GERBER SCIENTIFIC PRODUCTS

TITLE: **Z Init Procedure for the Sabre Router**

Gerber FastFact #:   5041

Supplied by: Gerber Service

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Summary: This document explains how to complete the Z init procedure for the Sabre
Series Routers at Firmware level 1.2 or higher.

Main points:

1. All tools must be initialized to the table when they loaded.
2. Only the first tool used in the job needs to be initialized to the surface of the material.
3. Exact thickness of the material, if known, can be entered in ArtPath as Nominal Thickness making it unnecessary to perform a material init.

In ArtPath:

When you assign a tool path you must choose either Table or Material as a Surface Reference.

```
Surface Reference
   ⊙ Table    ○ Material
```

If you choose **Table** as the Surface Reference, the point of reference will be the table init done when the tool was installed.

For example: Using 1.0" thick material with a cleanout of 0.25".
*If **Table** is selected the cleanout will be calculated up 0.75" from the table surface.*
*If **Material** is selected the cleanout will be calculated 0.25" down from the material surface.*
This is important if the material is not exactly 1.0" thick, and you need to cleanout to a precise depth.

When the job is output to the Sabre, you enter a material thickness. This is the Nominal Thickness.

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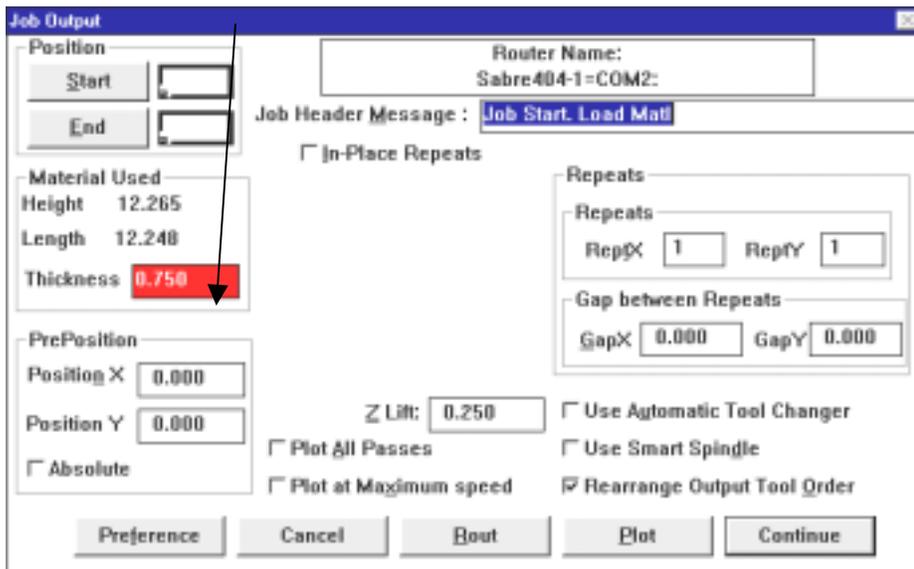
Sabre Menus:

When installing a tool, your Sabre Series Router will prompt you to do a Table Init.

```
        Z INIT TABLE
   A:  Initialize
```

Lower tool to plastic scratch gauge and push A. (The tool should cause a light scratch on the gauge's surface.) If using ATC, put tool away.

Once job is sent push START on the Sabre.

A Do you want to check tools? Message will appear. Respond.

The following menu will appear:

```
      Nominal Thickness
           0.750 in
   A:  Increase
   B:  Decrease
```

This will be the amount that was entered as Nominal Thickness in the output screen of Artpath. This should be the thickness of your material. Adjust according to the material you are using. Push Enter. You will then see the following display:

```
     Set Actual Thickness
          0.750 in
   A:  Use Last        0.750
   B:  Use Nominal   0.750
   C:  Do Material Init
```

If the material you are using is the exact same thickness as the last job cut on the router you can select A, to use the last material thickness.

If the Nominal Thickness you entered is the exact thickness of the material, select B - Use Nominal.

If you choose to do a material init, your Sabre Series Router will measure the exact thickness of the material.

The difference between the Table surface and the Material surface have now been entered in the Sabre. All tools used that have been initialized to the table will now use this information to determine where the surface of the material is.

If using the ATC you do not perform another initialization during this job unless you need to manually load a new tool.

If you don't have an ATC, initialize each tool to the table when loaded. No other material initializations will be required for this job.