

Hot Plate Operation

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1 INTRODUCTION

1.1 Purpose

This paper describes the programming procedure for the **Cole Palmer Digital Hot Plate**. The programming is not intuitive, and therefore requires some brief instructions. The example given below follows the E Beam Resist (PMMA) soft bake flow. This procedure is used to remove solvent from the resist, just after coating.

1.2 Scope

This document is limited to instruction of operational procedures for setting a temperature to bake a resist film on a wafer.

1.3 Audience

This document is intended for UTD clean room users.

2 HOT Plate Programming

A. Preparing the machine for use.

- Flip the power switch on
 - The **Plate Hot** indicator flashes red.
- Press the SET button.
- Press the button Number 1 (Plate Temperature).
- Enter desired temperature setting.
- Press the SET button again.
 - The plate heats and the display begins to flash between the target temperature and the actual temperature.

WARNING: Place a label in front of the plate such that:

- 1) Others in the lab will not accidentally burns themselves.
- 2) Other will know the hot plate is use.



Figure 1. Cole Palmer Digital Hot Plate Front Panel

2.1 Baking a Wafer

- Place the wafer on the hotplate with a tweezers.
 - o **NOTE:** Take care that the wafer does not slide off of the hot plate like an air hockey puck.
- Normal wafer bake time is 90 sec for PMMA e-beam resist.

2.2 Full Manual Reference (Note by Roger Robbins)

This hotplate is much more capable than meets the eye: it can be programmed to ramp the temperature up or down at a settable rate; heating time can be set including an alarm at the conclusion; programming can include up to 75 steps, etc. This is all explained in the official Cole Palmer instruction manual located at the following web site:

http://www.colepalmer.com/catalog/manual_pdfs/730-0024%20dataplate.pdf