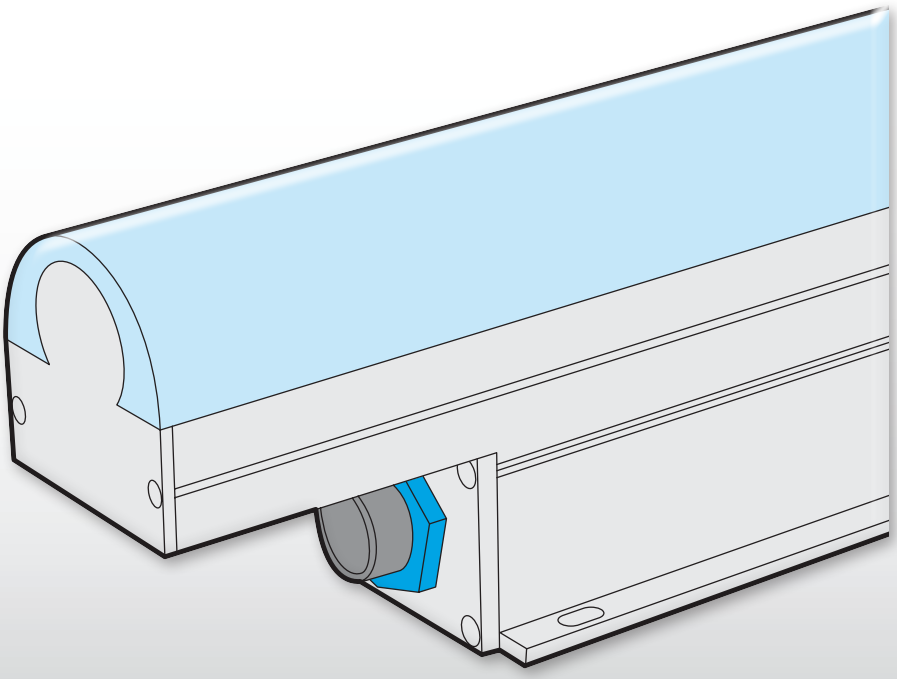
ACCLAIM
LIGHTING



Pixel Bar

User guide

CONTENTS

INTRODUCTION

WELCOME

Welcome to the Pixel Bar range from Acclaim Lighting. These aluminum bodied wet location (IP66) fixtures are designed for direct view applications, indoor or outdoor. Available in 1' and 4' lengths these robust mains powered units can be connected in series to greatly simplify installation. In each length, a choice of either Spectrum RGBW (including 3000K white) or Dynamic White (2700 to 6000K) combined emitters is available. There are two styles of diffused lens/beam angle available (determined at manufacture):

- 180º diffused round, or
- 120º diffused flat.

Pixel Bar fixtures are controlled by DMX and are initially configured by RDM, using a tool such as the Acclaim Lighting XMT-350.

The Pixel Bar models provide a choice of emitter grouping modes:

1' models - Four emitters arranged as:

- 4 separate emitters,
- 2 groups of two emitters, or
- 1 group of four emitters.

4' models - Sixteen emitters arranged as:

- 16 separate emitters,
- 2 groups of eight emitters,
- 4 groups of four emitters,
- 8 groups of two emitters, or
- 1 group of sixteen emitters.

Spectrum RGBW models require four DMX channels per emitter/group while DW versions need only two channels per emitter/group. The overall number of DMX channels required for total fixture control is directly determined by the chosen grouping mode *(DMX Personality)*. See pages 6 to 13 for further details.

SAFETY

- When fixtures are mounted off-ground, ensure 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.

MAINTENANCE

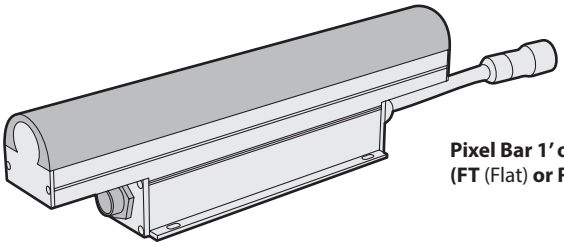
CAUTION: Always isolate mains power before starting maintenance operations.

- 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

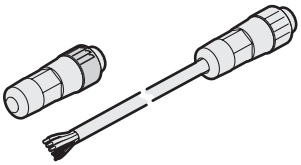
- Use a moist, lint-free cloth when cleaning each fixture.
- Never use alcohol or solvents.

SUPPLIED ITEMS



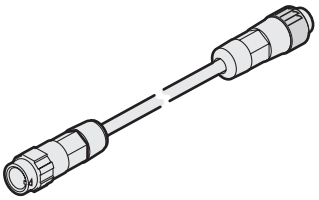
Pixel Bar 1' or 4'
(FT (Flat) **or RD** (Round)**)**

OPTIONAL EXTRAS



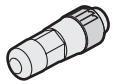
Feed cables plus end cap (terminator)

10' (3m)	[H6FC10]
50' (15m)	[H6FC50]

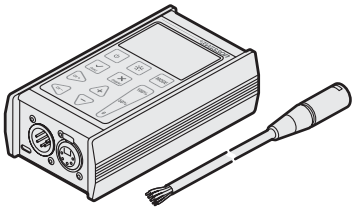


Link cables

1' (30cm)	[H6LC1]
5' (1.5m)	[H6LC5]
10' (3m)	[H6LC10]



End cap (terminator) [H6EC]

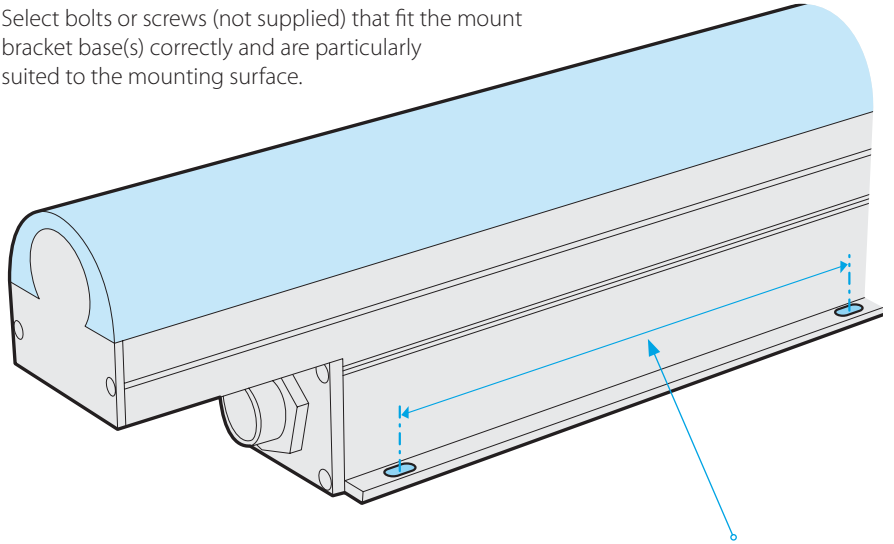


DMX/RDM tool plus male 5pin XLR lead [XMT350]

INSTALLATION

When installing each Pixel Bar fixture, ensure that the surface is level and that nothing is protruding to damage the mounting bracket(s). Suitable mounting surfaces include steel, aluminum, concrete or wood structures.

4' models have eight mounting slots while 1' models have four in total. Each slot measures 0.31" x 0.16" (8 x 4mm) and the base has a thickness of 0.14" (3.5mm). Select bolts or screws (not supplied) that fit the mount bracket base(s) correctly and are particularly suited to the mounting surface.



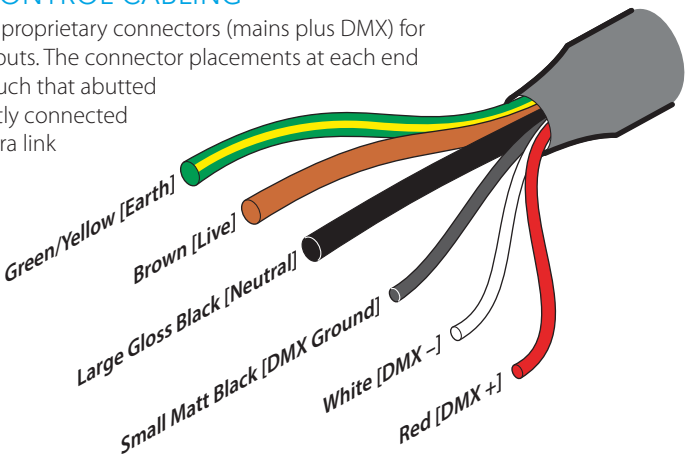
4' models: 4 slots per side (8 in total) spaced 12.8" (325mm apart)

1' models: 2 slots per side (4 in total) spaced 6.1" (155mm apart)

POWER AND CONTROL CABLING

Pixel Bar fixtures use proprietary connectors (mains plus DMX) for their inputs and outputs. The connector placements at each end of every fixture are such that abutted fixtures can be directly connected without need for extra link cables.

The contacts of the required feed-in cable (available as a separate item) are arranged as shown here:



Note: Ensure that the mains power is supplied from a suitably protected source and initial connections are made within IP rated enclosures.

Note: Acclaim requires Belden 9842 or approved equivalent for all DMX wiring applications.

Acclaim recommends taking proper precautions for external surge protection, as control and power electronics can be damaged by major events.

IMPORTANT: These connectors are not rated for live connection or disconnection. Check that power is isolated before making or breaking any links. Ensure the connectors have locked and are seated correctly before applying power.

IN-RUSH CURRENTS

Although LED fixtures are low power devices compared to their traditional source equivalents, their power supplies exhibit a trait known as 'in-rush' when they are first powered on. This is caused by the various components within the switched mode power supplies initially topping themselves up with power. The in-rush 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 and should be anticipated when planning the power panel size requirements.

INTERCONNECTING

Each Pixel Bar fixture has a short cabled power input plug at one end and an integral power/signal output socket at the other. When fixtures are daisy chained (and are directly abutted), the input plug of one fixture can connect directly to the output socket of the previous fixture. Alternatively, where fixtures are not abutted, one of the optional link cables can be used to make up the gap between any two fixtures.

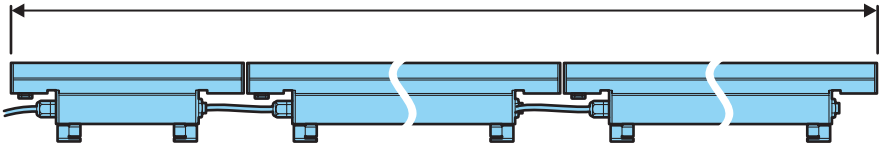
Ensure the output connector of the final fixture has an end cap fitted [PBAEC]. This will correctly terminate the DMX link and also prevent moisture ingress.

MAXIMUM NUMBER OF FIXTURES

The maximum number of fixtures that can be connected in a single series is as follows:

Maximum length of Pixel Bar fixtures:

100' (30m)



Runs can consist of mixtures of 1' and 4' fixtures.

4' SPECTRUM RGBW MODELS - DMX PERSONALITIES

The 4' Spectrum RGBW models can use their 16 emitter cells in a variety of personality configurations ranging from individual control of each emitter to combining them all as one group. Correspondingly, the number of DMX channels required for each personality range from 64 channels, down to just four. Additionally, the *BUILD IN CHASE* mode does not require/allow any DMX control and runs a repeating RGBW chase across the emitters.

Personality modes are altered using a DMX/RDM tool (see page 16).

The manner in which the various 4' personalities group the emitters are summarized below:

DMX Personality: **16 GROUP** (16 separate emitters) 64 DMX channels required

DMX Personality: **8 GROUP** (8 groups of 2) 32 DMX channels required

DMX Personality: **4 GROUP** (4 groups of 4) 16 DMX channels required

DMX Personality: **2 GROUP** (2 groups of 8) 8 DMX channels required

DMX Personality: **1 GROUP** (1 group of 16) 4 DMX channels required

DMX Personality: **BUILD IN CHASE** (1 group of 16) No DMX control

4' SPECTRUM RGBW MODELS - CHANNEL DESIGNATIONS

The channel allocations below are shown beginning at DMX address 1. When you configure a fixture with an alternative DMX address, that value will become the first channel in the list shown below and the other channels will increment from there:

DMX	16 GROUP	8 GROUP	4 GROUP	2 GROUP	1 GROUP
1	Cell 1: Red	Group 1: Red	Group 1: Red	Group 1: Red	Group 1: Red
2	Cell 1: Green	Group 1: Green	Group 1: Green	Group 1: Green	Group 1: Green
3	Cell 1: Blue	Group 1: Blue	Group 1: Blue	Group 1: Blue	Group 1: Blue
4	Cell 1: White	Group 1: White	Group 1: White	Group 1: White	Group 1: White
5	Cell 2: Red	Group 2: Red	Group 2: Red	Group 2: Red	
6	Cell 2: Green	Group 2: Green	Group 2: Green	Group 2: Green	
7	Cell 2: Blue	Group 2: Blue	Group 2: Blue	Group 2: Blue	
8	Cell 2: White	Group 2: White	Group 2: White	Group 2: White	
9	Cell 3: Red	Group 3: Red	Group 3: Red		
10	Cell 3: Green	Group 3: Green	Group 3: Green		
11	Cell 3: Blue	Group 3: Blue	Group 3: Blue		
12	Cell 3: White	Group 3: White	Group 3: White		
13	Cell 4: Red	Group 4: Red	Group 4: Red		
14	Cell 4: Green	Group 4: Green	Group 4: Green		
15	Cell 4: Blue	Group 4: Blue	Group 4: Blue		
16	Cell 4: White	Group 4: White	Group 4: White		
17	Cell 5: Red	Group 5: Red			
18	Cell 5: Green	Group 5: Green			
19	Cell 5: Blue	Group 5: Blue			
20	Cell 5: White	Group 5: White			
21	Cell 6: Red	Group 6: Red			
22	Cell 6: Green	Group 6: Green			
23	Cell 6: Blue	Group 6: Blue			
24	Cell 6: White	Group 6: White			
--	--	--			
--	--	--			
29	Cell 8: Red	Group 8: Red			
30	Cell 8: Green	Group 8: Green			
31	Cell 8: Blue	Group 8: Blue			
32	Cell 8: White	Group 8: White			
--	--				
--	--				
61	Cell 16: Red				
62	Cell 16: Green				
63	Cell 16: Blue				
64	Cell 16: White				

1’ SPECTRUM RGBW MODELS - DMX PERSONALITIES

The 1’ Spectrum RGBW models can use their emitter cells in a variety of personality configurations ranging from individual control of each emitter to combining them all as one group. Correspondingly, the number of DMX channels required for each personality range from 16 channels, down to just four. Additionally, the *BUILD IN CHASE* mode does not require/allow any DMX control and runs a repeating RGBW chase across the emitters.

Personality modes are altered using a DMX/RDM tool (see page 16).

The manner in which the personalities group the emitters are summarized below:

DMX Personality: **4 GROUP** (4 groups of 1) 16 DMX channels required

DMX Personality: **2 GROUP** (2 groups of 1) 8 DMX channels required

DMX Personality: **1 GROUP** (1 group of 4) 4 DMX channels required

DMX Personality: **BUILD IN CHASE** (4 separate cells) No DMX control

1' SPECTRUM RGBW MODELS - CHANNEL DESIGNATIONS

The channel allocations below are shown beginning at DMX address 1. When you configure a fixture with an alternative DMX address, that value will become the first channel in the list shown below and the other channels will increment from there:

DMX	4 GROUP	2 GROUP	1 GROUP
1	Group 1: Red	Group 1: Red	Group 1: Red
2	Group 1: Green	Group 1: Green	Group 1: Green
3	Group 1: Blue	Group 1: Blue	Group 1: Blue
4	Group 1: White	Group 1: White	Group 1: White
5	Group 2: Red	Group 2: Red	
6	Group 2: Green	Group 2: Green	
7	Group 2: Blue	Group 2: Blue	
8	Group 2: White	Group 2: White	
9	Group 3: Red		
10	Group 3: Green		
11	Group 3: Blue		
12	Group 3: White		
13	Group 4: Red		
14	Group 4: Green		
15	Group 4: Blue		
16	Group 4: White		

4' DYNAMIC WHITE (DW) MODELS - DMX PERSONALITIES

The 4' DW models can use their 16 emitter cells in a variety of personality configurations ranging from individual control of each emitter to combining them all as one group. Correspondingly, the number of DMX channels required for each personality range from 32 channels, down to just two. Additionally, the *BUILD IN CHASE* mode does not require/allow any DMX control and runs a repeating chase across the emitters.

Personality modes are altered using a DMX/RDM tool (see page 16).

The manner in which the various 4' personalities group the emitters are summarized below:

DMX Personality: **16 GROUP** (16 separate emitters) 32 DMX channels required

DMX Personality: **8 GROUP** (8 groups of 2) 16 DMX channels required

DMX Personality: **4 GROUP** (4 groups of 4) 8 DMX channels required

DMX Personality: **2 GROUP** (2 groups of 8) 4 DMX channels required

DMX Personality: **1 GROUP** (1 group of 16) 2 DMX channels required

DMX Personality: **BUILD IN CHASE** (1 group of 16) No DMX control

4' DYNAMIC WHITE (DW) MODELS - CHANNEL DESIGNATIONS

The channel allocations below are shown beginning at DMX address 1. When you configure a fixture with an alternative DMX address, that value will become the first channel in the list shown below and the other channels will increment from there:

DMX	16 GROUP	8 GROUP	4 GROUP	2 GROUP	1 GROUP
1	Cell 1: Warm	Group 1: Warm	Group 1: Warm	Group 1: Warm	Group 1: Warm
2	Cell 1: Cold	Group 1: Cold	Group 1: Cold	Group 1: Cold	Group 1: Cold
3	Cell 2: Warm	Group 2: Warm	Group 2: Warm	Group 2: Warm	
4	Cell 2: Cold	Group 2: Cold	Group 2: Cold	Group 2: Cold	
5	Cell 3: Warm	Group 3: Warm	Group 3: Warm		
6	Cell 3: Cold	Group 3: Cold	Group 3: Cold		
7	Cell 4: Warm	Group 4: Warm	Group 4: Warm		
8	Cell 4: Cold	Group 4: Cold	Group 4: Cold		
9	Cell 5: Warm	Group 5: Warm			
10	Cell 5: Cold	Group 5: Cold			
11	Cell 6: Warm	Group 6: Warm			
12	Cell 6: Cold	Group 6: Cold			
13	Cell 7: Warm	Group 7: Warm			
14	Cell 7: Cold	Group 7: Cold			
15	Cell 8: Warm	Group 8: Warm			
16	Cell 8: Cold	Group 8: Cold			
17	Cell 9: Warm				
18	Cell 9: Cold				
19	Cell 10: Warm				
20	Cell 10: Cold				
21	Cell 11: Warm				
22	Cell 11: Cold				
23	Cell 12: Warm				
24	Cell 12: Cold				
25	Cell 13: Warm				
26	Cell 13: Cold				
27	Cell 14: Warm				
28	Cell 14: Cold				
29	Cell 15: Warm				
30	Cell 15: Cold				
31	Cell 16: Warm				
32	Cell 16: Cold				

1' DYNAMIC WHITE (DW) MODELS - DMX PERSONALITIES

The 1'DW models can use their emitter cells in a variety of personality configurations ranging from individual control of each emitter to combining them all as one group. Correspondingly, the number of DMX channels required for each personality range from 8 channels, down to just two. Additionally, the *BUILD IN CHASE* mode does not require/allow any DMX control and runs a repeating chase across the emitters.

Personality modes are altered using a DMX/RDM tool (see page 16).

The manner in which the personalities group the emitters are summarized below:

DMX Personality: **4 GROUP** (4 groups of 1) 8 DMX channels required

DMX Personality: **2 GROUP** (2 groups of 2) 4 DMX channels required

DMX Personality: **1 GROUP** (1 group of 4) 2 DMX channels required

DMX Personality: **BUILD IN CHASE** (4 separate cells) No DMX control

1' DYNAMIC WHITE (DW) MODELS - CHANNEL DESIGNATIONS

The channel allocations below are shown beginning at DMX address 1. When you configure a fixture with an alternative DMX address, that value will become the first channel in the list shown below and the other channels will increment from there:

DMX	4 GROUP	2 GROUP	1 GROUP
1	Group 1: Warm	Group 1: Warm	Group 1:Warm
2	Group 1: Cold	Group 1: Cold	Group 1: Cold
3	Group 2: Warm	Group 2: Warm	
4	Group 2: Cold	Group 2: Cold	
5	Group 3: Warm		
6	Group 3: Cold		
7	Group 4: Warm		
8	Group 4: Cold		

OPERATION

Pixel Bar 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.

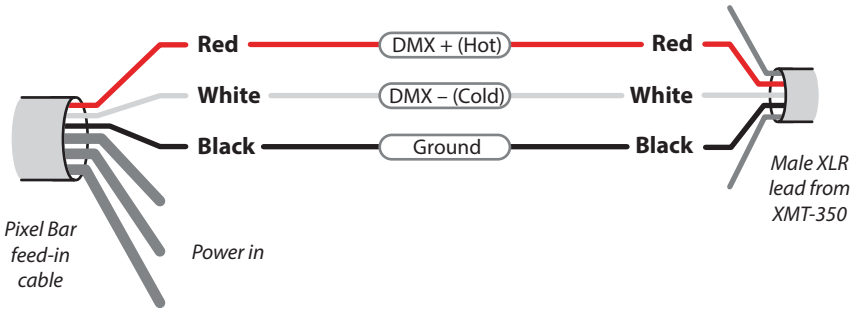
The main two items that need to be configured on each fixture (via RDM) are:

- The DMX address, and *(see page 15)*
- The DMX personality *(see page 16)*

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 Pixel Bar feed-in cable. Use a 3-pin terminal block, wire nuts, conn blocks or Wago® connectors to temporarily join the two cables:



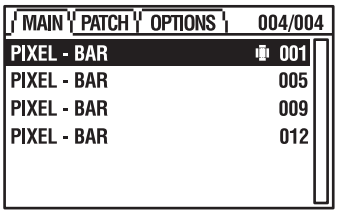
ADDRESSING FIXTURES

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 14).

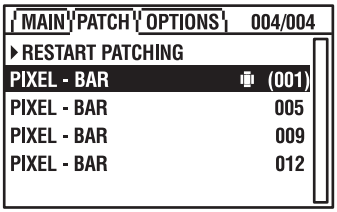
2 Power on the fixture(s) and the XMT-350.

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.

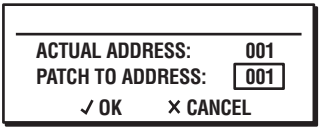
4 On the XMT-350, press the right arrow button to change to the **PATCH** tab:



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:



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 PERSONALITY MODE SELECTION

Pixel Bar 1' models have a choice of five personality modes, while 4' models offer six personality modes. For a summary of how channels are allocated in all the model variants, see *Channel designations*, from page 7.

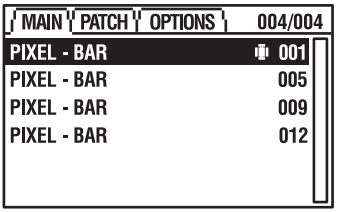
Using an RDM (Remote Device Management) tool, you can quickly change between the various DMX personality modes. Various third party DMX/RDM tools are available; we recommend the Acclaim Lighting XMT-350 for this task.

TO CHANGE PERSONALITY MODES 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.

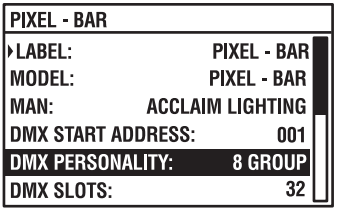
3 On the XMT-350, press the ***MODE*** button, then use the arrow buttons to highlight the **RDM** function and press the ✓ button to select. The XMT-350 will search for RDM devices and after a short while the XMT-350 will display a list of all located fixtures:



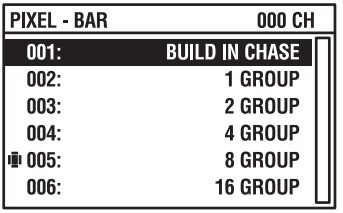
The fixture that is highlighted within the list should begin flashing its emitters to identify itself.

4 If necessary, use the up/down buttons to highlight an alternative fixture.

5 On the XMT-350, press the ✓ button to view details for the chosen fixture and then use the down button to highlight the **DMX PERSONALITY** entry:



6 Press the ✓ button to view the personality options:



7 Use the up/down buttons to highlight the required personality and then press the ✓ button to store it within the fixture.

8 Press the ✕ button to return to the previous screen.

TESTING EMITTER OUTPUT

After you have addressed each Pixel Bar 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

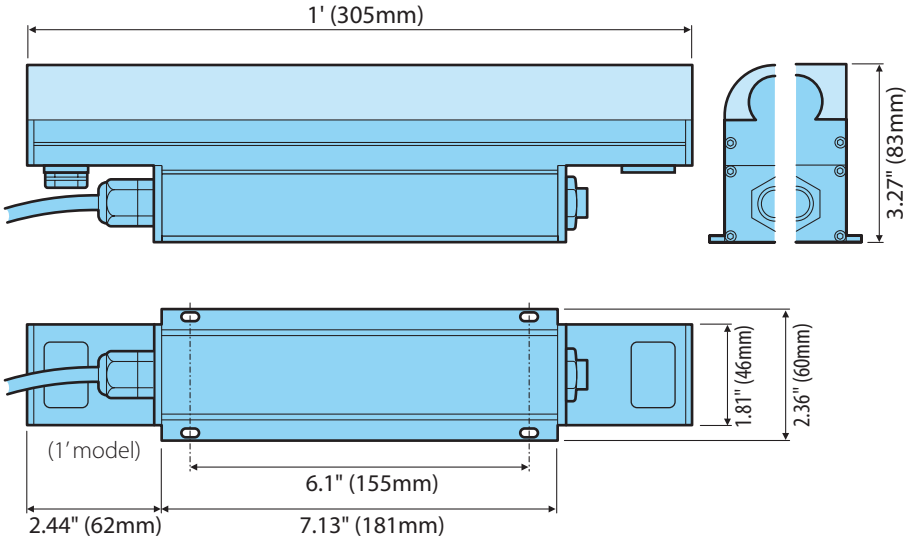
TROUBLESHOOTING

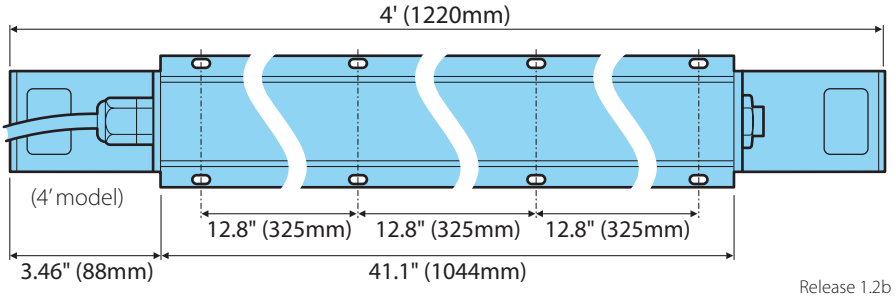
LUMINAIRE DOESN'T TURN ON

- Check that power is correctly applied to the fixture and that there is no damage to the power input cord.
- Use an RDM tool (such as the Acclaim Lighting XMT-350) to check the settings and internal temperature of the fixture.
- Using an RDM tool, check that the DMX address set within the fixture matches that being output by the controlling source device.
- Check that the DMX + (hot) and DMX - (cold) lines on the incoming control link have not been crossed.

SPECIFICATIONS

Models	Spectrum RGBW or Dynamic White (2700-6000K)
Beam angle options	180° (diffused round) or 120° (diffused flat)
Photometrics	100 lumens per foot (estimated - TBC)
Lumen maintenance (L_{70})	100,000 hours (25°C)
Control	DMX512-A (+ RDM configuration)
Ingress protection	IP66, wet location
Maximum lengths in series	100' (30m)
Power input	100-277VAC, 50/60Hz
Power consumption	8W (1' model), 32W (4' model)
Housing	Anodized brushed aluminum
Operating temperature	-40°F to 122°F (-40°C to 50°C)
Weight	2.65 lbs/1.2Kg (1' model), 10.6 lbs/4.8Kg (4' model)
Certifications	





Release 1.2b

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.

www.acclaimlighting.com