

UHF
TKR-8400 Series High Performance Base Stations and Repeaters
450 - 512 MHz

GENERAL:

The TKR-840 repeater occupies 1 RU and may be used as a 5W standalone low power station or as a driver for an external power amplifier. A conventional controller and a digital POCSAG paging transmitter are built into the TKR-840 repeater; paging terminal is not included.

OPTIONS:

Conventional station options include wire line remote control and external RF amplifiers with built-in T-R antenna switching for simplex operation. Trunking system options include external controllers for LTR and basic MPT-1327 applications; PassPort systems are available by individual quotation. High performance 4 and 6 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. 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. Amplifier choices include 40W and 100W options with a 2RU 40A switching power supply, or a 150W option with a 2RU 70A switching power supply. Custom configurations are also available; contact your Kenwood Systems Regional Sales Manager for more details.

ORDERING INSTRUCTIONS:

Step 1: Determine the frequency sub-band:

K1 = 450 - 480 MHz Order **TKR8400SK1** basic repeater

K2 = 480 - 512 MHz Order **TKR8400SK2** basic repeater

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.

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, channel bandwidth and tone assignments with order.

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STEP 1 -- TKR-8400 BASIC CONFIGURATION:

TKR8400SK1 BASIC CONFIGURATION, 450 - 480 MHz \$3,510

TKR8400SK2 BASIC CONFIGURATION, 480 - 512 MHz \$3,510

TKR-8400 repeater / base station basic configuration includes 5W continuous duty repeater and 19-inch rack mountable 20A DC power supply. Includes factory tuning and staging, one service manual and programming software; ships unmounted.

OPTION KSGMODP1 CIRCUIT MODIFICATION REQUIRED FOR USE WITH PASSPORT-NTS PROTOCOL \$158

STEP 2 -- RF AMPLIFIER OPTIONS:

OPTION KSGA304S: 40W CONTINUOUS DUTY RF AMPLIFIER OPTION FOR REPEATER STATION \$1,561

Repeater station option to include external 40W continuous duty RF amplifier, 400-512MHz. Amplifier occupies 4 RU and includes a 40A, 13.8VDC power supply. Includes factory tuning, wiring and RF cables.

OPTION KSGA304C: 40W CONTINUOUS DUTY RF AMPLIFIER OPTION FOR BASE STATION \$1,683

Base station option to include external 40W continuous duty RF amplifier, 400-512MHz. Amplifier occupies 4 RU and includes a 40A, 13.8VDC power supply. Includes factory tuning, wiring and RF cables.

OPTION KSGA310S: 100W CONTINUOUS DUTY RF AMPLIFIER OPTION FOR REPEATER STATION \$2,107

Repeater station option to include external 100W continuous duty RF amplifier, 400-512MHz. Amplifier occupies 4 RU and includes a 40A, 13.8VDC power supply. Includes factory tuning, wiring and RF cables.

OPTION KSGA310C: 100W CONTINUOUS DUTY RF AMPLIFIER OPTION FOR BASE STATION \$2,480

Base station option to include external 100W continuous duty RF amplifier, 400-512MHz. Amplifier occupies 4 RU and includes a 40A, 13.8VDC power supply. Includes factory tuning, wiring and RF cables.

OPTION KSGA315S: 150W CONTINUOUS DUTY RF AMPLIFIER OPTION FOR REPEATER STATION \$4,924

Repeater station option to include external 150W continuous duty RF amplifier, 450-512MHz. Amplifier occupies 8 RU and includes a 70A, 13.8VDC power supply (upgrade from basic 20A power supply). Includes factory tuning, wiring and RF cables.

OPTION KSGA315C: 150W CONTINUOUS DUTY RF AMPLIFIER OPTION FOR BASE STATION \$5,799

Repeater station option to include external 150W continuous duty RF amplifier, 450-512MHz. Amplifier occupies 8 RU and includes a 70A, 13.8VDC power supply (upgrade from basic 20A power supply) and an integrated T-R antenna switching relay. Includes factory tuning, wiring and RF cables.

STEP 3 -- POWER SUPPLY OPTIONS:

OPTION KSGPWRX2: DELETE POWER SUPPLY -\$50

Delete power supply from basic station configuration or amplifier upgrade configuration.

OPTION KSGPWR34: UPGRADE FROM 40A TO 35A POWER SUPPLY WITH SMARTCHARGER \$881

For 40W and 100W 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.

OPTION KSGPWR74: UPGRADE FROM 40A TO 70A POWER SUPPLY \$881

For 40W and 100W 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.

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OPTION KSGPWRB4: UPGRADE FROM 40A TO 70A POWER SUPPLY WITH SMARTCHARGER For 40W and 100W 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.	\$1,263
OPTION KSGPWRH7: UPGRADE FROM 70A TO 70A POWER SUPPLY WITH SMARTCHARGER For 150W 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). Gel cell batteries are available separately; please contact your Kenwood Systems Regional Sales Manager for details.	\$381
STEP 4 -- MOUNTING CONFIGURATION:	
OPTION KSGMRCK3: 17 RU (3') ALUMINUM EQUIPMENT RACK Standard 3' aluminum equipment rack providing 17 RU vertical mounting. Pricing includes equipment installation, hardware, cabling and wire management materials, and cushioned shipping crate.	\$1,157
OPTION KSGMRCK7: 45 RU (7') ALUMINUM EQUIPMENT RACK Standard 7' aluminum equipment rack providing 45 RU vertical mounting. Pricing includes equipment installation, hardware, cabling and wire management materials, and cushioned shipping crate.	\$1,250
OPTION KSGMCAB2: 20 RU (42") LOCKING CABINET 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.	\$1,750
OPTION KSGMCAB4: 40 RU (77") LOCKING CABINET 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.	\$2,659
OPTION KSGMCABT: CABINET SOLID TOP UPGRADE Cabinet upgrade to solid top panel; replaces standard perforated top panel.	\$63
OPTION KSGMCABF: CABINET FAN TOP UPGRADE 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).	\$445
OPTION KSGMCABB: CABINET INTERIOR SOLID FLOOR UPGRADE Cabinet upgrade to add solid interior bottom panel inside cabinet, with 5 cable access openings (includes grommets and plugs).	\$93

STEP 5 -- OPTIONAL EQUIPMENT CONFIGURATIONS:

WIRELINE REMOTE CONTROL OPTIONS:

OPTION KSGTN02A: 2 CHANNEL TONE TERMINATION PANEL 2 channel tone termination panel, 2 or 4 wire, 600 Ohm balanced audio with monitor, occupies 1 RU.	\$683
OPTION KSGTN02N: N-SERIES CHANNEL TONE TERMINATION PANEL N-Series channel tone termination panel, 2 or 4 wire, 600 Ohm balanced audio with monitor, AGC automatic line-leveling, occupies 1 RU.	\$683
OPTION KSGTN10A: 10 CHANNEL DISCRETE TONE TERMINATION PANEL 10 channel (discrete) tone termination panel, 2 or 4 wire, 600 Ohm balanced audio with monitor, occupies 1 RU.	\$1,254

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OPTION KSGTN16A: 16 CHANNEL BCD TONE TERMINATION PANEL 16 channel (BCD) tone termination panel, 2 or 4 wire, 600 Ohm balanced audio with monitor, occupies 1 RU.	\$1,324
OPTION KSGTDC2A: DC TERMINATION PANEL 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.	\$393
OPTION KSGTALD1: 600 Ohm BALANCED AUDIO LINE DRIVER & 4-WIRE E&M INTERFACE 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.	\$367
EXTERNAL TRUNKING CONTROLLER OPTIONS:	
OPTION KSGC040L: LTR DISPATCH TRUNKING CONTROLLER Raider LTR dispatch-only trunking controller. Includes setup, tuning, and interface cable.	\$1,586
OPTION KSGC041L: RAIDER XTREME LTR DISPATCH TRUNKING CONTROLLER Raider Xtreme, single-site PassPort dispatch trunking controller for UHF systems, up to 20 channels per site. Includes setup, tuning, and interface cable. Standard features include ESN validation, radio stun and kill, and airtime logging. Contact your systems regional manager for optional selective call feature.	\$3,327
OPTION KSGC050L: LTR DISPATCH & INTERCONNECT TRUNKING CONTROLLER Marauder LTR dispatch and interconnect trunking controller. Includes setup, tuning, and interface cable.	\$3,016
OPTION KSGC452L: LTR DISPATCH TRUNKING CONTROLLER Model 452 LTR dispatch-only trunking controller. Includes setup, tuning, and interface cable.	\$1,850
OPTION KSGC459L: LTR DISPATCH & INTERCONNECT TRUNKING CONTROLLER Model 459 LTR dispatch and interconnect trunking controller. Includes setup, tuning, and interface cable.	\$3,242
OPTION KSGC807M: BASIC MPT-1327 TRUNKING CONTROLLER Model 807 MPT trunking controller. Includes setup, tuning, and interface cable.	\$4,599
OPTION KSGC827M: BASIC MPT-1327 INTERCONNECT CONTROLLER Model 827 MPT trunking controller. Includes setup, tuning, and interface cable.	\$6,265
OPTION KSGC844M: BASIC MPT-1327 MULTI-SITE CONTROLLER Model 844 MPT multi-site controller. Includes setup, tuning, and interface cable.	\$9,765
OPTION KSGC427M: BASIC MPT-1327 PERIPHERAL EQUIPMENT INTERFACE Model 427 MPT peripheral equipment interface with MAP-27. Includes setup, tuning, and interface cable.	\$9,765
MISC STATION OPTIONS:	
OPTION KSGD3P1B: 6 CAVITY UHF BpBr DUPLEXER 6 cavity Bandpass/Bandreject duplexer, 250W continuous duty, minimum TX-RX spacing 3 MHz. Includes RF interface cables, mounting, and factory tuning. Duplexers are fully integrated and tested during system staging.	\$3,080
OPTION KSGD3P2B: 4 CAVITY UHF BpBr DUPLEXER (450 - 470 MHz ONLY) 4 cavity Bandpass/Bandreject duplexer, 350W continuous duty, minimum TX-RX spacing 5 MHz. Includes RF interface cables, mounting, and factory tuning. Duplexers are fully integrated and tested during system staging.	\$1,693

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OPTION KSGOMOD1: BASIC SITE MANAGEMENT MODEM Generic site management modem, 2400 bps. For use with LTR controllers, includes interface cable, occupies 1 RU.	\$323
OPTION KSGOMOD2: HIGH PERFORMANCE SITE MANAGEMENT MODEM 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.	\$961
OPTION KSGVOT1A: SIGNAL-TO-NOISE VOTER WITH ONE STATION MODULE 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.	\$8,840
OPTION KSGVOT2A: ADDITIONAL STATION MODULE Additional station voter module for signal-to-noise voting comparator. Occupies one card slot in KSGVOT1A chassis.	\$1,345
OPTION KSGOPTG1: PILOT TONE GENERATOR AND LINE DRIVER Internal pilot tone generator for use with voting systems, supplies 600 Ohm balanced 2 wire audio, occupies 1 RU.	\$855
OPTION KPG-46AM: KPG-46AM PROGRAMMING CABLE	\$191.00
OPTION KCT-53UM: KCT-53UM DB9M TO USB TYPE A CONNECTOR	\$86.00
OPTION B51-8506-00: TKR-840 SERVICE MANUAL	\$53.00
OPTION KPG-47DK: KPG-47DK PROGRAMMING SOFTWARE	N/A

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"/>	W <input type="checkbox"/> B <input type="checkbox"/> P <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="text"/>	<input type="text"/>	<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="text"/>	<input type="text"/>	<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="text"/>	<input type="text"/>	<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="text"/>	<input type="text"/>	<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="text"/>	<input type="text"/>	<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)