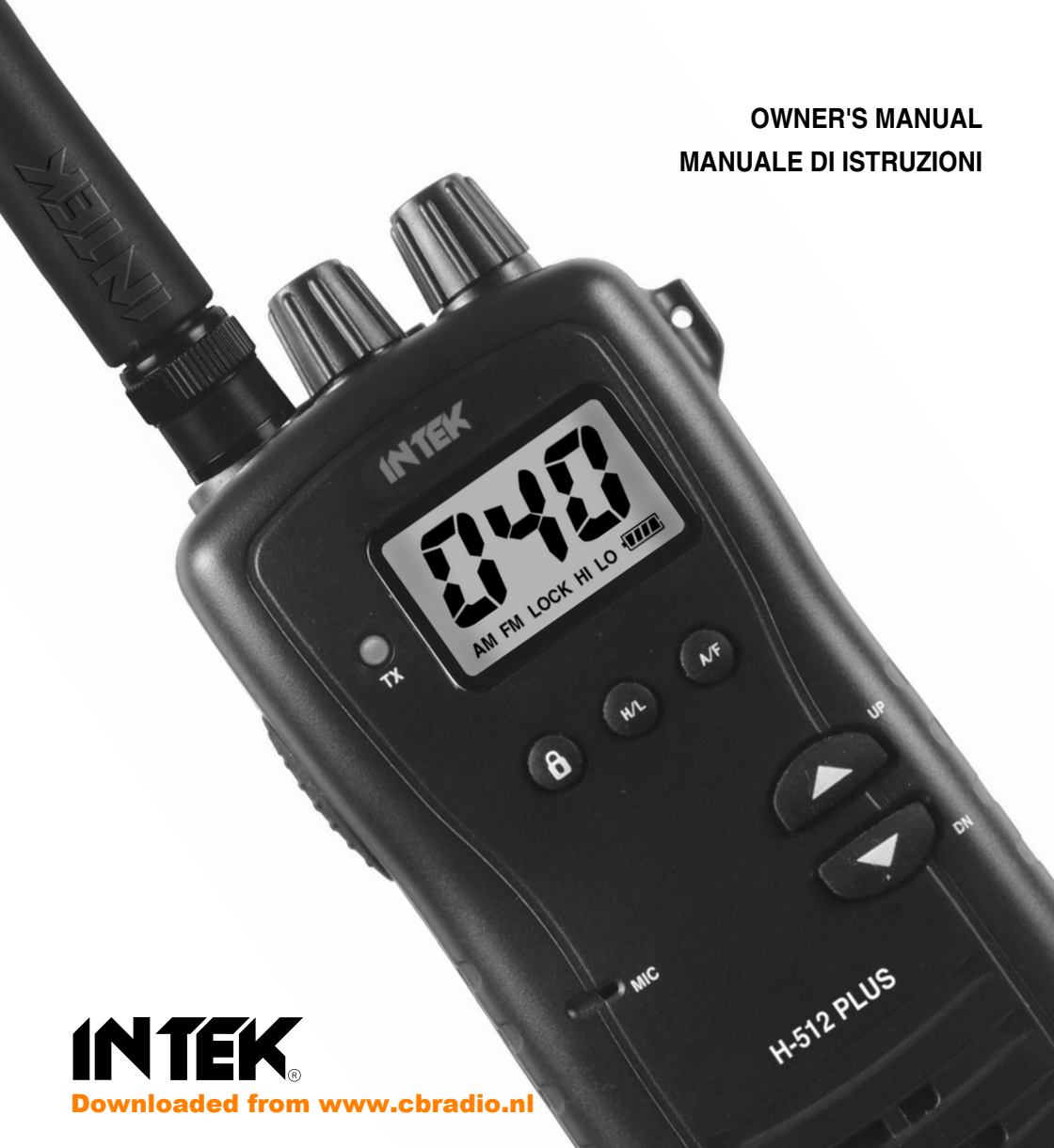


# H-510 PLUS H-512 PLUS

MULTISTANDARD PROGRAMMABLE  
27MHz CB HANDHELD TRANSCEIVERS

OWNER'S MANUAL  
MANUALE DI ISTRUZIONI



**INTEK**<sup>®</sup>

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## NOTICE !

Before using this transceiver, please check that the radio has been programmed on the frequency band, specifications and operating modes allowed by the regulations valid in the country where the product is used. If not, please proceed to modify the frequency band programming, as it is described in this owner's manual. This transceiver is factory pre-programmed on the CE European frequency band CEPT 40CH FM 4W (H-512 PLUS) or on the E1 band 40CH AM 4W (H-510 PLUS).

It is recommended to carefully read this owner's manual before using the product. This will also help the user to prevent using the radio in violation of the regulations valid in the country where the product is used, as well as to avoid any possible interferences with other services.

## Congratulations!

Congratulations for selecting and purchasing an INTEK quality product. This transceiver includes a number of advanced functions and systems, therefore it is definitely necessary to carefully read this owner's manual before using the radio. With a correct use of the product in accordance with the operating method described in this manual, the product will offer a trouble free use for many years. INTEK is constantly engaged to develop and provide quality products meeting the customers requirements, however any suggestion or comments on this product that might help us to improve quality are warmly welcome. This transceiver has advanced hardware and software design, it includes a special multi-standard programmable circuit, which allows to program the specifications of the radio (frequency bands, operating modes, transmitter power) in compliance with the regulations valid in the various European countries. Therefore this product can be used in any country of the European Community. Using this two-way radio is quite easy and only a few minutes are required to get familiar with it. The operating method and design are the results of years of experience in the development and production of RF communication equipment, for personal an professional use. However it is strongly recommended to carefully read this manual in order to get the maximum performances from your transceiver.

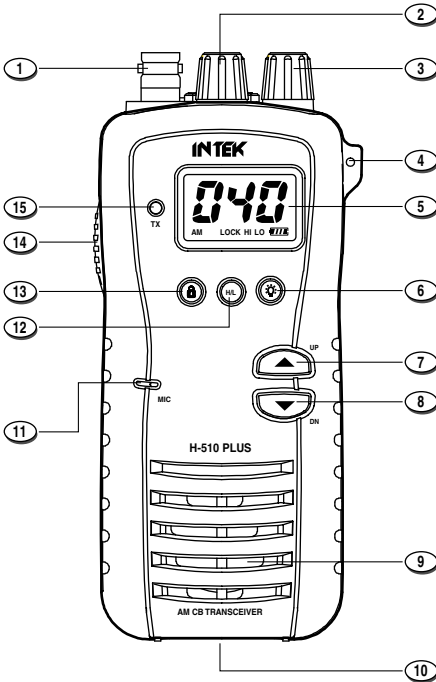
## Content of the Package

Please carefully check that all the following items are contained in the packaging :

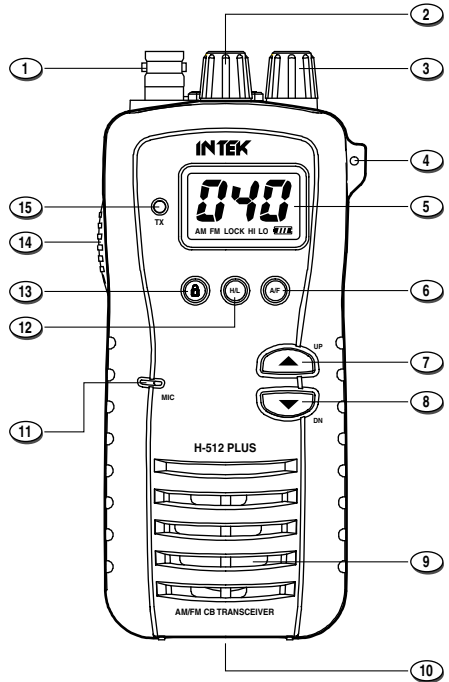
- Transceiver
- Rubber antenna
- Belt clip with mounting hardware
- Carrying strap
- User manual

# Controls, Indicators and Operation

## Front Panel



**H-510 PLUS**



**H-512 PLUS**

### 1. Antenna Connector

Connect the supplied rubber antenna to this BNC connector, insert and gently turn it clockwise until blocked. Do not overtighten. **If the antenna is not or not correctly connected, damage may be caused to the radio.**

### 2. SQ/SQL Control

SQL CONTROL (SQUELCH manual adjustment)

The SQL control allows to silent the receiver by cutting the background noise, when no signals are received. Turn the knob clockwise until the background noise is cut. Turn the knob counter clockwise (SQUELCH opening) in order to listen to the weakest signals.

SQ CONTROL (SQUELCH fixed setting)

The SQ function allows to automatically silent the receiver, avoiding the SQUELCH manual adjustment. A fixed SQUELCH threshold is factory pre-set. To enable the fixed SQUELCH function, turn the knob fully counter clockwise to the SQ position, until a click noise is heard.

### 3. VOL (OFF/Volume) Control

This knob switches the radio ON and OFF and it adjusts the volume control. If no signals are being received on the operating channel, it is suggested to open the SQUELCH and adjust the volume to the desired level while listening to the background noise.

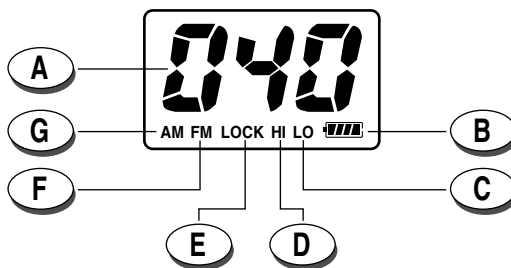
### 4. Handstrap Hole

Hole to insert and attach the supplied carrying handstrap.

### 5. LCD Display

Large size LCD display with green color backlight function for best readability in darkness. It indicates simultaneously all the programmed settings and all the enabled functions, such as the operating channel number, the operating mode and 4-bar battery level indicator.

### LCD Display



#### A. Channel Number

It indicates the operating channel number or the frequency band ID code.

#### B. Battery Level Indicator

It shows the current battery level condition.

#### C. LO Icon

The LO icon (C) is lighted when the transmitter is in LOW POWER mode (1W).

#### D. Icona HI

The HI icon (D) is lighted when the transmitter is in HIGH POWER mode (4W).

#### E. LOCK Icon

The LOCK icon (E) is lighted when the keypad lock function has been enabled.

#### F. FM Icon (H-512 PLUS)

The FM icon (F) is lighted when radio has been set to the FM (Frequency Modulation) operating mode.

#### G. AM Icon

The AM icon is lighted when radio has been set to the AM (Amplitude Modulation) operating mode.

## ***Controls, Indicators and Operation***

### **6. LIGHT Key (H-510 PLUS)**

Press the LIGHT (6) key to backlight the LCD display, press the key again to switch OFF backlight.

### **A/F (AM/FM) Key (H-512 PLUS)**

Use the AF key to select the AM or FM operating mode in both RX and TX. The AM/FM operating mode selection is possible only if it is allowed by the programmed frequency band, otherwise the AM/FM selection is not possible.

### **7. UP (QUICK UP) Key**

Shortly press the UP (9) key to increase the channel number by one channel up at every key press. By keeping this key pressed, the quick channel selection mode will be enabled.

### **8. DN (QUICK DN) Key**

Shortly press the DN (8) key to decrease the channel number by one channel down at every key press. By keeping this key pressed, the quick channel selection mode will be enabled.

### **9. Built-in Speaker**

Built-in front speaker.

### **10. Car Adaptor Contacts**

Car adaptor contacts and fixing screw.

### **11. Built-in Microphone**

Built-in microphone.

### **12. H/L Key**

The transmitter RF output power is selectable in 2 levels (1.0W or 4.0W). This function is very convenient to reduce the current drain and extend battery life when communicating within short distance. The 4W RF output power level is available only if it is allowed by the programmed frequency band. Press H/L (12) key to select the transmitter RF output power HI (High Power 4W) or LO (Low Power 1W). The HI (D) or LO (C) icons will appear on the LCD Display (5).

### **13. LOCK / Keypad Tone Key**

LOCK

Press the LOCK (13) key for a few seconds to enable the keypad LOCK function. Press the key again to disable.

KEYPAD PROGRAM TONE

When a key is pressed, a beep tone is heard to confirm your command. To enable or disable this keypad program tone press and keep pressed the LOCK (13) key while switching ON radio, by turning the VOL (3) control clockwise.

### **14. PTT (Push-To-Talk) Key**

Press the PTT (14) key to transmit and hold it during transmission. The TX LED indicator (15) will be lighted during transmission. Release the key at the end of your transmission to return to the receive mode.

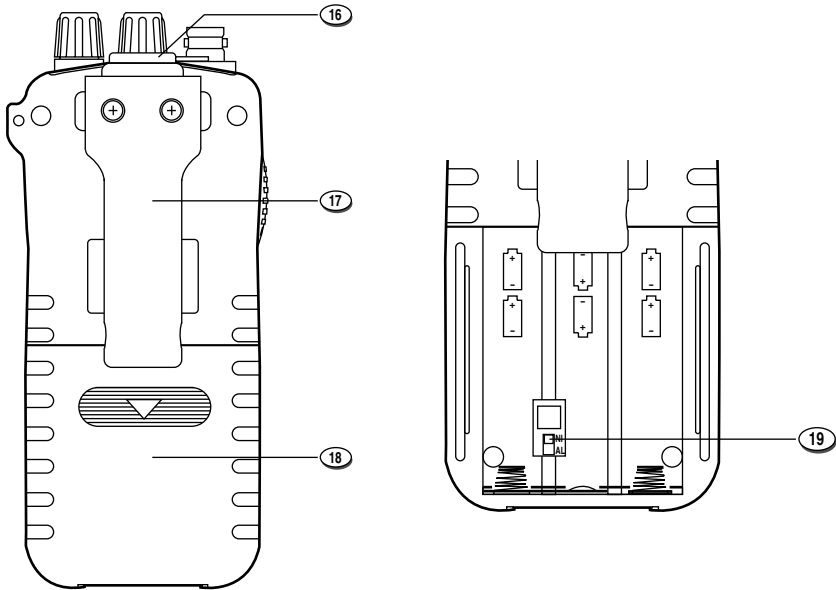
**WARNING ! Do not touch the antenna during transmission.**

### **15. TX LED**

This red color LED indicator (15) lights up when radio is in transmit mode.

# Controls, Indicators and Operation

## Rear Panel



### 16. Earset-Microphone-Charge Jack

Connect an external earset-microphone to this jack. Connect the 230VAC battery travel charger (AC-520) to this jack.

#### **WARNING !**

Use only original accessories. Connecting and using accessories other than the original ones, may cause serious damage to the radio and will void the warranty.

Always set the volume to minimum before connecting an external earset, in order to avoid damaging the earset or the user's ear.

### 17. Belt Clip

### 18. Battery Door

Open this cover (18) to install or remove batteries.

### 19. Battery Type Selector

The battery type selector (18) is located inside the battery room. Set the switch (19) to **Ni** if rechargeable batteries are used. Set the switch (19) to **AL** if alkaline batteries are used.

## **WARNING !**

Do never try to open the cabinet of the radio. No user serviceable parts are inside the cabinet. Tampering or modifying the circuit of the radio or its original factory adjustment may cause damage to the product, may change the electrical specifications and will void the warranty. If service is required, please refer only to a qualified and authorized service center.

# **Battery Operation**

## **Installing and Checking Batteries**

Slide down and remove the battery door (18) to access the battery room. Set the battery type switch (19) according to the type of used batteries (**Ni** for rechargeable batteries and **AL** for alkaline batteries). Install 6 x AA size alkaline batteries or rechargeable batteries and pay attention to install it with the correct polarity as indicated in the battery room. Switch ON radio by turning the OFF/VOL (3) control and check the battery level on the battery level indicator (B), 4 bars mean full charge, 3 bars mean normal charge, 2 bars mean half charge and 1 bar means low battery condition. If no bars appear, batteries must be immediately replaced or recharged. Please refer to the following item BATTERY CHARGING.

## **Battery Charging**

If the battery level indicator (B) shows a low battery condition, switch OFF the radio and connect the battery travel charger mod. AC-520 to the CHARGE jack (16), then plug it into the 230VAC outlet. To obtain the maximum performance from the batteries, recharge them only when they are fully discharged. The charging time depends on the capacity of the used batteries, it is approximately 12 hours for one set of Ni-MH batteries (1200-1500mAh). When the charging time has expired, unplug the charger from the AC outlet and then disconnect it from the radio.

### **WARNING !**

- 1. Only the Ni-MH (or Ni-CD) batteries may be recharged.**
- 2. Do never try to recharge alkaline batteries, as this might cause damage to the radio or explosion of the batteries.**
- 3. Set the battery type selector (19) to Ni.**
- 4. Always switch OFF radio before starting the battery charging process.**
- 5. Do not recharge batteries for more than 13-14 hours, in order to avoid overcharge or overheating, which could cause damage to the radio.**
- 6. Use only the enclosed battery charger or original INTEK battery chargers.**

## **Frequency Bands Table H-510 PLUS**

### **Frequency Bands Table H-510 PLUS**

The INTEK H-510 PLUS transceiver includes an advanced multi-standard programmable circuit design, which allows to program the radio in accordance with the frequency band, operating modes, transmitter RF output power in full compliance with the local regulations of the country where the radio will be used. A total of 5 programmable frequency bands are available, as per the following table :

<b>FREQUENCY BAND ID CODE</b>	<b>COUNTRY</b>	<b>SPECIFICATIONS (Channels, Operating Modes, TX Power)</b>
<b>E1</b>	<b>ITALY/SPAIN</b>	<b>40CH AM</b>
<b>I2</b>	<b>ITALY</b>	<b>36CH AM</b>
<b>DE</b>	<b>GERMANY</b>	<b>12CH AM 1W</b>
<b>EU</b>	<b>EUROPE/FRANCE</b>	<b>40CH AM 1W</b>
<b>PL</b>	<b>POLAND</b>	<b>40CH AM POLISH FREQUENCIES</b>

**WARNING !** The radio has been factory pre-programmed on the **E1 (40CH AM 4W)** frequency band, as this standard is currently accepted by some countries (Italy and Spain). Please refer to the information table at page I (Restrictions on the use of CB transceivers).



# Frequency Bands Table H-512 PLUS - User Information

## Frequency Bands Table H-512 PLUS

The INTEK H-512 PLUS transceiver includes an advanced multi-standard programmable circuit design, which allows to program the radio in accordance with the frequency band, operating modes, transmitter RF output power in full compliance with the local regulations of the country where the radio will be used. A total of 8 programmable frequency bands are available, as per the following table :

FREQUENCY BAND ID CODE	COUNTRY	SPECIFICATIONS (Channels, Operating Modes, TX Power)
E1	ITALY/SPAIN	40CH AM / FM 4W
I2	ITALY	36CH AM / FM 4W
DE	GERMANY	80CH FM 4W - 12CH AM 1W
D2	GERMANY	40CH FM 4W - 12CH AM 1W
EU	EUROPE/FRANCE	40CH FM 4W - 40CH AM 1W
CE	CEPT	40CH FM 4W
U	UK	40CH FM 4W UK FREQUENCIES 40CH FM 4W CEPT FREQUENCIES
PL	POLAND	40CH AM / FM 4W POLISH FREQUENCIES

**WARNING !** The radio has been factory pre-programmed on the **CE (CEPT 40CH FM 4W)** frequency band, as this standard is currently accepted by all the European countries. Please refer to the information table at page I (Restrictions on the use of CB transceivers).

## User Information

in accordance with art. 13 of the Legislative Decree of 25th July 2005, no. 15 "Implementation of Directives 2002/95/EC, 2002/96/EC and 2003/108/EC, relative to reduction of the use of hazardous substances in electrical and electronic equipment, in addition to waste disposal".



The crossed bin symbol shown on the equipment indicates that at the end of its working life the product must be collected separately from other waste.

The user must therefore take the above equipment to the appropriate differentiated collection centres for electronic and electro technical waste, or return it to the dealer when purchasing a new appliance of equivalent type, in a ratio of one to one.

Appropriate differentiated waste collection for subsequent recycling, treatment and environment-friendly disposal of the discarded equipment helps to prevent possible negative environmental and health effects and encourages recycling of the component materials of the equipment.

Illegal disposal of the product by the user will be punished by application of the administrative fines provided for by the legislative decree no. 22/1997 (article 50 and following of the legislative decree no. 22/1997).

## Frequency Band Selection / Programming

The radio must be programmed and used exclusively on the frequency band allowed by the regulations of the country where the radio will be used. In order to program the frequency band, please refer to the following instructions :

1. Turn OFF radio.
2. Press and keep pressed the PTT (14) key while switching ON radio, by turning the OFF/VOL (3) control clockwise.
3. The current programmed frequency band ID code (A) appears on the LCD.
4. Using the UP (7) or DN (8) keys, select a new frequency band ID code.
5. Shortly press the PTT (14) key to confirm and store.

### UK/CE CHANNELS SELECTION (FREQUENCY BAND "U") (H-512 PLUS)

If the frequency band "U" (UK band) has been selected, all channels can be scrolled using the channel keys. When a UK frequency channel will be selected the display (5) will show the channel number and the indication "U". When a CEPT frequency channel will be selected the display (5) will show the channel number and the indication "C".

### Table of Restrictions on the Use of CB Transceivers (page I)

The following information are to be considered only just as an indication. They are believed to be correct at the time of printing this operating manual. It is however the user's responsibility to check that, in the country where radio is used, the regulations for the use of CB transceivers have not been modified. User is therefore suggested to contact the local dealer or local authority, in order to check the current regulations for the use of CB transceivers, before operating this product. The manufacturer does not take any responsibility if the product is used in violation of the regulations of the country where the product is used.

### Addendum (Updated information on national restrictions)

#### BELGIUM, UK, SPAIN, SWITZERLAND

In order to use this transceiver in Belgium, UK, Spain and Switzerland, residence must have an individual licence. Users coming from abroad may freely use the radio in FM mode, while in order to use it in AM mode they must hold a licence released in their own country.

#### ITALY

Foreigners arriving in Italy must get an Italian authorization.

#### AUSTRIA

Austria does not allow using multi standard programmable CB radios. It is recommended to carefully follow this directives and not to use the product in the Austrian territory.

#### GERMANY

Along some border areas in Germany, the radio can not be used as a base station from channel 41 to channel 80. Refer to local authority (notification office) for details.

# Specifications - Optional Accessories

## Specifications

### General

Channels	Refer to the frequency bands table at pages 8-9
Frequency band	27 MHz Citizen Band
Frequency control	P.L.L.
Operatine temperature	-10°/+55°C
DC input voltage	9.0V (6 x AAA 1.5V alkaline battery) 7.2V (6 x AAA 1.2V Ni-MH battery)
Size	68 (L) x 146 (H) x 38 (D) mm
Weight	185 gr. (without batteries and antenna)

### Receiver

System	Double conversion, CPU controlled super-eterodine
IF	1° 10.695 MHz / 2° 455 KHz
Sensitivity	0.5uV for 20dB SINAD (FM) (H-512 PLUS) 0.7uV for 20dB SINAD (AM)
Audio output	0.3W at 8 ohm
Audio distorsion	<8% at 1 KHz
Image rejection	61dB
Adjacent channel	61dB
Signal/noise ratio	45dB
Current drain	70mA (stand-by)

### Transmitter

System	CPU controlled P.L.L. synthesizer
Maximum RF power	4W at 9.0Vdc
Modulation	AM/FM (H-512 PLUS) AM
Impedance	50 ohm unbalanced
Current drain	1500mA (at no modulation)

**INTEK<sup>®</sup>**