



Electro-Voice

TOMA EL CONTROL.

ZLX



ACTIVOS
Altavoces de 2 vías

ACTIVOS



ALTAVOCES ZLX ACTIVOS

Los dos modelos activos ZLX se distinguen por su más completo e innovador paquete de características en su clase, proporcionándote mayor control de tu sonido para asegurar que la audiencia se conecte con tu momento creativo sea cual sea tu ejecución.

- Pantalla de LCD, DSP con presets operado por un solo control – rápidamente optimiza el desempeño del altavoz de acuerdo a tu tipo de ejecución y ubicación del gabinete.
- Medidores de nivel de entrada y control independiente del amplificador – aseguran una estructura de ganancia óptima de manera fácil y rápida.
- Componentes con exclusivo diseño EV acoplados a un amplificador de 1000W clase D especialmente diseñado para ofrecer el mejor sonido en su clase.
- Construcción en material compuesto ligero y súper durable con el diseño único de agarraderas “hi/lo” para un montaje en poste sin esfuerzo y fácil transportación.
- Diseño patentado “Split-baffle” para un mejor alineamiento en tiempo de los componentes lo que se traduce en impacto sonoro e inteligibilidad superiores.



ALTAVOZ ACTIVO DE 12", 2 VÍAS

El compacto y ligero ZLX112P fue diseñado para darte potencia y desempeño más allá del propósito de otros altavoces de formato pequeño, convirtiéndolo en la mejor opción para refuerzo sonoro en ambientes pequeños o como monitor de escenario. Kilo por kilo, ningún otro altavoz de compuesto y tamaño similar se comparan con el ZLX112P.

- 1000W (Clase D); SPL máx: 126 dB; 50 Hz-20KHz
- Woofer de 12" y driver de compresión de titanio de 1.5"
- 15.6 kg.



ALTAVOZ ACTIVO DE 15", 2 VÍAS

Extiende el rango en graves con esta planta de energía portátil. Por sí solo o con un subwoofer, el ZLX115P ofrece agudos limpios y brillantes, así como bajos sólidos y profundos para espacios más grandes – todo esto con suficiente holgura (headroom) del amplificador para asegurar un sonido potente y claro.

- 1000W (Clase D); SPL máx: 127 dB; 42Hz-20KHz
- Woofer de 15" y driver de compresión de titanio de 1.5"
- 17.3 kg

POTENCIA

AMPLIFICADOR DE 1000 W CLASE D
ESPECIALMENTE FABRICADO




PRECISION

CONTROL VISUAL
Y MONITOREO



Si hablamos del sencillo panel de control del ZLX, menos significa realmente más. Aún cuando múltiples controles e interruptores en los paneles de entrada de otros altavoces pudieran sugerir mayor funcionalidad, el poderoso procesador DSP de ZLX está accesible a través de un simple y limpio diseño de un solo control con pantalla de LCD que en realidad ofrece el más intuitivo y preciso control para el usuario disponible en este rango de precio. Sólo configura ZLX para reproducción de música, sonido en vivo o voz y escucha la diferencia en segundos. Diseño inteligente, operación simplificada.

A woman with long brown hair is shown in profile, singing into a silver microphone. The background is dark with a faint rainbow visible. The image is split diagonally, with the top right portion showing the woman and microphone, and the bottom left portion being a dark grey area containing text.

Con ZLX, EV
se propuso
un sólo objetivo:
ofrecer el mejor
desempeño en su clase
en todos los detalles.

ZLX combina décadas de probada ingeniería EV en el audio profesional con una nueva imagen audaz y características de fácil operación que ofrecen un extraordinario nivel de control del sonido, todo con la reconocida calidad y desempeño EV que los profesionales confían.

Disponibles en versiones activas y pasivas con altavoces de 12" y 15" de 2 vías, son perfectos para PA principal o como monitores. ZLX representa el nuevo estándar para músicos, DJ's y todo tipo de intérpretes que buscan más en un altavoz portátil.

KEY

TAKE CONTROL.



Electro-Voice

TOMA EL CONTROL.

ZLX



PASIVOS

Altavoces de 2 vías

ALTAVOCES PASIVOS ZLX

Cuando se selecciona un altavoz, es recomendable preguntarnos “¿Qué hay dentro del gabinete?” Luego, escucha y descubre la diferencia EV por ti mismo. Con componentes a la medida alojados en un innovador diseño de gabinete, los dos compactos y versátiles modelos ZLX hacen la reconocida calidad de sonido y durabilidad EV más accesible que nunca.

- Componentes con exclusivo diseño EV para ofrecer el mejor sonido en su clase.
- Construcción en material compuesto ligero y súper durable con el diseño único de agarraderas “hi/lo” para un montaje en poste sin esfuerzo y facilidad de transportación.
- Diseño patentado “Split-baffle” para un mejor alineamiento en tiempo de los componentes, lo que se traduce en impacto sonoro e inteligibilidad superiores.

PASIVOS



12

ZLX-12



ALTAVOZ PASIVO DE 12", 2 VÍAS

Un gran sonido no significa ocupar mucho espacio. Ideal como PA o para trabajos de monitor de piso, el ZLX112 ofrece la mejor combinación de desempeño y portabilidad - y siempre luce en el escenario.

- Woofer de 12" para "punch" de graves en un gabinete compacto y driver de compresión de titanio de 1.5"
- Rango de frecuencia: 55Hz - 20 KHz
- Manejo de potencia: 250 W continuos y 1000 W pico
- Sensibilidad: 95 dB SPL, Max SPL: 125 dB
- 14.9 kg



ALTAVOZ PASIVO DE 15", 2 VÍAS

El ZLX115 te da la confianza de los componentes más reconocidos en la industria – desarrollados con los más altos estándares para entregar excepcional calidad de audio EV para aplicaciones más grandes con o sin subwoofer.

- Woofer de 15" para una respuesta en graves extendida y driver de compresión de titanio de 1.5"
- Rango de frecuencia: 44Hz - 20 KHz
- Manejo de potencia: 250 W continuos y 1000 W pico
- Sensibilidad: 96 dB SPL, Max SPL: 126 dB
- 16.6 Kg

PORTABILIDAD

DISEÑO ÚNICO DE AGARRADERAS
"HI/LO" CONSTRUCCION LIGERA.



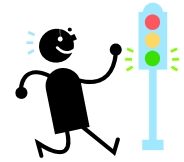


PRESENCIA

IMPACTANTE DISEÑO DEL GABINETE



PUBLIC



ALLEN&HEATH

Parts identification sheet











ZED-10
ZED-10FX

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Allen & Heath Limited


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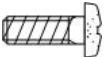
-  AJ6949
-  AJ2075A
-  AJ6106A
-  AJ2078A
-  AJ7211
-  AJ7210
-  AJ7212

 AL6893

 AB8050

 AB6889

 AB4661

 AB6889

Side moulding left
AA7588-L

Side moulding right
AA7588-R

Feet
AK0102

 AB0072



AJ2887

FX



AJ2079A



AJ7182



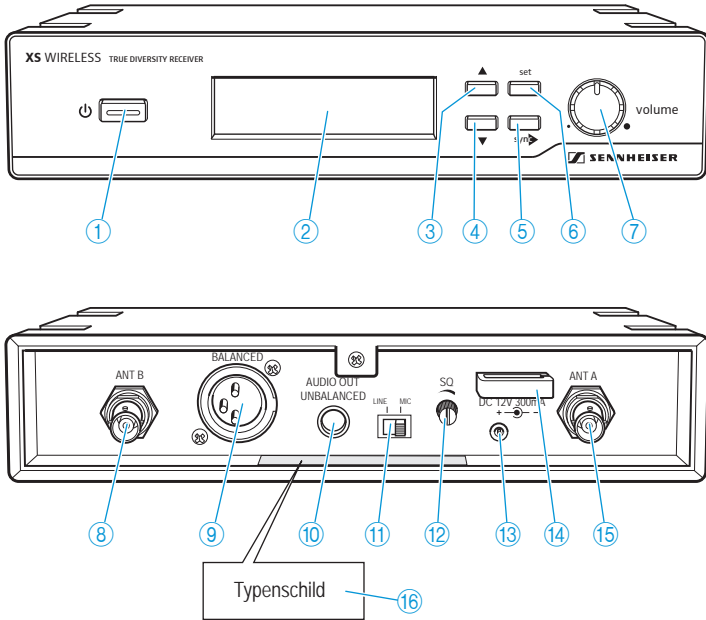
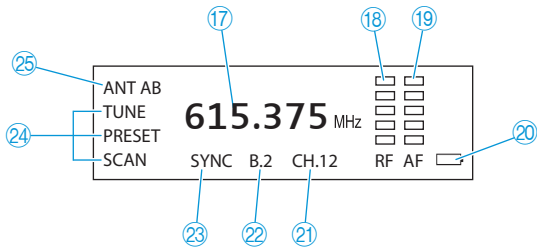
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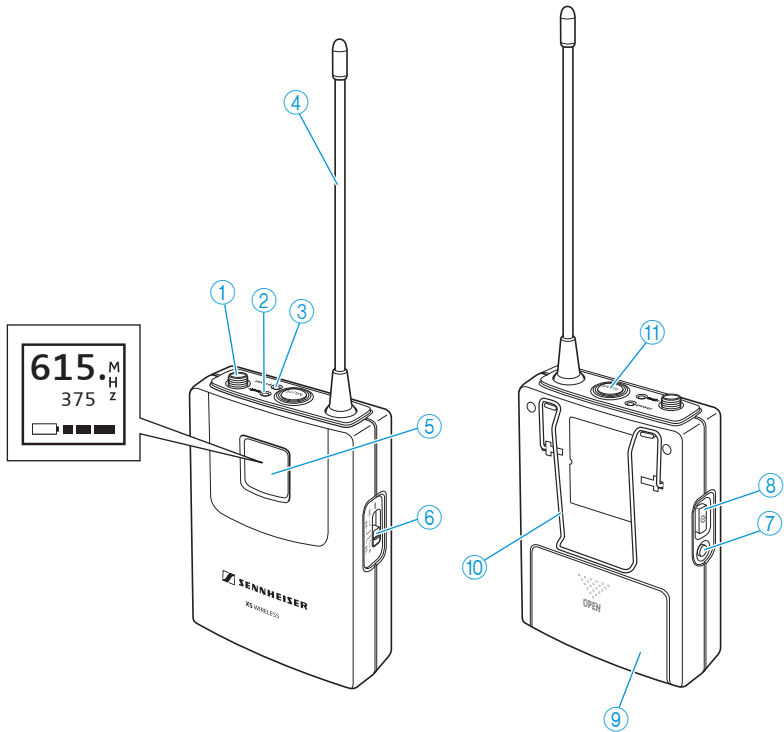
XS WIRELESS



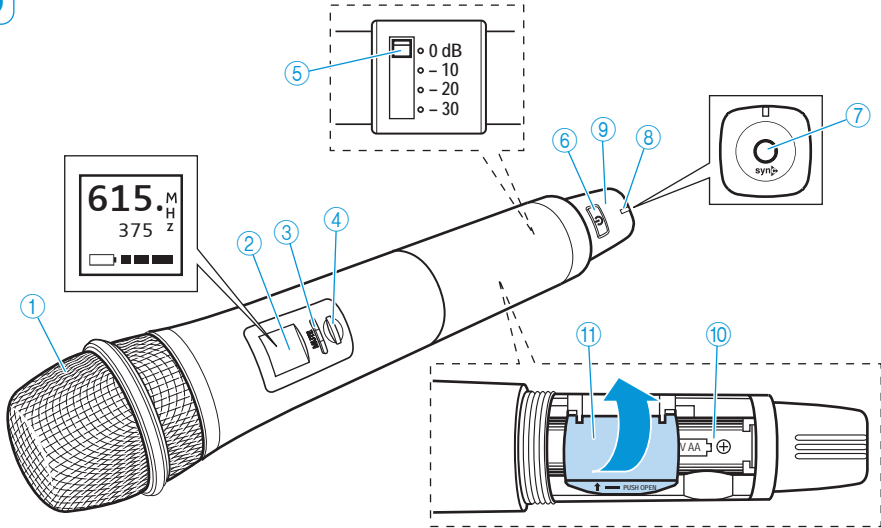
Instruction manual

A**B**

C



D



Frequenz- und Sendeleistungsübersicht
 Frequency and transmission power overview
 Aperçu des fréquences et puissances d'émission spécifiques
 Panoramica di frequenze e prestazioni di trasmissione
 Relación de frecuencias y potencias de transmisión
 Overzicht van landspecifieke frequenties en zendvermogens
 Vista geral das frequências e da potência de transmissão
 Обзор частот и мощностей передачи
 频率和发射功率总览

European Nations and her international abbreviations		Frequency range (MHz)	max. RF_power (mW – erp.)	individual licence required
All listed countries (not Norway)		863 – 865	10	no
Austria Cyprus Greece	AT CY GR	470 – 862	50	yes
Belgium	BE	470 – 608, 608 – 862	50 (20)	yes
Germany	DE	470 – 606, 614 – 790	50	yes
		823 – 832	50	–
Great Britain	GB (UK)	606 – 614 (Ch. 38 mobile)	50	yes
		470 – 860	–	–
Italy	IT	470 – 854	10 & 50	yes
Liechtenstein Switzerland	LI CH	470 – 862	50	yes
Norway	NO	800 – 820	20 mW	–
		790 – 800 & 820 – 838	–	
Romania	RO	646 – 759	30	yes

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Important safety instructions

System

- Read this instruction manual.
- Keep this instruction manual. Always include this instruction manual when passing the products on to third parties.
- Heed all warnings and follow all instructions in this instruction manual.
- Only clean the products when they are not connected to the mains. Use a cloth for cleaning.
- Only use attachments/accessories specified by Sennheiser.
- Refer all servicing to qualified service personnel.
Servicing is required if the products have been damaged in any way, liquid has been spilled, objects have fallen inside, the products have been exposed to rain or moisture, do not operate properly or have been dropped.
- **WARNING:** To reduce the risk of fire or electric shock, do not use the products near water and do not expose them to rain or moisture.

Receiver

- Only use the supplied mains unit.
- Unplug the mains unit from the wall socket,
 - to completely disconnect the product from the mains,
 - during lightning storms or
 - when unused for long periods of time.
- Only operate the mains unit from the type of power source specified in the chapter “Specifications” (see page 13).
- Ensure that the mains unit is
 - in a safe operating condition and easily accessible,
 - properly plugged into the wall socket,
 - only operated within the permissible temperature range,
 - not covered or exposed to direct sunlight for longer periods of time in order to prevent heat accumulation (see “Specifications” on page 13).
- Do not block any ventilation openings. Install the products in accordance with the instructions given in this instruction manual.
- Do not install the products near any heat sources such as radiators, stoves, or other devices (including amplifiers) that produce heat.
- Do not overload wall outlets and extension cables as this may result in fire and electric shock.
- Ensure that the mains unit is always accessible so that the connected product can be easily disconnected from the mains at any time.

Bodypack transmitter and radio microphone

- Do not place the products near any heat sources such as radiators, stoves, or other devices (including amplifiers) that produce heat.
- **WARNING:** These products should be protected against the ingress of liquids (eg: water, sweat, etc.) as this can cause malfunctions due to shortages or corrosion, etc.

Intended use

Intended use of the product of the **XS WIRELESS** systems includes:

- having read this instruction manual especially the chapter "Important safety instructions" on page 2,
- using the products within the operating conditions and limitations described in this instruction manual.

"Improper use" means using the products other than as described in these instructions, or under operating conditions which differ from those described herein.

Framework requirements and restrictions on frequency usage

Before putting your radio microphone system or other audio transmission systems into operation, ask the relevant wireless regulatory authority for the exact frequency allocations and apply for an individual license if necessary. The table on the inside back cover provides an overview of the different European framework requirements and restrictions on frequency usage. If there is no entry in the supplement, ask the relevant wireless regulatory authority for the current rules governing frequency usage.

The XS WIRELESS systems

Designed for different areas of application, the XS WIRELESS systems are available in five variants.

Presentation Set XSW 12: This system is ideal for presentation applications. The unobtrusive ME 2-2 clip-on microphone is virtually invisible.

Instrument Set XSW 72: This system is for connecting musical instruments (e.g. guitar) which have a 1/4" (6.3 mm) jack socket directly to the bodypack transmitter.

Vocal Set XSW 35 and Vocal Set XSW 65: These systems are ideal for vocal and speech applications.

Headset Set XSW 52: The lightweight and comfortable headset system gives absolute freedom of movement for a more animated and impressive performance. High-quality microphone technology provides clear, brilliant sound.

The XS WIRELESS systems are available in five UHF frequency ranges with 960 frequencies per frequency range (except range E = 520 frequencies). Each frequency range (A, GB, B, C, E) offers 8 frequency banks with up to 12 channels each. The frequency banks contain factory-preset frequencies (frequency presets).

Frequency range A	548 to 572 MHz
Frequency range GB	606 to 630 MHz
Frequency range B	614 to 638 MHz
Frequency range C	766 to 790 MHz
Frequency range E	821 to 832 MHz and 863 to 865 MHz

Features

- Up to 12 transmission links per frequency range which can be operated simultaneously
- Reliable transmission technology
- True diversity technology for minimizing dropouts in the reception
- Adjustable squelch for eliminating RF interference
- Rugged metal housing for EM 10 receiver
- Crystal-clear reception due to dynamic processor
- Sync function for wireless transmission of frequencies to transmitters
- Scan function searches for unused frequencies

Delivery includes

XS WIRELESS systems	Accessories												
	EM 10 receiver	SKM 35 radio microphone, dynamic	SKM 65 radio microphone, condenser	SK 20 bodypack transmitter	Transmitter bag	NT 2-3 mains unit	ME 2-2 clip-on microphone	CI 1 1/4" (6.3 mm) jack cable	MZQ 1 stand mount	ME 3 headmic	2 rod antennas	2 AA size batteries	Instruction manual
Vocal Set XSW 35	✓	✓			✓	✓			✓		✓	✓	✓
Vocal Set XSW 65	✓		✓		✓	✓			✓		✓	✓	✓
Presentation Set XSW 12	✓			✓	✓	✓	✓				✓	✓	✓
Instrument Set XSW 72	✓			✓	✓	✓		✓			✓	✓	✓
Headset Set XSW 52	✓			✓	✓	✓				✓	✓	✓	✓







A list of accessories can be found on the XS WIRELESS product page at www.sennheiser.com. For information on suppliers, contact your local Sennheiser partner: www.sennheiser.com > "Service & Support".

Product overview

An overview of the products is given on the inside front cover of this instruction manual.



A EM 10 receiver

- ① Standby button 
- ② Display panel
- ③ UP button 
- ④ DOWN button 
- ⑤ **syn**  button
- ⑥ **set** button
- ⑦ **volume** control
- ⑧ Antenna input (**ANT B**), BNC socket
- ⑨ Audio output (**BALANCED**), XLR-3M socket, balanced
- ⑩ Audio output (**AUDIO OUT UNBALANCED**) 1/4" (6.3 mm) jack socket, unbalanced
- ⑪ **LINE/MIC** slide switch
- ⑫ **SQ** rotary switch for squelch threshold
- ⑬ DC socket (**DC 12 V, 300 mA**) for connection of mains unit
- ⑭ Cable grip for mains cable
- ⑮ Antenna input (**ANT A**), BNC socket
- ⑯ Type plate



B Display panel

- ⑰ Frequency
- ⑱ RF signal level "**RF**"
- ⑲ Audio level "**AF**"
- ⑳ Battery charge status of transmitter
- ㉑ Channel
- ㉒ Frequency bank
- ㉓ **SYNC** display
- ㉔ **SCAN, PRESET, TUNE** menu items
- ㉕ **ANT A/ANT B** active antenna input

C SK 20 bodypack transmitter

- ① Microphone/instrument input
- ② **mute** LED, yellow (lit = muting is activated)
- ③ **power** LED, red (lit = switched on; flashing = batteries are low)
- ④ Antenna
- ⑤ Display panel
- ⑥ Input sensitivity slide switch
- ⑦ **syn**  button
- ⑧ ON/OFF button 
- ⑨ Battery compartment cover
- ⑩ Belt clip
- ⑪ **MUTE** button

D SKM 35/SKM 65 radio microphone

- ① Sound inlet basket (SKM 35 = black identification ring; SKM 65 = grey identification ring)
- ② Display panel
- ③ **mute** LED, yellow LED (lit = muting is activated)
- ④ **MUTE** button
- ⑤ Input sensitivity slide switch
- ⑥ ON/OFF button 
- ⑦ **syn**  button
- ⑧ LED power, red LED (lit = switched on; flashing = batteries are low)
- ⑨ Antenna cover
- ⑩ Battery compartment

Putting the XS WIRELESS systems into operation

Putting the receiver into operation

You can set up the receiver as a single device or mount it into a 19" rack. For information on rack mounting and optional accessories (e.g. rack mount "ears" and remote antennas), visit the XS WIRELESS product page at www.sennheiser.com.

Setting up the receiver

CAUTION

Risk of staining furniture surfaces!

Furniture surfaces are often treated with varnish, polish or synthetics which might cause stains when they come into contact with other synthetics such as the device feet.

- ▶ Do not place the receiver on delicate surfaces; if necessary, place a pad under the receiver.

- ▶ Place the receiver on a flat, even surface.

Connecting the receiver to the mains

- ▶ Connect the connector of the mains unit to the DC socket ⑬ on the receiver.
- ▶ Connect the mains unit to a wall socket. The receiver switches on, the display panel is backlit.

Connecting and aligning the rod antennas

The supplied rod antennas are suitable for all applications where – good reception conditions provided – a wireless transmission system is to be used without a large amount of installation work. To increase the range, you can use remote antennas which are available as accessories from your specialist dealer.

- ▶ Connect the two rod antennas to the BNC sockets ⑮ and ⑧ at the rear of the receiver.
- ▶ Align the antennas in a V-shape.

Connecting the amplifier/mixing console

- ▶ Use a suitable cable to connect the amplifier or mixing console to the XLR-3M socket ⑨ or the ¼" (6.3 mm) jack socket ⑩.
- ▶ For a rough adjustment of the AF audio level, set the LINE/MIC slide switch ⑪ to the corresponding position.
- ▶ Use the volume control ⑦ of the receiver to optimally adjust the AF audio level to the input of the amplifier or mixing console.

Putting the bodypack transmitter into operation

Inserting/replacing the batteries (see fig. "SK 20")

- ▶ Use two AA size batteries (1.5 V) for powering the SK 20 bodypack transmitter.
- ▶ Open the battery compartment cover (11).
- ▶ Insert the batteries. Observe correct polarity when inserting the batteries.

Connecting the microphone/instrument cable

The bodypack transmitter's audio input is designed for the connection of both condenser microphones (ME 2-2 clip-on microphone and ME 3 headmic) and instruments (e.g. guitars).

- ▶ Connect the clip-on microphone, headmic or instrument to the microphone/instrument input (1).

Attaching the clip-on microphone

- ▶ Use the microphone clip to attach the ME 2-2 clip-on microphone to clothing.
- ▶ Conduct the cable so that noise due to friction is avoided and that the microphone cable and the antenna do not cross.

Putting on the headmic

- ▶ Adjust the ME 3 headmic so that a comfortable and secure fit is ensured.
- ▶ Position the microphone so that its sound inlet is directed towards the sound source.

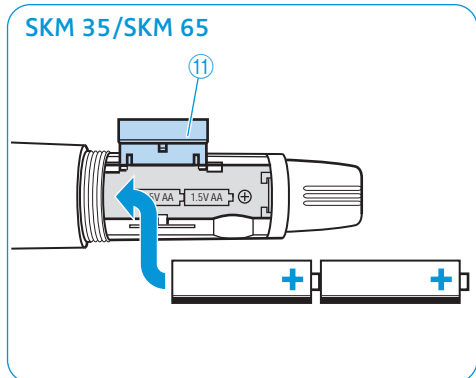
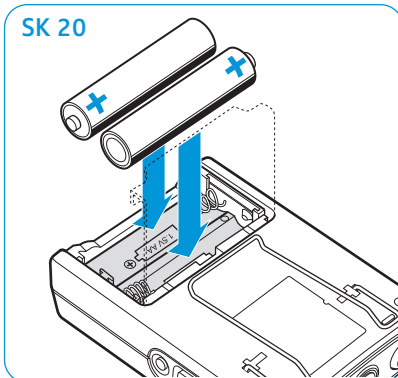
Attaching the bodypack transmitter to clothing

- ▶ Use the belt clip (10) to attach the bodypack transmitter to clothing. Make sure that the antenna is at least 1 cm away from the body and is not kinked.

Putting the radio microphone into operation

Inserting/replacing the batteries (see fig. "SKM 35/SKM 65")



- ▶ Use two AA size batteries (1.5 V) for powering the SKM 35/SKM 65 radio microphone.
- ▶ Unscrew the lower part of the microphone body and open the battery compartment cover.
- ▶ Insert the batteries. Observe correct polarity when inserting the batteries.




Using the XS WIRELESS systems

Switching the receiver on/off

To switch the receiver **on**:

- ▶ Press the standby button  ①. The receiver switches on, the display panel is backlit.
- ▶ Check the RF signal level "RF"  on the receiver's display panel.
 - The RF signal level is not displayed: The receiver frequency is unused. You can put your transmitter into operation.
 - The RF signal level is displayed: The receiver frequency is already used. Read the chapter "Selecting and changing a receiver channel".

To switch the receiver to **standby** mode:


- ▶ Keep the standby button  ① pressed until "OFF" appears on the display panel.









To completely switch the receiver **off**:

- ▶ Disconnect the receiver from the mains by unplugging the mains unit from the wall socket.


Switching the transmitters on/off

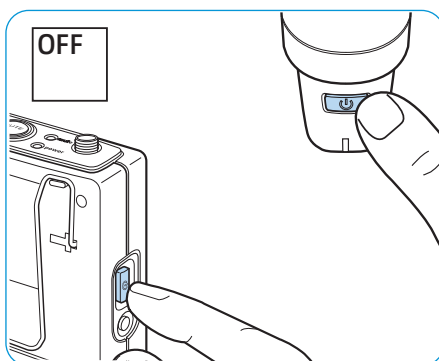
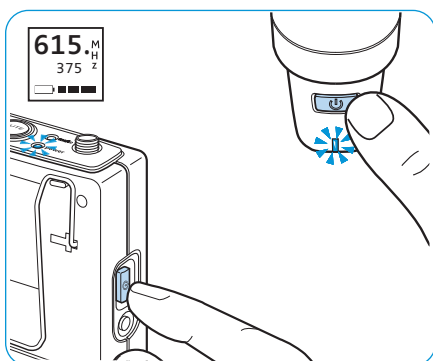
To switch the transmitters on:

- ▶ Press the ON/OFF button . The powerLED lights up red. The display panel of the receiver and the transmitters displays the charge status of the batteries:

Display on the receiver	Display on the transmitter	Charge status
		approx. 100 %
		approx. 70 %
		approx. 30 %
		The display and the power LED are flashing. The charge status is critical.

To switch the transmitters off:

- ▶ Keep the ON/OFF button  pressed until "OFF" appears on the display panel.



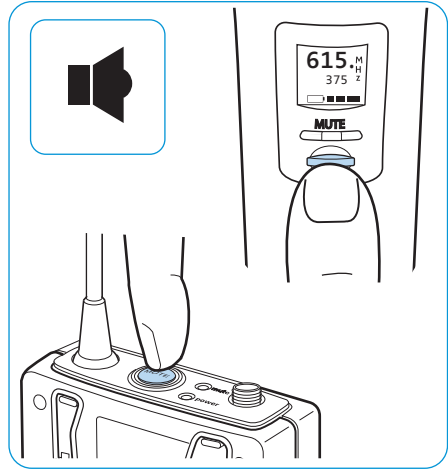
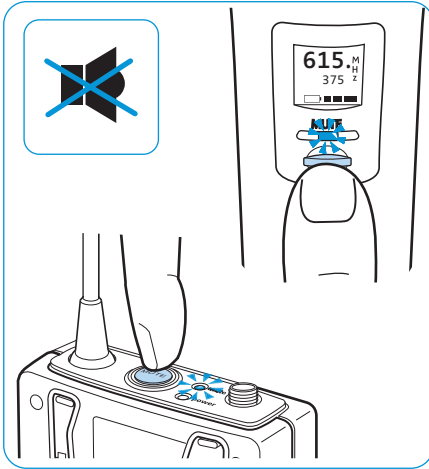
Muting the transmitters

To mute the transmitters:

- ▶ Press the **MUTE** button. The **mute** LED lights up yellow. The audio signal is muted.

To cancel the muting of the transmitters:

- ▶ Press the **MUTE** button. The **mute** LED goes off. The muting is canceled.



Adjusting the sensitivity

- ▶ Use the slide switch ⑥ (SK) or ⑤ (SKM) to adjust the sensitivity.

i You can vary the volume and the bass reproduction by increasing/decreasing the distance between radio microphone and mouth.

Selecting and changing a receiver channel

Make sure that all receivers are set to the same frequency bank in order to prevent interference and intermodulation to the transmitter.

Selecting a menu item and activating it

- ▶ Press the UP button ▲ ③ or DOWN button ▼ ④ to select the **TUNE**, **PRESET** or **SCAN** menu item.
- ▶ Press the **set** button ⑥ to activate the selected menu item.

Menu item	Select this menu item to ...
TUNE	manually set an unused frequency.
PRESET	select a preset channel.
SCAN	set an unused channel by automatic searching.

The menu items and their adjustment possibilities

TUNE menu item

- ▶ Use the UP button ▲ ③ or DOWN button ▼ ④ to select an unused frequency.
- ▶ Press the **set** button ⑥ to store your setting.

PRESET menu item

- ▶ Use the UP button ▲ ③ or DOWN button ▼ ④ to select a frequency bank.
- ▶ Press the **set** button ⑥ to store your setting.
- ▶ Use the UP button ▲ ③ or DOWN button ▼ ④ to select a channel.
- ▶ Press the **set** button ⑥ to store your setting.

SCAN menu item

Pressing the **set** button ⑥ to activate the **SCAN** menu item automatically selects an unused channel.


To select another frequency bank:

- ▶ Press the UP button ▲ ③ or DOWN button ▼ ④.
- ▶ Press the **set** button ⑥ to store your setting.

Synchronizing a transmitter with the receiver

The receiver always transfers the frequencies to the transmitter.


- ▶ Switch the transmitter and the receiver on.
- ▶ Keep the **sync** button ⑦ of your transmitter pressed until the **SYNC** display ②③ flashes on the receiver's display panel.
- ▶ Press the **sync** button ⑤ of the receiver to transfer the selected frequency to the transmitter.

 You can also synchronize a switched-off transmitter with the receiver. The transmitter automatically switches on during the synchronization process.

Adjusting the squelch threshold

Interference of the RF signal due to other transmission links can be eliminated as follows:

- ▶ Switch the transmitter off. The receiver should no longer receive a signal.
- ▶ If the receiver still receives a signal, use the rotary switch for squelch threshold "SQ" ⑫ to increase the squelch threshold so that the signal will no longer be received. If the signal cannot be eliminated in this way, set the transmitter and the receiver to a different channel.
- ▶ Switch the transmitter on again and check if the receiver receives the transmitter signal.

 If the squelch threshold is adjusted too high, the transmission range will be reduced. Therefore, always adjust the squelch threshold to the lowest possible setting.

Cleaning and maintaining the XS WIRELESS systems

CAUTION

Liquids can damage the electronics of the products!

Liquids entering the housing of the products can cause a short-circuit and damage the electronics.

- ▶ Keep all liquids away from the products.
 - ▶ Do not use any solvents or cleansing agents.
-
- ▶ Before cleaning, disconnect the receiver from the mains.
 - ▶ Only use a soft, slightly damp cloth to clean the products.

If a problem occurs ...

Problem	Cause	Solution	Page
No operation indication	Batteries are flat	Replace the batteries.	8
	No mains connection (receiver)	Check the connections of the mains unit.	7
No RF signal	Transmitter and receiver are not on the same channel	Set transmitter and receiver to the same channel.	10
	Transmission range is exceeded	Reduce the distance between transmitter and receiver.	–
RF signal available, no audio signal	Receiver's squelch threshold is adjusted too high	Reduce the squelch threshold.	11
Audio signal has a high level of background noise or is distorted	Transmitter sensitivity is adjusted too low or too high	Adjust the sensitivity on the transmitter.	10
	Receiver's audio output level is adjusted too low or too high	Use the volume control ⑦ to adjust the audio level.	7
Interference of the RF signal	Distance between transmitting and receiving antennas is too small	Distance > 5 m	–
	Several transmitters/radio microphones are used simultaneously and the distance between two transmitters is too small	Distance > 20 cm	–

Specifications

System

Modulation	wideband FM
Frequency ranges	A: 548-572 MHz GB: 606-630 MHz B: 614-638 MHz C: 766-790 MHz E: 821-832 MHz and 863-865 MHz
Switching bandwidth	24 MHz (range E: 13 MHz)
Frequencies	960 (range E: 520), tuneable in steps of 25 kHz 8 frequency banks, each with up to 12 factory-preset channels
Signal-to-noise ratio	≥ 103 dBa
THD	$\leq 1\%$
Temperature range	0°C to +40°C

EM 10 receiver

Receiver principle	true diversity
Sensitivity (at peak deviation)	$< 3 \mu\text{V}$ at 52 dBa _{rms S/N}
Adjacent channel rejection	≥ 60 dB
Intermodulation attenuation	≥ 50 dB
Blocking	≥ 65 dB
AF frequency response	50 – 16,000 Hz
Pilot tone	32.768 kHz
Antenna input	2 BNC sockets, 50 Ω
AF output voltage (at peak dev., 1 kHz AF)	¼" (6.3 mm) jack socket (unbalanced): +8 dBu XLR socket (balanced): +14 dBu
Power supply	12 V _{DC} nom. / 300 mA
Dimensions	200 x 42 x 127 mm
Weight	730 g

Transmitter	SK 20	SKM 35	SKM 65
RF output power	10 mW	10 mW	10 mW
AF frequency response	50 – 16,000 Hz (Line) 80 – 16,000 Hz (Mic)	80 – 16,000 Hz	80 – 16,000 Hz
AF input	3.5 mm jack socket	–	–
Nom. input voltage (Mic/Line)	0.5 V _{RMS} / 1.8 V _{RMS} at -30 dB gain	–	–
Power supply	2 AA size batteries, 1.5 V	2 AA size batteries, 1.5 V	2 AA size batteries, 1.5 V
Operating time	approx. 10 hrs	approx. 10 hrs	approx. 10 hrs
Dimensions	66 x 96 x 24 mm	250 x 54 mm	250 x 54 mm
Weight	95 g	240 g	240 g
Microphone type	–	dynamic	condenser, pre-polarized
Input sensitivity	–	1.5 mV/Pa	1.8 mV/Pa
Pick-up pattern	–	cardioid	super-cardioid
Max. SPL	–	149 dB SPL	144 dB SPL

Microphones	ME 2-2	ME 3
Transducer principle	condenser, pre-polarized	condenser, pre-polarized
Sensitivity	5 mV/Pa	1.6 mV/Pa
Pick-up pattern	omni-directional	cardioid
Max. SPL	142 dB	150 dB

In compliance with (EM, SK and SKM)

Europe:

CE	EMC	EN 301489-1/-3/-9
	Radio	EN 300422-1/-2, EN 301440, EN 301357
	Safety	EN 60065, EN 62311 (SAR)

Approved by (SK)

Canada:

Industry Canada RSS 123 (210),
IC 2099A-XSWSK
FCC-Part 74, FCC-ID: DMO XSWSK
FCC-Part 15 C, limited to 698 MHz

Approved by (SKM)

Canada:

Industry Canada RSS 123 (210),
IC 2099A-XSWSKM
FCC-Part 74, FCC-ID: DMO XSWSKM
FCC-Part 15 C, limited to 698 MHz

Approved by (EM)

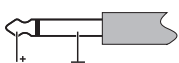
Canada:

Industry Canada RSS 123, IC 2099A-XSWEM
FCC-Part 15 C, FCC-ID: DMO XSWEM

Connector assignment

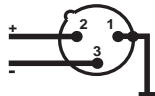
EM 10

1/4" (6.3 mm)
mono jack plug,
unbalanced



EM 10

XLR-3F
connector,
balanced



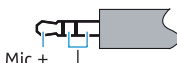
EM 10

DC connector for
power supply



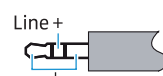
SK 20

3.5 mm jack plug
(Mic)



SK 20

3.5 mm jack plug
(Line)



Manufacturer Declarations

Warranty

Sennheiser electronic GmbH & Co. KG gives a warranty of 24 months on this product. For the current warranty conditions, please visit our web site at www.sennheiser.com or contact your Sennheiser partner.

In compliance with the following requirements

- RoHS Directive (2002/95/EC)
- WEEE Directive (2002/96/EC)




Please dispose of the products at the end of their operational lifetime by taking them to your local collection point or recycling center for such equipment.

- Battery Directive (2006/66/EC)



The batteries supplied with the transmitters can be recycled. Please dispose of them as special waste or return them to your specialist dealer. In order to protect the environment, only dispose of exhausted batteries.

CE Declaration of Conformity

- EM10: **CE** 1856, SK20, SKM 35, SKM 65: **CE** 1856 
- R&TTE Directive (1999/5/EC)
- EMC Directive (2004/108/EC)
- Low Voltage Directive (2006/95/EC)

The declaration is available at www.sennheiser.com. Before putting the products into operation, please observe the respective country-specific regulations.

Statements regarding FCC and Industry Canada

This device complies with Part 15 of the FCC Rules and with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications made to this equipment not expressly approved by Sennheiser electronic Corp. may void the FCC authorization to operate this equipment. Before putting the device into operation, please observe the respective country-specific regulations!

Sennheiser electronic GmbH & Co. KG

Am Labor 1, 30900 Wedemark, Germany
www.sennheiser.com

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DS-2680DMP3

ORDERCODE D1184



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The DAP Audio DS-2680DMP3 brings excitement to any venue. Whether you want simple plug-&-play action or a sophisticated show, this product provides the effect you need.

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Thank you!



Dap Audio

Dap Audio DS-2680DMP3™ Product Guide

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WARNING

**FOR YOUR OWN SAFETY, PLEASE READ THIS USER MANUAL CAREFULLY
BEFORE YOUR INITIAL START-UP!**

Unpacking Instructions

Immediately upon receiving this product, carefully unpack the carton and check the contents to ensure that all parts are present, and have been received in good condition. Notify the dealer immediately and retain packing material for inspection if any parts appear damaged from shipping or the carton itself shows signs of mishandling. Save the carton and all packing materials. In the event that a fixture must be returned to the factory, it is important that the fixture be returned in the original factory box and packing.

Your shipment includes:



- DAP DS-2680DMP3
- 1x Power cable – 2m
- 1x Control cable – 1,15m
- 2x RCA stereo cable – 1,50m
- User manual

 **CAUTION!** 
Keep this system away from rain and moisture!

SAFETY INSTRUCTIONS

Every person involved with the installation, operation and maintenance of this system has to:

- be qualified
- follow the instructions of this manual

 **CAUTION! Be careful with your operations.** 
**With a dangerous voltage you can suffer
a dangerous electric shock when touching the wires!**

Before you initial start-up, please make sure that there is no damage caused by transportation. Should there be any, consult your dealer and do not use the system.

To maintain perfect condition and to ensure a safe operation, it is absolutely necessary for the user to follow the safety instructions and warning notes written in this manual.

Please consider that damages caused by manual modifications to the system are not subject to warranty.

This system contains no user-serviceable parts. Refer servicing to qualified technicians only.

IMPORTANT:

The manufacturer will not accept liability for any resulting damages caused by the non-observance of this manual or any unauthorized modification to the system.

- Never let the power-cord come into contact with other cables! Handle the power-cord and all connections with the mains with particular caution!

- Never remove warning or informative labels from the unit.
- Never use anything to cover the ground contact.
- Never leave any cables lying around.
- Do not insert objects into air vents.
- Do not connect this system to a dimmerpack.
- Do not switch the system on and off in short intervals, as this would reduce the system's life.
- Do not open the device and do not modify the device.
- Do not drive the inputs with a signal level bigger, than required to drive the equipment to full output.
- Do not plug Mics into the console (or stagebox) while Phantom Power is on. Also mute the monitor / Pa system when turning Phantom Power on or off. Allow the system to adjust for a couple of seconds, before setting the input gains.
- Only use system indoor, avoid contact with water or other liquids.
- Avoid flames and do not put close to flammable liquids or gases.
- Always disconnect power from the mains, when system is not used. Only handle the power-cord by the plug. Never pull out the plug by tugging the power-cord.
- Always operate the unit with the AC ground wire connected to the electrical system ground.
- Make sure you don't use the wrong kind of cables or defective cables.
- Make sure that the signals into the mixer are balanced, otherwise hum could be created.
- Make sure you use DI boxes to balance unbalanced signals; All incoming signals should be clear.
- Make sure that the available voltage is not higher than stated on the rear panel.
- Make sure that the power-cord is never crimped or damaged. Check the system and the power-cord from time to time.
- Please turn off the power switch, when changing the power cord or signal cable, or select the input mode switch.
- Extreme frequency boosts in connection with a high input signal level may lead to overdriving your equipment. Should this occur, it is necessary to reduce the input signal level by using the INPUT control.
- To emphasize a frequency range, you don't necessarily have to move its respective control upward; try lowering surrounding frequency ranges instead. This way, you avoid causing the next piece of equipment in your sound path to overdrive. You also preserve valuable dynamic reserve ("headroom")
- Avoid ground loops! Always be sure to connect the power amps and the mixing console to the same electrical circuit to ensure the same phase!
- If system is dropped or struck, disconnect mains power supply immediately. Have a qualified engineer inspect for safety before operating.
- If the system has been exposed to drastic temperature fluctuation (e.g. after transportation), do not switch it on immediately. The arising condensation water might damage your system. Leave the system switched off until it has reached room temperature.
- If your Dap Audio device fails to work properly, discontinue use immediately. Pack the unit securely (preferably in the original packing material), and return it to your Dap Audio dealer for service.
- Repairs, servicing and electric connection must be carried out by a qualified technician.
- For replacement use fuses of same type and rating only.
- WARRANTY: Till one year after date of purchase.

OPERATING DETERMINATIONS

This system is not designed for permanent operation. Consistent operation breaks will ensure that the system will serve you for a long time without defects.

If this system is operated in any other way, than the one described in this manual, the product may suffer damages and the warranty becomes void.


Any other operation may lead to dangers like short-circuit, burns, electric shock, etc.

You endanger your own safety and the safety of others!

Improper installation can cause serious damage to people and property !

Connection with the mains

Connect the device to the mains with the power-plug.
Always pay attention, that the right color cable is connected to the right place.

International	EU (including UK) From April 2004	North America	Pin
L	Brown	Black	Phase
N	Blue	White	Neutral
	Green/Yellow	Green	Protective Earth

Make sure that the device is always connected properly to the earth!

Return Procedure

Returned merchandise must be sent prepaid and in the original packing, call tags will not be issued. Package must be clearly labeled with a Return Authorization Number (RMA number). Products returned without an RMA number will be refused. Highlite will not accept the returned goods or any responsibility. Call Highlite 0031-455667723 or mail aftersales@highlite.nl and request an RMA prior to shipping the fixture. Be prepared to provide the model number, serial number and a brief description of the cause for the return. Be sure to properly pack fixture, any shipping damage resulting from inadequate packaging is the customer's responsibility. Highlite reserves the right to use its own discretion to repair or replace product(s). As a suggestion, proper UPS packing or double-boxing is always a safe method to use.

Note: If you are given an RMA number, please include the following information on a piece of paper inside the box:

- 1) Your name
- 2) Your address
- 3) Your phone number
- 4) A brief description of the symptoms

Claims

The client has the obligation to check the delivered goods immediately upon delivery for any shortcomings and/or visible defects, or perform this check after our announcement that the goods are at their disposal. Damage incurred in shipping is the responsibility of the shipper; therefore the damage must be reported to the carrier upon receipt of merchandise.

It is the customer's responsibility to notify and submit claims with the shipper in the event that a fixture is damaged due to shipping. Transportation damage has to be reported to us within one day after receipt of the delivery.

Any return shipment has to be made post-paid at all times. Return shipments must be accompanied with a letter defining the reason for return shipment. Non-prepaid return shipments will be refused, unless otherwise agreed in writing.

Complaints against us must be made known in writing or by fax within 10 working days after receipt of the invoice. After this period complaints will not be handled anymore.

Complaints will only then be considered if the client has so far complied with all parts of the agreement, regardless of the agreement of which the obligation is resulting.

Description of the device

Features

The DS2680DMP3 is a double CD Player with direct access, MP3 and slot in disk loading system

- Professional Twin CD Player
- Anti-shock memory
- Compatible with: CD, CD-RW, MP3, CD-R
- Slot in disc loading system
- Program mode (20 tracks)
- Continuous and Single play mode
- Large jog wheel
- Direct access buttons for track numbers
- Auto cue
- Seamless loop
- USB + SD input

Overview



Fig. 1

Frontview



Fig. 2

- | | |
|---------------------------|-------------------------|
| 1) CD LED | 16) Pitch Button |
| 2) USB LED | 17) Pitch + Button |
| 3) SD LED | 18) Cue |
| 4) FLD/ TRK control | 19) Play/Pause ▶/ |
| 5) B.Skip ◀◀ | 20) Eject ▲ |
| 6) + 10 (Track+10 Button) | 21) Jog + Shuttle Wheel |
| 7) F.Skip ▶▶ | 22) Pitch Fader |
| 8) Jog Mode | 23) Time |
| 9) LCD Display | 24) Single |
| 10) USB slot | 25) Pgm |
| 11) CD/ USB/ SD button | 26) Repeat |
| 12) Loop In | 27) SD card slot |
| 13) Loop Out | 28) Disc slot |
| 14) ReLoop | 29) Power ON/OFF |
| 15) Pitch – Button | |

Rearview



Fig. 3

30) Controller- Main Unit Connector.

Use the supplied control cables only. Using other cables will result in damage.

31) Main Unit- Controller Connector.

Use the supplied control cables only. Using other cables will result in damage.

32) Line Out

33) AC Power Inlet

Use the supplied power cable to connect the device to the mains.