

Sarasota County ARES (SRQARES)

GoBox w/Signalink

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The SRQARES GoBox Signalink Tutorial

GoBox WinLink Packet Tutorial

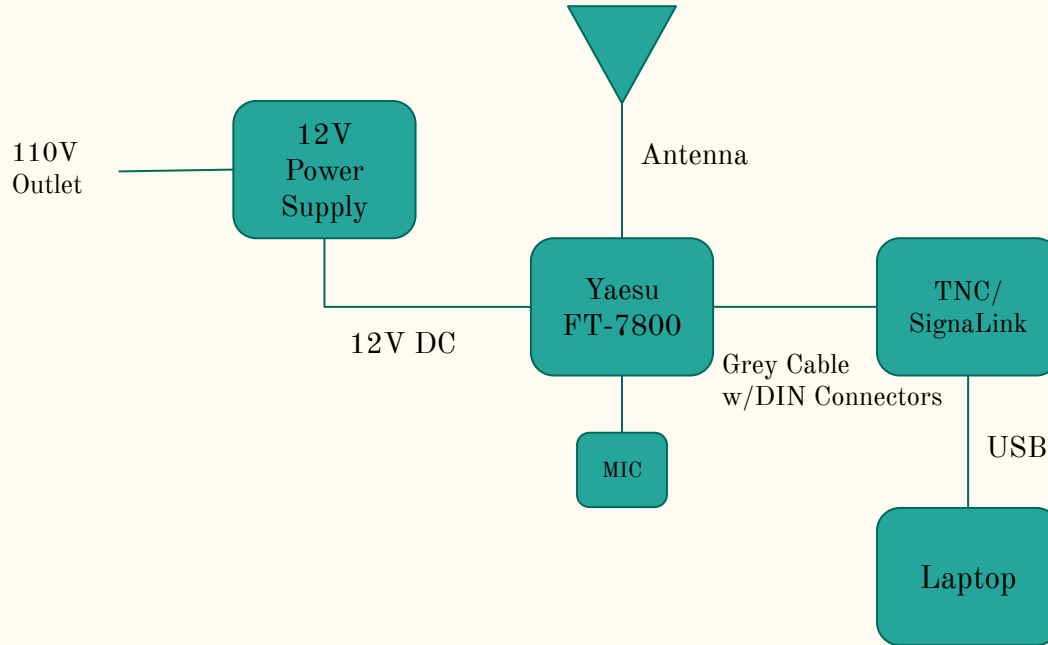
- Introduction
- SignaLink Setup
- Radio Operation
- Laptop Settings
- SoundModem Settings
- WinLink Packet

Introduction



GoBoxes weigh about 20 pounds

Wiring Diagram



Setup



- Open Cover
- Connect Antenna to Radio
- Connect AC power cord
- Power On Radio

Yaesu FT-7800 Front



Yaesu FT-7800 Back



Signalink Setup



- TX knob - Set the Output Level
 - Nominal Setting 11 o'clock
- RX knob - Set the Input Level
 - Nominal Setting 11 o'clock
- DLY knob - Set the VOX delay
 - Nominal Setting 7 o'clock



- SPKR - Not Used
- AUX - Not Used
- RADIO - Connects to Radio DIN Connector
- MON - Not Used
- USB - Connects to Laptop

Software

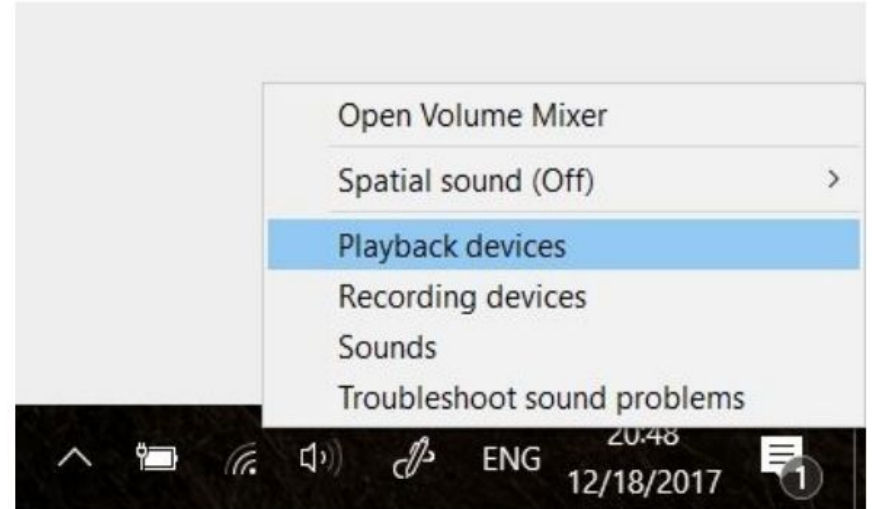
- In addition to Winlink you need to install the SoundModem application

Laptop Settings

- The Signalink USB's built-in sound card provides the same consistent audio levels no matter what computer you are using. Before you operate your Signalink USB on the air, you will need to adjust the PLAYBACK software volume controls, and the Signalink's TX and RX level controls.
- Adjustment of the Receive Audio level is done completely by the Signalink's RX level control.
- Before you can adjust the audio levels, the Signalink USB must be connected to the computer and radio.
- Both the Signalink USB and the radio should be powered ON and a communication program that you have selected should be installed on your computer.
- After you have hooked up your Signalink please make sure it is not selected as the default audio device by right mouse clicking on the speaker icon and selecting Playback Devices.

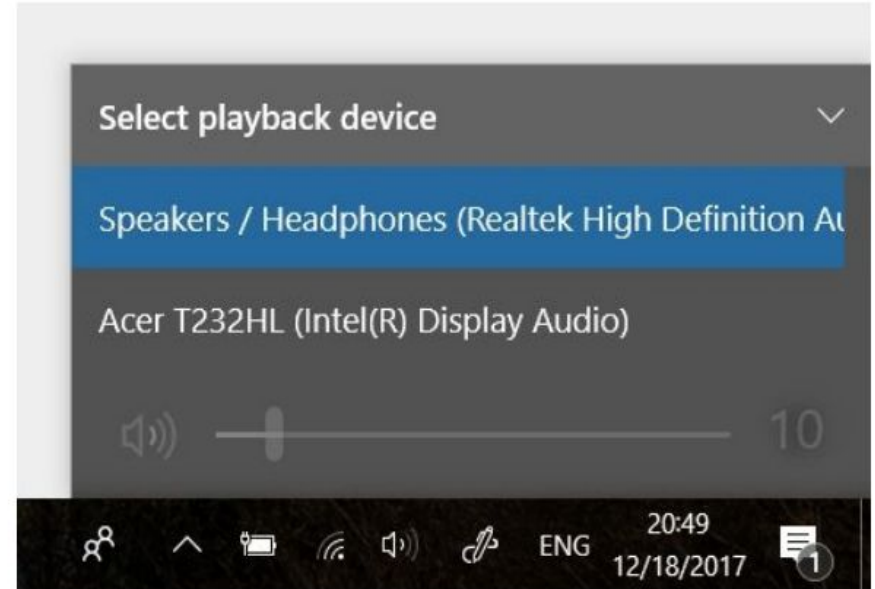
Laptop Settings

After you have hooked up your Signalink please make sure it is not selected as the default audio device by right mouse clicking on the speaker icon and selecting Playback Devices. You can adjust in that menu.



Signalink Laptop Settings

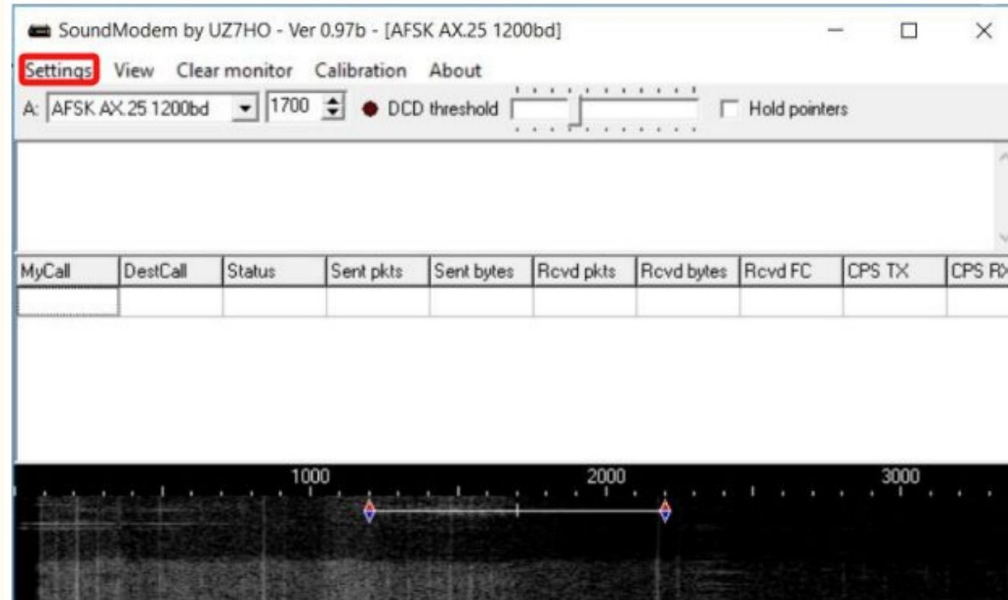
Also make sure that Signalink is not your active Playback Device. You can select your active playback device by left clicking on the speaker icon and selecting any playback device other than USB Audio CODEC. Selecting Speakers/Headphones in the example here is a good idea.



SoundModem Settings

Setting up Soundmodem100

Go to the soundmodem.exe file you extracted earlier. Double-click to run the program.



On the Soundmodem screen, click **Settings** then **Devices**.

SoundModem Device Settings

Settings

Sound Card

Output device: Speakers (USB Audio CODEC)

Input device: Microphone (USB Audio CODEC)

Dual channel

TX rotation

Single channel output

Color waterfall

Stop waterfall on minimize

TX SampleRate: 11025

TX corr. PPM: 0

RX SampleRate: 11025

RX corr. PPM: 0

Priority: Highest

Server setup

AGWPE Server Port: 8000 Enabled

KISS Server Port: 8100 Enabled

PTT Port

Select PTT port: NONE

Dual PTT

Swap COM pins for PTT

OK Cancel

SoundModem Modem Settings

Modem settings

Modem filters ch: A	Modem filters ch: B
BPF Width: 1400 <input type="button" value="Show"/>	BPF Width: 500 <input type="button" value="Show"/>
TXBPF Width: 1600 <input type="button" value="Show"/>	TXBPF Width: 500 <input type="button" value="Show"/>
LPF Width: 650 <input type="button" value="Show"/>	LPF Width: 155 <input type="button" value="Show"/>
BPF Taps: 256	BPF Taps: 256
LPF Taps: 128	LPF Taps: 128
<input checked="" type="checkbox"/> Default settings	<input checked="" type="checkbox"/> Default settings
PreEmphasis filter: None <input checked="" type="checkbox"/> All	PreEmphasis filter: None <input checked="" type="checkbox"/> All
<input checked="" type="checkbox"/> KISS Optimization	<input type="checkbox"/> KISS Optimization
<input checked="" type="checkbox"/> non-AX25 filter	<input checked="" type="checkbox"/> non-AX25 filter

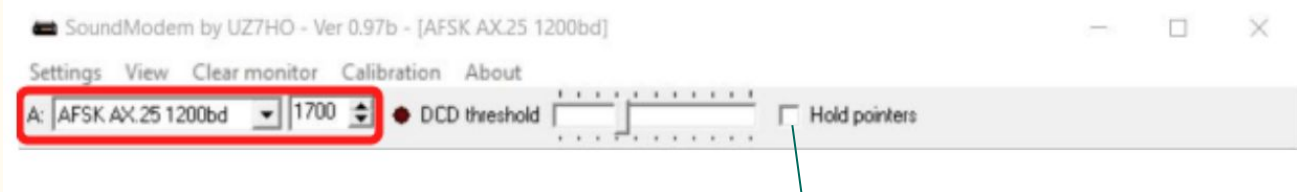
Modem type ch: A	Modem type ch: B
Mode: AFSK AX.25 1200bd	Mode: AFSK AX.25 300bd
TXDelay: 500 msec	TXDelay: 250 msec
TXTail: 50 msec	TXTail: 50 msec
Add. RX: 0 pairs	Add. RX: 0 pairs
Add. RX shift: 30 Hz	Add. RX shift: 30 Hz
Bits Recovery: NONE	Bits Recovery: NONE

Signalink Laptop Settings

In the main Window make sure to select

A: AFSK AX.25 1200bd

and set to **1700**



Check This Box

Signalink Laptop Settings

Packet Winlink/P2P Setup

TNC Connection

Packet TNC Type: **KISS**

Packet TNC Model: **NORMAL**

Serial Port: **TCP**

AutoConnect Time: Disabled

TCP Host/Port: **127.0.0.1** | **8100**

If Auto Connect is enabled, open session when Winlink Express is started

TNC Parameters

1200 Baud 9600 Baud

TX Delay (Milliseconds): 400 | 300

Maximum Packet Length: 128 | 255

Maximum Frames: 4 | 7

Frack: 2 | 2

Persistence: 160 | 224

Slot time: 30 | 20

Maximum Retries: 5 | 5

Disable Xmt Level Adjust

Transmit Level: 100 | 100

Enable IPoll

Update Cancel

Packet Winlink

Packet Winlink

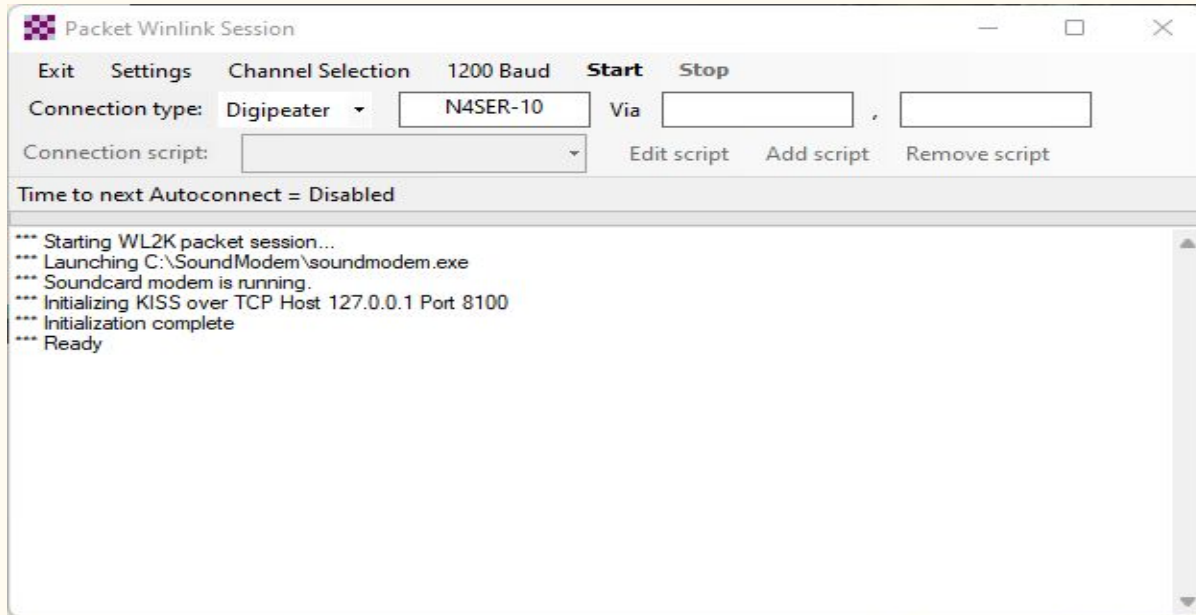
Select Open Session: **Packet Winlink**

The screenshot shows the Winlink Express 1.5.10.0 - K6OLI interface. The 'Open Session:' menu is open, and 'Packet Winlink' is selected. A red arrow points to the selected item. The main window displays a list of messages with columns for Date/Time, Message ID, Size, Source, Sender, Recipient, and Status.

System Folders	Date/Time	Message ID	Size	Source	Sender	Recipient	Status
Inbox (0 unread)	2017/04/21 04:07	VAKXRNF80JR4	703	WB6NCT	WB6NCT	W6JDG...	Re...
Read Items (0)	2017/04/17 20:52	KHZCZTBU2SZI	524	W6JDG	W6JDG	SMTP: johndavid...	//
Outbox (0)	2017/04/11 22:32	VYGAYUZTPTFN	446	KK6EZP	KK6EZP	KF6TIM...	//
Sent Items (2)	2017/04/05 22:05	NIK101WRNFT4	382	KK6EZP	KK6EZP	KF6TIM...	//
Saved Items	2017/03/31 02:04	WM3YV9XBY26G	349	KK6EZP	KK6EZP	K6OLI	AC
Deleted Items	2017/03/30 03:38	3HTCPYLROUMZ	1346	W6JDG	W6JDG	SMTP: johndavid...	//
Drafts (0)	2017/03/30 03:29	H3YDZG8MNKA0	347	W6JDG	W6JDG	K6OLI	AC
Personal Folders	2017/03/28 16:20	KWUY3CL28XDB	348	WB6YJ	WB6YJ	K6OLI	AC
	2017/03/27 01:55	LX2UBBECM0PN	846	KK6EZP	KK6EZP	KF6TIM...	//
	2017/03/23 01:46	FHALF4EOIRH9	372	KK6EZP	KK6EZP	KF6TIM...	//WL2K ARES NE Winlink Exercise 02/19 - 02/25
Global Folders	2017/03/17 04:29	N3Z1WB1NXX2K	368	KK6EZP	KK6EZP	K6OLI	ACK: FW: Re: //WL2K ICS213 - Baker to Vegas - Menu

Packet Winlink

- Click on Open Session
 - You are now in the Winlink Packet Session



Packet Winlink

Click **Settings**

Packet Winlink/P2P Setup

TNC Connection

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Maximum Frames: 4 | 7

Frack: 2 | 2

Persistence: 160 | 224

Slot time: 30 | 20

Maximum Retries: 5 | 5

Disable Xmt Level Adjust Transmit Level: 100 | 100

Enable IPoll

Update Cancel

Packet Winlink

- Select Connection Type: Direct
 - Enter Gateway name, in this example: N4SER-10
- On your Radio, set the Frequency to the gateway frequency in this example.
 - 143.950
 - This Frequency is Different for Different Gateways!
- Click Start

Packet Winlink

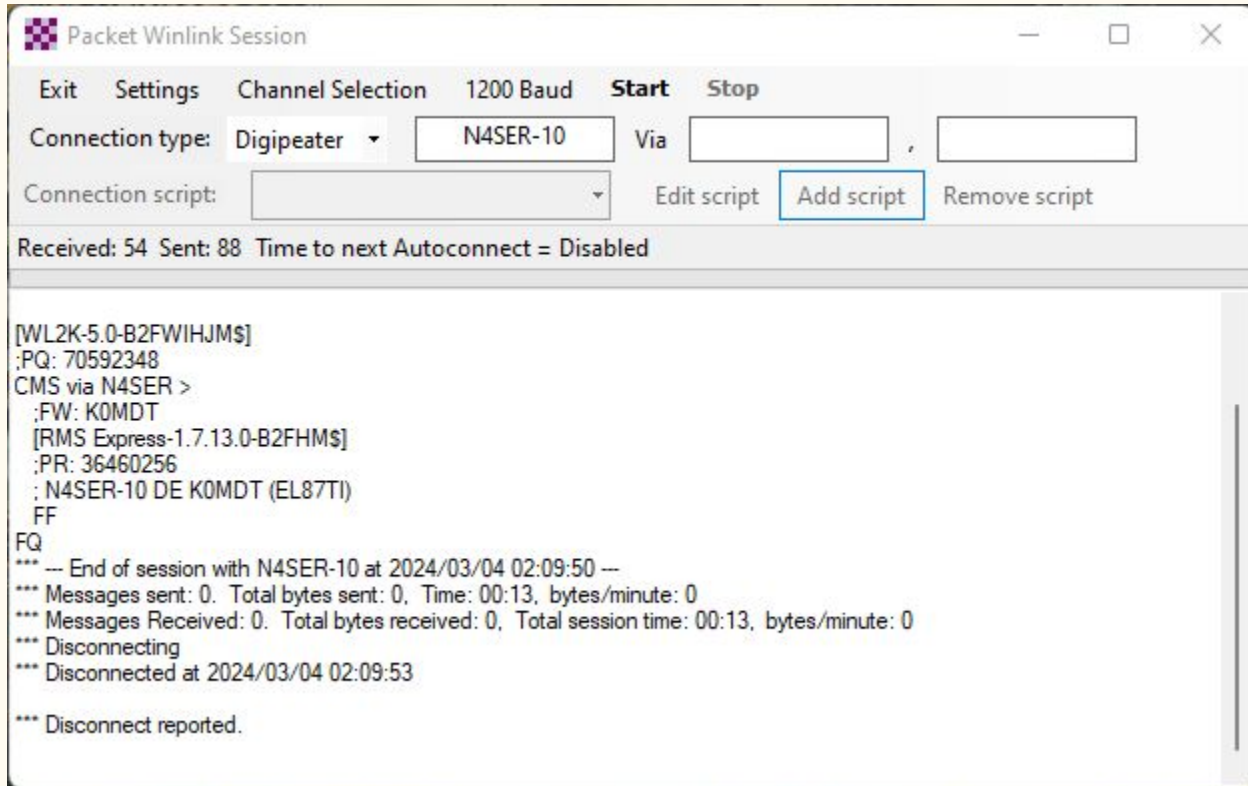
Vara FM Channel Selector

Select Channel Update Table Via Internet Update Table Via Radio Exit

Stations found within 300 kilometers of your grid square.

Callsign	Frequency (MHz)	Channel Width	Grid Square	Group	Distance (km)	Bearing (Degrees)
N4SER	446.775	Wide	EL87SI	PUBLIC	008	270
N4SER-11	434.000	Narrow	EL87SH	PUBLIC	009	241
W4IE	446.775	Wide	EL87TD	PUBLIC	022	180
KM4EC-10	441.000	Wide	EL87TN	PUBLIC	023	000
W4DIG-11	434.000	Wide	EL86XW	PUBLIC	057	143
W4DIG-10	433.000	Narrow	EL86XW	PUBLIC	057	143
K4PPK-10	145.070	Wide	EL87UV	PUBLIC	062	008
KI4VAM	144.990	Narrow	EL87SV	PUBLIC	062	353
N4HCA-11	438.050	Wide	EL87TX	PUBLIC	070	000
KJ4RUS-10	145.070	Wide	EL87OV	PUBLIC	073	327
KR4PI-10	145.030	Wide	EL96BO	PUBLIC	097	149
W4LCO-10	145.030	Wide	EL96CP	PUBLIC	097	143
K4EX	440.975	Wide	EL88TF	PUBLIC	098	000
KM4YGV-12	145.070	Wide	EL88VG	PUBLIC	104	009
W4PEM-11	145.050	Narrow	EL88PG	PUBLIC	107	342
KM4YGV-10	145.030	Wide	EL88UI	PUBLIC	111	005
KX4LEO-10	144.930	Wide	EL88XO	PUBLIC	143	013
N4BHT-10	441.050	Wide	EL88UG	PUBLIC	170	095

Packet Winlink



Packet Winlink Session

Exit Settings Channel Selection 1200 Baud **Start** Stop

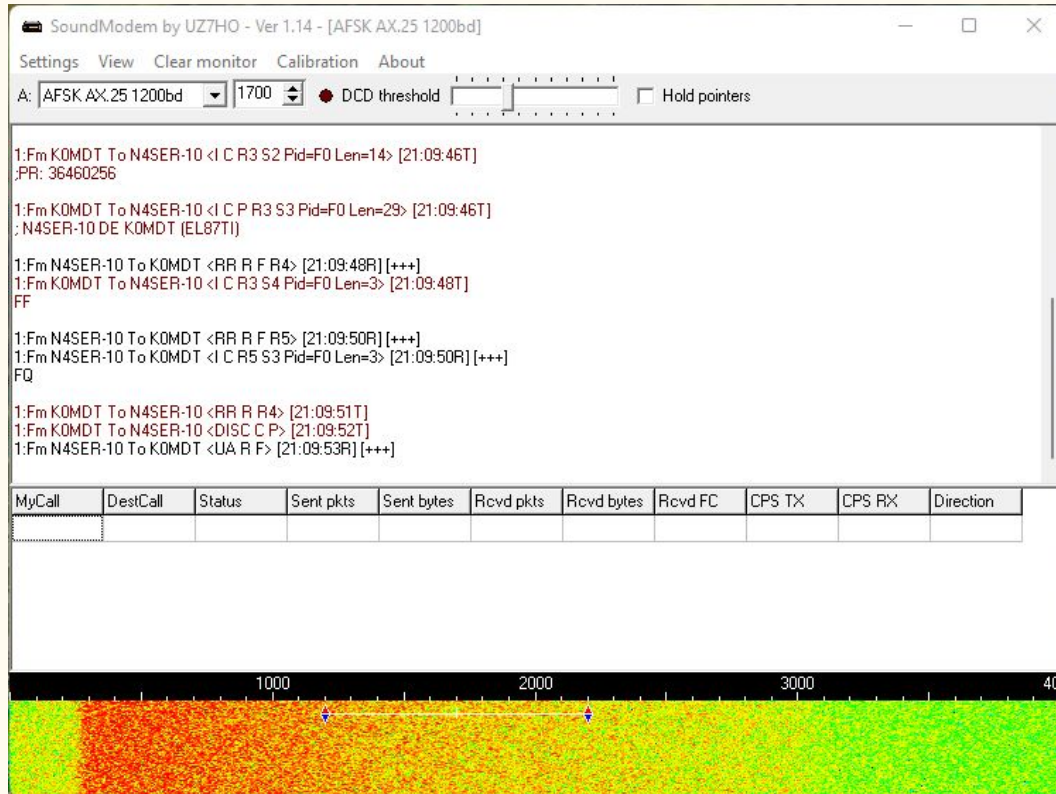
Connection type: Digipeater ▾ N4SER-10 Via ,

Connection script: ▾ Edit script **Add script** Remove script

Received: 54 Sent: 88 Time to next Autoconnect = Disabled

```
[WL2K-5.0-B2FWIHJM$]
:PQ: 70592348
CMS via N4SER >
:FW: KOMDT
[RMS Express-1.7.13.0-B2FHM$]
:PR: 36460256
: N4SER-10 DE KOMDT (EL87TI)
FF
FQ
*** -- End of session with N4SER-10 at 2024/03/04 02:09:50 --
*** Messages sent: 0. Total bytes sent: 0, Time: 00:13, bytes/minute: 0
*** Messages Received: 0. Total bytes received: 0, Total session time: 00:13, bytes/minute: 0
*** Disconnecting
*** Disconnected at 2024/03/04 02:09:53
*** Disconnect reported.
```

Packet Winlink



Packet Winlink

Quick Tip: Channel Selection

Update your available channels on a regular basis, once a month at the very least. Using Channels automatically populates the relevant fields in the Packet Winlink Session window.

Winlink Gotcha's

- Ensure you are Cabled up Correctly
- Make sure you have the Correct Audio Devices Selected
- Make sure you have the Correct CAT Device Selected
- Ensure the Audio Levels are Correct
 - Don't Over-drive or Under-drive the Audio
- Check that you didn't accidentally change the Sound Modem Center Frequency (It should be 1700)

Conclusion

- This Concludes the GoBox WinLink Packet Tutorial
- Questions?