

Digital Knight Pyrometer and Surface Probe Kit

The Digital Knight Pyrometer and Surface Probe are the industry's most accurate temperature sensing device available on the market today. This device takes a direct surface reading straight from the heat platen itself. Here are the steps for setting up and using your Pyrometer:

1. **Unpack** the main digital pyrometer device and **Install the 9V battery** in the rear compartment of the pyrometer. The rear door slides downward off the pack panel, and may be tight.
2. **Set aside** the green wire & yellow plug included in the black pyrometer case. It is for different temperature applications and will not be used for heat presses.
3. **Plug in** the Thermocouple Probe into the Digital Pyrometer. **IMPORTANT:** Make sure the + side of the plug (smaller metal plug) goes into the + side of the pyrometer plug-in (smaller hole).
4. Turn the pyrometer on. **Press °F**. This will display the degrees in F instead of C.
5. **Press 1.0°**. This will display the temperature in single degrees without a decimal. The pyrometer starts in the 0.1° mode, which shows tenths of a degree. When measuring temperatures over 100°, the display will read 0L, because there are not enough digits on the screen to display the decimal of 3-figure high temperature readings. Pressing 1.0° will display high temperatures properly.
6. **Press the tip** of the surface probe against the heat platen, make sure the spring tip is compressed evenly against the surface.



Tip:
Remember to remove the top plastic cover off the thermocouple probe before measuring the temperature. **The probe tip is very delicate!** Do not touch or pull on or pick at the tip of the thermocouple probe. Remember to put the protective cover on after using.

Digital Knight

Adjusting the Screen Display & Offset Temperature

The Digital Knight line of heat presses can be adjusted for temperature calibration. This means you can adjust the heat press controller so its screen temperature matches your pyrometer. Here's how to adjust the Offset setting in the Digital Knight controller:

1. Turn press OFF. Hold down TEMP & PRG keys tightly.
2. Turn press ON. Keep holding keys until "OFS" or "FIRMWARE" appears. Let go of keys. (*If "Firmware" shows, press PRG once to enter the OFS menu*)
3. Press the UP arrow key, and then the DOWN arrow key.
4. The number shown is the "offset". Use the UP arrow key to Increase this number if the screen temperature needs to be increased compared to the pyrometer reading.
5. If the screen temperature display needs to be lowered compared to the pyrometer reading, press the DOWN arrow key.
6. Press the PRG key 8 times slowly, until the press returns to the regular operating mode.
7. Press TEMP, reset the flashing temperature setting, and press TEMP again. (Your temperature setting is affected by the offset – this has nothing to do with the controller's temperature reading and just needs to be reset to the desired temperature.)



What to expect from a heat press platen

The Digital Knight line of heat presses have the most heater coil in the industry embedded in the heat platen. Also, **there is only One heater coil** winding throughout the heat platen. This means if the platen is getting hot, the coil is heating everywhere. A malfunction or defect of the internal coil would ONLY result in a dead cold heat platen, or a skyrocketing hot platen. There can not be "Hot and Cold Spots" on the heat platen. Spotty pressing results are always a result of lack of contact pressure in certain areas, either from insufficient or non-flat padding, or surface contact with the platen.

All heat platens are expected to vary in temperature across the surface of the entire plate. The center will be different from the edges and especially corner areas of the heat platen. **This is normal.** When taking readings, calibrate your press based on the center of the heat platen.