

**800 MHz**  
**TKR-9300 Series Repeaters**

**GENERAL:**

The TKR-900 transceiver occupies 2 RU, has an RF output level of 250mW and is intended to be used as a driver for an external power amplifier. An external conventional or trunking controller is required to establish repeater operation. Internal high stability TCXOs and OCXOs eliminate the need for external reference oscillators.

**OPTIONS:**

Conventional station options include external controllers, wire line remote control and external RF amplifiers. Trunking system options include external LTR controllers; PassPort systems are available by individual quotation. High performance 4-cavity BpBr duplexers are listed as options; multichannel combining systems are quoted on an individual system basis. Power supply options include battery backup with integrated SmartCharger and Low Voltage Disconnect for the 40W and 80W configurations.

Mounting options include 20 RU (42") and 40 RU (77") locking cabinets in addition to 17 RU (3') and 45 RU (7') open equipment racks. The basic TKR-900 transceiver is supplied as a component only (no power supply); amplifier upgrades include a 40A switching power supply occupying 2 RU. Custom configurations are also available; contact your Kenwood Systems Regional Sales Manager for more details.

**ORDERING INSTRUCTIONS:**

**Step 1:** Determine the frequency sub-band:

800 MHz SMR channels = 806-821 / 851-866 MHz    Order **TKR900KS** basic transceiver

**Step 2:** Select an RF amplifier option.

**Step 3:** Select a Power Supply option.

**Step 4:** Select the desired mounting configuration.

**Step 5:** Select optional equipment or configuration changes. (**Note:** External Controller is required for equipment operation.)

**Step 6:** Add the basic configuration (Step 1) to the desired RF amplifier, power supply, mounting configuration and optional equipment (Steps 2-5) to determine configuration pricing. Specify frequencies (or FCC channel numbers) and tone assignments with order.

**800 MHz**  
**TKR-9300 Series Repeaters**

LIST

**STEP 1 -- TKR-9300 BASIC CONFIGURATION:**

<b>TKR900KS 800 MHz BASIC TRANSCEIVER 806-821 / 851-866 MHz</b>	\$3,255
800MHz, 250mW continuous duty full-duplex transceiver; no internal repeat functionality. Occupies 2RU, ships unmounted.	
<b>OPTION B51-8210-00: TKR-900 SERVICE MANUAL</b>	\$53

**STEP 2 -- RF AMPLIFIER OPTIONS:**

<b>OPTION KSGA404A: 40W CONTINUOUS DUTY 800MHz RF AMPLIFIER UPGRADE</b>	\$2,987
Basic TKR900 transceiver upgrade to include external 40W continuous duty 800MHz RF amplifier. Amplifier occupies 4 RU and includes a 40A, 13.8VDC power supply. Includes factory tuning, wiring and RF cables.	
<b>OPTION KSGA408A: 80W CONTINUOUS DUTY 800MHz RF AMPLIFIER UPGRADE</b>	\$3,425
Basic TKR900 transceiver upgrade to include external 80W continuous duty 800MHz RF amplifier. Amplifier occupies 4 RU and includes a 40A, 13.8VDC power supply. Includes factory tuning, wiring and RF cables.	
<b>OPTION KSGA413A: 130W CONTINUOUS DUTY 800MHz RF AMPLIFIER UPGRADE</b>	\$4,992
Basic TKR900 transceiver upgrade to include external 130W continuous duty 900MHz RF amplifier. Amplifier occupies 4 RU and includes a 40A, 13.8VDC power supply. Includes factory tuning, wiring and RF cables.	

**STEP 3 -- POWER SUPPLY OPTIONS:**

<b>OPTION KSGPWR34: UPGRADE FROM 40A TO 35A POWER SUPPLY WITH SMARTCHARGER</b>	\$881
For amplifier options above, upgrade to 35A, 13.8VDC continuous duty switching power supply with front panel metering, built-in SmartCharger, low-voltage disconnect, and solid state no-break transfer diodes. Occupies 2 RU, includes sealed fuse holder and fuses for battery (battery not included). Gel cell batteries are available separately; please contact your Kenwood Systems Regional Sales Manager for details.	
<b>OPTION KSGPWR74: UPGRADE FROM 40A TO 70A POWER SUPPLY</b>	\$881
For amplifier options above, upgrade to 70A, 13.8VDC continuous duty switching power supply with front panel metering; occupies 2 RU. Will power up to 2 channels.	
<b>OPTION KSGPWRB4: UPGRADE FROM 40A TO 70A POWER SUPPLY WITH SMARTCHARGER</b>	\$1,263
For amplifier options above, upgrade to 70A, 13.8VDC continuous duty switching power supply with front panel metering, built-in SmartCharger, low-voltage disconnect, and solid state no-break transfer diodes. Occupies 2 RU, includes sealed fuse holder and fuses for battery (battery not included). Will power up to 2 channels. Gel cell batteries are available separately; please contact your Kenwood Systems Regional Sales Manager for details.	

**STEP 4 -- MOUNTING CONFIGURATION:**

<b>OPTION KSGMRCK3: 17 RU (3') ALUMINUM EQUIPMENT RACK</b>	\$1,157
Standard 3' aluminum equipment rack providing 17 RU vertical mounting. Pricing includes equipment installation, hardware, cabling and wire management materials, and cushioned shipping crate.	
<b>OPTION KSGMRCK7: 45 RU (7') ALUMINUM EQUIPMENT RACK</b>	\$1,250
Standard 7' aluminum equipment rack providing 45 RU vertical mounting. Pricing includes equipment installation, hardware, cabling and wire management materials, and cushioned shipping crate.	
<b>OPTION KSGMCAB2: 20 RU (42") LOCKING CABINET</b>	\$1,750
Locking cabinet, 42"H x 22"W x 24"D, providing 20 RU vertical mounting, solid front door, louvered rear door, perforated top panel. Pricing includes equipment installation, hardware, cabling and wire management materials, and cushioned shipping crate.	

**800 MHz**  
**TKR-9300 Series Repeaters**

	<b>LIST</b>
<b>OPTION KSGMCAB4: 40 RU (77") LOCKING CABINET</b> Locking cabinet, 77"H x 22"W x 24"D, providing 40 RU vertical mounting, solid front door, louvered rear door, perforated top panel. Pricing includes equipment installation, hardware, cabling and wire management materials, and cushioned shipping crate.	<b>\$2,659</b>
<b>OPTION KSGMCABT: CABINET SOLID TOP UPGRADE</b> Cabinet upgrade to solid top panel; replaces standard perforated top panel.	<b>\$63</b>
<b>OPTION KSGMCABF: CABINET FAN TOP UPGRADE</b> Cabinet upgrade to solid top panel with 10" diameter 120VAC fan, replaces standard perforated top panel. Fan can be mounted above panel or below; requires 2 RU clearance inside cabinet if mounted below panel (default position is below panel).	<b>\$445</b>
<b>OPTION KSGMCABB: CABINET INTERIOR SOLID FLOOR UPGRADE</b> Cabinet upgrade to add solid interior bottom panel inside cabinet, with 5 cable access openings (includes grommets and plugs).	<b>\$93</b>

**STEP 5 -- OPTIONAL EQUIPMENT CONFIGURATIONS:**

**WIRELINE REMOTE CONTROL OPTIONS:**

<b>OPTION KSGTN01A: 1 CHANNEL TONE TERMINATION PANEL</b> 1 channel tone termination panel, 2 or 4 wire, 600 Ohm balanced audio with monitor, occupies 1 RU.	<b>\$675</b>
<b>OPTION KSGTN02N: N-SERIES CHANNEL TONE TERMINATION PANEL</b> N-Series channel tone termination panel, 2 or 4 wire, 600 Ohm balanced audio with monitor, AGC automatic line-leveling, occupies 1 RU.	<b>\$683</b>
<b>OPTION KSGTDC2A: DC TERMINATION PANEL</b> DC termination panel, 2 or 4 wire, 600 Ohm balanced audio with monitor, occupies 1 RU. Specify required DC current settings at time of order.	<b>\$393</b>
<b>OPTION KSGTALD1: 600 Ohm BALANCED AUDIO LINE DRIVER &amp; 4-WIRE E&amp;M INTERFACE</b> 1 channel receive audio line driver panel, 2 wire, 600 Ohm balanced output, occupies 1 RU. May also be configured to fully support a 4-wire E&M interface application.	<b>\$367</b>

**EXTERNAL CONTROLLER OPTIONS:**

<b>OPTION KSGC038L: CONVENTIONAL REPEATER CONTROLLER</b> Model 38 conventional repeater controller. Includes setup, tuning, and interface cable.	<b>\$1,237</b>
<b>OPTION KSGC040L: LTR DISPATCH TRUNKING CONTROLLER</b> Raider LTR dispatch-only trunking controller. Includes setup, tuning, and interface cable.	<b>\$1,586</b>
<b>OPTION KSGC050L: LTR DISPATCH &amp; INTERCONNECT TRUNKING CONTROLLER</b> Marauder LTR dispatch and interconnect trunking controller. Includes setup, tuning, and interface cable.	<b>\$3,016</b>
<b>OPTION KSGC452L: LTR DISPATCH TRUNKING CONTROLLER</b> Model 452 LTR dispatch-only trunking controller. Includes setup, tuning, and interface cable.	<b>\$1,850</b>
<b>OPTION KSGC459L: LTR DISPATCH &amp; INTERCONNECT TRUNKING CONTROLLER</b> Model 459 LTR dispatch and interconnect trunking controller. Includes setup, tuning, and interface cable.	<b>\$3,242</b>

**800 MHz**  
**TKR-9300 Series Repeaters**

LIST

**MISC STATION OPTIONS:**

<b>OPTION KSGD4P1A: 4 CAVITY 800MHz BpBr DUPLEXER</b>	\$2,583
4 cavity Bandpass/Bandreject duplexer, 250W continuous duty, minimum TX-RX spacing 45 MHz. Includes RF cables, mounting, and factory tuning.	
<b>OPTION KSGMOD1: BASIC SITE MANAGEMENT MODEM</b>	\$323
Generic site management modem, 2400 bps. For use with LTR controllers, includes interface cable, occupies 1 RU.	
<b>OPTION KSGMOD2: HIGH PERFORMANCE SITE MANAGEMENT MODEM</b>	\$961
High performance site management modem designed for extra stability in high RF environments, 2400 bps. For use with LTR controllers, includes interface cable, occupies 1 RU.	
<b>OPTION KSGVOT1A: SIGNAL-TO-NOISE VOTER WITH ONE STATION MODULE</b>	\$8,840
19" rack mount modular receiver voting comparator. Includes 1 station voter module for primary site (an additional station module is required for each additional voted receiver site), occupies 3 RU.	
<b>OPTION KSGVOT2A: ADDITIONAL STATION MODULE</b>	\$1,345
Additional station voter module for signal-to-noise voting comparator. Occupies one card slot in KSGVOT1A chassis.	
<b>OPTION KSGOPTG1: PILOT TONE GENERATOR AND LINE DRIVER</b>	\$855
Internal pilot tone generator for use with voting systems, supplies 600Ohm balanced two wire audio, installs in one station option bay.	

Note: Pre-Selectors, Multi-Couplers, Combiners, Outdoor Cabinets, and other items are available by special order.  
Please contact your Kenwood Systems Regional Sales Manager for more information.

**KENWOOD USA CORPORATION, COMMUNICATIONS SECTOR, SYSTEMS DIVISION  
SYSTEM CONFIGURATION WORKSHEET**

DEALER:  DLR #:  CONTACT:

PHONE:  FAX:  E-MAIL:

SHIP TO:  CITY:  ST:  ZIP:

PREPARED BY:  DATE:

REFERENCE PURCHASE ORDER NUMBER:  PAGE  OF

**SYSTEM CONFIGURATION:** Specify the primary system part number selected previously in Step 1 (e.g. TKR7400SK1, TKB8510PS, etc.); it is not necessary to list the various system options already indicated on your Purchase Order. Also specify the transmit power level required at the amplifier output (or exciter output, if being used without an external amplifier). *Please Note: It is very important that your required transmit levels be provided at time of order, since several of our amplifier models cannot be field-adjusted without voiding the product warranty.* If applicable, mark the box labeled "B" if the system will be used as a simplex, single-antenna base station, or mark "P" if it is intended for use in a transmit-only paging application. For conventional systems using wireline remote control, indicate remote control type (Tone, DC, or Extended Local), desired audio line levels (0dBm / 0dBm or +7dBm / -16dBm), and required circuit configuration (2-wire simplex or 4-wire full duplex).

PRODUCT CLASSIFICATION										CONFIGURATION			WIRELINE REMOTE CONTROL				
TKR/TKB/KSG/NXR					PRODUCT DESIGNATOR SUFFIX					TRANSMIT POWER			CONTROL TYPE		AUDIO LEVELS	2W SIM / 4W DUP	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<b>W</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	/	<input type="text"/>

**RADIO INFORMATION:** Specify the desired transmit and receive frequencies (include all four decimal places) for both Conventional and Trunking systems in blocks of 5, indicating either Wideband or Narrowband for each channel (use additional sheets if necessary). For Conventional channels, specify transmit and receive CTCSS frequencies (example: 131.8 Hz) or DCS codes (example: D732N) in the boxes provided; or mark the CSQ box if the channel is Carrier Squelch only (no CTCSS or DCS).

TRANSMITTER					RECEIVER				
CHAN	CHAN TX FREQ	W / N	TX CTCSS / DCS	CSQ	CHAN RX FREQ	W / N	RX CTCSS / DCS	CSQ	
1	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	
2	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	
3	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	
4	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	
5	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	

**TRUNKING CONTROLLER INFORMATION (if applicable):** For LTR Trunking systems, specify the model number of the controller to be used on each channel and identify the sync master (1 per system). Also specify the LTR channel assignments for each controller, the Area Bit (0 or 1; all channels must match), the type of Telephone Interconnect (2W = 2-wire POTS, 4W = 4-wire E&M, DID = 4-wire Direct Inward Dialing), whether RDD is to be set ON or OFF (VHF and UHF only), and the CWID to be used (if no CWID, check the NONE box). If the current firmware revision is acceptable, mark the box provided; otherwise, specify the version needed. PassPort and MPT-1327 systems require special setup; please contact Kenwood USA Corporation, Systems Division at 1-800-TRUNKING for more information.

CONTROLLER MODEL					LTR CONTROLLER SETUP					FIRMWARE VERSION	
CHAN	CONTROLLER	SYNC MASTER	LTR CHAN	AREA	INTERCONNECT	RDD	CWID	NONE	FIRMWARE	CURRENT	
1	KSG	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	
2	KSG	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	
3	KSG	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	
4	KSG	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	
5	KSG	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	

**SPECIAL INSTRUCTIONS:**

Is this system for resale? (check one)    Yes     No

Signature (required)