# CB-Mobil-Radio

European Multi Standard Radio with VOX Microphone



## **Instruction Manual**

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#### **MAIN FEATURES AND IMPORTANT NOTES**

- Multi standard CB Radio
- Large LC-Display
- VOX handheld microphone as standard accessoire
- Audio jacks for accessoire with Kenwood standard plug at the front panel
- Several bands selectable (EU, EUH, EC, UK, PL, IN, I2, DE, DEH)
- 8 colours selectable for display backlight
- 2 switchable levels of display brigthness
- Emergency channels CH9 und CH19
- SQ and ASQ levels separat adjustable
- AM and FM mode
- Indication of receive signal strength
- Key lock function
- DC cable with cigarette lighter plug or cable with open leads
- Supply from 12 V DC or 24 V DC possible

From 2020, CB radios may only be used while driving if a hands-free system is available. Violations of this regulation will now be treated as the unauthorized use of a cell phone by a driver!

Regarding the permissions and restrictions of the individual norms in the various european countries, please check the radio passport, which is included in the scope of delivery. The user is solely responsible for the selection of the permissible norm in the country of operation.

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#### **PREPARATIONS FOR OPERATION**

#### Installation of a CB antenna

The antenna is one of the most critical parts in your setup. The type of antenna and its location has a great effect on the range of operation. Please consider the following criteria for selection of the best location and the installation of your antenna:

- Make sure that the antenna is designed for radio operation on 27 MHz.
- The position of the antenna should be elevated without any obstacles nearby.
- The aerial cable should not be damaged and the plugs should be properly connected.
- Make sure that the antenna cable is not bent.
- The bigger the mechanical size of the antenna, the higher the range of operation.

When you install a mobile antenna please note the following advices:

- The antenna should be fixed in the center of a big body-part, e.g. the truck.
- The mobile antenna coil should have the closest possible contact with a conducting metallic surface of the bodywork of the car.

There are other possibilities to fix the antenna onto the car without having to drill a hole into the bodywork of your car, e.g. mounting the antenna with a antenna holder onto the gutter or the trunk. Magnetic mount antennas (with an magnetic base) or windshield antennas, which are glued onto the glass, are also alternatives.

- Please don't mount the CB antenna nearby a radio or TV antenna to prevent interference of radio or TV reception.
- Keep an eye on power lines running along nearby when mounting the antenna on the roof.
- All connected cables including the antenna cable must not exceed a length of 4.5 m.

#### Antenna Connection

Before pressing the transmit key, a suitable antenna must be connected. The PL259 plug of the antenna coaxila cable is connected to the SO239 socket on the rear panel. Make sure, that all plugs are firmly tightened and properly soldered. Insufficient connections can damage the radio and will reduce the range of operation. The antenna should be configured with the radio, otherwise a part of the transmit power will be reflected at the antenna and will not be radiated. This reduces the range of operation. The configuration of an antenna to a radio, is performed by a length adjustment of the antenna's radial for a minimal SWR ratio which can be measured by a SWR meter, e.g. Maas KCB-3000. After the measurement the SWR meter should be removed from the antenna line.

#### Installation in the car

When you want to install the radio in your vehicle, use either the included underdash or radio compartment mounting kit. Always mount the transceiver in a location where the buttons are easily accessible. Other important points to consider for a correct mounting position are:

- roadworthiness,
- good access to the controls of the car,
- sufficient air circulation to prevent overheating of the radio in transmit mode.

Please consider your point of view onto the display while driving. Starting extensive solar irradiation can

also affect the readability of the display. So it is recommended to check the best position before the final fixing.

#### Power source

Before connecting the unit to a suitable power source via the fused DC power cable, the device must be switched off by turning the volume control [VO] counterclockwise to the very end, beyond the threshold, until you hear a click. Then connect the two naked leads at the end of the cable with the supply voltage of the vehicle's battery. The unit is designed to operate with 12 V or 24 V and a negative ground electrical system. Place the cable as far as possible away from aggregates which can cause interferences. Watch for the correct polarity during the connection.

BLACK connect to - MINUS (ground) of the car battery. RED connect to the + PLUS of the vehicle's battery.

After proper connection of the antenna and the power source radio operation can be started.

#### **PREPARATIONS FOR OPERATION**

#### **PREPARATIONS FOR OPERATION / KNOBS AND KEYS**

#### External speaker jack

The KCB-3000 mobile is equipped with a 3.5 mm socket at the rear panel to connect an external speaker of 4-8 ohm impedance. At 4 ohms the speaker load can be 4 watts maximum. When the external speaker is connected, the internal speaker of the radio is muted.

#### Frontpanel

- 1 Volume control with Power-On-Off
- 2 COL/DIM-Key
- 3 LC-Display
- 4 VOX/LOCK-Key
- 5 UP-Key
- 6 SQ/ASQ control
- 7 Socket for speakermicrophone (Kenwood standard)

An external loudspeaker or earphone can also be connected individually to the 2.5 mm jack socket. Please pay attention to the load capacity of the loudspeaker/earphone and only set a low volume.

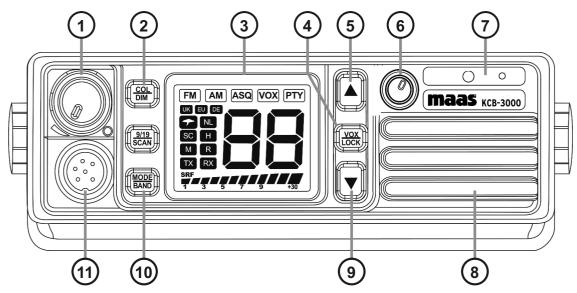
- 8 Loadspeaker
- 9 DOWN-Key
- 10 MODE/BAND-Key
- 11 Socker for handheld microphone
- 12 9.19 Channel switch / SCAN-Key

#### Keys on the VOX microphone

- 1 PTT key
- 2 channel UP
- 3 M key
- 4 channel DOWN

maas

**KNOBS AND KEYS** 



#### **OPERATION**

#### On/Off

To switch on/off the radio turn the volume switch **[VOL]** clockwise / counterclockwise over the threshold.

#### Channel selection

Use the channel selector keys and at the microphone or at the radio for channel selection. The actual channel number is displayed on the LCD.

#### Transmitting

For signal transmission, press and hold the PTT key at the microphone. The TX symbol appears in the LCD. For best quality, speak normally at a distance of 5–10 cm (2 - 4 inches). Speaking too loud will cause distortion and makes the signal difficult to understand. While the set is in the transmit mode there is no key entry possible and the receiver is muted. On completion of the transmission release the PTT key and the radio will switch back to receiving mode.

#### Squelch

The radio is equipped with an automatic (ASQ) and a manual squelch (SQ). Both can be adjusted. The strong background noise, which occurs always on free channels, can be suppressed by the squelch function, which has an automatic and a manual mode.

By turning the squelch control **[SQ/ASQ]** slowly clockwise you will find a position where the noise disappears. The squelch control should only be turned up far enough to mute background noise on a signal-free channel. Turning the control further clockwise will increasingly suppress stronger interfering signals as well as weak stations.

The automatic squelch **[ASQ]** uses a preset average value. It can be activated by turning the squelch control counterclockwise all the way to the end. The automatic squelch mode is indicated by the ASQ symbol **(ASQ)** in the LCD.

#### **OPERATION**

#### Keylock [LOCK]

Pressing the *LOCK* key for approximately 1 second will activate/deactivate the key lock. The symbol LC will be shown shortly. Except for the PTT key and the combined volume and on/off control, all elements are blocked.

#### LCD color [COL]

Press the **COL** key shortly to switch between seven LCD background colors. The background color can be deactivated.

#### LCD Brightness [DIM]

Press the **DIM** key long to switch between the two available brightness levels.

#### Priority Channels [9/19]

Press the **9/19** key shortly to switch to priority channel 9. Press the key again to advance to priority channel 19 and a third time to return to the channel in regular mode.

The active priority channel mode is indicated by the symbol **PTY** in the display. Channel switch by use of

the channel selector keys is deactivated in priority mode.

#### Scan [SCAN]

Press the SCAN key long to activate/deactivate the channel scan function. The current frequency band will be scanned until a signal is detected. The symbol SC appears in the the display.

#### Modulation selection [MODE]

For the Maas KCB-300 the modulation modes AM and FM are available. The selected modulation type is indicated by an AM/FM symbol. To toggle between the modes press the mode key **[MODE]**. Please note that the frequency norm *EC* operates on FM only. With the frequency norm *UK*, a triple switch is used. You toggle between the CEPT band (AM/FM )and the UK band (FM). The display will shortly show the symbol UK or EU when switching the band.

#### **OPERATION**

#### Using the handheld microphone VOX function

The supplied handheld microphone can be used as a VOX microphone, so that the switch to transmit is voice-activated and the PTT button does not need to be pressed to transmit. To activate the VOX function you have to press and hold the [M] key on the microphone, the green LED on the microphone will light up. To deactivate the VOX, press and hold the [M] button on the microphone again.

Note: The unit only switches to transmit when the channel is not in use or only at very low volume level (when using the original VOX microphone) to avoid feedback during VOX operation. For a trouble-free VOX operation it is recommended to connect only one microphone

#### Adjusting VOX Sensivity

With activated VOX function push and hold microphone UP key. Then push UP key repeatedly until the desired sensitivity levels is reached.

The four different levels are distinguished by the number of tones that are emitted. For the greatest sensitivity select the level 1 (one tone is emitted). The selected level is stored automatically.

### Selecting VOX delay period for handheld microphone

With activated VOX function push and hold microphone DOWN key. Then push DOWN key repeatedly until the desired VOX deley period is reached. For the shortest period select the level 1 (one tone is emitted), level 4 is the longest. The selected period is stored automatically.

#### Hands-free transmission with earphone microphone [VOX]

The KCB-3000 has a built-in VOX that can be used with an earphone microphone with a Kenwood plug. To connect the earphone microphone, first remove the protective foil that prevents dirt from entering the two jack sockets.

When the VOX function is activated by briefly pressing the [VOX/LOCK] button, the VOX icon flashes on the display. Then the radio can be operated in accor-

#### **OPERATION / STANDARDS (BANDS)**

dance with the law when driving a vehicle. To deactivate the VOX, briefly press the [VOX/LOCK] button again.

Note: The VOX settings are only made on the VOX microphone and are applied to the earphone or loudspeaker microphone.

#### Selection of standard [BAND]

For changing the current standard, please hold the mode key for approximately 1 second. The current standard appears in the display. Use the channel selectors of the microphone or of the radio to set a different standard.

#### **IMPORTANT NOTES**

#### Safety Instructions

Drivers must obey traffic rules regarding the use of transceivers in a vehicle. The unit radiates RF energy in transmit mode. Please be aware about the safety distance to the antenna.

#### General precautions

Protect the mobile radio from humidity and dust. Do not expose the radio to direct sunlight and other sources of heat. The radio can be cleaned by wiping with a soft cloth. Do not use chemical products for cleaning.

#### Servicing

The device must not be opened. Independent repairs or modifications must not be performed, it will forfeit warranty and repair claims.

Do not use the mobile radio if it seems not to function correctly. Disconnect your radio from the DC power source immediately. If any serious problem occurs, an authorised dealer must be contacted immediately.

#### Conformity

We hereby declare that the appliance complies with the essential requirements of Directive 2014/53/EU.

Maas Elektronik – Peter Maas Heppendorfer Str. 23 50189 Elsdorf Germany www.maas-elektronik.com

The specific regulations of the different versions in the different european countries can be found in the radio passport that is included in this instruction manual.

#### Disposal

This radio, like any other electronic waste, must not be disposed of with household waste. Please hand in a radio that has become unusable to your local waste disposal company.

Country	Version	Registration and fees $\cdot$ Operation of the CB radio with registration and fee obligation
Bulgaria	EI/EC	Registration and fees required for all users
Germany	EN	Registration and annual fees for fixed operation on channels 41-80
Italy	EI/EC/12/10	within the protection zones Registration and fees
Luxembourg	EC	Registration and fees
Poland	PL/EI/EC	Registration and fees
Portugal	E	Registration and fees
Switzerland	EI/EC CB radio w	E//EC Registration and fee obligation for residents Uperation of the CB radio without registration and fee obligation
Denmark	EC	Registration and free of charge for all users
Germany	EC / EI	Registration and free of charge for all users
		EN Free of registration and fees for mobile and stationary operation
Estonia	EI/EC	Registration and free of charge for all users
France	EI/EC	Registration and free of charge for all users
Lithuania	EI/EC	Registration and free of charge for all users
Netherlands	EI/EC	Registration and free of charge for all users
Austria		Registration and free of charge for all users
Portugal	EC.	Registration and free of charge for all users
Komania Sweden		Registration and free of charge for all users Benistration and free of charge for all users
Czechoclowakia	EI/EC	Redistration and free of charae for all users
Slovenia		Redistration and free of characterial users
Spain		Registration and free of charge for all users
Czech Republic	EN	Free of charge and registration for all users -
	i	Only the FM modulation type is allowed
Hungary	EC	Registration and free of charge for all users
40 FM 40 FM	.965 - 27 ,4 .965 - 27.40	(26.965 - 27 ,405 MHz), 4 W / 40 AM (26.965 - 27.405 MHz), 1 W (26.965 - 27.405 MHz), 4 W
40 FM	.60125 - 27	99125 MHz). 4 W / 40 AM/FM (26.965 - 27.405 MHz). 4 W
40 FM	.960 - 27.40	(26:960 - 27:400 MHz), 4 W /40 AM (26:960 - 27:400 MHz), 4 W
34 FM		(20.965 - 27.265 MHz), 4 W 49 AM (20.969 - 27.265 MHz), 1 W (26.965 - 27.265 MHz), 4 W / 34 AM (26.960 - 27.265 MHz), 4 W
Σ	.565 - 27.4(	5 MHz), 4 W / 40 AM (26.965 - 27.405 MH2), 4 W
Notes: The user	is responsi	Notes: The user is responsible for the correct setting of the valid standard in the
respective coun	itry. Change	respective country. Changes are possible at any time. Discost una vour solis and is the countries modificand shore. If in one of the shore modificand
Please use your countries there take it seriously	r radio only is a registr; /. You risk a	rlease use your radio only in the countries mentioned above. It in one of the above mentioned countries there is a registration requirement for your radio or for the set operating mode, please take it seriously. You risk a severe penalty if you are encountered with a prohibited version or
with a version r	equiring ap	with a version requiring approval without being able to present a registration.
		DEVI PASS F MA KCB-30
12		OR As

We hereby declare that the device complies with the requirements of Directive 2014/53/EU.

#### Operating instructions / Declaration of Conformity

https://doc.maas-elektronik.com



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## CE

When disposing of this radio equipment, the regulations for handling electronic waste must be observed. Electronic devices do not belong in the household waste!