

High Performance Two Way Radio

K20

PROFESSIONAL

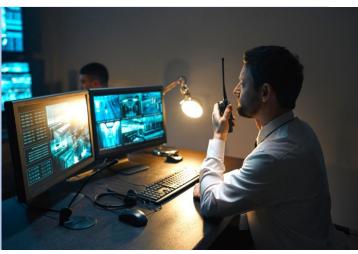
TRANSCEIVER Walkie Talkie (LF) Trans

Receiver PMR446Mhz

License Free

JAPAN

The Technology For The Next Generation.



The Thin & Compact

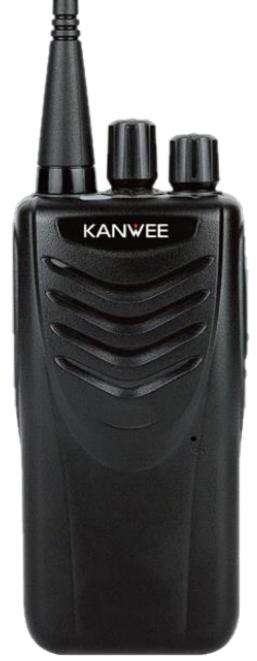
Thin, compact, slim & light weight K20 License free Two Way Radio for very **Long-Range** with well-balanced performance.



4500mAh

Lithium Battery Pack.

D. TYPE HEADPHONE FREE OF COST WITH RADIO



www.kanwee.in

WPC Approved, Govt order No –1047 (E)Dated 18 Oct 2018

K20 PROFESSIONAL TRANSCEIVER

PREMIUM SOUND

High-quality speakers for loud and clear sound even in crowded place. High-quality Mic Capture voice with crystal-clear audio.





<u>4500mAH</u>

LITHIUM BATTERY

4500mAh Lithium Battery PACK. Our lithium battery have advantages including higher security, higher reliability, and higher consistency. Excellent product quality, cost-effective lithium batteries, have been highly praised and recognized by international and domestic high-end customers.

ANC (Activate Noise Cancelling) Function

Audio sound active control is a signal- processing methodology that reduces the effective sound amplitude to improve signal-to-noise radio (SNR) so that unwanted noise is less perceptible. The ANC methodology is also called audio noise reduction (ANR). ANC or ANR is based on coherent acoustics that accurately replicate the original sound field in all its forms. This radio equipped with the ANC (active Noise Cancelling) function, can help you hear clear in the noisy environment.

16 CHANNELS Self Programming

The radio have "channel selector" control knob on the radio, allowing the to select one of (usually) 16 "channels".

But each one of these "channels" can be set to one of many, many actual frequencies.

K20 professional walkie-talkie can be programmed to use any of many of frequencies can be set to use frequencies between 446 – 446.2MHz.

Multi-Colored LED Light

Blinking LED light Indicate the transmission status, turns red when transmit & turns green when receive.



KEY FEATURES

ANC (ACTIVATE Noise Cancelling) Function / TOT / Scan / CTCSS/DCS / English Voice Prompt / Battery Saving Function / Low Battery Alert / Hi-low Power Selectable / Wide-Narrow Band Selectable / VOX / Programming Protect / Busy Lock Function / Squelch Level Selectable / Scrambler / One-Key Frequency Copy / Frequency Copy (Over The Air)

SPECIFICATIONS

| General | | | |
|-----------------------------|----------------------------|--|--|
| Frequency Range | 446-446.2MHz | | |
| Channel | 16 | | |
| Working Voltage | 7.4VDC | | |
| Working Temperature | -20°C+60°C | | |
| Antenna | High Gain Antenna | | |
| Antenna Impedance | 50 Ω | | |
| Mode of operation | Simplex or Semi-duplex | | |
| Weight | 140g (4500mAh) | | |
| Dimension | 131×58×34.5 mm | | |
| Tran | smitter | | |
| Frequency Range | 446-446.2MHZ | | |
| RF Power | 0.5W | | |
| Modulation Type | FM | | |
| Spurious Radiation | ≤7.5 μ W | | |
| Modulation Noise | <-40dB | | |
| Modulation Distortion | <5% | | |
| Frequency Stability | 5ppm | | |
| Max Fr. Deviation | ≤± 5KHz | | |
| Current | ≤ 1200mA | | |
| Audio Response (300-3400Hz) | +6.5~-14dB | | |
| Adjacent Ch. Power | ≥65dB | | |
| Re | ceiver | | |
| Frequency Range | 446-446.2MHZ | | |
| Sensitivity | ≤0.2 μ V | | |
| Occupied Bandwidth | ≤16KHz | | |
| Selectivity | ≥65dB | | |
| Intermodulation | ≥55dB | | |
| Audio Power Output | 1W | | |
| Audio Distortion | ≤5% | | |
| Frequency Stability | 5ppm | | |
| Current | Standby 55mA Working 150Ma | | |
| Audio Response (300-3400Hz) | +7~-12.5dB | | |

ACCESSORIES INCLUDES IN BOX









4500mAH

Charger

Hi-Gain Antenna

Belt Clip

OPTIONAL ACCESSORIES



C Type Handsfree



D Type Handsfree



Clear Tube Handsfree



Boom Mic Handsfree



Water Proof Cover



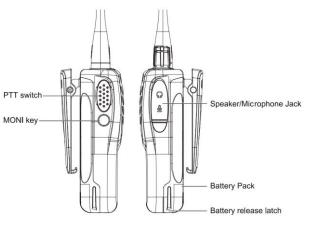
Programming Cable

GETTING ACQUAINTED

| | A |
|--|--------------|
| Antenna | $+ \mbox{m}$ |
| LED indicator light | |
| The indicator light turns red when transmit, turns green when receive. | |
| Speaker | |
| Microphone | |
| | |
| Ę | |

Channel-selecting knob Choose channel 1-16 by rotating

Power/volume knob Power on by rotating clockwise, Power off by rotating counter clockwise till hear the "kata" sou VOL control by rotating.



रजिस्ट्री सं० डी० एल०-33004/99

HRG azette of India

असाधारण

EXTRAORDINARY भाग II—खण्ड 3—उप-खण्ड (i) PART II—Section 3—Sub-section (i)

IKI II—Section 5—Sub-section

प्राधिकार से प्रकाशित PUBLISHED BY AUTHORITY

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 NEW DELHI, THURSDAY, OCTOBER 18, 2018/ASVINA 26, 1940

संचार मंत्रालय (बेतार योजना एवं समन्वय स्कंध) अधिसूचना

नई दिल्ली, 18 अक्तूबर, 2018

सा.का.नि.1047(अ).—केंद्रीय सरकार, भारतीय तार अधिनियम, 1885 (1885 का 13) की धारा 4 और धारा 7 तथा भारतीय बेतार तारयांत्रिकी अधिनियम, 1933 (1933 का 17) की धारा 4 और धारा 10 द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए निम्नलिखित नियम बनाती है, अर्थात्: —

1. **संक्षिप्त नाम और प्रारंभ** - (1) इन नियमों का संक्षिप्त नाम निम्न शक्ति और अति निम्न शक्ति शोर्ट रेंज रेडियो आवृत्ति युक्तियों का उपयोग (अनुज्ञप्ति की अपेक्षा से छट) नियम, 2018 है।

(2) ये राजपत्र में उनके प्रकाशन की तारीख को प्रवृत्त होंगे ।

2. परिभाषाए -- इन नियमों में, जब तक कि संदर्भ से अपेक्षित न हो, --

(क) "अधिनियम" से भारतीय तार अधिनियम, 1885 (1885 का 13) अभिप्रेत है;

(ख) "प्राधिकारी" से भारतीय तार अधिनियम, 1885 (1885 का 13) की धारा 4 की उपधारा (2) के अधीन केंद्रीय सरकार द्वारा अधिसूचित प्राधिकारी अभिप्रेत है;

(ग) "प्रभावी विकिरण शक्ति (दी गई दिशा में) " अथवा ई.आर.पी से अभिप्रेत है; दी गई दिशा में एंटीना को भेजी गई शक्ति और "हाफ-वेब ध्रुव ऐन्टेना " के सापेक्ष इसके सिग्नल में बढोत्तरी का गुणांक।

(घ) "समतुल्य समस्थानिक विकिरण शक्ति" से अभिप्रेत है, ऐन्टेना के सबसे मजबूत किरणपुंज की दिशा में वास्तविक स्रोत के रूप में वही सिगनल सामर्थ्य देने की कुल शक्ति जिसे एक कल्पित समस्थानिक ऐन्टेना द्वारा विकिरणित किया जाना है;

MINISTRY OF COMMUNICATIONS

(Wireless Planning and Coordination Wing)

NOTIFICATION

New Delhi, the 18th October 2018

G.S.R. 1047(E).—In exercise of the powers conferred by sections 4 and 7 of the Indian Telegraph Act, 1885 (13 of 1885) and sections 4 and 10 of the Indian Wireless Telegraphy Act, 1933 (17 of 1933), the Central Government hereby makes the following rules, namely:

 Short title and commencement.— (1) These rules may be called the Use of Low Power and Very Low Power Short Range Radio Frequency Devices (Exemption from Licensing Requirement) Rules, 2018.

(2) They shall come into force on the date of their publication in the Official Gazette.

Definitions.— In these rules, unless the context otherwise requires, -

(a) "Act" means the Indian Telegraph Act, 1885 (13 of 1885);

(b) "Authority" means the authority notified by the Central Government under sub-section

of section 4 of the Indian Telegraph Act, 1885 (13 of 1885);

(c) "effective radiated power (in a given direction)" or e.r.p. means the product of the power supplied to the antenna and its gain relative to a half-wave dipole in a given direction;

(d) "equivalent isotropic radiated power" or e.i.r.p. means the total power that would have to be radiated by a hypothetical <u>isotropic antenna</u> to give the same signal strength as the actual source in the direction of the antennas strongest beam;

(e) "power density" means the total energy output per unit bandwidth from a pulse or sequence of pulses for which transmit power is at its maximum level, divided by the total duration of the pulses;

(f) "duty cycle" means ratio expressed as a percentage of the cumulative duration of transmission T_{on_cum} within an observation interval T_{obs};

duty cycle $DC = \left(\frac{T_{ont} \text{ essm}}{T_{obs}}\right)_{F_{obs}}$ on an observation bandwidth F_{obs}

(g) words and expressions used in these rules and not defined but defined in the Act and the Indian Wireless Telegraphy Act, 1933 (17 of 1933), shall have the same meanings

respectively as assigned to them in those Acts.

3. Exemption.— No licence shall be required by any person to establish, maintain, work, possess or deal in any wireless equipment for the purpose of usage of low power and very low power short range radio frequency devices or wireless equipment in the frequency band, on non-interference, non-protection and shared and nonexclusive basis, with the equivalent isotropic radiated power or effective radiated power, complying with the technical specification contained in the Tables-I to IX, namely: —

| S.No. | Frequency range in kHz | Transmit power limit/field strength limit/power density limit | Additional parameters (channeling and/ or channel access and occupation rules) | Other usage restrictions | *EN No. |
|-------|---------------------------|---|---|-----------------------------|------------|
| (1) | (2) | (3) | (4) | (5) | (6) |
| 1 | 6765-6795 | 42 dBµA/m at 10 metres | | | EN 300 330 |

Table-I

Inductive device

*EN: is a number and acronym used for Harmonized European Standard as produced by European Telecommunications Standards Institute (ETSI).

Note: For the purpose of this Table, inductive device mean radio devices that use magnetic fields with inductive loop systems for near field communications and typical uses include devices for car immobilisation, animal identification, alarm systems, cable detection, waste management, personal identification, wireless voice links, access control, proximity sensors, anti-theft systems, including radio frequency anti-theft induction systems, data transfer to hand-held devices, automatic article identification, wireless control systems and automatic road tolling.

*EN No.

(6)

EN 300 422

EN 300 422

Table -III

| High duty cyc | le or Continuous | transmission device |
|---------------|------------------|---------------------|
|---------------|------------------|---------------------|

| S.No. | Frequency Range in MHz | limit/field strength | Additional parameters (channeling and/or channel access and occupation rules) | · · | *EN No. |
|-------|---------------------------|----------------------|---|-----|------------|
| (1) | (2) | (3) | (4) | (5) | (6) |
| 1 | 87.5-108 | 50 nW e.r.p. | | | EN 301 357 |

*EN: is a number and acronym used for Harmonized European Standard as produced by European Telecommunications Standards Institute (ETSI).

Note: For the purpose of this Table, high duty cycle or continuous transmission device mean radio device that rely on low latency and high duty cycle transmissions and used for personal wireless audio and multimedia streaming systems used for combined audio or video transmissions and audio or video sync signals, mobile phones, automotive or home entertainment system, wireless microphones, cordless loudspeakers, cordless headphones, radio devices carried on a person, assistive listening devices, in-ear monitoring, wireless microphones for use at concerts or other stage productions, and low power analogue FM transmitters (band 36).

Table -IV

Assistive listening device Transmit power limit/field S.No. Additional Other Frequency parameters usage range in MHz strength limit/power density (channeling and/or restrictions limit channel and access occupation rules) (1)(2)(3)(5) (4) 169.4-169.475 500 mW e.r.p. Channel spacing: $\leq 50 \text{ kHz}$

500 mW e.r.p.

*EN: is a number and acronym used for Harmonized European Standard as produced by European Telecommunications Standards Institute (ETSI).

Channel spacing:

max 50 kHz

Note: For the purpose of this Table, assistive listening device covers radio communications systems that allow persons suffering from hearing disability to increase their listening capability. Typical system installations include one or more radio transmitters and one or more radio receivers.

Table -V

Personal Mobile Radio 446 MHz device

| S.No. | Frequency range in MHz | Transmit power limit/field strength limit/power density limit | Additional parameters (channeling and/or channel access and occupation rules) | | *EN No. |
|-------|---------------------------|---|---|-------------|--|
| (1) | (2) | (3) | (4) | (5) | (6) |
| 1 | 446.0-446.2 | 500 mW e.r.p. | Channel spacing: 6.25 kHz and (12.5 kHz) | | EN 300 113- 2, EN 301 166-2, EN 300 296-2 |
| | | and acronym used for | Harmonized European Standard | as produced | by European |

Telecommunications Standards Institute (ETSI).

Note: For the purpose of this Table, personal mobile radio 446 MHz device means hand portable radio with no base station or repeater use and uses integral antennas only in order to maximise sharing and minimise interference, and which operates in short range peer-to-peer mode and shall be used neither as a part of infrastructure network nor as a repeater;

2

169.4875-

169.5875