# CONCERT XD2

## TWO-CHANNEL
## DIGITAL WIRELESS SYSTEM

**OWNER'S MANUAL**

**SAMSON**®

# Important Safety Information

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at the plugs, convenience receptacles, and at the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug the apparatus during lightening storms, or when unused for long periods of time.
14. Refer all servicing to qualified personnel. Service is required when the apparatus has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
15. This appliance shall not be exposed to dripping or splashing water and that no object filled with liquid such as vases shall be placed on the apparatus.
16. Caution-to prevent electrical shock, match wide blade plug wide slot fully insert.
17. Please keep a good ventilation environment around the entire unit.
18. The direct plug-in adapter is used as disconnect device, the disconnect device shall remain readily operable.
19. Batteries (battery pack or batteries installed) shall not be exposed to excessive heat such as sunshine, fire or the like.

If you want to dispose this product, do not mix it with general household waste. There is a separate collection system for used electronic products in accordance with legislation that requires proper treatment, recovery and recycling.
Private household in the 27 member states of the EU, in Switzerland and Norway may return their used electronic products free of charge to designated collection facilities or to a retailer (if you purchase a similar new one).
For Countries not mentioned above, please contact your local authorities for a correct method of disposal.
By doing so you will ensure that your disposed product undergoes the necessary treatment, recovery and recycling and thus prevent potential negative effects on the environment and human health.

# Important Safety Information

**FCC Rules and Regulations**

Samson wireless receivers are certified under FCC Rules part 15 and transmitters are certified under FCC Rules part 74. Licensing of Samson equipment is the user's responsibility and licensability depends on the user's classification, application and frequency selected.

This device complies with Part 15 of the FCC rules Class B and RSS-210 of Industry & Science Canada.

Operation is subject to the following two conditions:

(1) This device must not cause harmful interference, and

(2) This device must accept any interference received including interference that may cause undesired operation. Suitable for home or office use.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

• Reorient or relocate the receiving antenna.

• Increase the separation between the equipment and receiver.

• Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

• Consult the dealer or an experienced Radio/TV technician for help.

WARNING: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.


This equipment is intended for use in wireless microphone applications.

Equipment is intended for sale in: AT, BE, CH, CY, CZ*, DK, EE, FI*, FR*, DE*, GR*, HU, IE, IS, IT, LV, LT*, LU, MT*, NL, NO*, PL* PT, RO, SK, SI, ES, SE, UK

*Subject to license. Please contact your national frequency authority for information on available legal use in your area. Any changes or modifications not expressly approved by Samson Technologies Corp. could void your authority to operate the equipment.

Hereby, Samson Technologies Corp., declares that this CRXD2 and CHXD2/CBXD2 is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU.

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# Introduction

The Concert XD2 system provides a bullet-proof, reliable wireless performance at any venue around the globe.

In these pages, you'll find a detailed description of the features of the Concert XD2 Wireless System, as well as step-by-step instructions for its setup and use. If your wireless system was purchased in the United States, you'll also find a registration card enclosed—don't forget to follow the instructions so that you can receive online technical support and so that we can send you updated information about this and other Samson products in the future. Also, be sure to check out our website www.samsontech.com for complete information about our full product line.

We recommend you keep the following records for reference, as well as a copy of your sales receipt:

Receiver Serial number: _____

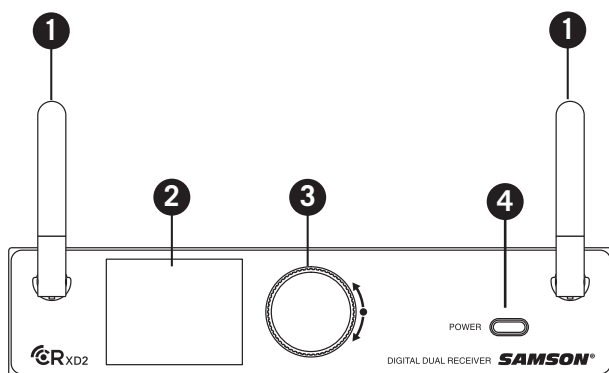Transmitter Serial numbers: _____

Date of purchase: _____

If you have any questions or comments regarding the Concert XD2 Wireless System or any other products from Samson, do no hesitate to contact us at **support@samsontech.com**.
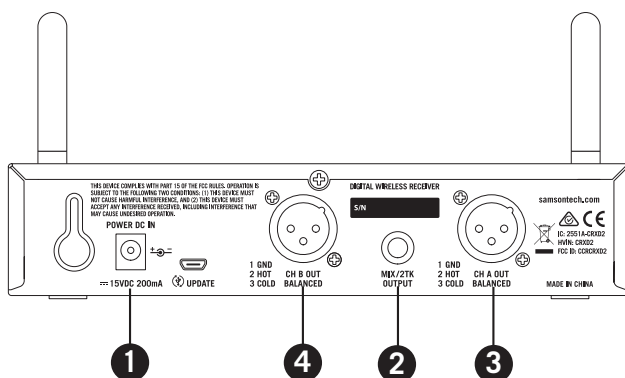
With proper care and maintenance, your Concert XD2 System will operate trouble-free for many years. Should your Concert XD2 ever require servicing, a Return Authorization (RA) number must be obtained before shipping your unit to Samson. Without this number, the unit will not be accepted. Please visit **www.samsontech.com/ra** for an RA number prior to shipping your unit. Please retain the original packing materials and, if possible, return the unit in its original carton. If your Concert XD2 Wireless System was purchased outside of the United States, contact your local distributor for warranty details and service information.
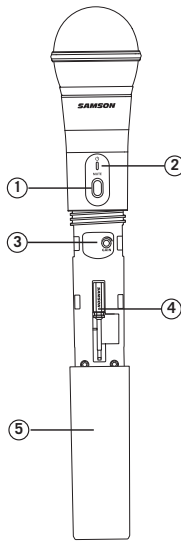
# CRXD2 Receiver Features



1. **Antennas -** The antenna mountings allow full rotation for optimum placement. Antenna orientation depends on user application, room reflections, and so on. Samson suggests that the antenna be placed at a 45 degree angle, or straight up and down. Both antennas can be folded inward for convenience when transporting the CRXD2 Receiver.

2. **LCD Screen -** Displays operating condition of CRXD2, menus, and other functions.

3. **Multifunction Control, volume and edit/select -** This is an endless encoder with push button. In default condition rotating the knob clockwise will increase CRXD2's volume, while rotating counter-clockwise will reduce the volume. Pushing the knob in will access the menu options/edit mode.

4. **Power Button -** Push and hold for 2 seconds to power the CRXD2. Quick press will turn power off.

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# CRXD2 Receiver Features Rear Panel



1. **DC Input -** Connect the supplied power adapter here.
   WARNING: Do not substitute any other kind of power adapter. Doing so can cause severe damage to the CRXD2 and will void your warranty.

2. **MIXED/2TK OUTPUT -** Use this TRS 1/4" unbalanced jack when connecting the CRXD2 to consumer (-10 dBV) audio equipment. Depending on your application, this output can be be mixed to mono (CH A + CH B) in the menu. Wiring is as follows: tip = CH A, ring = CH B, sleeve = ground.

3. **CH A OUT BALANCED -** Use this electronically balanced *low impedance (600 Ohm)* XLR jack when connecting the CRXD2 to professional (+4 dBu) audio equipment. Wiring is as follows: Pin 1 = ground, Pin 2 = hot, and Pin 3 = cold.

4. **CH B OUT BALANCED -** Use this electronically balanced *low impedance (600 Ohm)* XLR jack when connecting the CRXD2 to professional (+4 dBu) audio equipment. Wiring is as follows: Pin 1 = ground, Pin 2 = hot, and Pin 3 = cold.
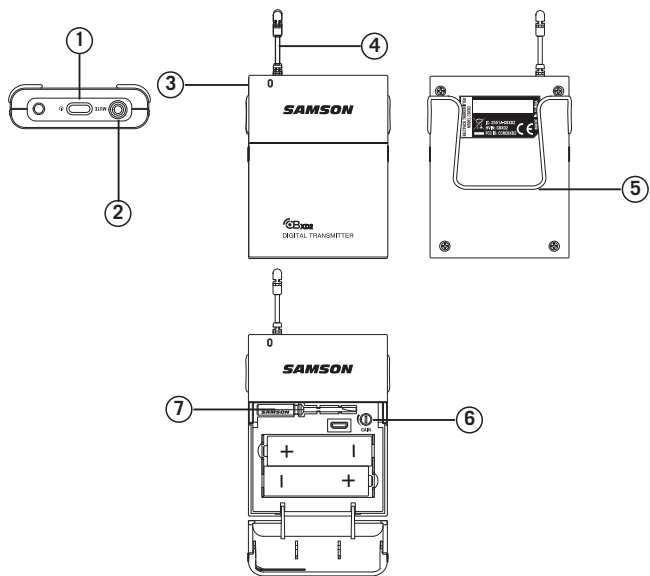
# CHXD2 Handheld Transmitter Callouts



1. **Power/Mute Button -** Press, hold to turn the unit on. A quick press and release will mute or un-mute the transmitter (when the transmitter is on). Press and hold for 2 seconds to power off. NOTE - Transmitters are paired at the factory. Should you need to pair again, press and hold (for more than 5 seconds) to enter pairing mode (quick flashing red LED, followed by quick flashing amber LED). NOTE - default state after pairing is MUTE (red LED).

2. **Status Indicator -** This LED displays the operating condition of the transmitter. The chart below defines the LED colors for each function.

| Solid GREEN | Paired/Normal |
|---|---|
| Quick Flashing RED to AMBER | Pairing |
| Slow Flashing RED | Low Battery |
| Solid RED | Mute |

3. **Input GAIN Control -** This control adjusts the input sensitivity. Default setting from the factory is 12 o'clock. Should you feel that your voice sounds too soft when speaking into the handheld microphone turn the control clockwise (using the supplied screwdriver) until an adequate level is reached (before the sound becomes distorted). If you have a strong voice that is distorting the input turn the control counter-clockwise (using the supplied screwdriver) slowly unitl your voice sounds clear (no distortion).

4. **Screwdriver -** Designed for adjusting the GAIN control in the CHXD2 transmitter.

5. **Battery Cover -** Unscrew this cover to access the CHXD2's battery compartment.

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# CBXD2 Beltpack Transmitter Callouts



1. **Power/Mute Button** - Press, hold to turn the unit on. A quick press and release will mute or un-mute the transmitter (when the transmitter is on). Press and hold for 2 seconds to power off. NOTE - Transmitters are paired at the factory. Should you need to pair again, press and hold (for more than 2 seconds) to enter pairing mode (quick flashing red LED, followed by quick flashing amber LED). Pairing signal transmits from CBXD2 LED to/from the CRXD2 LCD screen.

2. **Input Connector -** 1/8" (3.5 mm) input jack for LM10 lavalier microphone.

3. **Status Indicator -** This LED displays the operating condition of the transmitter. The chart to the right of this page defines the LED colors for each function.

4. **Antenna -** Permanently attached antenna, should be fully extended at all times for optimal performance.

5. **Belt Clip -** Use this clip to affix the CBXD2 to your belt, or elsewhere on your person as the application sees fit.

| Solid GREEN | Paired/Normal |
|---|---|
| Quick Flashing RED to AMBER | Pairing |
| Slow Flashing RED | Low Battery |
| Solid RED | Mute |

6. **Input GAIN Control -** This control adjusts the input sensitivity. Default setting from the factory is 12 o'clock. Should you feel that your voice sounds too soft when speaking into the LM10 lapel microphone turn the control clockwise (using the supplied screwdriver) until an adequate level is reached (before the sound becomes distorted). If you have a strong voice that is distorting the input turn the control counter-clockwise (using the supplied screwdriver) slowly unitl your voice sounds clear (no distortion).

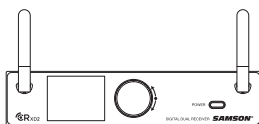7. **Screwdriver -** Designed for adjusting the GAIN control in the CBXD2 transmitter.
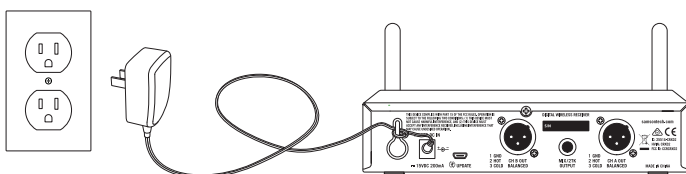
# Quick Start

In order for your wireless system to work correctly, both receiver and transmitter must be paired. NOTE: factory sealed product will be delivered with both transmitters and receiver pre-paired.

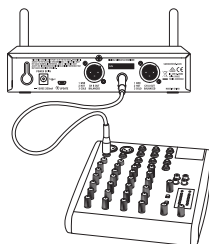Follow this basic procedure for setting up your Concert XD2 wireless system:

1. Physically place the CRXD2 receiver where it will be used, and extend the antennas vertically or at 45 degree angle (NOTE - check #1 on page 6). The general rule of thumb is to maintain "line of sight" between the receiver and transmitter so that the person using or wearing the transmitter can see the receiver.
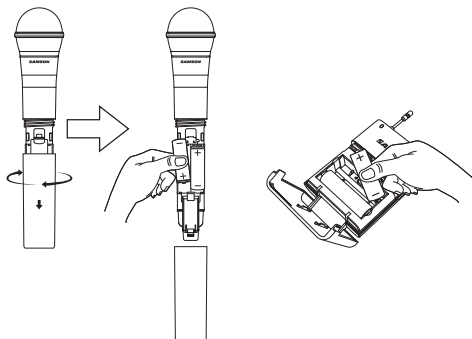


2. With the CRXD2 powered off, connect the power adapter. NOTE - default condition of receiver will be "on" when the power adapter is plugged into a wall outlet. This is normal operation.



3. With your amplifier or mixer off and volume control all the way down, connect the CRXD2 receiver output jack to the mic or line level input of a mixer or amplifier using the balanced XLR output or unbalanced 1/4" line level outputs. Press and hold (2 seconds) the CRXD2's power button to turn its power on to confirm it is receiving power, then press again to power down.
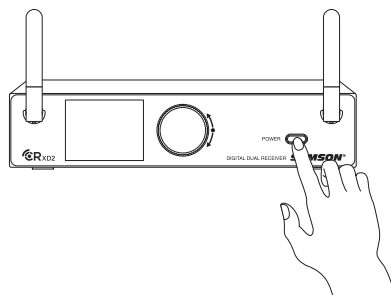


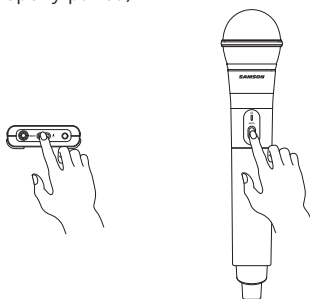4. Install two brand new "AA" batteries into your CHXD2 (or CBXD2).

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# Quick Start

**5.**   Power on the CRXD2 receiver.



**6.**   Turn on the power to the CHXD2 transmitter by pressing and holding the power/mute button; the indicator LED will light YELLOW, then changes to GREEN when the power/ mute button is released (if properly paired).



**7.**   Turn on your connected amplifier or mixer, but keep the volume all the way down. Speak or sing into the microphone at normal performance level. Slowly raise the volume of your amplifier or mixer until the desired volume level is reached.

# Pairing with CRXD2 Receiver

Follow the procedure as described below to pair CHXD2 or CBXD2 transmitters with a CRXD2 receiver.

1. Push the rotary encoder (MENU) in to enter and adjust menu options.

2. Highlight the "CHANNEL A" or "CHANNEL B", and push the button to select.

3. LCD screen will display "...pairing".

4. Turn on the power to the CHXD2 (or CBXD2) transmitter, then press and hold for >3 seconds - LED will change from quick flashing RED to quick flashing AMBER to indicate the TX is in pairing mode.

5. If pairing was successful, the display for CHANNEL A or CHANNEL B will display RF, AF, and battery level of the transmitter.

6. If pairing was not successful, the display will say "NOT CONNECTED".

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# CRXD2 Receiver Menu Features

The CRXD2's menu is intuitive and easy to navigate. A simple push of the MENU button will access the features detailed below.

1. Push the rotary encoder (MENU) in to enter and adjust menu options.

2. Rotate the MENU knob clockwise to scroll through features.

3. A simple push of the MENU knob will access the highlighted feature/function.

4. In addition to pairing function (explained on the prior page) the MENU allows you to adjust the volume level of each receiver (CHANNEL A and B) independent of each other. NOTE - the default state of the rotary control is master volume, of both CHANNEL A and B.

5. MIX and 2 CH modes - this helps with signal routing, depending on your mixer's input options you can use two individual XLR (one for A and one for B) or change to MIX and use the unbalanced 1/4" output (meaning, both CHANNEL A and CHANNEL B on one audio output jack).

# Specifications

**System**

| | |
|---|---|
| Working Range | 300' (100m) line of sight |
| RF Frequency Range | |
| | EU: 1881.792~1897.344 MHz |
| | US: 1921.536~1928.448 MHz |
| | JP: 1895.616-1904.256 MHz |
| Audio Sampling Rate | 48 kHz |
| Audio Frequency Response | ±1 dB from 20 Hz - 21 kHz |
| System Latency | 7.7 ms |

**CHXD2 Transmitter**

| | |
|---|---|
| Microphone Element | Q8 Dynamic |
| Audio THD | -74 dB (0.02%) |
| RF Power | 20dBm (FCC) 23dBm (RED) |
| Power Requirements | Two AA batteries |
| | NiMH or Alkaline |
| Battery Life | >8 hours |
| Dimensions (HxØ) | 10.23" x 2.1" |
| | 260mm x 54mm |
| Weight | 0.60lb/274g |

**CBXD2 Transmitter**

| | |
|---|---|
| Input Connector | 1/8" (3.5mm) |
| Input Impedance | 4.5 kΩ |
| Audio THD | -80 dB (0.01%) |
| RF Power | 20dBm (FCC) 23dBm (RED) |
| Power Requirements | Two AA batteries |
| | NiMH or Alkaline |
| Battery Life | >8 hours |
| Dimensions (LxWxH) | 3.34" x 2.55" .74" |
| | 85mm x 65mm x 19mm |
| Weight | 0.27lb/123.5g |

**CRXD2 Receiver**

Audio Output Level

| | |
|---|---|
| 1/4" (6.3mm) TRS jack (unbalanced) | +12dBu |
| XLR jack (balanced) | +9dBu |

Audio Output Impedance

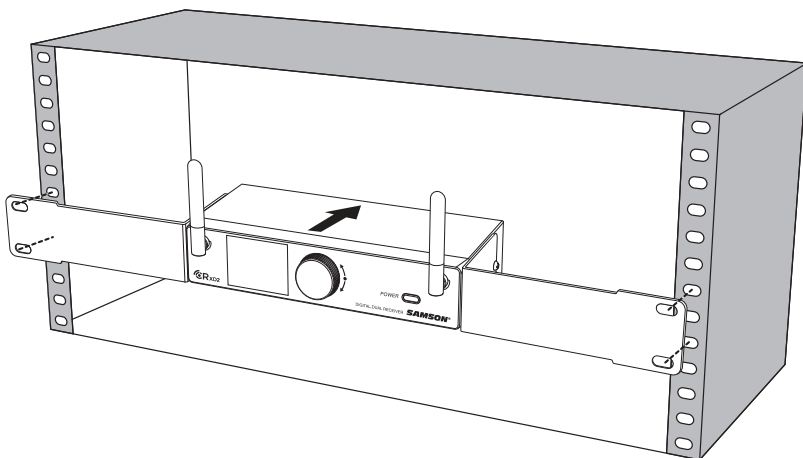| | |
|---|---|
| 1/4" (6.3mm) TRS jack (unbalanced) | 100 Ω |
| XLR output jack (balanced) | 317 Ω |
| Dimensions (LxWxH) | 7.79" x 3.38" x 1.69" |
| | 198mm x 86mm x 43mm |
| Weight | 1.12lb/509.5g |

*At Samson, we are continually improving our products.*
*Specifications and images are subject to change without notice.*

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# Rack Mounting

The CRXD2 can be mounted into a standard 19" rack mount system, for portable PA or permanent installation using the provided mounting brackets and hardware. One CRXD2 will occupy a standard 1U rack space.
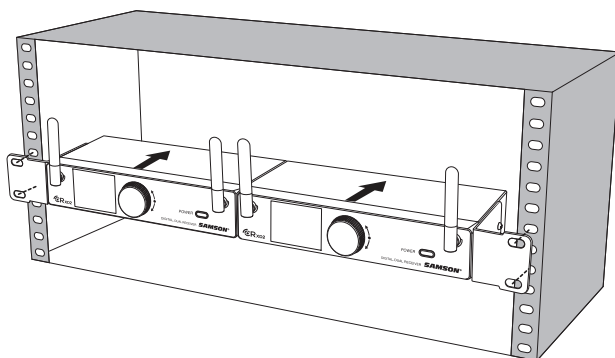
As with all wireless devices, be mindful of the CRXD's proximity to other equipment (such as rack effect units and mixers that may radiate RF, having a negative impact on wireless performance).

Attach the rack brackets ("rack ears") to the sides of the CRXD2 receiver with the provided mounting screws.



Mount the receiver into the rack using the appropriate size rack screws (not included). To ensure equal tension and balance when installing the receiver, you should secure screws in a crisscross pattern of opposite corners: top left -> bottom right -> top right -> bottom left.

In order to mount two CRXD2 receivers in one rack space, the system requires a joining plate and short rack brackets (rack ears). These are available directly from Samson, or you can order from your local authorized Samson reseller. above.

**Having Trouble with your Concert XD2 Wireless System?**
**We can help!**



**CONTACT OUR SUPPORT TEAM: support@samsontech.com**
**Our experts can help you resolve any issues.**

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