

## APRS® TH-D7E & TH-D7E (ver. 2.0)/TH-D7E (G2.0) COMPARISON CHART

The new TH-D7E (G2.0) Data Communicator brings numerous improvements to APRS® related functions, such as the My Position feature. Now more than ever before you can take advantage of the convenience of APRS® data communications and the high-quality performance of Kenwood's portable FM Dual Bander line-up.

Function	TH-D7E/TH-D7E (ver. 2.0)	TH-D7E (G2.0)
<b>1. My Position</b>		
Position information display when GPS receiver is being used	Latitude, longitude, grid square locator	Latitude, longitude, grid square locator, present time, speed, direction, altitude.
Position	One position setting	Selectable from 3 position memory settings.
GPS unit selection	Switchable between "NOT USED" and "NMEA"	Addition of "NMEA96" for GPS transmissions at 9600bps.
<b>2. Position Data</b>		
Status text for transmission	One status text setting	Selectable from 3 status memory text settings.
Transmit/receive altitude data	No	Yes When using a GPS receiver, operator's own altitude data is transmitted; altitude information included in received data is displayed.
Interrupt display setting for newly received information	Full-screen display	Switching between full-screen display and display on the bottom line. Selection of bottom line display is shown by the "nP" indicator in the bottom line. (Similar in function to the display of the "dP" indicator.)
Sorted display of received data	No	Yes The following types are displayed: FIXED, MOVING, STATUS, GRID SQ, ID, WEATHER, TH-D7, TM-D700, GOOD/GGA, LAST/GGA, GOOD/GLL, LAST/GLL, GOOD/RMC, LAST/RMC, OBJECT, Mic-E, COMPRESSED
Position ambiguity	No	Yes The last 4 digits of latitude and longitude can be masked; the operator selects 1, 2, 3 or 4 digits (or masking OFF).
Status text transmit	Appended whenever beacon is transmitted; cannot be turned off.	The operator can adjust the relative frequency of status text transmit from "appended every time [beacon is transmitted]" to "appended once every 8 times", and can switch it off entirely.
Emergency data reception	No special screen or audible signal	Features special emergency screen and emergency audible signal Emergency data is received even outside position limit.
No. of selectable position comments	8	15
Grid square format reception	No	Yes
Auto TX beacon interval	0.5 min or more	0.2 min added for high-speed position changes
Display during reception of own station's data via Digipeater	MY PACKET	MY POSITION: position data MY MESSAGE: message data Reason: Differentiation reassures the operator when sending a message.
Differential GPS packet reception and feed to GPS receiver	No	Yes In anticipation of future applications.
New packet information key ▶	No	Detailed information is shown in new display.
Audible signal during reception of own station's data via Digipeater	Error sound (beep)	Unique sound Reason: Error beep can be confusing as it might indicate duplicate data.
Audible signal indicating reception of new position data	Fixed sound (beep)	Unique sound Reason: Use of the Morse Code "N" indicates data is new (like APRScds).
Blinking interrupt display during position data reception	Call sign blinks	▶ symbol blinks Reason: If the call sign blinks, it is difficult to read.
<b>3. Messaging</b>		
Automatic response message	No	Yes The operator can switch auto response on/off and use the menus to select a message (max. 45 characters).

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Time display indicating when a message was sent or received	No display	Time in minutes since a message was sent/received is displayed. This function counts up to 99 mins, after which "—" is displayed. As there is no backup, if the transceiver is switched off and on, there is no time display.
Group message reception	No	Yes Capable of handling up to 6 different group names of up to 9 characters (note: maximum of 45 characters total); the wildcard (*) is permitted in group names; the received group number is displayed.
Delete message	No	Deletion of all messages at once possible. Individual messages cannot be deleted.
Response to trace QUERY packet	No	Yes When "?APRST" is received, it responds with the packet route.
Display of no. of times left to transmit an outgoing message	No "+" is displayed for message being transmitted.	Yes No. of times left to transmit a message is displayed from <u>5</u> down to <u>1</u> .
Line number of messages sent by own station as displayed on the message list screen	Not displayed	Displayed Reason: On return of an acknowledgment this allows the operator to identify the original message.
Message received during operator input of outgoing message	Message being input is lost.	The message being input is held, while the incoming message is inserted in the display; message input can then be resumed.
Function of key during insert display of message addressed to operator's own station	Insert display mode is cancelled.	Insert mode is cancelled, and the display jumps to the message detail screen.
Audible indication of bulletin reception	No	Yes Audible signal is emitted when bulletin or group message is received.
Unprotocol	APK001	APK002
<b>4. Additional APRS Functions</b>		
No. of characters output to GPS for waypoint data call sign	6	Choice of 6 to 9. Reason: Some GPS receivers are compatible with waypoint names of more than 6 characters; the call sign limit is 9 characters, so the range was set at 6-9.
Data band settings	Switching between A Band and B Band	Switching between the following settings A Band B Band A Band Transmission, B Band Reception A Band Reception, B Band Transmission
Switching between units	"miles, Fahrenheit" or "km, Centigrade"	Separate selection: "miles" or "km", and "Fahrenheit" or "Centigrade"
Audible beep	Switchable (OFF, KEY, KEY+NEW, ALL), selected from within radio menu	Switchable (OFF, MINE, ALL NEW, ALL), selected from within APRS menu Reason: Adopted in response to user desire to hear APRS sounds with key operation sounds muted.
Packet path input	Input in full: RELAY, WIDE, TRACE, etc.	Single-letter abbreviations permitted for input — R for RELAY, W for WIDE, T for TRACE; also, WIDE2-2 and TRACE3-3 can be input as W2, T3, etc. Reason: Adopted to enhance the ease of input and/or correction.
Method of percentage (%) input	No percentage (%) input possible	Percentage (%) input is enabled. Reason: With APRSdos, APRSplus and the TM-D700, when a message starting with % is received, the contents are read out.
<b>5. Other Functions</b>		
Packet communications speed	1200bps (fixed)	1200/9600bps (switchable) Reason: German DX cluster is 9600bps; also future 9600bps operation is possible.
Letter order display for alphanumeric input	A B C 2 a b c	a b c 2 A B C Reason: Capital letters used infrequently.
1750Hz tone transmit	Not on the K model	Operator can switch 1750Hz function on/off via menu; CALL key becomes the 1750Hz tone transmit key.
1750Hz tone transmit hold	Not on the K model	Can be switched on/off via menu.
Volume balance control	Only possible in dual-band mode	Also possible in single-band mode
Power On message	TH-D7	TH-D7 (G)
TX delay	No	Possible to select TX time for plug pattern prefixed to packet data (100, 200, 300, 400, 500, 750, 1000ms).

Note : The TH-D7E (G2.0) is compatible with MNEA-0183 ver. 3.0.

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