

# Major BOS 2b2

Serial Number 3799 and later



**FunkTronic**  
Kompetent für Elektroniksysteme

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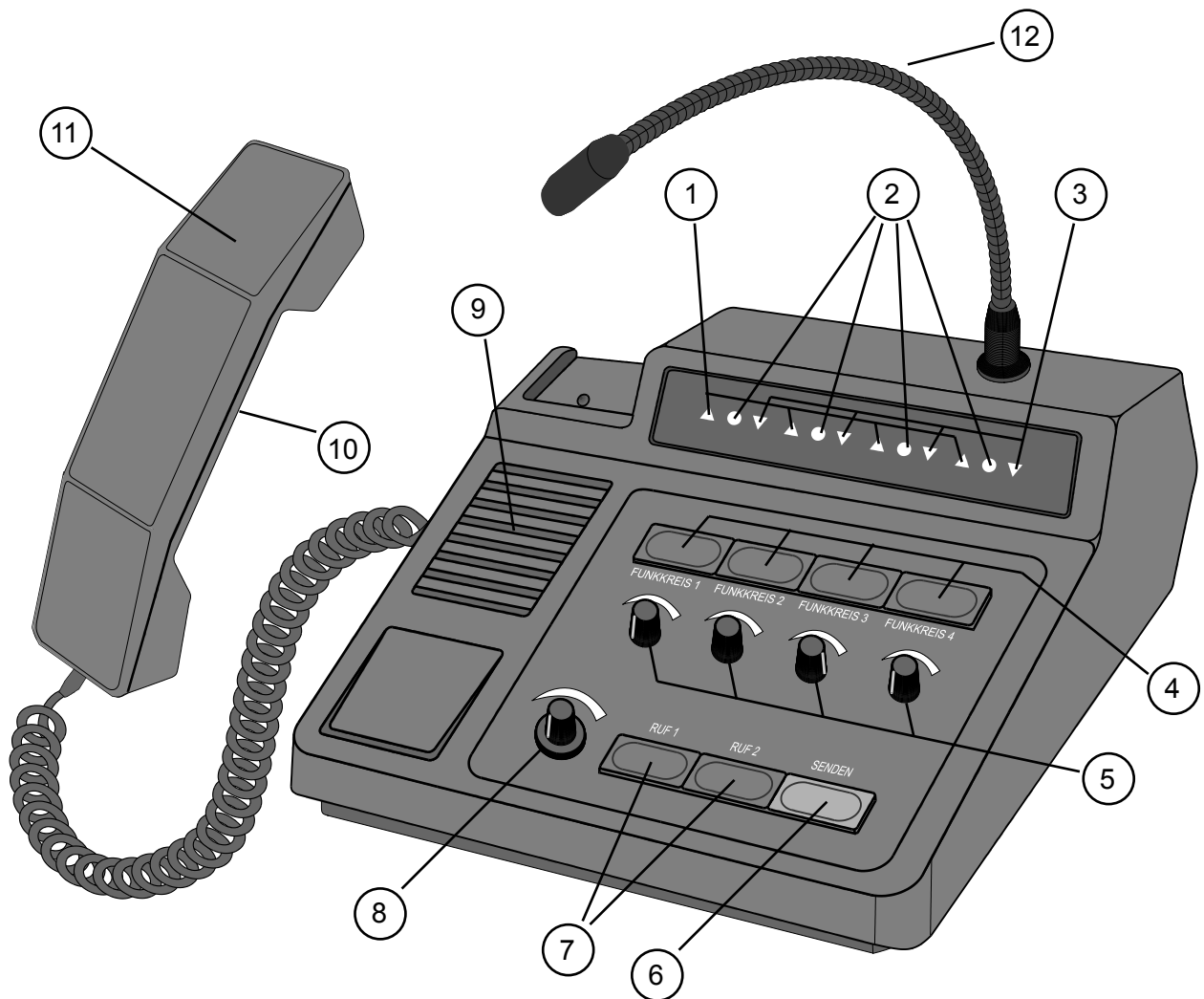
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## **Technical Data**

Supply Voltage	+12V DC -15% +25%
Current consumption	max. 1000 mA
AF input level	
Recommended value for earpiece AF	500 mV (at 10 kOhm)
Input impedance	approx. 10 kOhm
AF output level	
Factory default	500 mV at 200 Ohm
Range	300mV to 700mV
Output impedance (Transmitting)	approx. 200 Ohm
Output impedance (Receiving)	high impedance (disconnected)
Tape Recorder output level	
Factory default	- 6 dBm (at 600 Ohm)
Range (Potentiometer P8)	- 14 dBm to - 2 dBm (at 600 Ohm)
Output impedance	approx. 600 Ohm
Weight (without cable)	approx. 1650 g
Size (without gooseneck microphone)	
W x D x H	245 x 220 x 90 mm

# Controls of Major BOS 2b2



- 1 - Transmitter indication
- 2 - Selection indication
- 3 - Receiver indication (Squelch)
- 4 - Selection key
- 5 - Monitoring volume
- 6 - PTT key
- 7 - Tone Call key (Call I and Call II)
- 8 - Master volume
- 9 - Loudspeaker
- 10 - PTT key handset
- 11 - Handset
- 12 - Gooseneck microphone

# **Major BOS 2b2**

## **Connectivity**

This desktop radio controller can be connected to up to four two way radios. Every base station can be supplied with squelch input, PTT output, a busy line and AF ins and outs. In addition the Major BOS 2b2 provides a headset connector, an external signal encoder input and a tape recorder output. It is possible to connect the unit to a PC via RS232 interface for programming purposes.

It is possible to operate multiple Major BOS2b2 in parallel circuit because AF outputs are internally disconnected in idle or receiving mode.

## **Keys**

The keyboard presents four selection keys for the max. of four radio devices, two tone call keys and the red PTT key.

## **Carrier Indication (Squelch)**

Every one of the four radio circuits provides its own carrier indicator (Squelch), which is located above the corresponding selection key. For activation the squelch input needs a voltage between 5V and 14V. The logic of the carrier indication is configurable. The polarity of the carrier indication and the AF muting when no carrier is present can be programmed.

## **Transmitter Indication (PTT)**

Every radio circuit has its own transmitter indication. This is lit on transmitter activation. This happens on pushing a PTT button or one of the both Tone Call buttons. The LED blinks if a parallel Major BOS 2b2 is on transmission.

## **Selection Indication**

The selection indicator is permanently luminous if the corresponding radio circuit is selected and active. If it is in blinking state this circuit is busy and cannot be selected.

## **Selection of Base Stations / Radio Circuits**

To connect to one of the four radio circuits the corresponding selection key is to be pressed. A subsequent button press sets the circuit to inactive. To activate more than one channel hold the first pressed button down and select further circuits. Programming the Major BOS2b2 can disable this feature. Active circuits are indicated by a luminous selection indication LED. A busy radio circuit is indicated by a blinking LED. Radio circuits can be disabled, active radio circuits on power on can be programmed.

## **Loudspeaker and Volume Control**

On transmission the loudspeaker is turned off automatically. If it is off, when the handset is lifted, can be programmed. Loudspeaker volume can be adjusted with the master volume control.

## **Microphone Selection**

The Major BOS2b2 has three microphone routings available. The PTT button in the handset turns on the handset's microphone. The red PTT button and the headset's PTT input can be configured independently. Possible associations are gooseneck microphone, headset microphone or automatic selection. If automatic selection is on, the headset microphone is used if a headset is detected otherwise the gooseneck microphone is used.

## **Tone Call Decoder**

The optional software "Encoder/Decoder" allows the Major BOS2b2 to decode Tone Call1 and Tone Call2 on any radio circuit and to activate the corresponding circuit automatically.

## **Tone Call Encoder**

The Major BOS 2b2 includes a encoder for Tone Call 1 and Tone Call 2. The tone calls are sent with the corresponding keys of the keypad. The tone is sent as long as the button is pushed.

# General Safety Instructions

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Please read the operating instructions carefully before installation and setup.

The relevant regulations must be complied to when working with 230V line voltage, two-wire-lines, four-wire-lines and ISDN-lines. It is also very important to comply to the regulations and safety instructions of working with radio installations.

## **Please comply to the following safety rules:**

- All components may only be mounted and maintained when power is off.
- The modules may only be activated if they are built in a housing and are scoop-proof.
- Devices which are operated with external voltage - especially mains voltage - may only be opened when they have been disconnected from the voltage source or mains.
- All connecting cables of the electronic devices must be checked for damage regularly and must be exchanged if damaged.
- Absolutely comply to the regular inspections required by law according to VDE 0701 and 0702 for line-operated devices.
- Tools must not be used near or directly at concealed or visible power lines and conductor paths and also not at and in devices using external voltage – especially mains voltage - as long as the power supply voltage has not been turned off and all capacitors have been discharged. Electrolytic capacitors can be still charged for a long time after turning off.
- When using components, modules, devices or circuits and equipment the threshold values of voltage, current and power consumption specified in the technical data must absolutely be complied to. Exceeding these threshold values (even if only briefly) can lead to significant damage.
- The devices, components or circuits described in this manual are only adapted for the specified usage. If you are not sure about the purpose of the product, please ask your specialized dealer.
- The installation and setup have to be carried out by professional personnel.

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## **Factory returning of old equipment**

According to German law concerning electronic devices old devices cannot be disposed off as regular waste. Our devices are classified for commercial use only. According to § 11 of our general terms of payment and delivery, as of November 2005, the purchasers or users are obliged to return old equipment produced by us free of cost. FunkTronic GmbH will dispose of this old equipment at its own expense according to regulations.

Please send old equipment for disposal to:

**FunkTronic GmbH  
Breitwiesenstraße 4  
36381 Schlüchtern**

**>>> Important hint:** freight forward deliveries cannot be accepted by us.

February 2<sup>nd</sup> , 2006

**Subject to change, Errors excepted**