
Winlink Tutorial 4



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Winlink Express Tutorial Series Overview

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- **Tutorial 1**
 - Introduction and uses for Winlink
 - Winlink installation and setup
 - Compose and send simple message
- **Tutorial 2**
 - Additional setup and capabilities
 - Forms and customization features
- **Tutorials 3 and 4**
 - Hardware configurations
 - Setting up Winlink with a radio
- **Tutorial 5**
 - Additional radio setup options
 - Other Winlink operating modes

- **Additional Tutorials?**
 - Depends on interest
- **Winlink Peer-To-Peer Sessions?**

Tutorial 4 Focus:

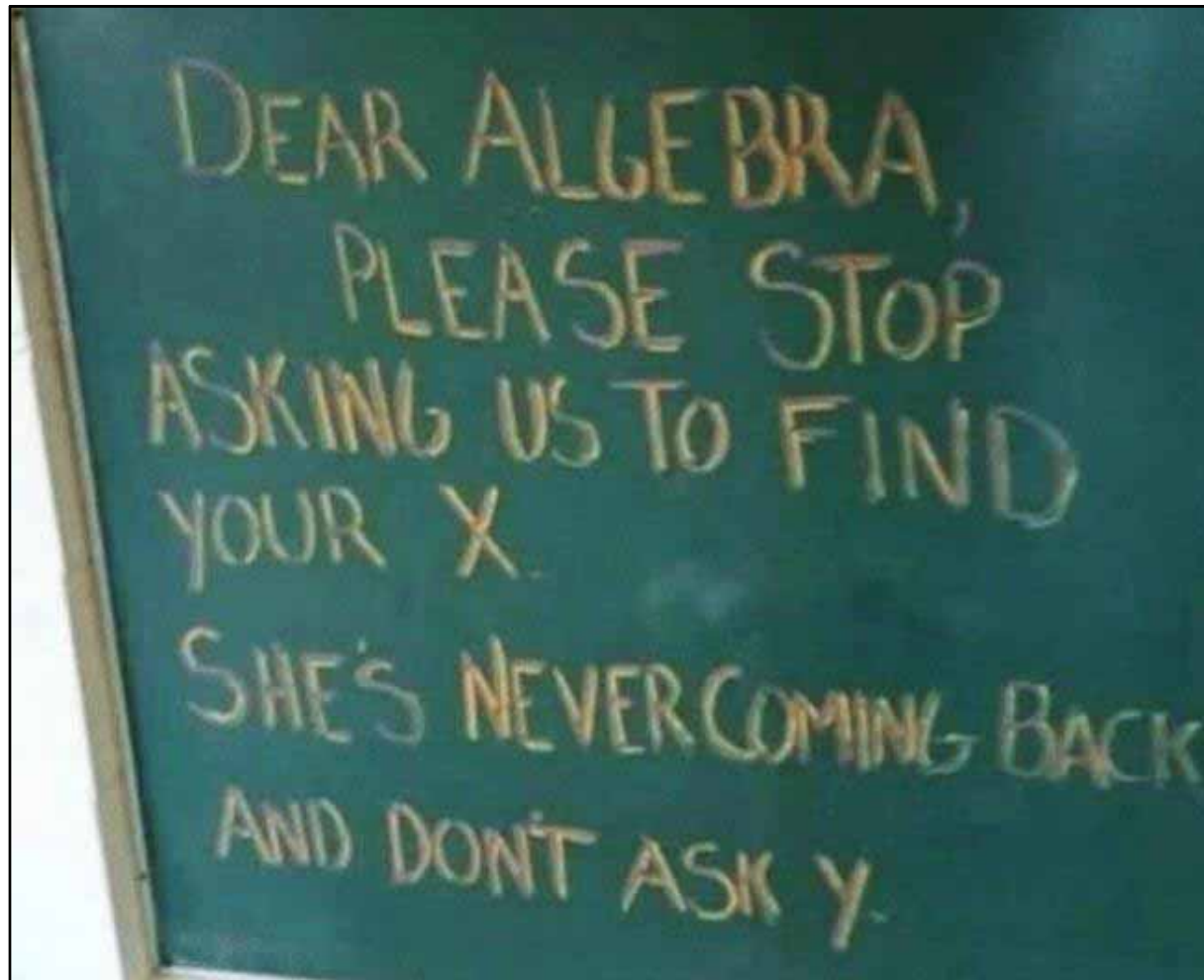
- **Review representative hardware and software configurations**
- **Sound modem software install and setup configurations**
- **Sound card to radio interface options, and setup configurations**
- **Sources for additional information on configuring your specific radio**

Due to the large variation of radio types, Tutorial 4 focuses on the most commonly used sound card software and sound card-to-radio hardware interface options



But First, A Little Levity...

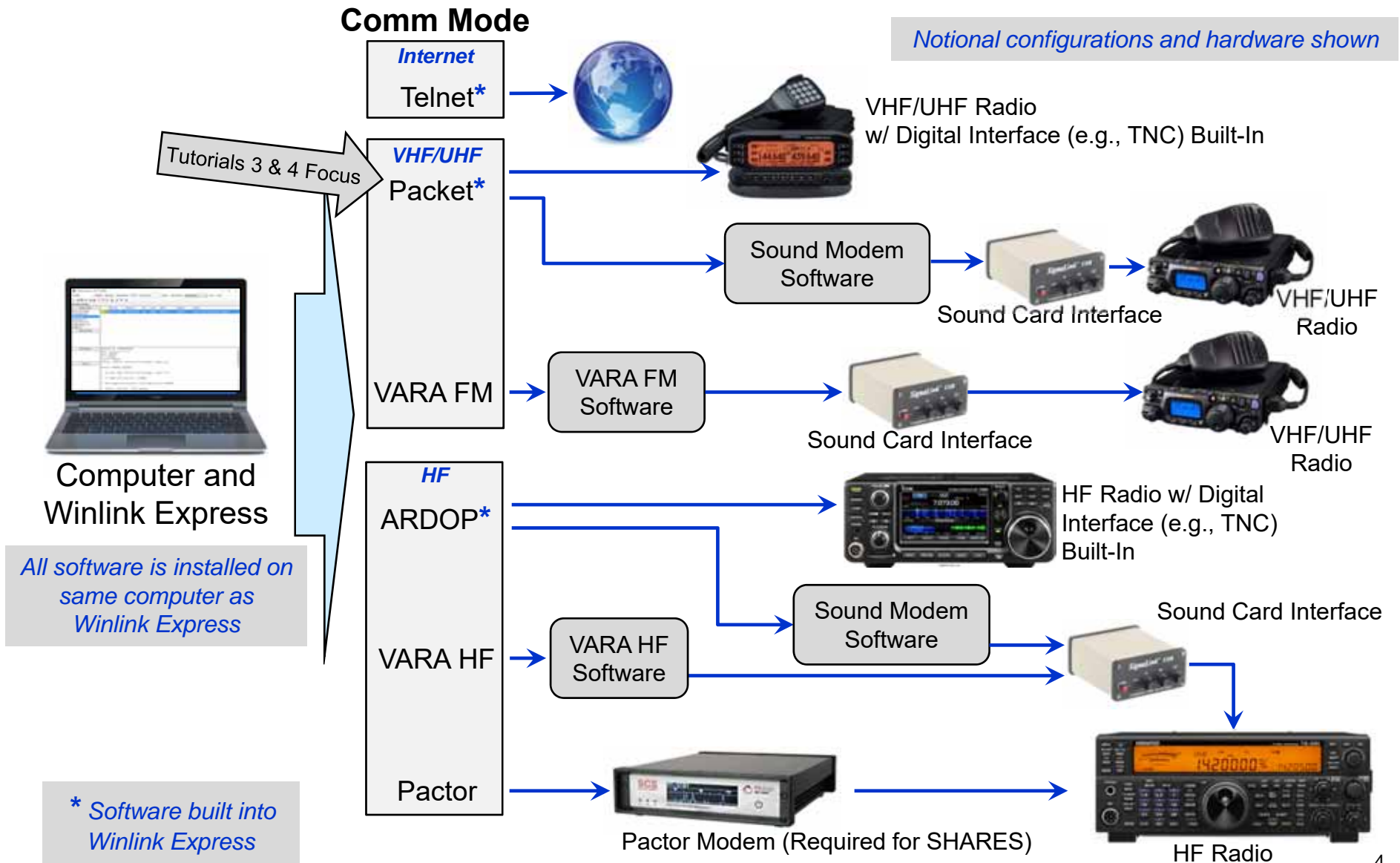
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Representative Hardware and Software Configurations

- To Support Specific Communication Modes

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Quick Setup Guide Provides Many Key Details

- Excellent Starting Point for Most Radios

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Download from:

www.winlink.org/sites/default/files/RMSE_FORMS/quick_setup_guide_for_winlink_sound_card_packet_for_vhf-uhf_on_windows_v1.1.pdf

Quick Setup Guide for Winlink Sound Card Packet for VHF/UHF on Windows with UZ7HO Soundmodem Software TNC

By Oliver K6OLI and Scott NS7C
Last Update 2019-12-1 A

Thank you, Mike KM6KAQ, Scott KI6SC, Brian KM6IGY, Lew AC6LS, Keith KD6PYD, Jim KM6TGJ, Ken KI7EIH, Joe AH0A, Tom N5TW, and Mike XE2/N6KZB for testing, for your suggestions, insights and encouragement. And special thanks to Phil W4PHS and Andy UZ7HO whose programming skills, smart work and dedication make Winlink and soundcard Packet the powerful and robust combination that it is.

This guide covers multiple sound card hardware options. Only follow the steps that are required for your specific hardware configuration.

Quick Setup Guide for Winlink Sound Card Packet for VHF/UHF on Windows with UZ7HO Soundmodem Software TNC

- Get the Software
- Soundcard Considerations
 - Quick Tip:** Build a direct shortcut to your sound cards for quick access
- Setting up Soundmodem Devices
 - Option 1 PTT Settings for Signalink
 - Option 2 PTT Settings for C-Media Devices
 - Option 3 PTT Settings for CAT control
- Modem Settings
- Adjusting TX and RX Levels
- Winlink Express Setup
 - Quick Tip:** Winlink Express Setup
- Packet Winlink
 - Connecting to a gateway
 - Successful Exchange
 - Quick Tip:** Channel Selection
 - Quick Tip:** Winlink Screen Resolution Fix

Adjust for RX Level on Signalink

Adjust for blue-green waterfall with open squelch and no signal being received

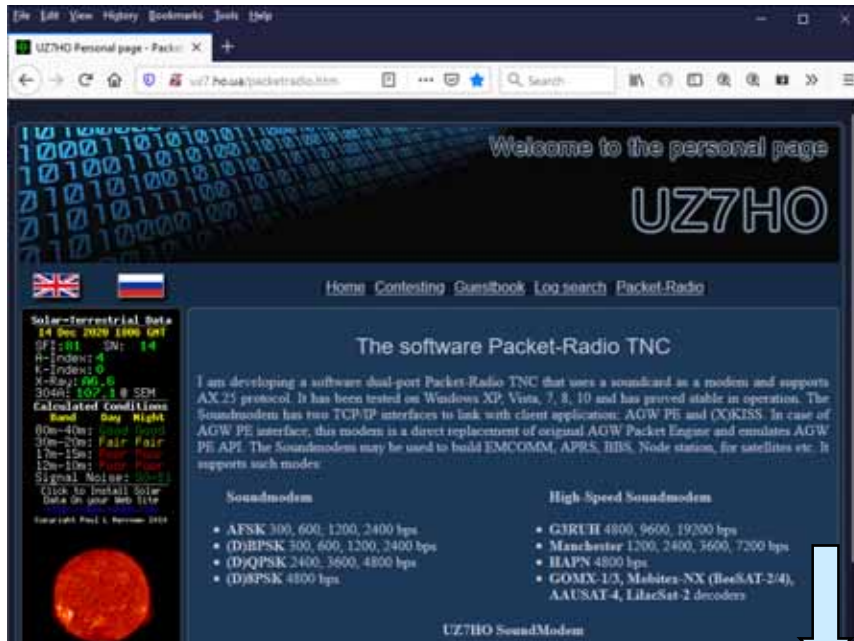
Provides step by step guide to configuring software and hardware

Soundmodem Software TNC

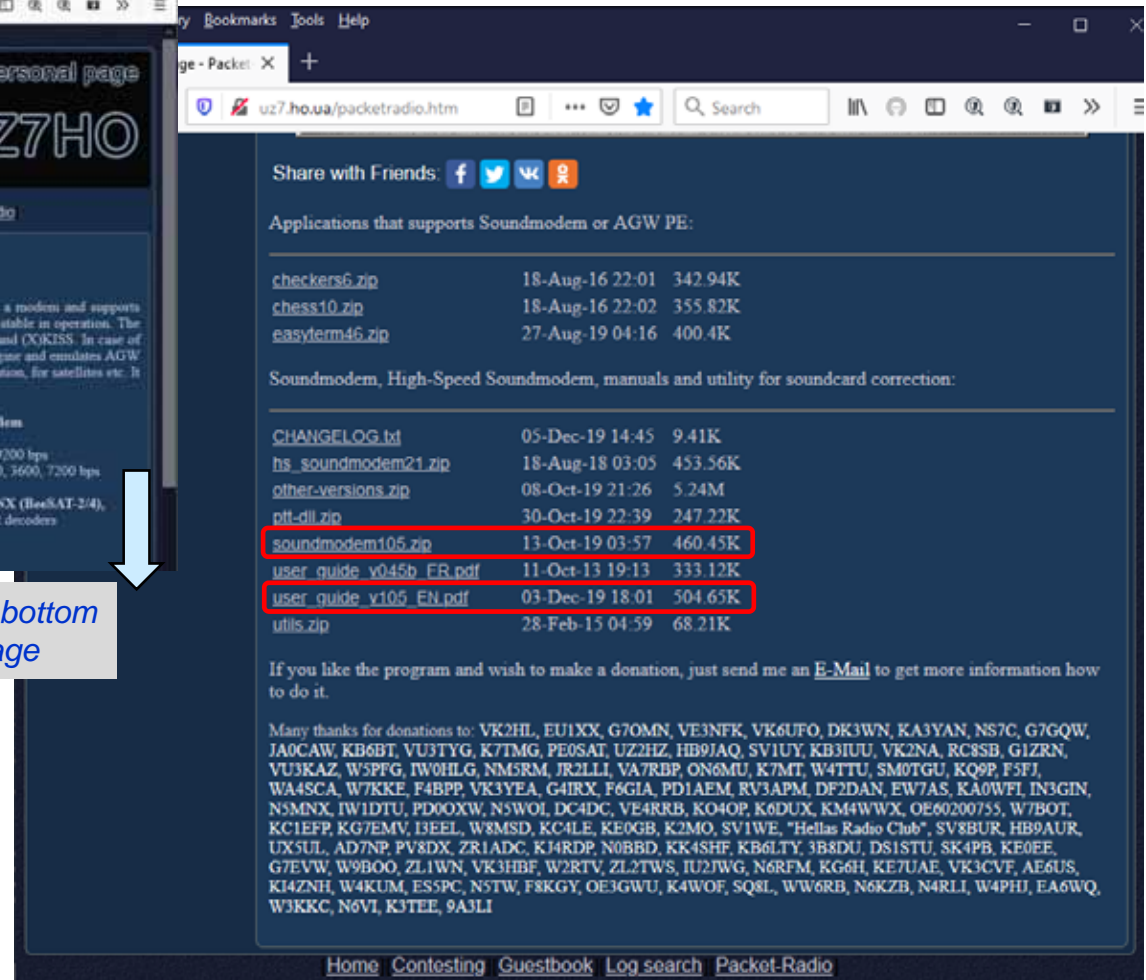
- Based on UZ7HO Soundmodem Software

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Go to: <http://uz7.ho.ua/packetradio.htm>



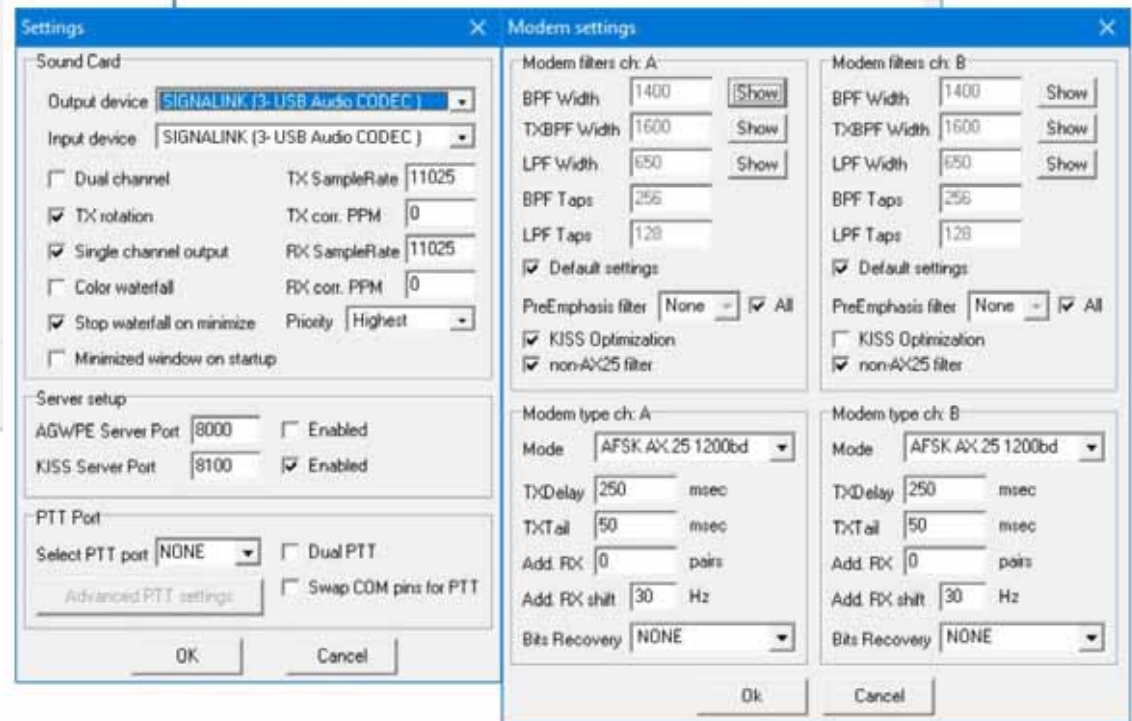
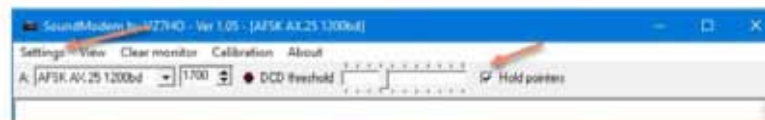
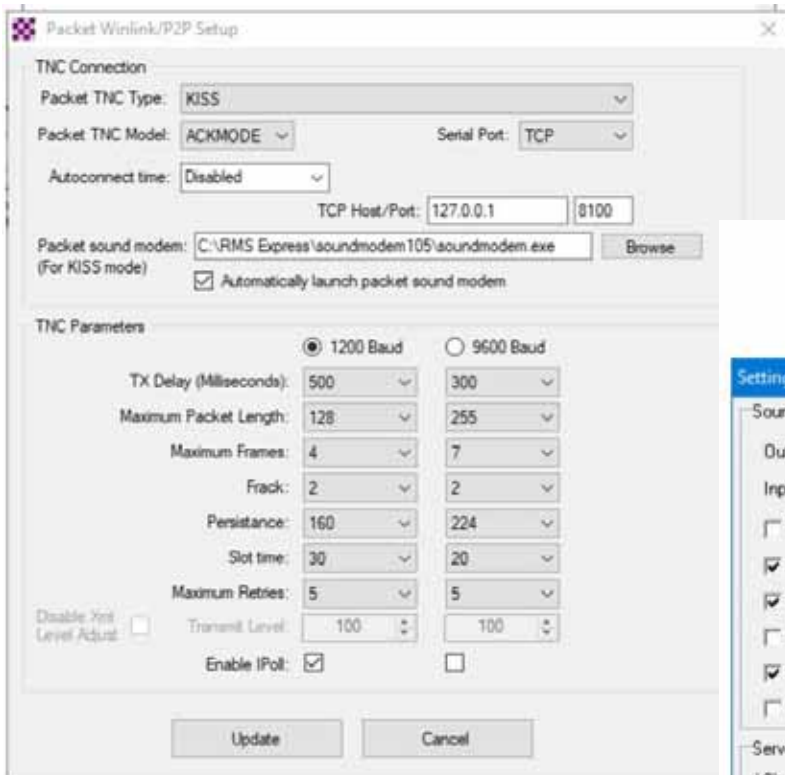
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Configuring Soundmodem Software

- Common Setup Settings

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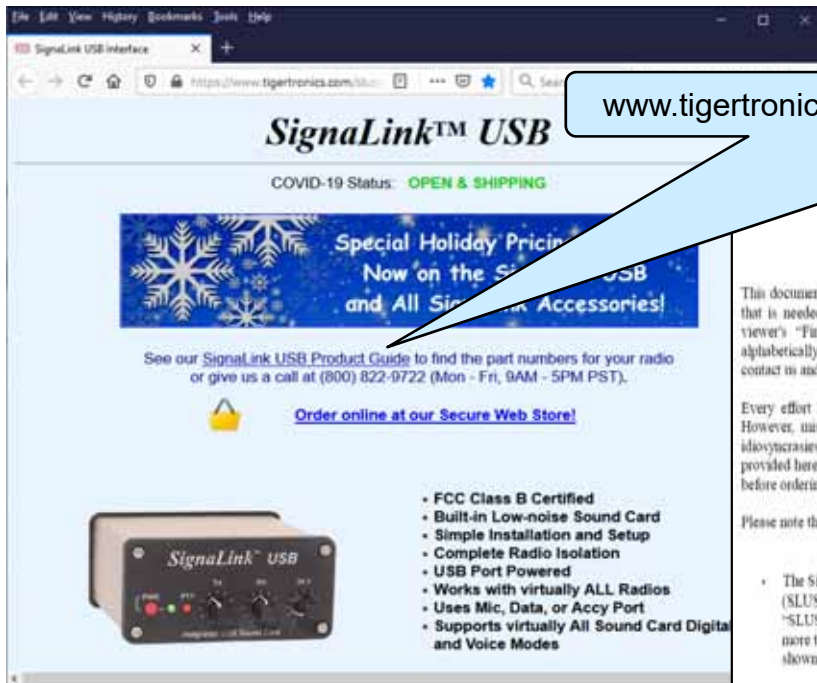


Sound Card-to-Radio Interface

- *Signalink Unit is Widely Used and Supported*

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Go to: www.tigertronics.com/slusbmain.htm



www.tigertronics.com/files/Signalink%20USB%20Product%20Guide.pdf

Signalink™ USB Product Guide

This document can be used to find the Signalink USB, Radio Cable, and Jumper that is needed for a given radio. You can search this document for your radio viewer's "Find" feature (CTRL-F), or simply scroll down to browse. It is listed alphabetically by manufacturer and listed in alpha-numeric order. If your radio isn't listed here, contact us and we will confirm the part numbers that are needed.

Every effort has been made to insure that the information provided in this document is accurate. However, mistakes do sometimes happen, and it is simply not possible for us to insure that every available radio is listed here. If you have any doubts or questions about the information provided here, or if you're not sure which part numbers you need for your radio, then please contact us before ordering.

Please note the following when selecting the part numbers for your radio:

- The Signalink USB is always supplied with one radio cable. The Signalink (SLUSBxxx) determines which radio cable is included. For example, Signalink "SLUSB6PM" includes radio cable part "SLCAB6PM". If you have multiple more than one radio cable, then extra radio cables can be purchased using the shown under the "Radio Cable Only" column.
- Some radios have multiple options for connecting the Signalink USB. Rear connections are generally preferred over the Mic jack and will be listed first when available.
- If the Signalink USB or Radio Cable part number is noted as "DATA", "ACCY", "REAR" (etc.), then the part number is for the radio's rear panel connection. If not noted this way then it is for the radio's Mic jack.
- Our optional Plug & Play Jumper Modules provide the easiest installation and are highly recommended for configuring your Signalink. Jumper modules are shown under the "Jumper Module" column. If a jumper is listed then you will need to configure the Signalink using the supplied jumper.
- Be sure to read any notes shown for your radio as these detail important radio restrictions.

Radio	Signalink USB	Radio Cable Only	Jumper Module
FT-80C	SLUSB8R	SLCAB8R	SLMOD8RY
FT-90	SLUSB8U1	SLCAB8U1	SLMOD8RY
FT-90R	SLUSB8U1	SLCAB8U1	SLMOD8RY
FT-100	SLUSB6PM (DATA)	SLCAB6PM (DATA)	SLMOD6PM
	SLUSB8U1	SLCAB8U1	SLMOD8RY
FT-100D	SLUSB6PM (DATA)	SLCAB6PM (DATA)	SLMOD6PM
	SLUSB8U1	SLCAB8U1	SLMOD8RY
FT-101	SLUSB4R	SLCAB4R	SLMOD4RY
FT-101ZD	SLUSB4R	SLCAB4R	SLMOD4RY
FT-102	SLUSB8R	SLCAB8R	SLMOD8RY
FT-107	SLUSB8R	SLCAB8R	SLMOD8RY
FT-107M	SLUSB8R	SLCAB8R	SLMOD8RY
FT-221	SLUSB4R	SLCAB4R	SLMOD4RY
FT-225	SLUSB4R	SLCAB4R	SLMOD4RY
FT-227R	SLUSB4R	SLCAB4R	SLMOD4RY
FT-250R	SLUSB8RY	SLCAB8RY	SLMOD8RY
FT-270R	SLUSBVXY	SLCABVXY	SLMODHT
FT-290	SLUSB8R	SLCAB8R	SLMOD8RY
FT-301	SLUSB4R	SLCAB4R	SLMOD4RY
FT-301D	SLUSB4R	SLCAB4R	SLMOD4RY
FT-301S	SLUSB4R	SLCAB4R	SLMOD4RY
FT-301SD	SLUSB4R	SLCAB4R	SLMOD4RY
FT-450	SLUSB6PM (DATA)	SLCAB6PM (DATA)	SLMOD6PM
	SLUSB8U4	SLCAB8U4	SLMOD8RY
FT-600	SLUSB8U4	SLCAB8U4	SLMOD8RY
FT-707	SLUSB8R	SLCAB8R	SLMOD8RY
FT-726R	SLUSB8R	SLCAB8R	SLMOD8RY
FT-736R	SLUSB8R	SLCAB8R	SLMOD8RY
FT-747	SLUSB8R	SLCAB8R	SLMOD8RY
FT-747	SLUSB8R	SLCAB8R	SLMOD8RY
FT-757	SLUSB8R	SLCAB8R	SLMOD8RY
FT-757GX	SLUSB8R	SLCAB8R	SLMOD8RY
FT-767GX	SLUSB8R	SLCAB8R	SLMOD8RY
FT-817	SLUSB6PM (DATA)	SLCAB6PM (DATA)	SLMOD6PM
	SLUSB8U4	SLCAB8U4	SLMOD8RY
FT-817ND	SLUSB6PM (DATA)	SLCAB6PM (DATA)	SLMOD6PM
	SLUSB8U4	SLCAB8U4	SLMOD8RY
FT-840	SLUSB8R	SLCAB8R	SLMOD8RY
	SLUSB6PM (DATA) ¹	SLCAB6PM (DATA) ¹	SLMOD6PM
FT-847	SLUSB847 (DATA10) ¹	SLCAB847 (DATA10) ¹	SLMODHT
	SLUSB8R	SLCAB8R	SLMOD8RY
	SLUSB6PM (DATA) ²	SLCAB6PM (DATA) ²	SLMOD6PM
FT-857	SLUSB6PM (DATA)	SLCAB6PM (DATA)	SLMOD6PM
	SLUSB8U4	SLCAB8U4	SLMOD8RY
FT-857D	SLUSB6PM (DATA)	SLCAB6PM (DATA)	SLMOD6PM
	SLUSB8U4	SLCAB8U4	SLMOD8RY

Order model to match your radio

Other Sound Card-to-Radio Interfaces Available

- *Alternatives to Signalink*

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- **Mobilinkd**

- <https://store.mobilinkd.com/collections/frontpage/products/mobilinkd-tnc3>

- **Kantronics**

- <https://kantronics.com/>

Mobilinkd
HOME CATALOG BLOG ABOUT US

Mobilinkd is still open for business during the COVID-19 pandemic. While the state of Illinois is on lockdown, we are a home-based business. We will continue to accept orders as long as the postal service continues to accept packages. USPS is reporting service delays, so please expect your orders to take longer to arrive.

Mobilinkd TNC3

\$119.95 USD
Add to Cart

The TNC3 builds upon the success of the TNC2 form factor, but offers a whole new class of performance. The TNC3 presents a number of significant new features and enhancements:

- Bluetooth 4.2 support (blue-mode EDR/LE) **IOS Compatible**
- USB serial port
- DCD and TX indicator LEDs
- More powerful DSP and modem
- Higher dynamic range ADCs and DACs
- Buffered inputs and outputs
- Input amplifier for improved input level matching across a wide range of radios
- Optimized for packet radio
- 300mAh rechargeable battery lasts for 2 full days

The TNC3 is our first TNC designed for both APRS and general packet use. It is specifically designed to interface with a wide range of mobile and base stations (as well as HFx).

***NEW** as of July 2020, the TNC3 is 9600 baud capable.

The TNC3 is a 1200/9600 baud KISS TNC.

This tiny KISS packet modem is battery powered and can run for 48 hours of continuous use. Small and lightweight, the TNC measures 80x42x10mm (3.1x1.6x0.4") and weighs in at just 48g (1.75oz).

Please download and review the [Mobilinkd TNC3 User's Guide](#). We do not ship a manual with the TNC in order to keep costs down.

What you will need:

- **Cables** to connect the TNC to your radio(s)
- A micro-USB cable to charge the TNC and a standard USB port capable of 500mA output.
- If you intend to connect the TNC3 to a **radio** (including re-bagged Baofengs), please consider purchasing a **testkit board** for the radio cable.

SHIPPING NOTICE

The COVID-19 pandemic has affected global commercial air traffic. This is affecting international mail delivery around the globe. Due to the extreme delays in air mail, we are only shipping outside the US via UPS and Priority Express mail.

Orders are typically processed within 48 hours (24 hours for Priority and Express shipments). First Class Mail is \$2.50 domestic, \$75 international (outside US).

We now offer free domestic shipping on orders over \$100.

We offer UPS shipping options for expedited international shipments. These may be assessed an additional customs broker fee, payable on delivery, after using this service.

For our German customers, please consider purchasing from [Funktackerei Deutscher](#). They offer excellent local sales, service and support.

We do not ship to Russia or the Ukraine. We have many satisfied customers in those countries using retailers to get their Mobilinkd TNCs.

Customers outside the US are responsible for all local taxes, import duties, tariffs, and fees.

PRODUCT CATEGORIES

- Connectors
- Computers
- Kits
- Radios

Kantronics (Radio Modem) | X

service@kantronics.com
sales@kantronics.com
Sales: (913) 839-1470 / Support: (913) 839-8143

Kantronics
KRC-3+ KRC-3+ KRC-3+ KRC-3+ Accessories Company Info and News Applications and Support & Resources

Authorized Dealers Legacy Products Shop Now

RADIO MODEM / TNC (TERMINAL NODE CONTROLLER)

Kantronics' radio packet modems, particular applications are:

- You can hook radios and their operations, and
- You can connect to create a local
- You can use it conditions such with a radio to

Modems & TNC's

- **Kantronics KRC-3+**
- **Kantronics KRC-3**
- **Kantronics KRC-3+**
- **Kantronics KRC-3+**

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Additional Info on Winlink and Configuring Your Radio

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- Winlink@groups.io group at Groups.io
 - Easy to use email group service for Winlink related issues
 - Sign up at <https://groups.io>
- **Greater Manchester ARES Group** (<http://gmares.org/>)
 - Great series of Winlink tutorials on the different communications modes, configuration setups, and other recommendations
- **Presentation on Winlink Radio Interfaces:**
 - **Speaker/Presenter: Scott Currie, NS7C**
 - Member of Winlink development team
 - **View Video:** <https://vimeo.com/503350323>
 - **Download Video:**
<https://vimeo.com/user107547861/download/503350323/481c3976a1>
 - **Presentation:**
https://www.dropbox.com/sh/lly36ldlag6eh0l/AABYJtDvzCdO7EZr4qjwnU_1a?dl=0

Homework Before Tutorial 5

- For Those Who's Radios Don't Have Built-In Digital Interface

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- Download Quick Setup Guide and review
- Download, install, and configure sound modem TNC software
- Acquire soundcard-to-radio interface hardware and cables
- Connect to radio and send Winlink message using your radio ☺
 - Some regions of Orange County have limited access to a RMS Gateway
 - May need to “go mobile” in order to access a local Gateway
- Send me an E-mail if you have problems or have questions
 - Though I have limited experience with configuring computers & radios

**Job
well
done!**



Questions?