# Printer Power-Up – Best Practices

## Purpose

This Technical Alert is to communicate the best power down and power-on practices for all 3Z printers.

## Overview

The 3Z Printer will enter Standby Mode automatically after 16 hours of inactivity. You can place it in standby mode manually if you are not using the machine for a number of days.

A 3Z printer should always be put in Standby Mode prior to powering the system down for relocation.

Powering down the 3Z is preferable when it will not be used for a week or longer.

When powering up or waking the system after a period of inactivity, there are several steps to follow to ensure smooth operation. It is important to follow this procedure to prevent potential printer issues.

## Procedure

**Step 1 -** If the 3Z Printer is cold, or has been recently relocated, please give it time to acclimate to room temperature (at least 8 hours) before powering on.

**Step 2 -** After the 8 hour warm-up period, or if starting from standby, turn the machine on and press the wake button *(Figure 1)*.
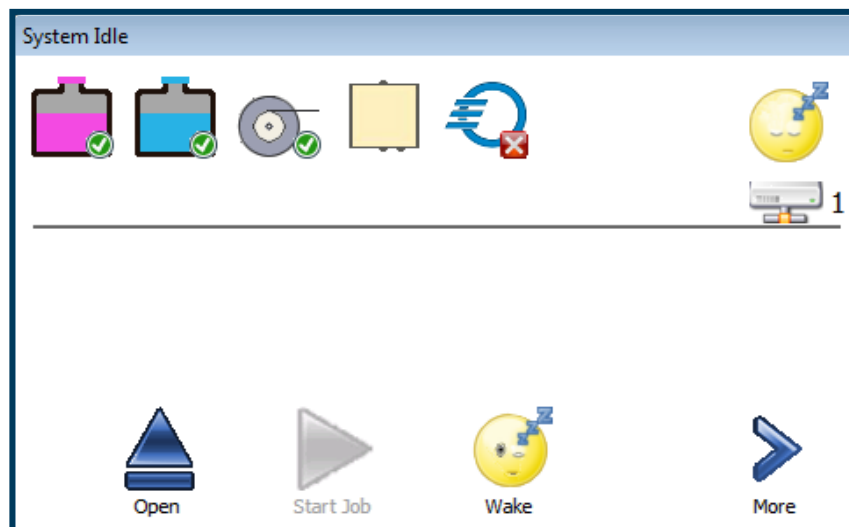


*Figure 1*

**Step 3 -** *Power the machine off, then on again!* This prevents the newly awakened 3Z from staying on the initialization screen.

# Printer Power-Up – Best Practices

**Step 4 -** Let the 3Z come up to temperature. Progress can be monitored at the Thermal Information Screen *(Figure 2)*.
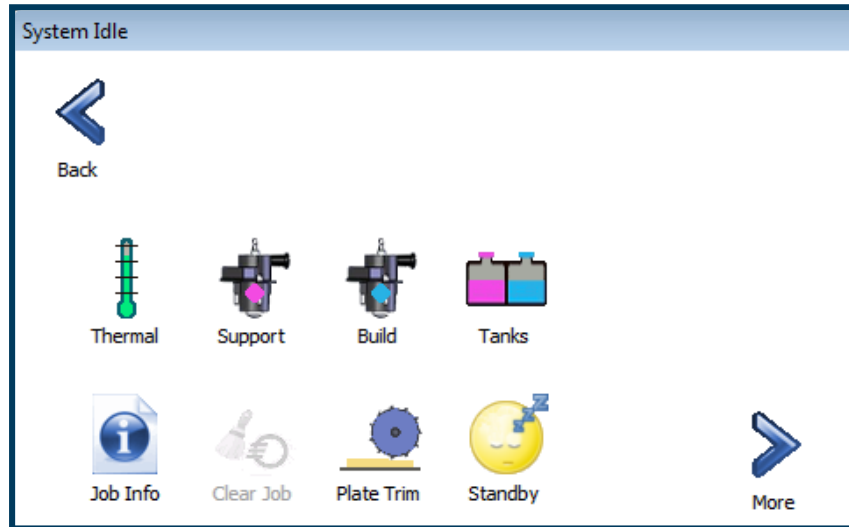


*Figure 2*

**Step 5 -** A 3Z should come up to temperature in about an hour. If the printer had been in standby mode, let it sit idle for another 3 hours (4 total). A machine powered-up from cold should sit at temperature for 8-hours or overnight.

**Step 6 -** Ensure Purge Caps do not stick. Purge Caps will stick after on a cold printhead, or even at standby temperatures.

- Raise the set point of the build printhead to 128°C and let it sit for 20 minutes *(Figure 3)*.
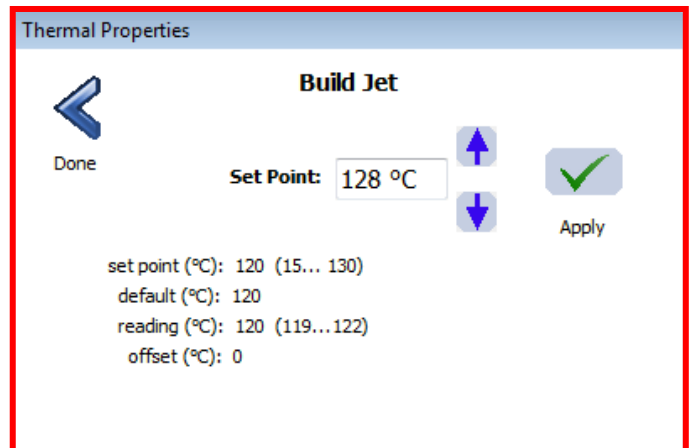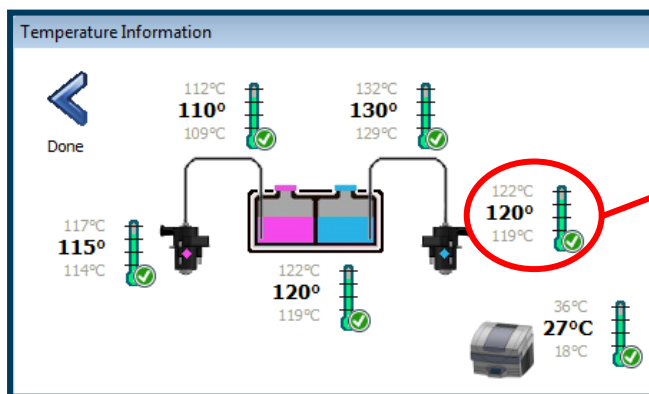


*Figure 3*

- Manually twist the purge caps to loosen them. Some printers may require that the purge caps be swapped between each printhead. Clean purge caps if necessary.
- Reset the Build Printhead set point to 120°C.

**Step 7 -** Manually run the **Purge**, **Fire/Purge**, **Wipe**, and **Test** functions on both Printheads *(Figure 4)*.



*Figure 4*

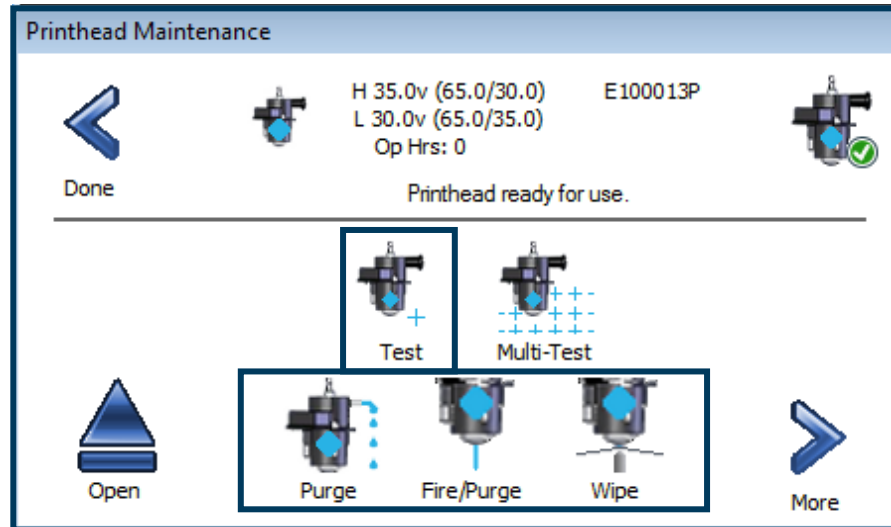**Step 8 -** Perform the normal care and feeding rountine before starting a job. Let the printer automatically calibrate.

**Step 9 -** It is also recommend to power cycle the printer before starting the second job. This will reset the 'Smart Calibration Interval' clock and force the printer to calibrate the printhead volumes again to ensure good voltages are set.

**Step 10 -** After the 2nd start this will not be necessary. The printheads will only perform volume calibration every 120 hours normally (unless powered off).