

MCW-D 523



Wireless, digital Chairman Microphone Unit
with Loudspeaker

Order # 479.756



FEATURES

- Direct Sequence Spread Spectrum (DSSS) provides high immunity from interference and unauthorised listening
- Wireless transmission with integrated transmitting/receiving antenna in the 2.4 GHz frequency band which is approved world-wide
- Digitally encoded audio signals prevent unauthorised listening
- Integrated loudspeaker with voice equalisation
- Gooseneck microphone provides excellent audio quality
- Red illuminated ring around the gooseneck to indicate the ready-to-talk status of the microphone
- Microphone button to switch the microphone on / off
- Clear button to switch off all activated delegate stations
- Programmable function button for different priorities or external controls
- Green LED to indicate that the microphone is switched on and ready for talking
- DC-connection for DC-operation and battery charging
- Charging contacts
- Power on LED
- Mini stereo jack (3.5 mm) as documentation output for the connection of recorders, PCs with the steno-s recording software etc.
- High-quality plastic housing with charcoal-grey, non-glare and scratch-resistant Nextel® finish
- The following parameters can be programmed: loudspeaker level, auto-off behaviour, voice-controlled activation
- Decreased loudspeaker volume when microphone is switched on (fixed -15 dB)
- Auto-Off switching when nobody talks into the microphone
- Microphone unit can be programmed by using the configuration software with the control unit
- APO function for **A**utomatic **P**ower **O**FF when the control unit is in the stand-by mode or switched off
- Processor-controlled charging electronics to prevent the "memory effect" of the battery
- Reliable charging electronics ensures immediate use of the microphone units
- LED ring of the gooseneck microphone indicates charging status
- Maximum charging time of 2 hours when the battery (NiMH) is completely empty
- Operating time approx. 20 hours

DESCRIPTION

The MCW-D 523 chairman microphone unit is equipped with a clear, function and a microphone button in the housing with which the participant can switch his microphone on and off. The chairman microphone unit does not depend on the maximum number of simultaneous open microphones. Unlike the delegate microphone units the chairman microphone unit is not controlled by ACA (Automatic Channel Allocation), but has an extra transmitting channel exclusively for the chairman. The ready-to-talk status of the microphone is indicated by the green LED in the housing and the red illuminated ring around the gooseneck microphone.

Using the clear button all switched-on microphones of the delegate microphone stations are switched off.

With the function button there are various configurations possible:

Priority "Normal"

When the chairman switches his microphone on with the function button and the priority programming "Normal" the switched on delegate microphone units are switched off. Afterwards the delegates can switch on their microphone and take part into the discussion again, while the chairman's microphone is still switched on.

Priority "Mute"

When the chairman switches his microphone on with the function button and the priority programming "Mute" the switched on delegate microphone units are muted as long as the chairman is speaking. If the chairman switches his microphone off, all delegate microphone units that had been switched on before, are switched on again.

Priority "Clear"

When the chairman switches his microphone on with the function button and the priority programming "Clear" the switched on delegate microphone units are switched off. The delegates can switch on their microphone again, when the chairman has switched off his.

COM Message

A command is sent via the RS 232 serial interface from the MCW-D 50 control unit and a programmed function is carried out via a media control system for instance (e.g. light control). For the other functions there is also a command sent via the RS 232 serial interface from the MCW-D 50 control unit

Custom

Two different commands according to the duration of the push:
 < 1 second = command "Short press string" is transmitted
 > 1 second = command "Long press string" is transmitted
 These commands can be set individually with the "MCW-D 50 Conference" software.

Audio Mute

An audio signal, e.g. from a wireless microphone, can be switched off. This function can be combined with a "Clear" command to switch off activated delegate microphones.

Depending on the configuration with the "MCW-D 50 Conference" software the following operating modes are available:

Voice activation: the microphone is switched on, when someone speaks into it.

Push-To-Talk: the microphone button is held down, while the participant is speaking.

The integrated loudspeaker reproduces the audio signal of the whole conference system. Depending on the audio signal routing in the control unit the loudspeaker can reproduce other audio signals such as a wireless microphone in the auditorium.

The parameters of the microphone unit are adjusted via PC by using the "MCW-D 50 Conference" software. The parameters are adjusted for all microphone units.

The volume of the loudspeaker is adjusted and can be controlled with the MCW-D 50 control unit or a media control system. The ducking level determines the attenuation of the loudspeaker level when the microphone of the microphone unit is switched on. Each microphone unit has its own address. An existing system can be complemented at any time.

The DSSS transmission offers high immunity against unauthorised listening. In addition to this, the conference system including the appropriate microphone units can be protected with an 8-digit alphanumeric code. A microphone unit that does not have the correct code will be identified by the control unit and switched off immediately.

The integrated rechargeable battery allows an operation of the microphone unit of approx. 20 hours depending on the participation in the discussion. As soon as the remaining battery time is below a certain threshold of 1 hour, the power on LED on the rear of the microphone unit will flash or if the system is controlled by PC or a media control system, the low battery capacity can be also indicated. The charging time of a completely empty battery is around 2 hours with the integrated processor-controlled charging electronics. Depending on the use of the microphone unit the charging time can be less.

As an option the microphone unit can be powered and charged by a DC power supply adapter.

The microphone unit is switched on by briefly pressing the microphone button once. There are several ways to switch off the microphone unit:

1. Press the microphone button for 3 seconds.
2. Press the standby button of the MCW-D 50 control unit for 3 seconds to switch off all activated microphone units.
3. Switch off all microphone units via an RS 232 or TCP/IP command from the PC or media control system.
4. Switch off the control unit; after approx. 3 minutes the microphone unit will be switched off.

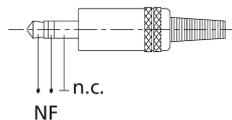
TECHNICAL SPECIFICATIONS

General

Frequency range	2400 - 2483.5 MHz (ISM-band)
Modulation	Direct Sequence Spread Spectrum DSSS, digital signal processing acc. to own standard
Max. number of audio streams	9 useable channels per system
Signal-to-noise ratio	80 dB typ., (unweighted signal-to-noise ratio)
Range between microphone units and control unit	> 100 m
Power supply	110 - 240 V AC 50/60 Hz
Approval	world-wide

Microphone Units

Transmitter power	max. 15 dBm per channel (average, duty cycle ≤ 30%)*
Battery voltage	8 NiMH cells, 1600 mAh
External DC operation	18 V DC (±0.5 V), residual hum < 20 mV, 400 mA
Loudspeaker	Wide-band, integrated loudspeaker
Volume decrease when Mic On ("Ducking")	15 dB fixed setting
AF output	Documentation output, unbalanced jack socket (3.5 mm, stereo)



Connection	Tip = AF+ Ring = AF - Shield = ground
Output level	max. 2.4 V rms on open circuit, T.H.D. < 1% 2.3 V rms at 80 Ω load, T.H.D. < 1%
Min. impedance	600 Ω
Integrated limiter against clipping	cannot be switched off
Limiter activity at	126 dB SPL
Power supply	9.6 V with integrated NiMH battery (8 cells)
Operating time depending on the type of the microphone unit	approx. 20 hours in discussion mode; operating time depends on the volume
Temperature range at < 90% humidity	+10° - +40°C
Storage temperature at < 90% humidity	-20° - +55°C
Dimensions (without microphone)	
Length	191 mm
Width	156.5 mm
Height	52 mm
Weight	1.7 kg

*The transmitter power can differ from this value due to specific regulations in various countries.

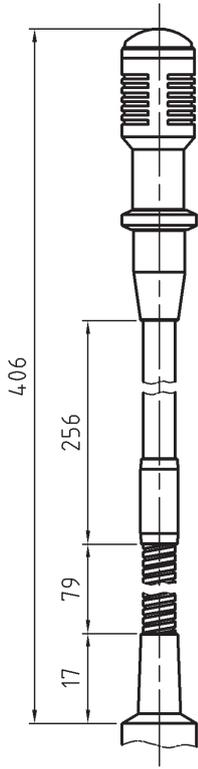
ARCHITECT'S SPECIFICATIONS

Digital wireless Chairman unit with three buttons to switch the microphone on/off, clear all activated delegate units and one special button that can be programmed e.g. as priority button or for special functions in conjunction with a serial interface / Ethernet interface at the control unit. Specific DSSS modulation (Direct Sequence Spread Spectrum) ensures a high safety against noise and unauthorised listening. World-wide approved in the 2.4 GHz frequency band. Integrated loudspeaker with voice equalisation for decentralised sound equalisation. Green LED to indicate the microphone has been switched on. Cardioid condenser gooseneck microphone (back electret). Gooseneck length: 400 mm; gooseneck diameter: 6 mm. Illuminated ring to indicate the ready-to-talk condition. Using the configuration software with a PC it is possible to adjust and configure the volume of the loudspeaker and threshold

for voice activation and auto-off-switching. Integrated rechargeable NiMH battery ensures an operating time of 20 hours. Processor-controlled charging technology for a charging time of 2 hours without memory effect. The battery is monitored by the control unit and an LED indicates when the capacity is too low. 2 charging contacts. Mini jack socket (3.5 mm) as documentation or headphone output. DC-connection for recharging the battery or powering the microphone unit with an external power supply unit. High-quality plastic housing with charcoal-grey Nextel® finish. Integrated antenna. Dimensions (Width x Height x Depth) 156.5 x 52 x 191 mm. Weight: 1.7 kg.

Manufacturer: beyerdynamic
Type: MCW-D 523

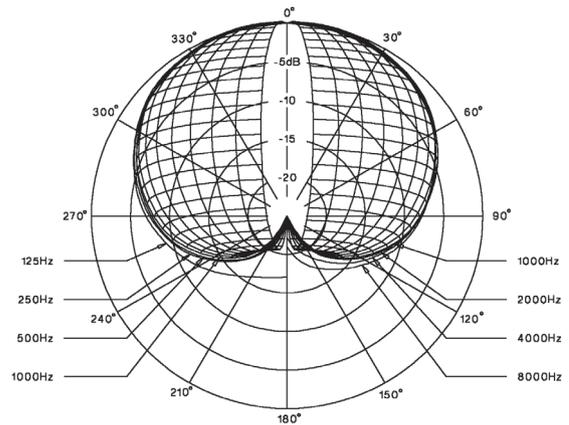
SHM 214 C 03 MICROPHONE



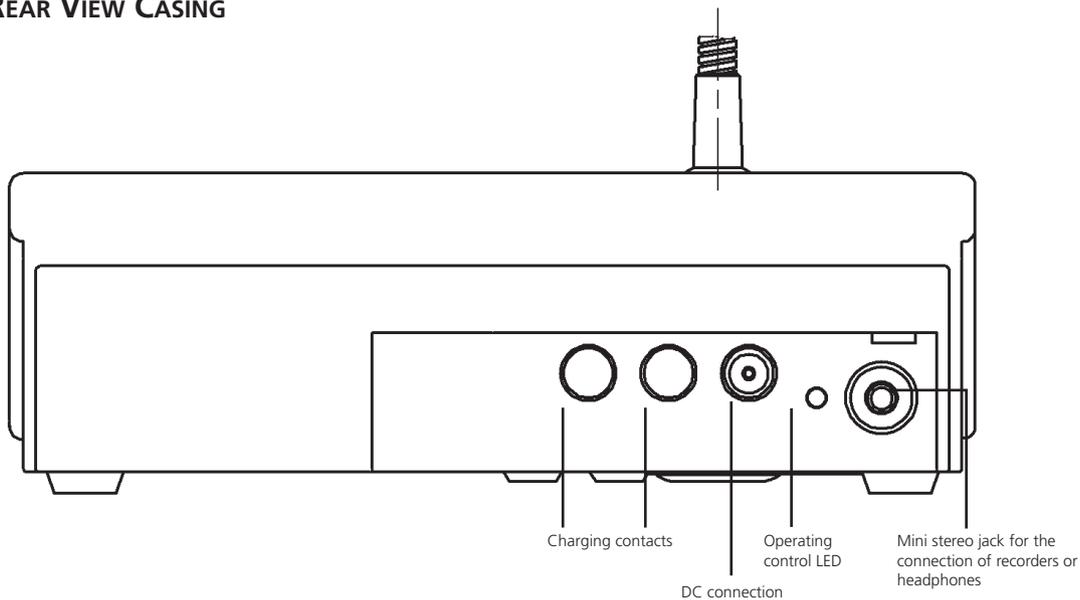
OPTIONAL ACCESSORIES

- CA 2475 Microphone stand, 3/8", adjustable height 870 - 1575 mm, with heavy base plate and plate where to place MCW-D or MCS microphone units, basalt grey Order # 472.212
- CA 2457 Charger/DC power supply unit for MCW-D 5** microphone units Order # 479.721

WIRING DIAGRAM

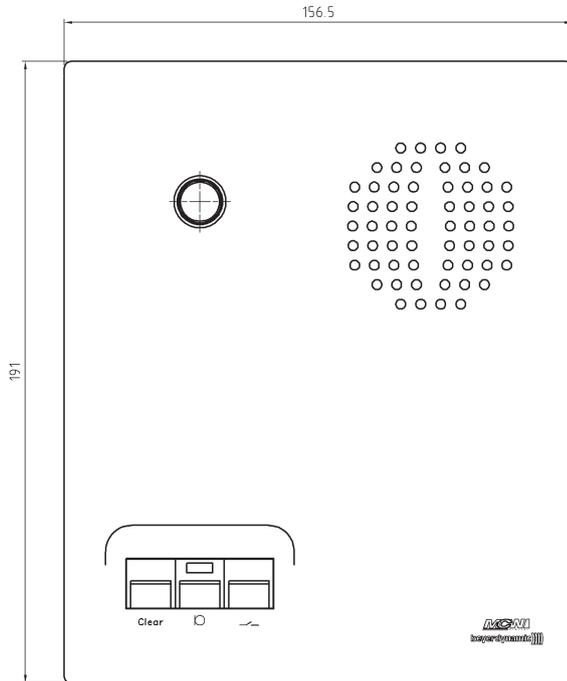


REAR VIEW CASING

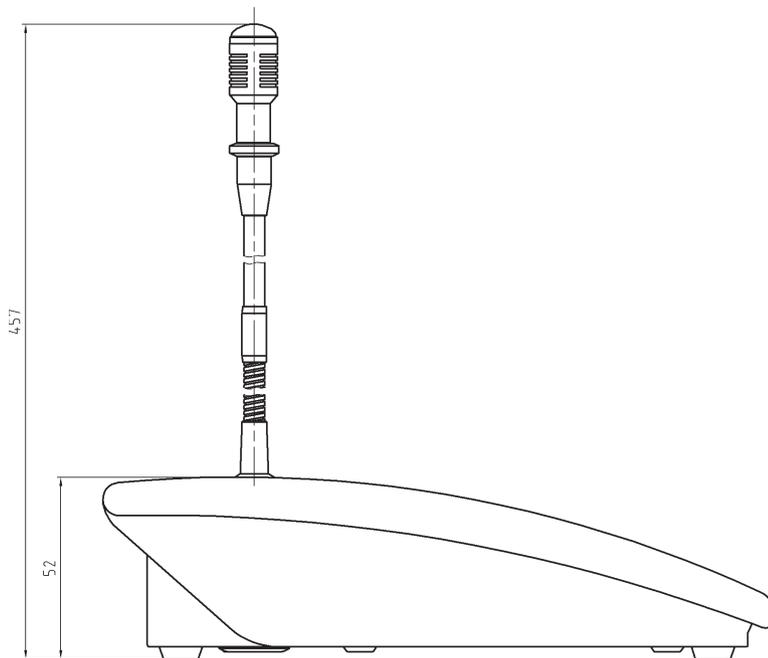


DIMENSIONS CASING

Top view



Lateral view



5 of 6

EXPLODED VIEW

