## **FlexControl Quick Start Guide**



## Introduction:

Thank you for choosing the FlexRadio Systems® FlexControl<sup>™</sup> tuning and control knob. The FlexControl is a highly versatile, compact control device, designed to be used in conjunction with PowerSDR software running on a personal computer under Windows XP, Vista or Windows 7. The FlexControl is powered by our World Famous PowerSDR<sup>™</sup> operating software to create the perfect Software Defined Radio Environment and is designed to meet your demanding Amateur Radio needs.

Setting up the FlexControl is no more difficult than connecting a mouse or other USB control device to your computer, as this Quick Start Guide will demonstrate.

The Quick Start Guide is designed to get you on the air with minimum effort. To do this, we assume a FlexRadio Systems radio installation with PowerSDR version 2.1 or later, and will not delve into all the radio and PowerSDR's many possibilities. For that, we urge you to review the respective PowerSDR and radio Owner's Manual.

To get your FlexControl on the air you will need:

- The FlexControl with its attached USB cable.
- A functioning FlexRadio installation.

• PowerSDR 2.1 or later version installed and functioning on your associated personal computer.

If you run into any trouble during the set-up process, please:

- Recheck your steps.
- Review the Owner's Manual.
- Check our website http://www.flexradio.com/ for our many available support options.

Follow these 3 steps to get on the air.

Step 1: Install PowerSDR<sup>™</sup> 2.1 or later

Verify that it is configured, and operating with your radio.

Step 2: Plug FlexControl<sup>™</sup> into a USB port

Allow the computer to find and install the driver.

Step 3: Open the FlexControl settings menu

Use the default settings, or configure the control as you wish.

#### Step 1: Install PowerSDR™ 2.1 or later

Support for the FlexControl is available in PowerSDR version 2.1, or later. This added support is visible as a new pulldown menu heading that appears at the top of the main operating page of PowerSDR.

The necessary driver and associated information for the FlexControl is also included in this release, and will automatically be installed in your PC, when the new version of PowerSDR is installed.

#### Step 2: Plug FlexControl<sup>™</sup> into a USB port

In Step 2, with the computer turned on, and PowerSDR version 2.1 or later previously installed, simply plug the FlexControl into a USB port.

Note: All three lights will be on when the FlexControl is initially plugged into the computer, and some or all of them will go out when the device has been installed and connected.

#### WINDOWS 7 or WINDOWS VISTA

On Windows Vista or 7, the computer should display a message saying "Installing Device Driver." A few moments later a message will appear that says "FlexControl Driver is successfully installed" and "The device is ready for use."

Note: Anytime in the future that a different USB port is used for the first time with the FlexControl, the Device Driver Installation will repeat.

#### WINDOWS XP

After plugging in the FlexControl for the first time, (or anytime in the future that a new USB port is used) the "Welcome to the Found New Hardware Wizard" will appear. Check the "No, not this time" option, then press "Next."



A new Wizard screen will appear, explaining that the "Wizard helps you install software for: FlexControl USB Control Knob".

round new marchare mizard					
	This wizard helps you install software for: RexControl USB Control Knob If your hardware came with an installation CD				
	or floppy disk, insert it now.				
	What do you want the wizard to do?				
	<ul> <li>Install the software automatically (Recommended)</li> </ul>				
	<ul> <li>Install from a list or specific location (Advanced)</li> </ul>				
	Click Next to continue.				
	< Back Next > Cancel				

Check "Install the software automatically." Then press "Next." This will result in a message that the "Wizard has finished installing the software for FlexControl USB Control Knob." Now press "Finish" to close the Wizard.

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	Completing the Found New Hardware Wizard			
	The wizard has finished installing the software for:			
	FlexControl USB Control Knob			
	Click Finish to close the wizard.			
	< Back Finish Cancel			

If there is ever a need to manually tell Windows where to find the driver files, tell Windows that the drivers are in:

C:\Program Files\FlexRadio Systems\PowerSDR v2.1.x\FlexControlyy

Where x is the dot release for the version of PowerSdr V2.1, and where yy is either 32 or 64, as is appropriate for the version of the Windows Operating system.

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It is not necessary to have this menu open to use the knob, but initially, it will help with understanding the knob operation, and button assignments. When you are comfortable with the knob and have it set to your preferred configuration, the menu can be left closed.

When initially opened, the knob will be in control of "Tune VFO A," and the button assignments are as shown in the button settings.

FlexControl Settings			- <b>x</b>	
Knob Settings	Single Click		Double Click	
Tune VFO A 👻	$\leftarrow$	Tune RIT 💌	Toggle TX VFO ▼	
Long Click				
Tune VFO B 👻	$\leftrightarrow$	Tune XIT 🔻	Swap VFOs 🔹	
☑ Auto Clear RIT/XIT ☑ Variable Rate Tuning				
Button Settings				
ν L	eft	Middle	Right	
Single Click CW Speed	Down 👻	Tune Step Down 🔻	Previous Filter 👻	
Double Click CW Speed	Up 🔻	Tune Step Up 🔻	Next Filter 👻	
Long Click Copy VFO /	to B 🔻	Swap VFOs 👻	Copy VFO B to A 👻	
Auto-Detect			Defaults	

The FlexControl is ALWAYS connected to PowerSDR, even if the keyboard and mouse are "focused" on another program (another program's window has been selected.)

There are three buttons on the FlexControl which are referred to as "Left", "Middle", and "Right". Each button, including the push button built into the center of the tuning knob has three functions. One quick push is a "Single Click." Two quick pushes is a "Double Click," and holding the button down for over a second, is called a "Long Click."

In the default settings turning the knob will tune the selected VFO at the step size shown in "Tune Step" at the top center of PowerSDR's main display. The default step size is 50 Hz. CW operators may prefer smaller step sizes. Step size can be changed in the PowerSDR console, or can be decreased or increased by single clicking or double clicking on the Middle button on the FlexControl. This is an example of how you can control multiple PowerSDR functions, including tuning, without having to touch the mouse or keyboard.

As an example, in the default settings, with a "Single Click" on the center of the tuning knob, you can switch from having the knob "Tune VFO A" to having the knob "Tune RIT" (Receiver incremental tuning.)



To change the knob or button functions click on the black triangle to the right of each setting with your mouse and a menu of available options will appear.

The lights on the FlexControl indicate the status of the knob and which of the possible states it is in. These lights correspond to the blue outline around the active setting in the FlexControl Settings panel. The lights are labeled from left to right, "Mode", "On/Off", and "Toggle".

"Mode" indicates whether the upper row (light on) or lower row (light off) is selected in the knob settings.

"On/Off" indicates the left column (light on) or center column (light off) is selected in the knob settings.

"Toggle" indicates the state of the function toggled with the Double Click of the knob center button.

Note: You can restore the FlexControl Settings to the factory defaults at any time, by pressing the "Defaults" button at the lower right of the FlexControl Settings panel.

Note: The "Auto-Detect" button should always be checked, as long as you want the knob to talk directly to PowerSDR. In the event that you want the FlexControl to talk to other programs, such as DDUtil, uncheck this box, and refer to the instructions of the third party program to connect the FlexControl.

# FC ( E

This device was tested to comply with FCC standards and is approved for home or office use.

### Note:

This equipment has been tested and found to comply with the limits for a Class B digital device pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful Interference in a residential installation. This equipment generates uses, and can radiate radio frequency energy and, if not installed and used in accordance with the Instruction manual, may cause harmful interference to radio communications. However, there is no guarantee that Interference will not occur in a particular installation.

#### i – Information $\Delta$ – Caution ! – WARNING!

*i* - This device has been configured to operate in your country according to your nation's regulations. Except as described in this Quick Start Guide, or the PowerSDR manual, no other operation or modification of this device is allowed. Any other use or modification (including software changes that affect operational characteristics) will void the manufacturer's warranty. *I* – This unit is NOT A TOY. It must not be handled by children nor placed/operated within reach of children.

*!* – Do not leave packing material for this unit unattended. It may be harmful to children if misused.

*I* – This unit contains small parts that could be a choking hazard to small children. Do not leave accessories unattended.

 $\pmb{\Delta}$  - This unit must only be opened and/or serviced by a qualified technician.

! - Do not operate this unit in potentially explosive environments.

 $\boldsymbol{\varDelta}$  - Do not operate this unit in areas of extreme humidity.

 $\pmb{\Delta}$  - Avoid operating this device in areas of extreme heat, excessive vibration, or mechanical force.

*I* – Never attempt to insert wires or any tools into the interior of this unit during operation. This may cause fire or electric shock.

I – This unit must only be operated with the electrical power supplied by a computer USB port, as described in this Quick Start Guide. NEVER CONNECT THE USB CONNECTOR to anything other than Computer with an approved USB connector.

 $\Delta$  - If any defect, abnormal result, or other observations occur that are not covered by this Quick Start Guide or the Owner's Manual; immediately cease operation and contact the manufacturer or local distributor for operational advice or repair of the unit.

*i* - Please study the complete Quick Start Guide and Owner's Manual. These documents contain important information regarding the safe operation of this unit. If you have any questions, please contact the manufacturer or local distributor for further information.