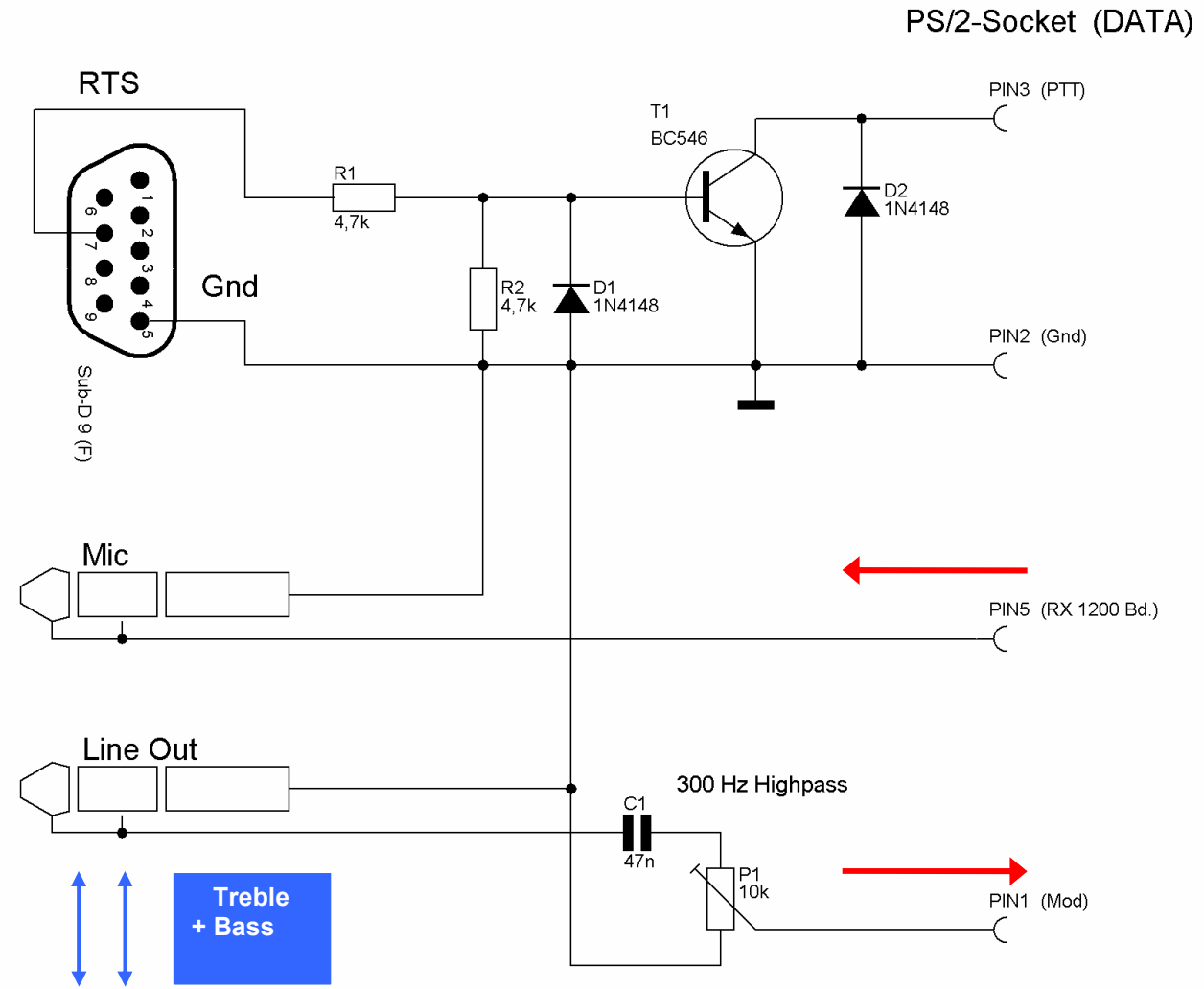


Soundcard- and PTT-Interface

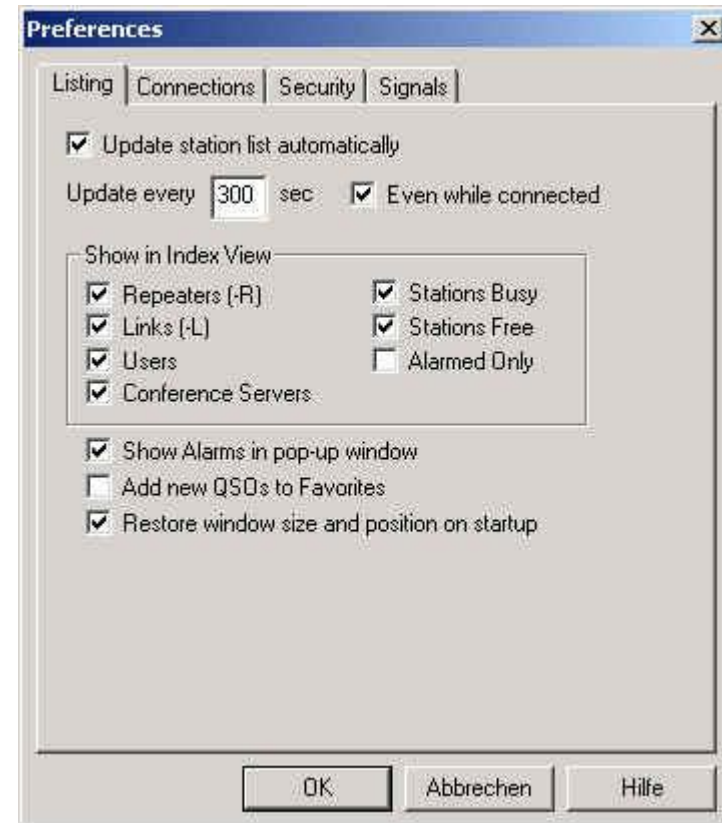
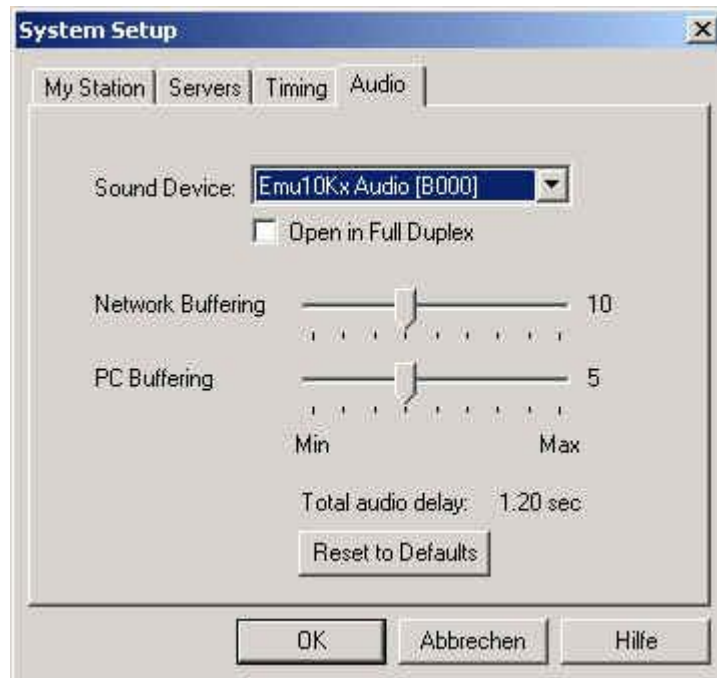
RTS Line
Pin4 on DB25
Pin7 on DB9

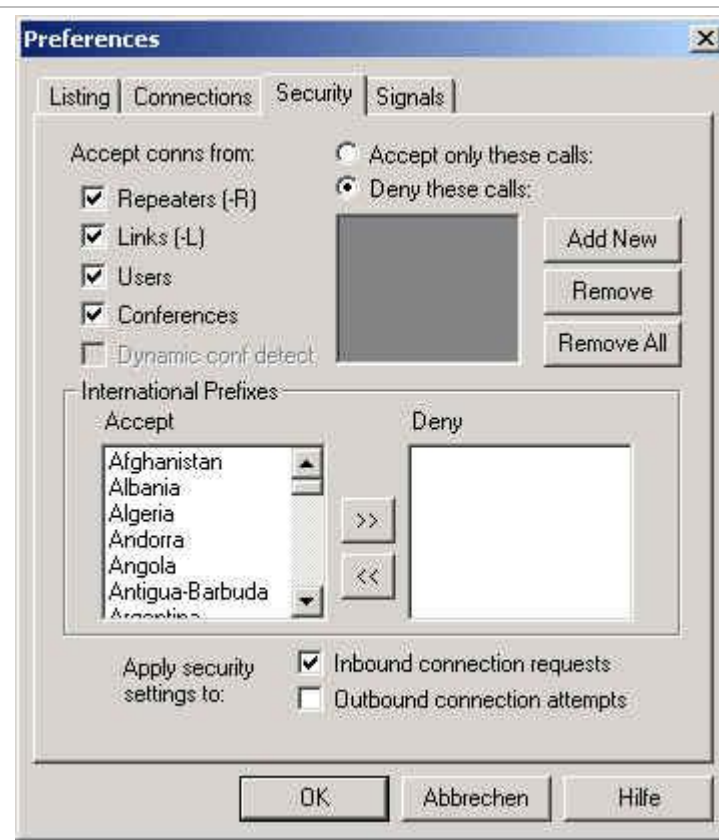
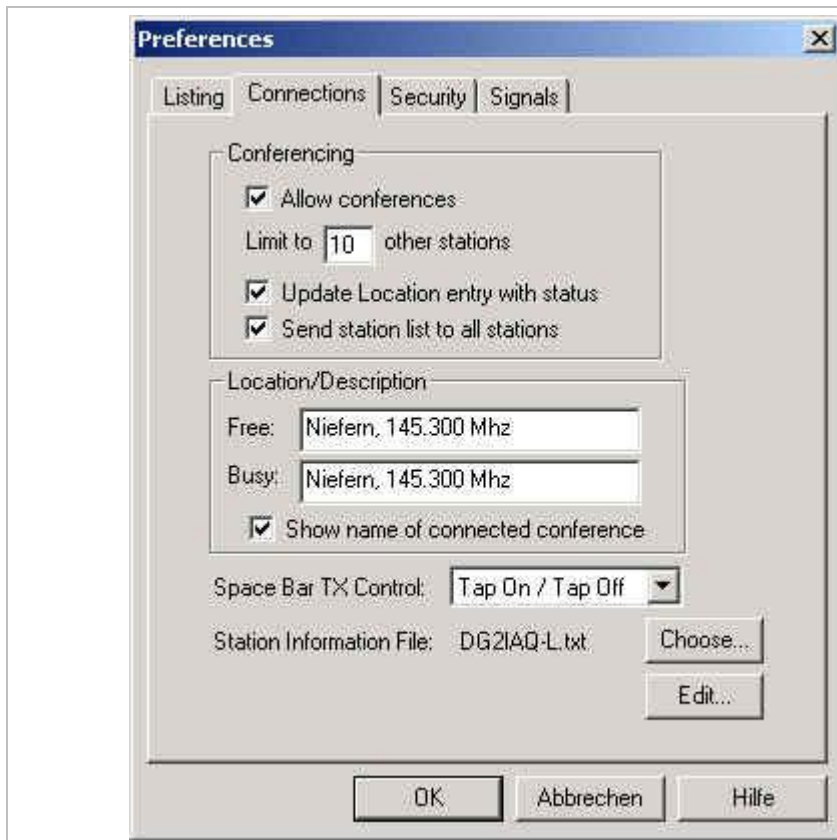
Ground
Pin7 on DB25
Pin5 on DB9

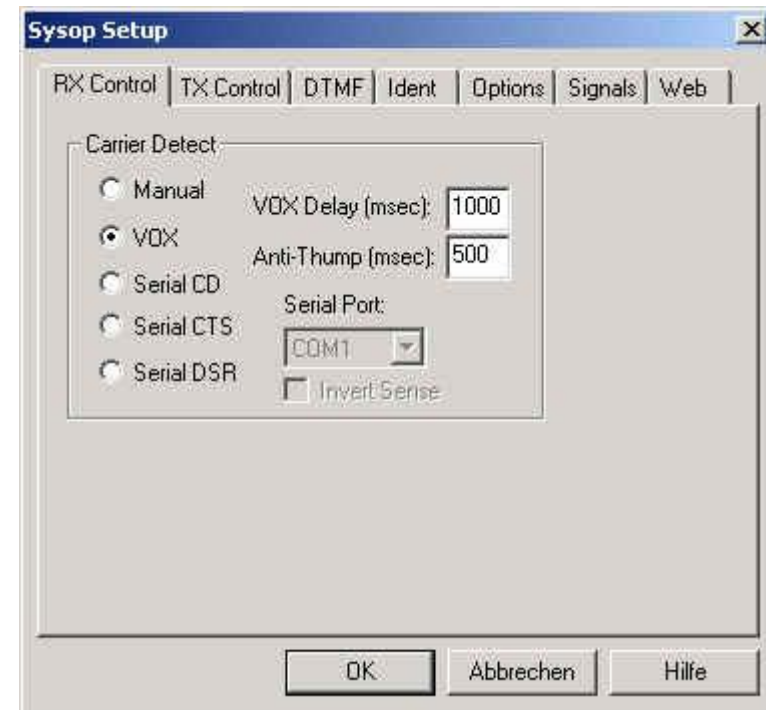
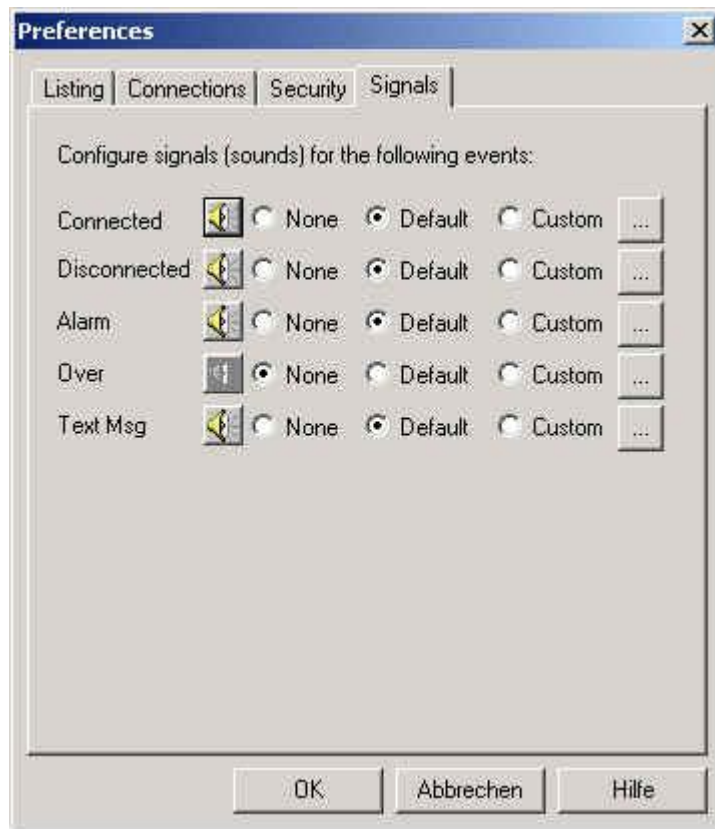


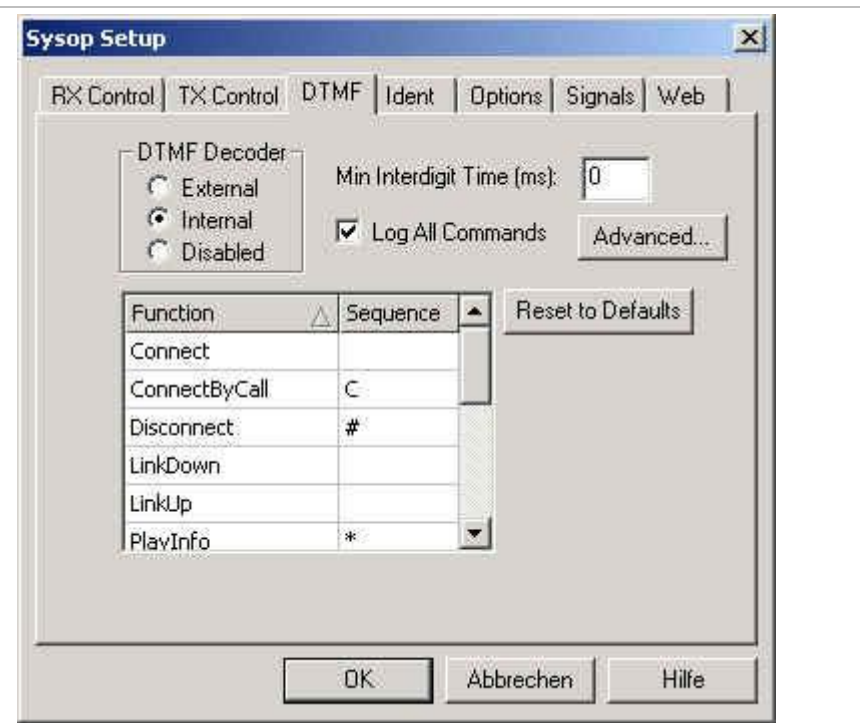
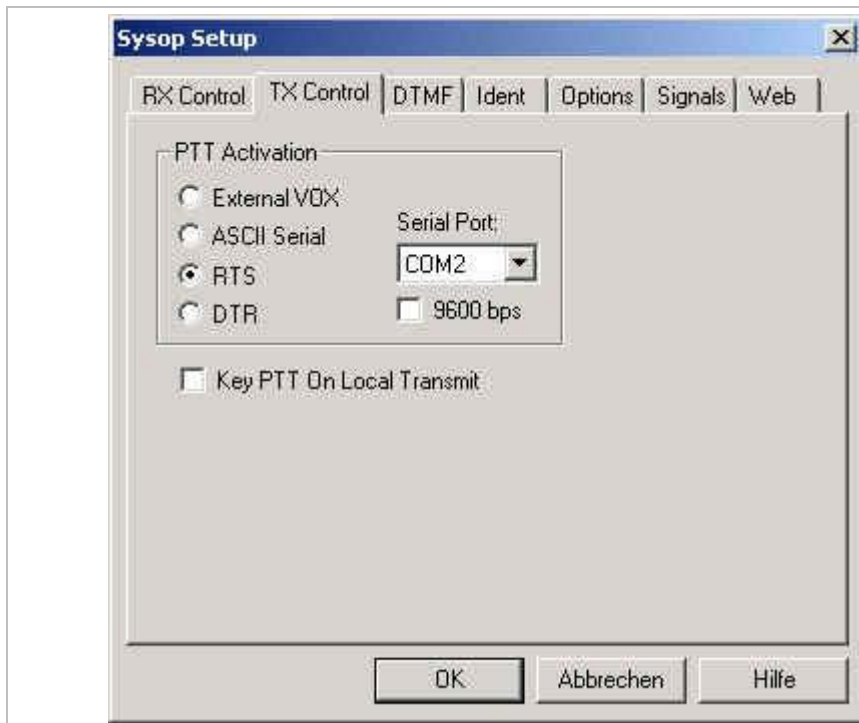
Treble
+ Bass

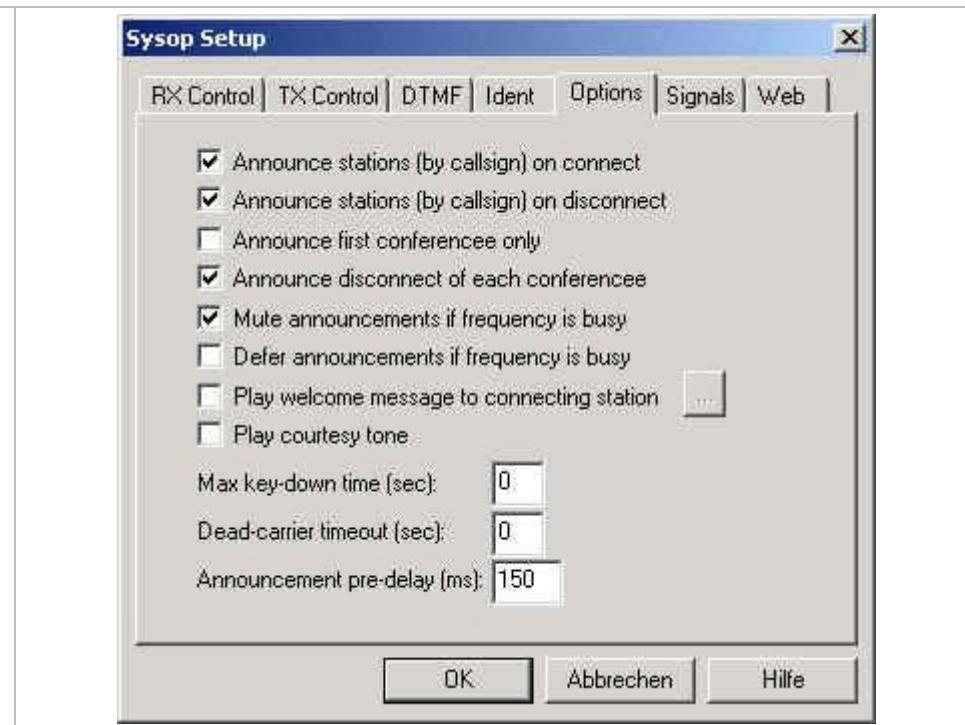
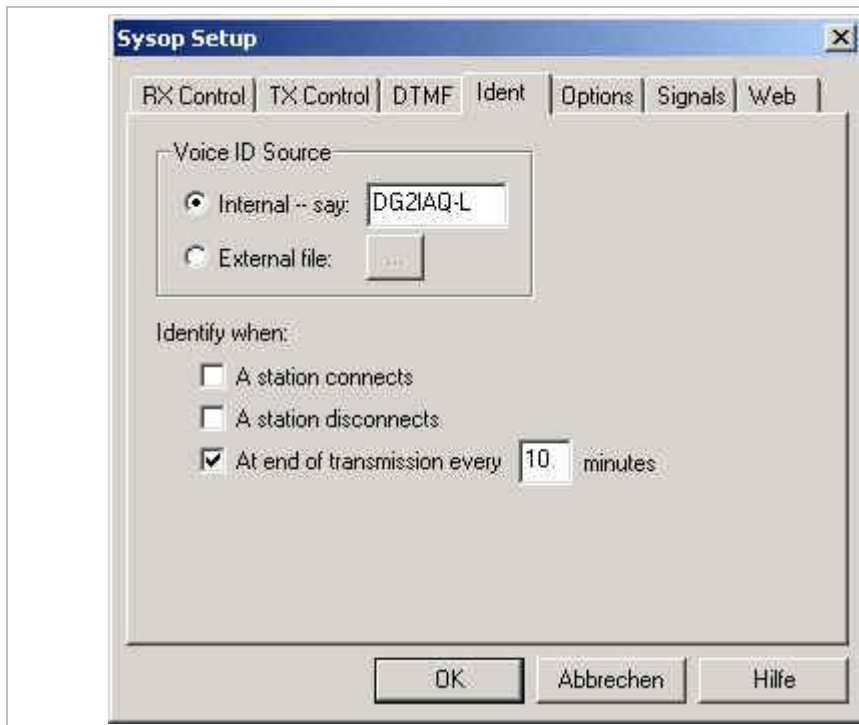
Echolink software configuration

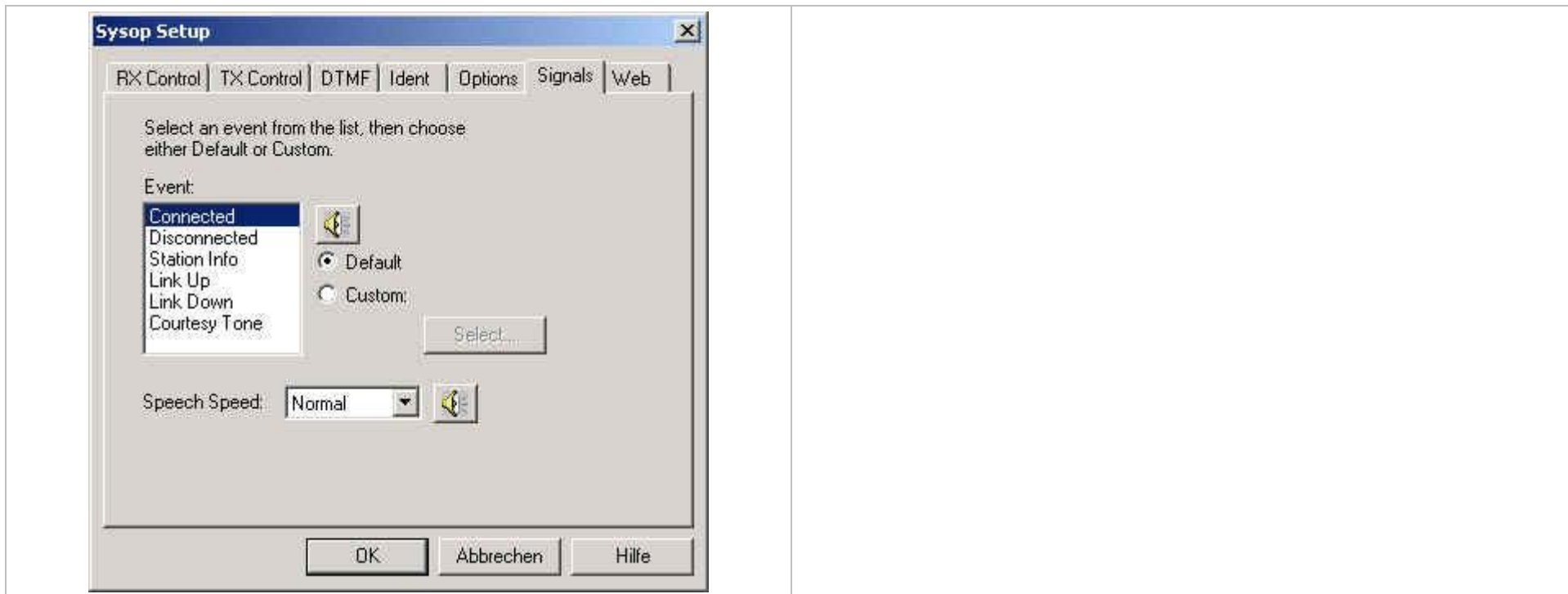












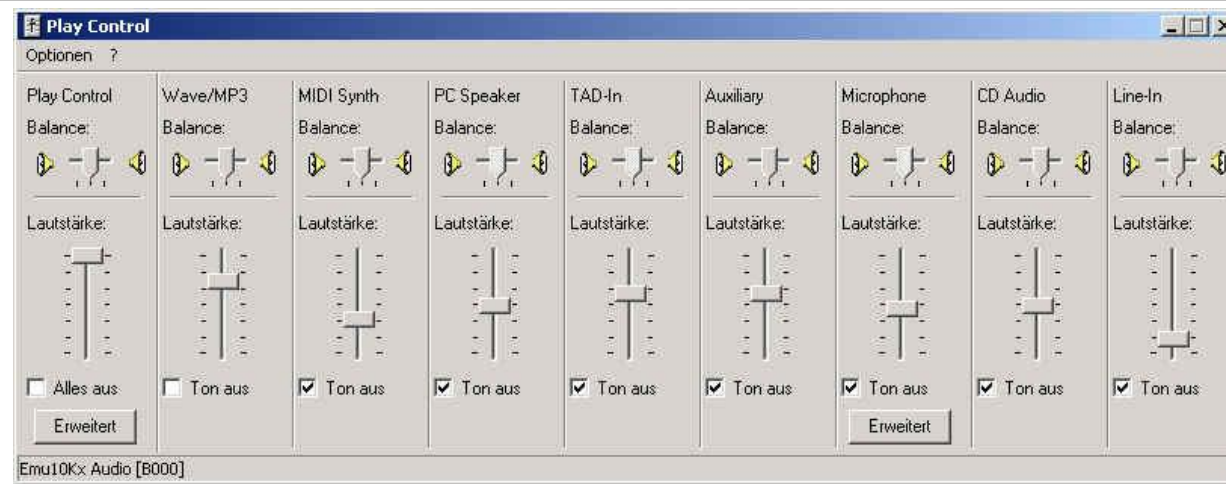
Sound card configuration

Playback Control

The playback sound is going to the modulator or MIC IN socket of the transceiver.

So with this you do the alignment of the transmitted HF.

Try to align the frequency response of bass and the treble first to get the best results with the audio response of your transceiver. When the audio quality is ok then you can align the WAVE and PLAY CONTROL to get the correct modulation or deviation graduation.

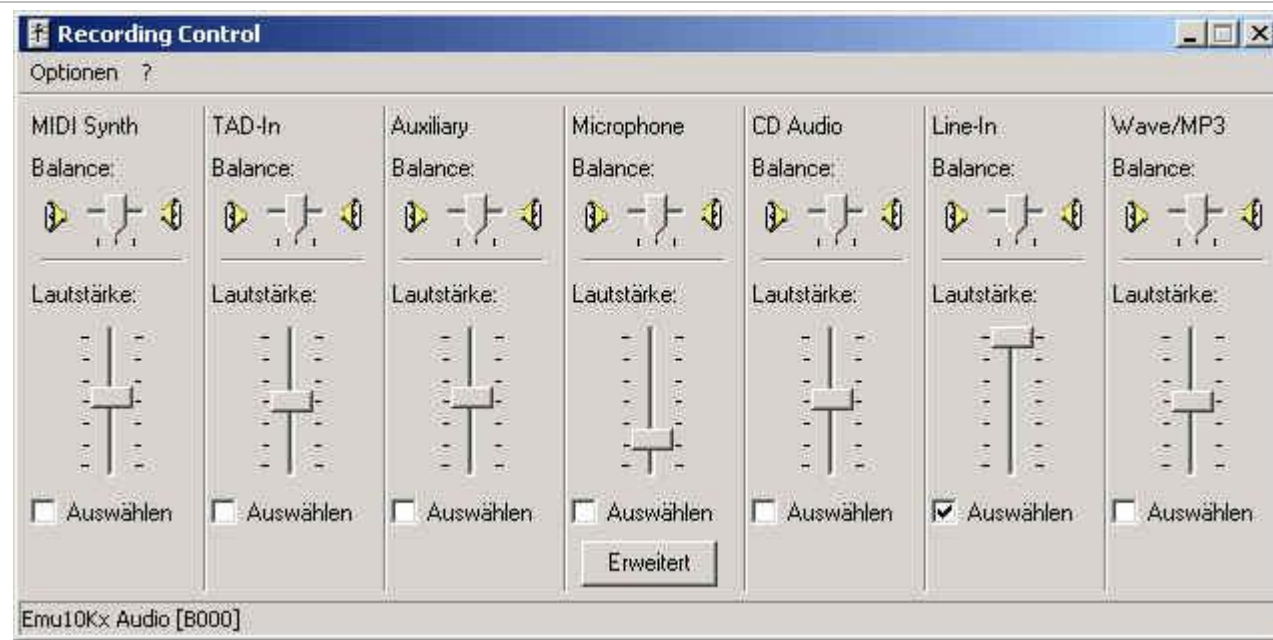


Recording Control

With the recording control you do the alignment of the received HF signal from your transmitter which is injected and send via Echolink.

On my Yaesu FT-7100 I opened the squelch on FM and get the loud FM noise of the receiver. Then I aligned the "Line-In" controller for a maximum level of 50 – 60% on the red peak line.

If the audio of your receiver is too poor you have to use the "Mic In" instead. On the microphone line of several soundcards you can switch on a 20 dB preamplifier in addition and that should be enough to get the 50 – 60% output.



History

07.01.2003	The premiere ! First online test with this simple PTT circuit and it works great..
08.01.2003	Getting also good audio reports from a local mobile station. I'm talking back with my second computer and echolink via ISDN.
10.01.2003	<p>I do some additional modifications on my FT-7100. I changed two capacitors on the FM receiver part (one for VHF, one for UHF) from 100 nF to only 10 nF. So the af lowpass was raised from 280 Hz (!!!) up to 2.800 Hz. This gives a much clearer receiving sound even if the FM noise is raised too. And this better sound quality is going to the DATA socket too (1200 Bd packet out).</p> <p>So with this modification I get additionally much more af level on the DATA socket, so I changed the connection on the computer side from "Mic.In" back to "Line In".</p> <p>Now the level meter goes up to 50% on FM receiving and the audio quality on the echolink side is fine. Some soundcards have build in af filters like high- or lowpass to suppress pumping effects of the microphone. So the "Line In" socket is the better choice to get best sound results.</p> <p>The mixer levels of the soundcard are realigned.</p>
15.01.2003	<p>I remove C1 and P1 of my simple soundcard adapter. It works better and has less distortions. Don't know why but it must be a soundcard problem and you never get any informations or circuit diagrams from the manufacturers. But sometimes I had a sound like a "burst" on the audio on the FT-7100 TX (so from the Echolink send on air via the FT-7100). So C1 must have produced some voltage bursts to the soundcards "Mic In" or "Line In". Without the RC components I haven't any burst sounds yet. But don't ask me why !!</p> <p>I changed the two capacitors of my FT-7100 receiver and raised the value from 10 nF up to 22 nF. Now the af lowpass is about 1.500 Hz and it doesn't sound as sharp as before. The audio into Echolink is even better too. As the af output goes down a little bit I switched back from "Line In" to "Mic In" on the soundcards side and realigned the soundcard levels.</p> <p>The Bass level is now in the middle or a little left and the Treble level is on maximum for clearest modulation send on air through my FT-7100.</p> <p>Now I'm very satisfied since my WB2REM board is shipped. All working stations over my link are giving me very good audio reports too.</p>

PRO

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CONTRA

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