

X100DR[®]

LIBERATE YOUR MOBILE RADIO



User Manual

 WIRELESS PACIFIC[™]

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Low Radiation Levels

This product is designed to radiate low levels of radio energy in accordance with global government approved regulatory standards. It features Adaptive Power Output. APO automatically adjusts the RF power output in accordance with signal required. This feature limits and reduces extraneous radiated radio energy. This also helps minimize battery consumption and extends battery shift life.

Compared to a regular hand held portable radio an X10DR device transmits 95% less RF energy from its antenna.

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Nomenclature

Product Name

X10DR - - 2

SM = Secure Microphone Handset

MD = Mobile Gateway Charger

E = Elite Series Model

P = Pro Series Model

U = Standard Model

X = Advanced AES 128 Model

Parts and functions

Secure Wireless Microphone



Gateway Mobile Charger



Gateway base view



Products not shown to size - for illustrative purposes only

Description

Volume up: Adjusts speaker audio louder.

Volume down: Adjusts speaker audio softer - minimum setting.

Microphone: Talk in a normal strength voice about 1 to 2cm (<1") from microphone port- always talk in a normal level voice.

PTT: Press to talk - May be programmed for 3 quick beeps when pressed*.
- When out of range the unit will sound a slow beeping tone alert.

Emergency: A quick beep sounds when pressed* and then triggers host radio's emergency function. Hold down button as per mobile radio's emergency button operating instructions or as advised by your supplier - When out of range the unit will sound a slow beeping tone alert when the button is pressed to indicate your message has not been sent.

Control: Can be configured as Talkaround button or Secondary PTT button on dual control installations. Quick pips will sound when pressed. When out of range the unit will sound a slow beeping tone alert when the button is pressed. Double press to enable Handsfree on Elite with XHFO option.

Manual Off/On: Hold for 2 seconds to turn on/off. The handset will sound various intuitive tones to advise status.

DC charging: Handset beeps to notify correct seating when first placed in gateway for charging. The Status LED may momentarily blink every 10 seconds also to indicate "charging" status. Constant blue means charged.

Headset connector: Use with X10DR headsets/accessories** fitted with Hirose HR10 series connectors. (See page 20)

Earpiece jack: Allows private listening via 3.5mm earpieces** while muting the speaker. (See page 20)

Speaker: Delivers received speaker audio - Normally will automatically mute when inserted into gateway or a charger.*

Status light: Glows blue* when fully operational. Flashes when "out of range" or when its paired unit is off.

Antenna Connector: Allows connection of long range external antenna or replacement of short range internal type.

Function Button: Used for manual Off/On, Find Me™ or as master reset to erase current device pairing.

3.5mm jack- PA Audio Out: Provides up to 8W RMS @ 8 ohms for in-vehicle monitor or use as a PA system. The Control button can be used to broadcast public address through attached speaker when configured.

*See User Manual installation section for configurations. Some tones can be enabled/disabled by programming or user selection.

**Buy separately as needed.

Note: Product contains Neodymium, rare earth magnets, Keep away from credit cards or like items, that can be damaged by strong magnetic fields.

Introduction

Thankyou for choosing the revolutionary X10DR ("ex-ten-der") Secure Wireless Microphone. This remarkably compact, lightweight personal handset accessory extends the power of the mobile radio to the palm of your hand, whether in or out of the vehicle. X10DR re-defines mobile network design by increasing user functionality and mobility whilst dramatically improving the effectiveness of your infrastructure investment. This visionary solution provides users out of vehicle communications with the power and performance of their mobile radio.

X10DR cuts the cord and puts the microphone and radio system access into the palm of your hand when away from the vehicle, delivering true mobility without system compromise. Users can feel totally confident their private communications are kept secure with up to AES128 encryption (model dependent) functionality. X10DR uniquely incorporates HLC™ "Hard Line Coding" connection protocol that virtually eliminates any possibility of outside intrusion between the X10DR and your vehicle's mobile. When the mission is critical, X10DR delivers.

X10DR unleashes the power of your mobile radio allowing wireless communication up to 500 meters or more* with a fixed located or a vehicle mounted radio. Our EVR2™ enhanced voice resilience audio ensures users can communicate with clean clear audio, with the power and range of their mobile radio, whilst not being tied to the vehicle, allowing the user to be truly mobile in every operational environment. This ability to now communicate whilst outside your vehicle significantly enhances a safer and more secure work environment for everyone who carries an X10DR Secure Wireless Microphone.

How it works



Wearing the X10DR Secure Mic

Note: Your X10DR will perform best when worn with the antenna protruding above your shoulder. Different types of carry clips are available.

XLMC Long mount clip

(default) Replacement part No: XLMC-RK

This general purpose type features a strong large spring belt clip which allows the X10DR Secure Wireless Microphone to be securely clipped to all types of industrial work vests, jackets, leather clothing, thick epaulettes and winter clothing etc.



**Wear on your shoulder
for best performance**

XSMC Short mount clip

Replacement part No: XSMC-RK

Designed for electrical utilities working amongst high tension power lines. Except for minimal metal components, it features all polymer parts to prevent high voltage spark leakage while allowing the X10DR Microphone to be safely clipped to lightweight safety vests, work attire, uniforms and epaulettes, etc.

XVMC Velcro® mount clip

Replacement part No: XVMC-RK

The Velcro mount type features a Velcro "hook" disc on the back of the microphone. A matching supplied Velcro "loop" patch should be ideally sewn or pinned to the users work attire/ vest in the shoulder area to allow the antenna to protrude above.

Gateway Securing

Rare earth magnets securely hold the handset into the gateway mobile charging cradle when not being worn.



XLMC Back Cover



XSMC Back Cover



XVMC Back Cover



Up to 500 meters and more

Basic Operation

Power On & Off

The X10DR will power off & on in sync with the host mobile radio or by a manual switch fitted by your installation mechanic (see Pg 18). You can manually turn off the gateway mobile charger by pressing the front grey button for 2 seconds and the blue LED will extinguish. You can do the same on the handset by pressing the red side button. The handset will sound a de-escalating tone. To power on, do the same, releasing the button once the handset sounds an escalating tone. The blue LED on both units will flash momentarily and then go solid once they're connected. (if not, refer Device Pairing pg 15)

Volume Control

When you first activate the unit you should first adjust the handset volume to a comfortable listening level. You may adjust the volume by pressing the top blue button to increase or the bottom to decrease. There are 7 listening levels. The minimum level is normally* not zero so you can still quietly hear radio traffic without inadvertently turning off all audio. *A programmable option allows the minimum level to be set to "audio off".

Transmitting/Receiving

Use like any two way radio speaker microphone, i.e. press the large PTT button to talk and release to listen. Speak with a normal strong clear voice about 1-2cm (<1") from the microphone port. Do not yell as this causes loss of clarity.

Handsfree (Elite Model - Factory Option)

Factory fitted Elite X10DRs can be configured so that multiple handsets can communicate locally, "off-net" in Handsfree full duplex talkaround. Use of an earpiece or a headset is recommended for optimum audio performance although in many cases it is not necessary. To enable Handsfree mode double press* the Control (talkaround) button, the handset LED will change to a purple colour and a unique tone will sound followed every 30 seconds with a reminder tone. To reset simply press Talkaround button again. See page 15 for more details.* See XFPK Programmer for alternative activation.

Talkaround

Your X10DR can be configured so that multiple X10DR devices can be connected to the one mobile radio. Press the Control (Talkaround) button to talk to other users X10DR users without the audio being transmitted over the main radio channel whilst continuing to be able to monitor all communications over the main radio system.

Control - Secondary PTT

In some applications your X10DR may be connected to two mobile radios, or a mobile radio and a satellite link or perhaps your vehicle's Public Address systems. In these situations the Control button can be used as a secondary PTT button to communicate over the secondary device rather than for talkaround.

Talk Permit tones

X10DR can provide talk permit tones* so users know when to start speaking so that words are not lost at the start of a transmission. The tones can be enabled individually, 3 short chirps when you press the main PTT, 2 chirps for Secondary or Talkaround PTT. If you are out of range of your vehicle, the user will hear the X10DR's Out of Range tone if the buttons are pressed.

Out of Range Indication

If you walk out of range the blue status LED will flash to visually indicate you have lost connection with your vehicle. If you then push the PTT an alert tone will sound to let you know your call is not getting through. Pressing the Talkaround function or Emergency button when "out of range" will provide a similar indication. Depending on your location, you may find you need to walk back several meters closer to your vehicle to re-connect and the blue status light will then glow solid again. Additionally, on **Elite Models** an "out of range" status can be indicated via the gateway interface to allow other devices to remotely monitor whether the user is within range of their vehicle or not. This system feature is usually used with a XSJB or other Smart Junction Box.

Charging Confirmation Tone

X10DR provides the user with a discreet tone whenever the X10DR handset is returned to the charging cradle. This alert ensures the user has a positive indication that the X10DR handset is charging and seated correctly in the cradle. The X10DR handset's blue LED will momentarily blink every 10 seconds while charging inside the gateway cradle. The LED remains constant once fully charged.

Emergency

The emergency button can be used to trigger and reset the emergency function on a suitably equipped mobile radio. It can be programmed so that the time you hold the button is the time your mobile radio registers the emergency command. So if your radio requires you to hold the front panel emergency button for 2 secs, then you should hold the Wireless Microphone emergency button for 2 seconds. A short beep* will sound when the emergency (orange) button is pressed.

Advanced Emergency Operation (Elite Models only)

X10DR Elite models provide additional emergency signalling capability including sending alert tones locally to other units in multi-unit installations as well as over the network with or without optional Live Mic. Live Mic sends a user's Mic audio for a pre-programmed duration with higher audio gain so others monitoring can ascertain the nature of the emergency. This is followed by a receive wait time before repeating the cycle. Additionally, an external input wired to the Gateway emergency pin will cause it to send an alarm tone to the users. Emergency can be reset by pressing the emergency button for two seconds.

Earpiece Operation

X10DR provides the user with a 3.5mm earpiece jack to allow use of a range of earpiece styles to suit individual user preferences while ensuring call privacy. Plugging in an earpiece disables the internal loudspeaker. Note: Elite/Pro models are not waterproof/weatherproof should the protective cap be removed or if damaged.

Find Me™

X10DR's Find Me feature allows a lost unit or its user to be audibly located by sounding a loud continuous alert tone in the handset. To activate double press the gateway function button. A loud alert tone will start to sound from the handset speaker*. It can be deactivated by the user momentarily pressing any button on the handset or at the vehicle by momentarily pressing the gateway's function button. Note if the handset is out of range it will immediately sound the alert tone once it reconnects to the gateway. Find Me can be enabled/disabled by XFPK field programmer. *A standard volume tone will sound from headset speaker only if one is connected and **not** from the Handset speaker.

Radio Off Alert

Should the attached host mobile radio or gateway be turned off for any reason, the user will be alerted whenever the handset is removed from the gateway cradle, with an "out of range" tone. This automatic alerting ensures users know immediately their mobile radio has been deactivated.

Stealth Mode

For special applications the Blue LED on the front of the handset can be temporarily disabled along with all audible alert tones. This is achieved by holding down the VOLUME UP/DOWN (both) while powering up the handset. To turn the LED back on, simply power down and power back up. The feature may be of particular use to "Law Enforcement Users" who may prudently prefer in some situations to not be walking around at night with a blue light glowing on their shoulder. Alternatively, Stealth mode can be permanently enabled via re-programming the X10DR handset.

Accessory Mic Boost

Users can choose to increase the internal or external accessory's microphone sensitivity to cater for user sensitivity requirements or variations in headset manufacturer's specifications. To activate the higher sensitivity, the X10DR's blue VOLUME UP button should be held down while powering up. The user will thereafter hear 2 short confirmation beeps at the end of each start up tone sequence. To revert to standard operation, the handset should be powered up with the VOLUME DOWN blue button pressed.

NOTE: The default sensitivity can be adjusted using the XPK Field Programmer.

Remote Monitor (Elite Models only)

A unique input is provided on Elite series X10DR installations which allows that users audio to be remotely activated. The activation may be from a manual switch installed in the vehicle (supplied by others) or it may connect to a mobile radio suitably equipped to allow a despatcher to remotely send a command to the users vehicle mobile that can be used in turn to activate the remote monitor function. Depending on the specific application a XSJB special function may be required.

Public Address /In-Car Monitor (Elite Models only)

The X10DR Elite model provides a powerful 8 watt RMS audio output that can be used with an *optional* external speaker, to allow a Secure Mic user's transmissions to be audibly monitored in the vehicle when away from the vehicle or to allow public address. Press buttons on the base of the gateway allows the audio volume to be adjusted up or down. Speaker connection is via a 3.5mm mono socket in the base of the gateway.

In-out of cradle remote sensing (Elite Models only)

The Elite gateway cradle provides an externally accessible indication of when the handset is in the gateway cradle or not. This can be used for automatic enabling of functions such as lone worker or other remote electronic devices. A XSJB is usually used with this feature.

Multiple X10DR System Operation

Multiple X10DR gateways may be connected to one radio device by use of the optional XDIA/XJB/XJB-DCI etc junction box accessories. Operation is identical to single user operation with the added benefit that, each party also hears each other talk when they transmit. This functionality is ideal for police: where two officers are assigned to a patrol van, or ambulance: where 3 paramedics can communicate at a scene as well as with their control room. It is also ideal for office use allowing a number of personnel to access a local base or control station or remote control console while moving around a building, shop or warehouse. Note: communication between X10DR users is always routed back through their respective gateway mobile chargers and not directly between units. Ask your dealer for more information on this unique and highly regarded operational capability. Elite Users see also the following related feature.

Multiple Handset - Single Gateway Operation (Elite models only)

The new 2018 Elite models can support up to three handsets simultaneously accessing the mobile radio via one gateway. This unique capability allows for more seamless connectivity and means that only one external antenna is necessary to communicate with all handsets when away from the vehicle. Each handset can transmit and receive over the host mobile while also monitoring each others communications traffic. All users are free to communicate locally "off-net" in talkaround mode, when that makes operational sense. When XHFO Handsfree has been factory ordered, then handsets can communicate locally between each other in full duplex mode - totally handsfree whenever the operators choose.
(see next page)

Covert Operation

The small size of the X10DR unit allow for its selective use in covert short range applications. The remote monitor PTT function means someone else can enable "listening" without the covert operative having to touch anything. Alternatively, they can be configured so you can also talk to them over the radio even when an operative is transmitting in local talkaround mode. Elite models provides AES128 encryption to ensure totally secure voice communications. To enhance its security it automatically updates its encryption key continuously throughout the day, making it operationally far more tactically secure than the highest top end AES256 portable radios, who generally only have their encryption keys changed monthly or less and whose transmissions are often broadcast over wide area networks and thus more accessible from a hostile attack.

Motorcycle Operation

The X10DR handset is especially suitable for motorcycle use. The 6 pin Hirose industrial connector allow easy connection to a helmet microphone and dual earpiece fit out. Making use of the handlebar PTT input, a bike can be configured so that, when the rider is on the bike and presses the handle bar PTT, their headset microphone audio is sent out over the radio. Off the bike but still wearing the helmet, the user can press the handset PTT to talk. Finally, if the user removes their helmet, they can unplug from the Hirose connector on the base of the unit and just use the handset like standard.

Headset Operation

(note headset warnings later in this manual)

X10DR provides the user with a IP67 rated waterproof Hirose HR10 audio port to allow use of a wide range of motorcycle headsets, industrial hearing protection heavy duty headsets besides a range of lightweight noise cancelling headsets and other traditional two way radio audio accessories to be connected to aid in achieving your communications objective in a clear and effective manner. Plugging in a headset or an earpiece disables the internal loudspeaker under all conditions.

Wireless Pacific Headsets



WPSHD



WPLWH-X10

WPPTT-X10



XMCH-C



WPMAD-X10



WPHFH-X10



XMCH-O



From April 2018, all Elite X10DR models now* feature the capability for up to three handsets to operate simultaneously from a single gateway connected to your host mobile radio.

This breakthrough capability effectively creates a totally license free, exclusive, AES secure, local talkaround virtual channel, where users can privately communicate amongst themselves while still being able to listen to all traffic on their vehicle's mobile radio and can respond with the press of the handset's PTT button. Additionally, users of the **same gateway** can talk back to another user even when that user is currently transmitting already, which may be significant when 3 users are active.

X10DR secure wireless gateways can be further teamed up to provide six or more user operation from a single mobile radio. A junction box interface passes both transmit and receive audio to each X10DR gateway ensuring each user hears both active parts of the communications sent over the host two way radio channel.

Pressing the handset's Talkaround button allows off-network local voice communications for up to one kilometer (~3300 feet) **between users** while always ensuring reception of all mobile radio traffic by every user.

* if unsure check with your dealer. Firmware available on www.X10DR.com to allow free upgrade



Handsfree Mode in Talkaround (Elite Model Factory Option)

The X10DR has been specifically designed for outside high noise environments and incorporates advanced noise and echo cancelling technology to significantly limit background noise making it suitable for handsfree duplex conversations.

Our handsfree mode allows users to communicate securely and privately **locally** on-site without the need to press to talk. Elite's handsfree mode can be in many cases used without additional external earpieces as long as handsets are not within close audible range of each other. Better operation requires use of a plug-in earpiece and locating the X10DR handset device on the user's shoulder, i.e. close to the users mouth for consistent performance. For best handsfree operation, we recommend use of noise cancelling headset with a boom microphone which can be located close to the users lips (but not too close otherwise a handsfree operator's breathing may be of annoyance to other listeners). The X10DR naturally provides programmable external microphone sensitivity so a wide selection of audio headset devices and operators can be supported.

When multiple gateways are connected to the one host mobile, handsfree by too many simultaneous multiple users may create confusion. In such cases we suggest the default operation be Press To Talk using Talkaround button, with only those users actually requiring hands-free being enabled. We suggest field trials to find the optimum audio settings and positioning of microphones for both clarity and operational effectiveness for your specific requirements.

Handsfree Configurations



Good



Better



Best

Battery - Charging

The X10DR handset should be charged overnight before initial use. Thereafter it may be left in the charger unit between calls, or may be worn all day and placed back at the end of the work day. The unit is designed to provide about 15-24 hours operation between charges even on the busiest radio channels. On quiet channels it may last up to 3-4 days. When the battery does start to go flat, a short beep will sound once every 2 minutes. It will then automatically power down after about 30 minutes. Subsequently, you should plan to re-charge the unit as soon as is practical once the chirps are heard.

A fully discharged battery will typically recharge in around 3-4 hours, or less if only partially discharged. The battery will re-charge even if the mobile charger unit has been turned off. The microphone's blue status light will indicate charging by a momentary blink every 10 seconds. When fully charged the blue LED will remain solid.

Recharging:

Simply place handset into pocket. X10DR will beep to show correct placement. Charging will commence.

NB: do not allow debris to fill the pocket as it may prevent the microphone from making contact with the charging pins. Keep all liquids well away from the charging cradle at all times.

End of Battery Life

When you notice the X10DR sounding a small chirp every five minutes, it indicates the battery is nearly flat and should be re-charged. The unit will self power down when voltage drops to the minimum level. When you notice this occurring far more often than usual, it may mean it is time for the battery to be replaced.

Like all re-chargeable products, periodic replacement of the internal battery is required. The handset features a high capacity Lithium Ion battery. To maximize the life of a Lithium battery it is better to keep it topped up by returning it to the charger often rather than waiting for it to first go flat - which was the opposite case with older nickel based batteries. Typically you can expect to get about 500 complete re-charge cycles before requiring replacement. Your dealer can arrange replacements.



IMPORTANT

Audio adjustments See the **Service Section** for use of the field programmer. Typically the X10DR's default audio levels settings are suitable for a variety of today's professional mobile radios, when used with the Wireless Pacific model specific XCA series X10DR cable adaptors. However we would suggest when first installing your X10DR system you may need to adjust the transmit and receive audio levels using the field programmer or Gateway Audio Level Adjustment software tool for optimum audio quality.

TRANSMIT:

To verify the transmit microphone level is set correctly, first talk on the host mobile radios curly cord microphone while monitoring the communication with another radio or communications analyzer. Speak in a normal voice about 2-3cm (1") from the microphone, now do the same with the X10DR handset; the audio levels should be about the same. If the handset audio is lower or is distorted you will need to adjust the level by reprogramming the device with the software tool so that levels and audio quality are about the same.

RECEIVE: Using another radio, talk into its microphone while listening to the audio received through the X10DR handset speaker. It should be loud and clear with the X10DR volume turned up near maximum. If not, use the software tool to adjust to the desired level. On some model radios, the radio's volume control effects the Rx audio that is passed to the X10DR, for these situations first set the host mobile to a normal listening level before then programming the receive audio level for desired loudness. In such cases, users should note if you adjust the host mobile radio's audio up or down the X10DR speaker audio will be effected likewise.

Device Pairing

Each X10DR handset is uniquely connected to a specific gateway mobile charger in the factory. This ensures that all communications between the two units are secure and cannot be compromised or interfered with by a third party. In the event of a handset being lost, it can be permanently disconnected from the gateway mobile charger by master resetting the gateway. To Master reset manually turn off gateway then press grey button again, continue to hold for about 10 second until the LED flickers quickly then only flickers very slowly. The gateway is now reset and the new handsets can now be paired. To reset a handset: With the device powered off, hold the PTT and volume up button while powering on by pressing the On/Off button. Master resetting drops all previous pairing.

How to pair: With handset and gateway powered on, hold the handset pressing both its blue buttons until the blue LED flashes and the handset beeps (after 5-8 secs). Now place the handset back into the gateway cradle. After a few seconds the handset will sound a confirmation two tone and the blue LED on both units will glow solid to indicate completion. Repeat procedure if you require other handsets paired to the one gateway. Up to five mics may be paired to the same gateway but only one can be operational at any one time*. If multiple handsets are powered on and paired, should the currently operational mic be turned off or go out of range for longer than 30 seconds then the gateway will then try and automatically connect with the next stored powered paired mic. **Note: X10DR Elite models can uniquely have up to three active operational secure mics operation through the one gateway at any one time.**

*Additional Coverage Information

X10DR performs best when worn with the antenna protruding up above your shoulder. This helps reduce the effects of body shielding and enhances overall coverage. Coverage is always dependent on the local terrain, obstacles and the overall communications environment. For longer distances, an external antenna should always be fitted to the vehicle. For best performance we recommend you use our multi-polarity antennas.

A choice of vehicle antennas are available to enhance into-building penetration or, to simply extend the overall communication zone around your vehicle. Ask your dealer which configuration best suits your specific application. Units operating in the 2.4GHz unlicensed band may be subject to external interferences from others at times. The quoted expected coverage distances in this manual and other marketing material are for X10DR installations using specified multi-polarity antennas with low loss cable feeds and assume operation is undertaken in normal everyday city /urban/rural outside environments where obstacles to the radio signals are minimal and the spectrum is devoid of high levels of RF interference from other devices operational in the area on same or related frequencies.

Mic Antenna

The XSMA2 antenna has been specially designed to perfectly meet the radiation requirements of the X10DR Secure Microphone. Do not use alternatives as they will void regulatory type approval and generally always reduce overall performance. Keep the antenna at least 25mm away from your head at all times

Vehicle Antennas

The gateway output has a reverse polarity SMA female antenna connector designed for connection of a variety of approved Wireless Pacific 2.4GHz external antennas.

The **XMPA and XMAK** multi-polarity antenna provides improved coverage in multipath - non line of sight - situations. It should be mounted onto an unobstructed area on or above the vehicle's roof line and should always be connected via the supplied low loss coax cable to the X10DR cradle connector. **MAKE SURE YOU FULLY TIGHTEN!**

The **XMMA** magnetic mount antenna is intended for use in temporary installations or for initial demonstration purposes or use with an office location where it may provide greater flexibility provides enhanced coverage when placed on an unobstructed area of a vehicle's roof and should be connected via its low loss coax cable to the RP-SMA-F output on the mobile gateway charger. **MAKE SURE YOU FULLY TIGHTEN!**

In user applications where maximum range coverage is not a key requirement, the standard secure mic's **XSMA2** antenna can be attached directly to the base of the gateway. It will typically provide a solid 50-100m coverage bubble around the vehicle or office installation.

Note: Only the XMPA, XMAK, XMMA and XSMA/2 have been FCC/IC approved for connection and operation with X10DR. Use with any other antenna may void type approval.



Warning:

Keep your body at least 20cm (8") away from vehicle mounted external antenna. See page 29 for other important details.

Replacement antennas

In the event of a damaged or lost antenna, only **original replacements** should be used so as to not **void the unit's FCC/IC/CE type approval** certification or performance. The Pro and Elite secure microphones use a 2.1dBi ground independent antenna for maximum multi-directional range, while the Classic uses the XSMA 1/4 wave monopole.

Note: the distance for Head SAR is 25 mm and Body SAR is 0 mm.

XRTG Rooftop Gateway - Additional Information

To provide even greater range and into building coverage, Wireless Pacific have developed a unique external mount version of the Elite Gateway. The electronics inside the XRTG are identical to the standard X10DRMD-EX2 Elite gateway but with some cosmetic additional wiring to the waterproof rated external connectors.

Operating in the 2.4GHz band means coax cable losses can be significant. In fact half the power can be lost on a standard XMPA antenna kit installation. By simply repackaging the existing Elite Gateway electronics into an IP65 rated weatherproof housing and mounting the gateway externally, unobstructed, on a roof rack or similar, we are now able to achieve range in excess of 700 meters down a straight highway. Naturally, that also means greater "into building" penetration.

Control Station Use

The XRTG can be mounted up to 100 meters from the host radio/control station making it also ideal for warehouse installations or in those situations where the required building coverage might be better achieved by mounting the gateway in a central building high point overlooking the office work areas below.

Similar Installation

Connection to the XRTG is via a 5.2m long shielded cat 6 cable. To simplify installation, both ends of the gateway connect cable (XRTC-5.2) are terminated but should you need to shorten the cable or remove the shielded RJ45 plug to allow passing through a cabin wall etc, a replacement can be found at any computer network supply store. Should your application require, a number of vendors (Digikey etc) supply IP65 rated shielded bulkhead RJ45 connectors for providing a watertight entry for the cable into the passenger cabin.



The gateway connects to your mobile radio in your vehicle (or office control station). It passes all voice traffic to and from the secure wireless microphone.

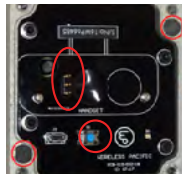
Handset Gateway Pairing

The pairing procedure, which would normally only ever occur at time of installation, is very similar to a standard gateway except that the 3 pairing pins are now located inside the XRTG. To do a master reset simply press the blue button on the pcb for 10 seconds until the LED starts to flicker.

The XRTG is typically supplied “unpaired”.

Handset(s) will need to be paired at time of installation as follows:

1. Take off the front cover by loosening the corner screws.
2. Ensure the XRTG is turned ON. The LED on the XRTG PCB will either be flashing or steady ON.
3. Put the Handset into pairing mode (see page 17) and place it onto the XRTG PCB so that the 3 pin connector makes contact with the 3 pads on the underside of the Handset – as shown at right. The cover of the Accessory connector should fit neatly in the hole on the PCB, which provides an guide for locating the Handset in the correct position. Pairing will proceed as normal.
4. Repeat for additional handsets or re-attach cover.



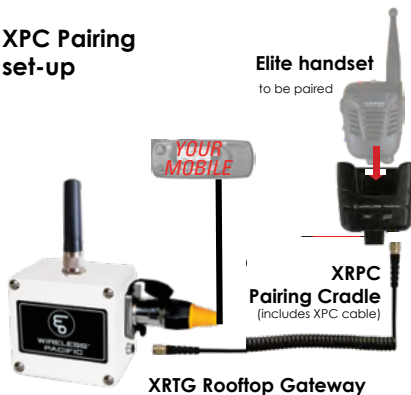
Gateway Programming

Remove cover as above and plug the XFPK programming cable into the micro USB while pressing the small blue button. Program as per standard.

XRPC Pairing/Programming Cradle

Alternatively a unique XRPC pairing and programming cradle can be used to alleviate the need to open the XRTG housing. The XRPC cradle simply plugs into the small 6 pin Hirose connector on the side of the operational XRTG unit. To pair place handset into the cradle after first being put into pairing mode by the standard set-up procedure. (see p17) To do a master reset on the XRTG press pairing cradle grey button for 10 seconds until LED starts to flicker.

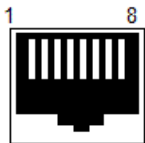
XPC Pairing set-up



Gateway Programming using XPC

With the XPC connected plug the micro-USB programming cable into the gateway; the LED will change to RED. Program as per standard.

Installation & Connections



Front View

Receptacle

Shielded RJ45

	Talkaround audio - Remote/Handle bar PTT
8	Ext PTT to radio
7	COR/ Audio unmute from radio
6	Mic Lo
5	Ext Mic Hi Output/Radio On detect
4	Radio Receive audio
3	Emergency output to radio
2	Power nominal +12VDC
1	DC Ground shield/drain

1. Power: Connected via a 3 amp in-line fuse preferably direct to a vehicle's 12V battery but can be any voltage from about 7-16VDC. Current consumption is typically 60mA/Max current 420mA@6V. (12V = <200mA)

2. Emergency I/O: Intended to connect to the host mobile radio's emergency input. It provides an active switched ground. With default programming, the time held low will be the exact time that the user presses the Emergency button. This output could also be used for other functions such as to trigger a remote voice logger or sound a horn, providing it is correctly "buffered". The I/O can also be externally grounded to sound an Emergency alert tone in Elite handsets so configured. Radios requiring switched high activation are addressed via radio specific XCA circuitry.

3. Gateway audio in: Receive audio from the host mobile radio that you wish to be sent to the handset. Ideally, it should be sourced pre-volume control but if not accessible, it can be post, as long as the host mobile radio's speaker audio has first been set for a comfortable listening level in the vehicle.

4. Gateway audio out: Audio from the handset that is to be transmitted over the host mobile radio's transmitter is factory set for ~80-100mV RMS.

NOTE: This line is also used to automatically **turn on/off the X10DR gateway** by detecting the host radio's "DC biased" Mic hi input. If providing your own interface when connecting to a device with an AC coupled Mic Hi input, the installer should supply a manual on/off switch or a jumper that connects a 100K resistor between RJ45 pin 4 and pin 1 (Batt+)

5. Mic audio grd: This should connect to microphone **audio** ground.

6. COR/audio unmute: Input is designed to monitor the receive status of the host mobile radio. Ideally, it is driven by an “audio unmute” switched ground command in the host mobile. i.e. when the radio's speaker unmutes to pass audio then the COR input should toggle in sync. Alternatively, it could be driven by the radio's unsquelch command that factors in reception of required correct CTCSS tones, etc. Where COR is not available the X10DR's voice audio detect capability will in almost every case allow satisfactory operation with minimal voice clipping.

7. Ext. PTT output: Switched ground output designed to drive the host mobile radio PTT.

8. Talkaround audio bus: passes fixed audio level between multiple X10DR gateways connected via XDIA/XJB/XJB-DCI/XSJB/XHJB (Junction Boxes). The line is also used for Remote PTT input*. It can also provide indication of talkaround button being pressed or an indication on Elite units whether the handset is in the cradle and/or whether the handset is turned on and within range of the gateway via a connected special function boxes.

9.Shield. DC /Digital ground connection.

* **Remote PTT:** Activate by grounding. This provides an alternative remote PTT to transmit secure microphone audio via the host mobile radio. You may choose to connect to a motorbike handle bar PTT, a hidden palm or footswitch, a wireless PTT device, or even to an output from the host mobile equipped to provide remote radio monitoring of the secure microphones users audio. In such remote monitoring cases, use of the remote PTT input causes the sensitivity of the INTERNAL microphone to be greatly increased, so a control room operator can more easily monitor the health or safety of the user. There is no increased audio gain when a headset is connected to the audio port at the base of the handset.



Audio & General Accessories



Audio Accessories:

WPiTRQ-X10	Advanced ear mic (requires TL earpiece).
WPEH-TL	Large black "across ear" earpiece for iTRQ.
WPTEH-TL	Acoustic tube earhook "quick disconnect" for iTRQ.
WPTEP-TL	Acoustic tube "quick disconnect" for iTRQ.
WPEB-TL	Black earbud "in ear style" earpiece for iTRQ.
WPBEH-TL	Black earhook - small earpiece for iTRQ.
WPCEH-TL	Translucent earhook - small earpiece for iTRQ.
WP3WS-X10	3 wire covert surv. audio accessory.
WPHFH-X10	"Sidewinder" noise canceling lightweight headset (no in-line PTT).
WPMAD-X10	"Breeze style lightweight headset (no in-line PTT).
WPLWH-X10	Lightweight headset noise cancel, in-line PTT.
WPPTT-X10	Spare In-Line PTT interface cable for WPLWH.
WPSHD	Noise canceling heavy duty headset for X10DR. (requires either WPSHC-X10 or WPSHC-NEX interf. cable).
WPSHC-X10	X10DR interf. cable for direct WPSHD use.
XMCH-C	Closed face headset for Motorcycle helmet.
XMCH-O	Open face headset for Motorcycle helmet.
XIPB	In-line PTT for WPSHC-X10 & XMCH M/Cycle headsets.
WPTEP	3.5mm Acoustic tube "quick disconnect" for X10DR.
WPTEH	3.5mm Acoustic tube earhook "quick disc" for X10DR.
WPEH	3.5mm Large black "across ear" earpiece for X10DR.
WPCEH	3.5mm Translucent earhook - small earpiece for X10DR.
WPBEH	3.5mm Black earhook -small earpiece for X10DR.
WPEB	3.5mm Black earbud "in ear style" earpiece for X10DR.
WPLEH	3.5mm "Extra Loud" black "across ear" earpiece for X10DR.
WPWLP-X10	Large red in-line Nexus PTT adaptor w/ wireless ring PTT. (use with Peltor J11 headsets or WPSHD & WPSHC-NEX - requires Elite mic).
WPSHC-NEX	WPSHD headset to Nexus plug for use with WPWLP-X10.
WPNEX-X10	Nexus to Hirose adaptor: Peltor J11 headset use with XIPB.

** Radio Cable Adaptors

XCA-APX	Suits Motorola APX/XTL	XCA-H26	Suits Hytera MD68/78X
XCA-M26	Suits Mot 26 pin(Trbo)	XCA-H37	Suits Harris M7100
XCA-M26T	Suits Mot MTM5400	XCA-HXG	Suits Harris XGT/M7300
XCA-M16	Suits Motorola 16 pin	XCA-i15	Suits Icom DB15HD
XCA-R15	Suits RELM G/DMH	XCA-i25A	Suits Icom DB25
XCA-R25	Suits RELM DB25	XCA-K25M	Suits Kenwood TK690
XCA-SRG	Suits Sepura SRG3900	XCA-K15D	Suits Kenwood NX720
XCA-SDM	Suits Simoco SDM600	XCA-K25	Suits Kenwood DB25
XCA-SRM	Suits Simoco SRM9000	XCA-V15	Suits Vertex DB15HD
XCA-T15	Suits Tait DB15	XCA-V25	Suits Vertex DB25
XCA-T26	Suits Teltronic DB26	XCA-VM9	Suits EFJ VM900 DB25
XCA-C26	Suits Airbus TMR DB26	XCA-CUS*	Custom configurations
XCA-G25	Suits GME DB25	*MOQ 200 - Call for pricing and delivery.	

Model Options: (replaces/modifies standard item-factory ordered. Minimum quantities may apply)

XSMC	Alternate short clip back cover (suits electrical utilities).
XVMC	Alternate velcro® mount back cover & sew-on patch.
XCFC	Alternate color spk mic front cover & logo (MOQ 500).
XHFO	Handsfree operation capability includes WPEB (Elite handsets only).

Elite Model Accessories: (order options as required)

XEX2	Elite multi mic includes additional handset, charger and cables.
XMS-8W	X10DR 8 Watt external mobile speaker for Elite models.
XSJB	X10DR Smart Junction Box: Dual radio/Lone Worker. (Order XIC-0.5, XIC-1.5 and XCA-** for Dual Radio/ Order XIC-0.5 for Loneworker).
XHJB	Smart junction box for multi gateway handsfree installations.

Chargers:

X6WC-*	6 way desktop charger includes AC/12VDC PSU.
XDTC-*	Desktop charger includes AC/12VDC plug pack.
X10DRMC	Mobile charger (use with XIC-0.5 and a junction box).
NOTE:	X10DRMC, X6WC & XDTC only compatible with Elite/Pro models.

Installation Accessories:

XMDM2	Multi-position gateway mounting bracket.
XPB-C14B	1450mA "after hours" re-charge power bank.
XMPA	Shark Fin multi-polarity NMO roof or rack mount 2dBi antenna kit. Includes 5.2m LMR200 type coax w/fitted RP SMA-M.
XMAK	Rack Mount multi-polarity N-type 2dBi antenna kit. Includes 5.2m LMR200 type coax w/fitted RP SMA-M & N-Type male bulkhead.
XMMA	Magnetic mount 1/4 wave antenna for temporary fit-ups. Includes 3.5m LMR200 type coax w/fitted RP SMA-M.
XCA-**	Spare Radio Interface cable adaptor. (see page 25)
XIC-0.5	50cm shielded Cat 6 cable, Black M-M.
XIC-1.5	1.5m shielded Cat 6 cable, Black M-M.
XIC-6.2	6.2m shielded Cat 6 cable, Black M-M.
XEC-4.5	4.5m shielded Cat 6 extension cable, Black M-molded F.
XRTC-5.2	XRTG 5.2m shielded Cat 6 extension cable, Black IP65M-M.
XDIA	Dual Interface Adaptor.
XJB	6 way junction box for multi-interface for non-TDMA installations.
XJB-DCI	4 way junction box with DC Isolation for TDMA radio installations. Order XIC cables as required for above 4 items.

Service Accessories:

XFPK	X10DR Field Programming Cable Kit.
XRPC	X10DR XRTG pairing cradle (includes XPC pairing cable).
XPC	X10DR XRTG pairing cable (spare cable).
XTK	X10DR Field Tracking Kit (NFC reader/writer).
XATB2*	X10DR Advanced Service Test Box.

* indicate AC plug type - show suffix US/EU/UK/AU

Replacement Parts & Installation Accessories



X6WC
6 Way Charger



XDTG
Desktop Charger



X10DRMC
Mobile Charger



XMDM2



XDIA
Dual Interface Junction Box



XJB



XJB-DCI
isolated ports



XSJB
Smart Box



XHJB
Handsfree
Box



XPB-C14
In-line Power
bank charger



XSMB-C14
Li-Po Battery
Replacement



XMS-8W



XMPA



XMAK



XSMC-RK Short mount
back cover retrofit kit
(for XLMC fitted devices)



XVMC-RK Velcro® mount
back cover retrofit kit
(for XLMC fitted devices)



Includes labels
Velcro hook (saw on)



XLMC-RK-V1 Long mount
back cover retrofit kit incl:
magnet, new cradle cup
(for original X10DR devices)

Includes labels
replacement cradle cup &
screws & clip



XSMA2



XRPC Pairing Cradle
includes XPC pairing
cable



XATB2 Advanced
Test Box

Spare:
XLMC-RK-V1
XSMC-RK
XVMC-RK
XSMA2
XSMB-C14

Retrofit X10DR Long mic clip kit. (for original 1st gen. X10DR only)
Retrofit X10DR Short mic clip back cover kit.
Retrofit X10DR Velcro® mic clip back cover kit.
Spare X10DR Elite & Pro Mic/local gateway antenna.
Spare X10DR 1450mA battery.

** model specific



X6WC
6 Way Charger
Elite & Pro models

XDTC
Desktop Charger
Elite & Pro models



X10DRMC
Mobile Charger
Elite & Pro models

Service Support

While your X10DR has been designed to the highest engineering practices and meticulously manufactured to mission critical standards, like all electronic devices, failures can and will occur. To provide you with a seamless level of support, each X10DR is supported throughout the product's life by a changeover replacement pool. The pool is intended to ensure minimal downtime in the event of a failure. In the event of a failure, you should contact the dealership that you purchased the X10DR from to arrange for service.

Warranty/Non-Warranty Repair Policy / Procedure

1: X10DR DOA (Dead on arrival) failures that occur at time of delivery/initial operation will be replaced with a new item by the Distributor.

2: X10DR failures that occur at any time after this initial delivery and the expiration of the standard or purchased extended warranty period, will be replaced free of charge from **changeover pool** stock. Nominally 2-3 business day turnaround is anticipated from the Distributor being presented with a validated warranty claim and the paid return of the faulty device to the advised service center.

3: Customers with X10DR failures deemed due to tampering, misuse, neglect, etc., will be advised of the determination. The customer may then choose to have the failed device replaced from the changeover pool for a service **changeover fee** at the current published rate or have the device returned to them. The cost to return the faulty goods and for evaluating a non-valid warranty claim may be charged back to the customer at the Distributor's discretion.

Changeover Pool Inventory

To minimize repair turnaround times and user inconvenience, a X10DR changeover pool inventory is provided to allow changeover factory verified devices as being fully operational and meeting the published specifications. These units will appear as new, or near new condition with as new exterior housings (minor blemishes only) and pristine internal factory certified circuitry.

The remaining warranty of any returned faulty device will apply to its replacement unit, or in the case of units replaced for a service fee, a new 6 months factory warranty will apply.

- Customer must return the faulty device at time of changeover (one for one basis).

- Spare X10DR devices may be purchased for those who prefer to maintain their own inventory for 24 hour operational redundancy.

Replacing the battery pack

The process is simple and should only take your radio service supplier less than 5 minutes to replace and test.

Replacement of the battery should be **ONLY** undertaken by a qualified service technician so as to ensure no damage occurs to internal circuitry and to ensure the housing's weatherproof integrity is not compromised. The replacement battery part number is: XSMB-C14 1450mA.



Service Aids



The **XFPK Programming Kit** provides cables that plug between your PC's USB port and the handset's Hirose connector port and the gateway's micro USB connector to enable use of the following software tools:

- The **X10DR User Programmer** allows you to adjust a number of parameters* on both the X10DR handset and gateway to enable a huge array of user specific customization, added features and systems functionality using the XFPK interface cables and downloaded programming software.

- The **XGALA Gateway Audio Level Adjustment** software tool provides a simple to use real time software alignment tool for setting input and output levels from the gateway to the connected host mobile.

- The **X10DR Firmware Upgrader** tool is available for field reflashing of future firmware releases as they become available.

All the above are Windows[#] based and can be download at www.x10dr.com (#Windows 10 OS recommended)

*download X10DR **Programming Parameters Guide** at: www.x10dr.com.

The **XATB2 Advanced Test Box** allows you to verify the units operational status quickly and effortlessly. It is ideal for self maintained users. It's array of switches and lights makes operation verification or fault finding a breeze.

The **XTK X10DR Field Tracking Kit** (NFC reader/writer) provides an easy way to manage your X10DR inventory. Both handsets and gateways include NFC internal labels. The labels electronically provide details of the manufacturing date and warranty duration. Using the XTK allows you to record service notes, installation dates, vehicle numbers, battery change dates, etc.

Regulatory

RADIO AND TELEVISION INTERFERENCE

The equipment described in this manual generates, uses, and radiates radio-frequency energy. If it is not installed and used correctly—it may cause interference with radio and television reception.

CE DECLARATION

This equipment has been tested and found to comply with the following harmonised European Norms:

- EN300328 (radio and telecommunications terminal equipment)
- EN55024 (electromagnetic immunity) •EN55022 Class B (electromagnetic emissions) •EN 60950 (electrical safety) •EN301489 (electromagnetic compatibility and radio spectrum matters)

Based on the results of these tests, Wireless Corporation declares that the above mentioned devices conform to Article 10.1 of the European Council Directive 89/336/EEC, and their amendment Directive 93/68/EEC, and to the Directive 1999/5/EC and indicates this conformity by the CE-sign on each device. The device must be installed and operated in strict accordance with the instructions given in this user manual. Any changes or modifications to this product that were not specifically authorised will invalidate this declaration.

INDUSTRY CANADA:

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

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

FCC NOTICE

This equipment complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of 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.

You can determine whether the equipment is causing interference by disconnecting power. If the interference stops, it was probably caused by the equipment. If the equipment does cause interference to radio or television reception, you may be able to correct the interference by using one or more of the following measures:

- Rotate the television or radio's antenna until the interference stops.
- Move the Wireless Microphone farther away from the television or radio.

If necessary, consult your two way radio dealer or an experienced radio/television technician for help. Changes or modifications to this product not authorized by Wireless Corporation Ltd could void the FCC Certification and negate your authority to operate the product.

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

IMPORTANT NOTE:

To comply with the FCC RF exposure compliance requirements, no change to the antenna or the device is permitted. Any change to the antenna or the device could result in the device exceeding the RF exposure requirements and void user's authority to operate the device.

Warranty

Wireless Corporation Ltd (WCL) warrants each new product sold by WCL to be free from defects in material and workmanship under normal use and service. The obligation and liability of WCL under this warranty is limited to the repair or replacement at its factory, at the option of WCL, of any such product which proves defective within the quoted warranty period, twelve (12) months for Wireless Pacific products after delivery, and is found to be defective in material and workmanship by WCL inspection. Products of warranty consideration shall be returned with all transportation charges prepaid to WCL or our nominated local service supplier in shipping containers which are adequate to prevent loss or damage in shipment. WCL will pay the return carriage costs for Wireless Pacific products. Products repaired or replaced under this warranty are warranted for the unexpired portion of the original warranty. This warranty is invalid if the factory-applied serial number, date code label, or product label has been altered or removed from this product. WCL shall not be obligated or liable under the warranty for apparent defects which examination discloses are due to tampering, misuse, neglect, improper storage, acts of nature, physical abuse, normal wear and all cases where the products are disassembled by other than authorised WCL representatives. In addition, WCL shall not be obligated or liable under this warranty unless the date of delivery to the first end user shall be within one (1) month from the date of delivery to the original purchaser, if different from the first end user, and further provided that written notice of any defect shall be given to WCL within thirty (30) days from the date such defect is first discovered. In no event will WCL accept consequential damages for products supplied and are then found to have become defective.

Repairing or Modifying X10DR:

Never attempt to repair or modify X10DR yourself. X10DR does not contain any user-serviceable parts. Disassembling an X10DR, including the removal of external screws and back cover, may cause damage that is not covered under the warranty. If an X10DR has been submerged in water, punctured, or subjected to a severe fall, do not use it until you take it to an WCL Authorized Service Provider. Service should only be provided by WCL or an WCL Authorized Service Provider. If you have questions or for service information, contact WCL or an WCL Authorized Service Provider.

Important Safety and Handling Information



WARNING: Failure to follow these safety instructions could result in fire, electric shock, or other injury or damage to X10DR or other property. Read all safety instructions for any products and accessories before using with X10DR. WCL is not responsible for the operation of, or any damage caused by, third-party accessories or their compliance with safety and regulatory standards.

Keep the X10DR Secure Mic antenna at least 25mm away from your head at all times.

To avoid injury, read all operating instructions and the following safety information before using X10DR. For downloadable versions of the latest X10DR User Guide, visit: www.x10dr.com

Radio Frequency Interference:

Radio frequency emissions from electronic equipment can negatively affect the operation of other electronic equipment, causing them to malfunction. Although X10DR is designed, tested and manufactured to comply with regulations governing radio frequency emission in countries such as the United States, Canada, the European Union, and Japan, the wireless transmitters and electrical circuits in the X10DR may cause interference in other electronic equipment. Therefore, please take the following precautions:

- i/Aircraft: Use of X10DR may be prohibited while travelling in aircraft.
- ii/Vehicles: radio frequency emissions from X10DR may affect electronic systems in motor vehicles. Check with the manufacturer or its representative regarding your vehicle.
- iii/Pacemakers: The Health Industry Manufacturers Association recommends that a minimum separation of 15 cm (6 inches) be maintained between a handheld wireless phone and a pacemaker to avoid potential interference with the pacemaker. Persons with pacemakers:
 - Should always keep X10DR more than 15 cm (6 inches) from the pacemaker when turned on.
 - Should not carry X10DR in a breast pocket.
 - Should use the ear opposite the pacemaker to minimize the potential for interference. If you have any reason to suspect that interference is taking place, turn X10DR off immediately.
 - X10DR may interfere with some hearing aids. If you experience interference, consult the hearing aid manufacturer or your physician for alternatives or remedies.

- v/ Other Medical Devices: If you use any other personal medical device, consult the device manufacturer or your physician to determine if it is adequately shielded from radio frequency emissions from X10DR.
- vi/Health Care Facilities: Hospitals and health care facilities may use equipment that is particularly sensitive to external radio frequency emissions. Turn X10DR off when staff or posted signs instruct you to do so.
- vii/Blasting Areas and Posted Facilities: To avoid interfering with blasting operations, turn off the X10DR when in a "blasting area" or in areas posted "Turn off two-way radio." Obey all signs and instructions.

Exposure to Radio Frequency Energy:

The unit transmits and receives radio frequency (RF) energy through its antennas. The antennas are located at the top edge of the unit. The Wireless Speaker Microphone is designed and manufactured to comply with the limits for exposure to RF energy set by international regulatory agencies, including the FCC of the United States, IC of Canada, MIC of Japan, and the Counsel of the European Union, among others. The unit has been tested and meets the FCC, IC, and European Union RF exposure guidelines for 802.15 operation. To ensure exposure levels remain at or below the maximum safe levels, when carrying the unit ONLY use the Wireless Speaker Microphone with the manufacturer's supplied clothing clip or a non-metallic holder that ensures the antenna remains greater than **25mm (1 inch)** from your head and body at all times. An external antenna is connected to the output connector on the mobile charger. Always keep your body at least 20cm (8") from the vehicle mounted external antenna.

Potentially Explosive Atmospheres:

Turn off all non-intrinsically safe (IECEx/ATEX) approved X10DR when in any area with a potentially explosive atmosphere. Do not charge any X10DR and obey all signs and instructions. Sparks in such areas could cause an explosion or fire, resulting in serious injury or even death. Areas with a potentially explosive atmosphere are often, but not always, marked clearly. Potential areas may include: fuelling areas (such as gas stations); below deck on boats; fuel or chemical transfer or storage facilities; vehicles using liquefied petroleum gas (such as propane or butane); areas where the air contains chemicals or particles (such as grain, dust, or metal powders); and any other area where you would normally be advised to turn off your vehicle engine.

Battery Replacement:

Do not attempt to replace the rechargeable battery in X10DR yourself. The battery should be replaced only by WCL or an WCL Authorized Service Provider. The battery should be re-cycled/disposed of thoughtfully.

Antenna Replacement:

Only use the antennas supplied. Use of other antenna types will void type approval.

This radio transmitter (IC:11443A-XH2/XG2) was approved by Industry Canada to operate with the antenna types listed below the maximum permissible gain and required antenna impedance for each antenna type indicated. Types of antennas is not included in this list, having a higher gain than the maximum gain indicated this type are strictly prohibited for use with this device.

Cet émetteur radio (identifier le dispositif par numéro de certification ou le numéro de modèle de la catégorie II) a été approuvé par Industrie Canada pour fonctionner avec les types d'antenne énumérés ci-après le gain maximal autorisé et de l'impédance d'antenne requise pour chaque type d'antenne indiqué. Types d'antennes ne sont pas inclus dans cette liste, ayant un gain supérieur au gain maximum indiqué ce type sont strictement interdits pour une utilisation avec cet appareil.

Note: the distance for Head SAR is 25 mm and Body SAR is 0 mm.

Note: la distance pour la tête SAR est de 25 mm et le corps SAR est de 0 mm.

Informations importantes de sécurité et de manutention



AVERTISSEMENT: Le non-respect de ces consignes de sécurité peut provoquer un incendie, de choc électrique ou d'autres blessures ou de dommages à X10DR ou d'autres biens. Lisez toutes les instructions de sécurité pour tous les produits et accessoires avant d'utiliser avec X10DR. CMI n'est pas responsable de l'exploitation, ou tout dommage causé par des accessoires tiers ou de leur conformité aux normes de sécurité et réglementaires.

Pour éviter toute blessure, lisez toutes les instructions et les consignes de sécurité suivantes avant d'utiliser X10DR. Pour les versions téléchargeables de la dernière version du Guide de l'utilisateur de X10DR, visitez: www.wirelesscorp ltd.com

Radio Frequency Interference:

L'émission de fréquences radio émises par les équipements électroniques peuvent affecter négativement le fonctionnement des autres appareils électroniques, les obligeant à un dysfonctionnement. Bien X10DR est conçu, testé et fabriqué conformément aux règlements régissant l'émission de radiofréquences dans les pays comme les États-Unis, le Canada, l'Union européenne et le Japon, les émetteurs sans fil et les circuits électriques dans le X10DR peut provoquer des interférences avec d'autres équipements électroniques. Par conséquent, s'il vous plaît prendre les précautions suivantes:

i / Avion: L'utilisation de X10DR peut être interdite dans les avions.

ii / Véhicules; les émissions de radiofréquences par des X10DR peuvent affecter les systèmes électroniques des véhicules à moteur. Vérifiez auprès du fabricant ou de son représentant votre véhicule.

L'exposition à l'énergie radioélectrique :

L'unité émet et reçoit des fréquences radio (RF) par l'intermédiaire de ses antennes. Les antennes sont situés au niveau du bord supérieur de l'unité. Le Président de microphone sans fil est conçu et fabriqué pour respecter les limites d'exposition à l'énergie RF fixées par les organismes de réglementation internationaux, y compris la FCC des États-Unis, du Canada IC, MIC du Japon, et l'avocat de l'Union européenne, entre autres. L'appareil a été testé et répond aux FCC, IC, et l'Union européenne RF normes d'exposition applicables 802.15 opération. Pour assurer des niveaux d'exposition restent égales ou inférieures aux limites maximales de sécurité, pour transporter l'appareil, utilisez uniquement le Président de microphone sans fil avec fourni des vêtements clip de fabricant ou un support non métallique qui assure l'antenne reste supérieure à **25 mm (1 po)** de votre corps à tout moment. Une antenne externe est connectée au connecteur de sortie du chargeur mobile ou au connecteur de sortie de l'amplificateur bidirectionnel XBDA. Toujours garder votre corps au moins 20 cm (8 ") de thevehicle antenne externe installée. Le XBDA n'est approuvé pour une utilisation avec l'unité X - Ponder lorsque conformément à la réglementation en matière d'homologation de chaque pays.

Atmosphères explosibles:

Désactiver X10DR dans des zones avec une atmosphère potentiellement explosive. Ne chargez pas X10DR, et respectez tous les panneaux et instructions. Des étincelles dans de telles zones pourraient causer une explosion ou un incendie, causant des blessures graves ou même la mort.

Les zones à atmosphère potentiellement explosive sont souvent, mais pas toujours, clairement indiquées. Les zones potentielles comprennent: les zones de carburant (comme les stations d'essence), au-dessous du pont des bateaux, de carburant ou de transfert ou au stockage de produits chimiques, les véhicules utilisant du gaz de pétrole liquéfié (comme le propane ou le butane), des zones où l'air contient des produits chimiques ou des particules (le grain, la poussière ou les poudres métalliques) et tout autre endroit où il vous serait normalement recommandé d'arrêter le moteur de votre véhicule.

Note: la distance pour la tête SAR est de 25 mm et le corps SAR est de 0 mm.

**Headset use warning**

Headsets and earpieces used with this product are capable of delivering sounds at loud volumes. Exposure to such sounds can result in permanent hearing loss damage. The volume level may vary based on conditions such as host radios volume settings and the environment.

Please read the following safety guidelines below prior to using a headset or earpiece:

1. Prior to using this product follow these steps:

- Before putting on the headset, turn the volume control to its lowest level,
- Put the headset on, and then slowly adjust the volume control to a comfortable level.

2. During the use of this product:

- Keep the volume at the lowest level possible and avoid using the headset in noisy environments where you may be inclined to turn up the volume;
- If increased volume is necessary, adjust the volume control slowly.
- If you experience discomfort or ringing in your ears, immediately discontinue using the headset and consult a physician.

With continued use at high volume, your ears may become accustomed to the sound level, which may result in permanent damage to your hearing without any noticeable discomfort. Using a headset while operating a motor vehicle, motorcycle, watercraft may be dangerous, and is illegal in some jurisdictions. Check your local regulations and laws.

Charging your X10DR:

To charge X10DR, use only the WCL mobile or desktop chargers.

When you use the WCL desktop charger to charge X10DR, make sure that the power adapter is fully assembled before you plug it into a power outlet. Then insert the WCL AC/DC plug pack firmly into the power outlet. Do not connect or disconnect the WCL AC/DC plug pack with wet hands. The WCL AC/DC plug pack may become warm during normal use. Always allow adequate ventilation around the WCL AC/DC plug pack and use care when handling. Unplug the WCL AC/DC plug pack if any of the following conditions exist:

- 1/ The power cord or plug has become frayed or damaged.
- 2/ The adapter is exposed to rain, liquid, or excessive moisture.
- 3/ The adapter case has become damaged.
- 4/ You suspect the adapter needs service or repair.
- 5/ You want to clean the adapter.

Cleaning your X10DR:

Clean X10DR immediately if it comes into contact with any contaminants that may cause possible malfunctions—for example, ink, dyes, makeup, dirt, food, oils, and lotions. To clean X10DR, unplug all cables and turn off X10DR (press and hold the manual On/Off button). Then use a soft, slightly damp cloth. Don't use abrasive household or industrial cleaners, aerosol sprays, solvents, alcohol, ammonia to clean X10DR.

Connectors and Press Buttons:

Never force a connector into a port or apply excessive pressure to a button, because this may cause damage that is not covered under the warranty. If the connector and port don't join with reasonable ease, they probably don't match. Check for obstructions and make sure that the connector matches the port and that you have positioned the connector correctly in relation to the port. Not all Hirose 6 pin accessories are fully compatible with X10DR. Under some conditions, certain accessories may affect X10DR wireless performance. Reorienting or relocating X10DR and the connected accessory may improve wireless performance.

Acceptable Temperature Extremes:

X10DR is designed to be normally operated and stored in temperatures between -20° and 55°C (-4° to 122°F). Lower or higher temperature conditions might shorten battery life or cause X10DR to temporarily stop working correctly. Leaving X10DR in a parked vehicle or in direct sunlight can cause X10DR to exceed these storage or operating temperature ranges. Avoid dramatic changes in temperature or humidity when using X10DR, as condensation may form within the unit. When you're using X10DR or charging the battery, it is normal for X10DR to get warm. Battery will only charge when its ambient temperature is within safe limits.

Driving Safely:

Use of X10DR while driving a vehicle or riding a motorbike may be distracting. If you find using X10DR disruptive or distracting while driving or riding, pull off the road and park before making or answering a call. Use of X10DR alone or with headphones (even if used only in one ear) while driving or riding is not recommended and is illegal in some countries. Check and obey the laws and regulations regarding the use of mobile devices like X10DR in the areas where you drive or ride.

Air Bag Equipped Vehicles:

An air bag inflates with great force. Do not store X10DR or any of its accessories in the area over the air bag or in the air bag deployment area.

Carrying and handling X10DR:

X10DR contains sensitive components. Do not drop, disassemble, microwave, burn, paint, or insert foreign objects into X10DR. Do not use X10DR if it has been damaged—for example, if X10DR is cracked, punctured, or damaged by water.

**Radiation Exposure:**

Do not touch the antenna when operational. Keep the Secure Microphone antenna 25mm (1") or more away from your face and body to ensure exposure levels remain at or below the maximum levels. Keep your body at least 20cm/8" from external antennas connected to the gateway mobile charger unit.

Ne touchez pas l'antenne lorsque opérationnel. Gardez sécurisé antenne de microphone 25mm (1") ou plus loin de votre visage et le corps pour assurer des niveaux d'exposition restent égales ou inférieures aux teneurs maximales. Gardez votre corps au moins 20cm/8" des antennes externes connectés à l'unité de chargeur mobile passerelle.

Note: the distance for Head SAR is 25 mm and Body SAR is 0 mm.

Specifications

Designed to meet the following global specifications:

Frequency:	2.40-2.48GHz FH Spread Spectrum
Protocol:	802.15.1 based derivative
RF Power:	<100mW Handset / Gateway <100mW
RF Sensitivity	>90dBm
Battery Type:	3.7V @1450mA Lithium Polymer
Battery Life:	>15 Hours @ 30% receive time
Encryption:	Elite model: AES128
RF Connectors:	RP SMA Female
Rated Audio/Dist:	>300mW @5% THD
Hirose Audio port:	Standard
3.5mm Audio port:	Standard
Operating Voltage:	7-16VDC
Operating Temp:	-20°C to +55°C / -4°F to +122°F
Dimensions:	88 x 28 x 63mm (Mic) 80 x 80 x 60 (chgr)
Weight:	150 grams (Mic) 125 grams (chgr)
Shock & Vibration:	Mil Std 810 C/D/E/F
Humidity/Rain/Dust:	IEC529, IP55-std Mic/ IP67 Elite Mic
Type Acceptance:	CE, FCC, IC, Aust/NZ,

Subject to change or improvement without notice

Type Acceptance /Approvals

FCC ID: 2AGEY-XH2/2AGEY-XG2

IC:11443A-XH2 /11443A-XG2



Location of labelling



R-NZ



Li-POL



Please recycle thoughtfully

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