

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 | | | |
| | 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-14 | 9.2 lbs. (4.2 kg) | 6.2 lbs. (2.8 kg) | 9.9 lbs. (4.5 kg) |
| | with KCH-15 | 9.2 lbs. (4.2 kg) | 6.2 lbs. (2.8 kg) | 9.9 lbs. (4.5 kg) |
| FCC ID | | | | |
| Type 1 | K4435753110 | K4435753210 | K4439923110 | K4439923210 |
| Type 2 | | | K4439923120 | K4439923220 |
| IC Certification | | | | |
| Type 1 | 282F-35753110 | | | |
| Type 2 | | | 282F-39923120 | |
| 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.

KENWOOD

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ISO9001 certification