

Dyna Accent

aria[™]
WIRELESS DMX

User guide

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INTRODUCTION

WELCOME

Welcome to the Dyna Accent range from Acclaim Lighting. These rugged LED-powered fixtures are designed to replace traditional external flood lights while using a fraction of the power. Featuring a die-cast aluminum body throughout with full IP66 environmental rating, these fixtures are built to last. A choice of standard gray, black or white finishes plus special-order custom colors are available.

The Dyna Accent range consists of four main variants:

- Fixed white - 2700K, 3000K, 3500K or 4000K emitters,
- DW (Dynamic White) - Warm and cool white emitters (2400K to 5500K),
- RGBW - Red, green, blue and cool white LED emitters,
- RGBA - Red, green, blue and amber LED emitters.

External control using the industry standard DMX-512A is supported via either cable or the in-built Aria™ wireless receiver. The industry standard RDM (*Remote Device Management*) format is used for configuration. Dyna Accent features automated operation when light levels fall below a certain level together with a timer for auto shut off.

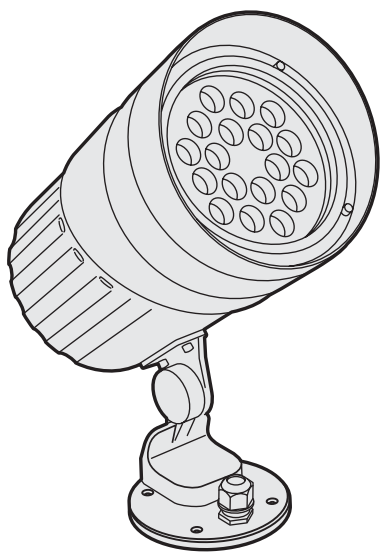
The internal auto-sensing power supply can accept mains inputs between 100 to 277VAC at 50 or 60Hz. Total power consumption is just 35W.

Optional spread lenses and snoots are available.

SAFETY

- When fixtures are mounted off-ground, ensure that they are securely fitted to an appropriate mounting surface.
- Ensure that the power input is supplied from a correctly fused, earthed and environmentally protected location.

SUPPLIED ITEMS



Dyna Accent

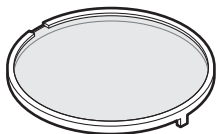
With integral mounting stand and 6 foot (1.8m) power/control tails.

Silicone gasket



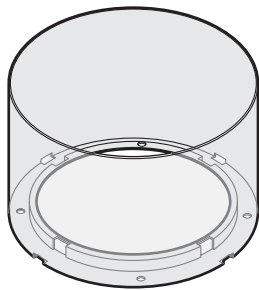
**5mm Allen wrench
(hex key)**

OPTIONAL EXTRAS



Spread lens

20°, 40°, 60° and 10° x 60° available



4" (100mm) Snoot

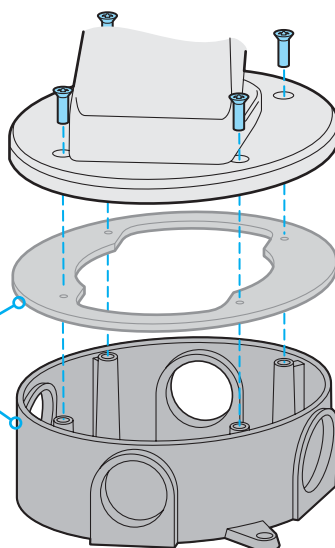
INSTALLATION

MOUNTING

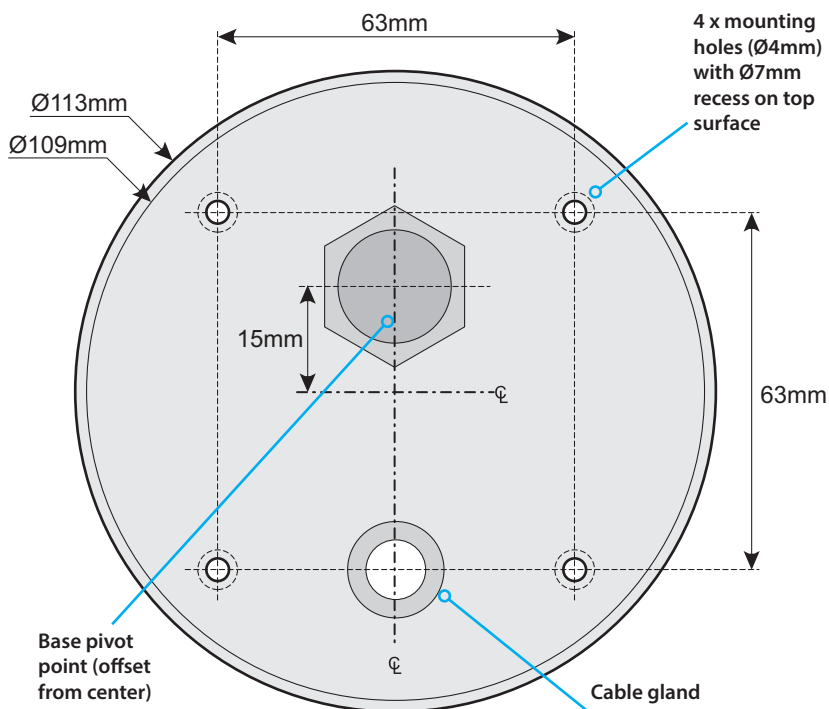
The base plate of the Dyna Accent can be directly mounted onto a standard 4" round electrical outlet box of sufficient strength for the weight of the fixture. The data and power cables are fed through two glands in the base plate so allowance should be made for passage of the cables if mounted on a flat surface. You should use screws/bolts with countersunk heads (less than Ø7mm) in order to avoid interfering with the pan rotation of the fixture.

Silicone gasket

Standard 4" round electrical outlet box (not supplied)



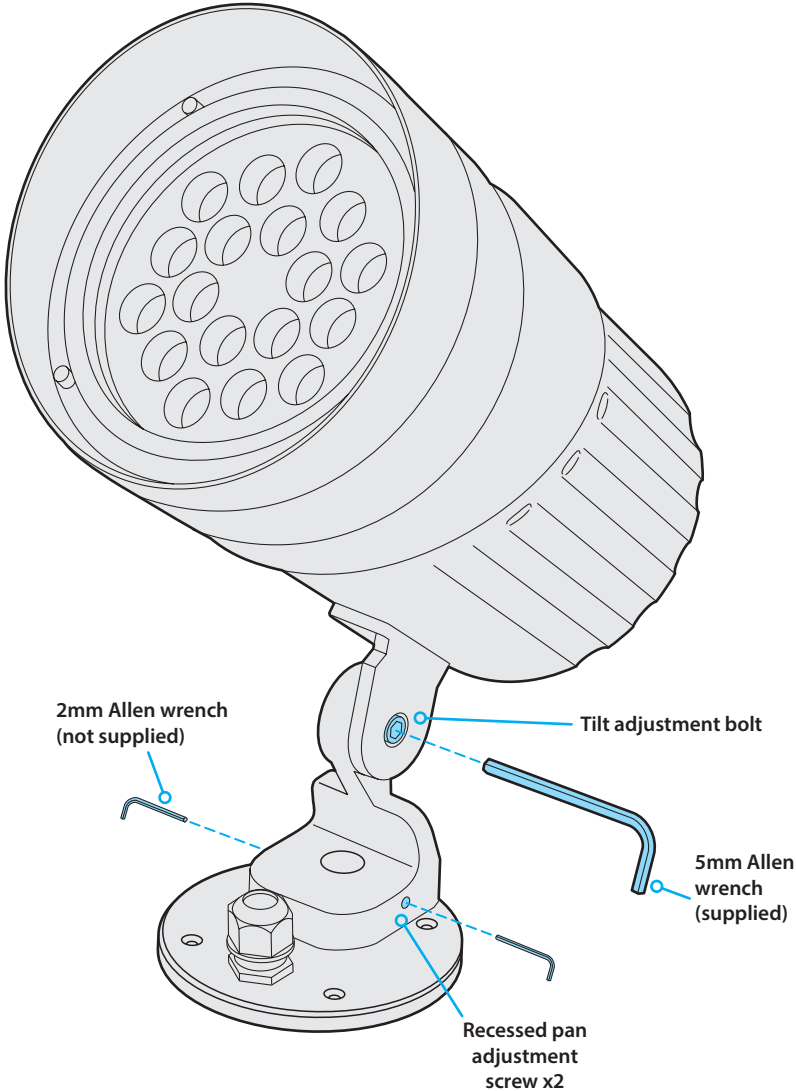
The dimensions of the underside of the base are shown below (at 75% of actual size):



Note: It is important to use countersunk screws/bolts that fit flush within the countersunk mounting holes as the rotatable base of the fixture overlaps the two rear holes.

PAN AND TILT ADJUSTMENT

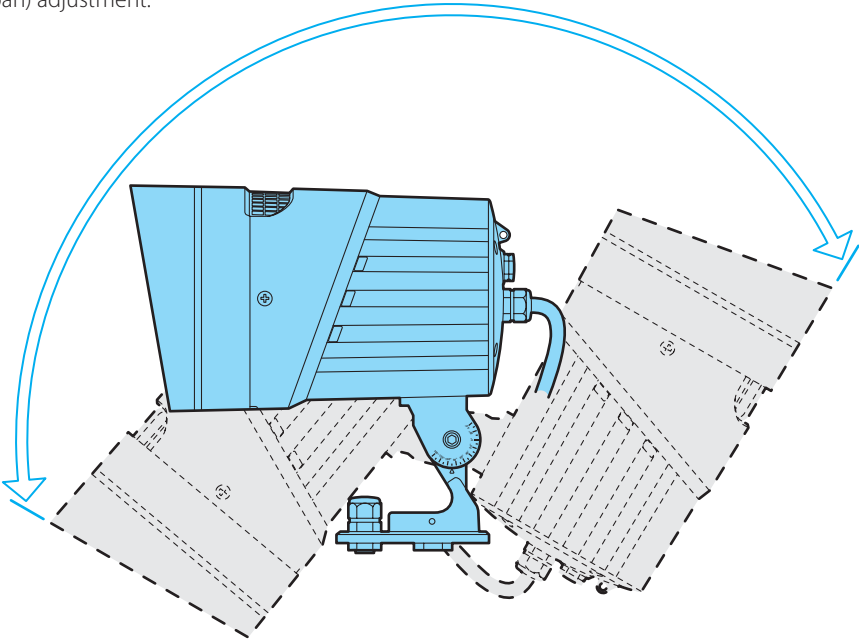
To prevent any movement once set, the tilt adjustment uses interlocking teeth. This means that you need to slacken the hex bolt completely before the teeth will disengage and allow movement. A 5mm Allen wrench (hex key) is supplied with the fixture for adjusting the tilt angle. A 2mm Allen wrench (not supplied) is required to adjust the pan angle using the two small grub screws in the base.



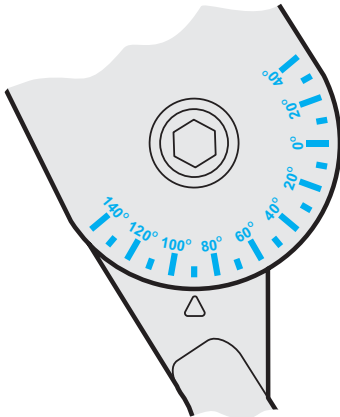
The tilt angle of the Dyna Accent head is adjustable through a range of nearly 180 degrees. See next page .

TILT RANGE

The head of the Dyna Accent can be rotated through almost 180 degrees (in 10 degree increments), although the extremes of the range are only possible when the base plate is mounted on the very edge of a surface. See the previous page for details about tilt (and pan) adjustment.



A handy rotation scale is provided on the leg of the fixture:



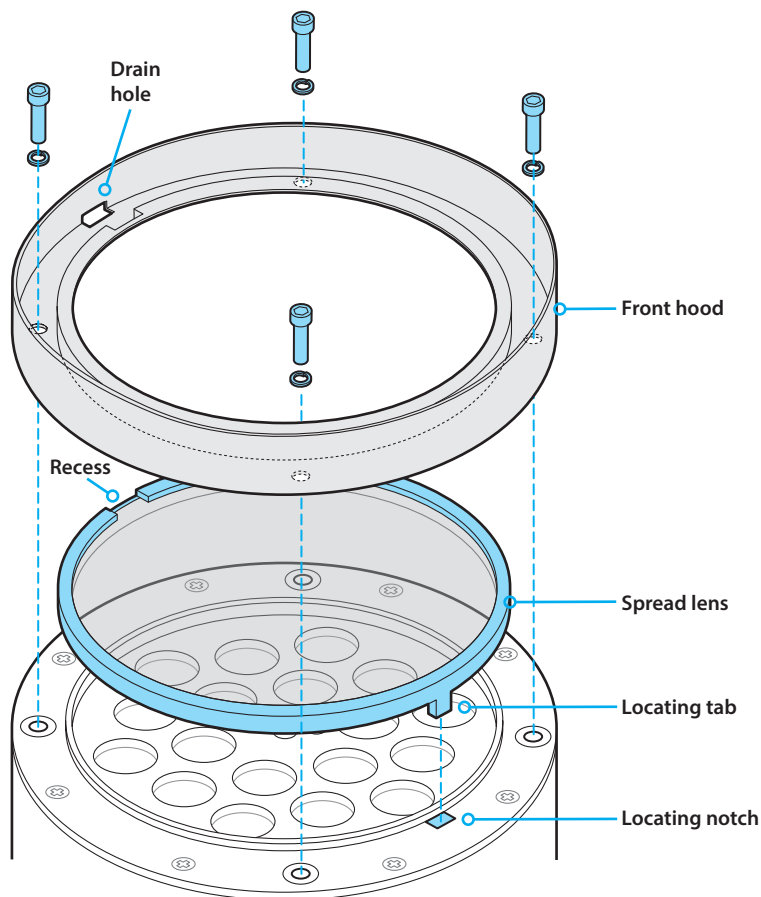
FITTING A SPREAD LENS

The standard beam angle is 6 degrees. This can be adjusted by inserting an appropriate spread lens into the inside of the front panel.

TO FIT A SPREAD LENS

Notes: This operation is best achieved with the Dyna Accent front face lying horizontally. Install spread lenses only in dry conditions to avoid any build up of condensation.

- 1 Using a 3mm Allen wrench (hex key), slightly loosen each of the four bolts that secure the front hood to the main body of the fixture. Once all bolts have been suitably loosened, remove all four of them plus their small washers and lift off the front hood.
- 2 Remove the protective films from both sides of the spread lens.
- 3 Ensure that the black rubber gasket is correctly in place around the circumference of the spread lens. Find the *Locating tab* on one side of the rubber gasket and ensure that this tab faces towards the front face of the Dyna Accent - and aligns with *Locating notch* in the front face.
- 4 Place the front hood over the spread lens and Dyna Accent front face, ensuring that the *Drain hole* of the front hood aligns with the drainage *Recess* in the rubber gasket of the lens.
- 5 Reintroduce the four bolts and their washers, and tighten sufficiently.



FITTING A SNOOT

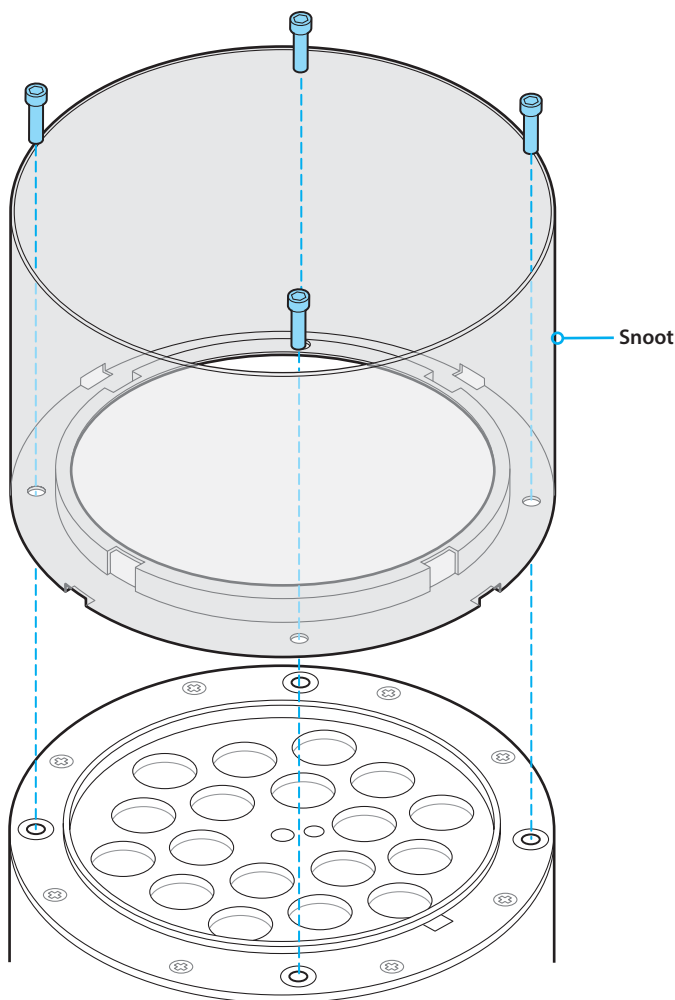
In installations where any light spill from the Dyna Accent must be eradicated from a nearby surface, the optional 4" snoot is recommended.

Note: If required, a spread lens can be fitted together with the snoot, see page 7.

TO FIT A SNOOT

Note: This operation is best achieved with the Dyna Accent front face lying horizontal.

- 1 Using a 3mm Allen wrench (hex key), slightly loosen each of the four bolts that secure the front hood to the main body of the fixture. Once all bolts have been suitably loosened, remove all four of them plus their small washers and lift off the front hood.
- 2 Place the snoot over the Dyna Accent front face in replacement for the front hood. *Note: There are drain holes located every 90 degrees around the snoot circumference, so it can be attached in any orientation.*
- 3 Fit the four bolts and their washers from the original front hood, and tighten sufficiently.



POWER AND CONTROL WIRING

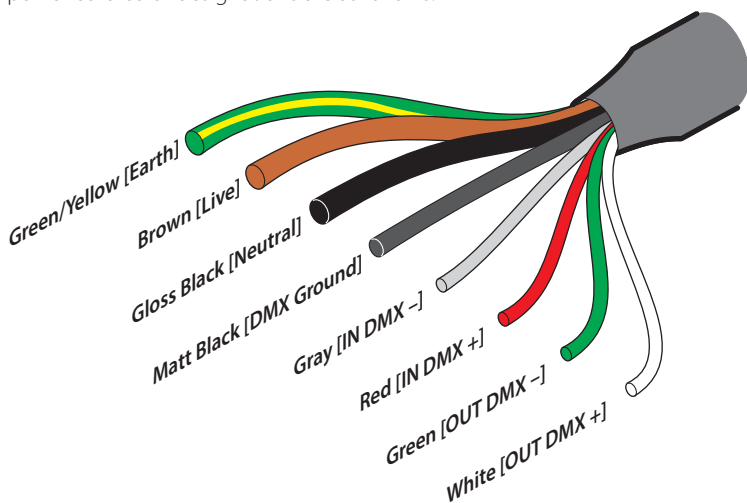
The combined power and control cord (roughly six feet, 1.8m in length) enters the casing via a water-tight gland at the rear of the fixture. The cord is supplied with a bare tail. A cable gland is provided within the base plate to allow the cable to be fed into the mounting box, if necessary.

POWER

The power requirements are as follows:

- Voltage: 100-277VAC 50/60Hz
- Power: 35W steady state

The power cord color designations are as follows:

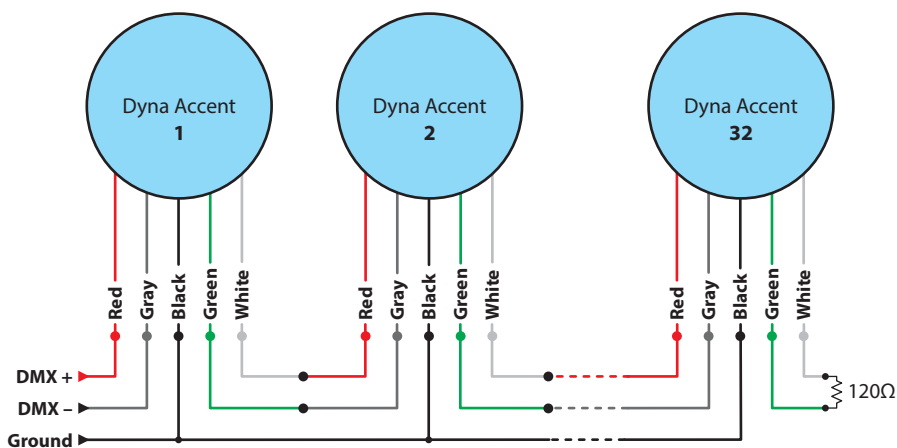


IN-RUSH CURRENT

Although LED fixtures are low power devices compared to their incandescent equivalents, their power supplies exhibit a trait known as 'in-rush current' when they are first powered on. This is caused by the various components within the switching power supplies topping themselves up with power. The in-rush current period lasts only milliseconds and does not cause any effect when a handful of units are powered on at the exact same time. However, if many fixtures are linked to the same power input, they will momentarily pull a current that may greatly exceed their normal operating level. This may affect over-current trips when power is applied. For this reason it is advisable to limit the number of fixtures on any one power input.

CONTROL

When connecting multiple fixtures, connect the DMX control input lines to the first fixture and feed the output of that fixture to the next. The final fixture in the line should have a 120Ω terminating resistor connected between the DMX + and DMX – lines:

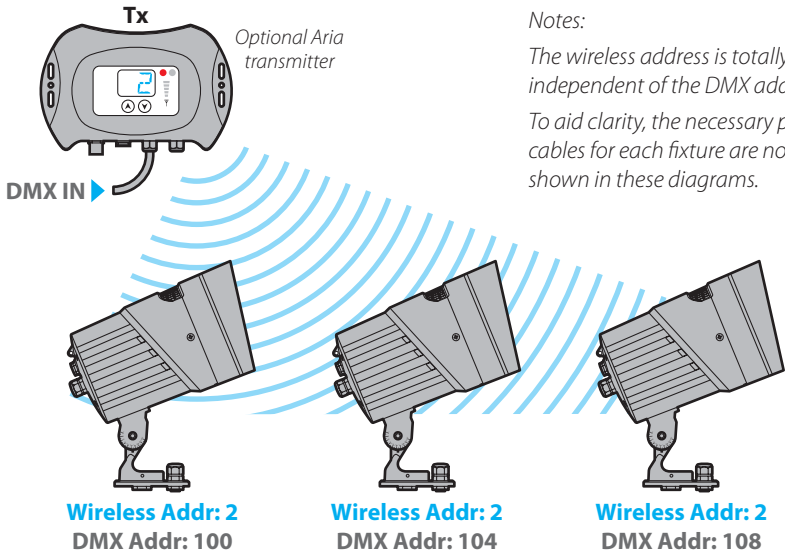


TIPS FOR ACHIEVING SUCCESSFUL DMX CONTROL

- Do not exceed a total cable length of 3,900 ft (1200m) without buffering.
- Do not exceed a total of 32 fixtures on a single line without buffering.
- Use only connection cables with a characteristic impedance of 120Ω, preferably where the DMX + and DMX – data lines are twisted around each other and the ground link exists as a coaxial screen surrounding the inner cores.
- Connect a 120Ω terminating resistor between the DMX + and DMX – output connections of the final fixture.
- Do not introduce a passive Y-split into the control cabling. If it is necessary to split the control link in order feed fixtures located in different directions, use a powered DMX splitter/buffer.
- Ensure that the DMX + and DMX – connections do not become crossed at any point.

WIRELESS CONTROL

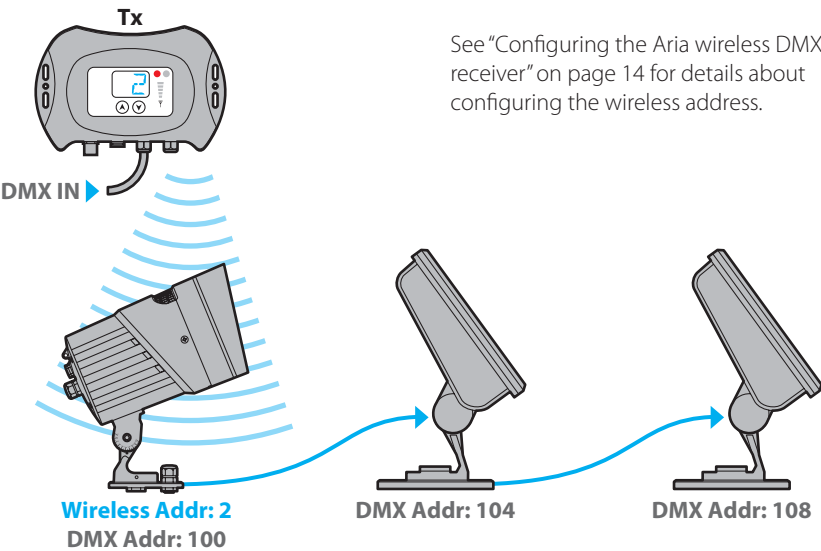
The embedded Aria™ wireless system allows you to control any number of Dyna Accent fixtures that are within range of an Aria transmitter set to use the same wireless address:



Notes:
The wireless address is totally independent of the DMX address.
To aid clarity, the necessary power cables for each fixture are not shown in these diagrams.

USING A DYNA ACCENT AS A WIRELESS HUB

When a Dyna Accent fixture receives a wireless input (and it has no wired DMX input), it will automatically output the full received DMX universe on its output wires. This means that you can wire through and control up to 32 non-Aria DMX fixtures (such as Dyna Flood DMX), or more, if an active repeater is used.



See “Configuring the Aria wireless DMX receiver” on page 14 for details about configuring the wireless address.

Non-Aria equipped fixtures (e.g. Dyna Flood DMX)

OPERATION

Dyna Accent fixtures have no external controls and instead rely on RDM (Remote Device Management) for all configuration via the DMX interface. This allows multiple devices to be configured either before or after installation.

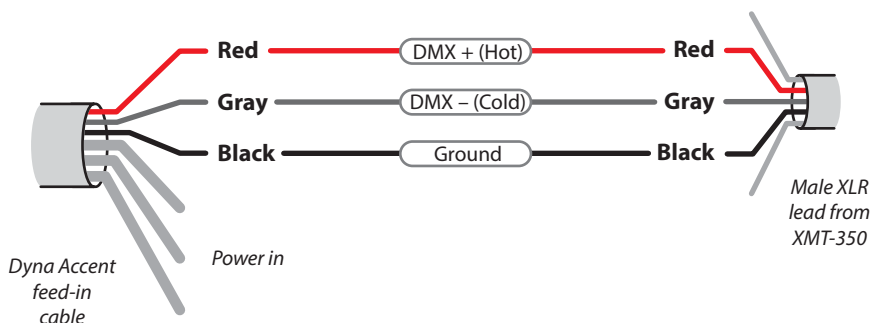
The main items that can be configured on each fixture (via RDM) are:

- DMX address *(see page 13)*
- Aria™ wireless receiver *(see page 14)*
- Automation features *(see page 15)*

Various third party DMX/RDM tools are available; we recommend the Acclaim Lighting XMT-350 for this task.

MAKING A TEMPORARY CONTROL LINK WITH THE XMT-350

Each Acclaim lighting XMT-350 DMX/RDM tool is supplied with a 5-pin male XLR lead that can be used to make a temporary control input link with the Dyna Accent feed-in cable. Use a 3-pin terminal block, wire nuts, conn blocks or Wago® connectors to temporarily join the two cables:



ADDRESSING FIXTURES

TO ADDRESS FIXTURES USING THE ACCLAIM LIGHTING XMT-350

- 1 Connect the XMT-350 to the DMX input line of either a single fixture or multiple fixtures in a pre-arranged daisy chain configuration (see page 10).
- 2 Power on the fixture(s) and the XMT-350.
- 3 On the XMT-350, press the **MODE** button, then use the arrow buttons to highlight the **RDM** function and press the **✓** button to select. The XMT-350 will search for RDM devices and after a short while the XMT-350 will display a list of all located fixtures:

MAIN	PATCH	OPTIONS	004/004
DYNA ACCENT		001	
DYNA ACCENT		005	
DYNA ACCENT		009	
DYNA ACCENT		012	

The fixture that is highlighted within the list should begin flashing its emitters to identify itself.

- 4 On the XMT-350, press the right arrow button to change to the **PATCH** tab:

MAIN	PATCH	OPTIONS	004/004
▶ RESTART PATCHING			
DYNA ACCENT		(001)	
DYNA ACCENT		005	
DYNA ACCENT		009	
DYNA ACCENT		012	

Note: DMX addresses shown in brackets, e.g. (001), have been temporarily assigned by the XMT-350, but are not yet stored within the fixture(s).

- 5 If necessary, use the up/down buttons to choose an alternative fixture.
- 6 Press the **✓** button to set the address for the currently highlighted fixture:

ACTUAL ADDRESS:	001
PATCH TO ADDRESS:	001
✓ OK	✗ CANCEL

- 7 Use the up/down buttons to set the required DMX address and then press the **✓** button to store it within the fixture.
- 8 The highlight will automatically move to the next fixture so that you can address it. Repeat steps 5 to 7 until all fixtures are addressed.

DMX CHANNELS

The number of DMX channels required per fixture depends on the model:

- Fixed white models 1 DMX channel
- Dynamic white models 3 DMX channels
- RGBW and RGBA models 4 DMX channels

CONFIGURING THE ARIA WIRELESS DMX RECEIVER

Each Dyna Accent fixture includes an internal Aria™ wireless DMX receiver unit to allow it to be remotely controlled by an Acclaim Lighting Aria transmitter. Fifteen radio addresses (channels)

are available to choose from, allowing you to avoid potential interference sources, such as WiFi access points, and set up parallel wireless links between different sets of Aria units. Dyna Accent fixtures are shipped with the wireless system enabled (this does not prevent direct control via the cable) and the radio channel set to 0 as standard. For more details about choosing the most suitable radio channel, see page 18.

Using an RDM (Remote Device Management) tool, you can quickly change between the various DMX personality modes. Various third party DMX/RDM tools are available; we recommend the Acclaim Lighting XMT-350 for this task.



TO CONFIGURE WIRELESS DMX USING THE ACCLAIM LIGHTING XMT-350

- 1 Connect the XMT-350 to the DMX input line of either a single fixture or multiple fixtures in a pre-arranged daisy chain configuration.
- 2 Power on the fixture(s) and the XMT-350.
- 3 On the XMT-350, press the **MODE** button, then use the arrow buttons to highlight the **RDM** function and press the **✓** button to select. The XMT-350 will search for RDM devices and after a short while the XMT-350 will display a list of all located fixtures. The fixture that is highlighted within the list should begin flashing its emitters to identify itself.
- 4 If necessary, use the up/down buttons to highlight an alternative fixture.
- 5 Press the **✓** button to view details for the chosen fixture and then use the down button to highlight the **MODEL** entry:

DYNA ACCENT	
▶ LABEL:	DYNA ACCENT
▶ MODEL:	DYNA ACCENT
MAN:	ACCLAIM LIGHTING
▶ DMX START ADDRESS:	001
DMX PERSONALITY:	MODE1: 4CH-
DMX SLOTS:	4

- 6 Press the **✓** button to view the options:

DYNA ACCENT	
▶ WIRELESS ON/OFF	ON
▶ WIRELESS ADDR	0
▶ PHOTO SENS. ON/OFF	ON
▶ PHOTO SENS. VALUE	70
▶ LED ON TIME ON LIGHT	10

Within this menu, you can change the radio channel and also enable/disable the wireless receiver circuit.

- 7 To change the radio address: Use the up/down buttons to highlight the WIRELESS ADDR option and press the **✓** button. Use the up/down buttons to select the required channel (between 0 and 14) and press the **✓** button. For more details about choosing the most suitable radio channel, see page 18.
- 8 Press the **X** button to return to the previous screen.

USING THE AUTOMATION FEATURES

The fixture includes two related features that allow you to automate the standalone operation of the fixture:

- The in-built photocell can enable fixture output (at 100%) when the ambient light level falls below a pre-determined level.
- The auto shutoff timer determines how long the fixture should remain outputting after it has been triggered by the photocell.

These automated features operate only in standalone mode, i.e. with no external DMX control input.

TO SET THE AUTOMATION FEATURES USING THE ACCLAIM LIGHTING XMT-350

- 1 Connect the XMT-350 to the DMX input line to the single fixture.
- 2 Power on the fixture(s) and the XMT-350.
- 3 On the XMT-350, press the **MODE** button, then use the arrow buttons to highlight the **RDM** function and press the **✓** button to select. The XMT-350 will search for RDM devices and after a short while the XMT-350 will display the located fixture. The fixture that is highlighted within the list should begin flashing its emitters to identify itself.
- 4 Press the **✓** button to view details for the chosen fixture and then use the down button to highlight the **MODEL** entry:

DYNA ACCENT	
▶ LABEL:	DYNA ACCENT
▶ MODEL:	DYNA ACCENT
MAN:	ACCLAIM LIGHTING
▶ DMX START ADDRESS:	001
DMX PERSONALITY:	MODE1: 4CH-
DMX SLOTS:	4

- 5 Press the **✓** button to view the options:

DYNA ACCENT	
▶ WIRELESS ON/OFF	ON
▶ WIRELESS ADDR	0
▶ PHOTO SENS. ON/OFF	ON
▶ PHOTO SENS. VALUE	70
▶ LED ON TIME ON LIGHT	10

- 6 Use the lower three options to set your parameters:
 - PHOTO SENS. ON/OFF - enables/disables the photocell system.
 - PHOTO SENS. VALUE - determines the required ambient light level at which the fixture should begin outputting (**100** is the most sensitive to light). Some experimentation will be required to determine the optimum setting.
 - LED ON TIME ON LIGHT - determines the number of hours (starting from the photocell trigger) that light output should continue before being extinguished. The options range from **0** to **10** hours.
- 7 Press the **✕** button to return to the previous screen.

Notes: For the photocell feature to operate, ensure that no DMX signal is received by the fixture. RGBW models will output all four colors at 100% when triggered.

TESTING EMITTER OUTPUT

After you have addressed each Dyna Accent fixture we recommend that you also test each one prior to installation. This can be achieved with your RDM (Remote Device Management) tool. Various third party DMX/RDM tools are available; we recommend the Acclaim Lighting XMT-350 for this task.

TO TEST EMITTER OUTPUT USING THE ACCLAIM LIGHTING XMT-350

- 1 Connect the XMT-350 to the DMX input line of either a single fixture or multiple fixtures in a pre-arranged daisy chain configuration.
- 2 Power on the fixture(s) and the XMT-350.
- 3 On the XMT-350, press the **MODE** button, then use the arrow buttons to highlight the **SEND** function and press the **✓** button to select.



- 4 Use the arrow buttons to determine the DMX output:
 - Use the left and right buttons to choose the DMX address,
 - Use the up and down buttons to increase/decrease the level at the chosen address.

*Note: If you wish to send DMX values to all addresses simultaneously (rather than cycling through them individually), when the XMT-350 is showing address 001, press the left button once to change to **ALL CHANNELS**. Now when you set the level it will affect all emitters equally.*

FURTHER INFORMATION

TROUBLESHOOTING

NO LIGHT OUTPUT IS VISIBLE WHEN EXPECTED.

- Check that power is correctly applied to the fixture and that there is no damage to the power input cord.
- Use an RDM tool to perform an emitter test.
- Check that the DMX address set within the fixture matches that being output by the controlling source device.
- If wired DMX control is being used, check the DMX output near to the source to confirm a valid signal is being originated.
- If wired DMX control is being used, check that the DMX + (hot) and DMX - (cold) lines have not been crossed.
- If Aria wireless DMX control is being used, check that the fixture is set to the same wireless address as the transmitter (the wireless address is independent of the DMX address). Try changing the transmitter and receiving fixture(s) to different (but equal) wireless channels to check for clear space in the radio spectrum from interference by other devices, such as WiFi.

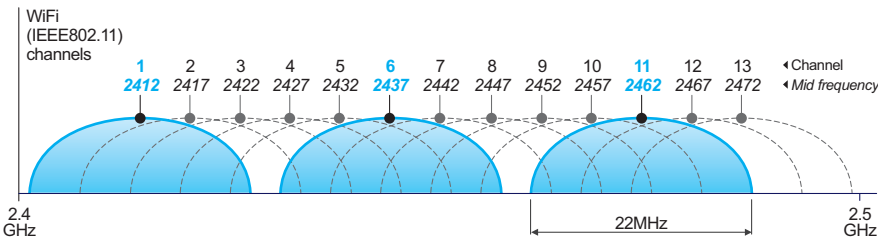
DIMMING AND/OR CHASE CHANGES ARE JERKY WHEN USING ARIA.

- Check for WiFi sources near to the transmitter or receiver devices. Try changing the transmitter and receiving fixture(s) to different (but equal) wireless addresses to check for clear space in the radio spectrum from interference by other devices.

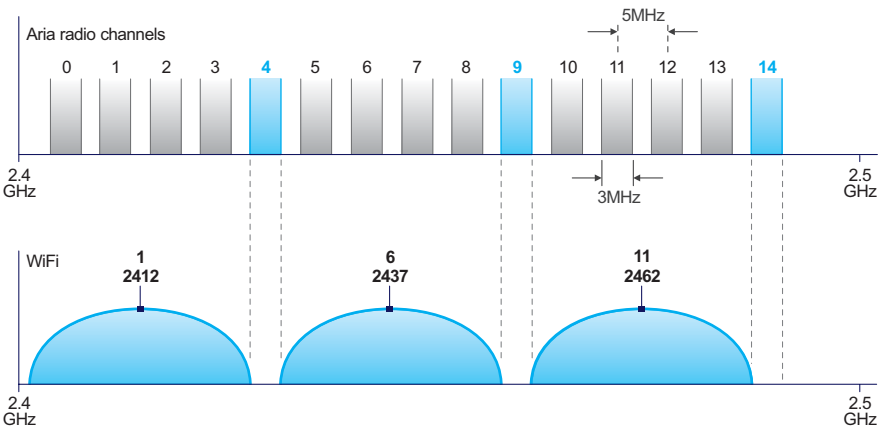
OPTIMIZING SIGNAL STRENGTH VIA CHANNEL SELECTION

Aria™ wireless transceivers 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 units use the ISM band in a different manner than WiFi and the two can coexist. However, where distances between Aria 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 uses the IEEE802.15.4 standard, with channels that are 3MHz in width and do not overlap. Many Aria channels do, however, coincide with the common WiFi channels. The notable exceptions are Aria channels 4, 9 and 14, which fall into the gaps between the most commonly used WiFi channels:

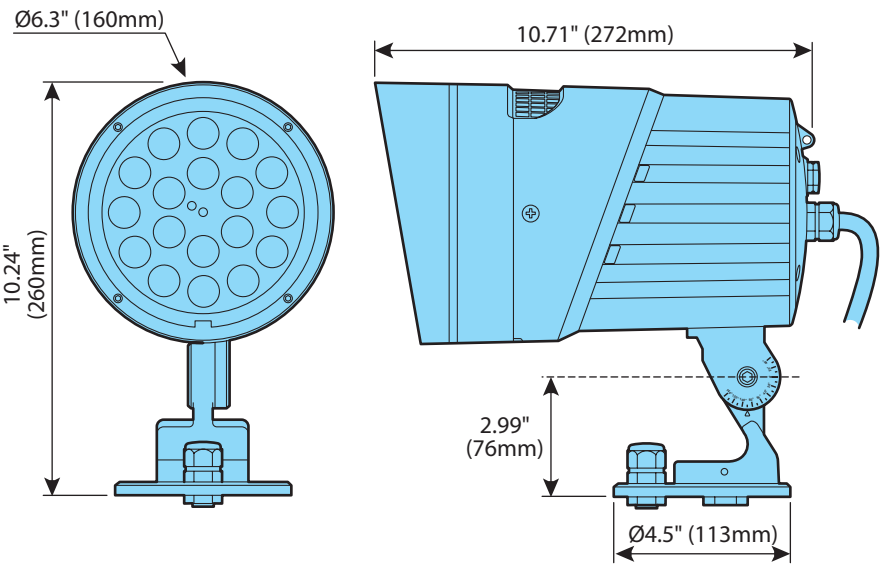


Where interference is suspected, a radio frequency survey may provide useful indications. If you have control over the nearest WiFi access points, it is suggested that you lock them down to one or more of the common channels (to prevent them from roaming) and select Aria channels that sit comfortably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

Note: The Aria channel notations (0 to 14) are directly equivalent to the IEEE802.15.4 channels 11 to 25, inclusive.

SPECIFICATIONS

Models	2700K, 3000K, 3500K, 4000K, DW (2400K-5500K), RGBW, RGBA	
Native beam angle	6° (standard), 20°, 40°, 60°, 10° x 60° spread lens options	
Total lumens	1423 (4000K model, 6°)	
Center beam Candela	54,665 (4000K model, 6°)	
Lumen maintenance (L ₇₀)	150,000 hours (25°C)	
Aria™ wireless protocol	2.4GHz, IEEE802.15.4	
Estimated transmission range	Clear line of sight:	2600 feet (792m)
	Through obstructions (walls, etc):	300 feet (91m)
Selectable radio channels	15	
Aria signal encryption	AES 128	
Housing	Die cast aluminum	
Ingress protection	IP66	
Power input	100 - 277VAC, 50/60Hz	
Power consumption	35W steady state	
Operating temperature	-40°F to 122°F (-40°C to 50°C)	
Weight	9.2 lbs (4.17 Kg)	
Certifications	 	



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 thereof. 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.

www.acclaimlighting.com