

Live Sound
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- Half 19" all metal case diversity receiver
- Automatic frequency setup function for quick and easy operation
- 12 pre-programmed frequencies per group
- Infrared link of all frequency and setup data to the transmitter
- 8 hours battery life and battery status information in hours
- Programmable warning functions using a two-color display backlighting to indicate critical operation conditions (low battery, audio peak, RF low)
- Compatible with WMS 4500 antenna splitters, power supplies, and high quality directional and omni-directional antennas

WMS 450

Wireless Microphone System

The AKG **WMS 450** is your best choice for any application calling for a solution that is more flexible than a simple plug-and-play system yet easy to set up and operate.

The WMS 450 provides cost-efficient, high-performance solutions for situations where several radio mics will be used simultaneously, including gigs at clubs, stages, churches or regional events.

With 30 MHz tuning range you can select 1200 frequencies and operate with up to **20 channels** simultaneously within the same frequency band.

Being compatible and based on the technology of the professional WMS 4500 wireless system you can set up even complex wireless systems using antenna splitters, power supply units and the whole range of professional directional or omni-directional antennas.



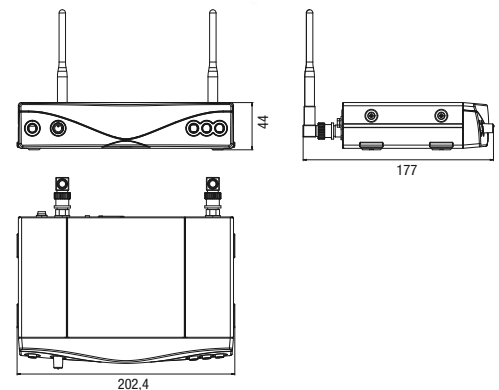
AKG SOUNDS BETTER



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- 30 MHz tuning range
- Half 19" all metal case diversity receiver
- Automatic setup function for quick and easy operation
- 12 pre-programmed frequencies per group
- Infrared link of all frequency and setup data to the transmitter
- Transmitter battery status monitoring
- Programmable warning functions using a two-color display backlighting to indicate critical operation conditions (low battery, audio peak, RF low)
- Compatible with WMS 4500 antenna splitters, power supplies, and high quality directional and omni-directional antennas



SR 450

SR 450 Receiver Specifications

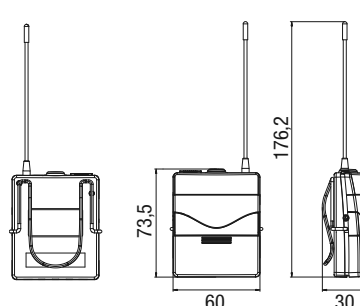
Carrier frequency range	Band 7: 500 to 530 MHz (complies with new US regulation), Band 8: 570 to 600 MHz (complies with new US regulation), Band 1: 650 to 680 MHz (complies with new US regulation), Band 2: 680 to 710 MHz, Band 3: 720 to 750 MHz, Band 5: 790 to 820 MHz, Band 6: 835 to 865 MHz
Switching bandwidth	≤ 30 MHz (country dependent)
Sensitivity	7 dBμV / -100 dBm
Diversity System	Microprocessor-controlled diversity
Modulation	Wideband FM
Audio bandwidth	35 – 20 000 Hz (± 3 dB)
T.H.D.	≤ 0.3 %
SNR (A-weighted)	typ. 120 dB(A)
Audio outputs	1 x XLR sockets balanced 1 x TS ¼" / 6.3 mm jack sockets unbalanced
Dimensions	½ 19 inch 1U rack, 202 mm (7.8 in.) × 44 mm (1.7 in.) × 190 mm (7.4 in.)
Net / Shipping Weight	972 g (2.2 lbs.)
Standard Accessories	2 UHF antennas, power supply, rack mount kit

Item number: SR 450 3230H00..

Architects' and Engineers' Specifications

The receiver shall be a stationary diversity design with 1200 carrier frequencies that can be programmed within a 30 MHz wide subband and a rugged half-rack case with backlit liquid crystal color display. The receiver shall provide indicators for audio and RF levels; diversity mode (A/B); transmitter battery status; name, frequency, frequency group, and preset (country) name. The color of the backlighting shall change between green and red to indicate normal operation or display user-selectable warning messages (low battery capacity, audio level, RF level, etc.). The receiver shall select intermodulation-free frequencies automatically from an integrated frequency database arranged by local frequency allocations and provide an automatic function for finding dead spots. An infrared radiator shall transmit setup parameter data to the transmitter. Rear panel BNC sockets shall allow either the supplied antennas or a complex antenna network to be connected to the receiver. The squelch threshold shall be adjustable between -70 and -100 dBm. The receiver's audio bandwidth shall be 35 Hz to 20 kHz; S/N 120 dB(A); THD <0.3% at 1 kHz. Audio outputs shall comprise a balanced 3-pin XLR output switchable to -30 dB or 0 dB and an unbalanced 1/4" TS jack. The receiver shall provide a lockable DC input for the supplied 12 V DC power supply. The receiver shall measure 200 x 44 x 190 mm (W x D x H) and weigh 972 g. The receiver shall be the AKG SR 450 or equivalent.

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- Extremely light and compact bodypack transmitter
- Premium audio quality
- Quick setup via infrared link of all frequency and setup data from receiver
- Long battery life for low operating cost
- 50 mW RF-output power
- 8 hours battery life
- Battery status information in hours
- Low battery data transmission to receiver



PT 450

PT 450 Bodypack Transmitter Specifications

Carrier frequency range	Band 7: 500 to 530 MHz (complies with new US regulation), Band 8: 570 to 600 MHz (complies with new US regulation), Band 1: 650 to 680 MHz (complies with new US regulation), Band 2: 680 to 710 MHz, Band 3: 720 to 750 MHz, Band 5: 790 to 820 MHz, Band 6: 835 to 865 MHz
Switching bandwidth	≤ 30 MHz (country dependent)
RF output power	10 or 50 mW (ERP, country dependent)
Modulation	Wideband FM
Audio input	TB3M / 3-pin mini-XLR socket (max. 2.5 Vrms)
Audio bandwidth	35 – 20 000 Hz (± 3 dB)
T.H.D.	≤ 0.7 %
SNR (A-weighted)	> 120 dB(A)
Battery life	≥ 6 hours with one 1.5 V LR6 AA alkaline battery ≥ 8 hours with one 1.2 V AA rechargeable battery (min. 2100 mAh)
Dimensions	60 mm (2.4 in.) × 73.5 mm (2.9 in.) × 30 mm (1.2 in.)
Net / Shipping Weight	90 g (3.2 oz.) without batteries
Standard Accessories	1 AA size LR6 batteries, belt clip

Item number: PT 450 3232H00..

Available AKG Microphones:

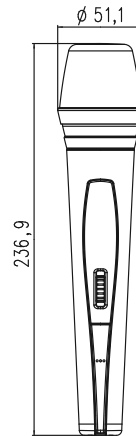


Architects' and Engineers' Specifications

The bodypack transmitter shall be housed in a miniature body and provide 1200 carrier frequencies that can be programmed via infrared within a 30 MHz wide subband. An LC display shall indicate the transmitter battery capacity in hours; as well as the frequency, frequency group, and preset name. An outside infrared sensor shall allow the frequency and input gain setting to be programmed, and a silent mode shall permit the transmitter to be used legally in R&TTE countries. The transmitter shall transmit low battery capacity and muting information to the receiver and use an integrated dipole transmitting antenna. The transmitter shall be available with an RF output of 10 mW or 50 mW (ERP). The transmitter shall provide a lockable on/mute/off switch with IR programming and silent mode functions. Charging contacts on the bottom panel shall allow the easy charging of a rechargeable battery inside the transmitter and a 2.5 mm jack shall allow an external mute switch to be connected. The audio bandwidth of the transmitter shall be 35 Hz to 20 kHz; S/N 120 dB(A); THD at 1 kHz <0.7%. The input gain shall be adjustable by means of a special tool integrated in the battery compartment cover. The transmitter shall operate off one AA size dry battery for >6 hours, up to 8 hours off one AA size NiMH rechargeable battery. A means of color coding the bodypack transmitter shall be included. The bodypack transmitter shall measure 60 x 73.5 x 30 mm and weigh 90 g. The bodypack transmitter shall be the AKG PT 450 or equivalent.

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- Available with D 5 or C 5 high quality microphone elements
- Premium audio quality
- Quick setup via infrared data link of all frequency and setup data from receiver
- Long battery life for low operating cost
- 50 mW RF-output power
- 8 hours battery life
- Battery status information in hours
- Low battery data transmission to receiver



HT 450

HT 450 Handheld Transmitter Specifications

Carrier frequency range	Band 7: 500 to 530 MHz (complies with new US regulation), Band 8: 570 to 600 MHz (complies with new US regulation), Band 1: 650 to 680 MHz (complies with new US regulation), Band 2: 680 to 710 MHz, Band 3: 720 to 750 MHz, Band 5: 790 to 820 MHz, Band 6: 835 to 865 MHz
Switching bandwidth	≤ 30 MHz (country dependent)
RF output power	10 or 50 mW (ERP, country dependent)
Modulation / Bandwidth	Wideband FM
Microphone capsules	D 5 – dynamic (super cardioid) C 5 – condenser (cardioid)
Max. SPL	≤ 144 dB SPL
Audio bandwidth	35 – 20 000 Hz (± 3 dB)
T.H.D.	≤ 0.7 %
SNR (A-weighted)	> 120 dB(A)
Battery life	≥ 6 hours with one 1.5 V LR6 AA alkaline battery ≥ 8 hours with one 1.2 V AA rechargeable battery (min. 2100 mAh)
Dimensions	237 mm (9.3 in.) length, 51 mm (2 in.) dia.
Net / Shipping Weight	240 g (8.5 oz.) without batteries
Standard Accessories	1 x AA size LR6 battery, stand adapter, windscreen

Item number:	HT 450 D 5	3231X00..
	HT 450 C 5	3231X00..

Architects' and Engineers' Specifications

The handheld transmitter shall be housed in a miniature body and provide 1200 carrier frequencies that can be programmed via infrared within a 30 MHz wide subband. An LC display shall indicate the transmitter battery capacity in hours; as well as the frequency, frequency group, and preset name. An outside infrared sensor shall allow the frequency and input gain setting to be programmed, and a silent mode shall permit the transmitter to be used legally in R&TTE countries. The transmitter shall transmit low battery capacity and muting information to the receiver and use an integrated dipole transmitting antenna. The transmitter shall be available with an RF output of 10 mW or 50 mW (ERP). The transmitter shall provide a central on/mute/off switch with IR programming and silent mode functions. Charging contacts on the bottom panel shall allow the easy charging of a rechargeable battery inside the transmitter. The audio bandwidth of the transmitter shall be 35 Hz to 20 kHz; S/N 120 dB(A); THD at 1 kHz <0.7%. The transmitter shall operate off one AA size dry battery for >6 hours, up to 8 hours off one AA size NiMH rechargeable battery. A means of color coding the handheld transmitter shall be included. The handheld transmitter shall measure 236.9 mm long x 51.1 mm max. dia. and weigh 240 g. An stand adapter shall be included as a standard accessory. The handheld transmitter shall be the AKG HT 450 or equivalent.

WMS 450 Sets

				
WMS 450 Vocal Set D 5	WMS 450 Vocal Set C 5	WMS 450 Guitar Set	WMS 450 Presenter Set	WMS 450 Headworn Set
<ul style="list-style-type: none"> • 1 HT 450 handheld transmitter with D 5 microphone element, 1 SR 450 receiver • 1 Stand adapter, 1 AA size battery, 2 antennas, rack mounting kit, power supply 	<ul style="list-style-type: none"> • 1 HT 450 handheld transmitter with C 5 microphone element, 1 SR 450 receiver • 1 Stand adapter, 1 AA size battery, 2 antennas, rack mounting kit, power supply 	<ul style="list-style-type: none"> • 1 PT 450 bodypack transmitter • 1 SR 450 receiver 1 MKG L cable, 2 antennas, • 1 belt clip, 1 AA size battery, 2 antennas, rack mounting kit, power supply 	<ul style="list-style-type: none"> • 1 PT 450 bodypack transmitter • 1 SR 450 receiver • 1 C 407 L lavalier microphone • 1 belt clip, 1 AA size battery, 1 MKG L cable, 2 antennas, rack mounting kit, power supply 	<ul style="list-style-type: none"> • 1 PT 450 bodypack transmitter • 1 SR 450 receiver • 1 C 555 L head-worn microphone • 1 belt clip, 1 AA size battery, 1 MKG L cable, 2 antennas, rack mounting kit, power supply
Item number: 3235X00..	Item number: 3236X00..	Item number: 3237H00..	Item number: 3238X00..	Item number: 3239X00..

CU 400

AKG's **CU 450** is a **fast charger** that rapidly charges the rechargeable battery inside the transmitter without damaging the cell element. CU 450 charger determine the optimum charge current. Charging is terminated when both batteries are fully charged.

The CU 450 charger use the **pulse technology** in which a pulse is fed to the battery. This DC pulse has a strictly controlled rise time, pulse width, pulse repetition rate (frequency) and amplitude.

- 2-hour quick charging.
- Two slots that fit both DHT 700 and DPT 700.
- LED status information



CU 400 Charging Unit Specifications

Matching devices	HT 450, PT 450, HT400, PT400, HT40, PT 40
Rechargeable batteries	AA size, >2100 mAh NiMH rechargeable battery
Slot number	2
Dimensions	7.4(W) x 4.5(H) x 3.1(D) inch / 188(W) x 115(H) x 78(D) mm
Net / Shipping Weight	14.8 oz / 420 g
Standard Accessories	1 x 5 V / 1.5 A DC Power supply

Item number:	CU 400 EU	2934Z0001
	CU 400 US	2934Z0002
	CU 400 UK	2934Z0003
	CU 400 no power supply	2934Z0004

Architects' and Engineers' Specifications

The charger shall be housed in a rugged plastic case with two multifunctional charging slots for charging WMS 450 and WMS 40 PRO Series wireless transmitters. Each charging slot shall accommodate a handheld or bodypack transmitter and the charger shall be capable of charging any combination of transmitters (e.g., one HT 450 and one PT 450 simultaneously). The batteries shall remain inside the transmitter(s) during charging. The charger shall detect any dry (non-rechargeable) battery inside a transmitter and automatically stop the charging cycle if a dry battery is inserted. A status LED shall be placed in front of each charging slot. These tricolor (red/amber/green) LEDs shall indicate the charger's current operating status: amber - battery is being tested; red - battery is being charged; green - battery is fully charged and charging cycle finished; flashing red - error. The voltage and temperature shall be monitored during the charging cycle and a signal given at the end of a charging cycle to indicate that full capacity has been reached. All required safety parameters shall be monitored and the charging cycle stopped if one or more safety parameters fall below or exceed the acceptable range. Operating voltage shall be 5 VDC, 1.5 A max. The charger shall accept NiMH or NiCd rechargeable batteries with a minimum capacity of 1500 mAh. Typical charging current shall be 1.4 A when one charging slot is used and 0.7 A when both slots are used simultaneously, typical charging time 1.5 hours when one charging slot is used and 3 hours when both slots are used simultaneously (depending on battery type and capacity). The charger shall measure 188 x 115 x 78 mm (LxHxD), weigh approx. 420 g, and be enameled black. The charger shall be the CU 400 or equivalent.



PS 4000 W Power splitter – Antenna distributor to feed up to 5 receiver with the RF-signal of a pair of antennas. To feed more than 5 receivers the PS 4000 W provide a link output to cascade up to 3 PS 4000 W.



PSU 4000 Power supply unit – Three high current 12V DC outputs feed the power to 3 PS 4000 W antenna distributors. Via PS 4000 W 12 receiver and up to 8 active antenna components (SRA 2 B/W, RA 4000 B/W, AB 4000) get the power through the antenna cable.



AB 4000 Antenna Booster – High performance antenna booster for inserting into long antenna cables. One AB 4000 can compensate for approx. 17 dB of cable attenuation. Up to three boosters can be used in series for extremely long cable runs.



SRA 2 B/W Directional antenna – Active antenna with integrated high performance booster required for use with long cable runs.

SRA 2 W Directional antenna – Passive antenna for use with short cable runs (<10 m)



RA 4000 B/W Omni-directional antenna – Active antenna with integrated high performance booster required for use with long cable runs.

RA 4000 W Omni-directional antenna – Passive antenna for use with short cable runs (<10 m)



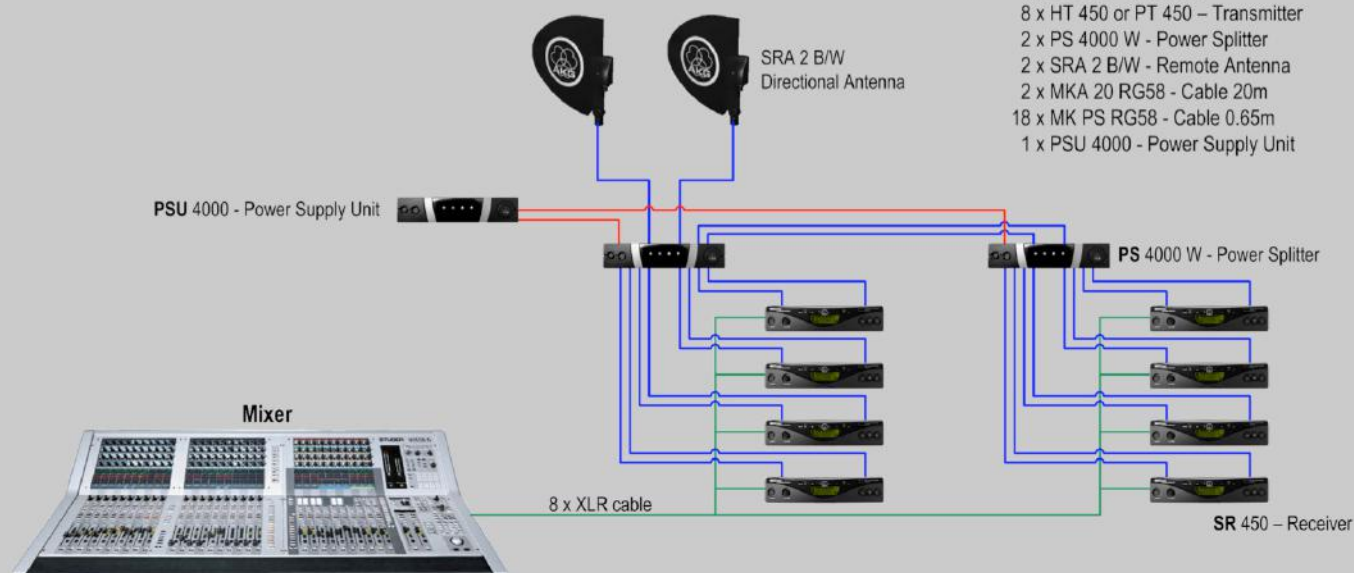
ASU 4000 Antenna Supply Unit – Remote power supply for small systems where no PS 4000 W is in use to provide the necessary power for the active antennas.



ZAPD-21 Passive splitter – 2-into-1 antenna combiner for indoor and outdoor use. Can be used either to split signals or combine them as needed.

Antenna System

8 Channel WMS 450 System



Part list:

- 8 x SR 450 – Receiver
- 8 x HT 450 or PT 450 – Transmitter
- 2 x PS 4000 W - Power Splitter
- 2 x SRA 2 B/W - Remote Antenna
- 2 x MKA 20 RG58 - Cable 20m
- 18 x MK PS RG58 - Cable 0.65m
- 1 x PSU 4000 - Power Supply Unit

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