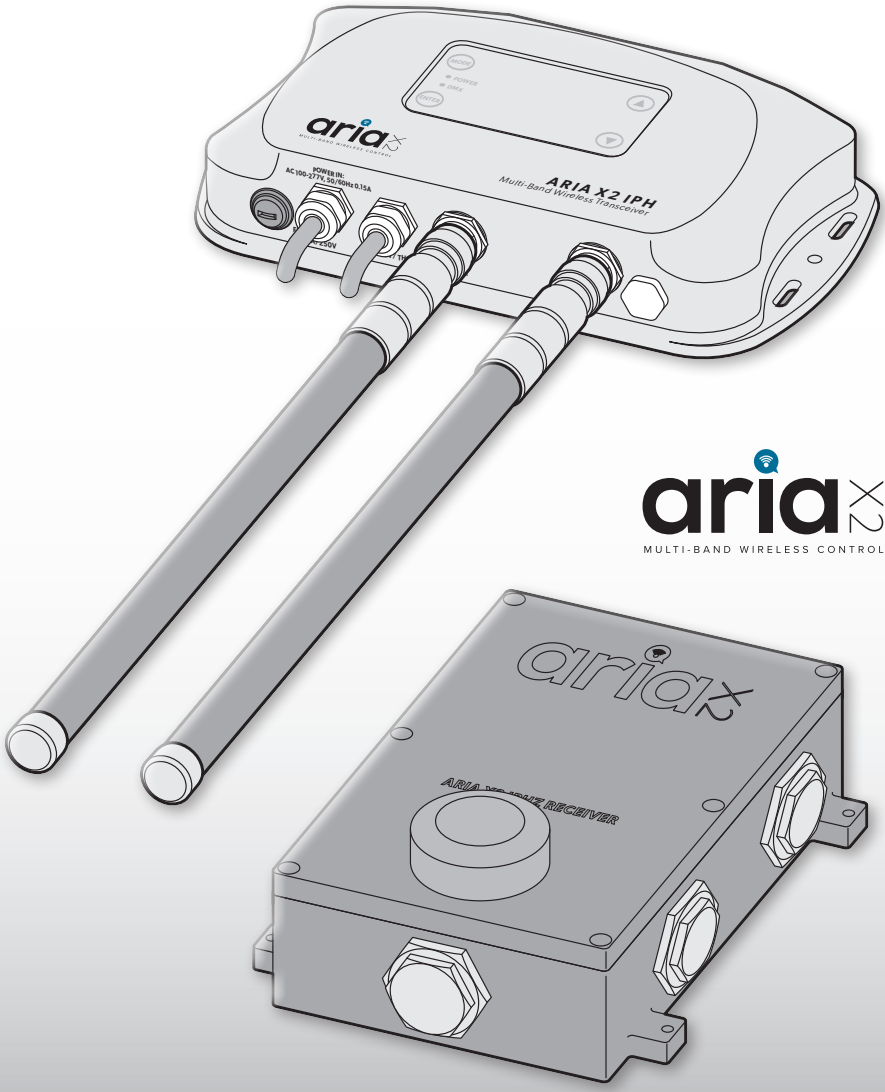
Acclaim™



Aria X2™ system

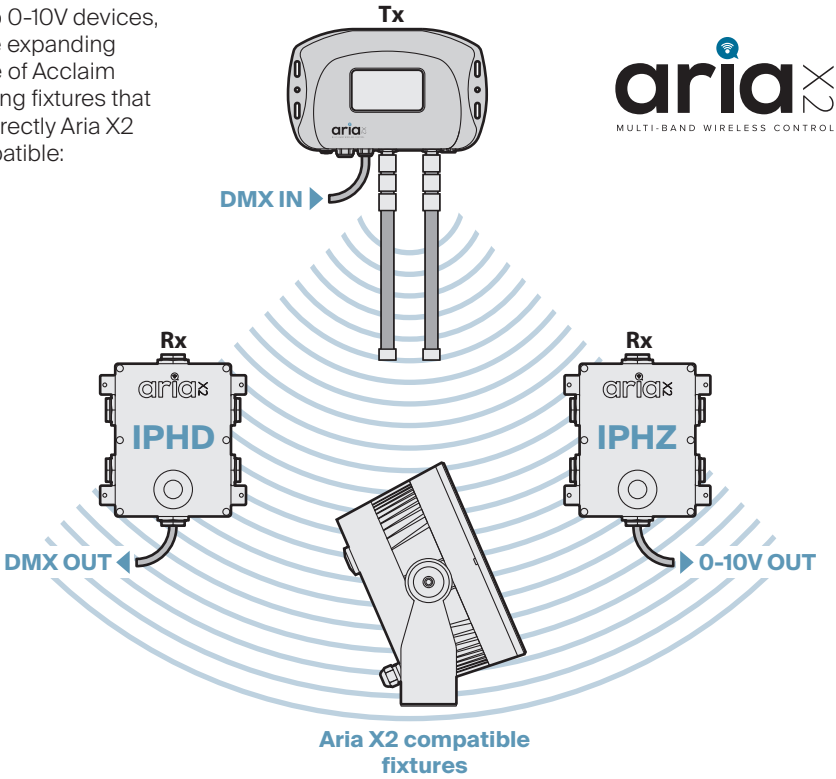
User guide

Contents

Introduction

Welcome

Welcome to the Aria X2 system from Acclaim Lighting, an innovative wireless control system engineered to unite your installation. A single Aria X2 transmitter can remotely orchestrate many devices, such as Aria X2 IPHD receivers that output DMX, Aria X2 IPHZ receivers that link to 0-10V devices, or the expanding range of Acclaim Lighting fixtures that are directly Aria X2 compatible:



Safety

- Ensure that the power input is supplied from a correctly fused, earthed and environmentally protected location.

Maintenance

CAUTION: Always isolate mains power before starting maintenance operations.

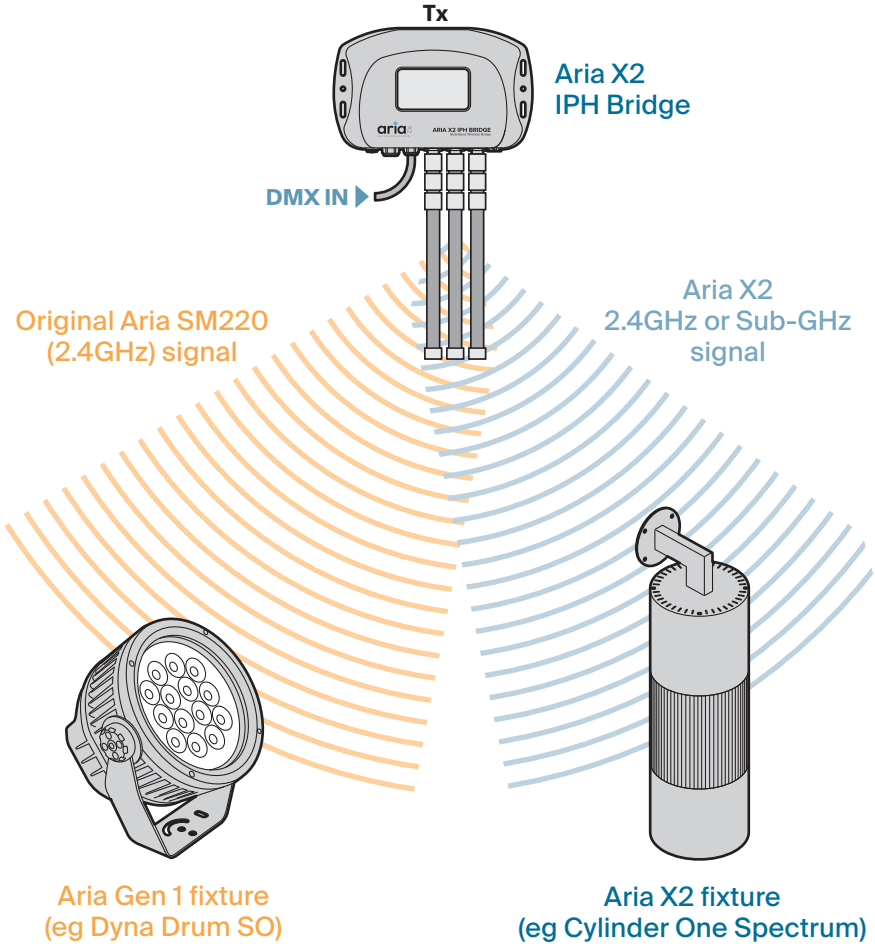
- Ensure that all mounting (and device) screws/bolts are fully tight and free of corrosion.
- Ensure there is no deformation to the housing, lenses or fixing points.
- Check that all power supply cables are free from physical damage or material fatigue.
- Use only genuine spare parts supplied by Acclaim Lighting.

Cleaning

- Use a moist, lint-free cloth when cleaning each fixture.
- Never use alcohol or solvents.

Mixing Aria Gen 1 (SM220) and Aria X2 devices

Some older Acclaim Lighting fixtures (such as Dyna Drum SO, Cylinder One HO, etc) have built-in Aria Gen 1 (SM220) receivers, which are not directly compatible with Aria X2 transmitters. If older fixtures need to be wirelessly controlled alongside Aria X2 fixtures, then you will need to install an Aria X2 IPH Bridge. This multi-function device can output the original Aria SM220 (2.4GHz) signal at the same time as an Aria X2 signal: either at 2.4GHz or using a Sub-GHz band.

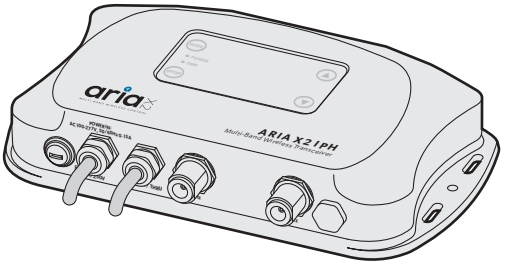


Always carry out a spectrum analysis

Prior to using the Aria™ X2 wireless feature, we strongly recommend that you perform a spectrum analysis of the on site radio frequencies to ensure the system will function correctly at the planned location.

Please also see pages 22 and 23 for details about channel selection.

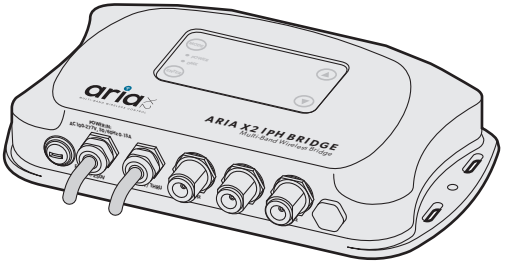
Options



Aria X2 IPH Transceiver

(includes two antenna kits)

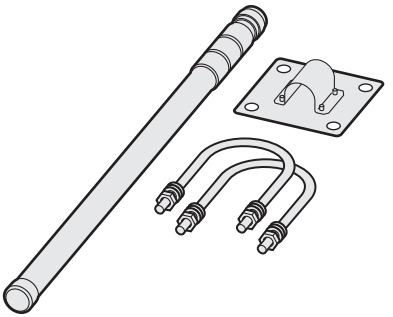
[AX2IPHT]



Aria X2 IPH Bridge

(includes three antenna kits)

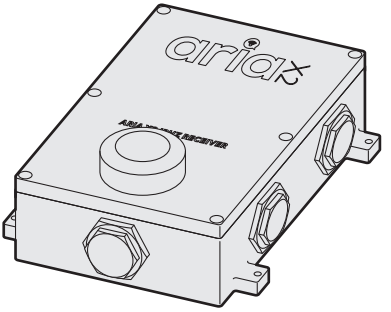
[AX2IPHB]



Antenna kits

Each kit has one antenna, one mount plate plus two U-bolts with washers and nuts.

(provided in varying numbers with the above options)



Aria X2 IPHD Receiver

(Outputs DMX signals Built-in antenna)

[AXIPHXDR]

Aria X2 IPHZ Receiver

(Outputs 0-10V signals Built-in antenna)

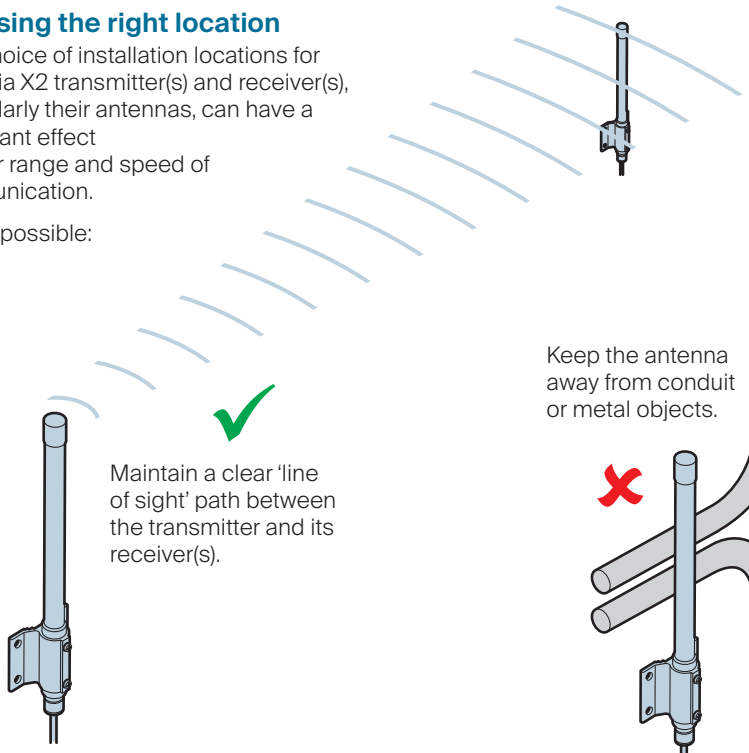
[AXIPHZR]

Installation

Choosing the right location

Your choice of installation locations for your Aria X2 transmitter(s) and receiver(s), particularly their antennas, can have a significant effect on their range and speed of communication.

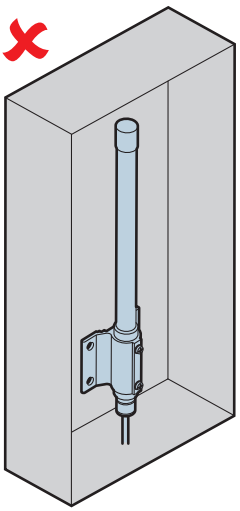
Where possible:



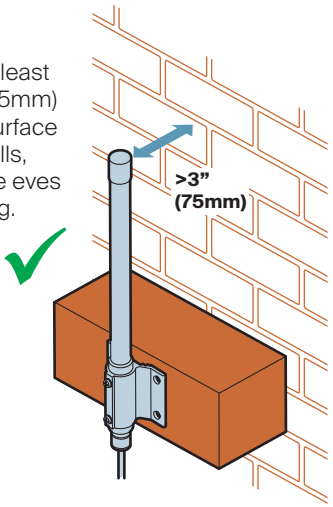
Maintain a clear 'line of sight' path between the transmitter and its receiver(s).

Keep the antenna away from conduit or metal objects.

Do not install an antenna inside a metal box.

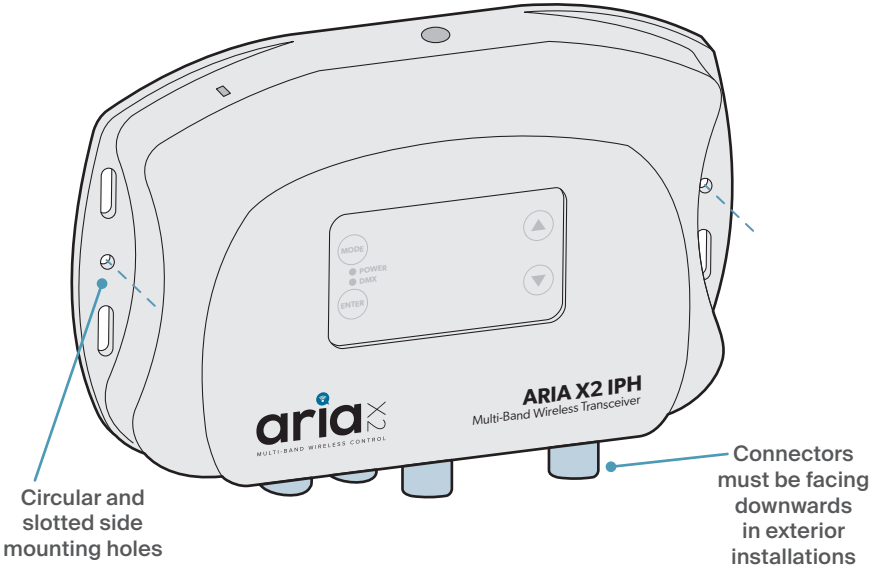


Keep the antenna at least 3 inches (75mm) from any surface such as walls, poles or the eves of a building.



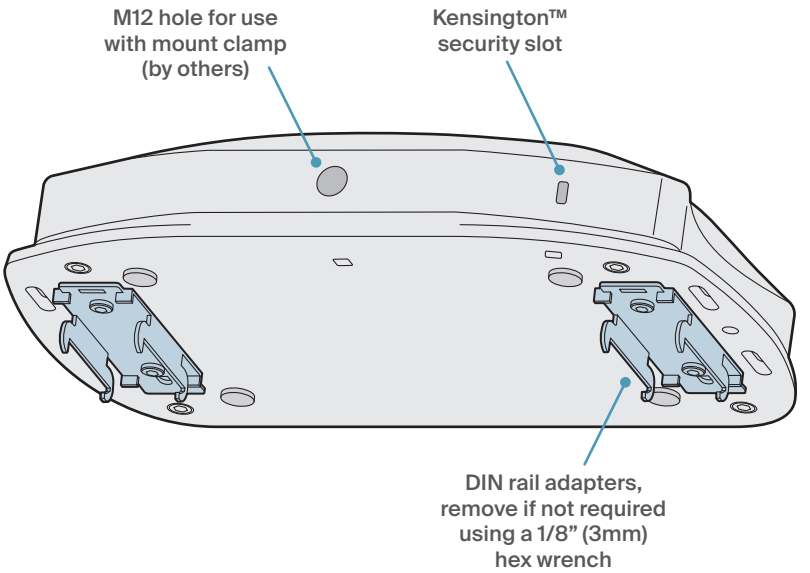
IPH transceiver and bridge mounting

IMPORTANT: When installing outdoors, Aria X2 transceivers must be mounted with their connectors facing downwards to ensure full ingress protection.



Two circular Ø0.2" (Ø5mm) holes and four slots are located on each side for mounting purposes - for dimensions, see page 26.

See "Choosing the right location" on page 5.

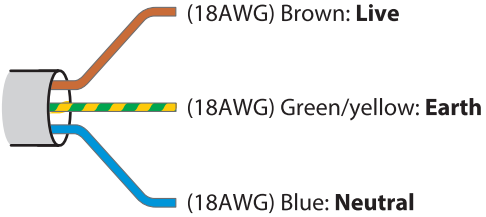


IPH transceiver and bridge connections

Power connection

IPH transceiver power cords are roughly 3 feet (90cm) in length. The power requirements are as follows:

- Voltage: 100-277VAC 50/60Hz (autosensing)
- Power: 1.7W @ 120VAC, 2.1W @ 230VAC



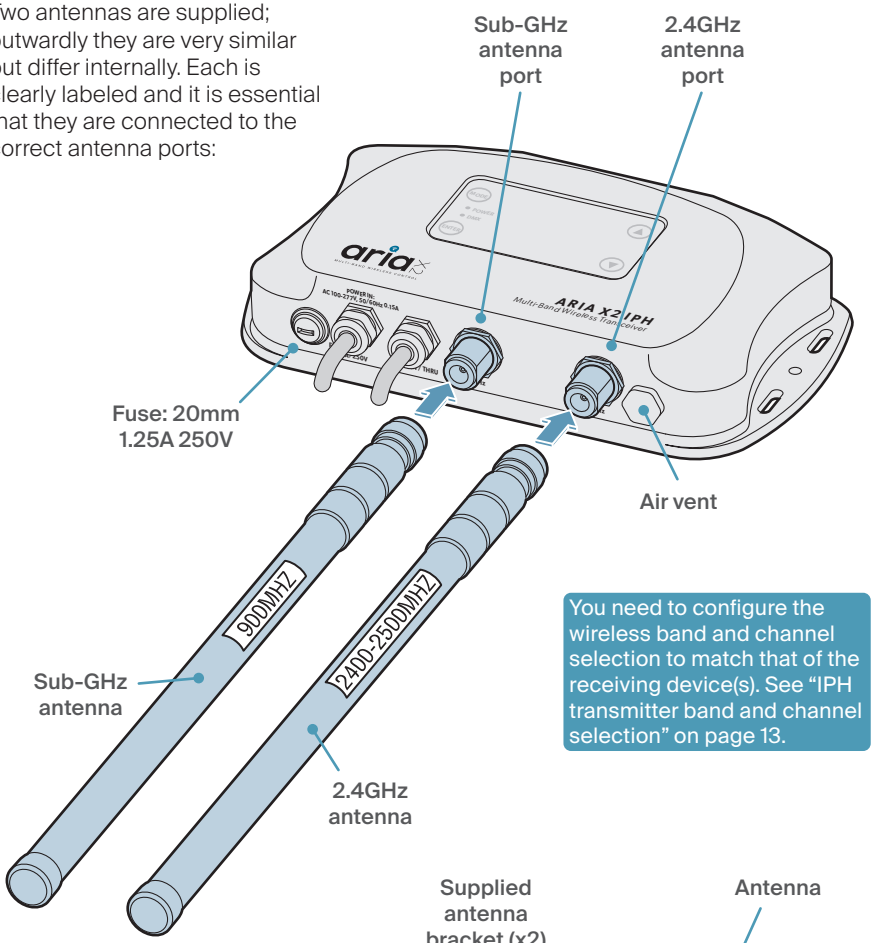
DMX connections

The dual DMX connections are roughly 3.2 feet (100cm) in length, paired for half of that distance. One DMX connection forms the input to the unit and the other the output. It is not important which one is wired as input and which as output.

IPH transceiver antennas

On the underside face of the Aria transceiver unit, there are two fixed cords (DMX and power) via sealed glands as well as a moisture-proof air vent and two antenna ports.

Two antennas are supplied; outwardly they are very similar but differ internally. Each is clearly labeled and it is essential that they are connected to the correct antenna ports:

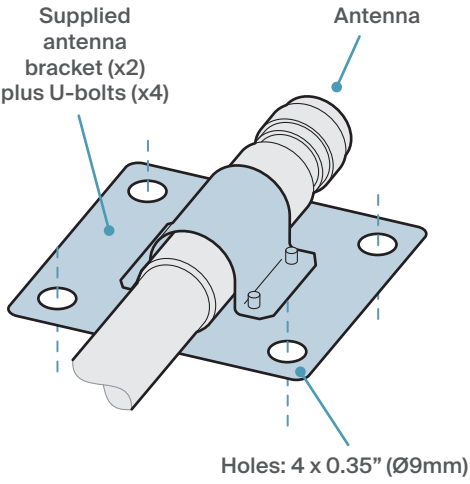


You need to configure the wireless band and channel selection to match that of the receiving device(s). See “IPH transmitter band and channel selection” on page 13.

Where necessary, the supplied antennas can be fitted into supplied brackets for wall or pipe mounting, away from the Aria X2 unit.

Note: optional antenna cables are required to connect back to the Aria X2 IPH transceiver when you mount the antennas separately.

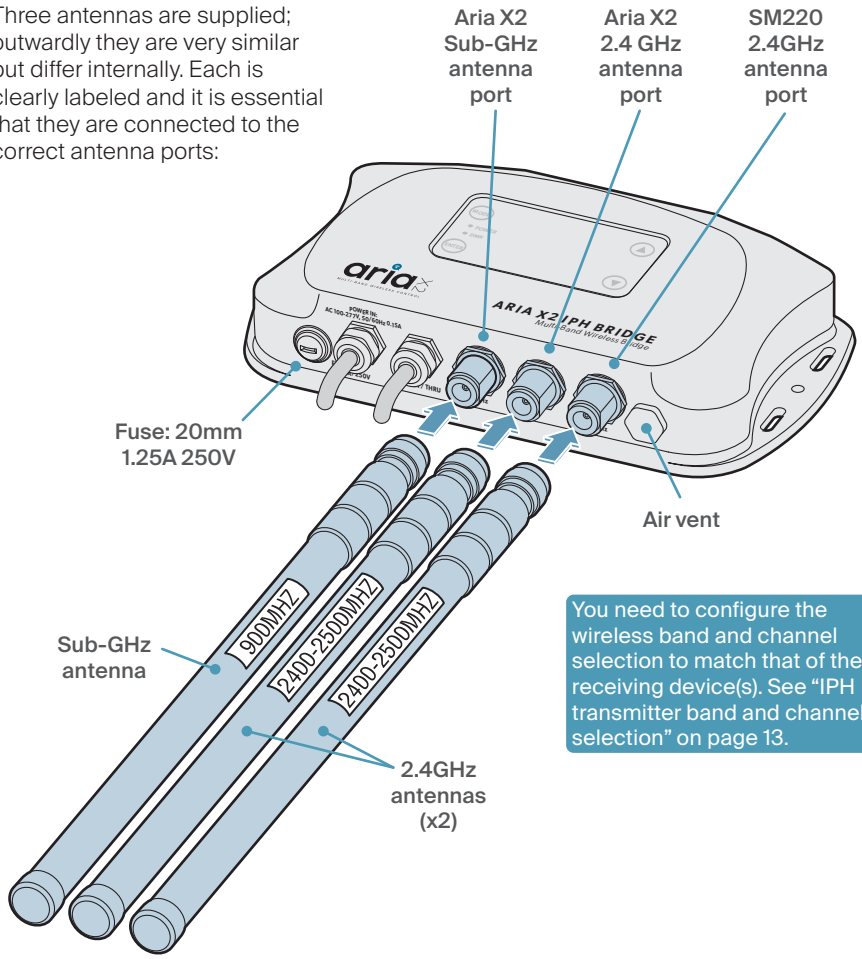
For bracket dimensions, see page 26.



IPH bridge antennas

On the underside face of the Aria bridge unit, there are two fixed cords (DMX and power) via sealed glands as well as a moisture-proof air vent and three antenna ports.

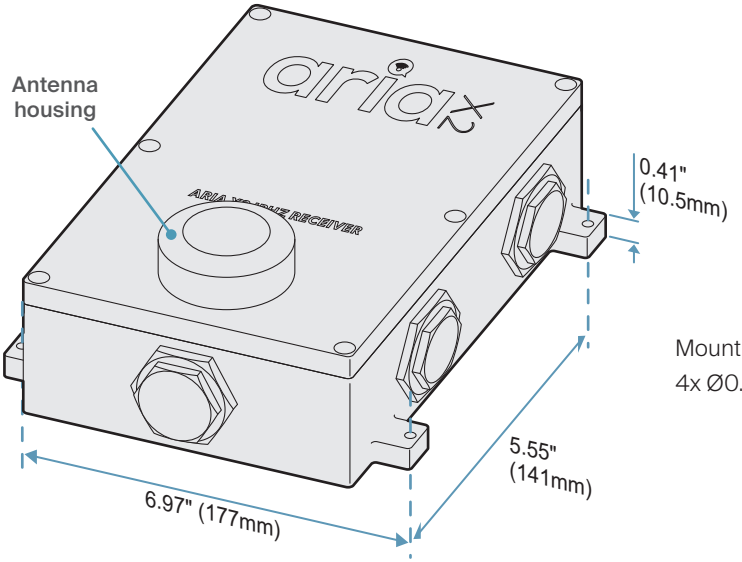
Three antennas are supplied; outwardly they are very similar but differ internally. Each is clearly labeled and it is essential that they are connected to the correct antenna ports:



You need to configure the wireless band and channel selection to match that of the receiving device(s). See “IPH transmitter band and channel selection” on page 13.

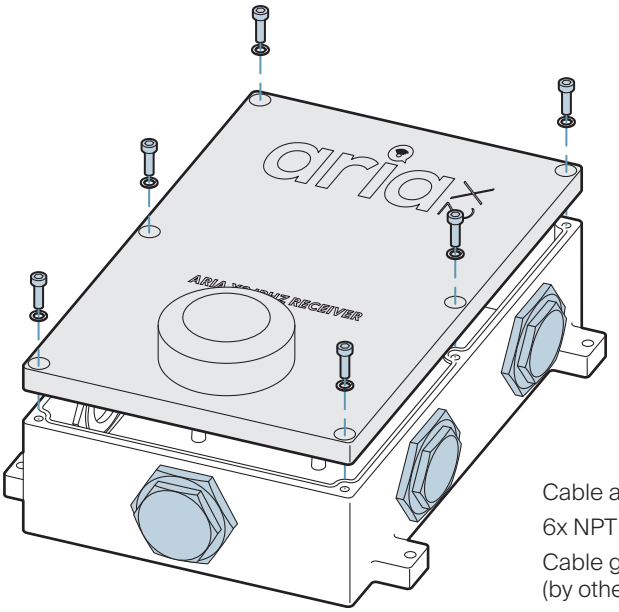
IPHD and IPHZ receiver mounting

Each receiver is housed within an IP66-rated enclosure, which has four mounting lugs:



Opening

The enclosure lid is secured by six bolts with ⅛" (3mm) hex heads. When opening the enclosure take care not to damage the permanent earth and antenna connections made to the lid. Take care also to preserve the waterproof gasket in the lid and ensure that it is correctly in place when resealing the enclosure.



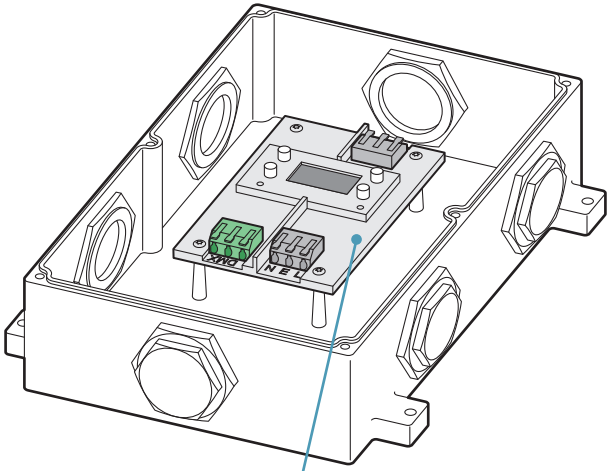
Cable access ports:
6x NPT ¾"
Cable glands or conduit fixtures (by others) are required.

IPHD receiver connections

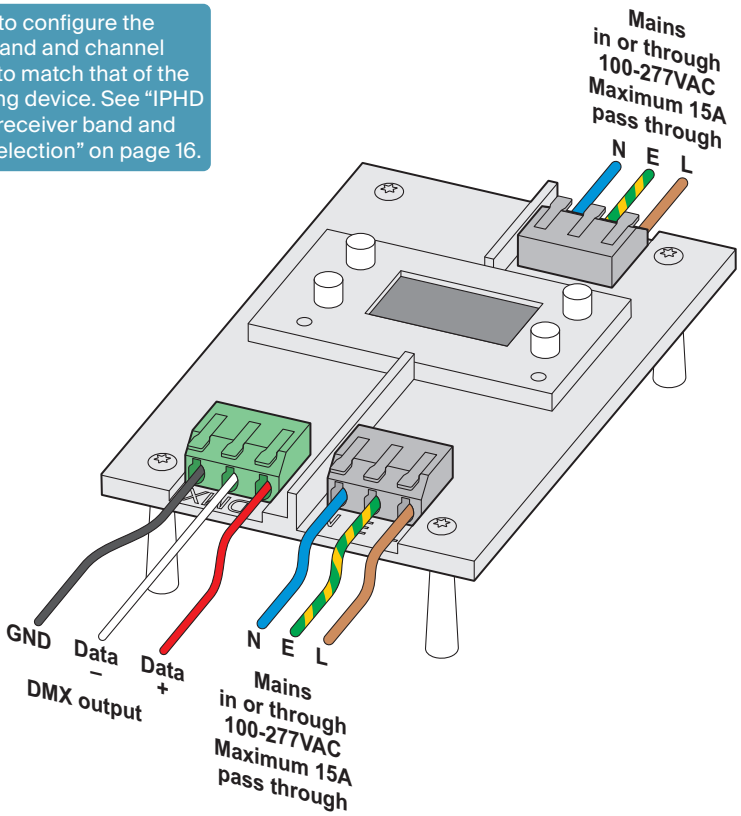
The Aria X2 IPHD receiver requires a low power mains input (100 to 277VAC 50/60Hz) to feed the circuitry. The mains input can be made at either end of the circuit module.

A second mains connector block at the opposing end of the module can be used as a through power terminal. A maximum of 15A can be passed through the module.

A surge protector is fitted to combat damaging voltage spikes.



You need to configure the wireless band and channel selection to match that of the transmitting device. See “IPHD and IPHZ receiver band and channel selection” on page 16.

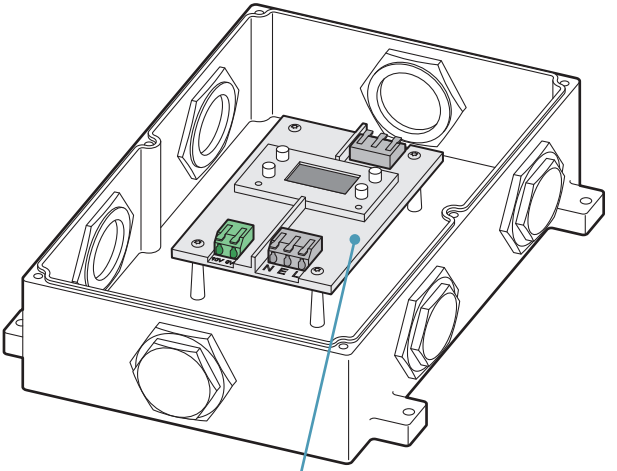


IPHZ receiver connections

The Aria X2 IPHZ receiver requires a low power mains input (100 to 277VAC 50/60Hz) to feed the circuitry. The mains input can be made at either end of the circuit module.

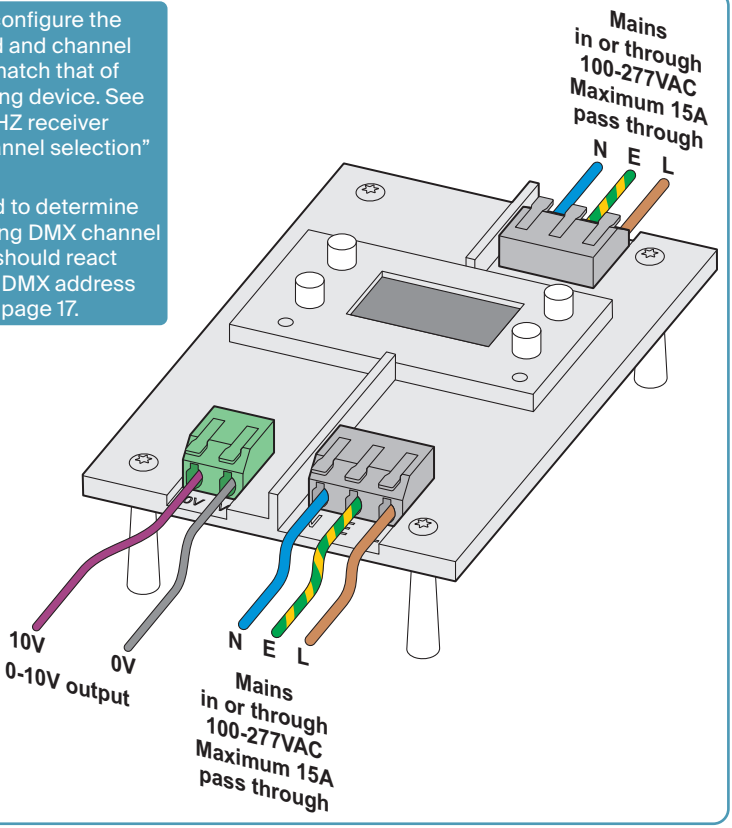
A second mains connector block at the opposing end of the module can be used as a through power terminal. A maximum of 15A can be passed through the module.

A surge protector is fitted to combat damaging voltage spikes.



You need to configure the wireless band and channel selection to match that of the transmitting device. See “IPHD and IPHZ receiver band and channel selection” on page 16.

You also need to determine which incoming DMX channel this receiver should react to. See “IPHZ DMX address selection” on page 17.



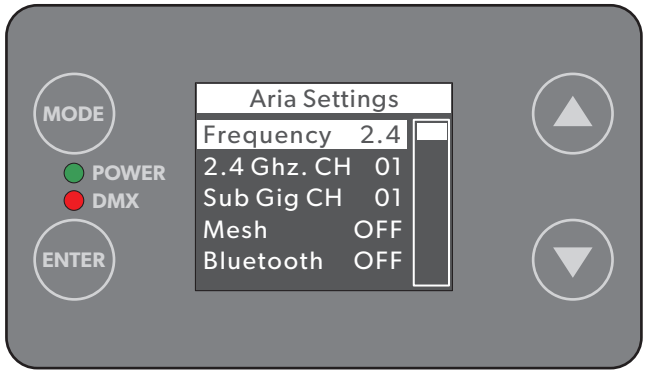
Configuration

IPH transmitter band and channel selection

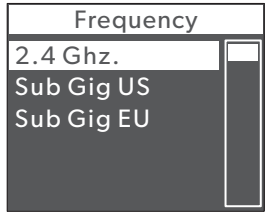
Aria X2 IPH transmitters are able to use multiple frequency bands.

To configure frequency and channel number

1 Power on the unit and press the **MODE** button until the *Aria Settings* icon is shown, then press the **ENTER** button to display the *Aria Settings* page:



2 With the *Frequency* option highlighted, press the **ENTER** button to show the three frequency options - the currently selected band will be highlighted:



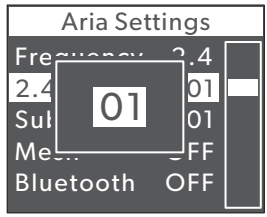
- **2.4 Ghz.** - use this band as the default for most installations unless circumstances dictate otherwise.
- **Sub Gig US** - use this band if the 2.4GHz band is too congested or obstacle penetration is causing issues (geographical restrictions apply*).
- **Sub Gig EU** - use this band if the 2.4GHz band is too congested or obstacle penetration is causing issues (geographical restrictions apply*).

** IMPORTANT: Geographical restrictions apply when using Sub Gig frequency bands - please see "Aria X2 Sub-GHz bands" on page 23 before use.*

3 Use the ▲▼ buttons to move the highlight to the required frequency band and then press **ENTER**. Your chosen frequency band will be selected and the menu will return to the previous level.

4 Depending on which frequency band you selected in the previous step, use the ▲▼ buttons to move the highlight to either the *2.4 Ghz. CH* or *Sub Gig CH* options and press **ENTER**.

A popup will show the currently configured channel number:



5 Use the ▲▼ buttons to change the channel number as required and press **ENTER**:

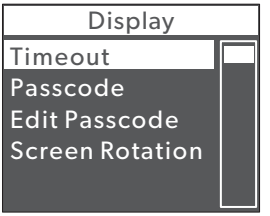
- **2.4Ghz.** channels are numbered between 0 and 15.
- **Sub Gig US** channels are numbered between 0 and 9.
- **Sub Gig EU** has only one channel, which will be used regardless of the number set.

IPH transmitter display settings

Timeout

Timeout determines how long the display should remain showing the menu items after the last button press.

To edit the timeout setting



1 Power on the unit, press the **MODE** button and then use the ▲▼ buttons until the *Display* icon is shown. Press the **ENTER** button to show the *Display* page.

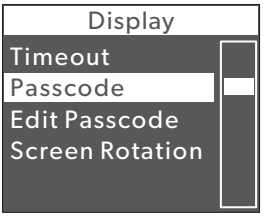
2 With the *Timeout* option highlighted, press the **ENTER** button to view the available settings, from *OFF* to *30 Seconds* to *10 Minutes*.

3 Use the ▲▼ buttons to move the highlight to the required setting and press the **ENTER** button.

Passcode

The passcode is used to control access to certain menu items. The default passcode is 1234.

To enable/disable the passcode



1 Power on the unit, press the **MODE** button and then use the ▲▼ buttons until the *Display* icon is shown. Press the **ENTER** button to show the *Display* page.

2 Use the ▲▼ buttons to move the highlight to the *Passcode* option and press the **ENTER** button.

3 Use the ▲▼ buttons to move the highlight to the required setting and press the **ENTER** button.

To edit the passcode

1 Power on the unit, press the **MODE** button and then use the ▲▼ buttons until the *Display* icon is shown. Press the **ENTER** button to show the *Display* page.

2 Use the ▲▼ buttons to move the highlight to the *Edit Passcode* option and press the **ENTER** button. A popup will show *000* and request the old passcode.

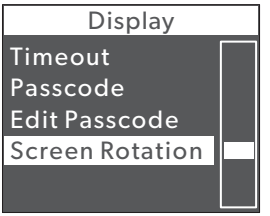
3 Use the ▲▼ buttons to increment/decrement the value until the three digits of the current passcode are shown and press the **ENTER** button.

4 If your entry is correct, you will be requested to enter a new passcode. Use the ▲▼ buttons to increment/decrement the value until the three digits of the current passcode are shown and press the **ENTER** button.

Screen Rotation

You can control the orientation of the display screen.

To edit the screen rotation setting



1 Power on the unit, press the **MODE** button and then use the ▲▼ buttons until the *Display* icon is shown. Press the **ENTER** button to show the *Display* page.

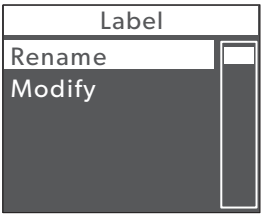
2 Use the ▲▼ buttons to move the highlight to the *Screen Rotation* option and press the **ENTER** button.

3 Use the ▲▼ buttons to move the highlight to the required setting: *YES* (rotate), *NO* (don't rotate) or *Auto* (the unit senses its own orientation) and press the **ENTER** button.

IPH transmitter label settings

You can edit the text that is shown when the display is in standby mode. This is useful for identification purposes if multiple Aria X2 transceivers are used together.

To edit the label



1 Power on the unit, press the **MODE** button and then use the ▲▼ buttons until the *Label* icon is shown. Press the **ENTER** button to display the *Label* page. Two options are available:

- *Rename* - use this option to start a new label from scratch.
- *Modify* - use this option to edit the existing label.

2 Use the ▲▼ buttons to move the highlight to the required option and press the **ENTER** button.

3 The edit page will be shown with either the existing label text shown or a blank area, depending on your chosen option:

4 Use the controls as follows:

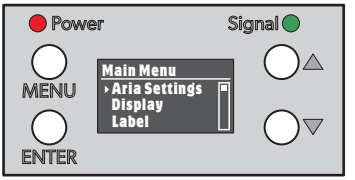
- When the cursor is shown as an underscore in the edit area (upper section of the page), use the ▲▼ buttons to move it along the text line.
- Press **ENTER** to change the cursor between an underscore and an inverse highlight block.
- When the cursor is shown as an inverse highlight block, use the ▲▼ buttons to scroll through the available characters at the current position. Press **ENTER** when the required character is displayed - this will accept it and change the cursor back to an underscore so that it can be moved to the next position.
- To delete a character, move the underscore to it, press **ENTER** to change the cursor, then scroll through the characters until you locate the space between the '9' and 'A' characters.
- To finish and exit, change the cursor to an underscore and move it all the way to the right side of the edit area by repeatedly pressing the ▼ button. It will eventually jump down to the options box at the bottom of the display. Use the ▲▼ buttons to highlight the required action:
  - *Save & Quit - to save your changes and exit, or*
  - *Quit - to discard any changes and exit.*

IPHD and IPHZ receiver band and channel selection

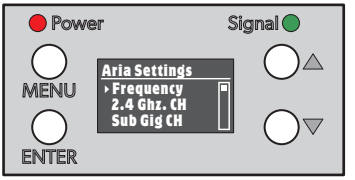
The Aria X2 IPHD and IPHZ receivers are able to use multiple frequency bands.

To configure frequency and channel number

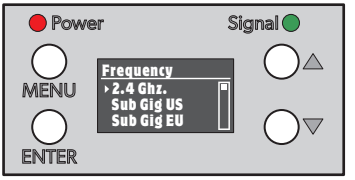
1 Power on the unit and press the **MENU** button repeatedly until the *Main Menu* page is displayed:



2 With the highlight arrow pointing to the left of the *Aria Settings* option, press the **ENTER** button to show the *Aria Settings* page:



3 With the highlight arrow pointing to the left of the *Frequency* option, press the **ENTER** button to show the three frequency options - the currently selected band will be indicated by the highlight arrow:

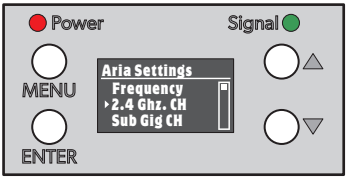


- **2.4 Ghz.** - use this band as the default for most installations unless circumstances dictate otherwise.
- **Sub Gig US** - use this band if the 2.4GHz band is too congested or obstacle penetration is causing issues (geographical restrictions apply*).
- **Sub Gig EU** - use this band if the 2.4GHz band is too congested or obstacle penetration is causing issues (geographical restrictions apply*).

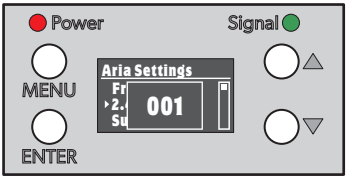
** IMPORTANT: Geographical restrictions apply when using Sub Gig frequency bands - please see "Aria X2 Sub-GHz bands" on page 23 before use.*

4 Use the ▲▼ buttons to move the highlight arrow to the required frequency band and then press **ENTER**. Your chosen frequency band will be selected and the menu will return to the previous level.

5 Depending on which frequency band you selected in the previous step, use the ▲▼ buttons to move the highlight arrow to either the *2.4 Ghz. CH* or *Sub Gig CH* options and press **ENTER**.



A popup will show the currently configured channel number:



6 Use the ▲▼ buttons to change the channel number as required and press **ENTER**:

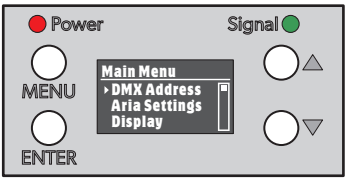
- **2.4Ghz.** channels are numbered between 0 and 15.
- **Sub Gig US** channels are numbered between 0 and 9.
- **Sub Gig EU** has only one channel, which will be used regardless of the number set.

IPHZ DMX address selection

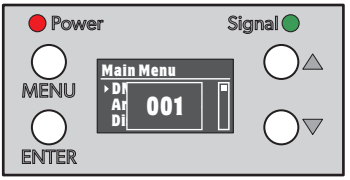
Although each Aria X2 IPHZ receiver only outputs a 0-10V signal, each unit needs to be told which incoming DMX address it should react to. In addition to setting the wireless frequency and channel outlined on the previous page, IPHZ receivers require this additional stage.

To configure the incoming DMX address

1 Power on the unit and press the **MENU** button repeatedly until the *Main Menu* page is displayed:



2 With the highlight arrow pointing to the left of the *DMX Address* option, press the **ENTER** button. A popup will show the currently configured DMX address:



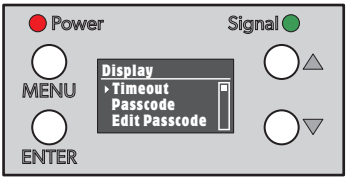
3 Use the ▲▼ buttons to change the DMX address as required and press **ENTER**:

IPHD and IPHZ receiver display settings

Timeout

Timeout determines how long the display should remain showing the menu items after the last button press.

To edit the timeout setting



1 Power on the unit, press the **MENU** button and then use the ▲▼ buttons until the *Display* icon is shown. Press the **ENTER** button to show the *Display* page.

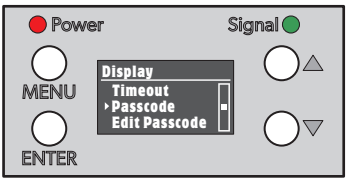
2 With the *Timeout* option highlighted, press the **ENTER** button to view the available settings, from *OFF* to *30 Seconds* to *10 Minutes*.

3 Use the ▲▼ buttons to move the highlight to the required setting and press the **ENTER** button.

Passcode

The passcode is used to control access to certain menu items. The default passcode is 1234.

To enable/disable the passcode



1 Power on the unit, press the **MENU** button and then use the ▲▼ buttons until the *Display* icon is shown. Press the **ENTER** button to show the *Display* page.

2 Use the ▲▼ buttons to move the highlight to the *Passcode* option and press the **ENTER** button.

3 Use the ▲▼ buttons to move the highlight to the required setting and press the **ENTER** button.

To edit the passcode

1 Power on the unit, press the **MENU** button and then use the ▲▼ buttons until the *Display* icon is shown. Press the **ENTER** button to show the *Display* page.

2 Use the ▲▼ buttons to move the highlight to the *Edit Passcode* option and press the **ENTER** button. A popup will show *000* and request the old passcode.

3 Use the ▲▼ buttons to increment/decrement the value until the three digits of the current passcode are shown and press the **ENTER** button.

4 If your entry is correct, you will be requested to enter a new passcode. Use the ▲▼ buttons to increment/decrement the value until the three digits of the current passcode are shown and press the **ENTER** button.

Screen Rotation

You can control the orientation of the display screen.

To edit the screen rotation setting

1 Power on the unit, press the **MENU** button and then use the ▲▼ buttons until the *Display* icon is shown. Press the **ENTER** button to show the *Display* page.

2 Use the ▲▼ buttons to move the highlight to the *Screen Rotation* option and press the **ENTER** button.

3 Use the ▲▼ buttons to move the highlight to the required setting: *YES* (rotate), *NO* (don't rotate) or *Auto* (the unit senses its own orientation) and press the **ENTER** button.

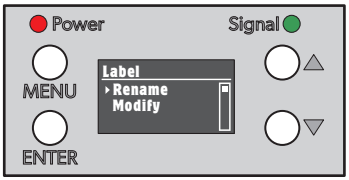
IPHD and IPHZ receiver label settings

You can edit the text that is shown when the display is in standby mode. This is useful for identification purposes if multiple Aria X2 transceivers are used together.

To edit the label

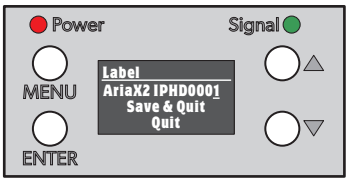
1 Power on the unit, press the **MENU** button and then use the ▲▼ buttons until the *Label* icon is shown. Press the **ENTER** button to display the *Label* page. Two options are available:

- *Rename* - use this option to start a new label from scratch.
- *Modify* - use this option to edit the existing label.



2 Use the ▲▼ buttons to move the highlight to the required option and press the **ENTER** button.

3 The edit page will be shown with either the existing label text shown or a blank area, depending on your chosen option:



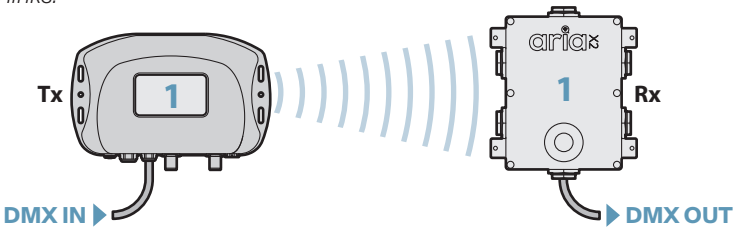
4 Use the controls as follows:

- When the cursor is shown as an underscore in the edit area (upper section of the page), use the ▲▼ buttons to move it along the text line.
- Press **ENTER** to change the cursor between an underscore and an inverse highlight block.
- When the cursor is shown as an inverse highlight block, use the ▲▼ buttons to scroll through the available characters at the current position. Press **ENTER** when the required character is displayed - this will accept it and change the cursor back to an underscore so that it can be moved to the next position.
- To delete a character, move the underscore to it, press **ENTER** to change the cursor, then scroll through the characters until you locate the space between the '9' and 'A' characters.
- To finish and exit, change the cursor to an underscore and move it all the way to the right side of the edit area by repeatedly pressing the ▼ button. It will eventually jump down to the options area at the bottom of the display. Use the ▲▼ buttons to highlight the required action:
  - *Save & Quit - to save your changes and exit, or*
  - *Quit - to discard any changes and exit.*

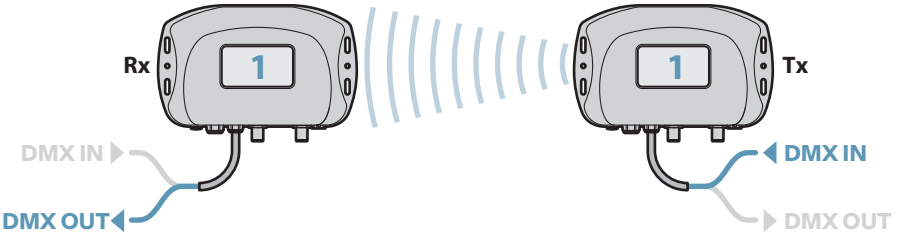
Operation

Providing Aria X2 Tx/Rx pairs are within range and are set to use the same radio band and channel, the setup and operation should be totally transparent. A DMX signal applied to one unit will be replicated and output at the other.

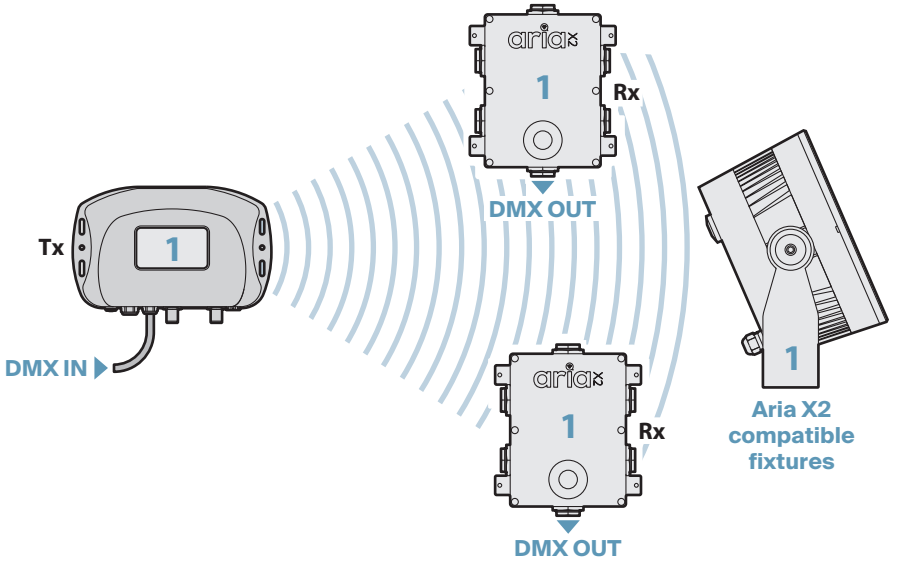
Note: Remote Device Management (RDM) is not currently supported across Aria wireless links.



Aria X2 IPH transceiver units can operate either as a transmitter or as a receiver - although not at the same time. No configuration changes are required to change Aria X2 IPH transceivers between operation as a transmitter or receiver; the detection of a valid DMX input will automatically prompt an Aria X2 IPH unit to become a transmitter:

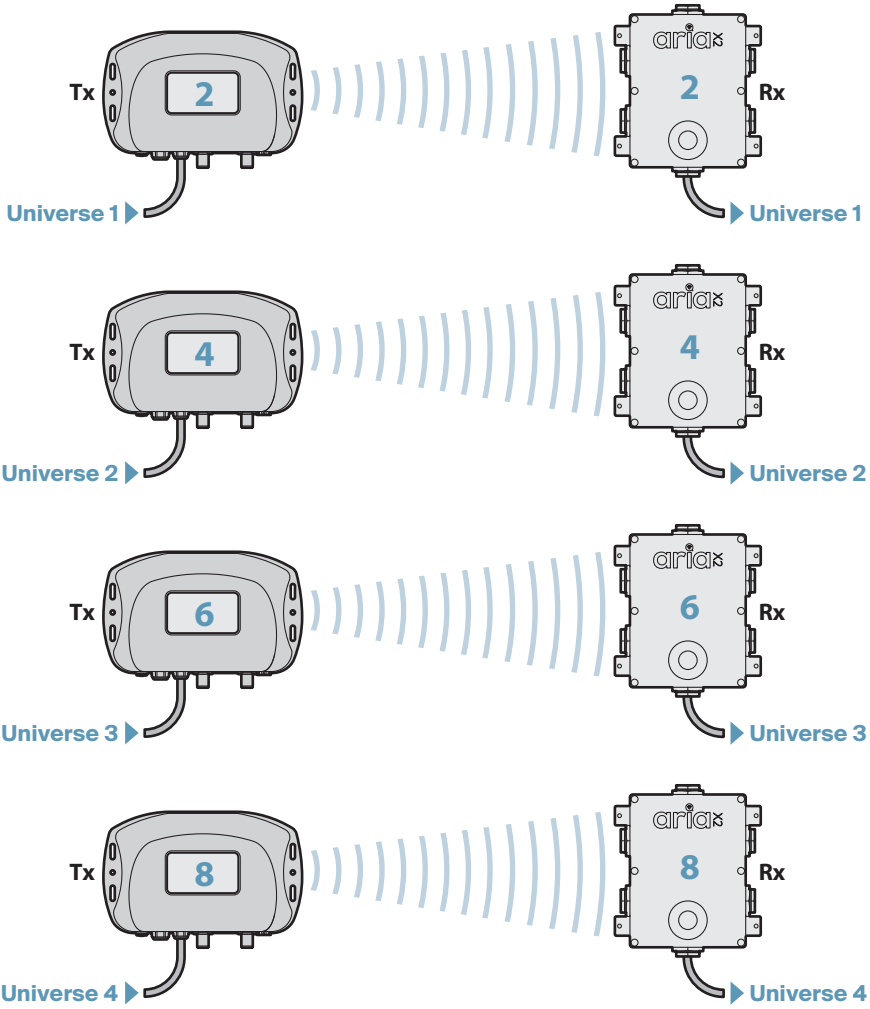


Up to 250 Aria units (or Aria Direct Connect compatible lighting fixtures) can act as receivers from a single Aria transmitter:



Transferring multiple universes

Each Aria X2 transceiver pair can transfer a single DMX universe, however, by arranging parallel pairs of Aria X2 units you can send multiple universes. Configuration for each pair is exactly the same as any standard installation, see page 13.



The two important points to remember when setting up multiple Aria pairs are:

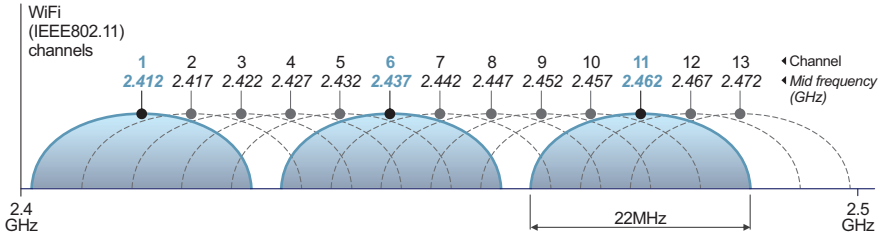
- Ensure there is a minimum spacing of 6.5 feet (2m) between the antennas of neighboring Aria X2 units.
- Maintain a gap of at least one Aria radio channel between different pairs operating in the same area, e.g. use groups of odd or even channels: *0, 2, 4, 6, 8, 10, 12 and 14* **OR** *1, 3, 5, 7, 9, 11 and 13*. This means the maximum number of universes that can be transferred in the same area is 8 (where external sources of interference do not exist). See page 22 for details about WiFi issues.

Taking these steps will help to minimize interference between Aria X2 units operating in the same area.

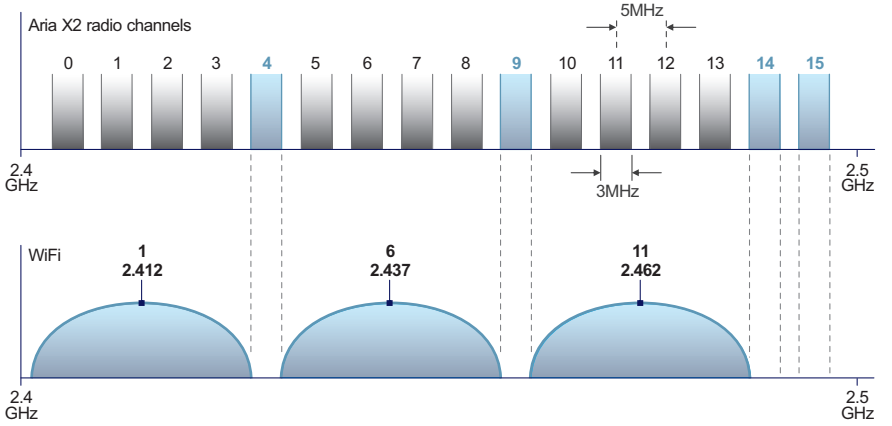
Optimizing signal strength via channel selection (2.4GHz)

Aria™ X2 wireless transceivers can use radio frequencies contained within the Industrial Scientific and Medical (ISM) band that runs between 2.4GHz and 2.5GHz. As one of the few license-free radio bands agreed upon in most countries, many other devices also use this band, most notably WiFi. Aria X2 units use the 2.4GHz band in a different manner than WiFi and the two can coexist. However, where distances between Aria X2 units are great and WiFi access points are reasonably close, then interference can become an issue.

WiFi uses the IEEE802.11 standard, which divides the ISM band into 13 (sometimes 14) channels, each of which is 22MHz wide. However, the channels overlap and so cannot all be used simultaneously. Hence, most WiFi access points settle upon channels 1, 6 and 11 to avoid any overlap:



Aria X2 uses the IEEE802.15.4 standard, with channels that are 3MHz in width and do not overlap. Many Aria X2 channels do, however, coincide with the common WiFi channels. The notable exceptions are Aria X2 channels 4, 9, 14 and 15 which fall into the gaps between the most commonly used WiFi channels:



Where interference is suspected, a radio frequency survey may provide useful indications. If you have control over the nearest WiFi access points, it is suggested that you lock them down to one or more of the common channels (to prevent them from roaming) and select Aria X2 channels that sit comfortably alongside.

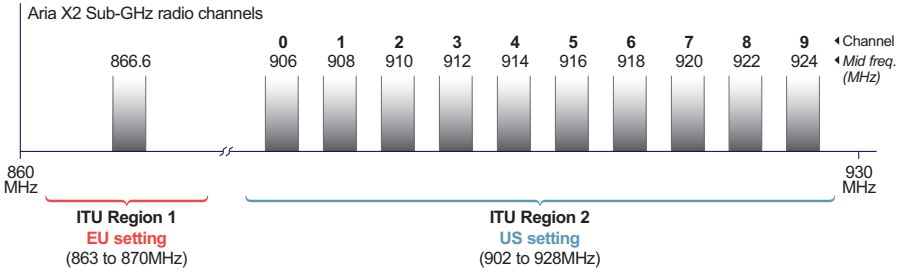
Notes:

The Aria X2 channel notations (0 to 15) are directly equivalent to the IEEE802.15.4 channels 11 to 26, inclusive.

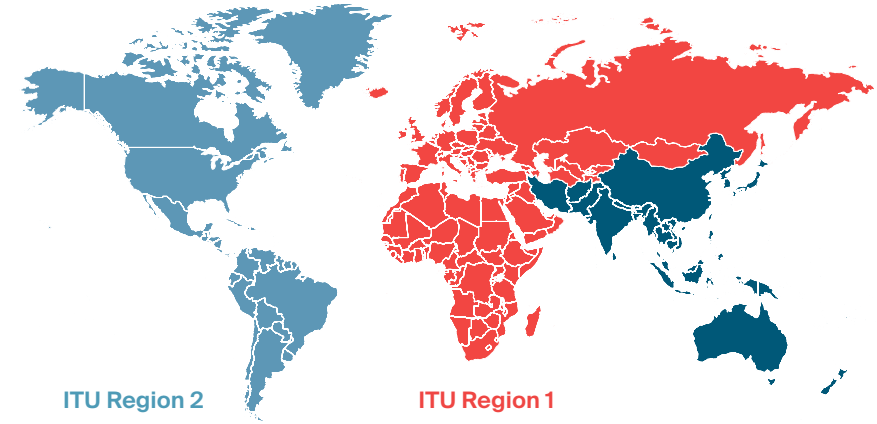
Aria X2 Sub-GHz bands

In addition to using the 2.4GHz ISM band, Aria X2 transceivers can also take advantage of lower frequency bands that are cleared for use in certain geographical regions. The lower frequency, longer wavelength transmission characteristics of the Sub-GHz bands can provide improved obstacle penetration over the 2.4GHz band. However, they can be susceptible to interference from other license-exempt transmitting devices using the same frequency space. As always, a radio spectrum survey will help to identify the best option within any given environment.

At present, two distinct Sub-GHz bands are supported. A single channel is available for use only in ITU Region 1 (at 866.6MHz) while ten channels (from 906 to 924MHz) are cleared for use in ITU Region 2:



The map below shows the geographical spread of the ITU regions:



Interference created by objects

The composition of nearby objects can have a significant impact on the quality of the RF signal. Here are a few examples:

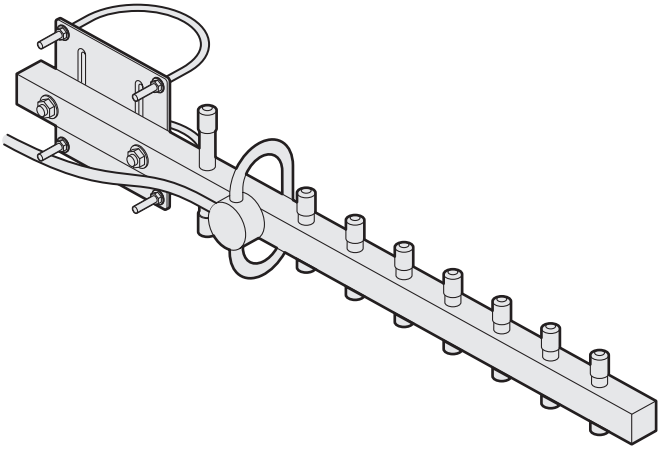
- Standard drywall does not present much of an issue to the 2.4GHz wireless spectrum. However, things inside or attached to the drywall, such as copper pipe, electrical conduit, and circuit breaker panels, will partially block RF signal propagation.
- Hollow cement block walls will dampen the RF signal.
- Reinforced concrete walls typically contain rebar that will contribute to significant RF signal strength loss.
- Large metal structures such as metal cabinets, HVAC units, machinery, brew kettles, etc. may partially or completely block the RF signal.

Choosing the right location

Please see page 5 for tips about locating transmitters and receivers.

High gain antenna

In locations where you wish to extend the range further or to otherwise strengthen the signal (eg to counter the threat of interference), Acclaim Lighting provide a directional antenna with 10dB gain [part #: ADA10].



Further information

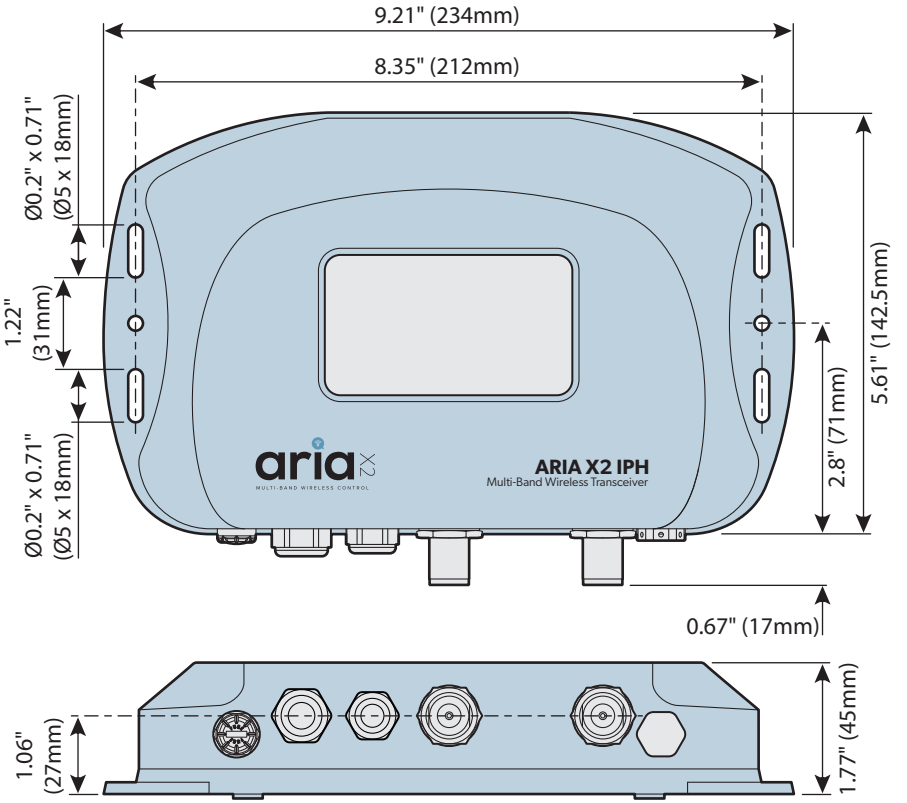
Aria X2 specifications

Wireless protocols	Zigbee: 2405 to 2480MHz Bluetooth: 2402 to 2480MHz Sub-GHz: 866.6MHz plus 906 to 924MHz
Estimated transmission range	Clear line of sight: 2000 feet (610m) Through obstructions: 300 feet (91m)
DMX universes	One per transceiver set, maximum of 8 simultaneously
Max number of receivers	200 (to ensure optimum data transmission)
Included (Tx) antenna	5dB, includes bracket
Mounting	Wall mountable via screw holes on transceiver and antenna mount
Input voltage	100 to 277VAC (50/60Hz) - autosensing
Input power consumption	1.7W @ 120VAC, 2.1W @ 230VAC
Housing	Die cast aluminum
IP rating	IP66, wet location (not including cable end feeds)
Operating temperature	-40°F to 113°F -40°C to 45°C
Standards	Health: EN IEC 62311:2020, EN50665:2017, BS EN IEC 62311:2020, BS EN 50665:2017 Safety: EN IEC 62368-1: 2020+A11:2020, BS EN IEC 62368-1: 2020+A11:2020 EMC: ETSI EN 301 489-1 V2.2.3 (2019-11), ETSI EN 301 489-3 V2.3.2 (2023-01), ETSI EN 301 489-17 V3.2.4 (2020-09), EN 55032:2015/A1:2020, EN 55035:2017/A11:2020, EN 61000-3-3:2013/A2:2021, EN IEC 61000-3-2:2019/A1:2021, BS EN 55032:2015/A1:2020, BS EN 55035:2017/A11:2020, BS EN 61000-3-3:2013/A2:2021, BS EN IEC 61000-3-2:2019/A1:2021 Radio: EN 300 220-1 V 3.1.1 (2017-02), EN 300 220-2 V 3.2.1 (2018-06), ETSI EN 300 328 V2.2.2 (2019-07)
Certifications	

Release 3.0a

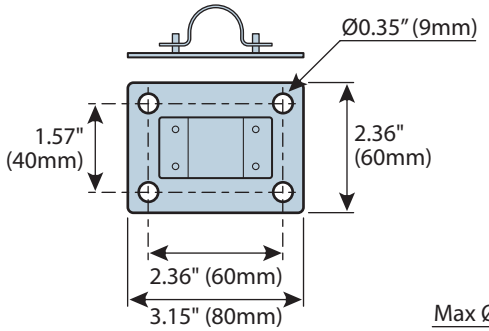
Dimensions

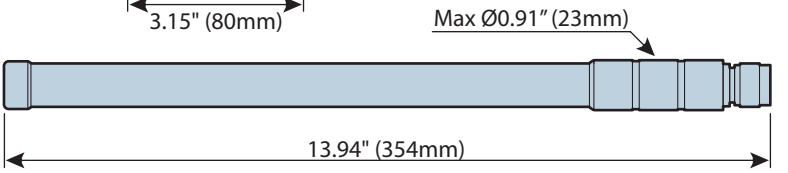
IPH transceiver and bridge



Weights - IPH Transceiver: 2.97 lbs (1.35 kg)
IPH Bridge: 3.13 lbs (1.42 kg)

Antenna and bracket

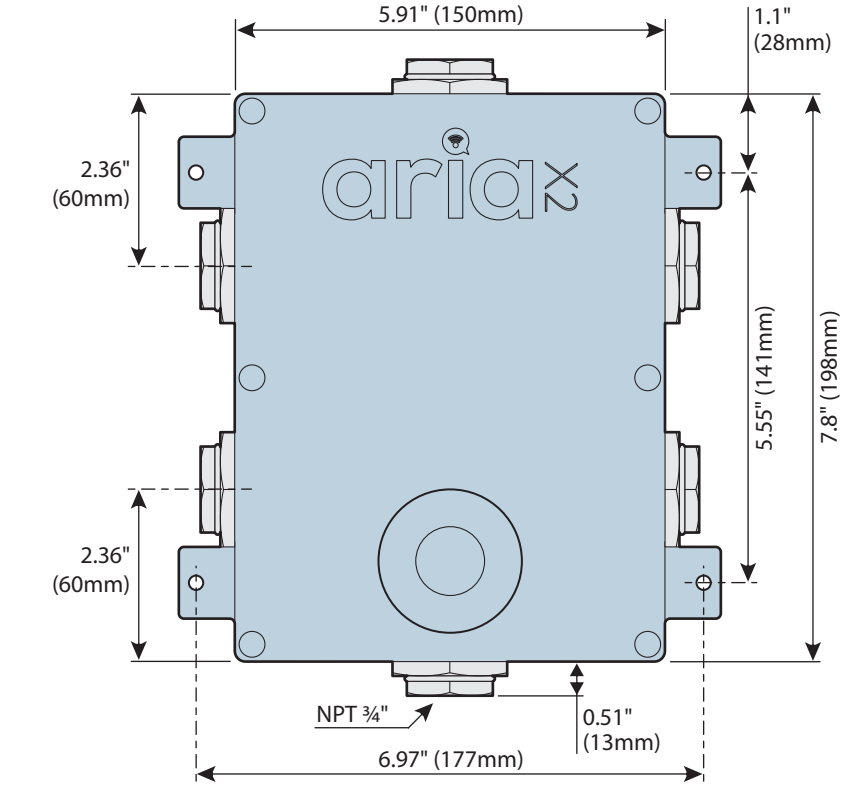


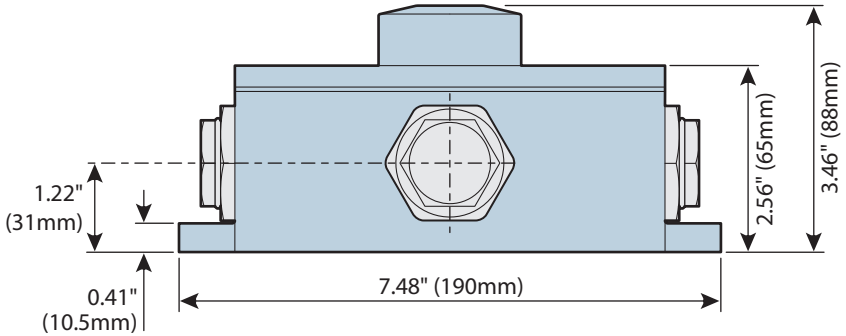


Weights
2.4GHz antenna: 5.2oz (149g)
900MHz antenna: 4.72oz (134g)
Bracket & U-bolts: 8.46oz (240g)

Dimensions (continued)

IPHD and IPHZ receivers





Weight: 5.04 lbs (2.29 kg)

Limited product warranty

A. Acclaim Lighting™ hereby warrants, to the original purchaser, Acclaim Lighting finished products to be free of manufacturing defects in material and workmanship for a standard period of:

- Fixtures: 5 Years (1,825 days) from the date of purchase.
- Drivers, power supplies and accessories: 5 Years (1,825 days) from the date of purchase.
- Flex Products: 3 Years (1,095 days) from the date of purchase.
- Controllers: 2 Years (730 days) from the date of purchase.

It is the owner's responsibility to establish the date and place of purchase and warranty terms by acceptable evidence, at the time service is sought.

B. For warranty service, send the product only to the Acclaim factory. All shipping charges must be pre-paid. If the requested repairs or service (including parts replacement) are within the terms of this warranty, Acclaim Lighting will pay return shipping charges only to a designated point within the United States. If the entire instrument is sent, it must be shipped in its original package. No accessories should be shipped with the product. If any accessories are shipped with the product, Acclaim Lighting shall have no liability whatsoever for loss of or damage to any such accessories, nor for the safe return there of. Acclaim reserves the right to replace the item with same or similar product at its discretion.

C. This warranty is void if the serial number has been altered or removed; if the product is modified in any manner which Acclaim concludes, after inspection, affects the reliability of the product; if the product has been repaired or serviced by anyone other than the Acclaim Lighting factory unless prior written authorization was issued to purchaser by Acclaim Lighting; if the product is damaged because not properly maintained as set forth in the instruction manual.

D. This is not a service contract, and this warranty does not include maintenance, cleaning or periodic check-up nor do we guarantee as part of this warranty any lumen performance during period. Parts not covered by this warranty include: fuses, external power supplies, third party items not manufactures by Acclaim lighting. During the period specified above, Acclaim Lighting will replace defective parts at its expense, and will absorb all expenses for warranty service and repair labor by reason of defects in material or workmanship. The sole responsibility of Acclaim Lighting under this warranty shall be limited to the repair of the product, or replacement thereof, including parts, at the sole discretion of Acclaim Lighting. At no time will installation or re-installation or products labor or liability costs will be assumed by Acclaim Lighting. All products covered by this warranty were manufactured after January 1, 2012, and bear identifying serial number marks to that effect.

E. Acclaim Lighting reserves the right to make changes in design and/or improvements upon its products without any obligation to include these changes in any products theretofore manufactured No warranty, whether expressed or implied, is given or made with respect to any accessory supplied with products describe above. Except to the extent prohibited by applicable law, all implied warranties made by Acclaim Lighting in connection with this product, including warranties of merchantability or fitness, are limited in duration to the warranty period set forth above. And no warranties, whether expressed or implied, including warranties of merchantability or fitness, shall apply to this product after said period has expired.

F. Marine or extreme weather location applications using Acclaim lighting products are subject to a 2 year limited warranty and Acclaim must be notified prior to delivery of units for such applications so that preventative treatment can be made to the products to ensure proper performance and product life with a special marine code coating / sealing process at an additional cost.

G. The consumer's and or dealer's sole remedy shall be such repair or replacement as is expressly provide above; and under no circumstances shall Acclaim Lighting be liable for any loss or damage, direct or consequential, arising out of the use of, or inability to use, this product. This warranty is the only written warranty applicable to Acclaim Lighting products and supersedes all prior warranties and written descriptions of warranty terms and conditions heretofore published.

FCC and IC statement

This equipment complies with FCC's and IC's RF radiation exposure limits set forth for an uncontrolled environment. The antenna(s) used for this transmitter must be installed and operated to provide a separation distance of at least 20 cm from all persons and must not be collocated or operating in conjunction with any other antenna or transmitter. Installers must ensure that 20 cm separation distance will be maintained between the device and users.

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

- This device may not cause interference.
- This device must accept any interference, including interference that may cause undesired operation of the device.

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

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.

www.acclaimlighting.com