

User Guide  
**EURO-WAVE™**  
& **EURO-COM™**



**Entel UK**

GB

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## Licensing

The EURO-WAVE handheld transceiver is an FM device designed to operate on the PMR446 service.

The PMR446 service was introduced in April 1999 as a license exempt speech service harmonized throughout Europe.



The EURO-WAVE displays "CE" on the serial Number label, indicating its compliance with the essential requirements of the EEC directive for Electromagnetic Compatibility.

Layout and Controls

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## Supplied Accessories

The EURO-WAVE is supplied complete with the following accessories:

1. Non removable antenna
2. Rear clip, non removable
3. Carry strap
4. User guide

## Layout and Controls



Antenna

External microphone/earpiece connection

Rx/Tx LED

LCD display panel

Volume and Select buttons

Enter Button

Microphone

Monitor button

Function button

Speaker

## Layout and Controls



PTT (Press to talk) button

Power On/Off button

Non-removable rear clip

Battery cover

## Layout and Controls

### Battery access and replacement

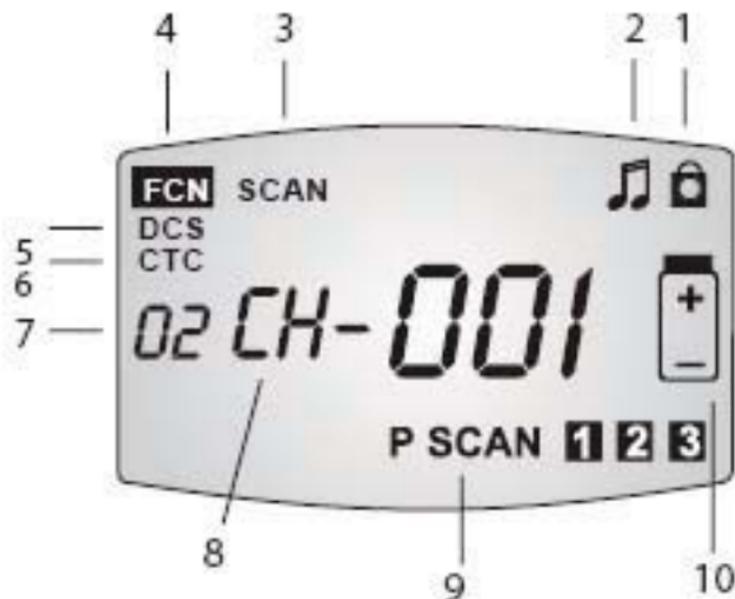


Swing non-removable rear clip away from battery compartment cover

Battery compartment, takes 3AAA alkaline cells or NI-MH battery (not supplied)

Lift battery compartment cover retention clip and remove cover

## LCD Display Explanation



1. Keyboard lock

2. Audible bleep

3. Scan function

4. Function

5. DCS

6. CTCSS

7. Tone code selection

8. Channel number

## Operation

When turning the set on a melody tune sounds. A single tone sounds when turning the set off.

### To Transmit

1. Do not interrupt another user. Momentarily press the monitor button to listen for channel activity.
2. Holding the set 3 - 6cm from your mouth, press the PTT (press-to-talk) button for the duration of speech. Red LED confirms transmitter is active.

### To Receive

Adjust volume to the desired level using Up/Down buttons. The Green LED confirms the receiver is active.

### To Monitor

Press the monitor button to hear if anyone is transmitting on the channel.

Hold the monitor button for more than 3 seconds to enter permanent monitor mode. Press monitor again to exit.

## Functions

The EURO-WAVE transceiver incorporates a number of unique features which will enhance the overall performance of your radio system.

With the power switched on press the "F" key until the desired function is displayed. The functions are displayed in the following order; Channel Selection, CTC (tone code), SCAN, PRI-SCAN, KEYLOCK, Speaker tones on/off.

Note: Once in function mode if no keys are pressed for 5 seconds the EURO-WAVE will revert back to receive mode.

## Functions explained

### 1. Channel Selection

Press the "F" button until the channel number blinks on the LCD Display. Select the desired channel using the UP/DOWN buttons.

### 2. Tone code Selection

There are two types of tone code offered by the EURO-WAVE, CTCSS abbreviated CTC and DCS. Both these tones work in conjunction with the channel to prevent interference from other users who may be working on the same channel. Note: If two groups are communicating within

range of each other using the same channel, despite using different tone codes only one group can use the same channel at any one time. When the channel is being used by a different group the green LED will flash, but no speech will be heard from the speaker. As default this feature is set to off. Press the "F" key until the "- -" blinks. You can then select the desired CTC (CTCSS) or DCS tone code per channel. Ensure that all users in system have the exact same tone code programmed.

### 3. Scan

Scanning allows you to efficiently monitor radio activity on other channels programmed into the EURO-WAVE.

Press the "F" button until the "SCAN" blinks on the display, then press either the UP or DOWN button to start scanning. All channels will be scanned in sequence. If the EURO-WAVE detects any activity it will lock on to that channel. If you wish to skip active channel press either The UP or DOWN keys to resume scanning. Alternatively press the PTT to talk back. If you have programmed any tone codes

then the scan will look for those specific tones only.

### 4. Priority Scan

Priority scan allows you to give priority receive up to 3 channels whilst your EURO-WAVE is set to a different channel. Example:- If you have selected channel 8 and you have programmed your set to give priority to channel 3 then your set can receive calls from channel 3 in addition to channel 8.

Press the "F" until the LCD display shows "P SCAN 1"

(The 1 will blink) priority scan can be set either on or off. To turn on press the up/down button once until "ON" is displayed, then press ENTER. Select the desired channel(s) you wish to give priority, then press ENTER again. There are a maximum of three priority channels available, repeat above steps accordingly.

#### 5. Keypad lock button

To prevent buttons from being pressed inadvertently use the keypad Lock feature.

Press the "F" button until the keylock symbol is

displayed on the LCD display. Then select on to enable. Whilst enabled only the volume level can be adjusted. To disable the keylock press the 'F' once and select off.

#### 6. Speaker tones

To mute all tones from the speaker including power on/off melody tones. Press "F" until "🎵" is displayed on the LCD display. Select ON or OFF.

## Accessories

There is an extensive range of Entel approved accessories available for the EURO-WAVE transceiver. For the up to date range visit [www.entel.co.uk](http://www.entel.co.uk).

- CMP1 Compact remote speaker microphone.
- CHP1 Single earpiece lightweight headset with microphone and in-line PTT switch.
- EHP1 Covert style earpiece.
- EAP1 Covert style earpiece and microphone with in-line PTT Switch.
- EAP1V As above but voice activated

MSP01 Motor cycle earpiece, microphone combination designed for crash helmet

- CNB1 Spare 3.6v, 550mAh NI-MH battery pack
- CSA1 Dual slot rapid/trickle charger for 230VAC operation
- CSA1B Dual slot rapid/trickle charger, 2 pin European type, 230V operation
- CSA1AB Dual slot rapid/ trickle charger for 110V operation
- CMC1 As above but for 12v operation (for

## Installing and charging battery pack

### Installing Battery Pack

Ensure that the EURO-WAVE is switched OFF before installing or removing the battery pack.

1. Remove rear cover of EURO-WAVE by unclipping the latch.

2. Install battery pack ensuring that battery contacts are face down at the bottom of the battery compartment. Arrow of label should point up. No damage can be caused if CNB1 battery is inserted incorrectly.

3. Fasten rear cover.

Note: If using Alkaline batteries pay special attention to the polarity of each battery, as per diagram on battery compartment.

### Charging Battery Pack

Note: If charging the battery pack from new or one which has not been used for several months, leave on charge for 6 hours using the rear slot of the charger only.

The CSA1 is a dual slot charger suitable for 230 VAC operation.

The front slot can accommodate the EURO-WAVE when fitted with the NI-MH battery pack. Charge time 1.5 hours for a fully discharged battery pack. The LED marked "RAPID" will be on during the charge and switch off when the charge is complete.

The rear slot will accommodate the battery pack only and will offer a 3-4 hour trickle charge for a fully

discharged battery. The LED marked "SLOW" will remain green to indicate that it is trickle charging, this LED Status will not change.

The CSA1 can charge both the EURO-WAVE and spare battery pack simultaneously.

Charge times: Front pocket - 1 hour 30 minutes

Rear pocket 3-4 hours

## General care of EURO-WAVE

- Avoid carrying the EURO-WAVE by the antenna
- When audio accessories are not in use ensure that the protective seal is firmly in place.
- Regularly clean the exterior of the EURO-WAVE with a damp cloth.
- Regularly wipe the charging contacts with a lint-free cloth to remove grease or other materials that may prevent good electrical connections.
- The use of accessories not approved for EURO-WAVE may damage the radio and invalidate the warranty.

## Troubleshooting Guide

<b>Problem</b>	<b>Possible Cause</b>	<b>Solution</b>
Radio will not power on.	Battery may be flat. Battery inserted incorretly.	Recharge battery pack. Insert Battery correctly.
Radio will not talk with others.	Radios may be on different channel or have different sub tones.	Check that all radios are in the same group using the same tone.
Hearing other radio's conversations.	Sharing same channel & sub tones as other users.	Select a different channel & subtone.
No audio from speaker.	Speaker muted.	Select a volume level greater than UL-000.
Front control buttons not functioning.	Keylock activated.	Press "F" once and select OFF using down button.
Limited talk range.	Using the radio in a vehicle, basement, steel structure or concrete which reduces range.	Where possible use you radio outside of these areas.
Status LED flashes green but no audio is received	The channel is active but your radio is programmed with a different tone.	Press monitor button to establish if the channel activity is from your group. If so change tone code to match the other radios in your group.
Radio will not transmit. Battery symbol is displayed along with an intermittent warning bleep.	The battery needs charging. At this point you will be unable to transmit, only receive. In this state the battery will last a further 8 minutes before switching off.	Re-change battery pack or fit a spare one.

## General Specifications

Classification	Specification
Channel Capacity	8
Frequency Range	446.00625 to 446.09375 Mhz
Channel Spacing	12.5 kHz
Modulation Type	F3E
Operating Temperature	-20EC to +70EC

Classification	Specification
Approval Specification	RF: ETS 300 296, EMC ETS 300 279
Power Supply	3AAA alkaline cells or NI-MH battery
Battery Life (@ 5-5-90 cycle) alkaline/NIMH	14hr / 9hr
Dimensions	80 (h)mm x 50 (w)mm x 22 (d)mm
Weight (with battery)	120g (4.23 oz)
Battery Voltage - alkaline / NI-MH	4.5V / 3.6V

## **EURO-COM™**

Headband & Hard-hat versions



### **Supplied package:**

Unpack and check that the following items have been enclosed:

1. *EURO-COM* Headset
2. CNB9 Ni-Mh battery pack (Already fitted into the right ear shell)
3. CWC9 Trickle charger, 3-pin UK type, 230V  
(CWC9B 2-pin European type supplied with non UK version)
4. Universal clips (2) \*\*for hard-hat version only

### **Optional accessories:**

- CNB9 Spare Ni-Mh battery pack
- CWC9 Spare trickle charger, 3-pin UK type, 230V
- CWC9B Spare trickle charger, 2-pin European, 230V
- CWC9AB Spare trickle charger, 110V
- HY9 Hygiene kit
- EURO-WAVE* Handportable radio Blue,Black,Yellow

## General Operation

### General operation:

#### Radio functions

*EURO-COM* features *EURO-WAVE* professional PMR446 hand portable transceiver. Please see the enclosed *EURO-WAVE* user guide for all radio related operation instructions.

#### Power button

Press to switch on, press again to switch off.

#### PTT lock

Switch to down position to lock transmitter on. Release to up position to switch off.

Note: When in PTT lock you will be unable to switch *EURO-COM* off.

#### PTT button

Hold down for duration of speech. Release to receive.

\*\*When in transmit, part of your spoken audio, is routed back to the earphones, this confirms that you are in transmit mode.

#### Microphone

The noise cancelling boom microphone should be positioned within 2cm from your mouth.

## General Operation

### Battery pack

The CNB9 battery pack is fitted into the right ear shell. Based on an operation cycle of 5%TX, 5%RX, & 90% stand-by you can expect a duty cycle of 15 hours from a fresh charge.

In the event that you need to fit a replacement battery pack, first carefully remove the outer foam pad from the right ear shell, remove and unplug the battery pack, fit the new pack and re-insert the foam pad.

### Charging

To charge the EURO-COM first locate the DC charging socket which is locate at the top left corner of the right ear shell. Plug in the CWC9 230V trickle charger. The charge time is 8 hours. On the initial charge we recommend a charge time of 12 hours.



## Notes

Use this page to record important information, such as the serial number of your EURO-WAVE

A professional tool for connecting people

[www.entel.co.uk](http://www.entel.co.uk)