

# ProTalk™

Portable Business Two-Way Radios

TK-2100 (VHF) & TK-3100 (UHF)



- Heat
- Freezing
- Dust
- Moisture
- Shock
- Vibration



2-year warranty

TK-2100 (VHF)

KENWOOD

Choose Kenwood's ProTalk™ and you'll enjoy a full line of accessories for the ultimate in operating convenience.

<b>KNB-14</b> 600 mAh, 8-hour Standard Rechargeable NiCd Battery		<b>KBH-8DS</b> Swivel Belt Loop with D-Stub Backplate		<b>KMC-17</b> Heavy-duty Speaker Microphone	
<b>KNB-15A</b> 1100 mAh, 10-hour Extended-life Rechargeable NiCd Battery		<b>KWR-1</b> Water-resistant Bag		<b>KMC-21</b> Compact Speaker Microphone	
<b>KBP-1</b> AA Alkaline Battery Pack (holds 6 AA Cells; not included)		<b>KLH-6SW</b> Swivel Belt Case		<b>KEP-2</b> Earphone Kit for KMC-17/21 Speaker Microphones (2.5 mm plug)	
<b>KSC-15</b> Regular Rate Single Unit Desktop Charger (Approx. 8 hr. charge time typical)*		<b>KLH-83</b> Heavy-Duty Carrying Case w/bungee-cord		<b>KHS-8BL</b> Two-wire Surveillance Palm Microphone with PTT (black)	
<b>KSC-16</b> Rapid Rate Single Unit Desktop Charger (Approx. 1 hr. charge time typical)*		<b>KLH-84B</b> Nylon Case (Black)		<b>KHS-7</b> Lightweight Single Ear-muff Headset with Flexible Boom Microphone and PTT	
<b>KMB-14</b> Six Unit Charger Adapter (for six KSC-15/16 chargers; purchase separately)		<b>KLH-84C</b> Nylon Case (Camouflage)		<b>KHS-7A</b> Lightweight Single Ear-muff Headset with Boom Mic and In-line PTT	
<b>KVC-3</b> Regular Rate Vehicular Charger Adapter		<b>KLH-84G</b> Nylon Case (Green)		<b>KHS-17</b> Earpiece with Microphone	
<b>KVC-4</b> Rapid Rate Vehicular Charger Adapter		<b>KLH-84OR</b> Nylon Case (Orange)		<b>HMC-3</b> Light-duty Single Earpiece Headset with Flexible Boom Mic, VOX (voice-activated) & PTT	
<b>KBH-8</b> Spring-Action Plastic Belt Clip		<b>KLH-84HB</b> Horizontal-ware Nylon Case (Black)		<b>EMC-3</b> Clip Microphone with Earphone	
		<b>KRA-14</b> VHF Helical Antenna			
		<b>KRA-15</b> UHF Whip Antenna			
		<b>KRA-16 M</b> VHF Stubby Antenna			
		<b>KRA-17 M</b> UHF Stubby Antenna			

\*Under average conditions.

Not all accessories may be available in all markets.

## Specifications

- Number of channels: 1 or 2 • Privacy codes: 38 programmable (CTCSS) • 4 or 8 programmable memories
- Power supply: 600mAh, rechargeable NiCd battery • Dimensions (W x H x D): 2-1/4 x 4-7/8 x 1-1/4 in (58 x 125 x 32 mm), incl. KNB-14 battery • Weight: 11.6 oz (330 g), incl. KNB-14 battery & antenna
- FCC ID: (TK-2100) ALH27293110, (TK-3100) ALH2730110 • FCC compliance: (TK-2100) Parts 22, 74, 90.210, (TK-3100) Parts 90, 90.210, 95(A)

Kenwood follows a policy of continuous advancement in development. For this reason specifications may be changed without notice.

## KENWOOD COMMUNICATIONS CORPORATION Headquarters

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Kenwood News & Products  
<http://www.kenwood.net>



JSA-2005 ISO 9001  
Communication Equipment Division  
Kenwood Corporation  
ISO 9001 certification

This has been printed on recycled paper.  
CL391K-E-6 (00) 010310B Printed in Japan



# The Tough One

Kenwood Communications, a manufacturer of high-quality two-way radios for public safety, government, and heavy industry offers the ProTalk™ VHF and UHF portable radios as the tough and reliable answer to your on-site communications needs. Dependable ProTalk™ two-way radios increase productivity by managing time, labor and materials efficiently over the air. Whether running a small family-owned business or controlling large crews on a construction site, the durable ProTalk™ radios save money, enhance competitiveness and increase the bottom line.



**ProTalk™**  
Portable Business Two-Way Radio  
TK-3100 (UHF)

## With the durable die-cast chassis, Kenwood's ProTalk™ meets military standards for reliable performance in demanding work environments.

The aluminum die-cast chassis provides exceptional strength for rough handling that, when combined with a rugged and sealed case design, enable the ProTalk™ to provide years of reliable use. The ProTalk™ also meets MIL-STD 810 C, D & E environmental specifications for Vibration, Shock, Humidity, Dust, and Light Rain. As well as

being extremely durable, the ProTalk™ is also conveniently sized. Carry the ProTalk™ in your pocket or on a belt and you'll hardly notice it because it's so small and lightweight (approximately 11 oz. and 5 inches in height).



Military Environmental Standards	MIL-STD 810C	MIL-STD 810D	MIL-STD 810E
Light Rain	506.1/Proc. II	506.2/Proc. II	506.3/Proc. II
Humidity	507.1/Proc. II	507.2/Proc. II	507.3/Proc. II
Dust	510.1/Proc. I	510.2/Proc. I	510.3/Proc. I
Vibration	514.2/Proc. VIII, X	514.3/Proc. I	514.3/Proc. I
Shock	516.2/Proc. I, II, V	516.3/Proc. I, IV	516.4/Proc. I, IV

## Incorporating top industrial-grade materials and high-spec components, Kenwood's ProTalk™ answers your every call.

### ■ 38 Programmable Privacy Codes per Channel

The Kenwood QT coded squelch system provides the industry-standard 38 codes for blocking out unwanted interference from other users. These codes can also be used to separate the conversations of various work groups within your company to eliminate confusion and wasteful employee chatter. Users can program a ProTalk™ to any of the other pre-stored codes (each ProTalk™ is factory programmed for Code No.1, 670 Hz).

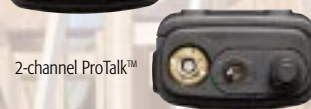
### ■ 1 or 2 Channel Models

Each ProTalk™ is available as one or two channel models factory programmed to the following frequencies.

Channel(s)	ProTalk™ VHF	ProTalk™ UHF
1	Blue 154.5700 MHz	Yellow 464.5500 MHz
2	Green 154.6000 MHz	Blue Star 467.9250 MHz



1-channel ProTalk™



2-channel ProTalk™

### ■ 4 or 8 Programmable Pre-stored Frequencies

The ProTalk™ VHF (TK-2100) model has four pre-stored frequencies while the ProTalk™ UHF (TK-3100) model has eight pre-stored frequencies. Users can program a ProTalk™ to any of the pre-stored frequencies.

Memory	ProTalk™ VHF	ProTalk™ UHF
1	Red 151.6250 MHz	Brown 464.5000 MHz
2	Purple 151.9550 MHz	Yellow 464.5500 MHz
3	Blue 151.5700 MHz	J 467.7625 MHz
4	Green 154.6000 MHz	K 467.8125 MHz
5	/ /	Silver Star 467.8500 MHz
6	/ /	Gold Star 467.8750 MHz
7	/ /	Red Star 467.9000 MHz
8	/ /	Blue Star 467.9250 MHz

### ■ 2 Watts Transmit Power/Range Up to 5 Miles

The ProTalk™ offers 2 watts of power to enable direct radio-to-radio communication on the same frequency (simplex) for up to 5 miles\*.

Conditions	ProTalk™ VHF Range	ProTalk™ UHF Range
Outdoor: line-of-sight (no obstructions)	Up to 5 miles	Up to 5 miles
Open locations: low residential buildings	Up to 2.5 miles	Up to 2 miles
Indoor: • steel/concrete building • multi-floor building	Up to 180,000 sq. ft. Up to 10 floors	Up to 250,000 sq. ft. Up to 20 floors

\*The range of the ProTalk™ will vary depending on terrain, obstructions and other conditions.

**BUILT FOR THE TOUGH JOBS**



**FOR RETAIL STORES**



**FOR MOTEL & HOTELS**



**FOR JOB SITE**

### ■ Includes 8-Hour Battery Pack, Desktop Charger & Belt Clip

The sealed rechargeable NiCd battery pack slides on quickly and easily to the radio. This means that you don't have to contend with cumbersome latches and there are no battery compartment lids to lose or break. Charging a radio with battery installed or a spare battery pack is a simple drop-in task with the supplied desktop charger. A long-use, 10-hour KNB-15A battery option is also available and the spring belt-clip mounts directly to the body chassis.

### ■ Compatibility

ProTalk™ operates on the same channels<sup>2</sup> and coded squelch tones as other brands of on-site business radios. So choosing the rugged Kenwood ProTalk™ will not make your investment in existing radio equipment obsolete.

<sup>2</sup>The ProTalk™ operates on FCC Business Radio Service frequencies (460 ~ 470 MHz); see instruction manual for licensing information.

### ■ Simple Operation/ Rugged Controls

Simply turn it on and push to talk. Each ProTalk™ has an on/off power and volume setting knob to adjust audio to a comfortable listening level. Two channel models have a two-position toggle switch for easy, simple operation. A monitor button is also provided to check coded squelch channels for voice activity. For added convenience, the two-color LED indicator lights red for transmit and green for an active channel.

### ■ Brass Reinforced Antenna Port

The ProTalk™'s sealed heavy-duty "SMA" antenna connector and high-gain durable antenna offer excellent strength for optimum range.

- Time-Out timer
- Low Battery Alert
- Powerful Audio
- Protected Accessory Port

# KENWOOD

## ProTalk®

### TK-2200/3200

Compact VHF/UHF FM Portable Radios

**The compact ProTalk® models TK-2200/3200, Kenwood's latest envoy for professional grade job site portables sets the standard on ruggedness, features and performance. The perfect solution for construction, retail, hospitality, warehousing, industrial, facilities management and rental fleet applications. The modern design contours present a functional and attractive form factor.**



#### COMPACT DESIGN

The ergonomic contours of the ProTalk® naturally fit the hand for a superbly comfortable hold. The non-slip elastomer channel knob and switch torque ensures positive selection and resists accidental changing.

#### 2 & 8 CHANNEL MODELS

The ProTalk® 2-channel models satisfy the most common two-way requirements. The 8-channel models provide plenty of capacity for multiple channels or radio systems.

#### FREQUENCY & QT/DQT

The ProTalk® VHF (TK-2200) 2 or 8 channel model has 27 pre-stored frequencies while the ProTalk® UHF (TK-3200) 2 or 8 channel model has 56 pre-stored frequencies. Both models have 39 QT tones and 83 DQT codes. Users can program a ProTalk® to any of the pre-stored frequencies and QT/DQT's, assuring compatibility with other brand radios.

\*QT & DQT may also be referred to under other brand acronyms as PL, CG, CTCSS & DPL, DCG, DCS.

#### SUPER LOCK

Managers can "Super Lock" all user controls (except PTT and volume) to prevent accidental channel changes.

#### WIRELESS CLONING

This wireless feature simplifies the setup of several ProTalk® radios to function identically and eliminates repetitive setup actions of individual radios. *(Dealer function only)*

#### CALLING ALERT

Pressing on the Calling Alert key while transmitting causes an alert tone to sound from the other radio's speaker. This is a useful function to signal staff in noisy environments.

#### INTERNAL VOX/HANDS FREE READY

VOX (voice-operated transmission) is invaluable for specialized tasks or events that require repetitive hands-free communications. The radio itself provides automatic PTT action, so the user simply talks. VOX works with a Kenwood-compatible headset.

#### TOUGH & WATER RESISTANT

Built tough for rugged work environments, the ProTalk® has been designed to pass industrial drop tests, international IP54/55 water and dust intrusion tests and 11 categories of the U.S. Department of Defense MIL-STD 810 C, D, E & F environmental standards tests.

#### 2 WATTS TRANSMIT POWER / RANGE UP TO 6 MILES

The ProTalk® offers 2 watts\* of power to enable direct radio-to-radio communication on the same frequency (simplex) for up to 6 miles\*\*.

Conditions	ProTalk®
Open areas without obstructions	Up to 6 miles (9.6 km)
Residential areas (near buildings)	Up to 1.5 miles (2.4 km)
In steel and/ or concrete reinforced buildings	Up to 250,000Sq. Ft (23,220 Sq. m)
In high-rise buildings	Up to 20 floors

\*For some frequencies, power may be limited to 1 watt.

\*\*Talk range will vary based on terrain, conditions and type of radio.
























#### ACCESSORIES INCLUDED

- 18-Hour Ni-MH with Battery Pack
- 3-Hour Fast Charger
- Spring Action Belt Clip
- Removable Antenna

#### OTHER FEATURES

- Time Out Timer
- Battery Save
- Low Battery Warning
- Scan

## Options

<p><b>KNB-29N</b> Ni-MH Battery Pack (1,500mAh)</p> 	<p><b>KRA-16</b> VHF Stubby Antenna</p> 	<p><b>KHS-7A</b> Single Muff Headset with In-line PTT</p> 	<p><b>HMC-3</b> Headset with PTT Built-in Vox</p> 
<p><b>KSC-31</b> Fast Charger (3-Hour)</p> 	<p><b>KRA-17</b> UHF Stubby Antenna</p> 	<p><b>KHS-8BL</b> 2-wire Palm Mic with Earphone (Black)</p> 	<p><b>KHS-23</b> 2-wire Palm Mic</p> 
<p><b>KRA-22</b> VHF Low Profile Helical Antenna</p> 	<p><b>KMC-17</b> Speaker Microphone</p> 	<p><b>KHS-8BE</b> 2-wire Palm Mic with Earphone (Beige)</p> 	<p><b>KMB-21</b> Six Unit Charger Adapter (for six KSC-31 chargers; (chargers not included)</p> 
<p><b>KRA-23</b> UHF Low Profile Helical Antenna</p> 	<p><b>KMC-21</b> Compact Speaker Microphone</p> 	<p><b>KHS-22</b> Behind-the-head Headset with PTT</p> 	<p><b>KBH-10</b> Belt Clip</p> 
<p><b>KRA-26</b> VHF Helical Antenna</p> 	<p><b>KEP-2</b> Earphone Kit for KMC-17/21 (2.5mm plug)</p> 	<p><b>EMC-3</b> Clip Microphone with Earphone</p> 	<p><b>KWR-1</b> Water Resistance Bag</p> 
<p><b>KRA-27</b> UHF Whip Antenna</p> 	<p><b>KHS-7</b> Single Muff Headset</p> 	<p><b>KLH-126</b> Nylon Case</p> 	

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-2200 VHF	TK-3200 UHF
<b>GENERAL</b>		
Pre-set Frequencies	27	56
Number of Channels		
K Type		2
K2 Type		8
Channel Spacing		
Wide/Narrow	25, 30kHz/12.5, 15kHz	25kHz/12.5kHz
Operating Voltage	7.5V DC±20%	
Battery Life (5-5-90 duty cycle) with KNB-29N (1500mAh)	18 hours (Battery Saver On)	
Operating Temperature Range	-22°F ~ +140°F (-30°C ~ +60°C)	
Frequency Stability	±2.5ppm (-22°F ~ +140°F)	
Antenna Impedance	50Ω	
Dimensions (W x H x D), Projections not Included		
Radio Only	2.13" x 4.8" x 0.83" (54 x 122 x 21.1mm)	
with KNB-29N	2.13" x 4.8" x 1.30" (54 x 122 x 33mm)	
Weight (net)		
Radio Only	5.6oz (160g)	
with KNB-29N	12.7oz (360g)	
FCCID	ALH36913120	ALH36923130
FCC Compliance	Parts 22/74/90	Parts 90/95

Model	TK-2200 VHF	TK-3200 UHF
<b>RECEIVER</b> (Measurements made per TIA/EIA-603)		
Sensitivity (12dB SINAD)		
Wide/Narrow	0.25μV/0.28μV	
Selectivity		
Wide/Narrow	70dB/60dB	
Intermodulation Distortion		
Wide/Narrow	65dB/60dB	
Spurious Response	65dB	60dB
Audio Output	500mW with less than 10% distortion	
<b>TRANSMITTER</b> (Measurements made per TIA/EIA-603)		
RF Power Output*		
High/Low	2W/1W	2W/1W
Spurious Response	65dB	
Modulation		
Wide/Narrow	16KØF3E/11KØF3E	
FM Noise		
Wide/Narrow	45/40dB	
Audio Distortion	Less than 5%	

\*For some frequencies, only lower power may be selected.

Kenwood reserves the right to change specifications and features without prior notice.

ProTalk® is a registered trademark of Kenwood Corporation in the United States and/or other countries.

## Applicable MIL-STD

Military Standards	Methods/Procedures MIL-STD 810C	Methods/Procedures MIL-STD 810D	Methods/Procedures MIL-STD 810E	Methods/Procedures MIL-STD 810F
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	501.3/Procedure I, II	501.4/Procedure I, II
Low Temperature	502.1/Procedure I	502.2/Procedure I, II	502.3/Procedure I, II	502.4/Procedure I, II
Temperature Shock	503.1/Procedure I	503.2/Procedure I	503.3/Procedure I	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 I, II	507.2/Procedure II, III	507.3/Procedure II, III	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	510.3/Procedure I	510.4/Procedure I, III
Vibration	514.2/Procedure VIII, X	514.3/Procedure I	514.4/Procedure I	514.5/Procedure I
Shock	516.2/Procedure I, II, V	516.3/Procedure I, IV	516.4/Procedure I, IV	516.5/Procedure I, IV

\*Rain (Drip/Blowing Rain): assumes that the supplied accessory jack cover or a Kenwood audio accessory is installed.

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