
Soigeneris Jog Keypad

Easy Jog Keypad for
Mach 3

Users Manual V1.1



A word about safety

We at Soigeneris take pride in providing high quality components for small scale CNC systems. While we make every effort to provide in depth and accurate technical information we cannot make any guarantees about their applicability to your particular situation. In reality the only person who can keep you safe is you. We strongly suggest that you avail yourself of all the information available for the components you're putting into your CNC system and understand how they will all interact.

This jog keypad is intended to be used as you would use a standard keyboard for manually jogging small machine tools which are controlled by Mach 3. It is NOT an industrial type manual control pendant and DOES NOT provide Estop functionality. Do not use this product in an application where you would not use a standard keyboard.

Safety Tips

- Do not use this jog keypad in an application where you would not use a standard keyboard.
- Take care not to get the cord of the jog keypad caught up in the machine.

What's in the Box?



A: USB Keypad with 39" cord



Your Resource for Hi-Tech Hobbies

304 Fox Creek Road
Rolla, MO 65401 US
573-647-9294

Introduction

The Soigeneris jog keypad is intended to be used on small machine tool that is controlled by Mach 3. Using a full size to jog your machine can be cumbersome at times so this compact USB jog keypad gives you a convenient and low cost alternative. The keypad comes with a configuration file that works with Mach's Keygrabber utility to remap some of the standard keys and provide enhanced functionality. The following section will show you how to install the Keygrabber configuration file and how to set it up so Mach 3 will start with the Keygrabber configuration automatically.

Keep in mind this is a small, convenient keyboard replacement it is not an industrial manual control pendant. There is no Estop functionality so don't use it in a situation where you would not use a normal, full size key board.

Hardware Installation

This is the easy part; just plug it into a USB port. No special driver is required, if you have an old Windows XP system that has not been updated for a long time the built in Windows HID driver might be missing. Keep in mind how far the cord will reach and you don't want to route the keypad cord in such a way that it could get caught up in your machine.

In the majority of cases your PC will recognize the keypad when it is plugged in and automatically install the correct driver. If your PC has not had updates applied for a long period of time you may need to apply the latest updates from Microsoft.

Keygrabber Configuration Installation

There are two steps to installing the configuration file and starting up Mach with the Keygrabber configuration automatically being activated. Don't worry it is easy to do.

Step 1:

Copy the file, 'keypad.garb' file to your Mach 3 installation directory, typically C:\Mach3. This file contains the definitions that Keygrabber uses to enhance the functionality of the jog keypad.

Step 2:

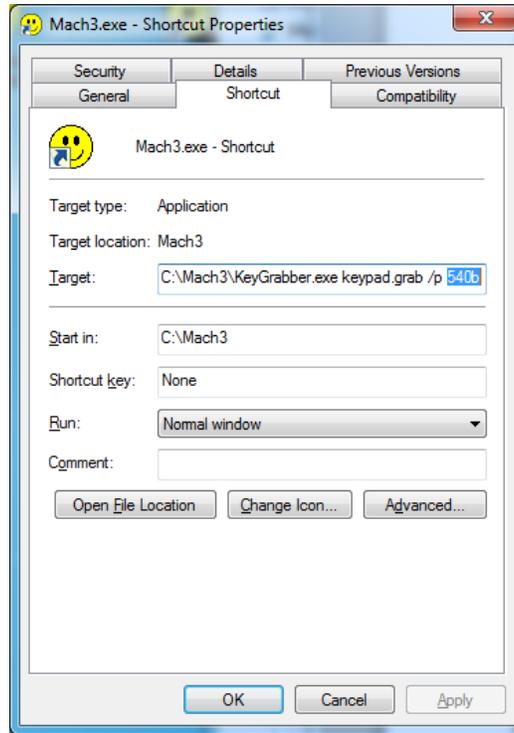


Figure 1

Copy the shortcut file, 'Mach3.exe - shortcut.lnk' to your desktop. Right click on it and select properties. Change the end of the line labeled 'Target' to the name of the profile you are using. If your profile name is 'myProfile' then the end of this line should be '/p myProfile' (no quotes). This tells Keygrabber which Mach profile to start up with. You can find your profile name by starting up Mach 3 as you normally would and look in the lower right corner of the screen for the profile name.

When you click on this new shortcut it will first start up the Keygrabber utility and load the keypad configuration and then start up Mach 3 with your profile. If you use multiple Mach profiles you can set up a new shortcut for each one by copying the shortcut and changing the profile name. I like to name my shortcuts to give an idea of what they are used for.

Num Lock	/	*	-
7	8	9	+
4	5	6	BS ←
1	2	3	Enter
0	000	.	
Num Lock Mode			

When you first boot up your PC they jog keypad will be in Num Lock mode. In this mode it works just like a numeric keypad.

I find Num Lock mode very hand for changing the value in DROs. I can use the keypad in Jog Mode to jog an axis to a certain position and then press Num Lock and type a new value into the DRO for that axis.

Tip: If your not sure what mode the keypad is in just tap one of the jog keys. If the machine does not move then you are in Num Lock mode.

Num Lock	Jog Flyout (Tab)	*	-
7 Home	Y++ (↑)	Z++ (PgUp)	+
X-- (←)	5	X++ (→)	BS ←
Jog Fast (Shift)	↓ Y--	Z-- (PgDn)	Enter
Jog Inc	000	Jog Mode	
Jog Mode			

In Jog Mode you can bring up or hide the on screen jog pendant flyout (same as Tab key), jog the machine (X, Y, Z axis), change the jog increment and jog mode.

This gives you very handy access to the most commonly used jogging controls. There are a few keys left that you can remap to functions of your choosing as well.

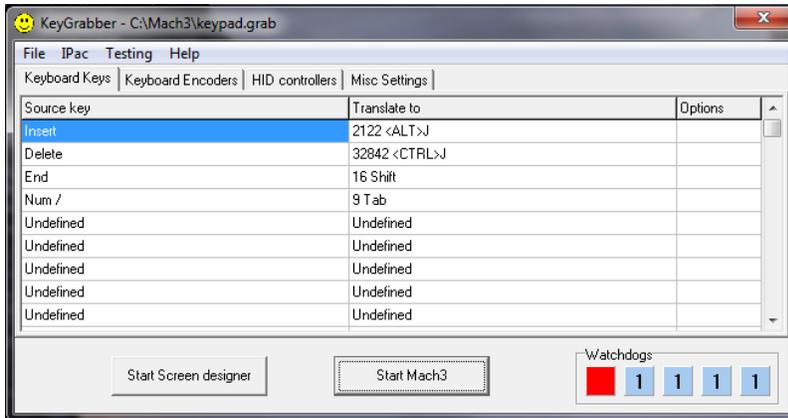
Customize your keypad

While we provide a 'plug-and-play' Keygrabber definition file that lets you get up and running very quickly it is possible to customize what the buttons on your jog keypad do.



First go to your Mach 3 installation directory, typically C:\Mach3 and double click on the KeyGrabber icon shown to the left.

Figure 2 - KeyGrabber Icon



Next use the file menu to load the 'keypad.grab' file. The general idea is that you click on one of the 'Source key' rows and then press the key on the keypad you want to remap. Then under 'Translate to' you tell KeyGrabber what key you want it to work like.

Figure 3 - KeyGrabber Program

Links

- 1) The Keygrabber definition file can be downloaded here:
<http://www.soigenetis.com/Document/Soigenetis/KeyPadGrab.zip>