

ZLP Electronics

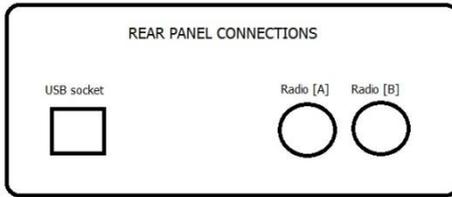
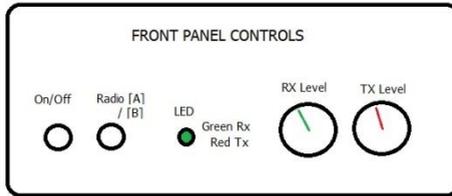
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DigiMaster DataLink

DATA interface



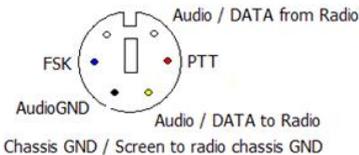


You may need also need to refer to instructions that relate to the specific DATA lead that you use to connect the interface to your radio. For example, your radio may need certain parameters setting when using a radios 6 pin mini din socket. When using other cables, your radio may need other settings to be made.

When you connect the interface to your PC and switch the interface on, Windows will detect and install drivers for you. You may be prompted for drivers, if so allow Windows to search the net so as to obtain the latest drivers. Normally Windows will just install the drivers for you without any prompts. Windows will tell you that the hardware has been installed and is ready to use. You can verify installation by using Device Manager and looking at the entry for "Sound, video and game controllers. The entry "USB audio CODEC" is the hardware provided by the DataLink interface.



DigiMaster 6 pin mini din connector details



View is looking into the 6 pin mini din socket, the same as you would see when wiring the rear of a 6 pin mini din plug.

DigiMaster DataLink Interface.

Simple 3 step setup procedure

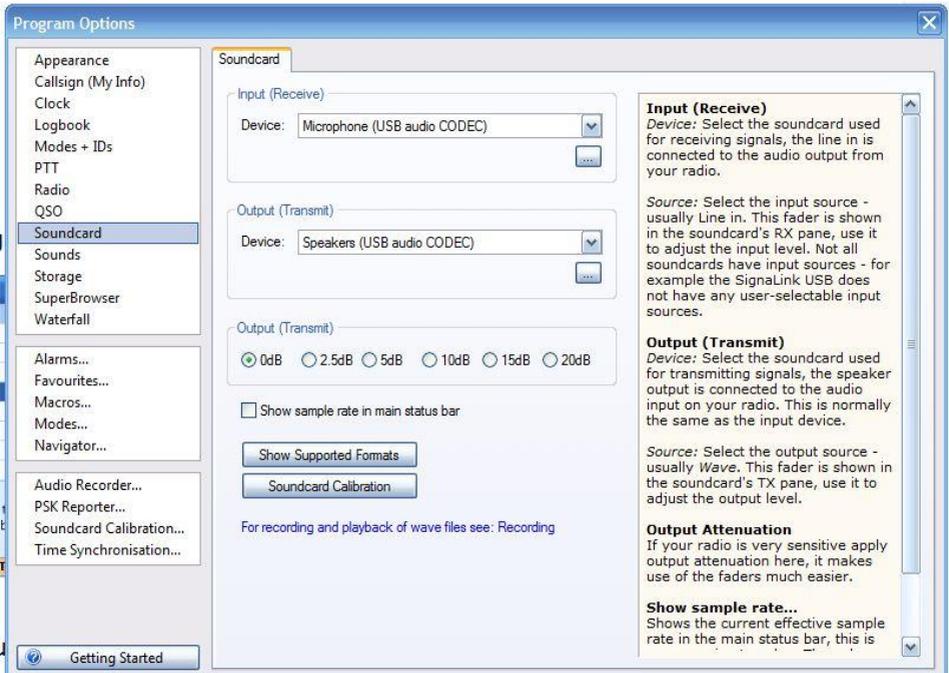
- [1] Configure DM780 to use the new soundcard.
- [2] Configure DM780 to allow the soundcard to activate the radios PTT.
- [3] Configure Windows volume controls for optimum performance.

[1] Configure DM780 to use the USB audio CODEC (soundcard in the DataLink interface).

Open DM780's program option window (F8).

In the soundcard section, select:-

- [1] Microphone "USB audio CODEC".
- [2] Speakers "USB audio CODEC".



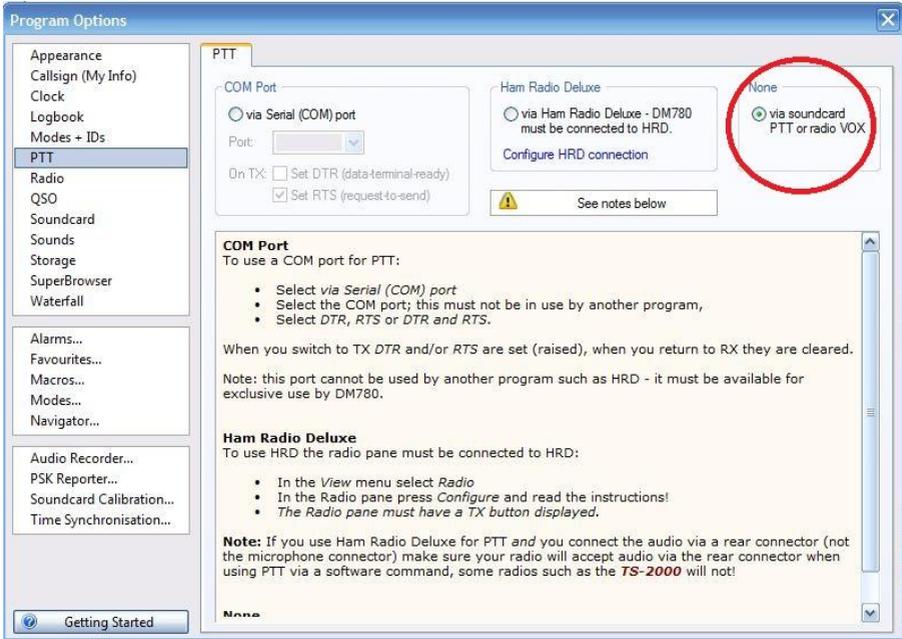
[2] Configure DM780 to allow the soundcard to activate the radios PTT.

Open DM780's program option window (F8).

In the PTT "None" section, select;-

Select "via soundcard PTT. The interface will automatically generate the PTT signal.

DO NOT ACTIVATE YOUR RADIOS VOX. The PTT is generated by the interface and to avoid unexpected results it is important that you turn your radios vox off.



[3] Adjusting the soundcard input and output levels.

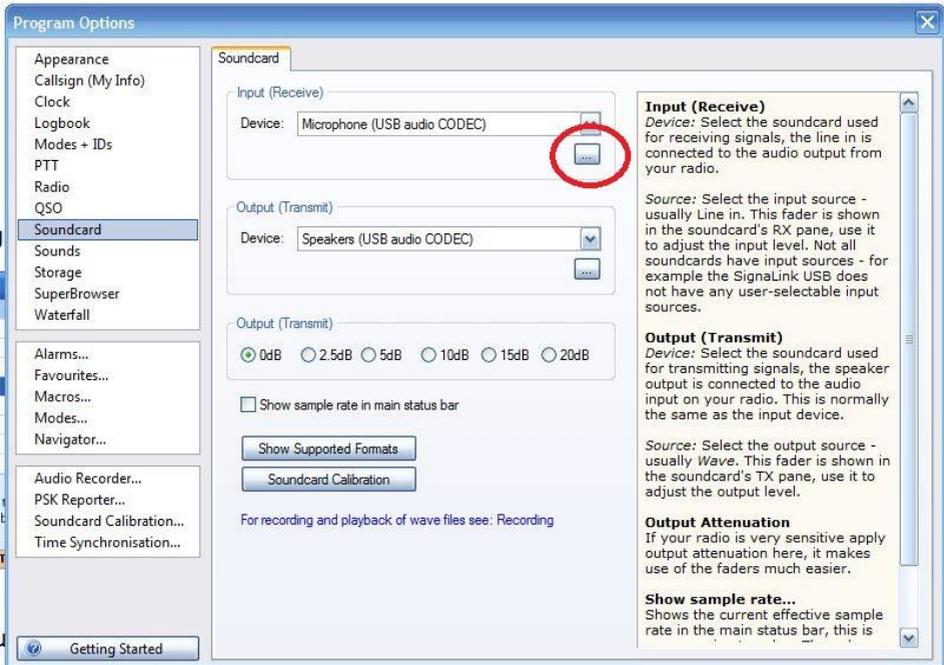
First check any instructions that may be applicable to use the DATA lead to your radio.

For example there are instructions when using a "UN01" DATA lead that tells you to set your radios packet baud rate to 1200. And when using a "YL02A" DATA cable your Yaesu radio will need to be set up in the correct way.

The DataLink has controls for adjusting the Rx and Tx levels, these work best when the levels have been correctly set in Windows.

To adjust the levels press F8 in DM780.

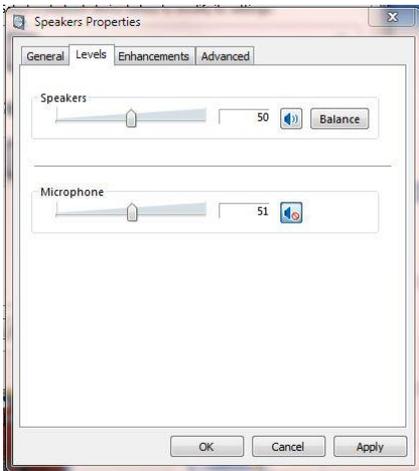
In the "Program Options" – "Soundcard" window" click on the button highlighted below;-



The following window will open;-



Double click the "USB audio CODEC" which will open another window;-



You should also bear in mind that many radios have adjustments that can be made to change input and output levels (or gain), some radios can be adjusted by the radios menu system. It is important that you leave the Windows balance control at the centre position. Do not set any "Enhancements" as DATA mode programs work best when the audio response is "flat".

When using DATA interfaces, many users (mistakenly) set the power output on the radio and overdrive the radio with a strong signal from the DATA interface and end up with a poor TX signal or high ALC...

An easy way to set and get a good TX signal is as follows;

[a] Set your radio's power control to maximum.

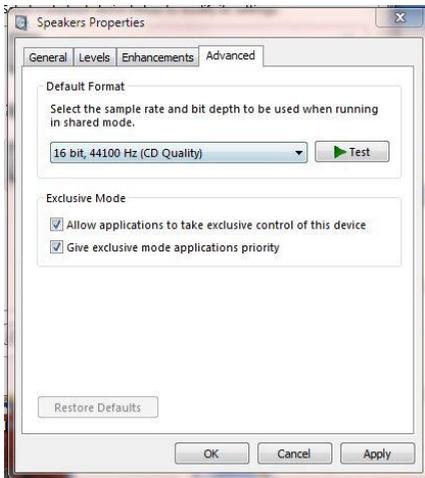
[b] Set the interfaces drive control knob to maximum.

[c] Adjust the Windows drive level using Windows volume control, adjusting the drive level will set your radios power output. Aim to adjust the level so that the drive is just slightly more than you want, bearing in mind that 10 or 20 watts is often more than adequate.

That's it, done...

You can now use the drive level control on the DATA interface to give you full range of adjustment (altering the drive will adjust the radios power output) and maintain a reasonably low ALC across the audio band.

In the advanced settings the following settings work well.



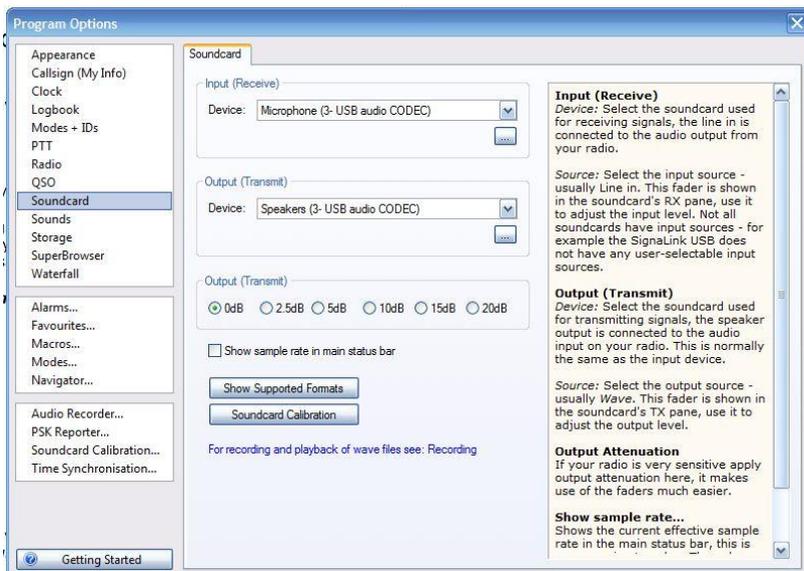
To avoid the interface unexpectedly activating your radios PTT, Windows should be configured so that "system sounds" are played via your original soundcard and not via the DataLink soundcard.

If you fail to do this then Windows may use the codec for system sounds and transmit those sounds via your radio.

If you have multiple DataLink interfaces connected to your PC then Device manager will show each codec;



If you run several instances of DM780 then each should be configured to use one of the codecs, note that DM780 numbers them for you. Although you can run many instances of HRD there is no provision in DM780 (at time of writing) to save multiple configurations as "profiles" so you would need to make the selections each time you start multiple instances of the program.



Remote operation.

PTT is normally generated automatically by the interface whenever it receives an audio signal.

If you intend to operate your radio remotely using Skype, (Full Duplex) you must disable the interfaces PTT line and operate PTT either via CAT or via VOX. For operation with Skype you can simply remove any PTT line.

In case of problems:

LED switches from GREEN to RED when operating software to TX.

Some radios may go into TX but send no DATA.

Some radios will not go into TX.

[a]

Some radios such as Icom 706 require baud rate to be set at 1200.

This selects the appropriate pin on the 6 pin DATA socket for PTT (1200 rather than 9600).

This does not in any way affect the speed of any DATA transmission it simply selects the pin used for PTT.

[b]

Some radios FT857 etc require radio to be in "DIG mode" which you should define as "USER-U".

LED does NOT switch GREEN to RED when operating software to TX.

[a]

The soundcard is NOT SELECTED for both INPUT and for OUTPUT.

[b]

The drive level from the PC is too low to activate the interfaces PTT line – increase drive level.

Use the Windows "balance" control if you wish to reduce DATA drive while maintaining a high PTT drive.

One audio channel is used for DATA, the other channel being used for PTT.

[c]

The soundcard is "muted".

It is not always easy to see if Windows has muted the audio.

The easy way to "un-mute" the soundcard is to view the driver in device manager, right click and remove the driver.

Switch the interface off then back on and Windows will re-install the driver "UN- muted".

LED rapidly switches between GREEN and RED when operating software to TX.

[a]

The drive level from the PC is too low to activate the interfaces PTT line – increase drive level.

Use the Windows "balance" control if you wish to reduce DATA drive while maintaining a high PTT drive.

One audio channel is used for DATA, the other channel being used for PTT.

NOTE:

When using the YL02A DATA lead your radio will need to be in the correct mode:-

FT-920 [\[Click for Info \]](#).

FT-990 [\[Click for Info \]](#).

FT-1000MP [\[Click for Info \]](#)

FT-1000MKV

FT-2000 [\[Click for Info \]](#), Alt [YL02B](#).

FT-5000 [\[Click for Info \]](#), Alt [YL02B](#).

FT-9000