## ClearOne.

## Wireless Microphone System | WS800

WS800 Digital Wireless Microphone System delivers professional audio quality with wireless freedom and simplified setup. The wireless system is based on 24-bit, 48 kHz, digital audio RF technology and is optimized to work with CONVERGE® Pro and INTERACT® Pro products. The WS800 system includes four models of wireless microphones/transmitters, and a basestation receiver with either 4 or 8 channels, which connects to professional audio mixers.





### Applications

- + Conference rooms
- + Boardrooms
- + Overflow areas
- + Training rooms
- + Court rooms
- + Convention Centers
- + Telemedicine Facilities
- + Houses of Worship



- + Professional audio quality
  - > Crystal-clear audio with wideband frequency
  - > Optimized to work with CONVERGE® Pro and INTERACT® Pro
- + Wireless freedom
  - > RF technology with support for different frequency bands1
  - > Hassel-free installation and clean look by eliminating the clutter of wires
  - > No interference with other wireless electronic devices with different range
- + Scalability
  - > Daisy-chainable Receiver to scale up to 32 channels (mics) for large room
- + Flexibility
  - Multiple types of mics to cater different application and room environment needs
    + Tabletop, Gooseneck, Handheld, Beltpack (lavalier & headset) mics
- + Security
  - > Highly secured with 256-bit encryption for wireless transmission
  - > This encryption conforms to the US Govt. AES (FIPS PUB 197) specification
- + Ease of maintenance
  - > Microphone batteries: Rechargeable, field-replaceable, off-the-shelf-batteries
  - > Redundant backup system
  - > Microphone charging through USB port also
- + Remote monitoring and control
  - > Robust system with RS232, USB, GPIO, RJ45 ports for configuration, control, monitor & integration
  - > Simple-to-use management software application, running on Windows (XP, Vista, 7)
  - > Proactive email alert before battery needs to be recharged
- + Seamless Support
  - > 1-call support for both pro audio mixers and wireless microphones

<sup>1</sup> M915: 902 MHz to 928 MHz M715: 710 MHz to 740 MHz M610: 603 MHz to 630 MHz

# **ClearOne**

#### WS800 FAMILY GROUP - Specifications

#### WS800 WIRELESS MICROPHONE SYSTEM

Wireless System:	24-bit, 48 KHz, digital audio RF technology	
Channels:	4 or 8 channel receivers Daisy chainable up to 32 channels	
RF Range:	M915: 902 MHz to 928 MHz M715: 710 MHz to 740 MHz M610: 603 MHz to 630 MHz	
Working Range:	300 feet (line-of-sight)	
Encryption:	256 bit key (AES)	
Frequency Response:	20 Hz - 15 KHz +/- 1 dB	
S/N Ratio:	108 dB (typical 'A' weighted)	
Total Harmonic Distortion:	<0.03% @ 1kHz	
Stability:	<5ppm	
Operation Temperature Range:	0 - 50 degrees Celsius ambient temperature	

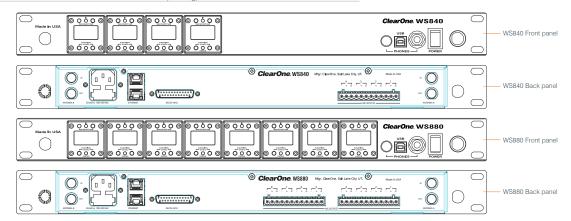


#### **RECEIVERS (BASE STATIONS)**

Channels per receiver:	4 channels (WS840), 8 channels (WS880)
Power Requirements:	100-240 VAC 50-60 Hz, 15Watts
Display:	OLED
External Antennas:	Optional
Antenna Distribution:	Attach up to 32 channels to one pair of antennas
Analog Audio Outputs:	Phoenix terminal blocks
Output Impedance:	100 Ohm
Headphone out (mixed):	Balanced, 1/4-in, stereo phone-jack for headphones, recorder or powered speakers
Interface:	USB, RS232 & Ethernet (dual port 10/100 Mbps)
GPIO Interface:	Programmable
Gain Adjustment Range:	-20dB to +31 dB
Dimension:	1-U rack-mount, 19 x 1.75 x 6.5 inches
Weight:	4.7 lbs (2.14 kg) for 8 channel receiver; 4.5 lbs (2.04 kg) for 4 channel receiver



	Model	Part Numbers#	RF Range
	WS840	910-6000-401	M915 (902-928 MHz)
	(4 channel	910-6000-402	M715 (710-740 MHz)
	receiver)	910-6000-403	M610 (603-630 MHz)
	WS880	910-6000-801	M915 (902-928 MHz)
	(8 channel	910-6000-802	M715 (710-740 MHz)
	receiver)	910-6000-803	M610 (603-630 MHz)
# includes Charging station			



#### **CHARGING STATION (DOCKING STATION)**

Housing:	ABS
Capacity:	Charges 8 microphones simultaneously (mix and match any type of the supported microphones)
Power:	5V DC / 4 A
Dimension:	13.25 x 5.75 inches
Weight:	1.30 lbs (.58 kg)

#### **EXTENSION ANTENNAS**

EXTENSION ANTENNAS	
Mount:	Wall mount or mic-stand mount
Connectors:	Straight and right angle TNC connectors
Reception pattern:	130 degree reception pattern
Power:	Phantom-powered from the receiver
Dimensions:	6(h) x 4(w) x 2.5(d) inches
Weight:	.45 lbs (.20 kg)



Part Number 910-6000-800 (comes free with Receiver)

Category	Part Numbers	RF Range
Extension Antenna Kit (with 25 ft plenum cable)	910-6005-001 910-6005-002 910-6005-003	M915 (902-928 MHz) M715 (710-740 MHz) M610 (603-630 MHz)
Extension Antenna Kit (with 50 ft plenum cable)	910-6005-011 910-6005-012 910-6005-013	M915 (902-928 MHz) M715 (710-740 MHz) M610 (603-630 MHz)
Extension Antenna Combiner	910-6005-200 (2way) 910-6005-300 (3way) 910-6005-400 (4way)	

#### **TRANSMITTER (Microphones)**

TABLETOP MICROPHONE	
Mic Polar Pattern :	Cardioid, Omni
RF Output:	1, 10, 25 or 50mW, user selectable
Power:	USB or Battery
Antenna:	Internal
LED Indicators:	Battery status, mute status
Button:	Mute on/off
Programmable switch:	Talk, mute, logic mute, on / off
Frequency Response:	60 - 20kHz (Omni version); 60 - 15kHz (Cardioid version)
Signal to Noise Ratio:	80dB Typ. at 1kHz (1Pa) 'A' weighted (Omni version); 73dB Typ. at 1kHz (1Pa) 'A' weighted (Cardioid version)
Battery:	Two rechargeable NiMH included, standard AA size
Battery Charge Time:	4 hrs
Battery Talk Time:	8 hrs continuous usage per charge, typical @ 1mW
Dimension:	3.9 L x 2.8 W x .69 H inches
Weight:	0.25lbs (.12 Kg) including batteries

#### Model Part Numbers RF Range 910-6001-001 M915 (902-928 MHz) Cardioid version 910-6001-002 910-6001-003 M715 (710-740 MHz) M610 (603-630 MHz) 910-6001-011 910-6001-012 M915 (902-928 MHz) M715 (710-740 MHz) Omni version M610 (603-630 MHz)

**GOOSENECK MICROPHONE** 

Mic Polar Pattern :	Cardioid
Gooseneck lengths:	12 inch and 18 inch, with double bend
RF Output:	1, 10, 25 or 50mW, user selectable
Frequency Response:	60 - 15kHz
Signal to Noise Ratio:	73dB Typ. at 1kHz (1Pa) 'A' weighted
Antenna:	Internal
Power:	USB or Battery
Button:	Press to talk, press to mute (or logic mute), toggle on/off
LED Indicators:	Battery status, mute status
Programmable switch:	Talk, mute, logic mute, on / off
Battery:	Four rechargeable NiMH included, standard AA size
Battery Charge Time:	4 hrs
Battery Talk Time:	16 hrs continuous usage per charge, typical @ 1mW
Dimension:	6.1 L x 4.6 W x 1.4 H inches
Weight:	1.60lbs (.72 Kg) including batteries

# 910-6001-013



Model	Part Numbers	RF Range
12 inch neck	910-6002-121 910-6002-122 910-6002-123	M915 (902-928 MHz) M715 (710-740 MHz) M610 (603-630 MHz)
18 inch neck	910-6002-181 910-6002-182 910-6002-183	M915 (902-928 MHz) M715 (710-740 MHz) M610 (603-630 MHz)

Part Numbers

910-6003-001 910-6003-002 910-6003-003

#### HANDHELD MICROPHONE

**BELTPACK TRANSMITTER** 

Programmable switch:

Mic input impedance:

Battery Charge Time:

Battery Talk Time:

Mic polar pattern:

RF Output:

Antenna:

Display:

Indicators:

Mic bias:

Battery:

Dimension: Weight:

Mic connector:

Power:

Mic Polar Pattern :	Cardioid
RF Output:	1, 10, 25 or 50mW, user selectable
Frequency Response:	60 - 15kHz
Signal to Noise Ratio:	Above 57dB at 1 kHz (1Pa) 'A' weighted
Antenna:	Internal
Display:	OLED
Power:	USB or Battery
Indicators:	Battery status, mute status
Programmable switch:	Talk, mute, logic mute, on / off
Battery:	Two Rechargeable NiMH included, standard AA size
Battery Charge Time:	4 hrs
Battery Talk Time:	8 hrs continuous usage per charge, typical @ 1mW
Dimension:	10.2 L x 1.4 W x 1.4 H inches
Weight:	0.75lbs (.34 Kg) including batteries



Mic polar pattern:

Headset:

Frequency Response:

Signal to Noise ratio:

RF Range M915 (902-928 MHz)

M715 (710-740 MHz) M610 (603-630 MHz)

Lavalier Mic	
--------------	--

Model	Part Numbers	RF Range
Beltpack Transmitter	910-6004-001 910-6004-002 910-6004-003	M915 (902-928 MHz) M715 (710-740 MHz) M610 (603-630 MHz)
Lavalier Mic	910-6004-010	Lavalier Mic for Beltpack transmitter
Headset Mic	910-6004-020	Headset Mic for Beltpack transmitter

Above 58dB at 1kHz (1Pa) 'A' weighted

Omni

50 - 18kHz

Single-ear headset

#### 20 - 20kHz Frequency response: Signal to Noise ratio: above 56dB at 1kHz (1Pa) 'A' weighted

LAVALIER MIC FOR BELTPACK TRANSMITTER

#### Clearone Contacts North America

Tel: 801-975-7200 Toll Free: 800-945-7730 Sales: 800-705-2103 Fax: 801-977-0087 sales@clearone.com

Europe & Oceania Tel: +44 (0) 1189 036 053 global@clearone.com

OLED

3V

TA4

4 hrs

Omni

USB or Battery

47 K Ohms

2.8 L x 2.4 W x .66 H inches

0.35 lbs (.16 Kg) including batteries

Asia Pacific Tel: +852 3590 4526 global@clearone.com

Two Rechargeable NiMH included, standard AA size

8 hrs continuous usage per charge, typical @ 1 mW

Latin America Tel: 801-974-3621 alobal@clearone.com

HEADSET MIC FOR BELTPACK TRANSMITTER

Model

Handheld Mic

Middle East Tel: +852 3590 4526 global@clearone.com

Other product names may be registered trademarks of their respective owners who do not necessarily endorse ClearOne or ClearOne's products. All rights reserved. Information in this document subject to change without notice. © 2012 ClearOne. Revision 1.0 December 2012.