



### WS800 Wireless Microphone System

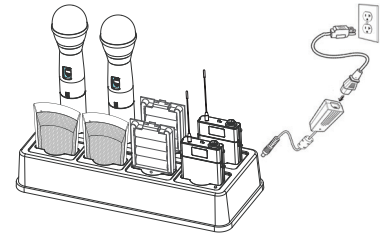
## Quick Start Guide

# Setting Up ClearOne WS8000 Wireless Systems for Optimal Performance



**Open the Cartons:** Confirm everything on the packing slip is enclosed.

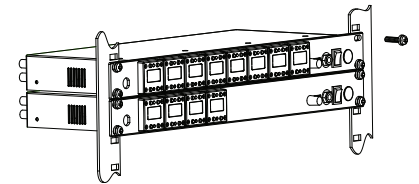
**1. Set up the Docking Station:** ClearOne transmitters are shipped with rechargeable batteries. Plug in the charging dock, put the batteries in the transmitters, then place the transmitters in the dock while you set up the rest of the system.



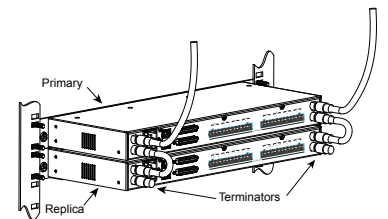
**2. Mount the Receivers in the Rack** and connect them to power. Confirm the displays light up.

**3. Antennas:**

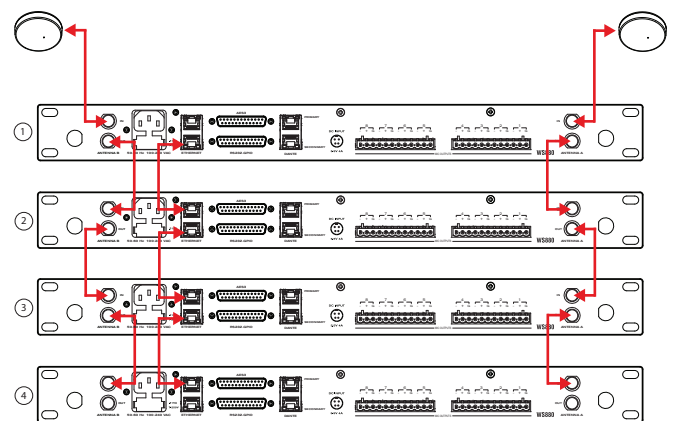
**A.** Place the extension antennas according to the guidelines mentioned in the Antenna Applications Guide.  
**Improper antenna placement is the main cause of poor RF performance.**



**B. Dipole Antennas:** Dipole antennas mounted to the rack equipment should not be locked away in a closet / rack cabinet. This results in poor RF performance because there is no line of sight between the transmitter and receiver antenna. Therefore, remote extension antennas are preferred.  
**See the Antenna Application Guide for details.**



**4. Connect the Extension Antennas:** The receiver that connects to the extension antennas is the primary receiver. Daisy chained receivers will become replica receivers. Terminators are used on the last system in the daisy-chain. Up to (4) 8-channel receivers can be daisy chained to form a 32 channel system. Use ClearOne Remote's Antenna Setup Wizard, which opens automatically the first time you connect. You can also find the wizard under the SETTINGS tab of the main page if connecting ClearOne active extension antennas, make sure the red LED lights up. If not, check the receiver's antenna phantom power setting using the ClearOne Remote Control Software.



**5. Connect the analog outputs to the mixer:**

The system is shipped with Euroblock connectors. For XLR output SKU's, there will be Euroblock-to-XLR adapters included, instead of built-in XLR outputs. The default output level is set to 0 dBu. Note that factory default for the front panel headphone jack is set for mixed line-level out. Use ClearOne Remote>Settings>Headphone, to reset for headphones.

**CAUTION! Turn off phantom power from the mixer.**  
**Phantom power distorts the audio quality of your microphones.**

**6. System Test:** In most cases, the system is now ready to use. Confirm all channels pass audio perfectly.

# Using the ClearOne remote software:

## Editing Transmitter Parameters:

The easiest and most intuitive way to set the parameters of ClearOne transmitters and receivers is with ClearOne Remote software. Download the latest software from the ClearOne Resource Library, install and run on a computer running Windows XP or Windows 7 (32 or 64 bit), and connect to the receiver via USB or RS232. Then open ClearOne Remote and select ONLINE.

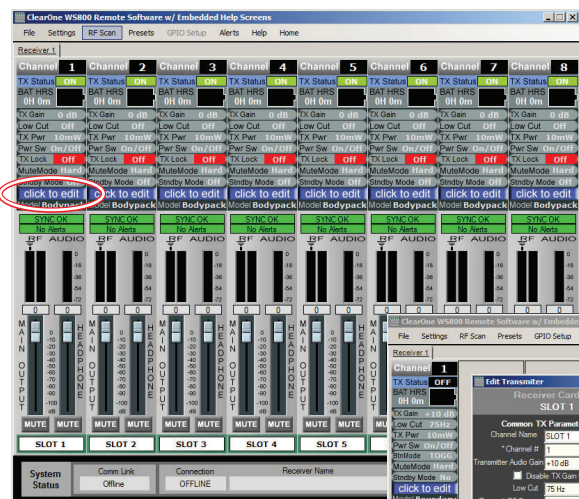
Up to 32 selectable RF channels are available when up to 4 of the WS880 receivers are daisy chained together to form a system.

(screenshots of the previous software GUI and also screenshots of the new GUI are shown below)

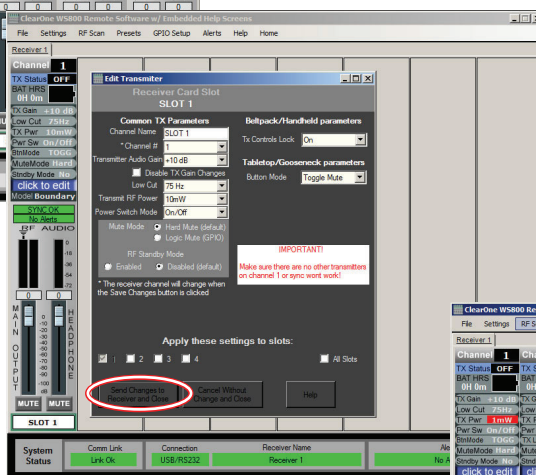
## Open The Channel Edit Window:

1. The [Click to Edit] function opens the edit window of the channel you wish to edit.
2. Select the functions you want to edit and enter the parameter. (The various functions are described below.) Click [OK] to save the changes and close the Channel Edit window.
3. You will notice that the [Needs to Sync] alert is lit. This indicates that one or more parameters are in queue in the receiver ready to be downloaded and implemented with the next transmitter Sync of the channel.

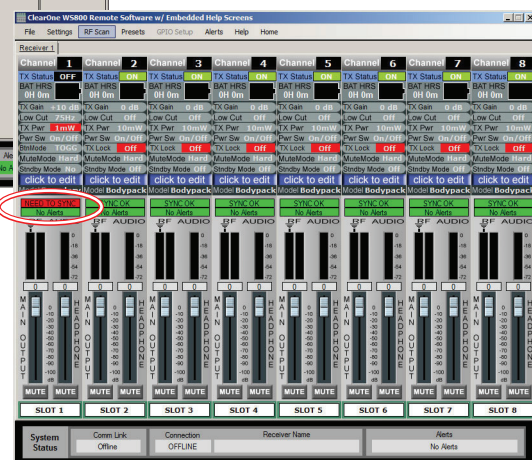
## Clearone WS800 Remote Software (old):



- 1) Click to Edit the channel's parameters.

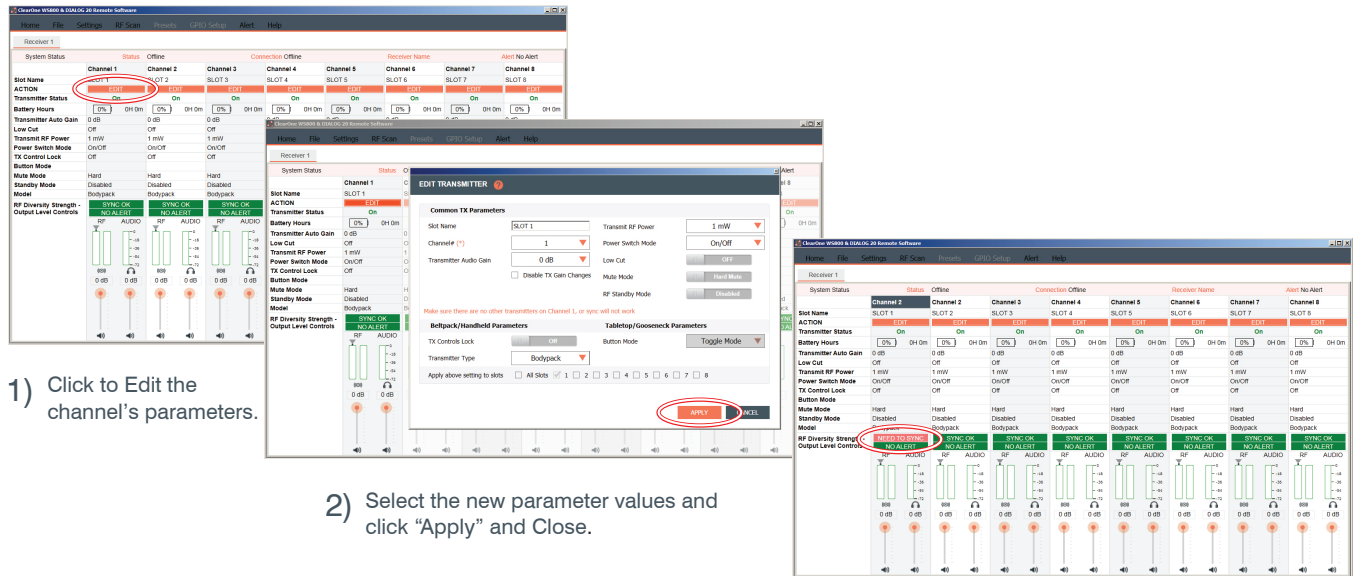


- 2) Select the new parameter values and click "Send Changes to Receiver and Close".



- 3) The "Need to Sync" alert is lit. Sync the transmitter to apply the selected parameters.

## WS800 and Dialog20 Remote Software (new):



1) Click to Edit the channel's parameters.

2) Select the new parameter values and click "Apply" and Close.

3) The "Need To Sync" alert is lit. Sync the transmitter to confirm the selected parameters.

## ClearOne Remote provides the following functions:

1. File: File menu allows the current receiver settings to be saved to a file on your computer or for a previously saved file on your computer to be recalled to the receiver.
2. Settings:
  - A. Phantom Power: Turn antenna phantom power on or off. Default = ON.
  - B. Redundancy: Set adjacent pairs of receivers to redundancy mode. Default = OFF.
  - C. Headphone Mode: Toggles the mixed output jack from headphone mode to a balanced line output. Default = Balanced line output.
  - D. Ethernet Settings: If using Ethernet, assign the proper IP address to the receiver or, enable DHCP. Default = DHCP enabled.
  - E. Receiver OLED Dimming: Set the Receiver OLED Display Mode and timer value. Default = Bright when transmitter is on. Times out after 1 minute.
  - F. Print Current Settings: Opens print dialog box.
  - G. Set Receiver Name: label each receiver with a unique name using up to 26 characters.
3. RF Scan - RF Plot: Shows the RF strength of each antenna in a ClearOne system and shows if there is outside interference (see Pg. 5).
4. Presets: saves settings to receiver memory or recalls settings from receiver memory. Load "PRESET 1" for the factory default settings.
5. GPIO: Assign contact closure functions and setup for RS232 control. Default = RS232 enabled.
6. Alerts: Send alerts to authorized personal when preventive maintenance is required of if there is a fault. Default = none.
7. Help:
  - A. Tutorials: Setting parameters, Antenna Application Guide, Channel Frequency Assignments, etc.
  - B. About: Shows vital statistics for each component of the system.

## Default Transmitter Preamp Gain Settings:

Transmitter + Last 4 digits of serial Number	Default Transmitter Preamp Gain
BLT XXXX	+10 dB
HH XXXX	H18 = 0dB / H13 & H15 = +20dB
PDM XXXX	+10dB
BDM XXXX	+20dB

## Key:

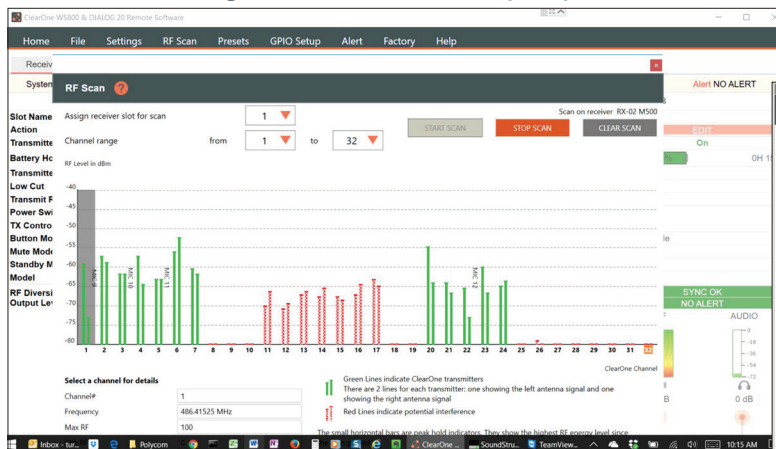
BLT = Beltpack  
 HH = Handheld Mic  
 PDM = Gooseneck / Podium Mic  
 BDM = Tabletop / Boundary Mic



## RF Scan and choosing transmitter channels:

1. To run an RF Scan, open the WS800 and Dialog20 Remote Software or the ClearOne WS800 Remote Software (older version). Screen shots from the older and newer software are shown below.
2. Turn off all of the transmitters.
3. Select "RF Scan" from the tab menu.
4. Press "Start Scan" to begin the scan. Let the scan run for 3 to 5 minutes.
5. Red lines indicate potential interference.
6. Take note of the RF channels with the least amount of interference. A channel with more than -75 dB RF Level should be avoided.
7. Set the RF channel of the transmitter based on the results of the RF Scan.
8. To set the channel of the transmitter, stop the scan and close the RF Scan Window.
9. Click "Edit" on the slot that you wish to change the channel.
10. An Edit Parameter Window will pop up. Change the channel to the clear channel noted earlier and click "Apply" to save the changes (On the old GUI click "Send changes to receiver and close").
11. Sync the transmitter (see Pg. 6).

## WS800 and Dialog20 Remote Software (new)



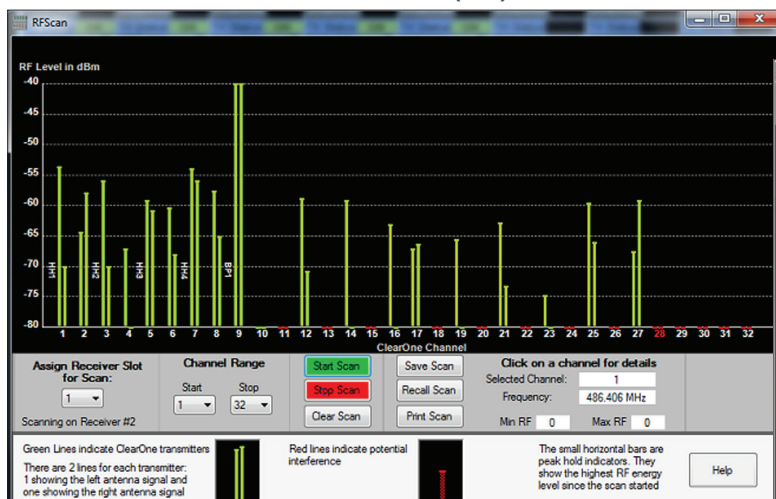
## Edit Parameter Window

The screenshot shows the 'Edit Transmitter' window for Slot 1. It is divided into several sections:
 

- Common TX Parameters:** Slot Name (SLOT 1), Channel# (1), Transmitter RF Power (1 mW), Power Switch Mode (On/Off), Transmitter Audio Gain (0 dB), Low Cut (OFF), Mute Mode (Hard Mute), and RF Standby Mode (Disabled).
- Beltpack/Handheld Parameters:** TX Controls Lock (OFF) and Transmitter Type (Bodypack).
- Tabletop/Podium Parameters:** Button Mode (Toggle Mode).
- Apply options:** 'Apply above setting to slots' with checkboxes for All Slots, 1, 2, 3, 4, 5, 6, 7, 8.

 The window also includes a warning: 'Make sure there are no other transmitters on Channel 1, or sync will not work.' Buttons for 'APPLY' and 'CANCEL' are at the bottom right.

## Clearone WS800 Remote Software (old)



## Edit Parameter Window

The screenshot shows the 'Edit Transmitter' window for Slot 2. It is divided into several sections:
 

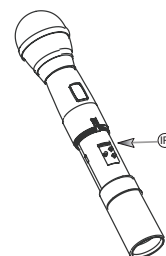
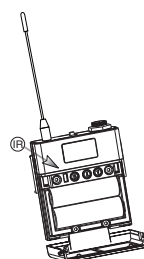
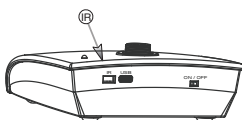
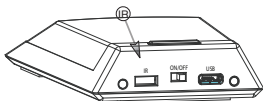
- Common TX Parameters:** Channel Name (SLOT 2), Channel # (2), Transmitter Audio Gain (0 dB), Low Cut (OFF), Transmitter RF Power (1mW), Power Switch Mode (On/Off), Mute Mode (Hard Mute (default) selected), and RF Standby Mode (Disabled (default) selected).
- Beltpack/Handheld parameters:** Tx Controls Lock (Off) and Transmitter Type (Bodypack).
- Apply options:** 'Apply these settings to slots:' with checkboxes for 1, 2, 3, 4, 5, 6, 7, 8, and All Slots.

 The window also includes a warning: '\* The receiver channel will change when the Save Changes button is clicked.' Buttons for 'Send Changes to Receiver and Close', 'Cancel Without Change and Close', and 'Help' are at the bottom.

# How to sync transmitters with the receiver:

## How to sync transmitters with the receiver:

1. Locate the IR (infrared) Sensor on the transmitter.

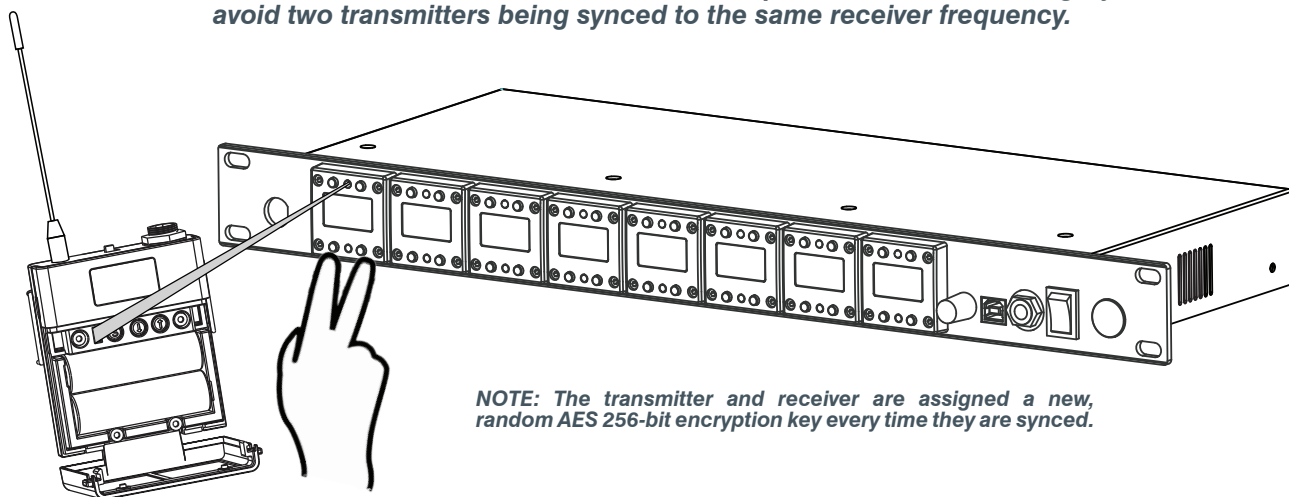


2. Power on the transmitter.

3. Hold transmitter about 6 inches from the corresponding receiver module with the IR sensor aimed at the receiver module.

4. Simultaneously press the two buttons on the bottom of the corresponding receiver module to start sending the IR signal. "SYNCING" shows on the receiver OLED when the IR signal starts. "SYNC OK" shows when the sync is successful. Repeat the procedure if the receiver display shows "SEARCHING". It is not necessary to press any buttons on the transmitter during the procedure. Note: You may get a "SEARCHING" message if the receiver antennas are not in the same room as the receiver. In this case verify that either the transmitter display shows "Sync Good" OR the green LED on the transmitter flashes. Also, make sure to dock each transmitter after syncing to avoid 2 transmitters being synced to the same receiver frequency.

**IMPORTANT:** Turn off all transmitters, except the one that is being synced, to avoid two transmitters being synced to the same receiver frequency.

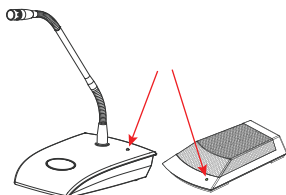


**NOTE:** The transmitter and receiver are assigned a new, random AES 256-bit encryption key every time they are synced.

## How to read the LED:

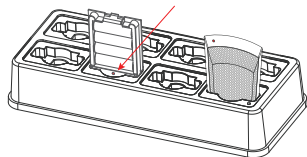
1. The gooseneck or boundary mic is in use:

- RED = AUDIO MUTE
- GREEN = AUDIO PASSES
- BLINKING RED SLOW = BATTERY IS LOW
- BLINKING GREEN = SYNC SUCCESSFUL



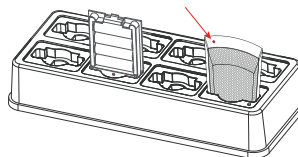
2. The gooseneck battery cassette is in the docking station:

- RED = CHARGING
- OFF = FINISHED CHARGING
- BLINKING RED = CHARGING ERROR (RE-SEAT TRANSMITTER AND CHECK THE BATTERIES)



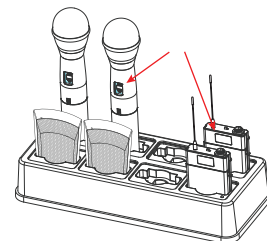
3. The boundary mic is in the docking station:

- RED change to AMBER = CHARGING
- GREEN = FINISHED CHARGING
- GREEN & RED BLINKING = CHARGING ERROR (RE-SEAT TRANSMITTER AND CHECK THE BATTERIES)



4. Hand-held mic or belt-pack is in the docking station:

- The OLED shows the battery status

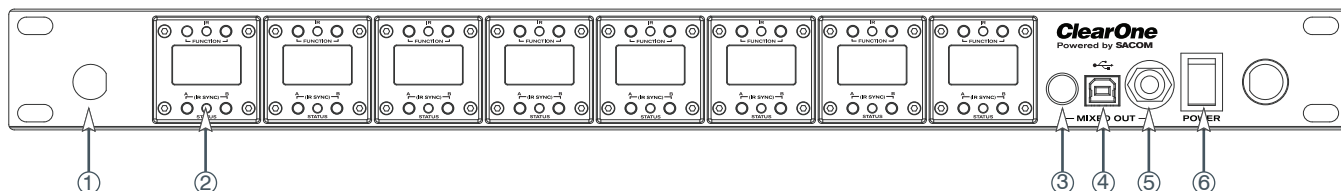


**NOTE:** All transmitters placed in the charging dock will "RF MUTE".

# Receiver:

## FRONT PANEL:

ClearOne receiver main-frames hold either four or eight, independent, 24-bit digital audio receiver modules. There is a front-panel mixed audio output for headphones or direct recording. Each module shares the main-frame's two antennas for full-diversity. Receiver main-frames can be daisy-chained together allowing up to 32 channels in an antenna network that shares two antennas. This eliminates the need for external antenna distribution amps. Main-frames can be connected to form an Ethernet network that monitor and control the system via a computer. Main-frames also have USB and RS232 connections for serial monitor and control.



1. Antenna Front Mounting Hole: Use back-to-front TNC cables included.
2. Receiver Module (See details below).
3. Mixed audio volume control.
4. USB Port. Connect to computer for ClearOne Remote control. Run software to monitor/edit system parameters, scan for RF interference and download firmware upgrades.
5. Mixed audio output, 1/4" phone jack for monitoring individual channels or mixed channels.  
*Note: Factory default for the front panel headphone jack is set for mixed line-level out. Use ClearOne Remote > Settings > Headphone, to reset for headphones.*
6. Power Switch.

# Receiver Module:

## MODULE:

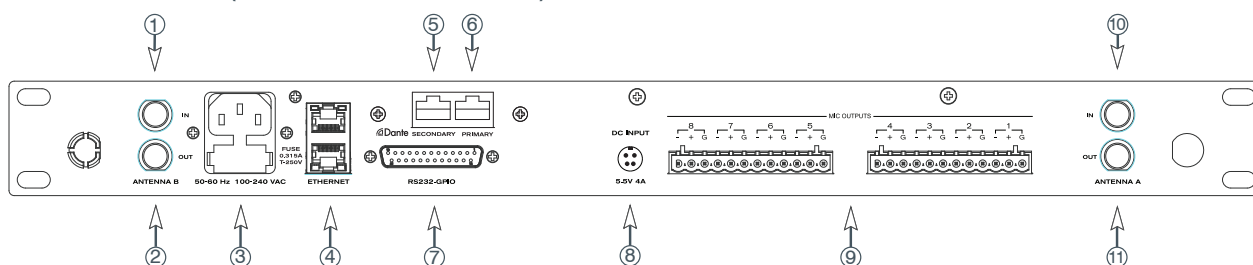
Modules are designed for quick and easy field replacement for added redundancy.

- ① IR Sync LED: Sends IR information to SYNC the receiver and transmitter (SYNC pg. 5).
- ② & ④ Pressed at the same time: Sends SYNC signal from receiver to transmitter (SYNC pg. 5).
- ③ Status LED:

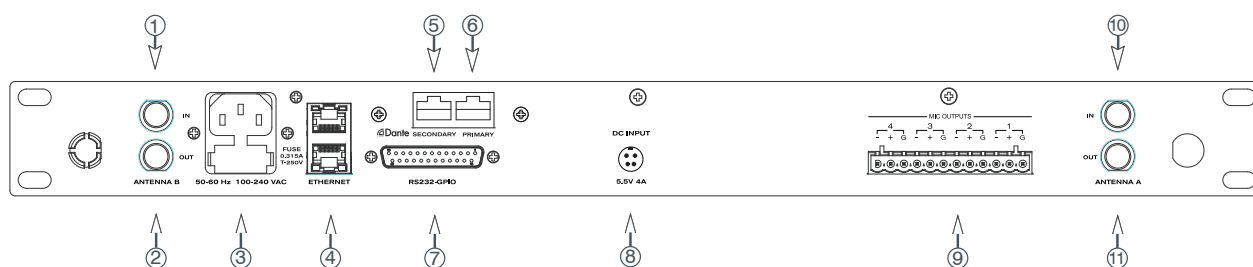
- Green --> The channel is ON and un-muted
- Red --> The channel is OFF
- Flashing Red --> Encryption key mismatch or, two transmitters are synced to the same Receiver. Solution: Re-sync receiver with transmitter.
- Amber --> The receiver is muted or GPIO is triggered

# Receiver Back:

## BACK PANEL WS880 (Euroblock / Phoenix Connector):

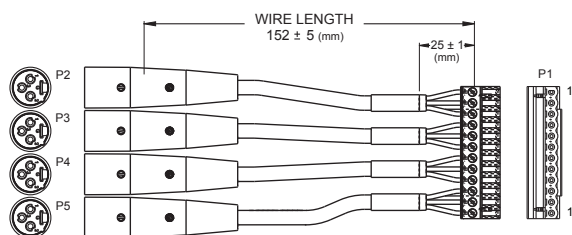


## BACK PANEL WS840 (Euroblock / Phoenix Connector):



## Euroblock to XLR Adapter:

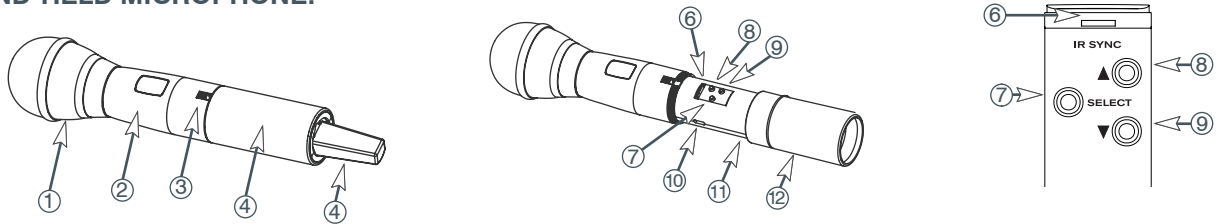
For the XLR output option, the analog audio outputs will use a Euroblock-to-XLR adapter.



1. **Antenna A Input:** TNC connector for dipole antennas (included), front-to-back antenna cables (included), or antenna cable to active extension antenna.
2. **Antenna A Output:** Daisy-chain to the input of another receiver-frame to form an antenna network.
3. **Power Cord Input:** (Cord with local plug configuration Included). 100-240 VAC, 50/60Hz, 15 W, 250V 320mA slow-blow fuse (spare included).
4. **Ethernet:** Connect to a computer or network. Multiple receiver-frames can be daisy-chained together to form a network.
5. **Dante Secondary:** Dante Secondary Connection (see pg. 10) (optional feature).
6. **Dante Primary:** Dante Primary Connection (see pg. 10) (optional feature).
7. **GPIO/RS232:** This connector combines a General Purpose Input / Output (GPIO) and a RS232 on one DB25 connector. The RS232 can be disabled to add up to 24 GPIO pins.  
**RS232:** The pinout for the RS232 is the standard pinout. Pin 2 on the receiver is transmit, pin 3 is receive, and pin 7 is ground. Most computers now use a DB9 connector for RS232. The standard off-the-shelf DB9 to DB25 cable will work. This cable swaps pins 2 and 3 internally. If you computer has a DB25 connector for RS232, use a straight DB25 to DB25 cable. Do not use a null modem cable.  
**GPIO:** GPIO acts like a contact closure. Use ClearOne Remote to assign an event that toggles the GPIO pin. The factory default toggles pins X through X to correspond to muting a receiver module. ClearOne Remote has a feature that lets you assign how the system responds to a transmitter mute (see ClearOne Remote).  
 A. Mute the channel's receiver audio (Factory default).  
 B. Toggle the GPIO but do not mute the receiver audio. Use this with automated mixers or echo cancelling DSPs.  
 C. Mute the channels receiver audio and toggle the GPIO pin.
8. **DC Input:** Optional external DC power source eliminates the need for AC input or, can be used as a redundant, back-up power source.
9. **Audio Output Jacks:** Configured for four or eight-module receiver frames. Phoenix Euroblock connectors are standard (Euroblock-to-XLR adapters are optional).
10. **Antenna B Input:** TNC connector for dipole antennas (included), front-to-back antenna cables (included), or antenna cable to active extension antenna.
11. **Antenna B Output:** Daisy-chain to the input of another receiver-frame to form an antenna network.

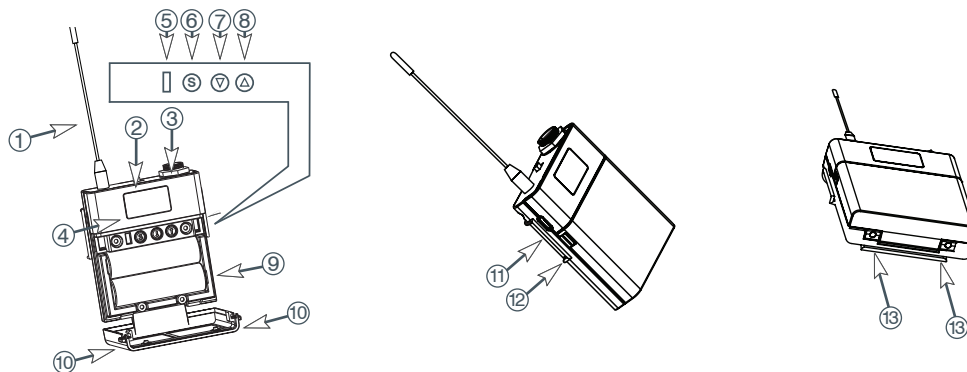
# Transmitters:

## HAND-HELD MICROPHONE:



1. **Heads:** Three (3) choices of microphone capsules are available:  
 H-13 (dynamic, super cardioid for performance)  
 H-15 (dynamic cardioid for performance)  
 H-18 (condenser cardioid for conferencing)  
 Condenser heads are more “transparent” and do not require the microphone to be held as close to the mouth.
2. **Display:** OLED display is used to program and display the current status of the transmitter functions.
3. **Switch:** User programmable to toggle on/off, on/mute/ or on/on.
4. **Battery and Control Cover:** Unscrew counter-clockwise and gently slide open.
5. **Antenna Cover:** Do not hold the antenna cover. Your hand will shield the RF signal and cause poor audio performance.
6. **IR Sensor Port:** The IR sensor is used to transfer channel settings and a random encryption key from the receiver to the transmitter.
7. **Select button:** Press this button to select a function. The first press activates the first edit able function in the tree. Press again to move to the next edit able function.
8. **Parameter Up:** Press this button to increase the value of the selected function.
9. **Parameter Down:** Press this button to decrease the value for the selected function.
10. **USB Port:** Plug a micro USB cable into the USB port to charge the batteries or upgrade the firmware.
11. **Batteries:** (not shown) AA NiMH, 2500-mAh or greater is recommended.
12. **Battery Door:** Open position.

## BELT PACK:



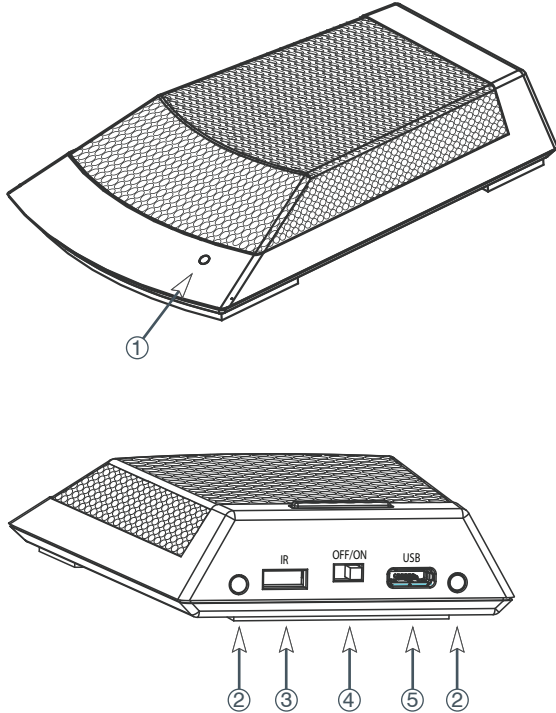
1. **Antenna:** Length and style varies with the transmitters model number. Antennas are field replaceable to improve reliability and redundancy.
2. **Programmable Switch:** Toggle on/off, on/mute/ or on/on.
3. **Microphone Connector:** TA4 mini XLR style: **ClearOne** offers a full range of lavalier and headset mics for optimal performance of your **ClearOne** transmitter. Works with both snap in and screw-in microphones.
4. **Display:** OLED display is used to program and display the current status of the transmitter functions.
5. **IR Sensor Port:** The IR sensor is used to transfer channel settings and a random encryption key from the receiver to the transmitter.
6. **Select:** Press this button to select a function. The first press activates the first edit able function in the tree. Press again to move to the next edit able function.
7. **Parameter Down:** Press this button to decrease the value for the selected function.
8. **Parameter Up:** Press this button to increase the value of the selected function.
9. **Batteries:** AA NiMH, 2500-mAh or greater is recommended.
10. **Battery Door Locks:** To open, press both at the same time and lift the door open. To close, snap the door closed.
11. **USB Port:** Plug a micro USB cable into the USB port to charge the batteries or upgrade the firmware.
12. **Belt-Clip:** Spring-loaded clip for attaching the transmitter to a belt or similar object. Spring pressure presses the clip into two holes in the transmitter body. Pull them out to remove or reverse the clip. Exercise caution to prevent injury or scratching the case.
13. **Contacts:** Charging contact points for the docking station.



# Transmitters:

## TABLE-TOP MICROPHONE:

The ClearOne WS800 Table-top Microphone combines the professional audio specs and security of a wired mic with wireless convenience. Available in omni or cardioid polar pick-up patterns with 265-bit FIPS 197 encryption.



1. **Power LED:** When the Table Mic is on, the LED signals:  
 Red = audio mute.  
 Green = audio passes.  
 Blinking Red = battery low.  
 Blinking Green = sync successful.
2. **Contacts:** Contact points for the charging station.
3. **I/R Sensor:** Inputs programming instructions and encryption key from the receiver.
4. **Power Switch:** On / Off.
5. **USB Port:** Doubles as the power supply / recharger connection and computer programming port. The transmitter operates normally under USB power, with dead or no batteries for permanent installations.

## PODIUM GOOSENECK STEM :

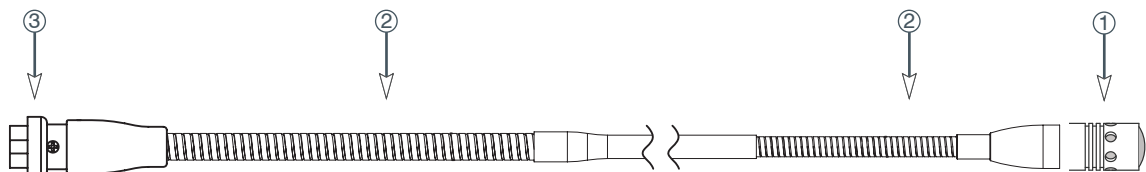
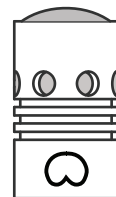
ClearOne Gooseneck Podium Mic Stems are available in 6", 12" and 18" lengths that are interchangeable and field replaceable. The Gooseneck mic capsule is available with a cardioid polar pattern.

1. Interchangeable microphone capsule.
2. Flexible stem section.
3. A 4-pin XLR connector allows the exchange of different length microphone stems.

## GOOSENECK MIC CAPSULE:

Capsules are field replaceable.

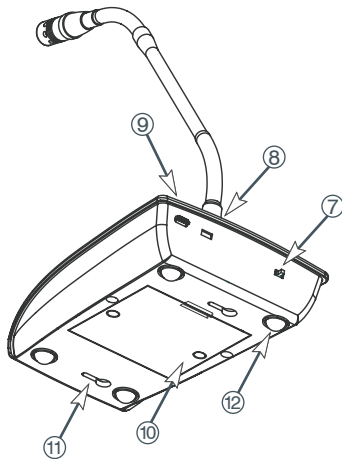
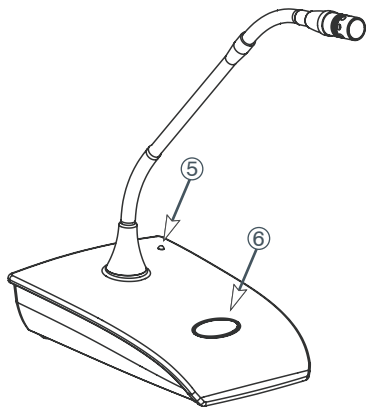
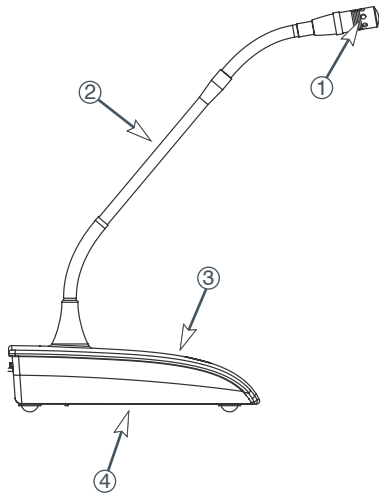
### CARDIOID pickup pattern



# Transmitters:

## PODIUM GOOSENECK:

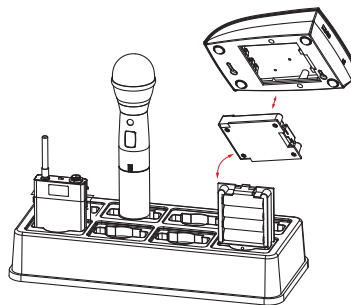
The ClearOne Podium microphone combines the professional audio specs and security of a wired mic with wireless convenience. For use with battery power or permanently install the microphone using USB power.



1. **ClearOne Capsules:** Cardioid polar pattern.
2. **Goosenecks:** Two flexible sections to extend over a laptop or briefcase. Available in 6, 12, and, 18 inch lengths.
3. **Radio-transparent ABS Top:** Stylish design that hides and protects the antenna.
4. **Cast Metal Bottom:** Zinc base bottom adds stability and absorbs desk noise.
5. **Power LED:** (see fig. 2 below)
6. **Button Programming Options:**
  - 1) press to talk.
  - 2) press to mute.
  - 3) toggle on or off.
7. **Power Switch Programming Options:**
  - 1) On / Off.
  - 2) On / Mute.
  - 3) On / On.
8. **I/R Sensor:** Inputs programming instructions and encryption key from the receiver.
9. **USB Port:** Doubles as the USB recharger connection and computer programming port. The transmitter operates normally under USB power, with dead or no batteries for permanent installations. When charging using the USB Port, when the LED signals: RED = Charging / OFF = finished charging.
10. **Battery Cassette:** Pull tab to remove the battery cassette. Recharge the batteries by inserting the cassette into the ClearOne Charging Dock. (See figure 1 below) The battery cassette holds four, off-the-shelf, AA, NiMH batteries for up to 9.5 hours continuous usage per charge.
11. **Keyholes:** For permanent mounting
12. **Rubber Feet:** Absorb desk noise and provide a stable, non-skid base.

(Figure 1)

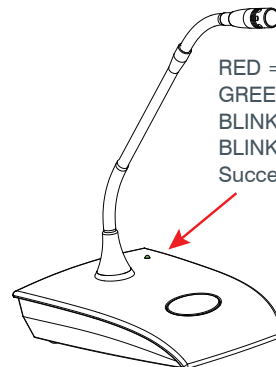
Recharge the batteries by inserting the cassette into the ClearOne Charging Dock.



(Figure 2)

When the Gooseneck Mic is in use, the LED signals:

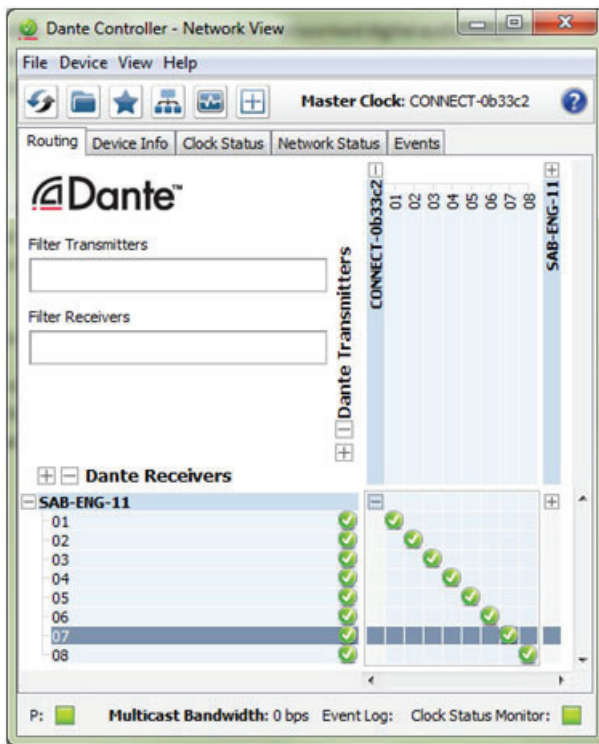
- RED = Audio Mute
- GREEN = Audio Passes
- BLINKING RED = Battery Low
- BLINKING GREEN = Sync Successful



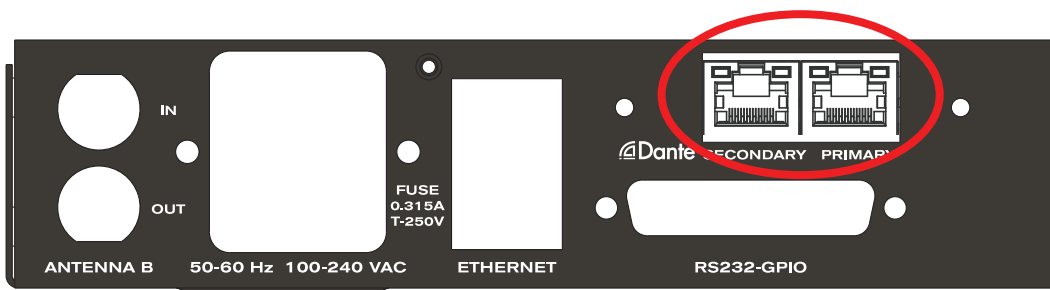
# DANTE:

## Dante Output option for ClearOne WS800 wireless receivers:

The Dante option for WS800 series wireless microphone receivers adds networked digital audio output to the receiver audio output options. Each receiver slot is assigned an output channel on the installed Dante output card. These digital audio streams can then be routed to any Dante input devices using the Dante Controller software application, shown below.



The Dante card comes pre installed in the WS800 receiver. There are 2 RJ-45 jacks on the rear panel of the WS800 receiver used to connect the Dante card to the network. They are labelled 'Primary' and 'Secondary'. The Primary is used for the main network connection, and the Secondary can be used as a redundant backup connection.



The Dante card is configured with each receiver slot assigned to a single Dante output channel. Slot 1 is assigned to output 1; slot 2 is assigned to output 2, etc. The Dante connection is always active, so simply connect the Ethernet cable to the Primary RJ-45 jack and use Dante Controller to route the signal.

# Exposure and Compliance:

## RF Exposure Information

The transmitters have been tested and have been shown to be compliant for localized specific absorption rate (SAR) for uncontrolled environment/general exposure limits specified in ANSI/IEEE Std. C95.1-1992 and have been tested in accordance with the measurement procedures specified in IEEE 1528-2003 and IEC 62209-2.

## RF Compliance Information

The transmitters have been tested and have been shown to meet CE spectral bandwidth requirements at 1 mW and 10 mW output power.

This equipment may be capable of operating on some frequencies and at some RF power levels not authorized in your region. Please contact your national authority to obtain information on authorized frequencies and RF power levels for wireless microphone products in your region.

This product meets the Essential Requirements of all relevant European directives and is eligible for CE marking.

### Available frequencies:

M915: 902 MHz to 928 MHz (C, U)      M500: 486 MHz to 512 MHz (C)      M930: 917 MHz to 943 MHz (C)  
M715: 710 MHz to 740 MHz (C, U)      M586: 573 MHz to 599 MHz (C)  
M610: 603 MHz to 630 MHz (C, U)      M800: 793 MHz to 819 MHz (C)

(C = Data Compression, U = No Data Compression)

Check with your local radio authorities for allowable frequencies and maximum transmit power.

Certified under FCC Part 74 and FCC Part 15. Certified by IC in Canada under RSS-123, RSS-102 and RSS-210.			
<b>Uncompressed transmitters:</b>		<b>Compressed transmitters:</b>	
BELTPACK	TABLETOP	BELTPACK	TABLETOP
FCC: RBODS80T	FCC: RBODS80C	FCC: FBIBELTPACK	FCC: FBITABLETOP
IC: 8240A-DS80T	IC: 8240A-DS80C	IC: 1970A-BELTPACK	IC: 1970A-TABLETOP
GOOSENECK	HANDHELD	GOOSENECK	HANDHELD
FCC: RBODS80P	FCC: RBODS80H	FCC: FBIGOOSENECK	FCC: FBIHANDHELDMIC
IC: 8240A-DS80P	IC: 8240A-DS80H	IC: 1970A-GOOSENECK	IC: 1970A-HANDHELDMIC

Modifications (FCC 15.21)  
Changes or modifications to this equipment not expressly approved by ClearOne may void the user's authority to operate this equipment.

Clearone Wireless Receivers, Transmitters, and, Antennas are intended for indoor use only.

Applies to WS80-T:  
Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada.  
To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotopically radiated power (e.i.r.p.) is not more than that necessary for successful communication.  
This radio transmitter (WS80-T) has been approved by Industry Canada to operate with the antenna types listed below with the maximum permissible gain and required antenna impedance for each antenna type indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.  
Monopole antenna, 0dbi gain, 50 ohm impedance.  
Le présent émetteur radio (WS80-T) a été approuvé par Industrie Canada pour fonctionner avec les types d'antenne énumérés ci-dessous et ayant un gain admissible maximal et l'impédance requise pour chaque type d'antenne. Les types d'antenne non inclus dans cette liste, ou dont le gain est supérieur au gain maximal indiqué, sont strictement interdits pour l'exploitation de l'émetteur.

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

France:  
Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

## Korean Compliance (KCC):

### A급 기기 (업무용 방송통신기자재):

이 기기는 업무용(A급)으로 전자파적합기기로서판매자 또는 사용자는 이 점을 주의하시기 바라며, 가정 외의 지역에서 사용하는 것을 목적으로 합니다.

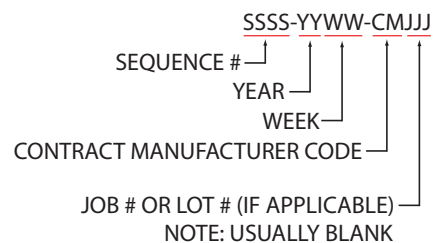
### Class A (Broadcasting and Communication Equipment for Business):

Sellers and users note that this equipment is an electromagnetic devise for business (class A), and this is for using in the outside of house.

### KCC Certificate ID's Model Numbers and Part Numbers:

#	KCC Certificate ID	WS800 Model Number	WS800 Products with M930 RF Range	Part Numbers
1	MSIP-RMM-FBI-WS880C	WS840XD	4 Channel Receiver	910-6000-407-X-C-D
		WS840X	4 Channel Receiver	910-6000-407-X-C
		WS840CD	4 Channel Receiver	910-6000-407-C-D
		WS840C	4 Channel Receiver	910-6000-407-C
		WS880XD	8 Channel Receiver	910-6000-807-X-C-D
		WS880X	8 Channel Receiver	910-6000-807-X-C
		WS880CD	8 Channel Receiver	910-6000-807-C-D
		WS880C	8 Channel Receiver	910-6000-807-C
2	MSIP-CRM-FBI-M930-BP	M930-BP	Beltpack Transmitter	910-6004-007-C
3	MSIP-CRM-FBI-M930-GS	M930-GS6	Gooseneck Transmitter w/6" neck	910-6002-067-C
			Gooseneck Transmitter w/12" neck	910-6002-127-C
			Gooseneck Transmitter w/18" neck	910-6002-187-C
4	MSIP-CRM-FBI-M930-HH-C	M930-HH-C	Handheld Transmitter - Cardioid	910-6003-007-C
			Handheld Transmitter - Super Cardioid	910-6003-017-C
			Handheld Transmitter - Hyper Cardioid	910-6003-027-C
5	MSIP-CRM-FBI-M930-TB-C	M930-TB-C	Tabletop Transmitter - Cardioid	910-6001-007-C
			Tabletop Transmitter - Omni	910-6001-017-C

## Product Serial Number Reference:



**North America**  
 Tel: 801-975-7200  
 Toll Free: 800-945-7730  
 Sales: 800-707-6994  
 Fax: 801-977-0087  
 sales@clearone.com

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

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

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

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

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