

Soundcard- and PTT-Interface

<u>RTS Line</u> Pin4 on DB25 Pin7 on DB9

<u>Ground</u> Pin7 on DB25 Pin5 on DB9



PS/2-Socket (DATA)

Echolink software configuration

My Station Servers Timing Audio	Update every 300 sec V Even while connected
Sound Device: Emu10Kx Audio (8000) Den in Full Duplex Network Buffering PC Buffering Total audio delay: 1.20 sec Reset to Defaults OK Abbrechen Hilfe	Show in Index View Repeaters (-R) Stations Busy Links (-L) Stations Free Users Alarmed Only Conference Servers Show Alarms in pop-up window Add new QSOs to Favorites Restore window size and position on startup



sang connections		*
Accept conns from:	 Accept only these calls: Deputiese calls: 	
Repeaters (-R)	Certy mese calls.	
J♥ LIFIKS (-L)	A00	New
I♥ Users	Rer	nove
	Rem	ove All
Afghanistan Albania Algeria Andorra Angola Antigua-Barbuda	• × (

Listing Lonnections Security Signals Configure signals (sounds) for the following events: Connected Image: Connected im	Sysop Setup RX Control TX Control DTMF Ident Options Signals Web Carrier Detect Manual V0X Delay (msec): 1000 VOX Anti-Thump (msec): 500 Serial CD Serial Port: Serial CTS Serial DSR Invert Serise
	OK Abbrechen Hilfe

DG2IAQ-L German Linkstation (Loc. JN48JW)

18.01.2003

PTT Activation C External V0X ASCII Serial Serial Port: OM2	□ DTMF Decoder Min Interdigit Time (ms): □ □ External □ Internal □ □ Disabled □ □ □
C DTR 5600 bps	Function 🔬 Sequence 🔺 Reset to Defaults
	Connect
🔽 Key PTT On Local Transmit	ConnectByCall C
	Disconnect #
	LinkDown
	LinkUp
	PlavInfo *

Noice ID Source Internal say: DG2IAQ-L Identify when: Identify when: A station connects A station disconnects A station disconnects Identify at end of transmission every	RX Control 1X Control DTMF Ident Options Signals Web Announce stations (by callsign) on connect Announce first conferencee only Announce disconnect of each conferencee Mute announcements if frequency is busy Defer announcements if frequency is busy Play welcome message to connecting station Play courtesy tone Max key-down time (sec): Dead-carrier timeout (sec): Announcement pre-delay (ms):
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Sysop Setup	×
BX Control TX Control DTMF Ident Options Signals Web Select an event from the list, then choose either Default or Custom. Event: Connected Disconnected Station Info Link Up Link Down Courtesy Tone Courtesy Tone	
Speech Speed: Normal 💌 <u>(</u>	
OK Abbrechen Hilfe	

x

Schließen

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 transmittet 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 CON-TROL to get the correct modulation or deviation graduance.

optionen	0								Mit diesen Einstellungen können feinere Audioeigenschafte
Play Control Balance: Lautstärke:	Wave/MP3 Balance: P	MIDI Synth Balance:	PC Speaker Balance:	TAD-In Balance:	Auxiliary Balance:	Microphone Balance:	CD Audio Balance: P	Line-In Balance: D	Image: Toneinstellung Diese Einstellungen bestimmen die Audioeigenschaften. Tiefen: Niedrig Höhen: Niedrig Höhen: Niedrig
Image: Second	: : Ton aus	T: ▼ Ton aus	∑ Ton aus	III I Ton aus	I I I I I Ton aus	Ton aus	: : I⊽ Ton aus	Ton aus	Schlief

Recording Con With the recordinipiected and ser On my Yaesu F aligned the "Lind	ntrol ng control you nd via Echolink. T-7100 I opene e-In" controller	do the alignme d the squelch o for a maximum	nt of the receive on FM and get th level of 50 – 60	ed HF signal from the loud FM nois % on the red p	m your transmit se of the receive eak line.	ter which is er. Then I
eral soundcards – 60% output.	our receiver is t s you can switch	oo poor you ha 1 on a 20 dB pr	eamplifier in ad	dition and that s	On the microph should be enoug	one line of sev- gh to get the 50
Recording Co Optionen ?	ontrol					<u> </u>
MIDI Synth	TAD-In	Auxiliary	Microphone	CD Audio	Line-In	Wave/MP3
Balance:	Balance:	Balance:	Balance:	Balance:	Balance:	Balance:
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Emu10Kx Audio [B	000]	-ili		11 T	92.	

<u>History</u>

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	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).
	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".
	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.
	The mixer levels of the soundcard are realigned.
15.01.2003	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 prob- lem 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 !!
	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.
	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.
	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.

<u>PRO</u>

CONTRA

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