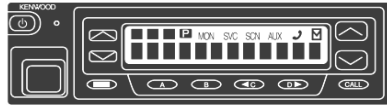


TK-980 / 981

800/900 MHz Trunked Mobile Radios



All 80/81 series mobiles include:

- Standard Microphone (KMC-27B)
- Mounting Bracket
- DC Cable (KCT-23M)
- Instruction Manual
- Standard Warranty: 2 Years*

* All Accessories / options: 1 Year

GENERAL FEATURES

- 15 W 800 & 900 MHz Models
- Trunked Format
- LTR® Trunked Systems
- Conventional Systems
- 32 Systems / 250 Groups
- System Scan
- List Type System Scan
- 10 Character Alphanumeric Aliases
- Backlit Dot Matrix LCD
- 3-Digit Sub-Display
- Function / Status LCD Icons
- Transmit / Busy / Call Alert / Warn LED
- 6 Backlit PF Keys
- 500 mW Speaker Audio
- Companded Audio
- Encryption / ANI Board Control
- Emergency Call Features
- DTMF Encode / Decode
- Time Out Timer
- Timed Power Off
- ACC Cable Option
- Ignition Sense
- Public Address / Horn Alert Option
- Dynamic Mobile Mic Included
- MIL-Spec Noise-canceling Mic Option
- MIL-Spec 12-Key Noise-canceling Mic Option

- Windows® Programming & Tuning
- Windows® Firmware Uploading
- Front Panel Test / Tune
- Cloning
- MIL-STD-810 C/D/E/F
- NPSPAC Option

CONVENTIONAL ZONES

- QT / DQT
- Single Priority Group Scan
- Busy Channel Lockout

TRUNKED ZONES

- Kenwood LTR® Features

FleetSync®

- PTT ID Digital ANI
- Selective Call & Group Call
- Status Messaging
- Emergency Status
- Caller ID Display
- Short Text Messages
- PC Serial Interface

MODEL		LIST
TK-980	800 MHz, 15W LTR-32 Systems, CONV-250 CH.	551.00
L-889	Install firmware & enable NPSPAC operation in TK-980 Note: Other required items: KPG-49D (V2.00 or higher) higher permits "per channel" programming of NPSPAC capability. NPSPAC and PassPort® capability are not available in the same firmware option.	84.00
TK-981	900 MHz, 15W LTR-32 Systems, CONV-250 CH.	569.00

Important Note:
 The TK-480/481/980/981 only operate in "Trunked Format" (LTR & Conventional systems). These are not "Dual Format" radios like the TK-280/380/780/880 mobiles which operate in either Trunked Format (LTR & Conventional systems) or Conventional Format (traditional conventional channel organization with priority scan).

LTR® is a registered trademark of E.F. Johnson Co.

MOBILE INSTALLATION ACCESSORIES		LIST
KAP-1	Horn Alert/P.A. Relay Option (Requires KCT-19)	42.00
KCT-18	Ignition sense cable (Requires KCT-19)	13.70
KCT-19	Accessory connector cable (for ignition sense, horn alert, KSP- spkrs, & Data Port)	22.00
KCT-34	Radio Interface Cable for KGP-2A/2B & KDS-100	22.00
KCT-36	KCT-34/35/39/40M Extension Cable; 117.6 inches (9.8 ft)	43.75
KLF-2	Line Filter (suppresses alternator whine, 25dB, 25A max).	42.00
KMB-6	Mobile mounting bracket (same as supplied)	12.35
KMB-10	Key lock adapter (for both KMB-4 & 6)	26.30

CONTROL STATION INSTALLATION ACCESSORIES **LIST**

KCT-31	PC Serial Interface cable (80-Series mobile-to-PC connection for FleetSync®)	73.50
KMC-9C	Control Station Desktop Microphone (8-pin mod. plug)	86.00
KMB-20	Control Station Mounting Case for KPS-15 Power Supplies (mobile mounting hardware included)	26.30
KPS-15	DC Switching Power Supply (117/230 VAC; 23A max. continuous, 25A peak)	173.00

MICROPHONES AND SPEAKERS **LIST**

KMC-27A	MIL-SPEC & Noise Canceling dynamic mobile microphone (8-pin mod. plug)	104.00
KMC-27B	Standard dynamic mobile microphone (8-pin mod. plug)	42.00
KMC-28A	MIL-SPEC & Noise Canceling dynamic mobile microphone (8-pin mod. plug) w/ DTMF	163.00
KMC-9C	Control Station Desktop Microphone (8-pin mod. plug)	86.00
KES-3	External speaker (compact low profile; black case; 3.5 mm phono plug-in)	44.25
KES-5	External speaker, 40W max input, blk case; 5"x5"x2-9/16" (requires KCT-19)	61.25

FleetSync® MOBILE DATA TERMINAL **LIST**



KDS-100 Data Terminal includes:

- Mounting bracket
- Mounting hardware
- DC Cable

KDS-100 FEATURES

- Increases FleetSync® Message Viewing: 40 Character x 6 line Dot Matrix LCD
 - View 5 line Message List x 23 Char. @ line (vs. 1 line Message x 16 Char. scrolling)
 - View Short Text Messages (48 Char.) at once (vs. 48 Char. scrolling)
 - View Long Text Message (1024 Char.) at once (vs. not available)
- Increases FleetSync® ID Capacity: 511 IDs (vs. 100 IDs)
 - Base stations can handle larger size fleets
- Increases Status Message List Capacity: 89 Messages (vs. 50 Msgs.)
 - More dispatcher-to-fleet type messages for different job tasks
 - More fleet-to-dispatcher type messages for responses/statuses
- Increased Status Message Stack Memory: 367 Messages (vs. 9 Msg.s)
- Increased Short Text Message Stack Memory: 367 Messages (vs. 4 Msg.s)
- Lithium Cell Memory Backup Battery (vs. radio-only volatile message memory)
- Large Backlit LCD & Function Keys
- Simple Installation
- Windows® Compatible Programming Software
- Programming Password Protection
- Built-in FleetSync® DSP Modem
- Real-Time Clock/Message Time Stamping
- 10 Status Message 'Hot Keys'
- Message Sorting & Deletion Screens
- Message Temporary Recycle Bin
- New Message Tone and LED Alerts
- Buzzer Volume Level
- Flashrom Firmware Memory

Important Note:

1. KDS-100 Compatible Dispatch Software May Be Required - The KDS-100 used a fleet unit will decode Status Messages and Selective Calls sent other FleetSync®-capable portables or mobiles, from a KDS-100 with a FleetSync® capable mobile (PC mode) or a KDS-100 with a non-FleetSync® capable mobile (air mode). However, Short and Long Text Messaging requires a base station FleetSync® capable mobile PC Serial Interfaced with computer running a FleetSync® compatible dispatch software capable of creating and sending Short/Long Text Messages. This software is available from vendors such as:

- IDA Corporation, Fargo ND: KenCall Dispatch software
- Kenwood Communications Corporation: Fleet Dispatch Pro software

2. The KDS-100 cannot be used simultaneously with a Kenwood KGP-2A/2B AVL unit.

KDS-100	FleetSync® Data Terminal Note: The KDS-100 pigtail cable (1.83 ft) combined with the KDS-100 mobile interface cables KCT-34/35/39/40M (1 ft.) and use a KCT-36 (9.8 ft.) for an extension.	625.00
KPG-71DK	Windows® Programming Software for KDS-100	103.25
KCT-34	Radio Interface Cable for KGP-2A/2B & KDS-100	22.00
KCT-36	Extension Cable for KCT-34/35/39/40M; 117.6 inches (9.8 ft)	43.75

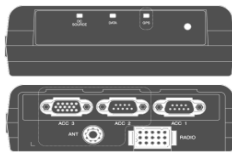
FleetSync® MESSAGING

LIST

KAS-2FSD	FleetDispatchPRO: FleetSync® messaging dispatch software for PC Note: • TK-980/981base mobile requires a KCT-31 PC serial cable to connect to the base computer (purchase separately). • Supports FleetSync® PTT ID, Emergency, Status/Text Messaging for all FleetSync compatible portables & mobiles. • KDS-100 fleet units are compatible with the KAS-2FSD FleetSync calling & messaging features. • Refer to KAS-2FSD spec sheet for detailed features & requirements	384.00
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AVL UNITS

LIST



KGP-2A/2B FEATURES

- Compatible Radios: 60G/62/63G/80/150/180/160-Series mobiles
- KGP-2A/2B air protocol is backward compatible with KGP-1A/1B
- Programmable Auto-reporting or polled updates
- 256 Mobile IDs x 256 Groups
- Mil-Spec 810C, D & E Dust, Vibration and Shock
- Over-the-air programming- Data Rate 1200 or 2400 baud (except initial programming; see KPG-73D)
- Windows® 95, 98 & Me Programming Software (KPG-73D)
- Sixteen Multi-purpose Programmable I/O's [External Connectors; [DB-9 (ACC2); DB-15(ACC-3)]
 - Each I/O programmable for either an analog "input" or output" (dispatch-AVL mapping software must support)
 - Inputs for external sensors, switches, contacts, etc.
 - Outputs for external relays, controls, etc. (mapping software must support)
- LED Status Indicators
 - DC Source- indicates receiving power from the mobile
 - Data- indicates KGP-unit is sending /receiving data
 - GPS- indicates receiving a GPS signal (KGP-2A)
- Flashrom Firmware / Compact Size

Note: KGP-2A/2B Compatible AVL Mapping Software is Required

A KGP-2A/2B AVL system requires a AVL mapping software package "specifically engineered" for KGP-protocol compatibility. Manning NavComp's RASTRAC® software provides AVL mapping/fleet management. To purchase, or for more information contact:

Manning NavComp, Inc.

4205 Park Dr.
Lago Vista, Texas 78645
Ph.: 512-267-7800, Fax: 512-267-9200
E-mail: sales@navcomp.com
Web: http://www.navcomp.com

FOR EACH BASE STATION ORDER:

1. KGP-2B Modem Unit - one KGP-Protocol base/control station modem unit required per AVL system
2. KCT-34 interface cable & L-929 install code - connects the KGP-2B to the base/control station mobile
3. Computer Serial Cable Required (not supplied)- The KGP-2B-to-PC COM port connection for AVL data is made via a dealer-supplied computer serial communication port cable. The serial cable should be a D-Sub 9-Pin Female (KGP-2B; ACC1 end) and the appropriate D-Sub 9-Pin or 25-Pin on the PC serial COM port end. Serial cables are wired "Null Modem" with pins 2-to-3 and 3-to-2 configured end connectors.

FOR EACH FLEET MOBILE ORDER:

1. KGP-2A GPS Receiver-Modem Unit - the KGP-Protocol fleet mobile unit
2. KCT-34 interface cable & L-929 - connects the KGP-2A to the fleet 80-Series mobile
3. Note: KCT-19 & KCT-34 cables cannot be installed simultaneously- Therefore using a KCT-34 excludes plug-in of a KCT-19 for KES-5 external speaker (use KES-3), Horn Alert output, Data modem I/O's, footswitch input and headsets.

KGP-2A	GPS Receiver / Modem Unit (includes one dash-mount GPS antenna, mounting bracket, screw set) <ol style="list-style-type: none"> 1. One KCT-34 is required for each fleet and base mobile radio 2. L-929 - Install KCT-34 to 80-Series Mobile for KGP-2A/2B interface 3. The KCT-34 is 12 inches in length; use a KCT-36 (9.8 ft.) extension if required 	551.00
KGP-2B	Base Modem Unit <ol style="list-style-type: none"> 1. One KCT-34 is required for each fleet and base mobile radio 2. L-929 - Install KCT-34 to 80-Series Mobile for KGP-2A/2B interface 3. The KCT-34 is 12 inches in length; use a KCT-36 (9.8 ft.) extension if required 	236.50
KCT-34	Radio Interface Cable for KGP-2A/2B & KDS-100	22.00
KCT-36	Extension Cable for KCT-34/35/39/40M; 117.6 inches (9.8 ft)	43.75
KPG-73DK	Windows® Programming Software for KGP-2A/2B	103.25

SERVICE RELATED ACCESSORIES		LIST
KPG-46AM	Programming interface cable	191.00
KCT-53UM	USB Adapter for KPG-xxAM DB9F Programming Interface Cables (DB9M - to - USB Type A connector)	86.00
KPG-49DK	Windows® Programming Software for TK-480/481/980/981 V3.00 or higher	68.50
*****	Call Kenwood Parts at 800-367-7514 to order the following:	
E30-3382-05	Clone cable	11.28
J29-0627-13	Mounting bracket for TK-780/880/980/981 --- same as supplied w/ radio	7.04

INSTALLATION / TUNING CHARGES		LIST
L-857	80 Mobile Programming (with basic TX/RX check)	25.00
L-889	Install firmware & enable NPSPAC operation in TK-980 Note: NPSPAC and PassPort capability are not available in the same firmware option.	84.00
L-918	Install KCT-31 in 80-Series mobile (order KCT-31 separately)	21.00
L-929	Install KCT-34 to 80-Series mobile for KDS-100/KGP-2A/2B interface (order KCT-34 separately)	21.00

PassPort® for TK-480/481 Series Portables

LIST

PassPort® Options for NEW Radio Orders (Kenwood-installed)

Ordering Instructions

For 800/900 MHz models TK-480/481/980/981 new radio orders, the Kenwood-installed Passport® ESN / firmware option is available for a charge: Order the ESN/Firmware option per L-876, L-877 or L-878.

Other required items:

KPG-63D Radio Programming Software: the KPG-63D is required to program all PassPort® parameters for all PassPort® enabled radios, the KPG-63D will not program LTR or conventional parameters. KPG-49D is required only if LTR or conventional systems are to also be programmed in the PassPort® radio.

KPG-63DK	PassPort® Radio Programming Software V2.00 or higher	68.50
L-876	Install PassPort® ESN options and firmware in TK-480/481/980/981 · 1-24 qty. lot price; Price is per ESN · The latest PassPort® radio firmware will be installed	68.00
L-877	Install PassPort® ESN options and firmware · 25-99 qty. lot price; Price is per ESN · The latest PassPort® radio firmware will be installed	68.00
L-878	Install PassPort® ESN options and firmware · 100 qty. lot price; Price is per ESN · The latest PassPort® radio firmware will be installed	68.00

PassPort® Options for Dealer/Operator Field Conversions (Field-installation kits)

Ordering Instructions

1. Order the ESN key/firmware Labor Code options: L-892 or L-894; specify model radio(s).

Pre-loaded ESN hardware key(s) with the ordered quantities of ESN's & a PassPort® radio firmware diskette will be shipped (100 ESN's maximum per hardware key). Important: Any depleted key previously registered to a technicians computer must be retained to register any new purchased key to the computer; please retain the old key until the new one is received.

2. Other required items:

- KPG-64D: PassPort® ESN Install Program: the KPG-64D only needs to be ordered one time. It is re-useable for subsequent ESN orders (unless an upgrade is recommended).
- KPG-63D Radio Programming Software: required to program all PassPort® parameters for all PassPort® enabled radios, the KPG-63D will not program LTR or conventional parameters.
- KPG-49D Radio Programming Software: required only if LTR or conventional systems are also to be programming in the PassPort® radio.

3. The KPG-49D radio programming software is required for LTR & conventional site programming.

Note: Sales of L-892, 893, 894 are NOT refundable. Purchaser has a 72 hour limit after receipt to report suspected hardware key defects or ESN shortages to Kenwood engineering, Suwanee office 678-474-4700

L-892	PassPort® ESN Options & PassPort® firmware disk (SPECIFY RADIO MODEL) · 1-24 qty. lot price; Price is per ESN	68.00
L-893	PassPort® ESN Options & PassPort® firmware disk (SPECIFY RADIO MODEL) · 25-99 qty. lot price; Price is per ESN	68.00
L-894	PassPort® ESN Options & PassPort® firmware disk (SPECIFY RADIO MODEL) · 100 qty lot price; Price is per ESN · Maximum 100 ESN options per hardware key	68.00
SRB08698	Hardware Key (Maximum 100 ESNs per hardware key) - requires KPG-64D to download PassPort® ESN options into an 80-Series radio. Note: 1)The hardware key is registered to the computer that it is first used on; it cannot be used on other computers. 2) Empty hardware keys can be returned for 50% credit; call the LMR order desk for RMA #. 3) Retain depleted keys until a new one is received. It will be required to register the new key to the same computer.	87.50
KPG-64DK	PassPort® ESN Field Installation Software V1.12 · V1.12: supercedes V1.11; upgrade to V1.12 recommended for improved ESN file database features	10.50
KPG-63DK	PassPort® Radio Programming Software V2.00 or higher	68.50