

KENWOOD

Listen to the Future



TK-5710(H)/5810(H)

VHF/UHF FM & Project 25 Digital Mobile Radio



FleetSync[®]
by KENWOOD

GENERAL FEATURES

- 50W & 110W (136-174 MHz)
- 45W & 100 W (450-520, 400-470 MHz)
- 50 Zones / 512 Channels
- Personality Lists
- Enhanced Kenwood Audio
- Zone/CH Voice Announce
- Emergency Features
- Tactical Group
- Intercom¹
- Public Address
- Time Out Timer
- Busy Channel Lockout
- Ignition Sense²
- Timed Power Off
- DB-25 & 9-Pin Accessory Connectors³
- Transceiver Password
- Date & 12/24 Hour Time Clock
- Windows[®] Programming & Tuning⁴
- Windows[®] Firmware Uploading⁴
- Field-Programming & Tuning
- Cloning
- Easy Option Ports (26-pin)⁵
- DB-25 & 9-Pin Accessory Connectors
- MIL-STD 810 C/D/E/F, IP-54
- MIL-STD Noise-Cancel Mic (included)
- MIL-STD 12-Key DTMF Mic Option

MOUNTING CONFIGURATIONS

- Dash Mount
- Single Control Head Remote Mount
- Dual Control Head Remote Mount

FRONT PANELS/CONTROL HEADS

- Backlit Dot Matrix LCD
- 3-Digit Sub-Display
- Function / Status LCD Icons
- Transmit LED
- Busy/Call Alert/Warn LED
- LCD Brightness Control
- Power On/Off Switch
- Rotary Volume Knob
- Rotary Selector Knob
- Backlit Keys
- PF Key Label Inserts
- Microphone Jack
- MIL-STD 810 512.X Driven Rain

KCH-14 Front Panel

- 12-Character Alphanumeric Aliases
- 5 PF Keys
- UP/DOWN Keys
- Built-in Front Speaker

KCH-15 Front Panel

- 14-Character Alphanumeric Aliases
- 11 PF Keys
- UP/DOWN Keys
- External Speaker Required

SCAN TYPES (FM & P25)

- Single Zone/Multi-Zone Scan¹¹
- Scan Lists
- Conventional Scan
- Limited Talk Group Scan⁶
- Priority Monitor Scan⁶
- Dual Priority Scan

FM

- QT / DQT
- Operator Selectable Tone
- Two-Tone Decode / Encode⁷
- DTMF Encode / Decode / Stun⁸
- Special Alert Tone Patterns⁹
- Horn Alert Output
- Encryption / ANI Board Control
- Companded Audio

FleetSync[®] (FM)

- FleetSync[®] or FleetSync[®] II¹⁰
- PTT ID Digital ANI
- Caller ID Display
- Status Messaging
- Emergency & Stun Statuses
- Selective & Group Call
- Text Messaging

P25 DIGITAL

- P25 Digital Conventional
- P25 Digital Trunking Option
- IMBE[™] VOCODER
- Talk Group ID Lists
- Individual ID Lists
- Caller ID Display
- RSSI Indicator
- Remote Monitor
- Remote Check
- Radio Inhibit
- Encryption Key Delete
- Encryption Key Zeroize (SCM required)¹¹
- Encryption Key Retention (SCM required)¹¹
- DES 16-Key SCM Option¹¹
- AES FIPS 140-2 & DES 16-Key SCM Option¹¹
- KPG-94 KVL Key Loader Interface Cable¹²



Options

- 

KMC-9B
Desktop Microphone
- 

KMC-27
Microphone
(MIL-SPEC noise-canceling)
- 

KMC-28
Keypad Microphone
(MIL-SPEC noise-canceling)
- 

KCT-18
Ignition Sense Cable
- 

KCT-22
Remote Control Cable
8ft./17ft./25ft.
- 

KCT-23
DC Power Cable
- 

KES-5
External Speaker (20W)
- 

KCH-14
Basic Remote
Control Head
- 

KCH-15
Full-Featured Remote
Control Head
- 

KRK-5
Single Control Head Remote Kit
- 

KRK-6DH
Dual Control Head Remote Kit
- 

KPG-94
Keyloader Interface Cable
- 

VGS-1
Voice Guide & Storage Unit

All accessories and options may not be available in all markets. Contact an authorized Kenwood dealer for details and complete list of all accessories and options.

Specifications

Model	TK-5710	TK-5710H	TK-5810	TK-5810H
GENERAL				
Frequency Range	136-174 MHz		450-520 MHz	
Type 1			400-470 MHz	
Type 2				
Number of Channels			512	
Zones			50	
Max. Channels per Zone			250	
Channel Spacing	12.5 / 15 / 20 / 25 / 30 kHz		12.5 / 25 kHz	
Analog				
Digital			12.5 kHz	
Operating Voltage	13.6V DC ± 15%	13.4V DC ± 15%	13.6V DC ± 15%	13.4V DC ± 15%
Current Drain			Less than 0.6A	
Standby			Less than 2.3A	
Receive				
Transmit	Less than 12A	Less than 25A	Less than 14A	Less than 28A
Duty Cycle			Transmit: 20%	
Operating Temperature Range	-22 °F to +140 °F (-30 °C to +60 °C)			
Frequency Stability	± 2.0 ppm (-22 °F to +140 °F)			
Antenna Impedance	50 Ω			
Dimensions (W x H x D)				
RF Deck only	7.01 x 2.36 x 7.68 in. (178 x 60 x 195 mm)	7.01 x 2.36 x 12.87 in. (178 x 60 x 327 mm)	7.01 x 2.36 x 7.68 in. (178 x 60 x 195 mm)	7.01 x 2.36 x 12.87 in. (178 x 60 x 327 mm)
with KCH-14 or 15	7.05 x 2.36 x 9.09 in. (179 x 60 x 231 mm)	7.05 x 2.36 x 14.29 in. (179 x 60 x 363 mm)	7.05 x 2.36 x 9.09 in. (179 x 60 x 231 mm)	7.05 x 2.36 x 14.29 in. (179 x 60 x 363 mm)
Weight	RF Deck only	RF Deck only	RF Deck only	RF Deck only
with KCH-14	5.3 lbs. (2.4 kg)	8.6 lbs. (3.9 kg)	5.5 lbs. (2.5 kg)	9.2 lbs. (4.2 kg)
with KCH-15	5.9 lbs. (2.7 kg)	9.2 lbs. (4.2 kg)	6.2 lbs. (2.8 kg)	9.9 lbs. (4.5 kg)
FCC ID			282F-39923120	
Type 1	K4435753110	K4435753210	K4439923110	K4439923210
Type 2			K4439923120	K4439923220
IC Certification				
Type 1	282F-35753110			
Type 2				
RECEIVER (Measurements made per EIA/TIA-204-D)				
Sensitivity			0.25 μV	
Digital (5% BER)			0.40 μV	
Digital (1% BER)			0.25 μV	
Analog 12 dB SINAD				
Selectivity				
Digital			-63 dB	
Analog @ 25/30 kHz	-83 dB / -85 dB			
Analog @ 12.5/15 kHz	-76 dB / -80 dB		-83 dB / -	
Intermodulation Distortion (Digital & Analog)			-80 dB	
Spurious Response (Digital & Analog)			-90 dB	
Audio Distortion			Less than 1.0%	
Digital			Less than 2.0%	
Analog				
Audio Output				
Internal (KCH-14)	@3%		1.5 W at 8 Ω	
	@5%		1.625 W at 8 Ω	
External	@3%		12 W at 4 Ω	
	@5%		13 W at 4 Ω	
TRANSMITTER (Measurements made per EIA/TIA-152-C)				
RF Output Power	50 W to 5 W	110 W to 50 W	45 W to 5 W	100 W to 50 W ¹²
Spurious & Harmonics			80 dB	
FM Hum & Noise				
Analog @ 25 kHz	50 (53) ¹¹ dB		50 dB	
Analog @ 12.5 kHz	45 (47) ¹¹ dB		45 dB	
Microphone Impedance			600 Ω	
Audio Distortion			Less than 2%	
Modulation			16K0F3E, 11K0F3E, 8K10F1E, 8K10F1D 20K0F7D, 11K2F7D, 14K4F1D, 7K20F1D	

Analog measurements made per TIA/EIA 603
Digital measurements made per TIA/EIA 102CAAA

(*1) 148MHz ~ 168MHz
(*2) Type 1: 100W to 50W for 450-500MHz. More than 60W to 50W for 500-520MHz.
Type 2: 100W to 50W for 400-470MHz.

FleetSync® is a registered trademark of Kenwood Corporation.
Windows® is a registered trademark of Microsoft Corporation in the United States and other countries.
IMBE™ is a trademark of Digital Voice Systems Inc.
The P25 Logo is used under license and is a registered trademark of the Project 25 Technology Interest Group.
Kenwood follows a policy of continuous advancement in development. For this reason specifications may be changed without notice.

Applicable MIL-STD & IP

Standard	MIL 810C Methods/Procedures	MIL 810D Methods/Procedures	MIL 810E Methods/Procedures	MIL 810F Methods/Procedures
Low Pressure	500.1/Procedure I	500.2/Procedure I, II	500.3/Procedure I, II	500.4/Procedure I, II
High Temperature	501.1/Procedure I, II	501.2/Procedure I, II Cat.A1	501.3/Procedure I, II Cat.A1	501.4/Procedure I, II
Low Temperature	502.1/Procedure I	502.2/Procedure I, II Cat.C1	502.3/Procedure I, II Cat.C1	502.4/Procedure I, II
Temperature Shock	503.1/Procedure I	503.2/Procedure I Cat.A1, C1	503.3/Procedure I Cat.A1, C1	503.4/Procedure I, II
Solar Radiation	505.1/Procedure I	505.2/Procedure I	505.3/Procedure I	505.4/Procedure I
Rain	506.1/Procedure I, II	506.2/Procedure I, II	506.3/Procedure I, II	506.4/Procedure I, III
Humidity	507.1/Procedure II	507.2/Procedure II	507.3/Procedure II	507.4
Salt Fog	509.1/Procedure I	509.2/Procedure I	509.3/Procedure I	509.4
Dust	510.1/Procedure I	510.2/Procedure I, II	510.3/Procedure I	510.4/Procedure I, III
Vibration	514.2/Procedure VIII, X	514.3/Procedure I Cat.8, II Cat.3	514.4/Procedure I Cat.8, II Cat.3	514.5/Procedure I Cat.20, II Cat.5
Shock	516.2/Procedure I, II, III, V	516.3/Procedure I, IV, V, VI	516.4/Procedure I, IV, V, VI	516.5/Procedure I, IV, V, VI
International Protection Standard				
Dust & Water Protection	IP54			

Footnotes from Front:

- ¹ Intercom: Dual Head capable remote mounts only.
- ² KCT-18 Ignition sense cable option required.
- ³ DB-25 ACC. I/O's for dispatch consoles, desktop remotes, vehicle intercom/PA units, motorcycle PTT/headset kits, PC Laptop I/Data Modems, GPS/AVL Modems; DB-25 (9 Prog. AUX I/O's & 2 Prog. AUX Outputs); 1 Prog Input (on Control Head).
- ⁴ KPG-95D Software required (Windows 98/ NTI 2000/ Me/XP compatible).
- ⁵ Easy Option Ports: VGS-1, ANI & Scrambler board ports; only 2 ports can be used simultaneously.
- ⁶ P25 Trunking option required.
- ⁷ Two-Tone: Decode (4 sets x 4 pairs each); Encode: 32 pairs; Operator Selectable Tone (40 QT.DQT code pairs).
- ⁸ DTMF Encode: PTT ID, Emergency ANI, Manual Encode (KMC-28), Auto-Dial (9 numbers); DTMF Decode: Primary/secondary ID, Stun (a.k.a. dead beat disable).
- ⁹ Operates for 2-Tone, DTMF, FleetSync selective calling.
- ¹⁰ FleetSync & FleetSync II are not compatible.
- ¹¹ Feature/Option added to the TK-5710 Version 2 radios (SN 80600001 or later).
- ¹² KPG-94 adapts the Motorola, KVL3000/3000 Plus Key Loader to the TK-5710/5810.

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