Kenwood TH-D74 Packet Setup

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Kenwood TH-D74 with Winlink / RMS Express

GARS Kenwood TH-D74 Owners:

For some period of time I have been working with my Kenwood TH-D74 HT to get it playing with Winlink / RMS Express to take advantage of it's internal KISS TNC. With some blog guidance fro a Swiss Ham I have it working and succeeded in sending my first TH-D74 based RMS Express packet session message.

So what did it take? If you have not yet figured out the secret sauce:

- 1. TH-D74 must have firmware version 1.06 or newer!
- 2. Bluetooth or USB connection to the PC

3. Configure the TH-D74 following HB9ODI's configuration instructions Enjoy!

Mark / N7GRB

HB9ODI's blog: <u>https://hb9odi.com/2017/06/17/winlink-ueber-bluetooth-mit-dem-kenwood-th</u> <u>d74/</u>

[MTB Note: In the event HB9ODI's blog disappears, here's an English language translation with some additional comments from my experience. His blog has a few illustrations / screen captures and a bit more detail.]

Kenwood TH-D74 Settings

Interface

- 980 USB Function COM + AF / IF Output
- 981 PC Output (GPS) Bluetooth
- 982 PC Output (APRS) USB
- 984 DV / DR USB

TNC (Inder APRS menus)

- 981 PC Output (GPS) Bluetooth
- 982 PC Output (APRS) USB
- 983 KISS Bluetooth
- 984 DV / DR USB

TNC (Under APRS menus)

- 505 Data Speed 1200bps
- 506 Data Band A Band [MTB note: I successfully used A and B]

GPS

- 400 Built in GPS ON
- 401 My Position GPS
- 402 position Ambig. off
- 403 Operating mode Normal
- 404 battery saver Auto
- 405 PC Output On
- 406 sentence All activated [MTB note: I only had GPGGA and GPRMC enabled]

PC Host Software Kenwood Drivers

Download and install the Kenwood USB virtual drivers, follow Kenwood's instructions:

http://www.kenwood.com/i/products/info/amateur/thd74 vcp e.html

WinLink

Now for the settings in Winlink. You should have the WinLink settings for your station info setup.

After opening a packet session, go into the session setup where the following settings are made:

- Pack TNC Type KISS
- Packet TNC Model NORMAL
- Serial Port: The port obtained by the pairing.
- Serial Port Baud 19200 (any baud using bluetooth)
- [MTB Note: IPoll off]

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TNC Connection				
Packet TNC Type: KISS			\sim	
Packet	TNC Model:	NORM	MAL \sim	AutoConnect Time
	Serial Port:	COM3	~	Disabled \checkmark
Serial Port Baud: 19200 V				
If Auto Connect is enabled, open session when Winlink Express is started				
TNC Parameters				
	1200 Bar	bu	🔘 9600 Ba	bud
TX Delay (Milliseconds):	400	\sim	300	\sim
Maximum Packet Length:	128	\sim	255	~
Maximum Frames:	4	\sim	7	\sim
Frack:	2	\sim	2	~
Persistance:	160	\sim	224	~
Slot time:	30	\sim	20	\sim
Maximum Retries:	5	\sim	5	\sim
Disable Xmt Transmit Level:	100	*	100	×
Enable IPoll				
Update Cancel				

Operation Notes

Pairing

After the TH-D74 settings have been changed, the TH-D74 is paired with the PC. The pairing mode is activated in menu item 934. Once activated, the TH-D74 will be visible to the PC for 60 seconds.

In Device Manager now appear 2 new Bluetooth Com ports, the lower Com Port is usually the port which is to be used. In my case, these are ports 3 and 4. [MTB note: The lower port did not work for me, the higher did, some experimentation required.]





Activate the KISS TNC in the TH-D74

- Hold down the function key and press number key 5 until the display shows KISS 12 (not APRS 12).
 - If KISS 96 appears on the display, this can be found in the menu item 505 to be changed.
- 2. Any setting changes in the WinLink packet session will cause the TH-D74 to fall out of Kiss 12 operating mode. Keep watch on the radio's Kiss 12 mode setting!