

CTW Probe version 1.1.1216.0

CTW is officially releasing its next version of CTW Probe for the rotary dyno as well as the linear and spring rating models.

- You will need an internet connection or have already downloaded the software through our website.
 - [CTWAutomation.com / Support / Software](http://CTWAutomation.com/Support/Software)

Start your CTW Probe Software. Go to the “File” on the Toolbar.

- Click on the “Check for Updates”

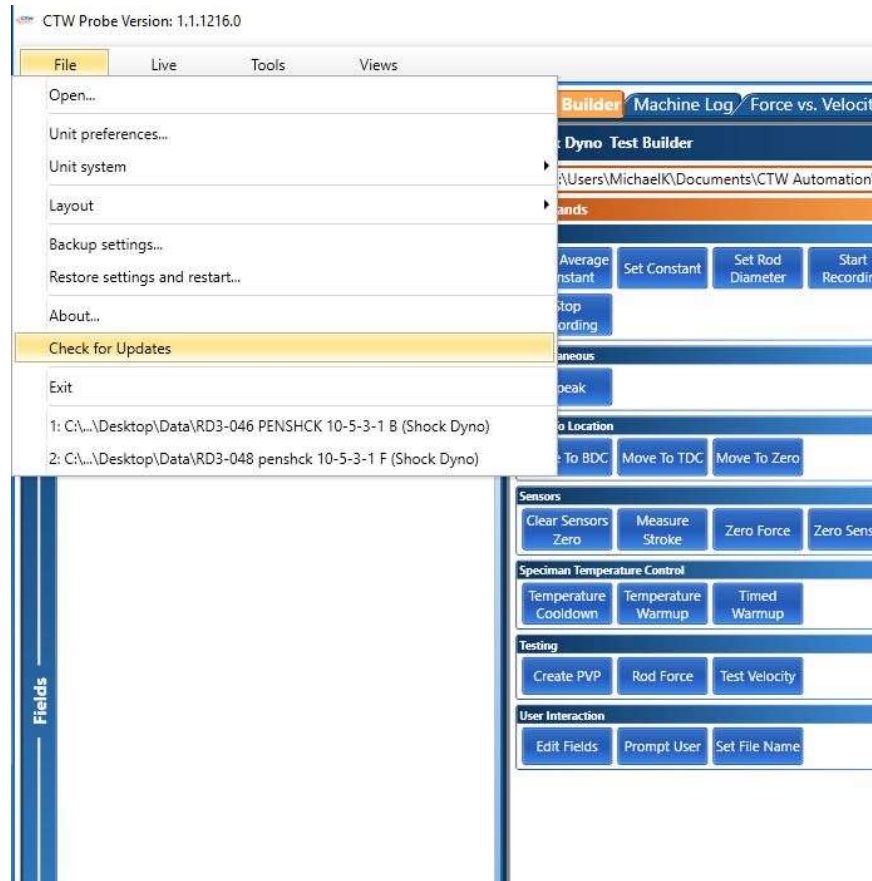


Figure 1: Check for updates

The computer will start to download the software and it will show you the release notes for this version. There are a huge number of changes and updates, more than are listed and you will see these as soon as you start working with the new software.

You will want to choose “Custom” for this update.

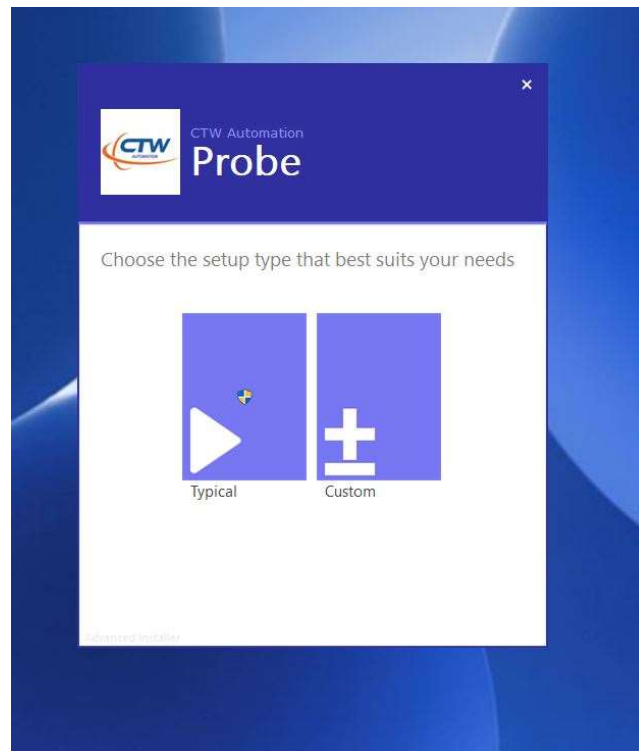


Figure 2: Setup Choice

Then you want to make sure that the “checks” are as shown in figure 3. This covers all rotary / crank type machines.

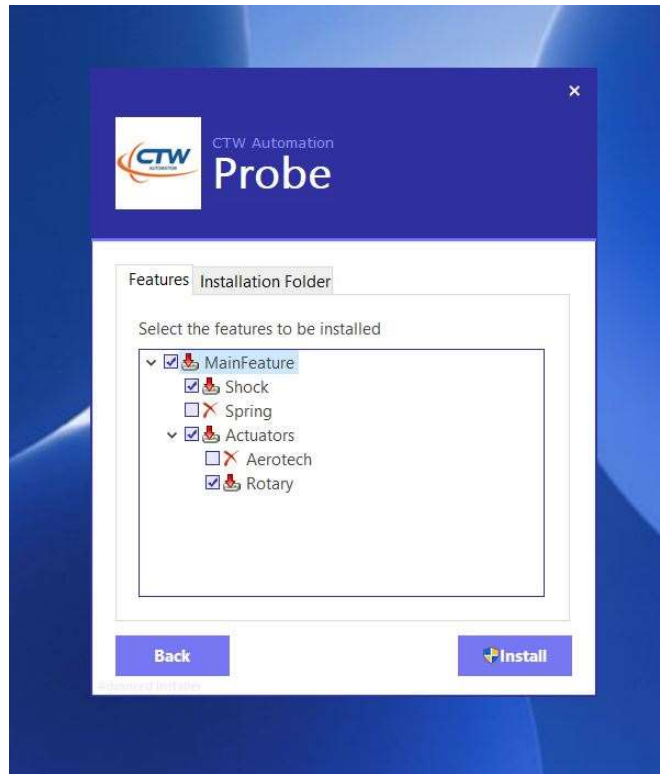


Figure 3: Installation Features

You are ready to install. Once you get the “finish”, click it and then open the new Probe shortcut on the desktop.

Done, yeah!!!

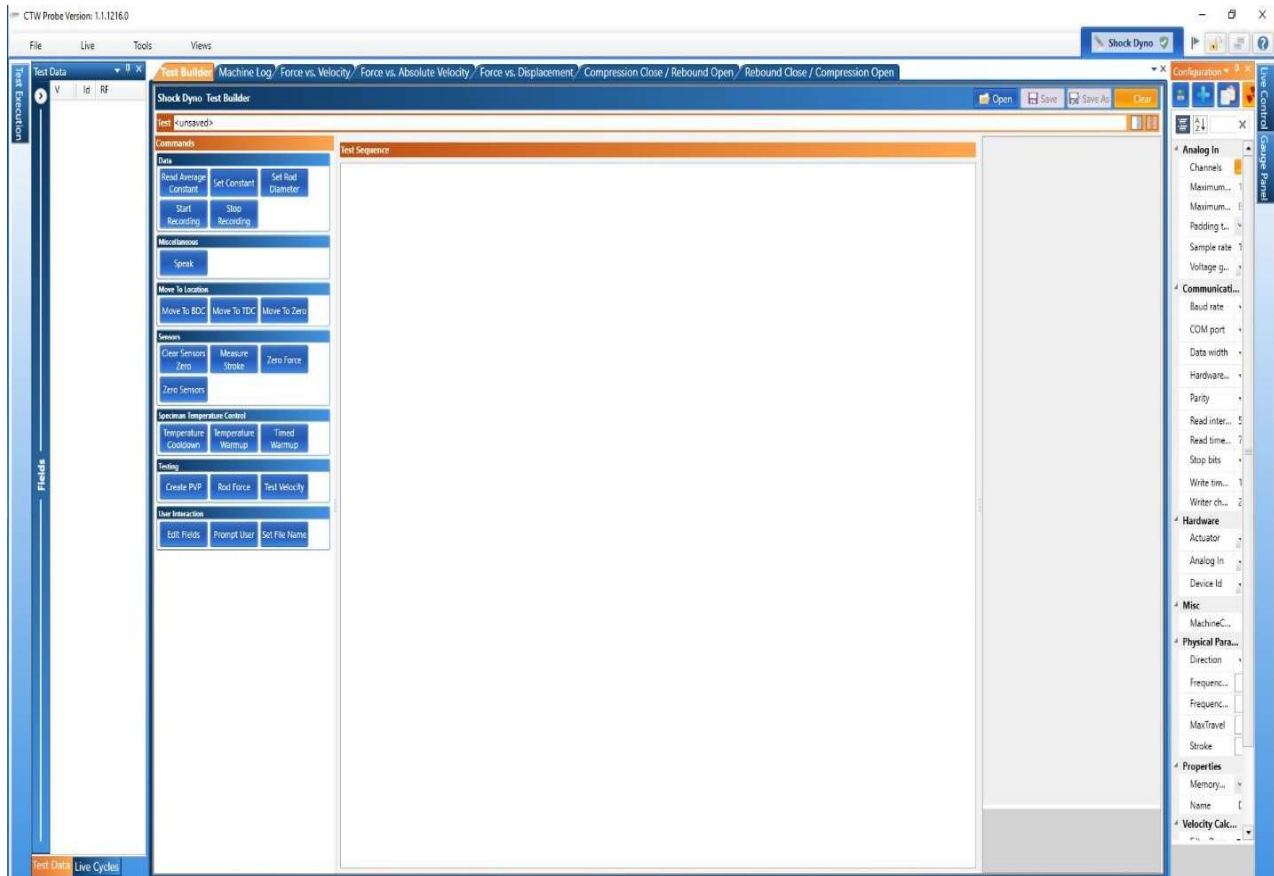


Figure 4: First starting of new software

You will now want to correct some windows and clean up how these are laid out.

Right side of screen - Click on Configuration and select "Auto Hide".

Left side of screen – Click on Test Execution and select "Auto Hide". This will put each of these in the standard position.

Configuration Tab updates:

Now you will want to open-up the Configuration Tab and update any settings that are not already set correctly. We have discovered better Settings along the way.

The two most important ones are:

“Negative To Positive Zero Crossing” – “NegativeMotion”

“Velocity Interpolation” – “CubicSpline”

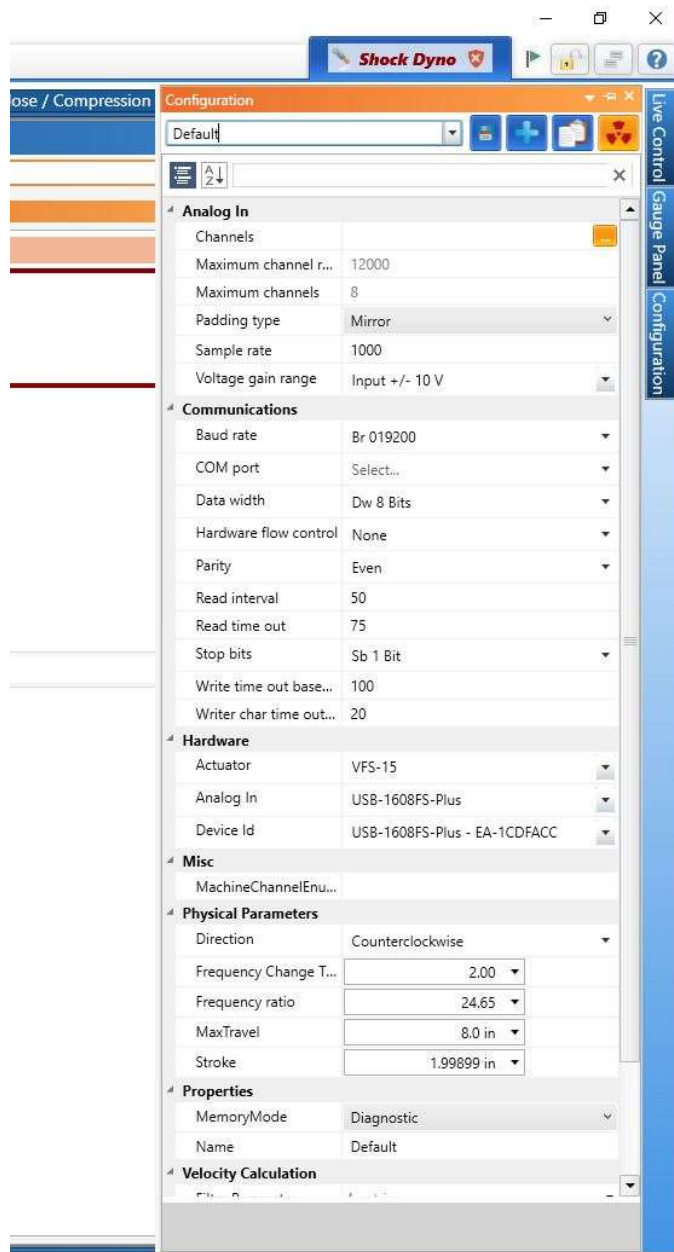


Figure 5: Configuration

Most of these should be correct but we have added a sheet to help you. The ones in Red are the most important that may not be correct.

Also note that some settings will change based on your particular dyno and stroke such as frequency ratio, COMport and stroke.



Analog In						
	Padding type	Mirror				
	Sample rate	1000				
	Voltage gain range	Input +/- 10 V				
Communications						
	Baud Rate	Br 019200				
* Based on your Computer - should only allow you to make one choice	COM port	???				
	Data width	Dw 8 Bits				
	Hardware flow control	None				
	Parity	Even				
	Read interval	50				
	Read time out	75				
	Stop bits	Sb 1 Bit				
	Write time out base	100				
	Writer char time out	20				
Hardware						
* Based on your motor controller, most are VFS15	Actuator	VFS15	L510	VFS15	G9	VFS11
* Based on your data card, most ar "USB-1608FS-Plus"	Analog In	USB-1608FS-Plus	USB-1608FS-Plus	USB201	USB1608FS	USB-203
* Specific ID for each data card, everyone has a unique ID	Device Id	1CDFACC				
Physical Parameters						
* Your CTW should rotate Clockwise when running but this setting likely needs to be "counterclockwise" to make that happen"	Direction	Counterclockwise				
	Frequency Change Time	2				
* This is different for the RD7/RD10 and RD1	Frequency ratio	24.65				
* Ignore	MaxTravel	8				
* Depends on the dyno and what stroke you are using. If unsure simply use the Live Control and Measure Stroke	Stroke	2.00102				
Properties						
	MemoryMode	Diagnostic	Performance			
	Name	Default				
Velocity Calculation						
	Filter Parameter	4 entries	Hz	Parameter		
			0.1	10		
			0.7	40		
			1.5	60		
			6.0	60		
Negative To Positive Zero Crossing	NegativeMotion	NegativeMotion is a key				
Use raw displacement	unchecked					
Velocity Filter	LowPassFilter					
Velocity Interpolation	CubicSpline	CubicSpline is a key - if you are set to linear, please change				

Figure 6: Configuration Settings per CTW

- Once you have operational Probe Software, please back up your Settings and keep a copy safe. Go to File / Backup Settings. Add your dyno serial number to the beginning of the file name.