



Castle Equalizer Diagnostics

In the event your Equalizer is not warming up, you will need to determine where the problem may be:

On your LOGO display the screen should be showing "Warming Up"

Press the DOWN arrow key and you should have a flashing Time/Date display. When you have that, press the RIGHT arrow key twice and you should have a display that looks something like this:

Q:
O 1 2 3 4 5 6 7 8 etc...
2

Check the first number on the O line: the 1 – is it 'highlighted'? (as opposed to how the other numbers are displayed)

If YES, then check the output voltage on Q1,2 . It should be 120V.

If Q1,2 voltage is 120V, then it's most likely your heating element.
If Q1,2 is not showing 120V then check Q1,1. That should ALWAYS show 120V output

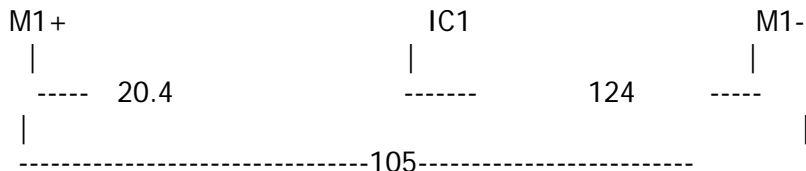
If Q1,2 does NOT show 120V then your PLC is bad and needs to be replaced
If Q1,1 does NOT show 120V, then it's a wiring issue, check to make sure the wires are connected and not loose or detached.

If NO (the "1" is not 'highlighted'), then check the Thermistor (see diagram below)

If the thermistor is 15% off or more, then replace thermistor

To check thermistor values:

Machine = Off



EQ Temperature Setting and Warm Up Troubleshooting

To bring up the temperature screen, in the space of 1 second perform the following steps:

- Press and hold the "ESC" button.
- Press the "up" arrow button
- Release both buttons at the same time

Once the Temperature Setting screen is visible you should be able to raise or lower the temperature setting with the "up" arrow or "down" arrow only. Within a few seconds the screen will return to the default "Equalizer" screen. Remember that each time you access the Temperature Setting screen you are changing the temperature setting from its previous value.

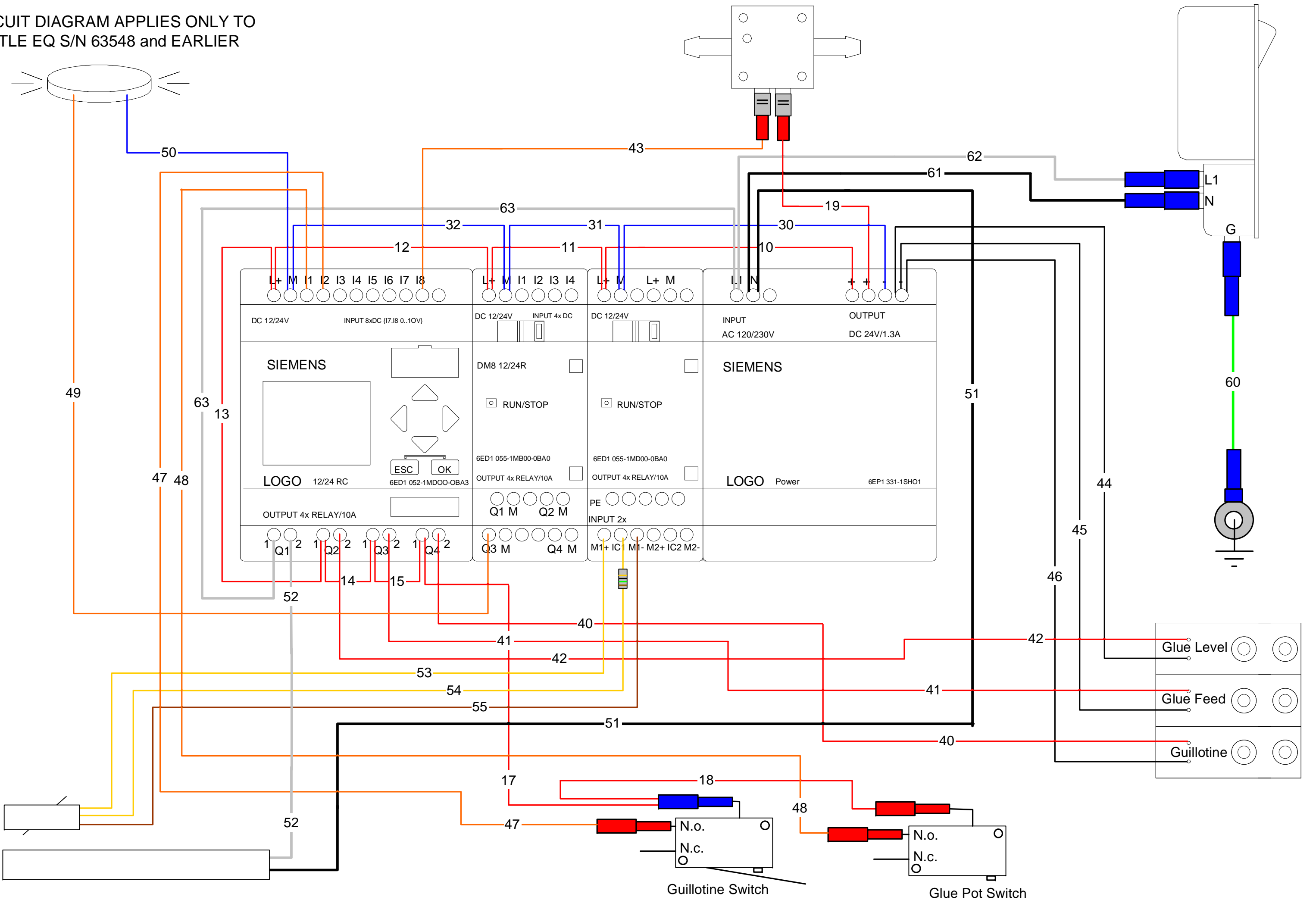
HOW TO change the Temperature:

- The Equalizer has 10 temperature settings, 10 being the hottest and 1 the coldest.
- Turn on the machine and allow it to get to running temperature.
- During the Warm-Up mode, the Screen will display the countdown timer.
- Once the Running Temperature has been reached the Run Screen will appear.
- To navigate from the Run Screen to the Temperature Set Screen press and hold ESC, then press the UP arrow or the DOWN arrow.
- This will adjust the operating temperature by 1 level. The machine is factory set at a temperature level of 5.

Guidelines:

- Once you have found the temperature setting that works best for you, it is unlikely that you will have to adjust it very often.
- Once a change to the temperature has been made, allow the glue 10 to 15 minutes to reach the new temperature, and then run a test board before changing the temperature again.
- **Do not attempt** temperature adjustment while in the *Warm-up Cycle*

A diagram of a disk with two ports, one orange and one blue, with lines radiating from the sides.



CIRCUIT DIAGRAM APPLIES ONLY TO
CASTLE EQ S/N 63549 AND LATER

