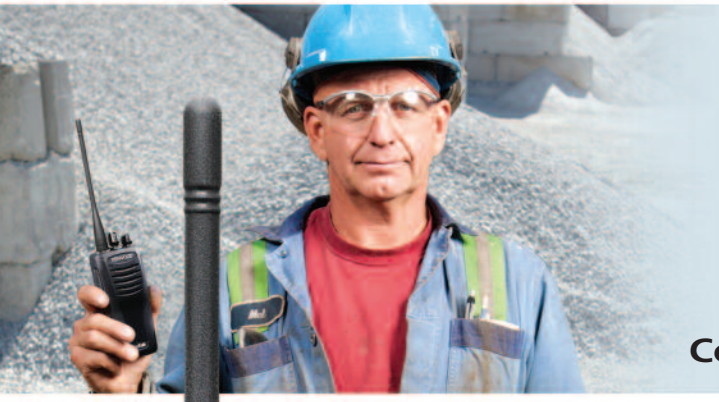
KENWOOD

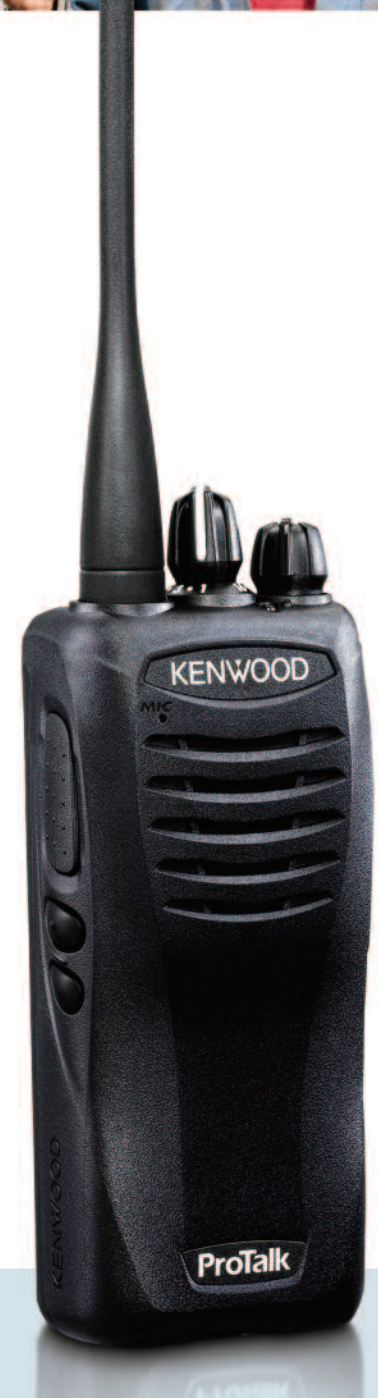


# ProTalk®

# 43Y990/43Y989

**(TK-2402V16P) (TK-3402U16P)**

## Compact VHF/UHF FM 5-Watt Portable Radios




**Kenwood's 43Y990 / 43Y989 16 channel portable two-way radios deliver professional performance with ergonomic ease. Based upon a proven design – with such features as scan, built-in VOX, and long battery life – the compact 5-watt ProTalk® has been expertly engineered to satisfy the toughest job requirements, in all conditions, thanks to MIL-STD 810 & IP54/55 weatherproofing.**

### COMPACT DESIGN

The rounded contours of the 43Y990 / 43Y989 provide a superbly comfortable hold, while the non-slip elastomer channel knob with improved torque characteristics and an enlarged PTT button ensure positive tactile response during operation.

### TOUGH & WATER RESISTANT

Built to take rough treatment in stride, the ProTalk® has passed the demanding IP54/55 dust and water intrusion tests – both with and without the 4NPD7 optional speaker microphone. It also meets or exceeds 11 stringent MIL-STD 810 C/D/E/F/G environmental standards, including "driven rain".

### ENHANCED AUDIO QUALITY

Success in business depends on smooth communications, but power output is not the only factor that determines audio clarity. As an experienced audio specialist, Kenwood has drawn on decades of expertise to ensure that the ProTalk®'s sound quality is undeniably clearer and crisper, as well as loud – thanks to the 36mm-diameter speaker, which delivers up to 1 watt audio output.

### WIRELESS CLONING

This feature simplifies the setting up of multiple ProTalk® radios for identical functions, eliminating the need to customize individual radios. (Dealer function only)

### FREQUENCY & QT/DQT (Narrowband Compliant)

Users can program a ProTalk® to any of the pre-stored frequencies and QT/DQT codes, thus assuring compatibility with other brands. The ProTalk® VHF (43Y990) 16-channel model has 27 pre-stored frequencies while the ProTalk® UHF (43Y989) 16-channel model has 90. Both models have 39 QT tones and 168 DQT codes.

For licensing information, please contact the FCC at http://www.fcc.gov

### 2 PROGRAMMABLE FUNCTION KEYS

Both PF Keys can be programmed for any of the many functions available, permitting customization to suit your specific requirements.

### INDEPENDENT SETTINGS PER CHANNEL (VOX, COMPANDER, SCRAMBLER)

Radio channels can be programmed independently for VOX, scrambler and compander functions. This means a user can switch a function on or off simply by changing channels (on the same frequency).

### BUILT-IN VOICE-INVERSION SCRAMBLER

This feature provides basic protection against casual eavesdropping. Up to 16 of 2097 possible inversion frequencies can be chosen and assigned to any channel.

### 5 WATTS TRANSMIT POWER

| VHF & UHF | In Steel and/or concrete reinforced buildings | High-rise buildings |
|---|---|---|
| UHF 1.5 Watt | Up to 225,000 sq.ft. | Up to 17 floors |
| UHF 2 Watt | Up to 250,000 sq.ft. | Up to 20 floors |
| **UHF 5 Watt** | **Up to 370,000 sq.ft.** | **Up to 33 floors** |
| VHF 2 Watt | Up to 220,000 sq.ft. | Up to 13 floors |
| **VHF 5 Watt** | **Up to 300,000 sq.ft.** | **Up to 18 floors** |

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

### OTHER FEATURES

• Voice Annunciation • Battery Save • Channel Confirmation Mode • B.C.L. (Busy Channel Lockout) • Key Lock • 4-color LEDs (blue, red, orange, green) • Scan Del/Add • KENWOOD ESN (Electronic Serial Number) • Adjustable Microphone Gain (by FPU): High/Normal/Low • Time-Out Timer • Low Battery Warning • Two Year Radio Warranty

2 Year Warranty

# Options

- **9KJ70 (KNB-29N)** Ni-MH Battery Pack (1,500mAh)
- **4KYD5 (KNB-45L)** 2,000mAh/7.4V Li-Ion Battery Pack
- **4KYD7 (KSC-35SK)** Fast Charger For the KNB-45L (3-Hour)
- **43Y993 (KVC-22)** DC Vehicular Charger Adapter
- **43Y994 (KRA-41)** VHF Stubby Antenna
- **43Y995 (KRA-42)** UHF Stubby Antenna
- **4KYD1 (KRA-22)** VHF Low Profile Helical Antenna
- **4KYD2 (KRA-23)** UHF Low Profile Helical Antenna
- **4KYD3 (KRA-26)** VHF Helical Antenna
- **4KYD4 (KRA-27)** UHF Whip Antenna
- **4NPD7 (KMC-45)** Speaker Microphone
- **4NPD6 (KMC-21)** Compact Speaker Microphone
- **4NPD5 (KEP-2)** Earphone Kit for KMC-45 (2.5mm plug)
- **4KYE7 (KHS-7)** Single Muff Headset
- **4KYE8 (KHS-7A)** Single Muff Headset with In-line PTT
- **4KYE9 (KHS-8BL)** 2-wire Palm Mic with Earphone (Black)
- **4KYF2 (KHS-9BL)** 3-wire Lapel Mic with Earphone (Black)
- **4NPC9 (KHS-22)** Behind-the-head Headset with PTT
- **4NPD1 (KHS-23)** 2-wire Palm Mic
- **4NPD2 (KHS-25)** D-Ring Ear Hanger with PTT & Boom Mic
- **4NPD3 (KHS-26)** Earbud In-line PTT Headset
- **4NPD4 (KHS-27)** D-Ring In-line PTT Headset
- **43Y991 (KHS-31)** C-Ring PTT Ear Hanger Headset
- **4KYE1 (KMB-28)** Six Unit Charger Adapter (for six KSC-35SK chargers (chargers not included)
- **4KYE2 (KBH-10)** Belt Clip
- **43Y992 (KLH-187)** Nylon Case

*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 | 43Y990 (TK-2402V16P) | 43Y989 (TK-3402U16P) |
|---|---|---|
| **GENERAL** | | |
| Pre-set Frequencies | 27 (151-159 MHz) | 90 (451-470 MHz) |
| Number of Channels | 16 | |
| Channel Spacing | | |
| Wide/Narrow | 25 kHz*/12.5 kHz | |
| Operating Voltage | 7.5V DC±20% | |
| Battery Life (5-5-90 during hi-power battery saver: OFF/ON) | | |
| with4KYD5 (2000mAh) | More than 12 / 18 hours | |
| Operating Temperature Range* | -22°F ~ +140°F (-30°C ~ +60°C) | |
| Frequency Stability | ±2.5 ppm (-30°C ~ +60°C) | |
| Antenna Impedance | 50 Ω | |
| Dimensions (W x H x D), Projections not included | | |
| with 4KYD5 | 2.13 x 4.8 x 1.32 inch (54 x 122 x 33.7 mm) | |
| Weight (Net) | | |
| Radio Only | 5.8oz (165g) | |
| with 4KYD5 | 9.9oz (281g) | |
| FCC ID | ALH434900 | ALH435000 |

**-14°F ~ +140°F (-10°C ~ +60°C) When 9KJ70/4KYD5 (KNB-29N/45L) is in use*
***25kHz is not for sale in the USA or US territories.*

| Model | 43Y990 (TK-2402V16P) | 43Y989 (TK-3402U16P) |
|---|---|---|
| **RECEIVER (Measurements made per TIA/EIA-603)** | | |
| Sensitivity (12dB SINAD) | | |
| Wide/Narrow | 0.25µV/0.28µV | |
| Selectivity | | |
| Wide/Narrow | 70dB/60dB | |
| Intermodulation Distortion | | |
| Wide/Narrow | 70dB/60dB | |
| Spurious Response | 70 dB | |
| Audio Distortion | less than 10% distortion | |
| Audio Output | 1 W / 12 Ω (Internal Speaker) | |
| | 500mW / 8 Ω (External Speaker) | |
| **TRANSMITTER (Measurements made per TIA/EIA-603)** | | |
| RF Power Output | | |
| High/Low | 5W/1W | |
| Spurious Response | 70 dB | |
| FM Hum & Noise | | |
| Wide/Narrow | 45/40dB | |
| Audio Distortion | Less than 5% | |
| Type of Emission | | |
| Wide/Narrow | 16KØF3E**/11KØF3E | |

Specifications shown are typical.
Specifications are subject to change without notice, due to advancements in technology.

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

## ACCESSORIES INCLUDED

- 4KYD5 (KNB-45L) Li-Ion Battery
- 4KYD7 (KSC-35SK) 3-Hour Fast Charger
- 4KYE2 (KBH-10) Spring Action Belt Clip
- Removable Antenna • Channel Stopper

# Applicable MIL-STD & IP

| Standard | MIL 810C Methods/Procedures | MIL 810D Methods/Procedures | MIL 810E Methods/Procedures | MIL 810F Methods/Procedures | MIL 810G Methods/Procedures |
|---|---|---|---|---|---|
| **Low Pressure** | 500.1/Procedure I | 500.2/Procedure I, II | 500.3/Procedure I, II | 500.4/Procedure I, II | 500.5/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 | 501.5/Procedure I, II |
| **Low Temperature** | 502.1/Procedure I | 502.2/Procedure I, II | 502.3/Procedure I, II | 502.4/Procedure I, II | 502.5/Procedure I, II |
| **Temperature Shock** | 503.1/Procedure I | 503.2/Procedure I | 503.3/Procedure I | 503.4/Procedure I, II | 503.5/Procedure I |
| **Solar Radiation** | 505.1/Procedure I | 505.2/Procedure I | 505.3/Procedure I | 505.4/Procedure I | 505.5/Procedure I |
| **Rain** | 506.1/Procedure I, II | 506.2/Procedure I, II | 506.3/Procedure I, II | 506.4/Procedure I, III | 506.5/Procedure I, III |
| **Humidity** | 507.1/Procedure I, II | 507.2/Procedure II, III | 507.3/Procedure II, III | 507.4 | 507.5/Procedure II |
| **Salt Fog** | 509.1/Procedure I | 509.2/Procedure I | 509.3/Procedure I | 509.4 | 509.5 |
| **Dust** | 510.1/Procedure I | 510.2/Procedure I | 510.3/Procedure I | 510.4/Procedure I, III | 510.5/Procedure I |
| **Vibration** | 514.2/Procedure VIII, X | 514.3/Procedure I | 514.4/Procedure I | 514.5/Procedure I | 514.6/Procedure I |
| **Shock** | 516.2/Procedure I, II, V | 516.3/Procedure I, IV | 516.4/Procedure I, IV | 516.5/Procedure I, IV | 516.6/Procedure I, IV |
| **International Protection Standard** | | | | | |
| **Dust & Water Protection** | IP54/55* | | | | |

**To meet IP54/55, the 2-pin connector cover has to be connected on the radio or the locking bracket has to be attached to the KMC-45 external speaker microphone.*

KENWOOD

www.kenwoodusa.com/protalkinfo

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Professional Systems Business Group
JVCKENWOOD Corporation

ADS#22714 Printed in USA