## FlexControl Knob

Flex Radio sells a very nice knob that can be used to control any N4PY supported radio. This knob has a big advantage over the Griffin and Shuttle Pro knob because it tunes much nicer and does not have the "Focus" problem. That means this knob will still control the radio even when N4PY is running in the background. You can purchase this knob on the Flex radio website. Go to the Online Store and select "Accessories" to find it. N4PY Software has no connection with Flex Radio.

To install this FlexControl Knob Software Driver from the CD -

- 1) Insert the CD that canme with the FlexControl device.
- When it asks what you want to install, uncheck all the boxes except "FlexControl". This is the only selection you want to make.
- 3) Run this installer to its completion.

## OR

To install this FlexControl Knob Software Driver from the Internet -

- 1) Go to www.flex-radio.com
- 2) Scroll down and find "PowerSDR 2.x Integrated Installer".
- 3) Download and run this installer.
- 4) When it asks what you want to install, uncheck all the boxes except "FlexControl". This is the only selection you want to make.
- 5) Run this installer to its completion.

Now plug in the FlexControl USB connection to any USB connector on your computer.

For 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."

For 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 explaining that the "Wizard helps you install software for: FlexControl USB Control Knob".

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.

Once the Wizard completes the install, you must check to make sure there are no comport conflicts. You do this as follows.

- 1) Double click on "My Computer"
- 2) Click "View System Information".
- 3) Click the "Hardware" tab.
- 4) Click the "Device Manager" button.
- 5) Slide down to ports and see what comport was assigned for "FlexControl USB Control Knob".
- 6) If this comport conflicts with anything else you have installed previously, you must change it.

- 7) To change the FlexControl comport,
  - A) Double click on "FlexControl USB Control Knob"
  - B) Click the "Port Settings" tab.
  - C) Click the "Advanced" button.
  - D) Click the down arrow next to "COM Port Number".
  - E) Select an unused comport. A high one is a good one to select.
  - F) Click "Ok" on all opened windows.
  - G) Reboot your computer and all shoule be well.

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.

Operation of the FlexControl Knob in the N4PY program -

Once the driver and Flex knob are fully installed, start the N4PY program. Go to the settings window and then select "Remote Pod Fkeys". Check the box "Using FlexControl Knob".

Once you select this box, the N4PY program will search for the FlexControl device. If it finds it, the knob will now control your radio. If you get the error "FlexControl Knob not found" something is wrong with the software driver setup above.

Once the knob is configured and working, you can now customize the N4PY program to your liking. There are 3 pod setup windows to allow you to define the actions of the FlexControl buttons.

There are 4 buttons on the FlexControl device. They are Aux1, Aux2, Aux3, and the knob itself. Each button can be used with 3 different actions. A single click, a double click (like a mouse), and a long click (greater than a half second).

The 3 pod settings windows allow you to select the actions for these buttons. These 3 pod settings windows are named "Aux Single", "Aux Double, Long", and "Knob Clicks". The default action for the knob itself is a single click will set the knob to control VFO A. A double click will set the knob to control VFO B. A long click will set the knob to control pass band tuning. You can see the action for the knob in the upper right hand corner of the black frequency area.

There are special selections for the Aux Single, Double, and Long selections. These are "UP B+1", "UP B+2", and "UP B+5". The "UP B+1" and "UP B+2" selections work together to give you a very nice UP frequency function. By setting Aux3 Single to "UP B+1" and Aux3 Double to "UP B+2" (these are the default settings), when a DX station annouces he is listening say "up 3", you can simply press the Aux3 button 3 times (fast but not so fast as to get a double click) and VFO B will now be VFO A plus 3 and Split will now be on. Therefore, you can instantly set split operation for an exact amount by how many times you rapidly click Aux3.

The exact action for "UP B+1" is if SPLIT is off, perform an A equal B and then add 1 to VFO B. If SPLIT is already on,

then just add 1 to VFO B. The "UP B+2" does the same thing except it adds 2 instead of 1. And the "UP B+5" also does the same thing except it adds 5. Once the "UP" operation is complete, the knob action is automatically set to VFO B. A single click of the knob itself get the knob action back to VFO A.

I recommend you use a label maker and label the 3 Aux buttons on the FlexControl device as an aid to remember their settings.

The 3 lights on the FlexControl knob are used to show the status for the single click actions for Aux1, Aux2, and Aux3. They will light only if Split, Dual receive, RIT, or PBT is on for that button. For example, if you have Aux1 Single defined for Split, the light above Aux1 will be on when Split it on and off when Split is off.

Ignore the text on these 3 lights as it is meaningless for this program.

You can also setup a fast tuning increase in step size to allow for very fast tuning.

To set this up, do the following:

- 1) In "Aux Single", make sure "Tuning Knob Desense Step Threshold" is at least 500.
- 2) In "Preferences4", set the "High Speed Tuning Factor" to a value that you want the step size increaded to. If you step size is normally 10, a value of 50 would increase the step size to 500 for very fast tuning.
- 3) In "Preferences4", set the sensitivity for how fast you move the knob before high speed kicks in. Normally, you will set this to a value between 2 and 20. The higher numbers are lower sensitivity.