

ZLP Electronics

The DigiMaster MiniPRO



USB Audio-DATA interface for ALL afsk DATA modes

Suitable for ALL afsk data modes and is perfect for programs including MixW2 and other Windows afsk software.

The interface connects to the PC via the PC's standard powered USB port, using a standard USB cable (included). The USB cable from the PC connects to the interface via the interfaces standard type B USB socket.

When this cable is connected, Windows will recognize the USB connection and, depending on your Windows version, will either automatically install the drivers required or prompt you to install them. The installation is automatic with Windows XP.

Should you need to install the drivers yourself, full step by step instructions are provided and can be downloaded from the website. Once the drivers have been installed, Windows will inform you that the device is ready for use.

The drivers will have installed a "virtual" comport on your PC.

Since this is a USB comport connection and not a "real" comport, this comport is termed a "virtual" comport.

This comport will appear in Windows->Device Manager as a standard comport, and will be used by programs running under Windows as a standard comport.

Take note of the number of the new comport provided. You should configure your software to use this new comport. The virtual comport is seen by your software as a normal comport and you need only to configure your software to activate the PTT via the RTS signal line of the new comport provided.

If the new comports value lies outside the range useable by your software, you can use Windows -> Device Manager to remap it to a value that lies in the range allowed by your software.

When you connect the interface to your PC you will notice that Windows tests the virtual comports. If your radio is attached during this process it will of course switch into TX then RX as this process happens. You will see the TX/RX LED change 3 times during the test.

You can now plug in your cable that connects the unit to the radio.

There are many cables available to connect to your radio(s).

Plug the other end of this cable into your radio and run your software.

It is important that the unit is plugged into the PC and that Windows has recognized your USB interface BEFORE you start your software, otherwise your software will not be able to find the driver to control the interface.

For ALL models of the DigiMaster Audio-DATA interfaces, it is important that you configure your software to activate your radios PTT via the interface. NOT via the CAT. This is because many radios, when put into TX via the CAT open the "mic" rather than the DATA input socket for transmission. ALL Kenwood radios for instance will only transmit DATA via the 13 pin acc socket when the PTT on the 13 pin socket is activated.

Please be CAREFUL when plugging in mini din plugs.

If you push an 8 pin plug into a 6 pin socket you will damage the plug!
Plug damage caused in this way is not covered by your warranty.

The Audio from the PC

The audio from the PC connects to the unit via the stereo lead with green marker. Most speakers have a separate output that can be used. If you do not have a separate 3.5mm socket then you can use the PC's audio output socket and use a 3.5mm "Y" stereo splitter so that you can also plug your speakers in and so continue to monitor the PC's audio.

The Audio to the PC.

The audio from the radio goes via the unit to the PC using the other stereo lead without a marker. This can go to either your mic or line input socket. You will find that one or the other performs better. If you have any software that performs "sound effects" on the input signal you will get better results if you turn it off. Use Windows Volume control (recording properties) to adjust the input level for best results. If you have trouble getting any input then ensure that you have selected the appropriate input (mic or line in).

Audio to/from rig.

The audio connection to the radio is via the lead that connects to the unit and the radio. Should you change your radio you can simply replace this lead to connect to your new radio. The lead has one end terminated in a six pin mini din plug, this end fits into the unit. If your lead has a six pin mini din connector at each end then you can of course connect it either way around.

Using your interface with a CAT Interface.

If you are also using a CAT interface and your radio can TX via the CAT system you can of course configure your software to TX via the CAT.

The functionality of your software and the CAT functionality of your radio will affect the capabilities of your station.

Operation

Most Ham digi-modes are in USB regardless of band.

Some radios may need to be in a specific "digi-mode" for example the FT-857 needs to be in Digi-mode -> USB. The 857 also has a separate digital gain which can be accessed via the radio's menu system which may be of help in setting up.

Some radio's inc the FT1000 MKV may need the function of pin 5 of the packet data socket configuring via the radios menu system. (Please refer to your radios operating manual).

SSTV on VHF is almost always in FM.

Adjusting the input level

Simply use Windows volume control, recording properties to adjust your mic or line in levels.

If your input level is too high, then use the "line in" socket.

If you are using your mic input, ensure that any "mic-boost" in Windows volume control is turned off.

Also ensure that any software type of graphic equalizer is also switched off.

A preset adjustment is also provided inside the interface.

Adjusting the output level

This is achieved via Windows volume control.

However, there is an adjustment that can be made inside the unit should you need to.

Ensure that your soundcard software is set such that no "sound effects" are in use.

The Interface contains a small "preset", to adjust the output level. First, using windows volume control set the output volume level to an acceptable level.

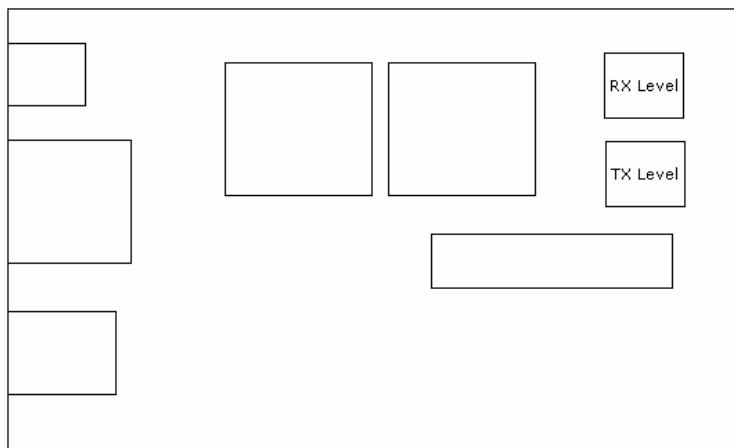
Remove the rear of the unit and slide the pcb out. Then simply adjust the "pots" while monitoring your output power and alc levels. You should aim to adjust for zero alc action.

This may not always be easy to get and you may also have settings on your radio that will affect this. Many radios have a "digital gain" or have adjustments that can also be made to the input (and output) levels.

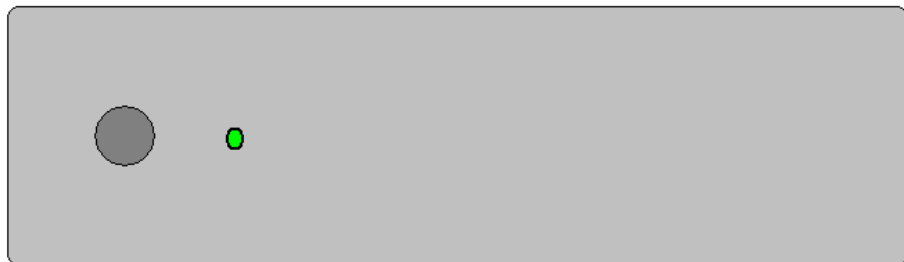
Adjust your radios power output settings to get the desired power.

Note that the digi-modes are basically qrp modes, most operators use less than 10watts.

Digi-modes are high duty cycle modes, running your radio at high powers under such conditions are not recommended.



FRONT of the DigiMaster MiniPRO



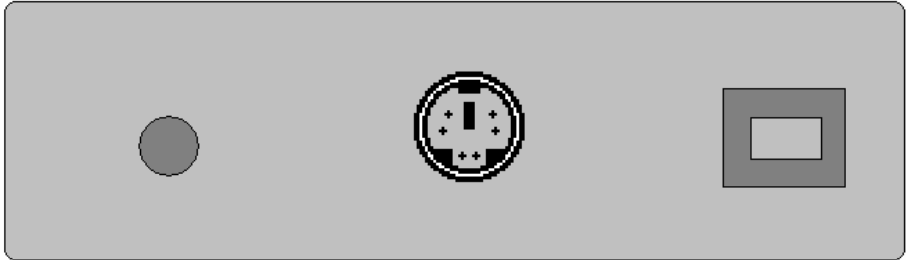
ON / OFF switch

LED

Green = RX

RED = TX

REAR of the DigiMaster MiniPRO



3.5mm stereo jack
PC Audio IN/OUT
In=tip
Out=ring

6 pin mini din connector
RADIO
White - Audio from radio
Red - PTT
Yellow - Audio to radio
Black - PTT gnd
Metal work - Radio Chassis ground

USB type "B" connector

