your temperature will be registered in three seconds. After that, the controller will operate with your new set temperature.



3 GROUP ELECTRONIC TEMPERATURE CONTROLLER RETROFIT WIRING INSTRUCTIONS

1. DISCONNECT WIRES FROM THERMOSTAT.
2. REMOVE RED WIRE TO BREW BOILER INDICATOR LIGHT. REMOVE SHORT WIRE AT BREW BOILER MANUAL RESET THERMOSTAT. REMOVE REMAINING WIRE AT BREW BOILER MANUAL RESET THERMOSTAT ALSO DISCONNECT OTHER END OF WIRE FROM BREW BOILER HEATING ELEMENT.
3. INSTALL PREPARED WIRE #1 AT BREW BOILER MANUAL RESET THERMOSTAT, CONNECT RING TERMINAL TO BREW BOILER HEATING ELEMENT, AND . CONNECT RED WIRE TO BREW BOILER INDICATOR LIGHT.
4. INSTALL PREPARED WIRE #6 AT BREW BOILER MANUAL RESET THERMOSTAT AND ATTACH THE OTHER END TO THE SOLID STATE RELAY (SSR).
5. REMOVE WIRE FROM POSITION #6 AT MAIN TERMINAL BLOCK. AND REPLACE WITH PREPARED WIRE #7. CONNECT THE SHORT LEAD TO THE STEAM BOILER MANUAL RESET THERMOSTAT AND THE OTHER END TO THE SSR.
6. REMOVE BLUE WIRE AT BOTTOM OF MAIN TERMINAL BLOCK. SPLICE NEW BLUE WIRE (PREPARED WIRE #3) TO BLUE WIRE AND BLACK WIRE FROM WATER PUMP USING SUPPLIED YELLOW PIN TERMINAL CONNECT THE FREE END OF THE NEW BLUE WIRE TO THE TEMPERATURE CONTROLLER.
7. REMOVE RED WIRE AT BOTTOM OF MAIN TERMINAL BLOCK. SPLICE NEW RED WIRE (PREPARED WIRE #2) TO RED WIRE USING SUPPLIED BLUE PIN TERMINAL. CONNECT THE FREE END OF THE NEW RED WIRE TO THE TEMPERATURE CONTROLLER.
8. CONNECT PREPARED WIRE #5 TO THE POSITIVE OUTPUT OF THE TEMPERATURE CONTROLLER TO THE POSITIVE INPUT OF THE SSR.
9. CONNECT PREPARED WIRE #4 TO THE NEGATIVE OUTPUT OF THE TEMPERATURE CONTROLLER TO THE NEGATIVE INPUT OF THE SSR.
10. INSTALL THE TEMPERATURE PROBE USING THE SUPPLIED COPPER CRUSH WASHER. ROUTE WIRE ENDS TO TEMPERATURE CONTROLLER AND CONNECT.
11. MOUNT AND INSTALL TEMPERATURE CONTROLLER INTO SUPPLIED BRACKET.
12. DRILL HOLES IN BLASK BASE USING THE SUPPLIED TEMPLATE AND MOUNT THE TEMPERATURE CONTROLLER USING THE SUPPLIED STAINLESS STEEL SCREWS (#8-32 UNF X 1/2").
13. ORGANIZE AND ROUTE WIRES NEATLY TOGETHER USING THE SUPPLIED PLASTIC WIRE TIES.



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