

# ew 500 <sup>Ⓔ3</sup> Vocal Set

RF Wireless Systems | evolution wireless G3

## System variants and included components:

- ew 500-935 G3 – (1) SKM 500 G3 handheld transmitter, (1) <sup>Ⓔ935</sup> dynamic cardioid capsule, (1) MZQ 100 microphone clip, (1) EM 500 G3 rack-mount receiver, and (1) GA 3 rack-mount adapter
- ew 500-945 G3 – (1) SKM 500 G3 handheld transmitter, (1) <sup>Ⓔ945</sup> dynamic super-cardioid capsule, (1) MZQ 100 microphone clip, (1) EM 500 G3 rack-mount receiver, and (1) GA 3 rack-mount adapter
- ew 500-965 G3 – (1) SKM 500 G3 handheld transmitter, (1) <sup>Ⓔ965</sup> true condenser capsule w/switchable polar pattern, (1) MZQ 100 microphone clip, (1) EM 500 G3 rack-mount receiver, and (1) GA 3 rack-mount adapter

For recommended accessories please visit [www.sennheiserusa.com](http://www.sennheiserusa.com)



## Features

- Sturdy metal housing
- Automatic frequency management for transmitter and receiver
- Tunable UHF frequencies within a large switching bandwidth
- Wireless microphone with a quick-change microphone head from the <sup>Ⓔ900</sup> series
- Large range of replaceable microphone heads from the successful evolution series
- Wireless synchronization of transmitters via infrared interface
- Enhanced frequency bank management with up to 32 compatible frequencies
- 42 MHz bandwidth, 1,680 switchable frequencies
- Increased range for audio sensitivity
- Easy-to-read illuminated dot matrix display with dual color warning indicator
- More control options (menu)
- Enhanced AF frequency range
- Soundcheck mode
- Integrated equalizer
- Contacts for recharging the BA 2015 accupack directly in the transmitter
- (2) AA batteries for over 8 hours of use
- 4-level battery indicator for transmitter
- HDX compander for crystal-clear sound
- True diversity receiver for optimum reception
- High RF output power for large range
- Suitable for 19" rack mounting (1 U)

## General Description

This system is ideal for professional vocal applications. Choose from three different microphone heads with cardioid, super-cardioid or switchable pick-up patterns. The SKM 500 G3 handheld and the EM 500 G3 rack-mount receiver each features 20 frequency banks with 6 user banks and 32 directly accessible frequency presets. The system is ready for immediate use.

## Technical Specifications

### ew 500 <sup>Ⓔ3</sup>

Modulation..... wideband FM  
 Frequency ranges ..... 516–558, 566–608,  
 ..... 626–668, 734–776, 780–822, 823–865  
 Transmission/Receiving  
 frequencies ..... 20 channel banks, 6 user banks,  
 .....32 factory preset channels each  
 Switching bandwidth.....42 MHz  
 Noise reduction system.....Sennheiser HDX  
 AF frequency response.....25 – 18,000 Hz  
 S/N ratio (at 1 mV and peak deviation) ..≥ 115 dBA  
 THD (at nominal deviation and 1 kHz) ..... ≤ 0.9 %

### EM 500 <sup>Ⓔ3</sup>

Receiver principle..... True Diversity  
 Sensitivity (with HDX,  
 peak deviation) ..... <2 μV at 52 dBA<sub>eff</sub> S/N  
 Adjacent channel rejection ..... ≥ 75 dB  
 Intermodulation attenuation ..... ≥ 70 dB  
 Blocking ..... ≥ 75 dB  
 Pilot-tone squelch..... detachable  
 Antenna inputs ..... 5 BNC sockets  
 AF output voltage (at peak  
 deviation, 1 kHz AF)..... 1/4" (6.3 mm) jack socket,  
 ..... unbalanced: +12 dBu XLR socket,  
 .....balanced: +18 dBu  
 Power supply .....12 V DC  
 Dimensions .....7.95" x 8.35" x 1.69"  
 Weight ..... approx. 2.16 lbs

### SKM 500 <sup>Ⓔ3</sup>

RF output power at 50 Ω .....typ. 30/10 mW,  
 ..... switchable  
 AF frequency response .....80 – 18,000 Hz  
 Power supply ..... 2 AA batteries, 1.5 V  
 Nominal voltage..... 2.4 V  
 Operating time .....typ. 8 h  
 Dimensions ..... Ø 1.97" x 10.43"  
 Weight .....approx. 15.87 oz

# ew 500 G3 Vocal Set

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## Architect and Engineering Specifications

The wireless microphone system shall feature a true-diversity receiver with 42 MHz of available tuning bandwidth with a total of 1,680 frequencies accessible in 25 kHz steps. The wireless microphone receiver must feature one Balanced XLR output with a max. output of +18 dBu, and one unbalanced 1/4" output with a max. output of +12 dBu. The wireless microphone receiver must feature two BNC antenna inputs, one for each receiver module in the true diversity system. The wireless microphone receiver must feature a backlit display that displays AF and RF levels, battery telemetry from the transmitter, operating frequency, and diversity switching information. The wireless microphone receiver must feature an automatic frequency scanning function that utilizes eight banks of pre-coordinated frequencies that are free of intermodulation interference. The wireless microphone receiver must also feature a user bank in order to store user defined frequencies. The wireless microphone transmitter must operate on two 1.5V AA battery cells. The wireless microphone transmitter must have access to 1,680 frequencies tuned in 25 kHz steps across a defined 42 MHz bandwidth. The wireless microphone transmitter must feature a backlit display that displays frequency information, AF level, battery level. The wireless microphone transmitter must transmit a pilot-tone squelch. The wireless microphone transmitter must have a specified RF output power of 30mW. The wireless microphone receiver must accept 12V DC power via BNC antenna inputs.

## Limited Product Warranty/Service

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