



Clear-Com HME DX210 EU

Dual-Channel Wireless Intercom
Operating Instructions



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NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communication. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

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Use only manufacturer or dealer supplied antennas, power supplies, batteries and battery chargers. The Federal Communications Commission has adopted a safety standard for human exposure to RF (Radio frequency) energy, which is below the OSHA (Occupational Safety and Health Act) limits.

Base Station Antenna minimum safe distance: 7.9 inches (20 cm) at 100% duty cycle.

Base Station Antenna gain: This device has been designed to operate with an antenna having a maximum gain of up to 7dBi.

Antenna mounting: The antenna(s) used for the base transmitter must be installed to provide a separation distance of at least 7.9 inches (20 cm) from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

Antenna substitution: Do not substitute any antenna for the one supplied by the manufacturer. You may be exposing person or persons to excess radio frequency radiation. You may contact your dealer or the manufacturer for further instructions.

WARNING: Maintain a separation distance from the base station transmit antenna to a person(s) of at least 7.9 inches (20 cm) at 100% duty cycle.

WARNING: Excessive sound pressure level from earphones or headphones can cause hearing loss.

You, as the qualified end-user of this radio device must control the exposure conditions of bystanders to ensure the minimum separation distance (above) is maintained between the antenna and nearby persons for satisfying exposure compliance. The operation of this transmitter must satisfy the requirements of Occupational /Controlled Exposure Environment, for work-related use. Transmit only when person(s) are at least the minimum distance from the properly installed, externally mounted antenna.

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Hereby, Clear-Com, LLC, an HM Electronics, Inc, company, declares that the DX210 is in compliance with the essential requirements and other relevant provisions of R&TTE Directive 1999/5/EC" with "Radio Equipment Directive (RED).



This product operates in the 2400 to 2483.5 MHz frequency range. The use of this frequency range is not yet harmonized between all countries. Some countries may restrict the use of a portion of this band or impose other restriction relating to power level or use. You should contact your Spectrum authority to determine possible restrictions. European Telecommunications Standards Institute (ETSI) EN 300 328 v.1.8.1 compliant when operated in the E mode.

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The European Union (EU) WEEE Directive 2012/19/EU places an obligation on producers (manufacturers, distributors and/or retailers) to take-back electronic products at the end of their useful life. The WEEE Directive covers most Clear-Com products being sold into the EU as of August 13, 2005. Manufacturers, distributors and retailers are obliged to finance the costs of recovery from municipal collection points, reuse, and recycling of specified percentages per the WEEE requirements.

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적합성 평가를 받은 기기로서 가정용 환경에서

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English: Class A (Commercial broadcasting and communication equipment) Sellers and user should note that this equipment is an electromagnetic device for business (Class A) and intended for operation in non-residential locations.

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English: This device cannot provide services related to human life safety

Singapore:

Complies with
IMDA Standards
DA10582

Taiwan:

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1 System Overview

The Clear-Com® HME DX210 is a 2-channel Digital Wireless Intercom System that supports up to 15 beltpacks or all-in-one headsets per base station (any combination of Beltpacks or All-In-One Headsets). Using the DX210 in the 2-channel mode, any 3 of the 15 beltpacks and all-in-one headsets can transmit simultaneously. In the single-channel mode, any 4 Beltpacks or all-in-one headsets can transmit simultaneously. This number can be increased by connecting up to 3 additional base stations. The DX210 has 4-wire and auxiliary audio connections and supports both Clear-Com and RTS cabled 2-wire intercom systems.

The DX210 operates in the 2.4GHz band and has provisions for "Spectrum Friendly" co-existence with other devices in the same band.

1.1 System Components

BS210 Base Station:



Antennas:



110/240 Switching Power Supply:



BP210 Beltpack:



Headset:



Beltpack Pouch:



and/or

WH220

All-In-One Headset:



BAT41 battery and AC40 Battery Charger with power supply



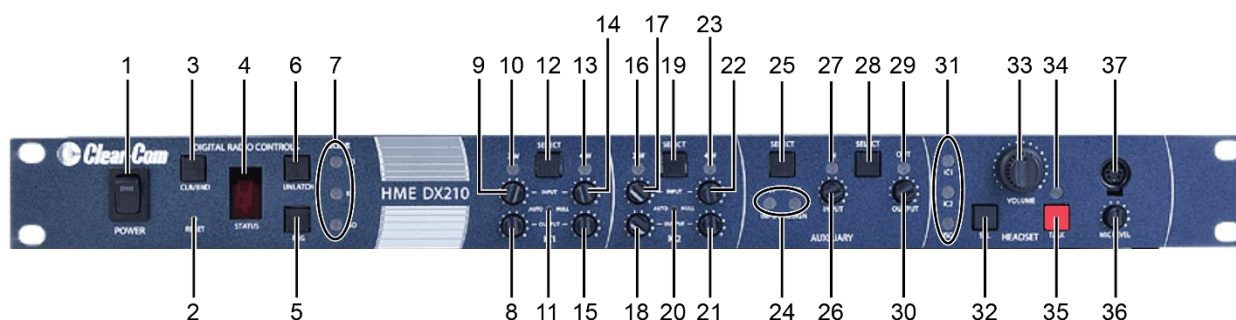
Used for charging BP210 batteries.

BAT50 battery and AC50 Battery Charger with 110/240 Switching Power Supply



Used for charging WH220 wireless headset batteries

1.2 Base Station Front Panel



DIGITAL RADIO CONTROLS

1. POWER switch
2. RESET button (recessed)
3. CLR/BND button
4. STATUS display
5. REG (registration) button
6. UNLATCH button
7. RECEIVE indicator lights

IC1 CONTROLS

8. IC1 2-W output level adjust
9. IC1 2-W input level adjust
10. IC1 2-W indicator light
11. IC1 AUTO NULL button (recessed)
12. IC1 2-W/4-W SELECT button
13. IC1 4-W indicator light
14. IC1 4-W input level adjust
15. IC1 4-W output level adjust

IC2 CONTROLS

16. IC2 2-W indicator light
17. IC2 2-W input level adjust
18. IC2 2-W output level adjust

19. IC2 2-W/4-W SELECT button
20. IC2 AUTO NULL button (recessed)
21. IC2 4-W output level adjust
22. IC2 4-W input level adjust
23. IC2 4-W indicator light

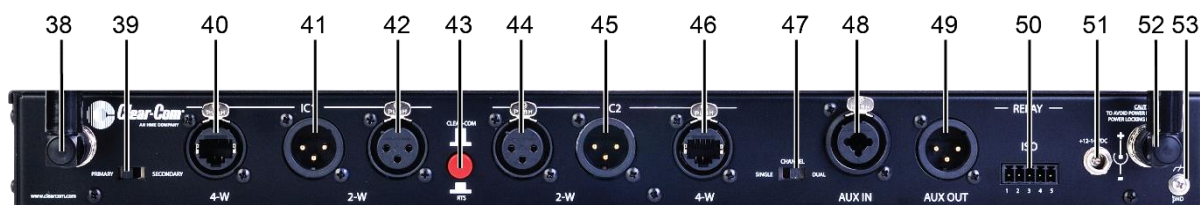
AUXILIARY CONTROLS

24. AUX IC1/IC2 INPUT ASSIGN indicators
25. AUX INPUT ASSIGN button
26. AUX INPUT level adjust
27. AUX IN indicator light
28. AUX INPUT/OUTPUT SELECT button
29. AUX OUT indicator light
30. AUX OUTPUT level adjust

HEADSET CONTROLS

31. HEADSET IC1, IC2 & ISO indicator lights
32. HEADSET IC1, IC2 & ISO SELECT button
33. HEADSET VOLUME knob
34. HEADSET TALK indicator light
35. HEADSET TALK On/Off button
36. HEADSET MIC LEVEL adjust
37. HEADSET cable connector

1.3 Base Station Rear Panel



38. ANT (R-TNC)
39. PRIMARY/SECONDARY Select Switch
40. IC1 4-W RJ-45 Connector
41. IC1 2-W XLR-3M Connector
42. IC1 2-W XLR-3F Connector
43. CLEAR-COM/RTS Select Switch
44. IC2 2-W XLR-3F Connector
45. IC2 2-W XLR-3M Connector

46. IC2 4-W RJ-45 Connector
47. SINGLE/DUAL Channel Select Switch
48. AUX IN Connector
49. AUX OUT Connector
50. Relay Connector
51. DC Power Connector
52. ANT (R-TNC)
53. Chassis Grounding Screw

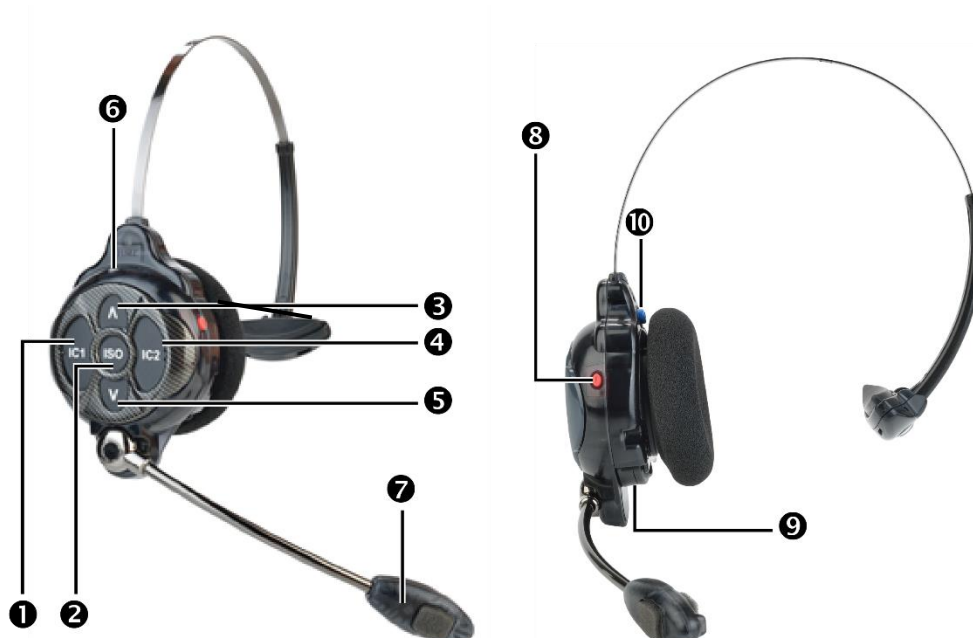
1.4 Beltpack – BP210 (Uses BAT41 battery)



1. Headset cable connector
2. Power/mode lights
3. IC2 (Intercom 2) button
4. ISO (Isolate) button
5. IC1 (Intercom 1) button

6. PWR (Power) button
7. Volume-up button
8. Volume-down button
9. Battery
10. Battery-release latch

1.5 All-In-One Headset – WH220 (Uses BAT50 battery)

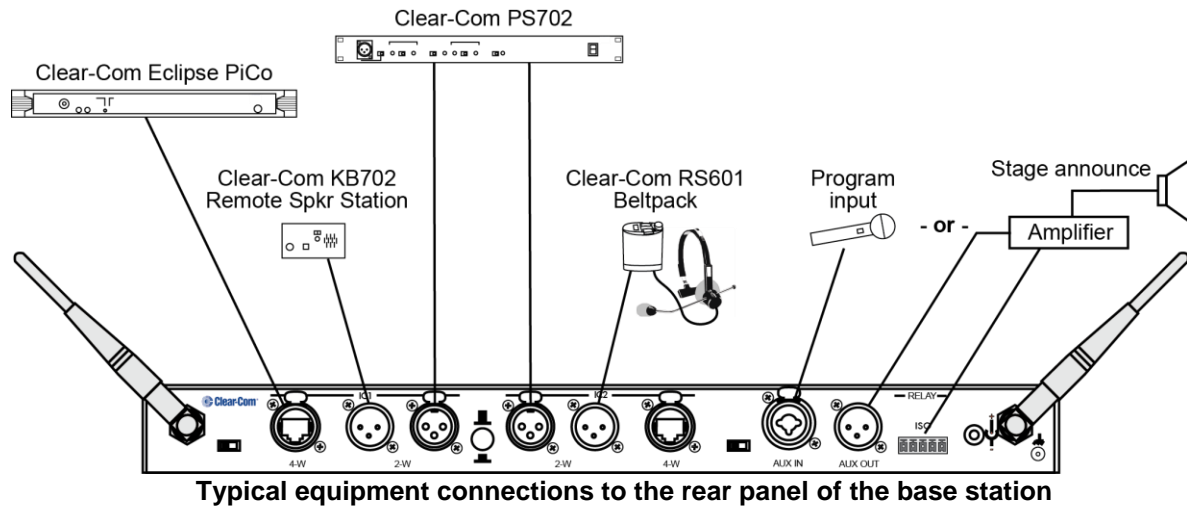


1. IC1 button
2. ISO (Isolate) button
3. Volume-up button
4. IC2 button
5. Volume-down button

6. Power/mode light
7. Microphone
8. Power button
9. Battery
10. Battery-release latch

2 System Setup

This chapter describes how to set up and configure the DX210.



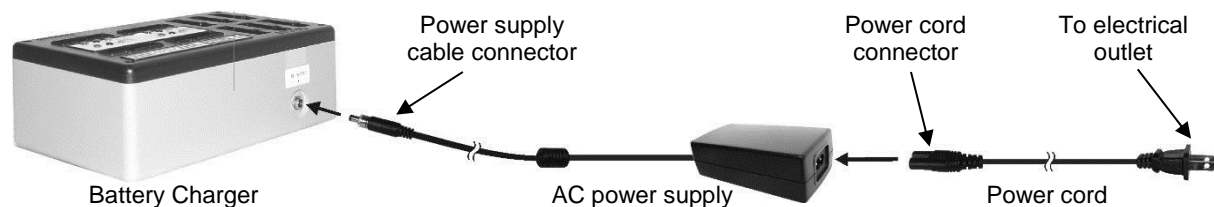
2.1 Battery Charging

Before installing the system, connect the AC power supply to the battery charger and plug it into an electrical outlet. Charge all the batteries while the other equipment is being installed. Charging time is about 2.5 hours.

2.1.1 Connect AC40 Power Supply

To connect the AC power supply to the battery charger:

- Connect the AC power supply cable connector to the power connection on the battery charger and turn clockwise to lock in place.
- Connect the AC power cord connector to the AC power supply unit.
- Connect the AC power cord to an electrical outlet.

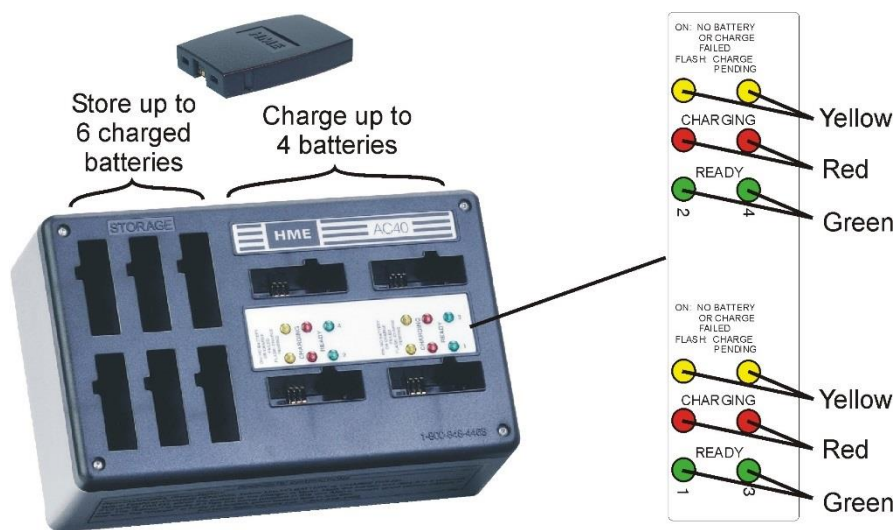


The red lights on the charger will come on briefly, and then the yellow lights will come on and stay on.

2.1.2 Charge Batteries

Up to four batteries can be charged in the battery charger at the same time. The battery status lights next to each charging port are explained below. Up to six fully charged batteries can be stored in the battery storage ports.

- Insert a battery in each of four charging ports until it clicks in place.
- A yellow light next to each charging port stays on while the port is empty.
When a battery is in a charging port, a flashing yellow light next to it indicates CHARGE PENDING, which means the battery is too hot. Adjust the room temperature or move the charger to a cooler area. When a battery is in a charging port, a yellow light on steady next to it means CHARGE FAILED. If this happens, follow the instructions on the side of battery charger.
- A red CHARGING light next to a battery port stays on while a battery in the port is charging.
- A green READY light next to a battery port goes on when a battery in the port is fully charged.
- Store fully charged batteries in storage ports.



NOTE: Batteries should not be left in charge ports after being fully charged. If a battery is left in a charge port for more than three weeks, the yellow indicator may light up. In this case, it does not indicate a faulty battery.

2.1.3 Connect AC50 Power Supply

To connect the AC power supply to the battery charger:

1. Connect the AC power supply cable connector to the power connection on the battery charger.
2. Connect the AC power cord to an electrical outlet.

The red lights on the charger will briefly display, and then the yellow lights will appear and remain on.

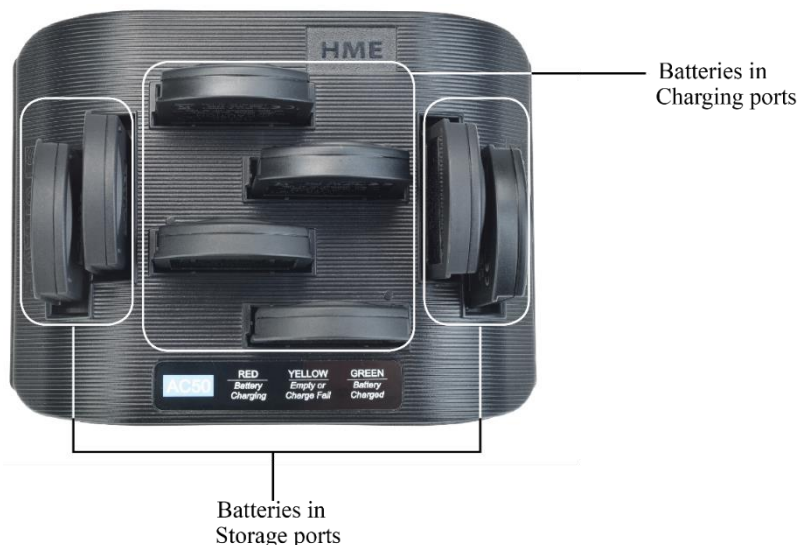


2.1.4 Charge Batteries

Up to four batteries can be charged in the battery charger at one time. The battery status lights next to each charging port indicate the battery status. Up to four fully charged batteries can be stored in the battery Storage ports. Insert a battery in each of four Charging ports until it clicks in place.

- A yellow light next to a Charging port indicates that the port is **EMPTY**.
- A red light next indicates that the battery port is **CHARGING**.
- A green light indicates that the battery is **READY**.
- A steady yellow light indicates that the **CHARGE FAILED**. If a charge fails, refer to the instructions on the side of battery charger.
- A flashing yellow light next indicates **CHARGE PENDING**, which means the inserted battery is too hot. Adjust the room temperature or move the charger to a cooler area.
- Store fully charged batteries in storage ports.

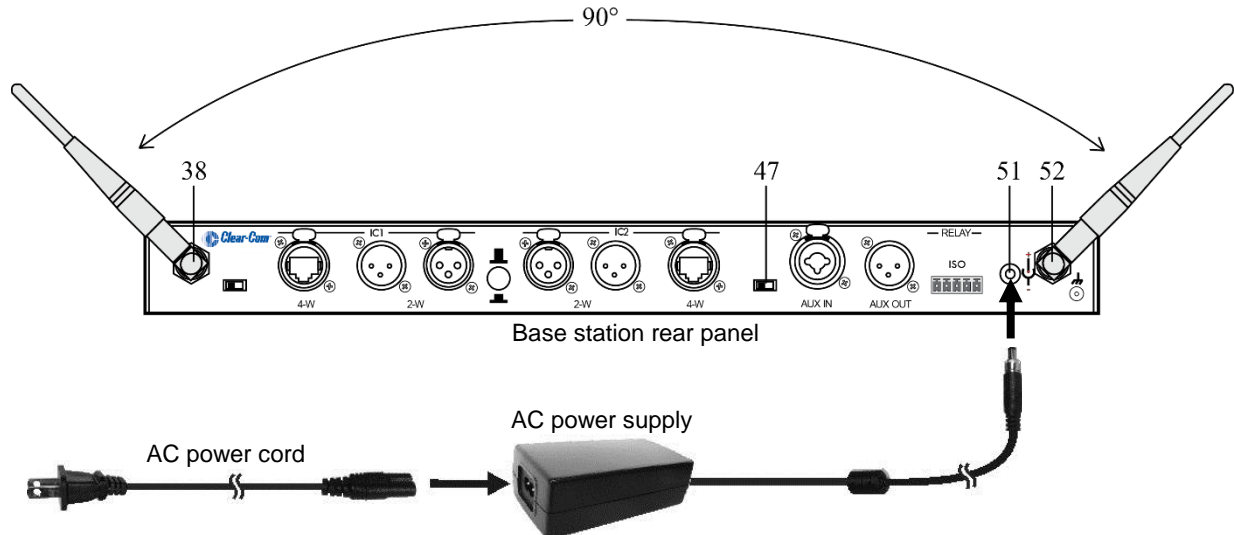
IMPORTANT: Batteries should not be left in charge ports after being fully charged. A battery left in a charging port for more than three weeks may display the yellow indicator light, but it does not indicate a faulty battery.



2.2 Basic Base Station Setup

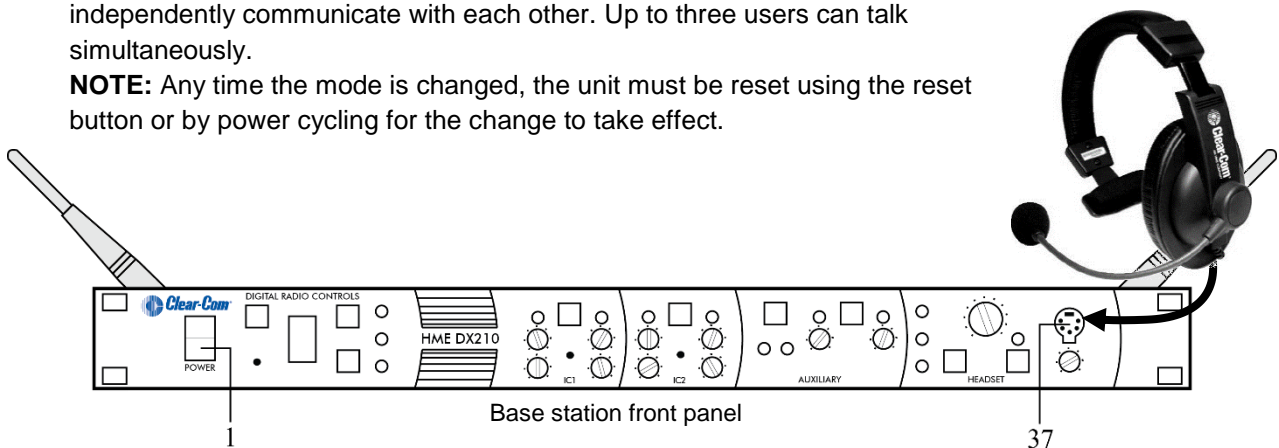
This section describes setup and equipment connections for an individual base station.

- Connect the two enclosed antennas to the antenna connectors (#38 and #52) on the rear panel of the base station, and turn the sleeves clockwise on the antenna connectors to tighten them securely in place. Position the antennas at 90° angles from each other.



- Plug the connector at the end of the AC power supply cord into the **+12-14VDC** power connector (#51) on the rear panel of the base station. Turn the locking nut on the cable connector clockwise to secure it to the base station. Plug the female connector at one end of the AC power cord into the power supply. Plug the other end of the AC power cord into an electrical outlet.
- Set switch #47 for the base station to operate in single or dual channel mode.
In single channel mode, all wireless users will be able to hear one other. Up to four users can talk simultaneously.
In dual channel mode, there are two separate audio channels enabling two groups of users to independently communicate with each other. Up to three users can talk simultaneously.

NOTE: Any time the mode is changed, the unit must be reset using the reset button or by power cycling for the change to take effect.



- If a local headset will be used, plug it into the **HEADSET** connector (#37) on the front panel of the base station.
NOTE: The connector is keyed, so the headset cable plug cannot be inserted in the wrong direction.
- Press the **POWER** switch (#1) on the front panel to turn on the base station. A red light on the switch should go on.

If you have more than one base station, refer to [Appendix D, page 24](#) for multiple base station registration.

2.3 Beltpack and All-in-One Headset Setup and Registration

The first time you operate the DX210 system, you must register each Beltpack and/or All-In-One Headset for use with a specific base station. The base station will then recognize all powered on, registered beltpacks and all-in-one headsets and will differentiate between them and other electronic equipment operating on the same frequencies. If another is added or replaced later, the new one must be registered and the old one remains in memory. A maximum of 15 beltpacks and all-in-one headsets can be registered to a single base station at one time.

2.3.1 Set Up Beltpack and All-in-One Headset

NOTE: If multiple base stations will be used, refer to **Base Station Registration** in [Appendix D, pg. 24](#).

Before registration, set up all beltpacks and all-in-one headsets as follows:

Beltpacks

1. Insert a fully charged battery in each Beltpack, with the metal contacts on the end of the battery inserted first. Press it in until it snaps.
2. Place each Beltpack in a pouch.
3. Plug its headset cable connector into each Beltpack.



All-In-One Headsets

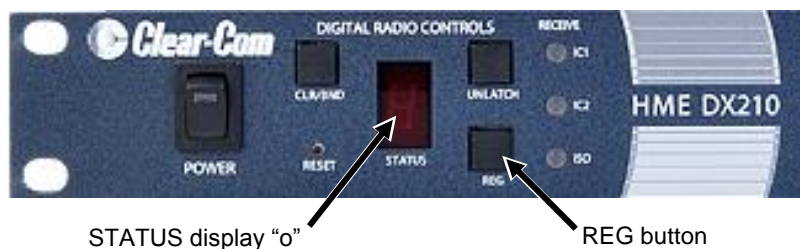
Insert a fully charged battery in each Headset. Press it in until it snaps.



2.3.2 Register Beltpacks and All-in-One Headsets

The beltpack or all-in-one headset must be within 6 feet (1.83 meters) of the base station to enable registration.

1. **Be sure each beltpack and all-in-one headset to be registered is turned off** and the base station power is on before you begin. Beltpacks and all-in-one headsets that are already registered can be on or off.
2. Put the headset on your head.
3. Press the **REG** button on the front panel of the base station. The **STATUS** display will show a small "o" for open.
4. **NOTE:** If you wait too long before proceeding to the next step, the base station will exit registration mode, and you will have to repeat **step 3**.



5. Press and hold the **ISO** button on the beltpack or all-in-one headset while pressing and releasing the **PWR** (power) button to turn the unit on, then release the **ISO** button. This will cause the beltpack or all-in-one headset to enter the registration mode.

On Beltpacks, the two power lights at the corners near the **IC1** and **IC2** buttons will begin blinking red, then blink green two or three times and turn off. **Wait!** There may be a short delay.

On All-In-One Headsets, the power/mode lights will blink. **Wait!** There may be a short delay.

If registration is successfully completed:

- A voice message in the headset will say "Power on, Beltpack #, Version #, Begin registration, Registration complete, ..."
- After a delay of about 15 seconds, the **STATUS** display will show the ID number assigned to this beltpack or all-in-one headset for about 10 seconds.
NOTE: ID numbers are assigned sequentially as 0 thru 9, A, b, C, d and E.
- The power light on the beltpack or all-in-one headset will remain on steady green.

Repeat Steps **2** to **4** above for each beltpack or all-in-one headset to be registered.

If registration failed:

- A voice message in the headset will say "Power on, Beltpack #, Version #, Begin registration, ...". Both lights on the Beltpack will blink red, and there may be a delay of up to 90 seconds before you hear "Registration failed".
- Press the **RESET** button at the lower-left corner of the base station with a pen or similar pointed object. When the **STATUS** display becomes blank, press the **REG** button and register the beltpack or all-in-one headset again. If registration fails again, call your dealer for assistance.

If you try to register more than 15 beltpacks and all-in-one headsets:

- An **F** will appear on the **STATUS** display on the base station and you will hear “Registration failed” in the headset.
- Clear all current registrations by pressing the **CLR/BND** button and the **RESET** button simultaneously. To press the **RESET** button, insert a pen or similar pointed object into the **RESET** hole at the lower-left corner of the base station front panel. Continue holding the **CLR/BND** button after you release the **RESET** button, until the clear code “c” (lower case) appears on the **STATUS** display.
- Register all active beltpacks and all-in-one headsets, one at a time. Previously registered beltpacks and all-in-one headsets must be re-registered.

2.3.3 Beltpacks and All-in-One Headset Settings

If you want to set up a beltpack or all-in-one headset with any of the special settings shown below, press and hold the specified button combinations during or after power up. These settings will remain in memory when the beltpacks and all-in-one headsets are turned off and on again.

For Setting	Press & Hold while you Press & Release the Power button
ISO restrict on	IC1 button
ISO restrict off	IC1 and ISO buttons
Handsfree on selected button(s)	IC1 and/or IC2 and/or ISO and ▲ volume up buttons
Handsfree off selected button(s)	IC1 and/or IC2 and/or ISO and ▼ volume down buttons
Listen-Only mode on	▼ volume down button
Listen-Only mode off	▲ volume up button
WH220 only * All-In-One Headset “lights-off” mode	IC2 button

* **NOTE:** All-In-One Headsets can be set up with its indicator lights off, to avoid distraction if users are in an area visible to audience. This setting is not saved when you power off.

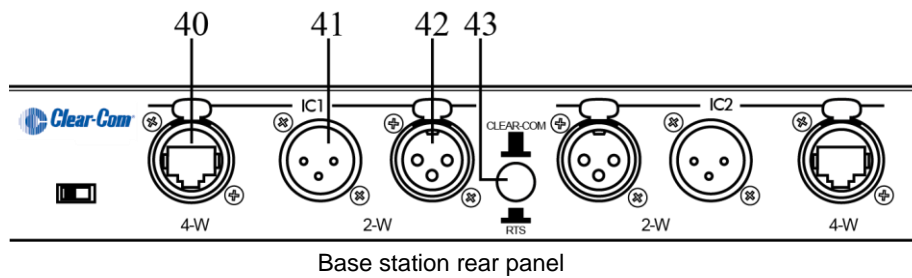
For Setting	With the power already on - - -
Increase mic gain (15 steps)	Press IC2 while you repeatedly press the ▲ volume up button
Decrease mic gain (15 steps)	Press IC2 while you repeatedly press the ▼ volume down button
BP210 only * Increase sidetone level (5 steps)	Press IC1 while you repeatedly press the ▲ volume up button
BP210 only * Decrease sidetone level (5 steps)	Press IC1 while you repeatedly press the ▼ volume down button

* **NOTE:** There is no sidetone adjustment function for All-In-One Headsets.



NOTE: If you are not connecting a wired intercom, go on to [System Operation, section 3, page 14](#).

2.4 Interfacing with 2-Wire or 4-Wire Intercoms



2-Wire Intercom Interface:

The following 2-wire setup is for Channel 1 (IC1). **If applicable, repeat for Channel 2 (IC2).**

- **If using a 2-wire intercom** with the DX210, plug the appropriate male or female connector into the base station **2-W** connector at #41 or #42
- Depending on whether you are using a Clear-Com® or RTS® compatible 2-wire intercom system, position the **CLEAR-COM / RTS** button (#43) as follows:
In position = RTS Mode Out position = Clear-Com Mode
- Press the **IC1 SELECT** button (#12) on the front panel of the base station. The **2-W** light (#10) next to the button should turn green.

NOTE: If no power is detected at the **2-W** connector, the **2-W** light will turn red and no audio will be passed through. Plugging in a connection to a Clear-Com or RTS power supply will turn the light green and operation will begin.

- Be sure there are no open microphones on the wired intercom. ***If users are wearing headsets, please notify them of the impending audio sweep prior to auto nulling.***

Press and hold the **AUTO NULL** button for two seconds. To press the **AUTO NULL** button, insert a pen or similar pointed object into the **AUTO NULL** hole on the front panel of the base station. An audio sweep will be heard for 25 seconds on the wired Beltpacks. (The **2-W** light (#10) next to the button should turn amber, then green.)

- Adjust the 2-W intercom receive and send levels with the **IC1 2-W INPUT** control (#9) and **OUTPUT** control (#8).

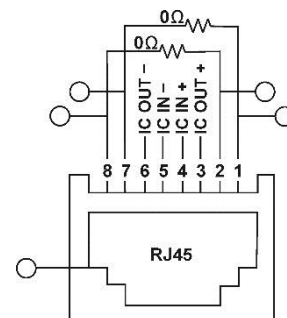
NOTE: If you are not connecting other equipment, go on to [System Operation, section 3, page 14](#).

4-Wire Intercom Interface:

The following 4-wire setup is for Channel 1 (IC1). **Repeat for Channel 2 (IC2) if applicable.**

- **If using a 4-wire intercom** with the DX210, plug it into the base station **IC1 4-W** connector (#40).
- Press the respective **SELECT** button until the **IC1 4-W** light (#13) next to the button turns on.
- Adjust the 4-wire intercom receive and send levels with the **IC1 4-W INPUT** and **OUTPUT** (#14 & 15) controls.

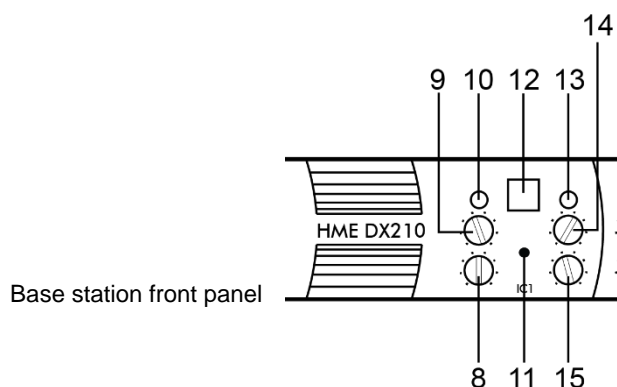
RJ45 Connector Pins	Designation
Pins 1, 2, 7 and 8	N/C (reserved)
Pin 3	Intercom Out +
Pin 4	Intercom In +
Pin 5	Intercom In –
Pin 6	Intercom Out –



NOTE: Simultaneous 2-wire and 4-wire communication is possible.

Both groups of intercom users can communicate with the base station operator, but not with each other.

IC1 and IC2 Intercom Controls and Indicator Lights:



The **IC1** portion of this area of the panel is for Intercom Channel 1, and the **IC2** portion is for Intercom Channel 2. Their operation is identical.

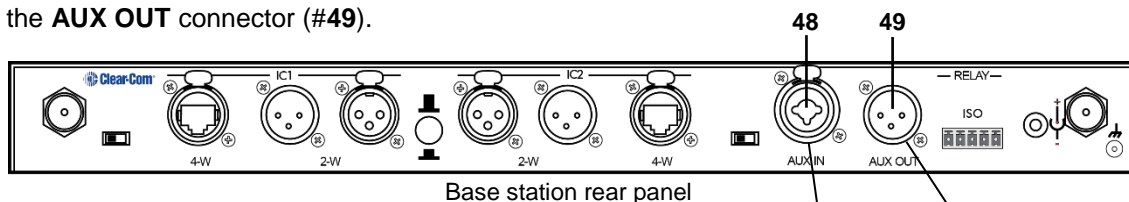
- The **SELECT** button is used to select 2-Wire or 4-Wire or both.
- The **2-W indicator light** will come on **red** (muted) if wired intercom power is not detected at the 2-W connector on the rear panel of the base station. The **2-W indicator light** will come on **green** if 2-W equipment which supplies power is plugged into the 2-W connector on the rear panel of the base station, or if the respective bypass jumper inside the unit has been set.
- The **INPUT** controls are used to adjust the audio levels going to beltpack, all-in-one headset or a local headset coming in from 2-W and 4-W equipment connected to the base station.
- The **OUTPUT** controls are used to adjust the audio levels coming in from beltpacks and all-in-one headsets or a local headset, as it goes out to 2-W and 4-W equipment connected to the base station.
- The **AUTO NULL** button is used to eliminate echo caused by mismatched line characteristics of an external 2-W system. **CAUTION: Before pressing the AUTO NULL button, be sure there are no open microphones on the wired system.** Use a pen or similar pointed object to press and hold the **AUTO NULL** button for 2 seconds.

NOTE: If you are not connecting other equipment, go on to [System Operation, section 3, page 14.](#)

2.5 Interfacing with Auxiliary Audio Equipment

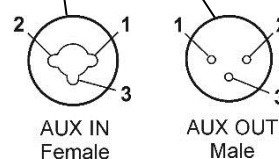
ISO Audio can be routed to the **AUX OUT** connector for page or stage announce.

- If using auxiliary audio equipment such as another intercom, a CD player, etc., connect its output cable connector (male) to the **AUX IN** connector (#48), and/or its input cable connector (female) to the **AUX OUT** connector (#49).



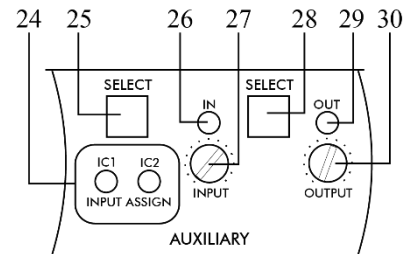
The cable connectors must be 3-pin XLR type for balanced +20dBu maximum audio input/output, with the following pin connections:

Pin 1 = Ground
Pin 2 = Audio +
Pin 3 = Audio -



The **AUXILIARY SELECT** button (#25) is used to select **IC1** or **IC2** or both as the destination for **AUX IN** audio. The **IC1** and/or **IC2 INPUT ASSIGN** lights (#24) come on green to indicate the selection as the destination for **AUX IN** audio. If neither is selected, **AUX IN** audio will not be routed to the beltpack or all-in-one headset. The **AUX IN** light must be lit for the **INPUT ASSIGN SELECT** function to operate.

- If only **AUX IN** is used, press the **AUX IN/OUT SELECT** button (#28) until the **IN** light (#27). Listen to the headset audio input as you adjust the **INPUT** control (#26) below the light to the desired level.
- If only **AUX OUT** is used, press the **AUX IN/OUT SELECT** button (#28) until the **OUT** light (#29) comes on. Check the audio level on the auxiliary equipment, and adjust the **OUTPUT** control (#30) to the desired level.
- If the auxiliary equipment requires two-way communication, have someone listening at the auxiliary unit. Press the **AUX IN/OUT SELECT** button (#28) until both the **IN** and **OUT** lights (#s 27 and 29) go on. While speaking into your headset microphone, adjust the **OUT** control (#30) above the light to the desired listening level at the auxiliary unit. Listen to the audio input in your headset as you adjust the **INPUT** control (#26) below the light to the desired level.



Base station front panel

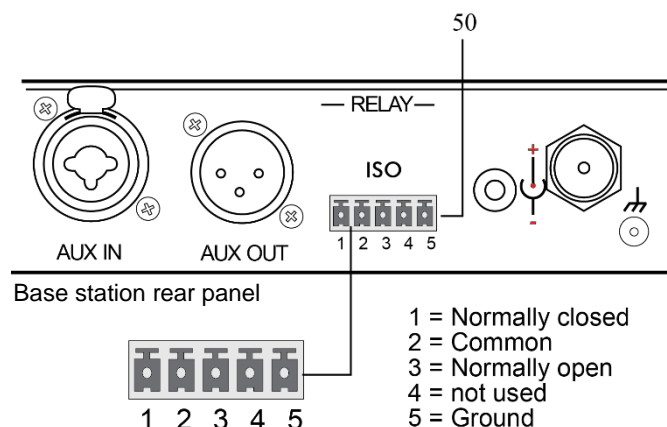
Auxiliary Controls and Indicator Lights:

- The **SELECT** button on the right (#28) is used to select **AUX IN** (audio from auxiliary equipment connected to the base station), **AUX OUT** (audio to the auxiliary equipment from the ISO channel of the beltpack, all-in-one headset or local headset).
- The **IN** and **OUT** lights come on green to indicate the selection.
- The **INPUT** and **OUTPUT** controls adjust auxiliary inbound and outbound audio levels.
- The **SELECT** button on the left (#25) is used to select **IC1** or **IC2** or both as the destination for **AUX IN** audio. The **IC1** and/or **IC2 INPUT ASSIGN** lights come on green to indicate the selection as the destination for **AUX IN** audio.

NOTE: If you are not connecting other equipment, go on to [System Operation, section 3, page 14](#).

2.6 ISO Relay

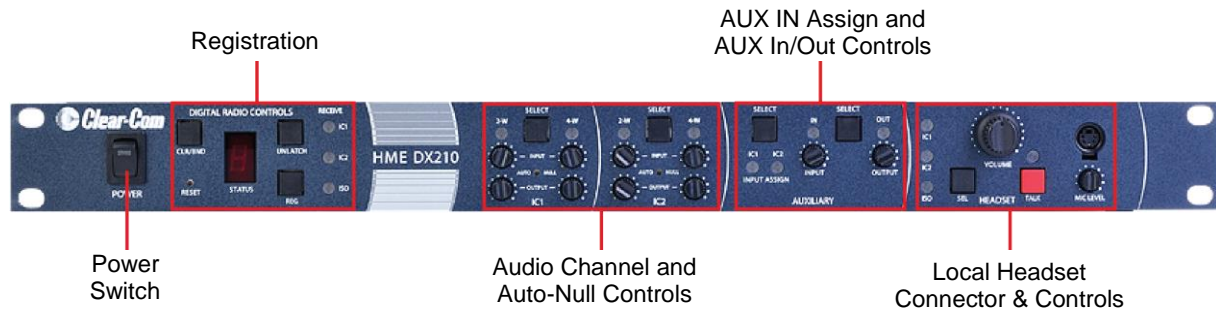
During ISO communication, a relay closure is provided. This can be used for tasks such as keying a long range radio or triggering an alert light. It can be activated from a beltpack, all-in-one headset or a local headset.



3 System Operation

This chapter describes how to operate the Base Station, Backpack or All-In-One Headset.

3.1 Base Station Operation



3.1.1 Digital Radio Controls and Indicator Lights

- The **CLR/BND** button, **RESET** button, **STATUS** indicator and **REG** button are used when registering backpacks and all-in-one headsets. Refer to [Registration procedure, page 9](#).
- The **UNLATCH** button is used by the base station operator to unlatch all backpacks and all-in-one headset transmitters.
- The **RECEIVE IC1**, **IC2** (Intercoms) and **ISO** (Isolate) lights indicate whether reception from a Backpack or all-in-one headset is on **IC1**, **IC2** or **ISO**.



3.1.2 Local Headset Connector, Controls and Indicator Lights

- The **SEL** (select) button is used to select communication from the local headset to **IC1**, **IC2**, **IC1 & IC2** or **ISO**.
- The **IC1**, **IC2**, **IC1 & IC2** or **ISO** indicator light will be lit for the selection you made.
- **IC1** and **IC2** communication will be heard by wireless users on the respective channel, as well as users wired into 2-W and 4-W connections.
- **ISO** is heard in both wireless channels, and **AUX OUT** if activated.
NOTE: When the **ISO** button is pressed, **ISO RELAY** (#50) is activated.
- The **TALK** button is used for communication from the local headset to the selected channel.
For open communication, press and release the **TALK** button quickly to “latch on”. To “latch off,” press and release the button again quickly.
For momentary communication, press and hold the **TALK** button for more than one second. In this mode, the selected channel will remain open only as long as you are pressing the **TALK** button. The **TALK** light indicates that the **TALK** mode is active via the local headset.
- Use the **VOLUME** control to adjust the output to the local headset earpiece.
- Use the **MIC LEVEL** control to adjust the audio level from the local headset microphone.



3.2 Beltpack and All-in-One Headset Operation

Beltpack control buttons have a snap action. They will activate when pressed firmly. Use your fingertips to press the Beltpack buttons. All-In-One Headset buttons are touch sensitive.



3.2.1 Power On/Off

- **Power On** – Press and release the **PWR** (power) button. A headset voice message will say “power on,” and the red power lights near the corners of the **IC1** and **IC2** buttons will go on. After a short time, one light will turn off and the other will change to green, indicating the Beltpack is ready for use. The **STATUS** indicator on the base station will momentarily indicate the ID of the Beltpack.

The green power light will be on steady whenever the Beltpack is ready, but not transmitting.

NOTE: While the Beltpack is transmitting, the green power light will be flashing.

- **Power Off** – Press and hold the **PWR** button for approximately two seconds. A headset voice message will say “power off,” and the green power light will turn off.

3.2.2 ISO (Isolate) and IC1, IC2 (Intercom)

Use the **ISO** button to talk to other wireless beltpack or all-in-one headset users and the base station operator. Pressing **ISO** on the Beltpack will also send audio to **AUX OUT** if the **AUXILIARY OUT** light on the front of the base station is on. Use the **IC1** and **IC2** buttons to communicate via the wired intercom channels and the base station operator. When the **ISO** button is pressed, **ISO RELAY (#50)** is activated.

3.2.3 Operating Modes

- **Push-To-Talk ONLY Mode Operation** – In PTT operation, audio is transmitted only while you are pressing and holding the **IC1**, **IC2** or **ISO** button. When you release the button, transmission stops.
- **Hands-free Mode Operation** – Quickly press and release the **IC1**, **IC2** or **ISO** button to “latch” the transmitter on. Talk and listen, as in a normal telephone conversation. Quickly press and release **the same button** again to “unlatch,” and end the conversation. The base station operator can unlatch all beltpacks and all-in-one headsets by pressing the **UNLATCH** button on the base station.

NOTE: In the hands-free mode, if you are latched in **IC1**, **IC2** or **ISO**, quickly pressing/releasing either of the other buttons will latch on that button.

If you are latched in **IC1** or **IC2** (in hands-free mode) and then press and hold the **ISO** button, it will function as PTT. When you release the **ISO** button, the beltpack or all-in-one headset will revert to the latched **IC1** or **IC2**.

Refer to [Indicator light functions, Appendix A, page 21](#).

3.2.4 Volume Up/Down

- **Volume Up Adjustment** – Each time you press and release the volume-up ▲ button, a beep will be heard in the earpiece as the volume increases one step. If you press and hold the volume-up button, repeating beeps will be heard as the volume steps up to maximum. When maximum volume is reached, “maximum” will be heard in the earpiece, and will be repeated until you release the volume-up button.
- **Volume Down Adjustment** – Each time you press and release the volume-down ▼ button, a beep will be heard in the earpiece as the volume decreases one step. If you press and hold the volume-down button, repeating beeps will be heard as the volume steps down to minimum. When minimum volume is reached, rapidly repeating beeps will be heard.

3.2.5 Adjusting Microphone Gain

Some users talk louder/softer than others. To allow for this, microphone gain adjustment is provided.

- **To increase microphone gain** – While holding down the **IC2** button, press the volume-up ▲ button as many times as necessary to reach the desired level. The microphone gain increase can be monitored through side tone, or preferably by someone else using a beltpack or all-in-one headset or at the base station.
- **To decrease microphone gain** – While holding down the **IC2** button, press the volume-down ▼ button as many times as necessary to reach the desired level. The microphone gain decrease can be monitored through side tone, or preferably by someone else using a beltpack or headset or at the base station.

NOTE: The mic gain setting will be indicated by a voice prompt (typically, HS14 = 5, HS15 = 3, HS16 = 3). You will hear “Maximum” if you attempt to go higher than maximum mic gain. You will hear repeating beeps if you attempt to go lower than minimum mic gain. Microphone gain will be saved in memory and does not require readjustment each time the power is turned on. (Default setting is 3.)

3.2.6 Adjusting BP210 Beltpack Side Tone

- **To increase side tone** – Press the volume-up ▲ button while holding down the **IC1** button in the normal operating mode.
- **To decrease side tone** – Press the volume-down ▼ button while holding down the **IC1** button in the normal operating mode.

NOTE: The side tone setting will be indicated in numbers, by a voice prompt. (Default setting is “Max”.)

3.2.7 Using WH220 All-In-One Headset Lights-Off Mode

The Lights-Off mode can be used to avoid audience distraction from the lights on the All-In-One Headsets.

- **To operate in the Lights-Off mode** (with the WH220 power off), press and hold the **IC2** button while you press the **POWER** button and then release both buttons.
- **To get out of the Lights-Off mode**, power the WH220 off and back on again without pressing the **IC2** button.

NOTE: There is no sidetone adjustment number for the All-In-One Headset.

3.2.8 Changing Batteries

When a battery becomes weak, a voice in the earpiece will say “Change battery”. If using a Beltpack, you must remove it from its pouch to access its battery.



Beltpack battery removal



All-In-One Headset battery removal

For the **Beltpack**, slide the arrow-shaped battery release latch in the direction of the arrow. Pull up on the battery near the battery-release latch and lift the battery out of the unit, or turn the unit over and catch the battery in your hand. Replace the battery in the same position as the removed battery, and snap it into place.

For the **All-in-One headset**, press the blue Battery-release button, and slide the battery out from under the earpiece. Replace the battery in the same position as the removed battery, and snap it into place.

4 Troubleshooting

- **Red light on base station power switch does not come on.**

Be sure the power cords are properly connected to base station, power supply and electrical outlet.

- **Beltpack power lights do not turn green and “out of range” is heard in the headset.**

Be sure your base station power is on. Turn the Beltpack and base station power on and off. You may be too far from the base station. The range varies with each location’s layout.

- **When trying to register, it keeps saying registration failed.**

Refer to [“If registration failed” in section 2.3.2, page 9](#), and repeat the registration procedure. If “F” appears in the STATUS display, it indicates that an attempt has been made to register more than 15 Beltpacks.

- **Others cannot hear me when I talk.**

Be sure the headset is securely connected to the Beltpack or base station, and that you are pressing the **IC1**, **IC2** or **ISO** button on the Beltpack or the **TALK** button on the base station. Be sure the appropriate **IC1**, **IC2** or **ISO** setting is selected in the **HEADSET** section of the base station front panel.

- **People on the 4-wire intercom cannot hear me or I cannot hear them.**

Be sure the cables are securely connected and the 4-wire intercom is on. If using a local headset, be sure the desired **IC** setting is selected in the **HEADSET** section of the base station front panel. If using a Beltpack or All-In-One Headset, press the desired **IC** button.

- **People on the RTS®/Clear-Com® systems cannot hear me, or I cannot hear them.**

Be sure the cables are securely connected and the 2-wire intercom is on. If using the local headset, be sure the desired **IC** setting is selected in the **HEADSET** section of the base station front panel. If using a Beltpack or All-In-One Headset, press the desired **IC** button.

- **The 2-wire intercom is on and there is a loud squeal whenever I try to talk.**

This can occur if two or more base stations are daisy-chained without terminating the appropriate channel. The termination is set by putting JP5 (IC1) and/or JP6 (IC2) in the **ON** position. This should be done in only one base station. Refer to [Appendix C, page 23](#) for jumper (JP) locations.

- **Settings are not retained when the base station power is turned off and on again.**

The internal battery may be low. Contact your dealer.

- **2-W LEDs remain red. No 2-wire power detected.**

Plug into 2-W power supply. If the lack of powered 2-W system is intentional (such as when using a Clear-Com MT1, or when daisy-chaining multiple base stations), open the base station cover and set JP1 (IC1) and/or JP2 (IC2) to the **ON** position. If daisy-chaining, do not forget to also terminate one of the base stations by setting JP5 (IC1) and/or JP6 (IC2) to **ON**. Refer to [Appendix C, page 23](#) for jumper (JP) locations.

- **Echo on 2-W line.**

Be sure no wired Beltpacks have open mics and that the line is terminated, and rerun Auto Null.

5 Technical Data

5.1 BS210 Base Station Specifications

GENERAL	
Channels:	2 audio channels
Frequency Range:	2400 – 2483.5 MHz
Frequency Response:	200 Hz to 3.5 kHz
Power Requirements:	100-240VAC, 50-60Hz or 12-14VDC
Temperature Range:	32-122°F (0-50°C)
Size:	19" x 1.72" x 17.13" (1-RU) (48.26 x 4.37 x 43.51 cm)
Weight:	9.0 lbs. (4.1 kg) maximum
# of registrations per Base:	15 can be registered. In single-channel operation, 4 can have simultaneous full-duplex communication. In dual-channel operation, 3 can have simultaneous full-duplex communication.
4-Wire I/O:	RJ45, 600Ω balanced, level adjustable, simultaneous operation with 2-wire
2-Wire I/O:	XLR-3M, XLR-3F, externally-switchable RTS® or Clear-Com® mode, 200Ω, level adjustable, null adjustable to 50dB attenuation, typical
Auxiliary Input:	XLR-3F/¼" (6.35 mm) combo jack, 600Ω balanced, level adjustable
Auxiliary Output:	XLR-3M, 600Ω balanced, level adjustable
Headset Connector:	4-pin mini-DIN, Electret microphone
Headset Output:	200mW into 32Ω
Antenna Type:	External ½ -wave dipole (R-TNC connector), RX/TX horizontal/vertical diversity
System Distortion:	<2%
Communication Security:	64-bit encryption, dual-slot diversity
BASE STATION TRANSMITTER	
Type:	Frequency Hopping, Spread Spectrum (FHSS)
Transmit Power:	100mW burst
Modulation Type:	Gaussian filtered FSK, TDMA
Frequency Stability:	13 ppm
Harmonics/Spurious:	Exceeds FCC and ETSI specifications over temperature
BASE STATION RECEIVER	
Type: RF Sensitivity:	Frequency Hopping, Spread Spectrum <-90dBm w 10-3 BER
Frequency Stability:	13 ppm
Distortion:	<2%

5.2 BP210 Beltpack Specifications

GENERAL	
Channels:	2 audio channels
Frequency Range:	2400 MHz – 2483.5 MHz
Antenna:	Internal, horizontal/vertical diversity
Frequency Response:	200 Hz to 3.5 kHz
Battery Requirements:	3.6V lithium ion
Battery Life:	Up to 20 hours
Temperature Range:	32-122°F (0-50°C)
Weight:	7.4 oz (.21 kg) with battery and pouch
Headset Connector:	4-pin, mini-DIN
Microphone:	Electret
Headset Output:	160mW into 32Ω
Controls:	Power, Volume-up, Volume-down, IC1, IC2, ISO
Indicators:	Dual-color LED (red/green)
Communication Security:	64-bit encryption
System Distortion:	<2%
BELTPACK TRANSMITTER	
Type:	Frequency Hopping, Spread Spectrum
Transmit Power:	100mW burst
Transmission Modes:	Momentary or latch
Modulation Type:	Gaussian filtered FSK, TDMA
Frequency Stability:	13 ppm
Harmonics/Spurious:	Exceeds FCC and ETSI specifications
BELTPACK RECEIVER	
Type: RF Sensitivity:	Frequency Hopping, Spread Spectrum <-90dBm w 10-3 BER
Frequency Stability:	13 ppm
Distortion:	<2%

5.3 WH220 All-In-One Headset Specifications

GENERAL	
Channels:	2 audio channels
Frequency Range:	2400 MHz – 2483.5 MHz
Antenna:	Internal
Frequency Response:	200 Hz to 3.5 kHz
Battery Requirements:	3.6V lithium ion
Battery Life:	Up to 20 hours
Temperature Range:	32-122°F (0-50°C)
Weight:	5.7 oz (.16 kg) with battery
Microphone:	Electret
Headset Output:	160mW into 32Ω
Controls:	Power, Volume-up, Volume-down, IC1, IC2, ISO
Indicators:	Dual-color LED (red/green)
Communication Security:	64-bit encryption
System Distortion:	<2%
HEADSET TRANSMITTER	
Type:	Frequency Hopping, Spread Spectrum
Transmit Power:	100mW burst
Transmission Modes:	Momentary or latch
Modulation Type:	Gaussian filtered FSK, TDMA
Frequency Stability:	13 ppm
Harmonics/Spurious:	Exceeds FCC and ETSI specifications
HEADSET RECEIVER	
Type: RF Sensitivity:	Frequency Hopping, Spread Spectrum <-90dBm w 10-3 BER
Frequency Stability:	13 ppm
Distortion:	<2%

Appendix A:

Indicator Light Functions

BP210 Beltpack Indicator Lights:

BP210 Condition	IC1 Indicator Light	IC2 Indicator Light
IC1 Idle	Steady Green	OFF
IC1 TX	Blinks Green	OFF
IC2 Idle	OFF	Steady Green
IC2 TX	OFF	Blinks Green
ISO TX	Blinks Green	Blinks Green
Low battery	Appropriate channel light Blinks Red when in idle mode	

WH220 All-In-One Headset Indicator Lights:

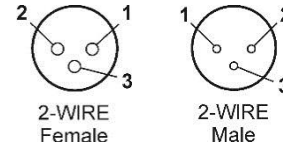
WH220 Condition	Main Indicator Light	Boom Indicator Light
IC1 Idle	Steady Green	Off
IC1 TX	Blinks Green	Steady Green
IC2 Idle	Steady Red	Off
IC2 TX	Blinks Red	Steady Green
ISO TX	Blinks Red or Green (depending on previous Mode)	Steady Red
Low battery	No indication	

Appendix B: Multiple Base Station Daisy-Chaining

Two or more DX210 base stations can be “daisy-chained” using the 2-W connector ports on the rear panels of each base station (following Clear-Com® / RTS® standards), or two base stations (not more) can be “daisy-chained” together with cables connected to the 4-W or AUX connectors.

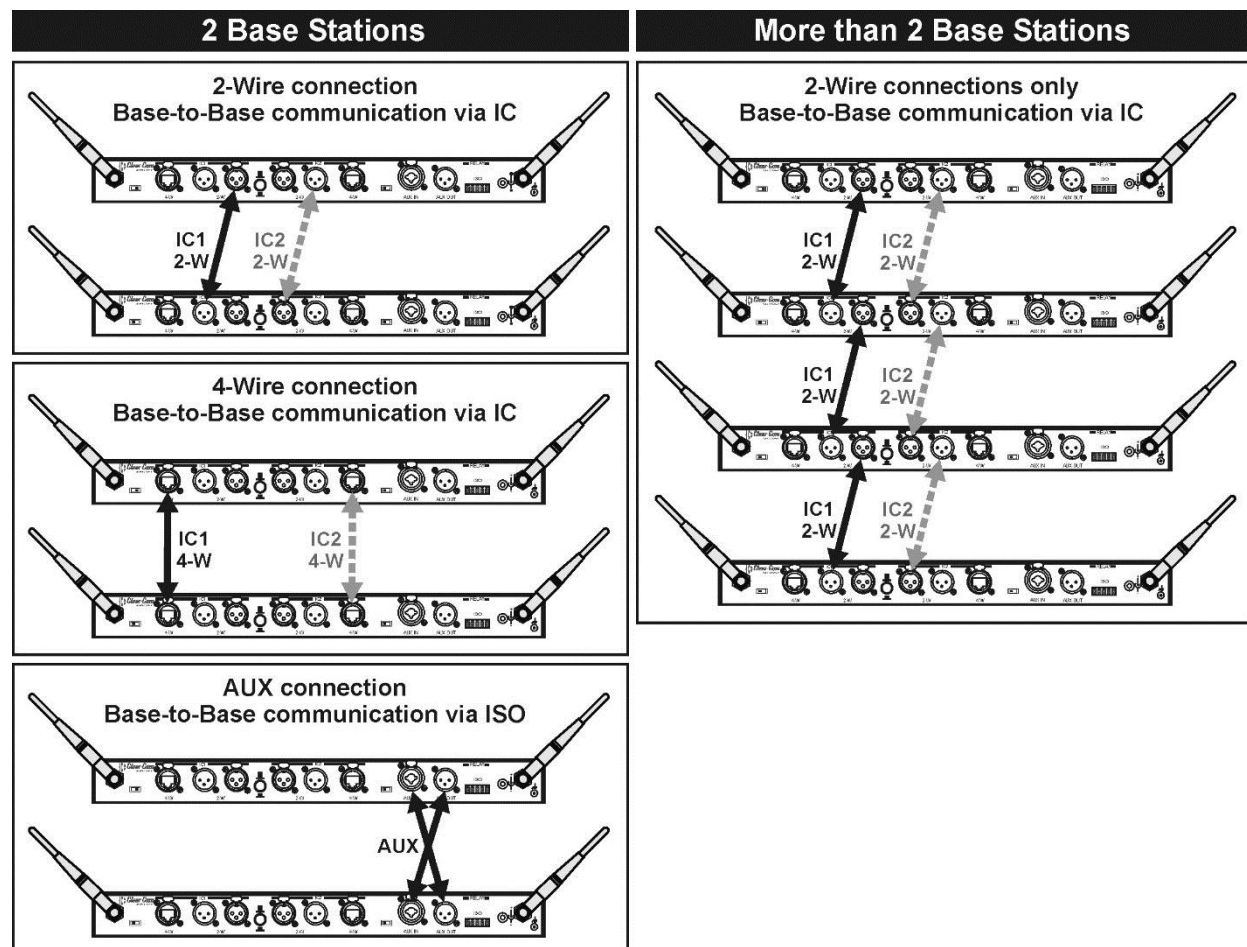
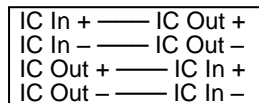
NOTE 1: DX210 does not provide 2-wire line power, therefore, 2-wire power bypass must be used.

RTS® Mode	Clear-Com® Mode
Pin 1 = Common	Pin 1 = Common
Pin 2 = Channel 1	Pin 2 = N/C
Pin 3 = Channel 2	Pin 3 = Audio



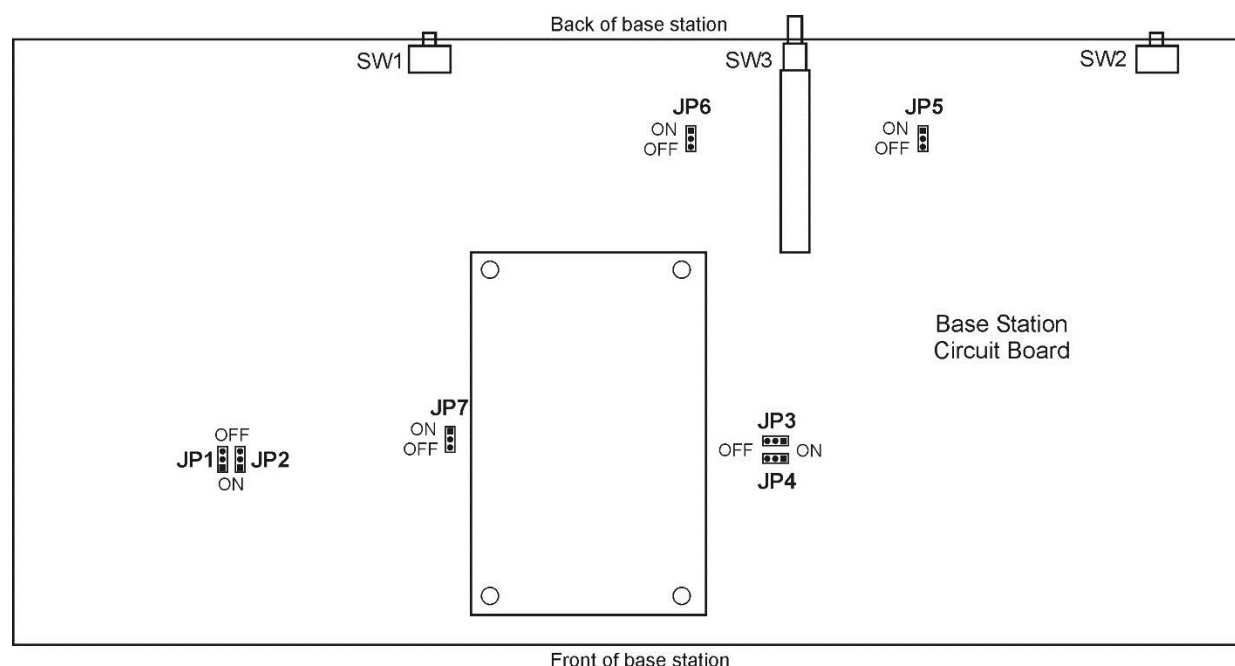
NOTE 2: For AUX type daisy-chaining, the cable connectors must be 3-pin XLR.

- If using 4-wire connection, use cable with In/Out crossed, as shown to the right.
(An Ethernet crossover cable will not work.)
- If using 2-Wire connections, open each base station and set jumpers JP1 (IC1) and/or JP2 (IC2) **in all base stations** to ON for power detect bypass. Set jumpers JP5 (IC1) and/or JP6 (IC2) **in only one base station per channel** for termination. Refer to [Appendix C, page 23](#).
- Perform base station registration for each base station. Refer to [Appendix D, page 24](#).



Appendix C: Jumper Settings

The base station has internal jumpers that are used to set ISO broadcast restrict, power detect by-pass and 2-wire channel termination.



Jumper #	Function
JP1	Channel 1, 2-wire power detect bypass
JP2	Channel 2, 2-wire power detect bypass
JP3	Reserved
JP4	Disable ISO from going out to Beltpacks
JP5	Channel 1, 2-wire termination
JP6	Channel 2, 2-wire termination
JP7	Reserved

ISO Broadcast Restrict

This feature prevents ISO communication from being broadcast from one beltpack or all-in-one headset to another. Local headset ISO will still be broadcast, and the local headset will still receive ISO communication. To enable this feature, set JP4 to ON.

Power Detect Bypass

In the event the DX210 base station is connected to a 2-W line which does not contain power (such as when multiple base stations are daisy chained), JP1 (IC1) and/or JP2 (IC2) need to be set to ON to enable 2-W interface for the respective channel(s) to come on.

WARNING! If no termination is present on the line, enabling this feature will cause feedback in the headsets.

2-Wire Channel Termination

If termination of the base station is necessary (such as when multiple base stations are daisy chained), set the JP5 (IC1) and/or JP6 (IC2) jumpers to the ON position on one base station (when connecting multiple base station together via 2-wire connection). Only one base station should be terminated per channel.

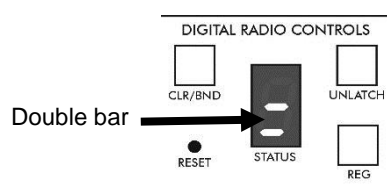
Appendix D: Multiple Base Station Registration

For multiple base stations to operate in close proximity without interference, they must be properly registered before performing other setups. After registering each base station, register each beltpack or all-in-one headset that will be used with that base according instructions in [section 2.3.2, page 9](#).

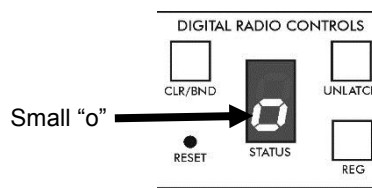
NOTE: If using split-band operation, select the appropriate band prior to base station registration. If a different frequency band needs to be selected to avoid interference, the primary base station must be set to this frequency band before base station registration is started.

Register each base station and all Beltpacks and/or All-In-One Headsets as follows:

- On one of the base stations, ensure that the primary/secondary switch is set to primary. On the others, ensure that it is set to secondary. **NOTE:** In split band operation, there can be one primary and up to three secondary base stations in either band.
- Turn the primary base station power on. Register any beltpack or all-in-one headset to be used with the primary base station, as instructed in [section 2.3.2, page 9](#). Turn each beltpack or all-in-one headset off after registering it.
- Power on one **secondary** base station. The **STATUS** display will show a double bar, indicating the secondary base station is ready to be registered.

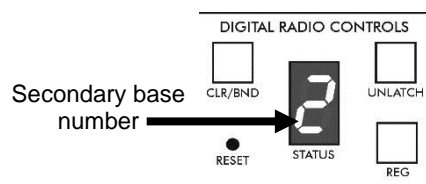


Base station ready to be initialized

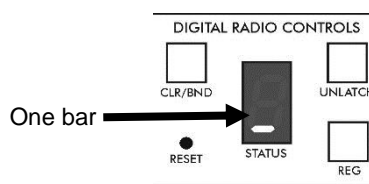


Small "o" indicates primary base station is open for registration

- Press the **REG** (register) button on the primary base station. The **STATUS** display will show a small "o".
- To assign a number to a secondary base station and register it, press the **REG** button on the secondary base station. Pressing the button repeatedly cycles through the numbers 1, 2, and 3. When the desired number appears, stop pressing and wait. While the secondary base station is registered using the displayed number, the **STATUS** display will continue showing the secondary number selected. When registration of the secondary base station is finished, the display will show one bar to indicate the secondary has been registered to the primary.



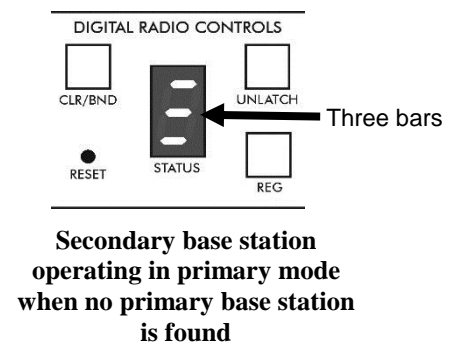
Secondary 2 searching for primary



Secondary is initialized to primary

- Press the **REG** button on the primary. The **STATUS** display will go blank.
- Register beltpacks and all-in-one headsets to the secondary base stations as instructed in [section 2.3.2, page 9](#). After registration, turn off the secondary base station and all beltpacks and all-in-one headsets.

- Repeat these steps for each remaining secondary base station. Use a different number for each. Only the primary base station and the active secondary base station should have power on during registration. All other equipment should be off.
- After all secondary base stations, beltpacks and all-in-one headsets are registered, power up all base stations. Press reset on the primary base station and let it recover. Turn on the primary beltpacks and all-in-one headsets, and let them link.
- Press the reset on each secondary base station one at a time and let it link to the primary, as indicated by a single bar. Turn on the beltpacks and all-in-one headsets associated with the secondary base stations. Work on one group at a time until they have all linked, and then do the next group. At this point all base stations, beltpacks and all-in-one headsets should be powered up and linked, ready for use.
- Now proceed with normal system configuration, setting functions and levels as required.
- If it becomes necessary to replace a secondary base station, use the procedure above to register the new secondary with the same number as the old secondary. After registration, you will have to register any beltpacks and all-in-one headsets associated with the old secondary to the new secondary base station.
- If it becomes necessary to replace a primary base station, follow the above procedure completely. Before registration of the secondary base stations, clear the previous secondary registration as follows:
 - For each secondary, press the **CLR/BND** button and the **RESET** button simultaneously. Continue holding the **CLR/BND** button after you release the **RESET** button, until the clear code “c” (lower case) appears on the **STATUS** display. Any beltpacks and all-in-one headsets associated with the old primary will have to be registered to the new primary after secondary base station registration. All beltpacks and all-in-one headsets associated with secondary base stations also have to be registered again.
- If the primary base station is shut down or if the primary base is powered off for more than 30 seconds, all secondary base stations will drop their beltpack and all-in-one headset connections and begin searching for the primary. If the primary is not found in 30 seconds, the secondary will automatically revert to primary-mode operation and reconnect the beltpacks and all-in-one headsets. At this point the secondary **STATUS** displays will show three bars. If the primary is turned back on it will be necessary to press **RESET** on all secondary base stations to allow them to find and initialize to the primary again. It is therefore important to have all base stations connected to the same AC circuit to prevent this situation when the system is shut down after hours and powered up again the next day.



NOTE: You cannot register beltpacks and all-in-one headsets to a base that is set to primary mode, and then switch the base mode to secondary for registration. Once in secondary mode, the base station cannot recognize the beltpacks and all-in-one headsets registered during primary operation. For secondary base stations, the beltpacks and all-in-one headsets must always be registered after secondary base station registration, with the primary base station remaining active and the secondary base station displaying one bar.

Appendix E: Adaptive Frequency Hopping (AFH)

Hereby, HM Electronics, Inc., declares that DX210 is in compliance with the essential requirements and other relevant provisions of R&TTE Directive 1999/5/EC" with "Radio Equipment Directive (RED). In AFH mode, DX210 complies with European Telecommunications Standards Institute (ETSI) harmonized European standard EN 300 328. Customers, Distributors or Installers operating in a CE regulated country that switch off or disable AFH will render the product non-compliant with the directive and will be considered the manufacturer of the product.

CE Base Station Adaptive Frequency Hopping - Background

The DX210 wireless system utilizes a Frequency Hopping Spread Spectrum (FHSS) radio in order to provide robust communications. This system operates in the unlicensed 2.4 GHz band. With the proliferation of other devices over the past few years in the same 2.4 GHz band, instances where these devices and systems can interfere with each other has greatly increased. The European Union has updated the radio standards for equipment operating in this band in an attempt to reduce interference between equipment from different manufacturers. This European Telecommunications Standards Institute (ETSI) harmonized European standard is known as EN 300 328.

CLEAR-COM Adaptive Frequency Hopping

In order to reduce interference with other equipment and comply with ETSI Regulations, Clear-Com has implemented an **Adaptive Frequency Hopping (AFH)** mode for the new DX EU base stations. The key idea behind AFH is using only the good frequencies, or channels, unoccupied by other equipment. The system scans for other signals and avoids these signals during operation. Since the radio environment is constantly changing, there is a continuous process of scanning for used frequencies and updating the list of good channels. The Clear-Com system utilizes 46 discrete frequencies, or channels, within the 2.4 GHz spectrum in order to communicate voice and data. The process of deciding which channels should be used is a 3-stage process. The process includes scanning for occupied channels, the broadcast of a channel exclusion list and the use of the exclusion list. The process is completed in 3 steps coexisting in time.

Operation in Severe Environments

During normal operation, the fact that the system is constantly changing the channel list in use is transparent to the user. It is possible, however, that in an environment with severe interference that the system may experience a slight degradation. The Clear-Com system will use a minimum of 15 channels. If the environment is very crowded and less than 15 channels are truly available, there could be increased radio 'packet loss' due to the high interference. The following symptoms may be observed with AFH systems in a highly congested radio environment:

- This may result in system 'busy' indications. Channel lists are updated every few seconds, and in a severe environment it is possible that these lists get missed by the communicator.
- Slight degradation in audio fidelity between the headsets and base station. This would be due to the same symptom as the 'busy' indications. The HD audio processing is tolerant to this condition, which is why the degradation may only be slight.
- Longer times to register. Registration may take longer, since the headset has to acquire the channel list from the base station. If the base station has excluded a lot of channels, this takes longer as the communicator does not have the exclusion list and looks for the base on channels it is not using.
- Initial sync time increase. For the same reason registration may take longer, the initial headset sync on power up may take longer.

EU Bases are shipped in the AFH (E-mode)

Do not tamper with the AFH mode if you are operating in a region that requires compliance with ETSI EN300 328. Changes and modifications not expressly approved by Clear-Com, LLC an HM Electronics, Inc. company could void the user's authority to operate this equipment.

Required AFH Equipment

AFH capable headsets and belt packs will have the letters 'AFH' labeled on the belt pack and headsets.

Non-AFH Equipment

Headsets and belt packs that are not AFH capable must be operated with a non EU base station in the All mode. Headsets and belt packs that are not AFH capable will not have the letters 'AFH'.

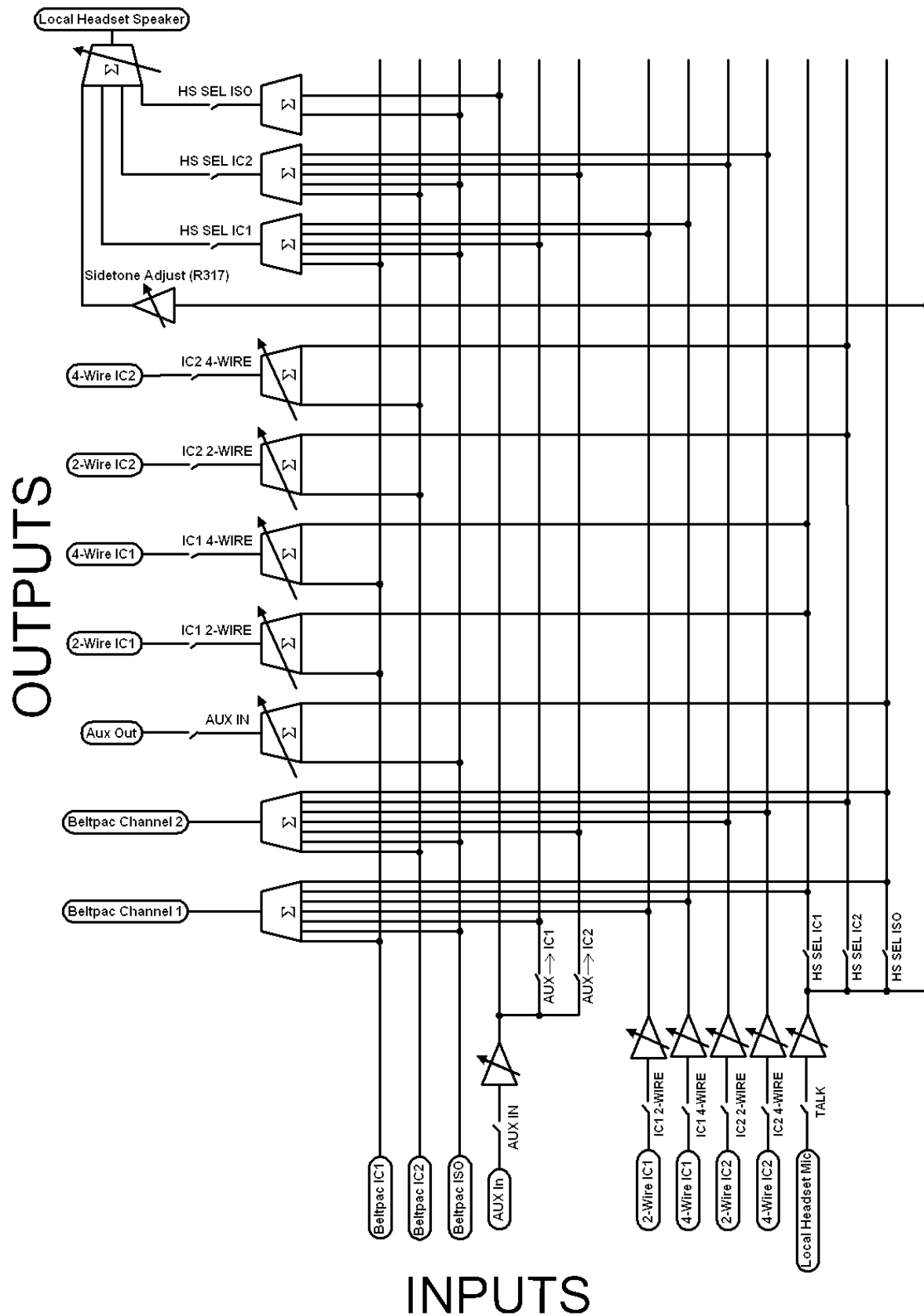
Model #	EU Version Part #	Non-EU Version Part #	Comments
BP200	G29663-2B10	G26705-XXX	All BP200 Beltpacks with G26705-XXX part #'s are non AFH compatible.
BP210	G29663-4B30	G28703-XXX	All BP210 Beltpacks with G28703-XXX part #'s are non AFH compatible.
WH210		G28741-XXX	All WH210's are non AFH and will not work with Base in AFH mode.
WH200		G27593-XXX	All WH200's are non AFH and will not work with Base in AFH mode.
WH220	G29090-8D13		ALL WH220's are AFH compatible.
Part number is located on label under the battery on beltpacks and wireless headsets			

Interference Mitigation

Certain techniques can be used in an attempt to mitigate interference between different equipment in the 2.4 GHz spectrum. Some of these are:

- **Physical separation.** If possible, equipment operating in the 2.4 GHz spectrum should be operating as far as physically possible from the HME base station. A Wi-Fi access point or router is a common piece of equipment that could interfere with the DX210 system, or vice versa. These two pieces of equipment in particular should not be located close together.
- **Spectral separation.** Most Wi-Fi access points allow the administrator to set the channel and bandwidth that system operates on. Some systems employ an 'auto' mode, in which the Wi-Fi access point will automatically selected the channel. With Wi-Fi access points, it is sometimes advantageous to manually select a channel number to keep the Wi-Fi transmission at a fixed location.
- **Spectral efficiency.** Wi-Fi systems employ a standard sometimes referred to as 802.11. The number "11" is simply the number given to the standard by the Institute of Electrical and Electronics Engineers (the IEEE). Modern Wi-Fi routers will allow operation employing the 802.11n mode. This mode will allow higher data rates, but it also may consume twice the number of radio channels. If the Wi-Fi router is set to 802.11n mode, it is best to limit Wi-Fi bandwidth to 20 MHz.
- **Alternate band selection.** While most Wi-Fi systems operate at 2.4 GHz, which is the same band as the DX210 system. Most allow operation at 5 GHz. If possible, move any Wi-Fi access points and equipment to 5 GHz. This of course requires all Wi-Fi equipment to be 5 GHz capable, and most older equipment may only allow 2.4 GHz operation. Selection of 5 GHz may also not be desirable if the Wi-Fi network is for customer access.

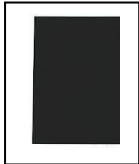
Appendix F: Audio Routing Diagram



Appendix G: Appendix G: DX Series LED Aid



Powering on any DX base station will produce on the LED display the number “8” for approximately 3 seconds.

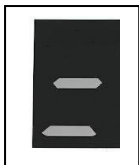


Blank display indicates the base is ready for operation.

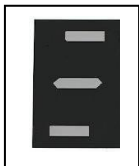
You can register Beltpacks under this condition.



Single horizontal bar indicates the base is in secondary mode and registering to a base has been initiated and successfully linked with a primary base. **You can register beltpacks in this mode.**



Two horizontal bars indicate that the base is in secondary mode and ready to be synced with a primary base. **You cannot register beltpacks in this mode you must sync to a primary base first.**

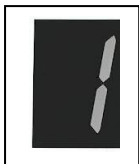


Three horizontal bars indicate the base is in secondary mode and has been linked with a primary base but the primary base is no longer available to the secondary. It takes a few seconds for the secondary to recognize that the primary is not available and revert to a primary state. **However, you can register Beltpacks under this condition.**

Syncing Secondary to Primary Bases Feature

To sync the bases, perform the following steps: Press the **REG** or **REGISTER BELT-PAC*** button on the primary base and then press the **REG** or **REGISTER BELT-PAC*** button on the secondary base to begin the sync process. As you repeatedly press the **REG** or **REGISTER BELT-PAC*** button on the secondary you will see the numbers 1, 2, and 3 cycle through on the display. The numbers indicate the three available quadrants. **Note: The primary is in the 0 quadrant by default.** To select a quadrant simply release the button at a desired number and wait. If successful, you will briefly see a blank display followed by a single horizontal bar in the secondary LED display. For additional secondary bases, assign each base to its own quadrant. Refer to the appropriate equipment manual for primary to secondary conversion.

After the bases are synced when the secondary is powered up the number “8” will appear followed by one of the numbers below on the secondary base LED display:



The number “1” indicates the quadrant the secondary has been placed in.



The number “2” indicates the quadrant the secondary has been placed in.

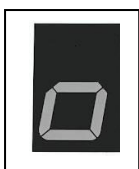


The number “3” indicates the quadrant the secondary has been placed in.



The lower case “c” will appear when the registry on the base station is cleared. To clear the registry power down the base. Hold down the **CLR/BND** or **RESET REGISTRATION*** button first and then power the base on when you see the “8” on the LED display release the **CLR/BND** or **RESET REGISTRATION***. If done successfully you will see a small "c" on the LED display. **NOTE: The display indicates that the registry of a base station has been cleared of all beltpacks and secondary base stations that were registered to the base station.**

Another method to clear the registry would be to start by holding down the **CLR/BND** or **RESET REGISTRATION*** button first and then pressing the **RESET** button until you hear a small click and then release the **CLR/BND** or **RESET REGISTRATION*** button. If done successfully you will see a small "c" on the LED display. We recommend you use a very small paper clip.



The lower case “o” will appear when the **REG** or **REGISTER BELT-PAC*** button is pressed and indicates that the base is ready to register a beltpac.

When registering beltpacks on DX bases that can carry 15 beltpacks please note that the numeric count displayed on the LED will be in hexadecimal. This means that the LED will represent the first 10 beltpacks as 0 to 9. Beltpac 11 will be represented by the letter A, beltpac 12 will be represented by the letter B and on up to beltpac 15 as E. Please see below.

Belpac or Headset	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Registry	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E



The letter “F” will appear when the base registry is at its maximum of 15 registered Beltpacks. You will need to clear the registry to add a beltpac. To clear the registry power down the base. Hold down the **CLR/BND** or **RESET REGISTRATION*** button first and then power the base on when you see the “8” on the LED display release the **CLR/BND** or **RESET REGISTRATION***. If done successfully you will see a small "c" on the LED display.

Appendix H: General Battery Safety Instructions - Battery Model BAT41, BAT50, BAT60

BAT50 is specifically designed only for use with product(s) offered by:

HM Electronics Inc. (HME)

Clear-Com LLC, an HME Company

SAFETY PRECAUTIONS

To ensure the safety and reliability of your Battery, follow the guidelines in this section.

Using the Battery



WARNING!

Do Not Abuse/Modify Battery Packs

Lithium-ion cells and battery packs may get hot, explode or ignite and cause serious injury if modified or abused.

Follow the safety instructions below:

- Do not place the battery in fire or heat the battery.
- Do not connect the battery backward, so the polarity is reversed.
- Do not connect the positive terminal and negative terminal of the battery to each other with any metal object (such as a wire).
- Do not carry or store the battery together with necklaces, hairpins or other metal objects.
- Do not pierce the battery with nails, strike the battery with a hammer, step on the battery or otherwise subject it to strong impacts to shocks.
- Do not solder directly onto the battery.
- Do not expose the battery to water or salt water, or allow the battery to get wet.
- Do not disassemble or modify the battery. The battery contains safety and protection devices which, if damaged, may cause the battery to generate heat, explode or ignite.
- The protection circuit module provided with battery packs is not to be used as a substitute for a shutoff switch.
- Do not place the battery in or near fire, on stoves or in other high temperature locations.
- Do not place the battery in direct sunlight, or use or store the battery in cars in hot weather. Doing so may cause the battery to generate heat, explode or ignite. Using the battery in this manner may also result in a loss of performance or shortened life expectancy.
- When the battery is worn out, insulate the terminals with adhesive tape or a similar non-conducting material before disposal.

- Immediately discontinue use of the battery if, while using, charging, or storing the battery, the battery emits an unusual smell, feels hot, changes color or shape or appears abnormal in any other way.
- Do not place the battery in microwave ovens, high-pressure containers or on induction cookware.



WARNING!

In the event the battery leaks and the fluid gets into one's eye, do not rub the eye. Rinse well with water and immediately seek medical care. If left untreated, the battery fluid could cause damage to the eye.



WARNING!

If the device causes abnormal current to flow, it may cause the battery to become hot, explode, or ignite causing serious injury.

Charger Types

Your battery must only be charged with a HME/Clear-Com recommended charger. Any attempt to use other types of chargers may cause an explosive reaction, fire or chemical burns. Do not assume that the physical form of another battery qualifies the charger for use with the HME/Clear-Com 104G041LF battery.

Charging the Battery

Be sure to follow the warnings listed below while charging the battery. Failure to do so may cause the battery to become hot, explode or ignite and cause serious injury.

- Do not continue charging the battery if it does not recharge as specified HME/Clear-Com User Guide, under charging instructions.
- Do not attach the battery to an external charger, power supply plug or directly to a car's cigarette lighter.

Recycling the Battery

If your business or household does not have a battery recycling program, go to the following URL or copy and paste the following URL into your browser, then enter your zip code for a list of recycling centers:

<http://earth911.com>

Directives de sécurité générales pour les modèles de batterie suivants : BAT41, BAT50, BAT60

Les batteries BATXX sont spécialement conçues de manière à ne pouvoir être utilisées qu'avec les produits offerts par

HM Electronics Inc. (HME), Clear-Com LLC, une société HME

PRÉCAUTIONS

En vue d'assurer la sûreté et la fiabilité de votre batterie, respectez les directives indiquées dans cette section.

Utilisation de la batterie



ATTENTION !

Ne pas faire un usage abusif des blocs-piles ni les modifier

Les cellules de lithium-ion et les blocs-piles peuvent devenir chauds, exploser ou prendre feu et ainsi causer des blessures graves si on en fait un usage abusif ou qu'on les modifie.

Respectez les directives de sécurité ci-dessous :

- Ne pas placer la batterie dans le feu ni la faire chauffer.
- Ne pas brancher la batterie à l'envers de manière à ce que la polarité soit inversée.
- Ne pas connecter la borne positive et la borne négative de la batterie l'une à l'autre avec un objet de métal (comme du fil de fer).
- Ne pas transporter ni entreposer la batterie avec des colliers, des épingles à cheveux et d'autres objets de métal.
- Ne pas percer la batterie avec des clous, la frapper avec un marteau, marcher dessus et la soumettre de quelque autre manière que ce soit à des impacts puissants.
- Ne pas faire de soudure directement sur la batterie.
- Ne pas exposer la batterie à l'eau ou à l'eau salée ni à une grande humidité, et ne pas la laisser être mouillée.
- Ne pas démonter ni modifier la batterie. La batterie contient des dispositifs de sécurité et de protection qui, en cas de dommages, pourraient l'amener à chauffer, à exploser ou à prendre feu.
- Ne pas utiliser le module de circuit de protection offert avec les blocs-piles en remplacement d'un contacteur d'isolement.
- Ne pas mettre la batterie dans ou à proximité du feu, sur des cuisinières ou dans d'autres endroits à température élevée.
- Ne pas placer la batterie directement au soleil ni l'utiliser ou l'entreposer dans des voitures par temps chaud. Ceci pourrait l'amener à chauffer, à exploser ou à prendre feu. D'utiliser la batterie de cette manière peut également la rendre moins performante et diminuer son espérance de vie.
- Quand la batterie est usée, isoler les bornes à l'aide de ruban adhésif ou d'un matériau non conducteur semblable avant de la jeter.
- Cesser immédiatement l'utilisation de la batterie si, en cours d'utilisation ou de chargement ou lorsqu'elle est entreposée, elle émet une odeur inhabituelle, dégage de la chaleur, change de couleur ou de forme ou semble anormale de quelque autre manière que ce soit.

- Ne pas mettre la batterie dans des fours à micro-ondes, des contenants à haute pression ou des ustensiles de cuisine à induction.
- Garder les batteries hors de la portée des enfants.
- Toujours débrancher la batterie avant de l'entreposer ou de la transporter.
- Toujours entreposer la batterie dans un contenant étanche à l'épreuve des flammes loi de toute matière inflammable ou corrosive.



ATTENTION !

Si la batterie fuit et que le fluide entre en contact avec l'oeil de quelqu'un, ne pas frotter l'oeil. Bien rincer à l'eau et tout de suite demander des soins médicaux. Le fluide de la batterie risque de causer des dommages à l'oeil si celui-ci n'est pas traité.



ATTENTION !

Si le dispositif cause la circulation d'un courant anormal, il se peut que la batterie chauffe, explose ou prenne feu et cause ainsi des blessures graves.

Types de chargeur

Votre batterie ne devrait être rechargée qu'à l'aide d'un chargeur recommandé par HME/Clear-Com. Toute tentative d'utiliser d'autres types de chargeurs risque d'entraîner une réaction explosive, un feu ou des brûlures chimiques. Ne pas présumer que la forme physique d'une autre batterie fait que le chargeur y correspondant peut être utilisé avec la batterie HME/Clear-Com.

Chargement de la batterie

S'assurer de suivre les avertissements indiqués ci-dessous au moment de charger la batterie. La batterie pourrait sinon chauffer, exploser ou prendre feu et ainsi causer des blessures graves.

- Ne pas continuer à charger la batterie si elle ne se recharge pas de la manière indiquée dans le guide de l'utilisateur HME/Clear-Com, dans la section des directives de chargement.
- Ne pas brancher la batterie à un chargeur externe, à une prise d'alimentation ou directement dans l'allume-cigare d'une voiture.
- Toujours procéder à l'inspection visuelle de la batterie avant ou après son chargement.
- Toujours laisser la batterie refroidir à une température ambiante sécuritaire avant de la charger au terme de son cycle de décharge précédent.
- Ne pas recharger la batterie sur ou à proximité de matériaux inflammables; ceci fera en sorte qu'en cas de mauvais fonctionnement, elle puisse être contenue en causant le moins de dommages et de blessures possible.

Recyclage de la batterie

Quand la batterie atteint la fin de sa vie utile, il devrait revenir à une entreprise de recyclage qualifiée ou à une entreprise de gestion des matériaux dangereux de s'en débarrasser. Ne pas mélanger cette batterie au courant de déchets solides.

Si votre entreprise ou votre foyer ne participe à aucun programme de recyclage des batteries, cliquez sur l'adresse URL suivante ou collez-la dans votre navigateur, puis entrez votre code postal en vue d'obtenir une liste de centres de recyclage : <http://earth911.com>

Instrucciones generales de seguridad para baterías para cada modelo de batería: BAT41, BAT50, BAT60

Las baterías BATXX están diseñadas específicamente para usarse solo con el(los) producto(s) que ofrezca:

HM Electronics Inc. (HME)

Clear-Com LLC, una compañía de HME

PRECAUCIONES DE SEGURIDAD

Para garantizar la seguridad y la fiabilidad de su batería, siga las directrices en esta sección.

Al usar la batería



¡ADVERTENCIA!

No dañe ni modifique los empaques de las baterías

Si las celdas de iones de litio y los empaques de las baterías se modifican o dañan, pueden recalentarse, explotar o incendiarse y causar heridas graves.

Siga las instrucciones de seguridad que se indican a continuación:

- No exponga la batería al fuego ni la caliente.
- No conecte la batería al revés, de modo que la polaridad estuviera invertida.
- No conecte la terminal positiva con la negativa usando objetos metálicos (como un alambre).
- No almacene ni lleve las baterías junto con collares, horquillas u otros objetos metálicos.
- No perforo con clavos, golpee con martillo ni pise la batería, ni la someta de manera alguna a golpes fuertes.
- No suelde directamente sobre la batería.
- No exponga la batería al agua, sea dulce o salada, ni a la humedad alta, ni permita que se humedezca o se moje la batería.
- No desarme ni modifique la batería. La batería contiene dispositivos de seguridad y de protección que, si se dañan, pueden causar que la batería genere calor, explote o se incendie.
- El módulo de circuito de protección incluido en los empaques de las baterías no debe usarse como sustituto de un interruptor de apagado.
- No exponga la batería al fuego ni cerca de este, en estufas ni en lugares de altas temperaturas.
- No exponga la batería bajo la luz solar directa ni use o almacene la batería en un carro en climas calientes. Hacer lo anterior, podría generar que la batería genere calor, explote o se incendie. Asimismo, usar la batería de esta manera podría resultar en una pérdida de rendimiento o disminución de la expectativa de vida útil del equipo.
- Cuando la batería se desgaste, aisle las terminales con cinta adhesiva u otro material similar que no sea conductor, antes de deshacerse de ella.
- Deje de utilizar inmediatamente la batería si, mientras la usa, carga o almacena, esta emite un olor inusual, se siente caliente, cambia de color o forma o parece anormal de cualquier otra manera.

- No coloque la batería en hornos microondas, contenedores de alta presión ni en materiales de cocina inducida.
- Mantenga las baterías fuera del alcance de los niños.
- Desconecte siempre la batería antes de almacenarla o transportarla.
- Almacénela siempre en contenedores estrictamente resistentes al fuego lejos de materiales inflamables o corrosivos.



¡ADVERTENCIA!

En caso de que la batería gotee y le entre el fluido en los ojos, no se los restriegue. Enjuague bien con agua y busque asistencia médica inmediatamente. Si no recibe tratamiento, el fluido de la batería podría causarle daño en sus ojos.



¡ADVERTENCIA!

Si el dispositivo causa que fluya corriente anormal, puede causar que la batería se caliente, explote o se incendie y cause heridas graves.

Tipos de cargador

Su batería debe cargarse únicamente con un cargador recomendado por HME/Clear-Com. Si intenta usar otro tipo de cargador, puede causar una reacción explosiva, incendio o quemaduras con sustancias químicas. No asuma que la forma física de otra batería permita que el cargador de esta puede usarse con la batería de HME/Clear-Com.

Cargar la batería

Asegúrese de seguir las advertencias que se describen más abajo mientras carga su batería. Si no lo hace, puede causar que la batería se caliente, explote o se incendie y cause heridas graves.

- No siga cargando la batería, si no se recarga como se especifica en la guía para el usuario de HME/Clear-Com, según las instrucciones de carga.
- No conecte la batería a un cargador externo, conector de energía ni directamente al encendedor de cigarrillos de un carro.
- Inspeccione siempre visualmente su batería antes y después de cargarla.
- Deje siempre que su batería se enfríe hasta que esté en su temperatura ambiental segura antes de cargar, después de su ciclo anterior de descarga.
- No cargue las baterías sobre ningún tipo de material inflamable. Esto asegurará que, si hay una falla de funcionamiento, se pueda contener con la menor cantidad posible de daños y heridas.

Reciclar la batería

Cuando la batería llegue al fin de su vida útil, un reciclador calificado o una persona encargada de manipular materiales peligrosos deberían encargarse de desecharla. No mezcle esta batería con el flujo de residuos sólidos.

Si su negocio u hogar no tiene un programa de reciclaje de baterías, vaya a la siguiente dirección URL o pegue la siguiente dirección en su navegador y, luego, introduzca su código postal para obtener una lista de los centros de reciclaje:

<http://earth911.com>

배터리 모델의 일반적인 배터리 안전 지침: **BAT41, BAT50, BAT60**

BATXX 배터리는 다음 회사에서 제공하는 제품과 함께 사용하도록 특별히 설계되었습니다:

HM Electronics Inc. (HME), Clear-Com LLC, HME Company

안전 주의사항

배터리의 안전과 신뢰성을 보장하려면 이 섹션의 지침을 따르십시오.

배터리 사용



경고!

배터리 팩을 개조하거나 과도하게 사용하지 마십시오.

리튬 이온 셀 및 배터리 팩을 개조하거나 과도하게 사용하면 뜨거워지거나 폭발하거나 발화되어 심각한 부상을 입을 수 있습니다.

아래의 안전 지침을 따르십시오:

- 배터리를 불 속에 넣거나 가열하지 마십시오.
- 배터리를 거꾸로 연결하지 마십시오. 그러면 극성이 바뀌게 됩니다.
- 배터리의 양극 단자와 음극 단자를 금속 물체(전선 등)로 서로 연결하지 마십시오.
- 배터리를 목걸이, 머리핀 또는 기타 금속 물체와 함께 휴대하거나 보관하지 마십시오.
- 배터리를 손톱으로 흠집을 내거나, 망치로 두드리거나, 밟거나 강한 충격을 가하지 마십시오.
- 배터리에 직접 납땜하지 마십시오.
- 배터리를 물이나 바닷물 또는 높은 습도에 노출시키거나 젖지 않도록 하십시오.
- 배터리를 분해하거나 개조하지 마십시오. 배터리에는 안전 장치와 보호 장치가 포함되어 있고, 손상될 경우 배터리가 뜨거워지거나 폭발하거나 발화할 수 있습니다.
- 배터리 팩과 함께 제공되는 보호 회로 모듈은 차단 스위치의 대체품으로 사용되어서는 안 됩니다.
- 배터리를 화기 근처나 난로 위 또는 기타 고온이 발생하는 장소에 두지 마십시오.
- 배터리를 직사광선이 비치는 곳에 두거나 더운 날씨에 자동차 안에서 사용하거나 보관하지 마십시오. 그러면 배터리가 뜨거워지거나 폭발하거나 발화할 수 있습니다. 그러한 방식으로 배터리를 사용하면 성능이 저하되거나 예상 수명이 단축될 수 있습니다.
- 배터리를 다 쓴 후에 폐기하기 전에 단자를 접착 테이프 또는 이와 유사한 비전도성 재료로 절연 처리하십시오.
- 배터리를 사용, 충전하거나 보관하고 있는 동안, 배터리에서 이상한 냄새가 나거나 뜨거워지거나 색이나 모양이 변하거나 기타 비정상적인 상태를 보이면 즉시 사용을 중단하십시오.
- 전자레인지, 고압 용기 또는 인덕션 조리기구에 배터리를 넣지 마십시오.
- 배터리를 어린이의 손이 닿지 않는 곳에 두십시오.
- 배터리를 보관하거나 운반하기 전에 항상 분리하십시오.
- 항상 가연성 또는 부식성 물질이 없는 밀폐된 방염 용기 안에 배터리를 보관하십시오.



경고!

배터리가 새어나와 액체가 눈에 들어가면 눈을 문지르지 마십시오.물로 잘 씻은 다음 즉시 병원으로 가십시오. 치료하지 않고 그대로 두면 배터리 액체로 인해 눈이 손상될 수 있습니다.



경고!

기기에 비정상적인 전류가 흐를 경우, 배터리가 뜨거워지거나 폭발하거나 발화되어 심각한 부상을 입을 수 있습니다.

충전기 유형

이 배터리는 HME/Clear-Com 권장 충전기로만 충전해야 합니다. 다른 유형의 충전기를 사용할 경우 폭발 위험이 있으며 화재나 화상을 입을 수 있습니다. HME/Clear-Com 배터리용 충전기를 다른 형태의 배터리에도 사용할 수 있다고 가정하지 마십시오.

배터리 충전

배터리를 충전하는 동안 아래 명시된 경고를 따르십시오. 그렇지 않으면 배터리가 뜨거워지거나 폭발하거나 발화되어 심각한 부상을 입을 수 있습니다.

- HME/Clear-Com 사용 설명서의 충전 지침에 나오는 대로 충전되지 않으면 배터리를 계속 충전하지 마십시오.
- 배터리를 외부 충전기, 전원 플러그 또는 자동차의 시가ライター에 직접 연결하지 마십시오.
- 충전하기 전과 충전한 후에 항상 배터리를 육안으로 점검하십시오.
- 방전 사이클을 거친 후 배터리를 충전하기 전에 항상 안전한 주변 온도에 맞게 식히십시오.
- 가연성 물질이 있는 곳이나 근처에서 배터리를 충전하지 마십시오. 그러면 오작동이 발생할 경우 손상이나 부상 가능성을 최소화할 수 있습니다.

배터리 재활용

배터리의 수명이 다하면 유자격 재활용 업체나 위험 물질 취급업체를 통해 다 쓴 배터리를 폐기 처리해야 합니다. 이 배터리가 일반 쓰레기와 함께 섞이지 않도록 하십시오.

회사나 주거지에 배터리 재활용 프로그램이 없는 경우, 다음 URL로 이동하거나 브라우저에 URL을 복사하여 붙여넣고, 재활용 센터 목록의 우편번호를 입력하십시오: <http://earth911.com>



有毒有害物质或元素表

Table of Toxic and Hazardous Substances

部件名称 Names of Parts	有毒有害物质或元素 Toxic and Hazardous Substances or Elements					
	铅 Pb	镉 Cd	汞 Hg	六价铬 Cr6+	多溴联苯 PBB	多溴二苯醚 PBDE
BS210 基站 Top assembly BS210 (G28707-1A1)	X	O	O	O	O	O
基站电路板 Audio PCB (G28718-1)	X	O	O	O	O	O
收发器电路板 Front Panel PCB (G28729-1)	X	O	O	O	O	O
收发器电路板 XCVR PCB (G27739-4A1)	X	O	O	O	O	O
AC40 电池充电器 AC40 (G27368)	X	O	O	O	O	O
电源器 (453G008) CCC P/S	X	O	O	O	O	O
<p>O: 表示该有毒有害物质在该部件所有均质材料中的含量均在SJ/T11363-2006标准规定的限量要求以下。</p> <p>O: Indicates that this toxic or hazardous substance contained in all of the homogeneous materials for this part is below the limit requirements in SJ/T11363-2006</p> <p>X: 该有毒有害物质至少在该部件的某一均质材料中的含量超出SJ/T11363-2006标准规定的限量要求。</p>						

X: Indicates that this toxic or hazardous substance contained in at least one of the homogeneous materials used for this part is above the limit requirements in SJ/T11363-2006



有毒有害物质或元素表

Table of Toxic and Hazardous Substances

部件名称 Names of Parts	有毒有害物质或元素 Toxic and Hazardous Substances or Elements					
	铅 Pb	镉 Cd	汞 Hg	六价铬 Cr6+	多溴联苯 PBB	多溴二苯醚 PBDE
BP210 对讲机 Top Assembly BP210 (G27830-1A1)	X	O	O	O	O	O
对讲机电路板 XCVR PCB (G27560-1H1)	X	O	O	O	O	O
HS15 耳机 HS15/D Headset (306G100-1 /306G101-1)	X	O	O	O	O	O
对讲机套 Pouch (107G065)	O	O	O	O	O	O
电池 Battery (104034)	O	O	O	O	O	O
<p>O: 表示该有毒有害物质在该部件所有均质材料中的含量均在SJ/T11363-2006标准规定的限量要求以下。</p> <p>O: Indicates that this toxic or hazardous substance contained in all of the homogeneous materials for this part is below the limit requirements in SJ/T11363-2006</p> <p>X: 该有毒有害物质至少在该部件的某一均质材料中的含量超出SJ/T11363-2006标准规定的限量要求。</p> <p>X: Indicates that this toxic or hazardous substance contained in at least one of the homogeneous materials used for this part is above the limit requirements in SJ/T11363-2006</p>						



表的有毒有害物质

Table of Toxic and Hazardous Substances

部件名称 Names of Parts	有毒有害物质或元素 Toxic and Hazardous Substances or Elements					
	铅 Pb	镉 Cd	汞 Hg	六价铬 Cr6+	多溴联苯 PBB	多溴二苯醚 PBDE
WH220 头戴式耳麦 Top Assembly WH220 (G28741-1Z1)	X	O	O	O	O	O
耳机电路板 PCB (G28055-1F1)	X	O	O	O	O	O
电池 Battery (104034)	O	O	O	O	O	O
<p>O: 表示该有毒有害物质在该部件所有均质材料中的含量均在SJ/T11363-2006标准规定的限量要求以下。</p> <p>O: Indicates that this toxic or hazardous substance contained in all of the homogeneous materials for this part is below the limit requirements in SJ/T11363-2006</p> <p>X: 该有毒有害物质至少在该部件的某一均质材料中的含量超出SJ/T11363-2006标准规定的限量要求。</p> <p>X: Indicates that this toxic or hazardous substance contained in at least one of the homogeneous materials used for this part is above the limit requirements in SJ/T11363-2006</p>						