Jopix CB-514 Multistandard Fm Am Hand Portable Transceiver Instruction Manual

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Contents

INFORMATION

This symbol means that for the use this equipment, administrative authorization or a license granted by the Telecommunication authorities may be necessary. Restrictions can exist for the use in any EU-27 member states, for more information it consults with their salesperson or Telecommunication Authorities. Member states of the European Union where this equipment may be used:

AT	BE	BG	HR	CY	CZ	DK
EE	FI	FR	DE	EL	HU	IE
IT	LV	LT	LU	MT	NL	PL
PT	RO	SK	SI	ES	SE	

This equipment complies whit Directive 2012/19/EU on waste electrical and electronic equipment (WEEE). Once its useful life is finished, it must be recycled or dismantled. Non-recycled electronic products are potentially dangerous for the environment. For more information, please contact your distributor, salesperson or your local or regional administration.
Electronic products that have not been disposed of in this way are potentially dangerous for the environment and public health due to the possible presence of dangerous substances.

This equipment complies with Directive 2017/2102/EU of the European Parliament of the Council of 15 November 2017 amending Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS).

- This Instruction Manual has been written with the intention of supplying as much information as possible. **PIHERNZ COMUNICACIONES,** S.A. is not responsible for any omissions or any errors in printing or translation.
- It is forbidden the total or partial copy of this Instruction Manual without prior written authorization from **PIHERNZ COMUNICACIONES, S.A.**
- **EU-Contact:**
  PIHERNZ COMUNICACIONES, S.A. C/ Comerç, 2. Nave 12. Polígono Industrial el Plá. 08980 Sant Feliu de Llobregat-Barcelona (Spain).
- Congratulations for selecting and purchasing our high quality product. This radio includes a number of advanced functions and systems; therefore it is important to carefully read this instruction manual before using the radio. With correct use of this product in accordance with the operating method described in this manual, the product will offer trouble-free use for many years.
- This radio using advanced hardware and software design. It includes a special multistandard programmable circuit, which allows you to program the frequency band and operating mode in compliance with the regulations in the various European countries. Therefore, this product can be used in any country of the European Union.
- Check that the radio is programmed correctly, according to the requirements in the country of use.
- Keep this instruction manual for future reference.
- The manufacturer and/or salesperson decline any responsibility for damages induced from improper, incorrect or imprudent use of the equipment.
- The use of this communications radio's without licence, if required, is in breach of applicable legislation and incurs legal responsibilities. For more information, you should consult your Telecommunications Authorities or your salesperson.
- Improper use of this radio is the sole responsibility of the user.

Notes:

- The use of radio equipment´s may be prohibited in some's areas, follow the restrictions of use.
- Follow the requirements of your country for the use this radiocommunications equipment's.

MAINTENANCE AND SAFETY CAUTIONS

- Never attempt to open the radio, no user serviceable components inside. Internal modifications or tampering may cause damage to the radio, and modifying its technical specifications will void all warranty rights. If service or repair is required, please contact to an Authorised Service Centre or specialised technician.
- Vehicles are not normally protected during an electrical lightning. The manufacturer, distributor and salesperson will not take responsibility for damage to the radio if it is used with an external antenna during lightning.
- Do not drive a vehicle while handling the radio for your safety; you need use hands-free devices. Some countries prohibit the operation of the radio while driving a vehicle.
- Do not use this radio in close proximity to medical devices, it may cause interferences.
- Keep the radio out of the reach of children.
- Do not use the radio in prohibited areas (on board aircraft, near the operating area of wireless business stations or their repeater stations).
- The manufacturer, distributor and salesperson declines any responsibility for loss of life and/or property due to

a failure of this equipment when used to perform important tasks like life-guarding, surveillance, and rescue or due to a failure of this product when used with or as a part of a device made by third parties.

- The use of non-original accessories or incompatible with the equipment could cause damage, invalidating the warranty.
- Be sure to reduce the audio output level to minimum before using an earphone or a headset, excessive audio may damage hearing.
- Do not place conductive materials, such as water or metal in close proximity to the radio. A short-circuit may result in electric shock, fire and/or malfunction.
- Use only the Li-Ion battery pack supplying with the radio.
- Do not use the radio if a strange sound, smoke and or strange odors, when the radio is dropped and damaged, when a liquid penetrated inside. Contact with the Authorized Technical Service for checking and/or repair.
- Do not use the equipment in proximity to a TV or radio. It may cause interference in these devices.
- Do not use the radio in a humid, dusty or insufficiently ventilated place.
- Do not place the radio in an unstable or vibrating surface.
- Do not place the radio in proximity to a heat and humidity source, or in direct sunlight for extended time.
- Turn off the radio when not in use for an extended period of time.

FUNCTIONS & FEATURES

- Multistandard mode.
- FM/AM modes.
- Power supply: 7.4 V/1800 mAh Li-ion battery pack.
- Transmission output power: 4 W/1 W.
- LCD backlight.
- Automatic squelch (ASQ).
- Channels scan function.
- Voice operated transmission function (VOX).
- Keypad lock function.
- Emergency channel (9/19).
- Dual watch function (DW).
- Noise reduction circuit (NCR).
- Keypad beep function.
- Roger beep function.
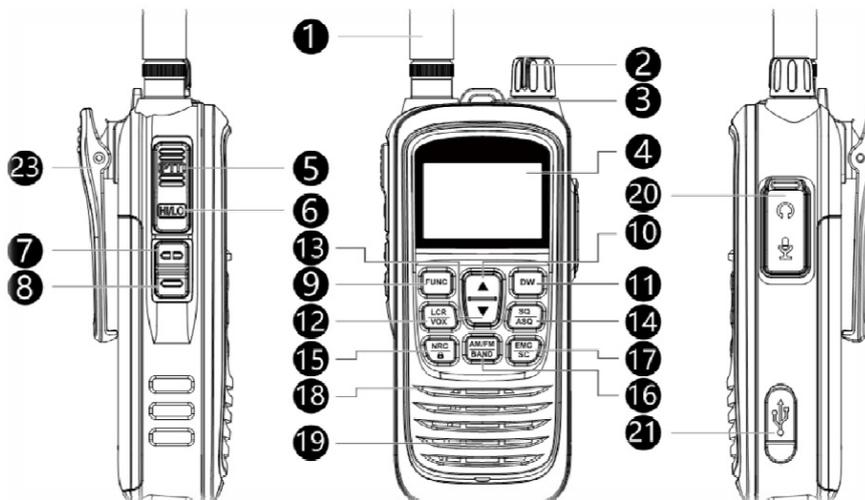
SUPPLIED ARTICLES

Please check that all the following items are included in the packaging:

- CB radio.
- Li-ion battery pack.
- USB-C charging cable.
- Belt clip.
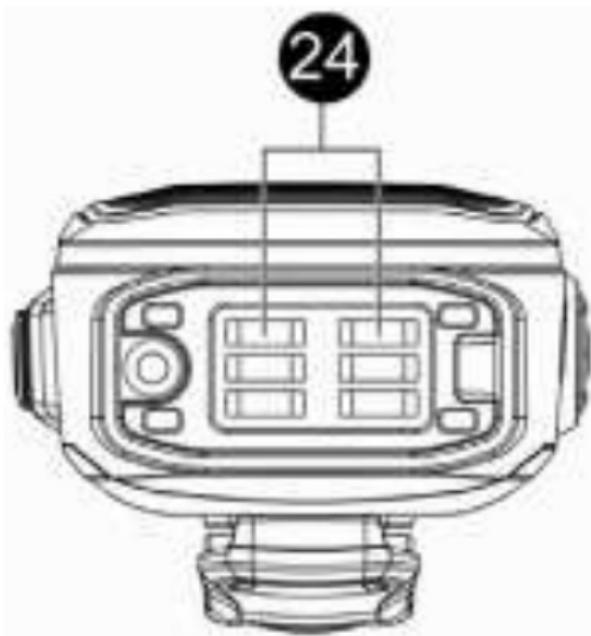- AC/DC adapter.
- Instruction manual.

- Antenna.

CONTROLS AND OPERATION

Front and side view:

Base view:

1. **Antenna:**

   Always ensure that the supplied antenna is attached when using the radio, unless you are using the radio with the vehicle kit plugged into the base (24), in which case the top antenna must be removed.

2. **[ON/OFF/Vol] control:**

   ON/OFF and volume adjust control.

3. **Status LED indicator:**

   Turns green when a signal is received and red when transmitting or when the transceiver battery is charging.

4. **LCD display:**

   Display the radio settings and operating mode.

5. **Push-to-Talk [PTT] key:**

   Press to transmit and release to return to receive mode.

6. **[HI/LO] key:**

Short press to select high (4 W) or low (1 W) transmit power. Low power mode will prolong the battery life but the transmission range will be shorter.

7. **Backlight key:**

Press and hold to turn on the backlight function for a few seconds each time a key is pressed and press and hold again to turn off the function.

8. **Squelch key:**

Short press to enable the "Monitor mode", and listen to all signals (including white noise), "RX" will appear on the display. Short press this key again to turn off the "Monitor mode".

9. **[FUNC] key:**

Press to scroll through the menu options and use the [UP] / [DW] keys to change the selected menu option. Wait a few seconds to save the setting and exit. You can also press the [FUNC] key repeatedly until you return to the current operating channel.

There are 3 setting functions:

- **Keypad beep (ON/OFF)** **:** The radio emits an audible beep when any key is pressed.
- **VOX function (Level 1 to 5):** When in VOX mode, this allows you to change the sensitivity of the VOX function.

  Level 1 is the most sensitive and a low voice will activate the transmission. Level 5 is the least sensitive and a loud voice will be needed to activate the transmission.

- **Roger Beep (ON/OFF)** **:** Adds a tone to end of each transmission.

10. **[** **] key:**

Short press this key to move the channel up by one. Press and hold to scroll up the channels more quickly.

Note:

- This key can also be used to change menu options.

11. **Dual watch [DW] key:**

This key allows you to monitor two channels at once. To use this function, choose the first channel you wish to monitor using the [ ] and [ ] keys, then press and hold the [DW] key and when the channel number flashes select the second channel, press the [DW] key to set the second channel.

To monitor both channels, short press the [DW] key. To stop the dual watch function, short press the [DW] key again.

12. **[LCR/VOX] key:**

Short press to select the last operated channel and press again to return to the current operating channel. Press and hold to toggle the "VOX" function on and off. With the function is on, the radio will transmit automatically when a sound is picked up by the microphone (or accessory plugged into jack 20).

Note:

- The "VOX" sensitivity function can be changed in the settings menu.

13. **[** **] key:**

Short press this key to move the channel down by one. Press and hold to scroll down the channels more quickly.

Note:

- This key can also be used to change menu options.

14. **[SQ/ASQ] key:**

Press and hold the [SQ/ASQ] key to change "SQ" or "ASQ", the LCD shows the selected squelch type. Short press the [SQ/ASQ] key to enter squelch settings level (SQ) or autosquelch level (ASQ). Press the [▲] / [

▼] keys to set the level and press the [SQ/ASQ] key to save the setting and exit.

Lower levels allow weaker signals to be heard.

Squelch (SQ) levels:

0 = Squelch off (hear all signals and noise).

25 = Highest squelch level (hear only the strongest signals).

Auto-squelch (ASQ) levels:

1 = Lowest auto-squelch level (hear weak signals but also maybe noise).

5 = Highest auto-squelch level (hear no noise but only the strongest signals).

15. **[NCR/ 🔒] key:**

Short press this key will turn on/off the noise reduction circuit. When turn on, "NRC" is shown on the LCD.

Press and hold to turn on/off the keypad lock function. When the keypad lock function is on, can only usable the [PTT] key.

16. **[AM/FM/BAND] key:**

Short press this key to switch between FM and AM mode (when multistandard mode allows both modulation modes).

Press and hold to select multistandard mode (consult the setting multistandard mode chapter).

17. **[EMG/SC] key:**

With each press of this key, you can select channel 9, channel 19 and the current operating channel.

Note:

- The LCD will show "EMG" when select the emergency channel.

  Press and hold this key to switch on/off the channel scan. Scanning stops on an active channel. Press the [▲] / [▼] key to change the scan direction.

  Note:

- "SC" flashes on the LCD when the scan function is on.

18. **Microphone:**

Speak into the microphone when transmitting (unless using an optional external microphone).

19. **Speaker:**

Automatically switch off when an optional external headset is used.

20. **Accessory socket:**

Compatible with 2 pin headphones (Kenwood wired).

21. **USB-C charging socket:**

Allow to charge the battery pack of the radio from a standard USB Type-C charging cable.

The status LED indicator LED will light red whist the battery is charging and will turn off to indicate that the battery is fully charged. See the chapter of charging the radio's battery.

22. **Belt clip.**

23. **Vehicle kit interface:**

Allow you to attach the optional vehicle kit which powers and charges the radio battery pack from a 12 VDC supply and allows the use of an external antenna. This kit will provide much wider range when using the radio inside a vehicle.

Note:

- The antenna (1) must be removed from the radio when using the vehicle kit.

CHARGING THE BATTERY PACK

1. Plug the supplied USB-C charging cable to the supplied AC/DC adapter or a suitable USB adapter capable of supplying at least 5 VDC/1000 mA.
2. Plug the small USB-C end into the charging radio's socket (21).
3. The radio status LED indicator will light red. If the radio is powered on, the battery level indicator on the LCD will also show that the battery is charging.
4. To fully charge the battery pack will take approximately 3-4 hours. When the battery charging process is complete, the LED indicator will turn off to confirm that the battery pack is fully charged.

Mains USB AC/DC adapter	Vehicle USB adapter	Vehicle kit
Input: 100-240 VAC/50-60 Hz/0.4 A.Output: 5 VDC/2 A/10 W.	Input: 12-24 VDC.Output: 5 VDC/1 A.	Input: 12 VDC only.

Notes:

- The battery pack can also be charged by using the optional 12 VDC vehicle kit or 12 VDC/24 VDC USB vehicle adapters. Consult your salesperson for more information.
- Do not dispose of the battery pack in fire and keep it away from heat sources.
- Never attempt to disassemble the battery pack.
- Do not short-circuit the positive and negative terminals.
- Use only a suitable charger.

FREQUENCY BAND SELECTION (MULTISTANDARD MODE)

This JOPIX CB-514 radio must be programmed and operated only on a frequency band allowed in the country where the equipment is used. To program a frequencies band, follow below procedure:

1. Press and hold the [AM/FM/BAND] key until the frequency band ID code flashes on the LCD.
2. Use the [▲] / [▼] keys to choose the required frequency band ID code (see table below).
3. Short press the [AM/FM/BAND] key to save the setting and exit.

UK/EU selection ("UK" frequency band):
If the UK frequency band has been selected, the 80 available UK channels can be accessed by short pressing the [AM/FM/BAND] key which will change between the UK (FM) → EU (FM) → EU (AM) frequency bands.
If the radio is programmed to a different band that allows AM/FM operation, this key will simply alternate between AM and FM modes.

Frequency band table:

8 programmable frequency bands are available, according to the following table:

FREQUENCY BAND ID CODE	COUNTRY	SPECIFICATIONS(Channels, operating modes, TX power)
UK	UK	40 CH FM (UK channels) 40 CH FM (CE channels)
CE	EUROPE	40 CH FM 4 W
EU	EUROPE	40 CH FM 4 W – 40 CH AM 4 W
IN	EUROPE	27 CH AM / FM 4 W
DE	GERMANY	40 CH FM / AM 4 W80 CH FM 4 W
I2	ITALY	34 CH AM / FM 4 W
IO	ITALY	40 CH FM 4 W – 40 CH AM 4 W
PL	POLAND	40 CH FM 4 W – 40 CH AM 4 W

TECHNICAL SPECIFICATIONS

General:

Frequency range: 26.565 MHz – 27.99125 MHz (According the multistandard mode setting).
Channels no.: Up to 80 channels (According the multistandard mode setting).
Operating temperature: 0 ºC to +45 ºC.
Power supply: 7.4 V/1800 mAh Li-Ion battery pack.
USB charge input: 5 VDC/1 A.
AC/DC adapter: 240 VAC/5 VDC.
Dimensions (H x W x D): 152 x 66 x 39 mm (approx.).
Peso (witch battery & antenna): 350 g (approx.).

Receiver:

Sensitivity: 0.25 µV @ 12 dB.
Audio output: 1 W @ 8 Ω.
Image rejection: 70 dB.
Adjacent channel rejection: 60 dB.
Frequency response: 300-3000 Hz.
1st IF frequency: 10.7 MHz.
2nd IF frequency: 450 kHz.

Transmitter:

Frequency error: ±300 Hz.
RF output power: 4 W.
Spurious emissions: <4 nW (-54 dBm).
Modulation: 80 % to 90 % (AM).
Desviation: 1.7 kHz – 2.0 kHz (FM).
Antenna impedance: 50 Ω (unbalanced).
Current: 1.3 A (maximum).

TROUBLESHOOTING

If you have problems with the operation of the radio, please contact your salesperson or Authorized Technical

Service.

WARRANTY CONDITIONS

The warranty conditions comply with all the rights that the consumer or user has in accordance with the provisions of the General Law for the Protection of Consumers and Users. These guarantee conditions are independent of the rights that the consumer or user has against the salesperson derived from the purchase-sale agreement of the equipment.
This radio is warranted for a period of three years to repair any fault or defect free of charge whenever it is due to a manufacturing fault or a defective component that implies the not product conformity.
The warrantee is unique and non-transferable, and cannot be reissued in original or copy.
Replacement due to failure of the equipment, any accessory or part of it will not imply an extension of the warranty. In case that the equipment is replaced by a new one, the term will always have at least a guarantee period of six months from delivery, but in no case does a new period of three years begin.
The warranty covers the free replacement of all parts that have defects in the materials and components used in the manufacture and/or assembly of the equipment.
The verification of the accessories is the responsibility of the user at the time of purchase of the equipment.
The warranty does not cover damages caused by accidents, installation and improper use, use of non-original or incompatible accessories, connection to a different voltage specified, or deterioration in the external appearance by normal use or repairs carried out by personnel other than the Authorized Technical Service.
The warranty doesn't cover the equipment and accessories in those that the serial number has been modified, erased or show up illegible.
The warranty doesn't cover the rechargeable batteries neither although these are part of the acquired equipment since they are considered fungible material. Its possible defects should be communicated in a maximum term of 15 counted DAYS starting from the date of purchase of the equipment.
To make use of the warranty it is necessary to deliver the damaged equipment together with its accessories and the ticket or purchase invoice to the salesperson or Authorized Technical Service.

EU STATEMENT OF COMPLIANCE

PIHERNZ COMUNICACIONES, S.A. I.D. number: A-08671638. C/ Comerç, 2-22. Nave 12. Polígono Industrial El Plá. 08980 Sant Feliu de Llobregat-Barcelona (SPAIN).

Product description:

Equipment: MULTISTANDARD FMAM CB-27 HANDPORTABLE
Brand: JOPIX
Model: CB-514
Manufacturer: PIHERNZ COMUNICACIONES, S.A.
Made in: P.R.C.

Declare under our sole responsibility that the named equipment it's conforms to the provisions of the Directive 2014/53/UE of the European Parliament and of the council of 16 April 2014 on the harmonization of the laws of the Member States relating to the making available on the market of radio equipment and repealing Directive 1999/5/EC.

The product conformity is especially evidenced by full compliance with the following standards:

- **ETSI EN** 300 433 V2.1.1 (2016-05).
- **ETSI EN** 301 489-1 V2.2.3 (2019-11).
- **ETSI EN** 301 489-13 V1.2.1 (2002-08).
- **EN** 62368-1 (2020) + A11 (2020). EN 62311 (2020).

The notified body 0700 "PHOENIX TESTLAB GmbH" has issued the EU-Type Examination (Module B) Certificate number: 23-210669-23220669.

Sant Feliu de Llobregat-Barcelona (Spain), 5 September 2023.

Jordi Pi Anton, CEO-General Manager. PIHERNZ COMUNICACIONES, S.A.

Documents / Resources

	Jopix CB-514 Multistandard Fm Am Hand Portable Transceiver [pdf] Instruction Manual CB-514 Multistandard Fm Am Hand Portable Transceiver, CB-514, Multistandard Fm Am Hand Portable Transceiver, Hand Portable Transceiver, Portable Transceiver, Transceiver