

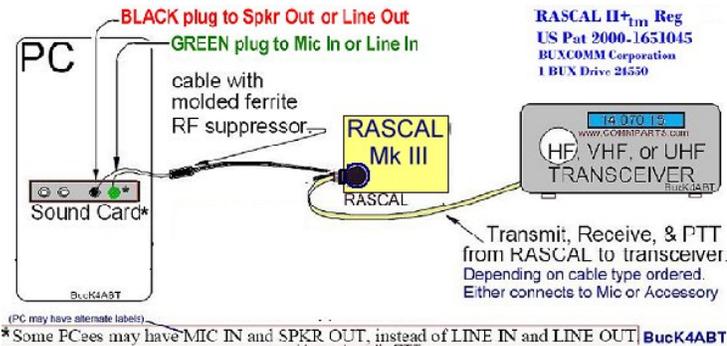
BUXCOMM RASCAL Mk III Configuration and setup Guide



RASCAL III+ and the RASCAL GLX

connections to your PC are: The **GREEN**, 3.5mm plug connects to the sound card **MIC IN, (or line in)** jack. The remaining, **Black** or Gray, 3.5mm plug connects to the sound card **SPKR OUT (line out)** jack.

NOTE: Some PC's may have color coded jacks. Don't rely on these colors being accurate, use the jacks as marked. **Line IN or MIC In**, insert the **GREEN** plug. **LINE OUT or Speaker (earphones) OUT**, insert the Black or Gray plug. Connection to your transceiver are: Connect the 5 pin DIN to the RASCAL III, and depending on the model you selected; the other end to the Accessory jack, or the Microphone jack of your transceiver.



Some cable models may have a 3.5mm External Speaker jack for receive audio. This 3.5mm plug is inserted into the Ext Spkr jack of your transceiver. FYI, The latest version of FLdigi can be downloaded FREE at: <http://www.w1hkj.com/beginners.html>

Of all the SoundCard programs for the HAM Radio Digital modes, we have found FLdigi to be the most versatile and easy to use. The program is FREE, and supports the digital modes supported by the BUXCOMM RASCAL's.

Read the **FLdigi Beginners** guide then prepare **FLDIGI** (included on the Free CD) to set up the RASCAL Mk III interface. **Install FLdigi** Install FLDIGI to a directory on your C: drive to a folder name: FLdigi or Place all files in this directory on your PC. Then RUN (double click) on the FLdigi or WimPSK.EXE file).. **CLICK on the "SETTINGS" icon**, select "GENERAL setup" then enter your call sign. Be sure the radio button under "SoundCard" by "Use Any Available" is checked. Under PTT Control, select "NONE" Click OK. Again; under the SETTINGS icon, select Rx Level, **set RxLevel & TxLevel sliders to 75% up/open**. One of the SELECT" boxes below a slider should be checked. Click OK Do not check MIC BOOST (ADVANCED) unless the Rx level is very low. **Do not use any PC built-in Microphone when running PSK31**. We usually begin with WINpsk (also on the CD) for a quick test and PSK31 setup, then we install, switch to, and use FLdigi. PLEASE before you begin, read the FLdigi beginners guide.

NOTE: **Transmit** Indication is displayed within your PSK31 or other program software. In addition, when connected to your transceiver, the radio transmit indicators will suffice. Receive and Transmit Audio Levels "TX Level" and "RX Level" are software adjustable slider controls within your computer sound card driver software. This feature enables receive and transmit control to most all radio Microphone and Data, Accessory ports. Be sure your transceiver **microphone compression** is **OFF**.

The BUXCOMM RASCAL mk III+ supports ALL Digital AFSK modes that are available for sound card interfaces. This includes traditional modes such as **AFSK** operation of PSK31, CW, RTTY, Packet, MT-63 and SSTV. This makes for a very simple and clean installation. It does not support Hard keyed CW or FSK RTTY, it does support AFSK CW and RTTY.

The **BUXCOMM RASCAL Mk III is the easiest Plug-N-Play sound card interface available today**. Use only the sound card software for the mode you wish to operate. There are no serial or USB comports to select, or driver software to load or install. No Serial Port Required - With full support for ALL radio Mic, Data, and Accessory Ports. The RASCAL III A & B, can be attached to the radio's Mic jack, or to the rear radio Data or accessory port, so that you can keep your microphone plugged in! This permits easy operating between Voice to Digital operation, especially when operating SSTV. The RASCAL III operates all digital "AFSK" modes including AFSK CW and RTTY, it does not operate hard-key CW or FSK mode.

Each and every unit has passed stringent quality control and inspection standards before it is shipped to the customer. A free software CD is included with the RASCAL III Series, This CD contains the latest MultiPSK program for the most popular modes including PSK-31, SSTV, MT-63, CW, RTTY, and Packet. All RASCAL III models incorporate an automatic PTT circuit that eliminates the need to connect to a computer USB or Serial RS-232 Port. For more information on eliminating hum and noise, go to: <http://www.buckscom.com/pdfzips/hum-and-noise-solutions.pdf>.

BUXCOMM, RASCAL III Plus SoundCard Setup & Prep:

Most soundcards use 3.5mm (1/8") jack for "line in" and/or "Mic" input. Insert the "GREEN" plug (from the RASCAL) into MIC IN jack. Insert the "BLACK" plug (from the RASCAL into the SPEAKER (or line out) jack. To open your "Volume Control" (soundcard drivers/software), depending on the operating system your PC uses, follow the procedure I've outlined below.

Operating System	Start Menu Location
Windows ME	Start > Programs > Accessories > Entertainment > Volume Control
Windows 98	Start > Programs > Accessories > Entertainment > Volume Control/
Windows XP or NT	Start > Programs > Accessories > multimedia > Volume Control
Windows 2000	Start > Programs > Accessories > multimedia > Volume Control

Be sure the input you are using is **NOT** Muted and the volume is adjusted full up (correctly).



USB SoundCard shown in the example is BUXCOMM cat# (MISO) **NOTICE** the **BLACK** plug is inserted into the **Speaker** jack (with head phone symbol). The **GREEN** plug is inserted into the **MIC** jack (with the microphone symbol). If your sound card does not have a LINE IN jack, use the MIC IN jack to your soundcard. DO NOT use the "Mic Boost" option. Be sure it is NOT enabled (DISABLE IT). This is found by selecting Options on the Player Control > Properties > select Recording OK >

Click on the "Configure" icon (see image below), and set the respective audio and sound card settings according to your sound card and operating system settings;.

Be sure the "MUTE" boxes are **NOT** checked. Click OK. If necessary, in the **ADVANCED** screen of the sound card set, **MIC BOOST, Enhanced, or Bass Boost**, you may use this setting to increase TX AF. Some minor changes to the RxLevels and TxLevels in the "Configure/SETTINGS" may be fine tuned for final operation.

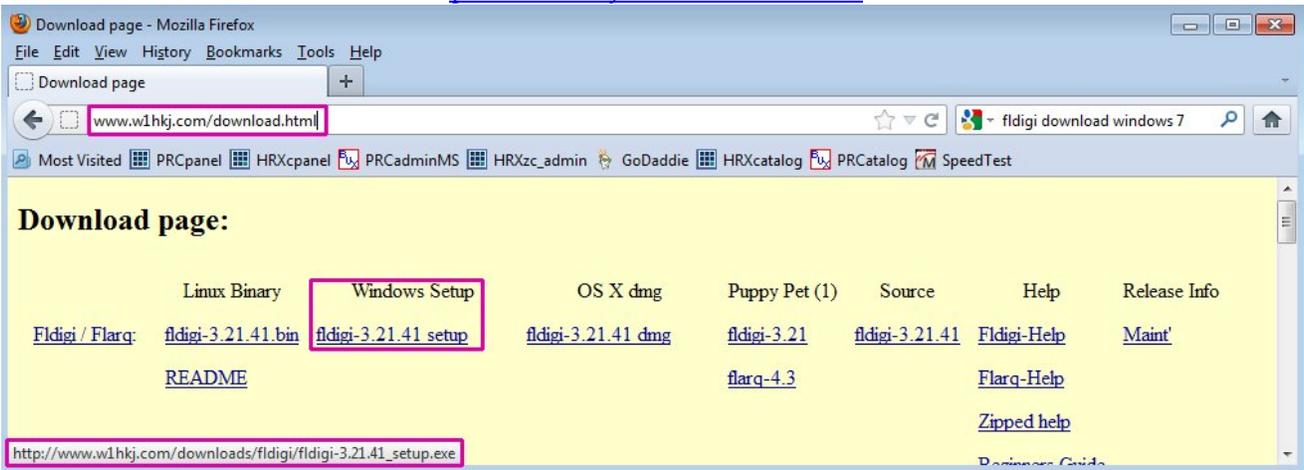
See Receive and Transmit levels as shown on image at right. >

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BUXCOMM *RASCAL* to FLDIGI Setup and Configuration *Quick-Start* !

RASCAL is an acronym for the BUXCOMM “Radio And Sound Card Adapter Link” FLDigi is the title of the Multi-Mode software we use to setup and operate the more popular HAM Radio digital modes. Once you have copied FLDigi from the CD or downloaded the latest version from the author’s web site: <http://www.w1hkj.com/download.html> THIS SECTION ALSO APPLIES TO THE RASCAL GLX.

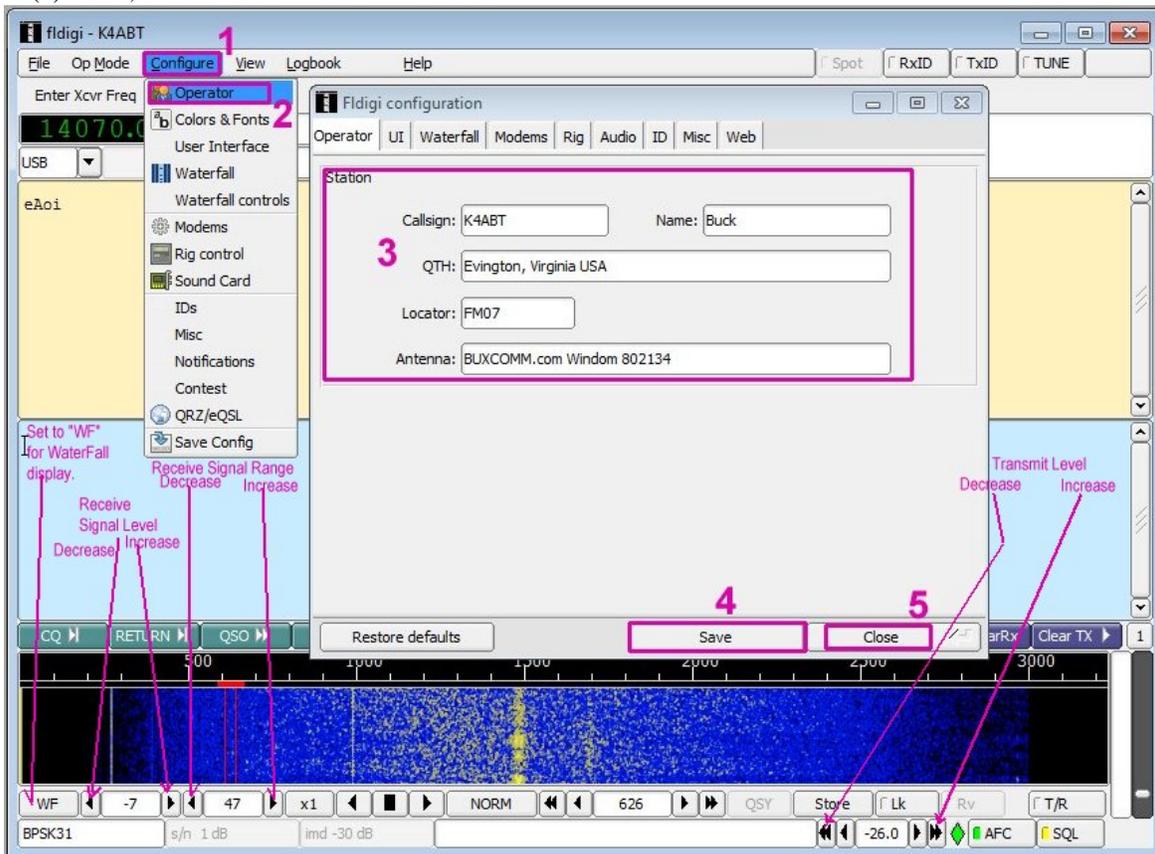


Install it, let it install to the program files directory. It will set its own directory name; example: “C:\Program Files\Fldigi-3.21.41\fldigi.exe”. You may then create a *Desktop shortcut* to the “*fldigi.exe*” executable file. →



Run the FLDIGI.EXE to open the program and begin the *setup and configuration*. In the following screen, we have outlined the steps that should be set up first. CLICK on the heading (1) “Configure” next CLICK on (2) Operator. This will bring up another small block (3) screen. Fill in the blanks with your “station” stats, and data, callsign, name, QTH, grid-square locator, etc.

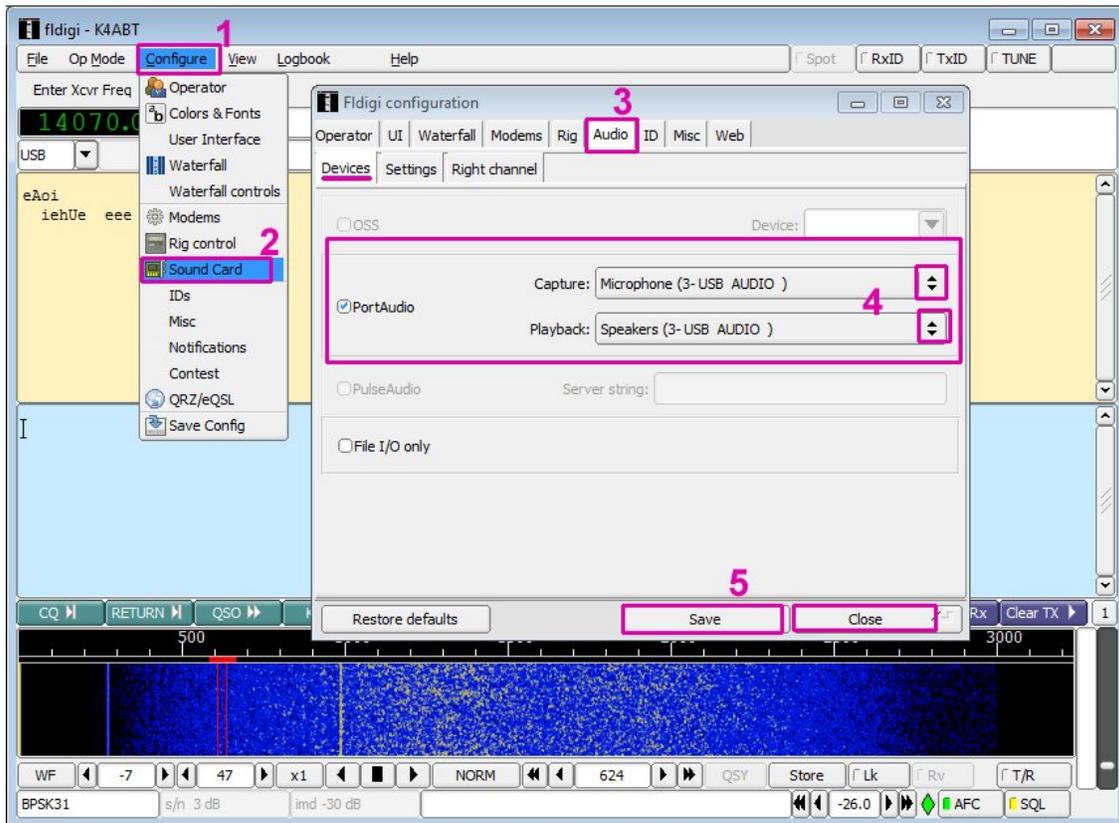
Finally in this opening screen, CLICK on (4) “save,” this will save the data you’ve just filled in, so it will be available for future sessions. Click (5) Close, to close the “station” stats screen.



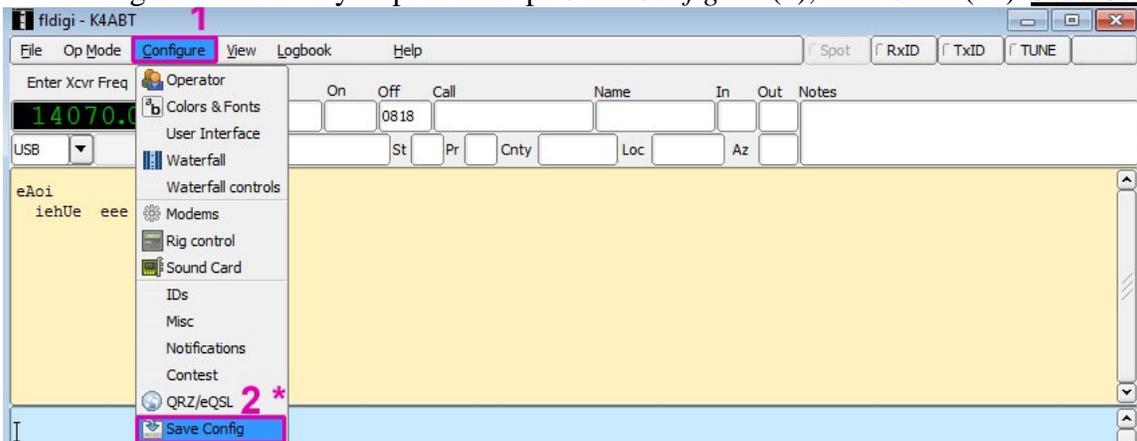
Notice the pointers at *screen left*, use to adjust *Receive Levels*. Pointers at *screen right*, use To adjust *Transmit Level*. Right Click in Rx or Tx text area, scroll down to “clear” then Click to “CLEAR” text from the respective window. You can later build an “F” key macro to clear either or both text windows. Consult the FLDIGI document to learn more about building and saving “Macros.” Choose the “File” heading, to select *MACRO Save*. Be sure you save to the correct macro directory. When there is a “SAVE” option, just-do-it! SAVE, later, you’ll be glad you did.

In the next screen we have 5 new steps to configure. Again, CLICK on (1) “Configure” and scroll to (2) “Sound Card.” CLICK on it, and a new small block screen appears. Click (3) *Audio*, then in the *PortAudio* block (4) select each of the two drop-down menus and choose the sound card you will be using. **As always, don’t forget** to (5) “Save, and Close” so this configuration is available for future sessions. **Capture:** is the Mic In/Line In (RASCAL Green Plug), and **Playback:** is the Speaker/LineOut (RASCAL Black Plug).

In our PC we have installed a second USB sound card so we can leave our main RealTec High Definition sound card for other PC applications. The USB (BUXCOMM Cat# MISO) sound card now becomes our dedicated digital modes sound card.



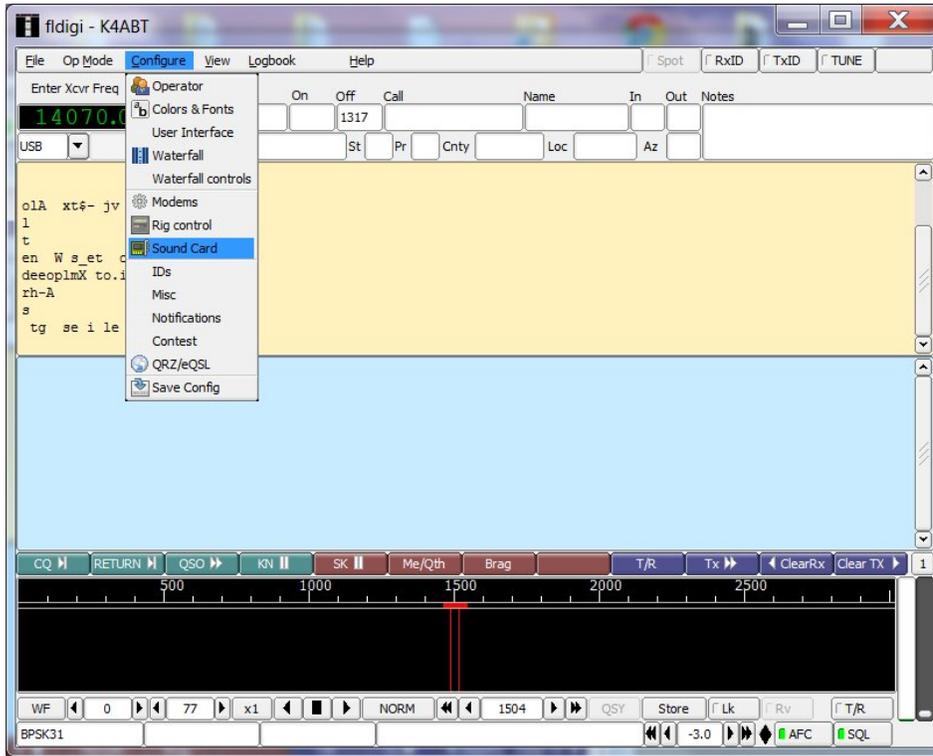
In the following screen is a very important step: *Click Configure (1), then Click (2*)“Save Config.”*



Finally, to the left of the “Configure” heading is the Op Mode heading. Click on Op Mode, and from this drop-down menu, we can choose any one of almost a hundred different digital modes; CW, RTTY, MFSK, PSK, WEFAX, .. etc. For now, and the sake of our sanity, begin with “PSK” > select **BPSK31** mode. As you become more proficient with the digital modes, you can then venture into the most fun you will ever enjoy in the hobby of Amateur (HAM) radio. 73 de **BucK4ABT**, Visit: www.BUXCOMM.com

This document explains how to setup and use the BUXCOMM cat# **MISO** (*Mic IN, Spkr Out*).

Go to, www.w1hkj.com/download.html **FLdigi** web page. Download the latest version of FLDIGI by Dave, W1HKJ. Install FLDIGI. With the PC running either Windows 7, Vista, or XP, insert the MISO into an unused USB port. Give the PC a moment to recognize the new device connected to the USB port. *Run Airlink Express:* The next steps apply to the setup of the MISO as the sound card of choice to be used with your **RASCAL III+** or the RASCAL GLX.

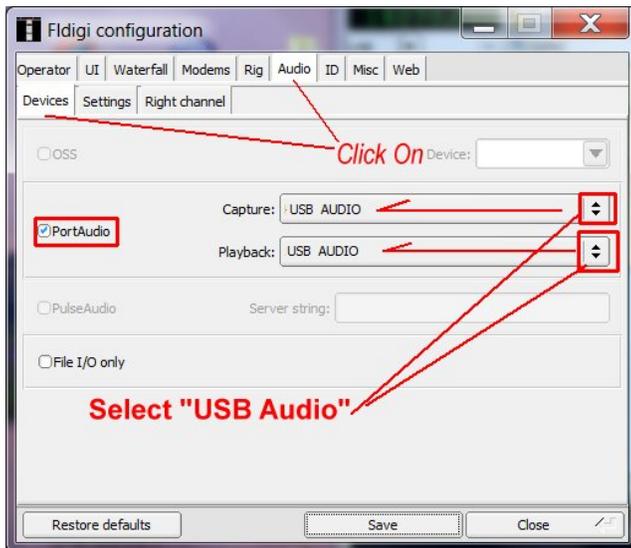


←**Figure 1**

Once you have FLDIGI running, place the cursor at the “Configure” icon and click on it. The small box with several selections will appear, see Figure 1. Click on “Sound Card”. When you select “Sound Card” a new window will open. Click on the two drop-down menu (shown as #1, in Figure 2), and select “USB Audio.”

View each of the steps in figure 2, and using the drop-down menus; Select *Input* device as “USB Audio.”

(Select Output Device), using the drop-down menu, select “USB Audio” as your *Output* Device. Be sure to click the “**Save**” box to save the new sound card setup. While in this screen, select “*Right Channel*” select Input Channel, and click in the check-box “Both” to set the active channel.



←**Figure 2**

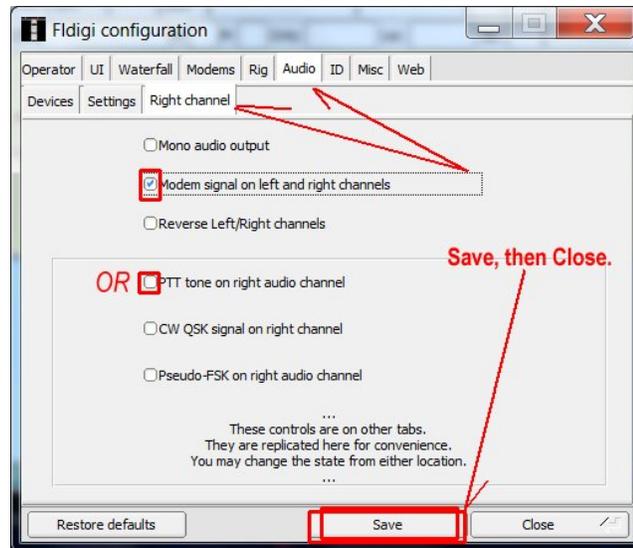


Figure 3

When using the RASCAL (III+ or GLX) with the MISO, connect the GREEN 3.5mm (1/8”) plug into the MISO Yellow jack, and the BLACK 3.5mm (1/8”) plug into the MISO GREEN jack.

Use a second (USB) sound card. Shown here is the BUXCOMM cat# **MISO**. For a few dollars (BUXCOMM.com, catalog # MISO), you can install a USB Sound Card and set it to work with other devices that might require a sound card. With enough power to drive your amplified speakers, it also performs very well with the **RASCAL III+** and the PC while running your favorite HAM Radio digital software or FLDIGI. Visit: www.HamRadioExpress.com

