

KCB-4000

CB Radio



User Manual

Konformitätserklärung

EU-declaration of conformity



Hiermit erklären wir,
We hereby declare

Maas Elektronik – Peter Maas
Heppendorferstr. 23
D-50189 Elsdorf (Deutschland)

dass sich das Gerät
that the following product

Geräteart: CB Funkgerät AM / FM
Product type: CB radio AM / FM

Typenbezeichnung: **Maas KCB-2000 – Maas KCB-3000 – Maas KCB-4000**
Type designation: *Maas KCB-2000 – Maas KCB-3000 – Maas KCB-4000*

in Übereinstimmung mit den grundlegenden Anforderungen und den übrigen einschlägigen Bestimmungen der Richtlinie 2014/53/EU und 2011/65/EG befindet.
is in compliance with the essential requirements and other relevant provisions of directive 2014/53/EU and 2011/65/EC

*EN 301489-1 V2.2.3 , EN 301489-13 V1.2.1
EN 300433 V2.1.1
EN 62368-1:2014+A11:2017
EN 62311:2008*

Elsdorf 1.8.2022

Verantwortlicher:

Authorized representative:

Peter Maas

Inhaber / CEO

Country standards

Norm	Channels	Frequency range	max. RF power
CE	40FM	26.965-27.405 MHz	4 W
EU	40FM/40AM	26.965-27.405 MHz	1W AM/4W FM
PL	40FM/40AM	26.960-27.400 MHz	4 W
UK	40FM	27.60125-27.99125 MHz	4 W
DE	40FM/40AM	26.965-27.405 MHz 80FM 26.565-27.405 MHz	4 W

Note: The 40CH FM 4W (CE) standard is recognised in all European countries.

Technical specification

Frequency range	26.565 ... 27.405 MHz
Number of channels	depending on country standard
RF power	AM: 1 / 4 W FM: 4 W
Modulation	F3E (FM), A3E (AM)
Impedance	50 Ω
Operating voltage	12 V oder 24 V
Dimensions (W x D x H)	126 mm x 130 mm x 39 mm
Weight	670 g

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SAFETY INSTRUCTIONS

- ◀ Read all warnings to avoid fire, injury or damage.
- ◀ Do not attempt to use the CB radio while driving. This would put you at risk of a traffic accident.
- ◀ This CB radio is designed for a 12/24 V DC power supply. Do not use a higher voltage!
- ◀ Do not place your CB radio on a dusty, damp or unstable surface.
- ◀ Do not connect the antenna while transmitting, as this could result in burns or electric shocks.
- ◀ Please stay away from equipment that could interfere with the use of the radio (e.g. televisions, generators, etc.).
- ◀ Persons wearing pacemakers are advised to keep their distance from the antenna during transmission and especially not to touch it.
- ◀ Do not insert any metal objects inside the CB radio. This can damage the electronics and there is also a risk of electric shock.
- ◀ Avoid exposing your CB radio to temperatures lower than -26°C and higher than $+60^{\circ}\text{C}$. The temperature in a vehicle may eventually exceed 80°C , which may cause damage to your CB radio. Do not expose the CB radio to direct sunlight for long periods of time.
- ◀ Do not place anything on top of the cabinet or it will overheat.
- ◀ Check that the vehicle battery is sufficiently charged.
- ◀ It is important to switch off the CB radio before starting the engine to prevent damage due to high starting voltage.
- ◀ When you replace the fuse, you must use a 2 A type F fuse. Never use a fuse with a higher value.
- ◀ If an unusual smell or smoke is detected from the CB radio, switch off the radio immediately.
- ◀ If possible, do NOT transmit for a long time, as the CB radio heats up, which can lead to errors.
- ◀ Keep children away from your CB radio.

■ More Warnings

Read these operating instructions carefully before connecting or using the radio. Keep the operating instructions for future reference.

Connect an antenna before using the CB radio. Check the SWR before transmitting for the first time. Excessive SWR may cause destruction of internal components, which is not covered by the warranty.

Be sure to contact an authorised service centre for repairs.

Use a suitable power supply unit for stationary operation.

■ Installation

Choose the most suitable place to install the CB radio in your vehicle so that you will not be distracted while driving. Use the supplied bracket and accessories to install the CB radio. The screws must be tightened firmly to avoid mechanical vibration of the CB radio while driving. The mounting bracket can be positioned above or below the CB radio. Depending on the installation method, it can be tilted.

■ Powering the CB radio

The cable supplied has a fuse located in the plug. To power the CB radio, plug the connector into the appropriate socket on the vehicle.

ATTENTION: *Check that the on-board voltage is 12-24 V. If the fuse is blown, do not replace it with a value greater than 2 A.*

■ Antenna

For your CB radio, you need an antenna that is suitable for the CB radio frequency range. To mount and adjust the antenna, it is best to consult a specialist. Normally, the antenna must be positioned at the highest point of the vehicle. The distance to sources of interference should be as large as possible. The antenna's coaxial cable must not be interrupted or crushed. Connect the plug at the end of the antenna cable to the socket on the back of the CB radio.

■ Check CB radio

When the CB radio is installed and connected to the power supply, check that it is working:

- Check that the CB radio is properly powered.
 - Check the antenna connection on the CB radio.
 - Connect the microphone to the socket on the front of the CB radio.
 - Switch on the CB radio by pressing the multifunctional button on the front of the CB radio.
 - Adjust the volume.
- Select the channel using the ▲ and ▼ buttons on the microphone or on the front of the CB radio.
 - Adjust the squelch setting so that the background noise disappears.
 - Press the PTT on the microphone to transmit and release the button to receive.
 - Check the level of the transmitted/received signal using the indicators on the display.

■ Main features

- Manual (SQ) and automatic squelch (ASQ)
- multifunctional display
- Frequency display
- S-meter
- Noise Blanker and HI-CUT filter
- Search function
- Menu for additional settings
- Dual watch function
- Key acknowledgement tone
- CTCSS/DCS (RX and TX separately adjustable)
- Key lock
- Channel 9/19
- Display brightness adjustable

■ Front panel



- 1. Multifunction knob** Long press this button to switch the CB radio on or off. Turn the knob to adjust the volume. When in the menu, press this knob to access a submenu or turn this knob to change a setting.
- 2. ▲ CH+ / ▼ CH-** Press these buttons to change the channel.
- 3. DUAL WATCH** Press this button to activate or deactivate the dual-watch function or to configure it.
- 4. FUNC** Press and hold this button to access the menu for the additional settings.
- 5. SQ/AS** Press this button to enable or disable squelch and select manual or automatic squelch.
- 6. AM/FM /SCAN** Press this button to change the modulation type (AM/FM) and to activate the scan function.
- 7. LOCK** Press this button to enable or disable squelch and select manual or automatic squelch.
- 8. CH 9/19** Press this button to change to the emergency call channel (9 or 19).

MAIN FUNCTIONS

■ Switching the CB radio on and off

Press and hold the multifunction knob [1] to switch on the CB radio. The display appears, first showing the logo, then the channel, standard, frequency, modulation type and active functions.

Note: If AUTO ON is activated in the menu, the CB radio switches on automatically as soon as voltage is applied.

■ Adjusting the volume

Turn the multifunction knob to change the volume. There are 28 volume levels. Briefly press the multifunction knob to deactivate the loudspeaker. MUTE then appears in the display. Press the multifunction knob again or turn it to reactivate the loudspeaker. MUTE disappears and the volume returns to the last setting.



Select a channel

Briefly press the ▲ or ▼ buttons on the microphone or on the radio to change the channel. Long press to speed up the channel change with steps of 5.



■ Functions

■ Activation of the squelch / adjustment of the Sensitivity

Briefly press the **SQ/ASQ** key [5] to activate the squelch. SQL is shown at the bottom left of the display and the current sensitivity. Turn the multifunction knob [1] to set the desired sensitivity, as there are 28 levels (00-28).

Press the multifunction knob to accept the setting or wait 5 seconds. The sensitivity of the squelch is displayed at the bottom left.



■ **Activation of the ASQ / adjustment of the Sensitivity**

Briefly press the **SQ/ASQ** key [5] to activate the automatic squelch.

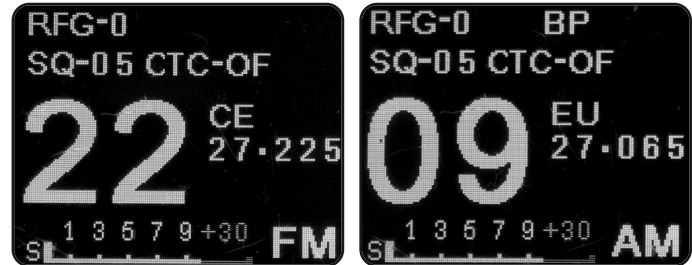
At the bottom left of the display, ASQ is shown and the current level of sensitivity. Turn the multifunction knob [1] to set the desired sensitivity. There were 9 levels (01-09) for the sensitivity of the automatic squelch. Press the multifunction knob to accept the setting or wait for 5 seconds. The sensitivity of the automatic squelch is displayed at the bottom left.

Note: We recommend setting the ASQ to 02.



■ **Modulation AM/FM**

Briefly press the **AF/SC** key [6] to switch between AM and FM.



Note: If the CB radio is set to a standard that this unit does not provide, pressing the AF/SC button has no effect. In this case, only FM is shown on the display.

MAIN FUNCTIONS

■ Dual Watch

1. Press the **DUAL WATCH** button [3] briefly to activate the Dual Watch function.
2. The number of the channel and the DW symbol flash on the display. **Use ▲ and ▼ to select the second channel.**
3. Press the **DUAL WATCH** button again.
4. The display alternatively shows the two monitored channels and DW.
5. Press the **DUAL WATCH** button again to deactivate the dual watch function.



■ EMG (Emergency channel)

1. Press the **9•19/Lock** button [7] briefly to change to the emergency call channel 09. EMG flashes in the display.
2. Press the **9•19/Lock** button again to change to emergency channel 19.
3. Press the **9•19/Lock** button again to return to the original channel. EMG disappears again.



■ Lock (Key lock)

1. Long press the **9•19/Lock** [7] button to lock the buttons.
Only the PTT button can be used.
2. LOCK and a key symbol appear in the display.
3. Press and hold the **9•19/Lock** button again to unlock the buttons.



■ Scan function

1. Press and hold the **AF/SC** button [6] to activate the scan function.
2. SC appears on the display and the channel number goes up or down. Briefly press the **▲** or **▼** buttons to change the search direction.
3. Scanning stops for 10 seconds if the CB radio receives a signal on a channel while scanning. If you want the scan to continue before the 10 seconds have elapsed, long press the **▲** or **▼** buttons. If you want to receive the signal continuously, long press the **AF/SC** button or the **PTT**.
4. To stop the search, long press the **AF/SC** button again or short press the **PTT**.

■ VOX operation

Switching on the VOX

Press and hold the **M** button on the microphone to activate VOX. An acknowledgement tone sounds and the LED on the microphone lights up green.

Speak into the microphone without pressing the PTT. The KCB-4000 switches voice-controlled to transmit. After you stop speaking, the radio switches back to receive after an adjustable hold time.

Setting the VOX hold time

The hold time can be adjusted in four steps. To do this, press and hold the **▲** button on the microphone so that the VOX microphone switches to setting mode, which is confirmed with an acknowledgement tone. Now press the **▲** button briefly. You will hear one to four short acknowledgement tones. If one tone is heard, the hold time is short; if four tones are heard, the hold time is longest. Each short press of the **▲** key advances one step. If you stop pressing the keys, the microphone switches back to normal mode after about 4 seconds.

Setting the VOX sensitivity

The VOX sensitivity can be adjusted in four steps. To do this, press and hold the **▲** button on the microphone so that the VOX microphone switches to the setting mode, which is confirmed by an acknowledgement tone. Now press the **▼** button briefly. You will hear one to four short acknowledgement tones. The sensitivity is highest when one tone is heard and lowest when four tones are heard. Each short press of the **▼** key advances one level. If you stop pressing the keys, the microphone switches back to normal mode after about 4 seconds.

Switching off the VOX

Press and hold the **M** button to deactivate the VOX. The acknowledgement tone sounds and the LED on the microphone goes out. When the VOX is deactivated, you must press the PTT button again to transmit.

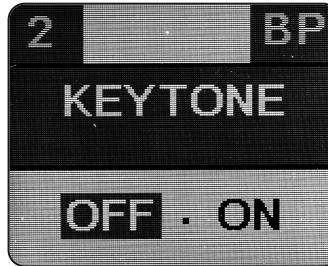
■ **Menu for additional settings**

1. Long press the **FUNC** button [4] to call up the additional settings menu.
2. Turn the multifunction knob [1] to make settings for the following functions: BRIGHT, KEYTONE, NOISE BLANK, HIGH CUT, TIMEOUT TIMER, ROGER BEEP, AUTO ON, RFG, RXCODE, TXCODE, FACTORY RESET.
3. Turn the multifunction knob to select the desired option for the function.
4. Press the multifunction knob to save the setting.
5. Turn the multifunction knob to move to the next setting.



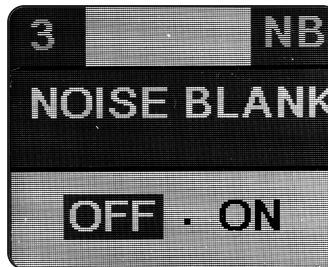
BRIGHT
(Display brightness)

Options: 1 - 2 - 3
(1 - dark, 2 - middel,
3 - bright)



KEYTONE
(Key acknowledgement tone)

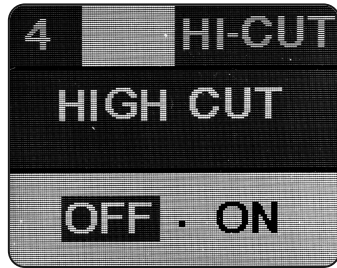
Options:
OFF (deactivated)
ON (activated)



NOISE BLANK
(Noise blanker)

Options:
OFF (deactivated)
ON (activated)

ADDITIONAL SETTINGS



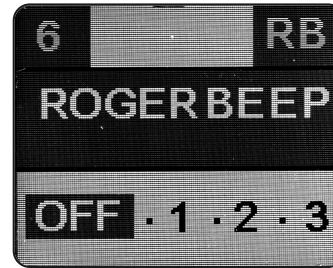
HIGH CUT (Low pass filter)

Options:
OFF (deactivated)
ON (activated)



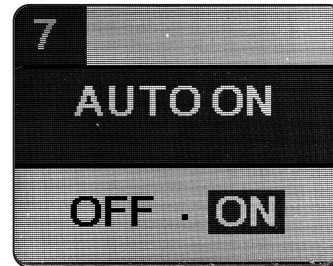
TIMEOUT TIMER (Limitation of transmission)

Options:
OFF (deactivated)
1 MIN ... 9 MIN



ROGER BEEP (Confirmation tone at the end of the transmission)

Options:
OFF (deactivated)
ON (1, 2, 3)



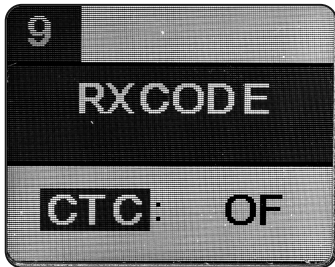
AUTO ON (automatic Switch on)

Options:
OFF (deactivated)
ON (activated)



RFG (RF gain)

Options:
OFF
ON (1, 2, 3, 4, 5, 6, 7, 8, 9)

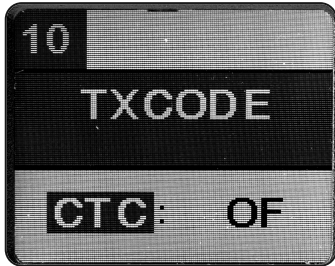


RXCODE and TXCODE (CTCSS/DCS)

CTCSS or DCS can be set separately for reception and transmission.

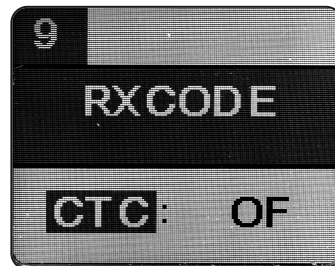
Options for CTC:
OFF

Setting 01 ... 50



Options for DCS:
OFF

Setting 01 ... 104



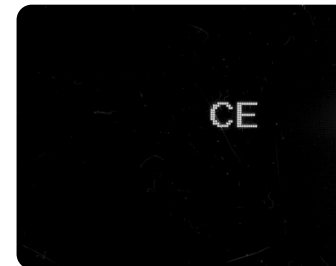
FACTORY RESET (default settings)

Options:
YES
NO

Note: The CB radio can also be reset by the combination MENU + multifunction knob. To do this, keep both buttons pressed when switching on.

Change standard

1. Switch off the CB radio.
2. When switching on, press the green Lock button [7] and the multifunction knob [1] simultaneously.
3. The current standard is shown on the display.
4. Turn the multifunction knob to select the appropriate standard for your country.
5. Switch the CB radio off and on again.
6. The selected standard is shown in the display.



Note: To use the option for selecting the standard, the AUTO ON function must be deactivated (OFF).



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maas funk-elektronik

Owner Peter Maas

Heppendorfer Strasse 23

50189 Elsdorf-Berrendorf

Germany

Tel. +49 (22 74) 93 87-0

Fax +49 (22 74) 93 87-31

info@maas-elektronik.com

www.maas-elektronik.com



When disposing of this radio, please observe the regulations on the handling of electronic waste. must be observed.

Electronic devices do not belong in household waste!