The Summary of TH-D7 Connections, Baud Rates and related info.

Also see my APRS Beginner guide in the Files Area of the Yahoo Groups for the D700, D7 and APRS_Radio_Built-in_TNC. The latest version will be at: http://k9dci.home.comcast.net/

There are three U.S. versions of the TH-D7.

1 – TH-D7A original

2 – TH-D7A w/firmware upgrade

3 – TH-D7A G(2.0) * See Note 1

As yet, I have been unable to determine if the Kenwood firmware upgrade on the original "A" is equivalent to the A(G) 2.0. Several years ago, Kenwood sent techs to Dayton to do these upgrades.

Sorry to ignore the "E", but I can not comment on any specifics of the European G version.
The connectors for the GPS and PC are the same.

- Tip = Radio Tx
- Ring = Radio Rx
- Sleeve – Ground (think Shield)

The Tx output is RS-232 levels. The Rx input is RS-232 compatible; however it will accept TTL levels in the same polarity as RS-232.

The PC port is 9600 baud FOR ALL MODES. (the D700 can be changed)

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In APRS mode:

The GPS port, Menu 2-2:

- TH-D7A is OFF, or 4800.
- TH-D7AG(2.0) either OFF, 4800 or 9600.

The original TH-D7A required Garmin units to be set to NMEA 0183 version _2.0_ mode for the TH-D7A to work. NMEA 3.0 adds a digit to the lat/lon numbers and the original "A" version can't handle the extra digit.

The APRS over the air RF data baud rate:

- The TH-D7A is 1200.
- The TH-D7AG(2.0) does 1200 or 9600 Baud. Menu 2-N PACKET SPEED.

In APRS mode, the radio has its own APRS Client software and does not normally send received data out the PC port. It will if the Auto Information is on by sending "AI 1" TO the radio (I haven't studied this on the D7). The radio sends station call signs back to the GPS, as waypoints, Menu 2-3. Not all GPS units will

display them.

If you see a call sign (and possibly an optional dash and SSID number) you are in APRS mode. If you see "??" this means that the TNC/APRS software couldn't completely decode the packet. Most likely the sending station is sending a strange packet. You should see others with more information if you press the list button and scroll up/down with the the navigation disk ,then push the right side of the navigation disk.

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In Packet TNC only (non-APRS) Mode:

The PC port is only 9600 baud for any mode.
Here. you'll see the typical “cmd:” prompt.

Packet RF Baud Rate is set with TNC Command "HBAUD". Either 1200 or 9600.
GPS Port Baud rate is set with TNC Command "GBAUD". Either 4800 or 9600.

GPS data can be sent out the PC port with the “GPSMON ON” command.

Note there is an additional manual giving much additional information such as the above. It is an "In Depth" manual that comes on a CD with the PG-4W computer cable.

It is in the Yahoo D7 Group Files Area called D7InDepth.zip

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Another important note. The TNC in the D7, D700 and TS-2000 (Tasco modem) is not a full function TNC. It has a limitation in regard to flow control and therefore long data strings. It is not suitable for EmComm applications such as Paclink and WinLink2000 because of this.

The last word I have from Feb 2009 is that A Native KISS driver written by Peter Woods should remove some of the problems seen with the built in Tasco TNC chips. The D710 clearly does work well with the built in TNC. The WinLink team is considering altering message frame sizes to accommodate the older D700, D7 and Alinco radios with built in Tasco chip modems. The Native KISS driver (Now {2009} in Alpha testing) is independent from AGWPE or BPQ and does not require that third party software.

This is from the WinLink2000 Yahoo Group.

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MISC:

SAT GATE:
It's on the APRS site (http://aprs.org/ , but this works on a BARE-NAKED D700, not the D7.
The bare D7 TNC can't Digipeat.

For a D7, you'll need it in TNC mode and have a PC and software. The APRS site shows how to do it with ALOGGER:

http://www.aprs.org/astars.html
Part way down is "INTERNET (SatGates)..."

then a detailed doc link:
http://www.aprs.org/astars/PC2satgateA.txt

If I recall, you set it up to Rx on the Sat frequency and Tx on 144.39. That way it injects it into the terrestrial RF network.

NOTES:

1 - There are at least two versions of the TH-D7A G(2.0) [TNC] Firmware, one dated Release 08/18/98 and another dated Release 09/15/99. I have the 08/18/98 and have been unable to get the KISS Mode to transmit correctly. Another individual I have corresponded with has the 09/15/99 and has had success with it. I could find NO information available in a net search as to the differences between the two releases. 73 Ted WA7ZZB

For various information, thanks to:

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Dustin Brumfield, KD5LAP

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Ted Antanaitis, WA7ZZB

Fred Hillhouse, N7FMH

73, Steve, K9DCI

http://k9dci.home.comcast.net/

Ver 1.1 6/26/09 Fixed several typos

Ver 1.2 3/09/10 Fixed more typos and added ref to Beginner Guide.