MX-10

CB Full Multi Norm

Mobilfunkgerät - Mobile Radio

VOX Freisprecheinrichtung

Mikrofon
Microphone
Micrófono
Microfono
Microfoon

Bedienungsanleitung
Operating Instruction
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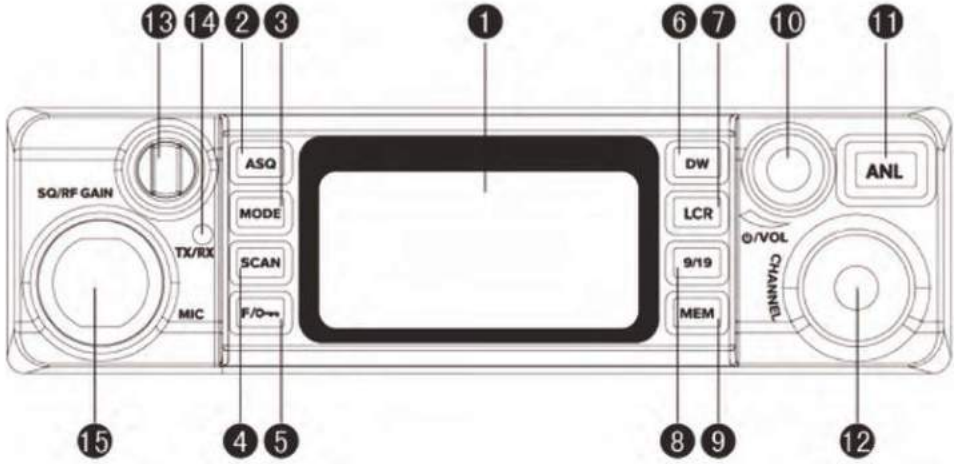

1. LCD
2. ASQ - automatic squelch
3. MODE - switch AM/FM
4. SCAN - channel scan
5. F/🔑 - keylock
6. DW - dual watch
7. LCR - background light
8. 9/19 - priority channel
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11. ANL - automatic noise limiter
12. rotary channel selector
13. outer ring: RF GAIN
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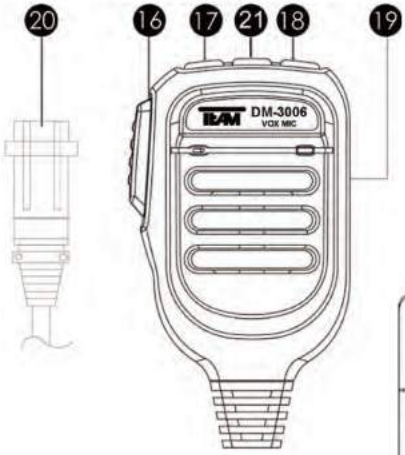
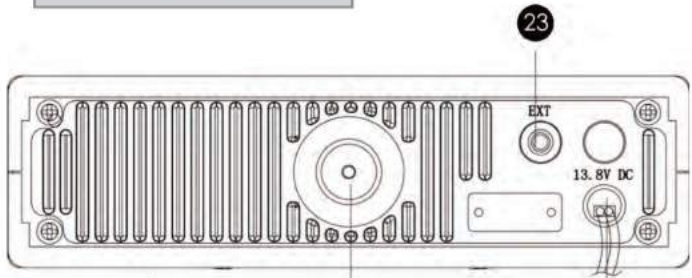
14. RX/TX control LED
15. 6-Pin microphone jack



16. PTT
17. UP
18. DOWN
19. microphone
20. 6-Pin microphone jack
21. Mode VOX / PTT



23. jack for ext. speaker, *3,5 mm*
24. PL antenna jack
25. power supply cable

Setting up the TEAM MX-10

Scope of Delivery

1 x MX-10 mobile radio
1 x under-dash mounting kit
1 x Declaration of Conformity
1 x UP/DOWN microphone with clamping holder
1 x detachable cigarette-lighter adapter plug with fuse
1 x manual

Installation of a CB antenna

The antenna is an important part of a cb mobile radio system. The type of antenna and its location has a great effect on the range of operation. Please consider the following criteria for selecting the best location and installation of your antenna:

> Make sure that the antenna is designed for radio operation on 27 MHz.
> The location of the antenna should be as high as possible 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 too much.
> 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 bigger part of the coachwork.
> The mobile antenna coil should have the closest possible contact with a conducting metallic surface of the bodywork of the car.

There are also some other possibilities to fix the antenna onto the car without the necessity to drill a hole into the bodywork of your car, e.g. mounting the antenna onto the gutter, mounting the antenna onto a holder on the cover of the boot or using an antenna with a magnetic foot or using a windscreen antenna.
For base-station operation we recommend a stationary antenna on the roof, for example the TEAM ECO 050 or ECO 200.

> 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. " DANGER "
> The base-station antenna has to be connected via a lightning arrester.
> All connected cables including the antenna cable must not exceed a length of 3 m.

Aerial Connection

Before pressing the transmit key, a suitable aerial must be connected. The PL259 plug of the aerial cable (coax) is connected to the SO239 socket (24) on the rear panel. Make sure, that all plugs are firmly tightened and properly soldered. Unsatisfactory connections can damage the radio and will reduce the range of operation.
The antenna should be matched with the radio, otherwise a part of the transmit power will be reflected at the antenna and will not be radiated. This causes also a drop in the range of operation. The matching can be carried out by a length adjustment of the antenna radial for a minimal SWR ratio which can be measured by a SWR meter (e. g. TEAM SWR 1180P). After the measurement, the SWR meter should be removed from the antenna line.

Installation in the car

When you want to install the unit into your car, you can install it below the dashboard with the included mounting bracket set. Always mount the transceiver where the switches are easily accessible. Please consider for determining the correct mounting position:

> no interference of the roadworthiness,
> good access to the controls of the car,
> sufficient air circulation to prevent overheating of the radio in transmit mode.

Please consider that the readability of the LC display (1) depends on the angle of view. Also, an intensive solar radiation affects the readability of the display. Please check the best position before the final installation.

Microphone

Included in the scope of delivery is the VOX microphone DM-3006. The VOX feature offers voice operated signal transmission which is useful in the application of communication while driving a vehicle. It allows to switch between the operation modes VOX and PTT which stands for push-to-talk.

The DM-3006 is equipped with the following elements:

	PTT	[M]	[▲]	[▼]
Elements	**PTT Operation**			**VOX Operation**
PTT for transmission press the PTT key				
[**M**]				press long to activate/deactivate VOX mode
[▲]channel selection in ascending direction				short press for setting sensitivity
[▼]channel selection in descending direction				short press for setting delay

VOX-Sensitivity

The required signal strength to trigger automatic transmission is set with VOX sensitivity. There are four levels available.

A *long push* of the key [▲] (17) activates the set mode for VOX-Sensitivity. It is confirmed by a long tone and blinking of the LED.

A *short push* of the key selects the next level. 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).

A confirmation of the setting is not required.

VOX-Delay

The gap between the signal end and the end of the transmission can be changed with the setting VOX-Delay. There are four levels available.

A *long push* of the key [▼] (18) activates the set mode for VOX-Delay. It is confirmed by a long tone and blinking of the LED.

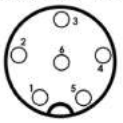
A *short push* of the key selects the next level. The four different levels are distinguished by the number of tones that are emitted. For the greatest sensitivity select the level 1 (one tone is emitted).

A confirmation of the setting is not required.

Plug the microphone plug (20) into the 6pin socket (15), located on the front panel, and thighten the union nut. Pay attention to proper placement. No transmission nor reception is possible without the microphone.

Plug the microphone-plug (20) into the 6-pin socket (15), located on the front panel. Pay attention to proper placement. No transmission nor reception is possible without the microphone. The pin assignment of the GDCH standard microphone plug is given below:

PIN 1 Modulation
PIN 2 Loudspeaker
PIN 3 PTT



PIN 4 Up/Down
PIN 5 Ground
PIN 6 +12 Volt

Solder side view of the microphone connector or top view of the microphone plug (20).

Power source

Before connecting the unit to a suitable power source via the fused DC power cable (25), the device must be switched off by turning the volume control (10) [**OFF/VOL**] counterclockwise to the very end.

Then, connect the two naked leads at the end of the cable with the supply voltage of the car/lorry battery. The unit is designed to operate with 12 volts or 24 volts and a negative ground electrical system. Lay the cable as far as possible away from aggregates which can cause interference. Pay attention to the correct polarity during the connection.

BLACK connect to - MINUS / ground of the car battery.
RED connect to 12/24 volts + PLUS of the car/lorry battery.

After proper connection of the microphone, the aerial and power source, radio operation can be started.

Operation of the TEAM MX-10

On/Off [OFF/VOL]

Before turning the radio on, set the squelch control (13) [**SQ**] to the lowest level by turning the switch counterclockwise to the left.
Turn on the radio by turning the volume control (10) [**OFF/VOL**] clockwise. The LC display (1) will illuminate. Adjust the receiver sound with the volume control to the desired level.
All settings are stored after the unit is switched off, as long as the power supply is not disrupted.

Channel selection

The channels of the selected frequency band can be selected by pushing the channel selector keys (17) [**UP**] and (18) [**DOWN**] at the microphone or with the rotary channel selector (12) located on the front panel of the radio.
The channel number and frequency are displayed on the LCD (1).
No channel selection is possible while the radio is in TX mode. The channels are selected in a consecutive order.
For communication with another CB radio, both transceivers must have selected the same channel and the same modulation mode.

Transmit

To transmit, hold the PTT key (16) of the microphone. The RX/TX control LED (14) will light red and the bar meter at the bottom of the display shows the relative transmit signal strength. For best quality, speak at an average volume level, at a distance of 2-4 inches into the microphone

(19). Speaking too loudly will cause distortions and will make the signal difficult to understand. While in transmit mode, no key entry is possible and the receiver is muted. To stop transmission, release the PTT key (16) and the radio will revert to receive mode automatically.

Squelch [ASQ/SQ]

The strong background noise, which occurs always on free channels, can be suppressed by the squelch function. The MX-10 has a manual squelch [**SQ**] (13) and an automatic squelch [**ASQ**] available.

By turning the inner ring of the twin-rotary-selector clockwise, you increase the manual squelch level gradually. It will increasingly suppress stronger interfering signals, as well as weak stations.

The automatic squelch **ASQ** is activated by pushing the ASQ key [**ASQ**] (2). The squelch level is fixed at a mean value. The symbol **ASQ** is visible on the LCD (1).

Mode selection [Mode]

The MX-10 operates in amplitude (AM) and frequency modulation (FM). Please note, that the frequency norm EC of the radio version MX-10 Full Multi Norm, operates in FM only.

If the unit accepts the modulation type AM on the actual channel, you can toggle between AM and FM by pressing the mode key (3) **[Mode]**.

The selected mode (AM/FM) is shown in the LCD.

With the frequency norm **UK**, which operates in FM only, you toggle between the EC and the UK band remaining on FM.

Channel scanning [SCAN]

Channel scanning searches for signals on the selected frequency band. Make sure that the squelch is closed since this function does not work with an open squelch.

To start/stop the scan function, push the scan button (4) [**SCAN**] briefly. The channels of the current frequency band are searched in consecutive order. The scan symbol **SC** appears on the LCD screen (1). Once a signal is detected, the scan function stops and the symbol **SC** in the display will disappear.

To stop scanning before a signal has been found, press the scan button (8) [**SCAN**] once again.

Keylock [**F/**]

Upon acitivated keylock function, all keys and functions, except for the PTT key (16) and transmission, are blocked. To activated the function hold the keylock button [**F/**] until the key symbol appears in the LCD (1).

To deactivate the key lock function press the key again.

Dual watch function [DW]

This function allows you to scan two channels for signals. Before activating this function make sure that the squelch is closed.

Select the first channel to be scanned with the rotary channel switch (12) or the Up/Down keys (17) [UP] and (18) [DOWN]. Then, briefly press the dual watch key (6) [**DW**]. The dual watch symbol **DW** appears in the LCD (1) and the channel no. starts blinking.

Now, set the second channel to be monitored and press the dual watch key (6) [**DW**] again. The radio will toggle between the two set channels until a signal is detected.

To stop the dual watch function, press the dual watch key [**DW**] (6 again.

LCD background illumination [LCR]

Turn the LCD background light either off or switched it between 7 colors by pressing the bakkground illumination key [**LCR**] (7).

Priority Channel 9/19 [9/19]

The MX-10 contains the priority channels 9 and 19. To toggle between the priority channels 9, 19 and the actual channel, use the priority channel key [**9/19**] (8).

Memory Channels [MEM]

The MX-10 allows to store and recall a maximum of 10 channels of the selected frequency band on a separate memory bank.

*Programming of **MEM** channels:*

1. Select the channel/frequency to be stored.
2. Activated the programming mode by pressing the memory key **MEM** (9).
   The symbol **ME** will blink in the LCD (1).
3. Confirm the programming by pressing the **MEM** key (9).

*Recall of **MEM** channels:*

1. Press the key **F** (5) first and then the key **MEM** (9). The symbol **RD** appears in the LCD.
2. Select the wanted **MEM** channel (1-10) with the rotary channel selector (12).
3. Confirm the selection by pressing the **MEM** key (9). The symbol M appears in the LCD.

Automatic Noise Limiter [ANL]

With the automatic noise limiter (**ANL**), the amount of noise on the selected frequency can be reduced during reception. Activated/deacitvate the function by pressing the **ANL** key (11). The active function is indicated by the symbol **ANL** in the LCD (1).

Receipt Signal Sensitivity [RF Gain]

Received signals from immediate sources can be too strong, the are distorted. With the RF Gain function, the sensitivity of the received signal can be diminished by turning the outer ring of the twin-rotary-selector [**SQ/RF GAIN**] (13) counterclockwise.
No damping of the signal sensitivity occurs when the selector is turn to the very right. This should be the standard setting.

Norm Selection

With the MX-10 Full Multi Norm, the end-user can switch between the frequency norms DE, EC, EI, PL and UK.

To enter the norm selection mode, hold both the keylock button [**F/** 🔑] (5) and the memory channel key [**MEM**] (9) while turning the radio on. Now, select the desired norm with the channel selector. The norm is indicated in the upper left corner of the display. To confirm your selection, turn the radio off and back on again.

DE 80 FM (26.565 - 27.405 MHz), 4 W / 40 AM (26.965 - 27.405 MHz), 4 W
EC 40 FM (26.965 - 27.405 MHz), 4 W
UK 40 FM (27.60125 - 27.99125 MHz), 4 W / 40 FM (26.965 - 27.405 MHz), 4 W
PL 40 FM (26.960 - 27.400 MHz), 4 W / 40 AM (26.960 - 27.400 MHz), 4 W
EI 40 FM (26.965 - 27.405 MHz), 4 W / 40 AM (26.965 - 27.405 MHz), 4 W

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 country of operation.

External speaker jack

The MX-10 is equipped with a 3.5 mm jack socket (24) at the rear panel to connect an external speaker of 4-8 ohm impedance. At 4 ohms the speaker load can be 4 watts (e.g. TEAM TS-500). When the external speaker is connected, the internal speaker will be switched off.

Signal meter internal

The bar meter in the LCD displays the signal strength of the transmitted and received signals.

Additional information

Safety instruction

Drivers must keep attention to traffic rules when using the transceiver in a vehicle. While driving, operaters should use the VOX function, if available.
The unit radiates RF energy in transmit mode. Please keep an eye on safety distance to the antenna.

General precautions

Protect the set from humidity and dust. Do not store at places where the temperature may rise and cause damage - do not expose to direct sunlight. The set can be cleaned by wiping with a soft cloth. Do not use chemical products to clean the set.

Servicing

The device must not be opened. Independent repairs or adjustment must not be carried out, since each modification or unauthorized intervention will cancel warranty and repair claims. Do not use the set if it seems not to function correctly. Disconnect the set in this case from the DC power source immediately. If there is a defect, the authorized TEAM specialist dealer or TEAM must be contacted in every case.

Conformity

The CB mobile transceiver TEAM MX-10 complies to the European directive RED and meets the European standards EN 300 135-2, EN 300 433-2, EN 301 489-1/-13 and EN 60950-1.

You can find the current Declaration of Conformity online at:

http://www.team-electronic.de/en/downloads/declarations-of-conformity/

Username: mx10fmd / Password: 2085000

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

Specifications are subject to change without any prior notice or obligation on the part of the manufacturer.