Dyna Graze HO Exterior DMX

Contents

Introduction

Welcome

Welcome to the Dyna Graze HO Exterior DMX range from Acclaim Lighting. These aluminum bodied outdoor fixtures are designed specifically to graze surfaces in close proximity. Available in 1' and 4' lengths these robust units can be connected in series using combined power and DMX control cables (with IP67-rated connectors) to greatly simplify installation.

In both 1' and 4' lengths, the Dyna Graze HO Exterior DMX range provides four emitter color options:

- RGB - Red, green and blue LED emitters,
- RGBW - Red, green, blue and cool white LED emitters,
- RGBA - Red, green, blue and amber LED emitters, or
- DW (Dynamic White) - 2200K, 3500K and 5000K white emitters.

Additionally, to ensure the correct fit with your installation, you have four lens options:

- 10º x 10º,
- 10º x 60º,
- 30º x 60º, or
- 60º x 60º.

External control is achieved using the industry standard DMX-512A, while initial configuration (and optional monitoring) is carried out using RDM (Remote Device Management) as the units have no control panels.

The internal auto-sensing power supply within each unit can accept mains inputs between 100 to 277VAC at 50 or 60Hz. Total power consumption is just 20W per foot.

A range of optional items such as louvers and extender bars are available to adapt the Dyna Graze HO Exterior DMX to match your installation.

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
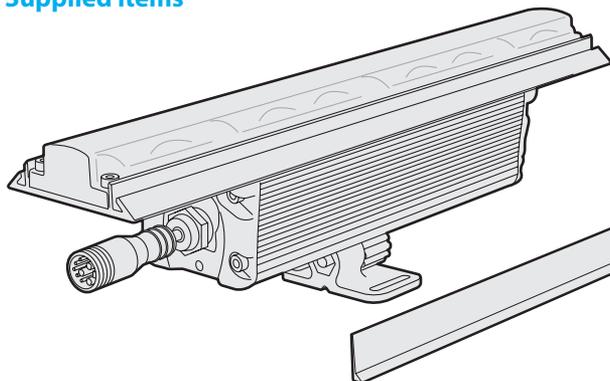
Dyna Graze HO Exterior DMX 1' or 4' with matching glare shield (and two small locking screws)

Optional extras
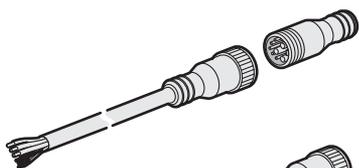
Feed cable plus end cap
10' (3m)   [DGHFC10]
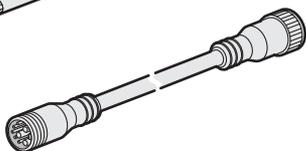
Link cables
1' (30cm)   [DGHLC1]
5' (1.5m)   [DGHLC5]
10' (3m)   [DGHLC10]

End cap   [DGHEC]

90º bracket
[DYNAHMF90]
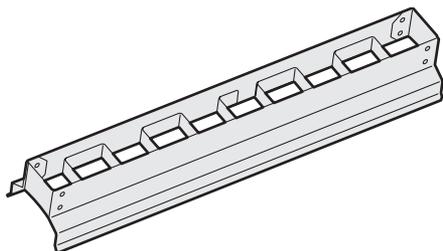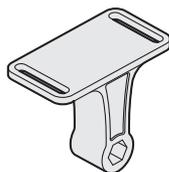
Louvers
12" (30cm)   [DGHLV12]
48" (1.5m)   [DGHLV48]
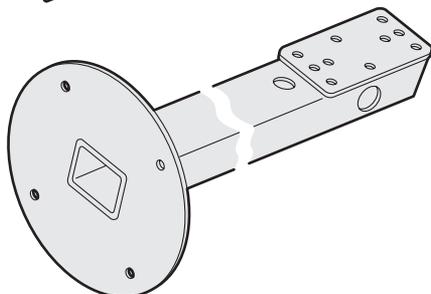
Extender bars
6" (15cm)   [DYNAHEB6]
12" (30cm)   [DYNAHEB12]
36" (91cm)   [DYNAHEB36]
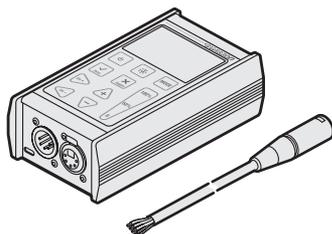
DMX/RDM tool plus male 5pin XLR lead
[XMT350]

Installation

When installing each Dyna Graze 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.

Each mount base has two slots measuring 1" x 0.2" (25 x 5mm) and the base has a thickness of 0.16" (4mm). Select bolts or screws (not supplied) that fit the mount base(s) correctly and are particularly suited to the mounting surface.

Mount adjustment

The standard mount(s) provided with each Dyna Graze fixture (1' models have one mount, 4' models have two) allow tilt angles of roughly 30 degrees from vertical to be achieved. Use a 5mm Allen wrench to adjust the tilt angle.

**Tilt adjustment
(5mm Allen wrench required)**

**Slide adjustment
(2mm Allen wrench required)**
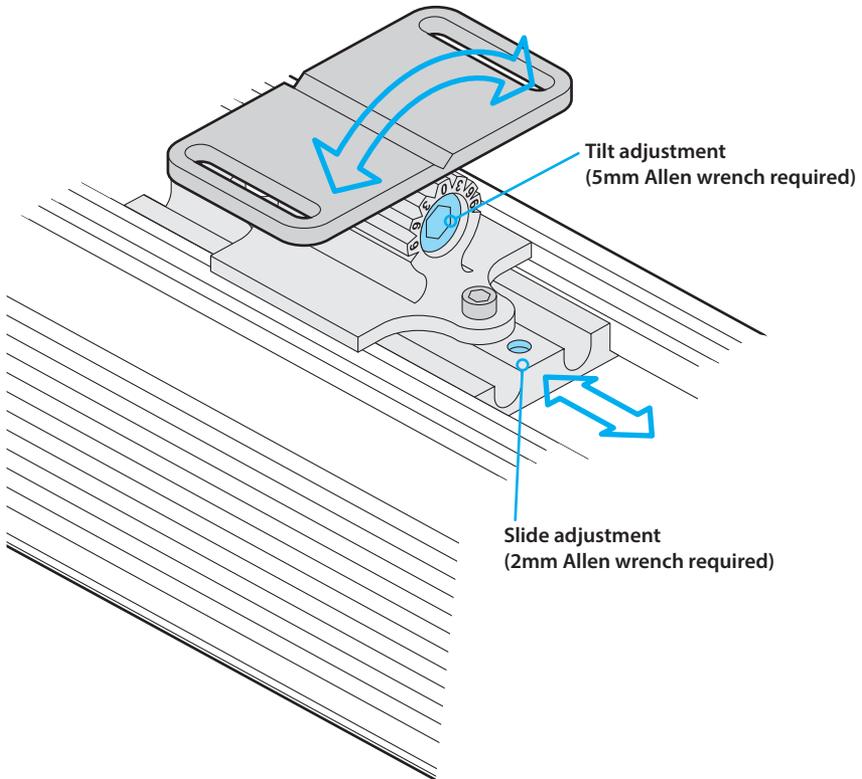
Ensure that each base is securely fixed to the mounting surface with appropriate screws/bolts. If necessary, use a 2mm Allen wrench to loosen each mount to allow them to slide along the length of the fixture to the required position before re-tightening.

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Optional 90⁰ bracket

The standard mount brackets supplied with each Dyna Graze are able to achieve roughly 30 degrees (from vertical) tilt in either direction. To achieve tilt angles up to 90 degrees, you will need to replace the standard brackets with optional 90° brackets.

0.55"
(14mm)
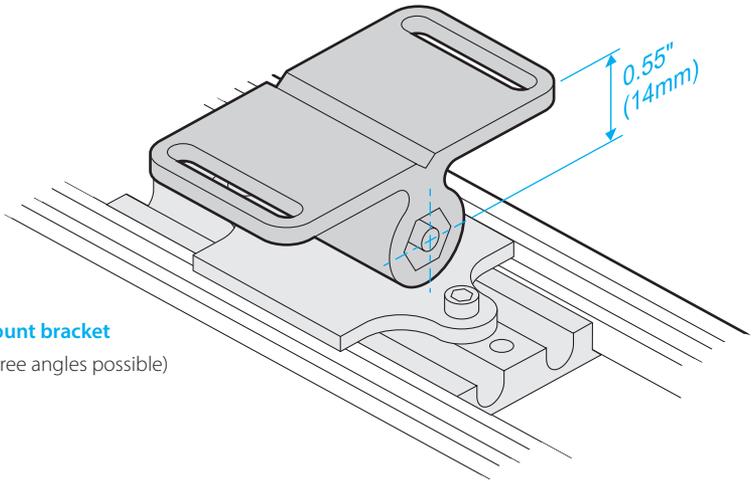
Standard mount bracket

(0 to ~30 degree angles possible)

1.63"
(41.3mm)
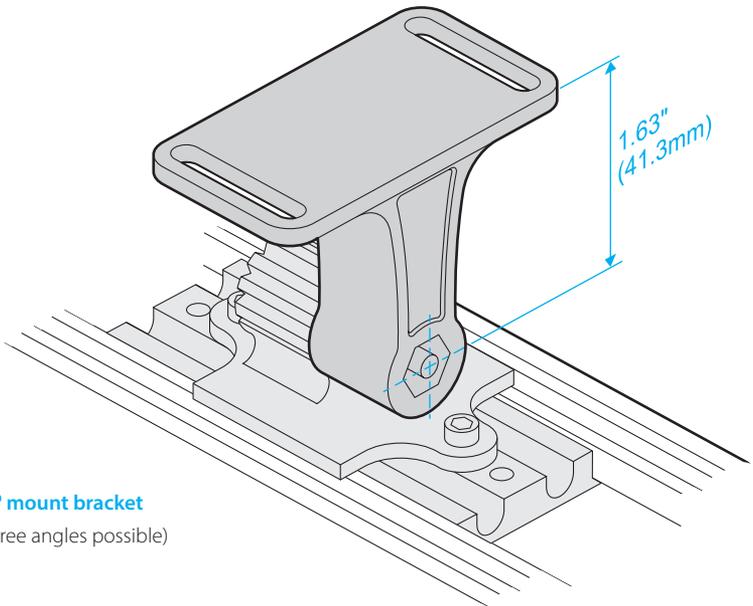
Optional 90⁰ mount bracket

(0 to ~90 degree angles possible)

To fit the optional bracket, remove the tilt adjust bolt (5mm Allen wrench required), remove the standard bracket and replace with the new part.

Fitting the glare shield

Each Dyna Graze fixture is supplied with a glare shield which can be fitted on either side of the emitter housing to help conceal the emitters from side view.

To insert the glare shield

1 Carefully slide the glare shield into either of the two channels located on either side of the emitter housing.

    Note: You may find that the glare shield is tight and difficult to slide in, particularly on the 4' models. If so, smear a small quantity of petroleum jelly onto the angled base of the glare shield to help it slide.

Locking screw (M3 x 5mm)

Glare shield
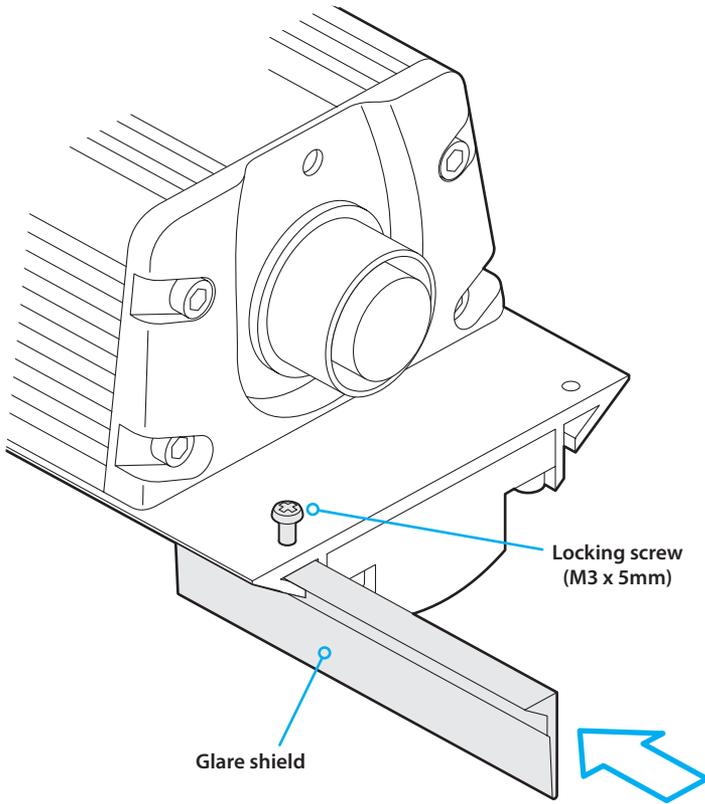
2 When the shield is fully in place, on the underside of the fixture, insert one of the supplied small locking screws at either end and tighten them to keep the shield firmly in place.

Fitting an optional louver

Optional louvers are available to eliminate side spill in all directions.

To fit an optional louver

1 Carefully slide the louver into the two channels located on either side of the emitter housing.

   Note: You may find that the louver is tight and difficult to slide in, particularly on the 4' models. If so, smear a small quantity of petroleum jelly onto the angled lips of the louver to help it slide.

Locking screw
(M3 x 5mm)
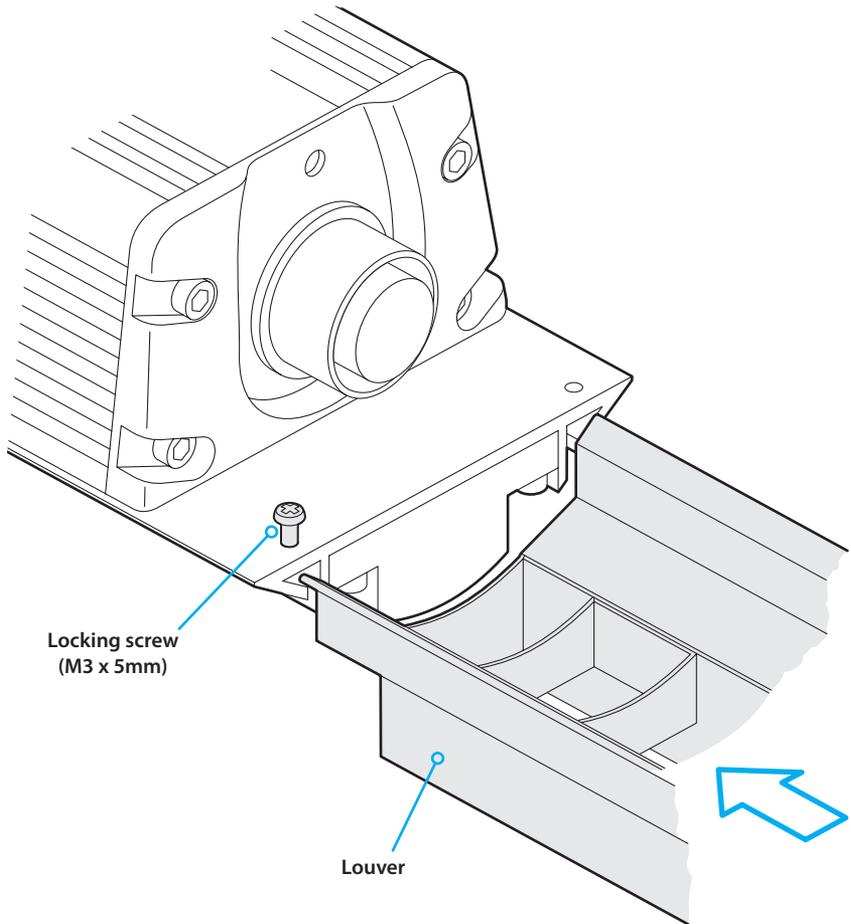
Louver

2 When the louver is fully in place, on the underside of the fixture, insert one of the supplied small locking screws at either end (on opposite sides) and tighten them to keep the louver firmly in place.

Power and control wiring

Power and control are combined within the IP67-rated feed cables cords. Input and output connectors are FINEcables® M20 (3+5P), with a male input connector located at one end and female output connector at the other. Connector placements are such that abutted units can be directly connected without need for extra cables.
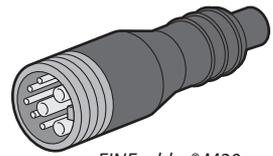
The cable color designations for the optional feed in cable are as follows:

FINEcables® M20 (3+5P) male

Green/Yellow: **Earth**
Brown: **Live**   **Power In** (AWG 16 / 1.3mm^2)
Blue: **Neutral**

Red: **DMX + (Hot)**
White: **DMX – (Cold)**   **DMX IN** (AWG 26 / 0.13mm^2)
Black: **Ground**

Green
Gray   **Not used**
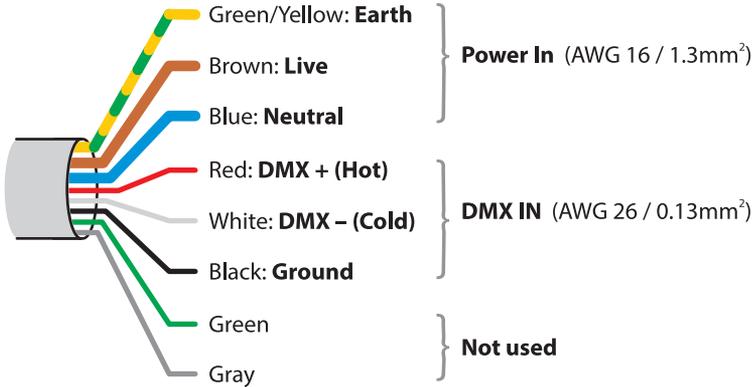
Power

The power requirements are as follows:

- Voltage: 100-277VAC 50/60Hz
- Power: 20W per 1' section (80W for a 4' model)

Control

The control links use three cores for the DMX512 / RDM connections.

Making a temporary control link

Each 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 Graze feed-in cable. Use wire nuts, conn blocks or Wago® connectors to temporarily join the two cables:

Red — DMX + (Hot) — **White**
White — DMX – (Cold) — **Blue**
Black — Ground — **Orange**

Dyna Graze feed in cable

Male XLR lead
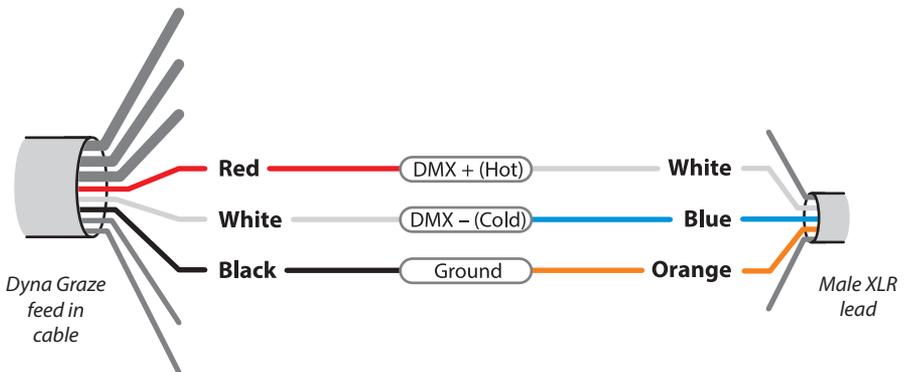
## Maximum number of fixtures

The maximum number of fixtures that can be connected (using Acclaim Lighting cable sets) in a single series run is dependant on the supply voltage, as follows:

240/277VAC supply: 100 feet (30m) of total fixture length
120VAC supply: 50 feet (15m) of total fixture length

240/277VAC supply: 500 feet (152m) of total fixture **plus** cable length
120VAC supply: 250 feet (76m) of total fixture **plus** cable length
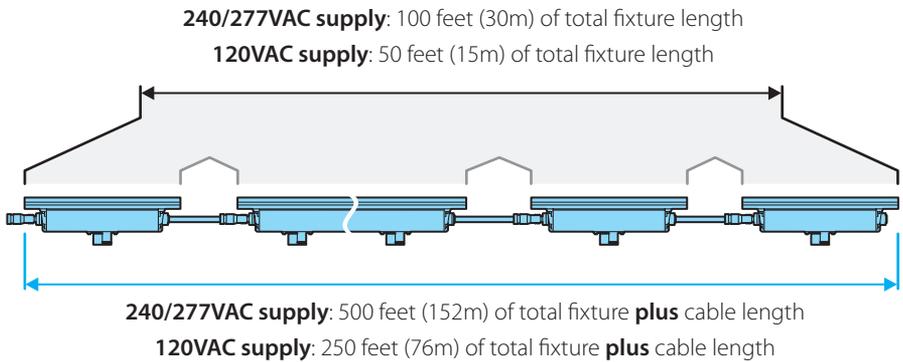
Runs can consist of mixtures of 1' and 4' fixtures, as required, providing the total length of fixtures (and the total length of fixtures plus cable lengths) is not exceeded. See also the advice on in-rush currents given below.

In damp or wet location installations, ensure that the output connector of the final fixture has an end cap fitted [DGHEC] to prevent moisture ingress.

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. The in-rush current values for the Dyna Graze HO Exterior DMX fixtures are as follows:

- Dyna Graze HO Exterior DMX 1': 30A max @ full load
- Dyna Graze HO Exterior DMX 4': 40A max @ full load

DMX channel designations

The various Dyna Graze HO Exterior DMX variants apply their LED emitters to DMX channels in different ways, as summarized in the table below. The 1' models always operate in *Standard* (STD) mode while the 4' models use *Extended* (EXD) mode by default, but can be changed to standard (STD) mode using a DMX/RDM tool (see page 12). When a 4' model operates in standard mode, all four of its emitter sections operate in unison.

DMX	RGB (EXD)	RGB (STD)	RGBW (EXD)	RGBW (STD)	RGBA (EXD)	RGBA (STD)	Dynamic White (EXD)	Dynamic White (STD)
1	Ⓐ Red	Red	Ⓐ Red	Red	Ⓐ Red	Red	Ⓐ 2200K	2200K
2	Ⓐ Green	Green	Ⓐ Green	Green	Ⓐ Green	Green	Ⓐ 3500K	3500K
3	Ⓐ Blue	Blue	Ⓐ Blue	Blue	Ⓐ Blue	Blue	Ⓐ 5000K	5000K
4	Ⓑ Red		Ⓐ CW	CW	Ⓐ Amber	Amber	Ⓑ 2200K	
5	Ⓑ Green		Ⓑ Red		Ⓑ Red		Ⓑ 3500K	
6	Ⓑ Blue		Ⓑ Green		Ⓑ Green		Ⓑ 5000K	
7	Ⓒ Red		Ⓑ Blue		Ⓑ Blue		Ⓒ 2200K	
8	Ⓒ Green		Ⓑ CW		Ⓑ Amber		Ⓒ 3500K	
9	Ⓒ Blue		Ⓒ Red		Ⓒ Red		Ⓒ 5000K	
10	Ⓓ Red		Ⓒ Green		Ⓒ Green		Ⓓ 2200K	
11	Ⓓ Green		Ⓒ Blue		Ⓒ Blue		Ⓓ 3500K	
12	Ⓓ Blue		Ⓒ CW		Ⓒ Amber		Ⓓ 5000K	
13			Ⓓ Red		Ⓓ Red			
14			Ⓓ Green		Ⓓ Green			
15			Ⓓ Blue		Ⓓ Blue			
16			Ⓓ CW		Ⓓ Amber		*CW = Cool White*	

The channel allocations above 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 above and the other channels will increment from there.

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Operation

Addressing fixtures

Dyna Graze HO Exterior DMX 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.

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

To address fixtures using the Swisson 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:

```
┌─────┬─────┬───────┐
│MAIN │PATCH│OPTIONS│   004/004
├─────┴─────┴───────┴────────────┐
│DYNAGRAZE HO EXTERIOR    ▯ N/A  │
│DYNAGRAZE HO EXTERIOR      017  │
│DYNAGRAZE HO EXTERIOR      033  │
│DYNAGRAZE HO EXTERIOR      049  │
│                                │
│                                │
│                                │
└────────────────────────────────┘
```

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               │
│DYNAGRAZE HO EXTERIOR ▯<001>    │
│DYNAGRAZE HO EXTERIOR      017  │
│DYNAGRAZE HO EXTERIOR      033  │
│DYNAGRAZE HO EXTERIOR      049  │
│                                │
└────────────────────────────────┘
```
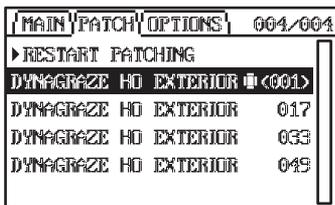
Note: DMX addresses shown in brackets, e.g. (001), have been temporarily assigned by the XMT-350, but are not yet stored within the fixture(s).

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          │
└────────────────────────────┘
```
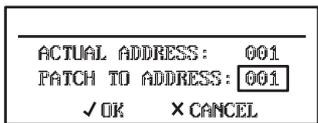
7   Use the up/down buttons to set the required DMX address and then press the ✔ button to store it within the fixture.

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 personality mode selection

Dyna Graze HO Exterior DMX 4' models have two modes of operation:

- Extended (EXD) mode - The four emitter sections are addressed individually, or
- Standard (STD) mode - All four emitter sections are addressed collectively.

Note: Dyna Graze HO Exterior DMX 1' models always operate in standard (STD) mode.

For a summary of how channels are allocated in both modes for all the model variants, see page 10.

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

To change personality modes using the Swisson 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:

```
┌MAIN┐PATCH│OPTIONS│  004/004
 DYNAGRAZE HO EXTERIOR  ⏚ N/A
 DYNAGRAZE HO EXTERIOR     017
 DYNAGRAZE HO EXTERIOR     033
 DYNAGRAZE HO EXTERIOR     049
```

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:

```
DYNAGRAZE HO EXTERIOR DMX R6..
▶LABEL:DYNAGRAZE HO EXTERIOR
 MODEL:DYNAGRAZE HO EXTERIOR
 MAN:      ACCLAIM LIGHTING
 DMX START ADDRESS:        -
 DMX PERSONALITY:   EXD MODE
 DMX SLOTS:              16
```
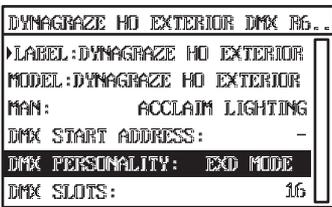
6 Press the ✔ button to view the personality options:

```
DYNAGRAZE HO EXTERIOR...004 CH
  001:          STD MODE
⏚ 002:          EXD MODE
```

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 Dyna Graze HO Exterior DMX 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; Acclaim Lighting particularly recommend the Swisson XMT-350 for this task.

To test emitter output using the Swisson 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.

```
┌─────────────────────────────┐
│ SEND DMX               ▰▶    │
│                             │
│ ADDRESS         LEVEL       │
│                          %  │
│ 001  000                    │
│                             │
│                             │
└─────────────────────────────┘
```
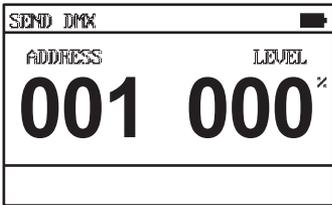
4 Use the arrow buttons to determine the DMX output:

   • 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 Swisson 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

Color models	RGB, RGBW, RGBA or Dynamic White (2200-5000K)
Beam angle options	10° x 10°, 10° x 60°, 30° x 60° or 60°
Illuminance (lm/ft²)	693 (RGBW 10° x 60° variant @ 100% - 1 foot section)
Lumen maintenance (L_{70})	150,000 hours (25°C)
Control	DMX (+ RDM configuration) fixtures controlled in 1' or 4' lengths
Ingress protection	IP66, wet location
Fixture connectors	FINEcables® M20 3+5P IP67 combined power and control
Maximum lengths in series	50' (15m) @ 120VAC or 100' (30m) @ 240/277VAC
Power input	100 - 277VAC, 50/60Hz
Power consumption	20W (1' model), 80W (4' model)
Housing	Anodized brushed aluminum with polycarbonate lens
Mounting	30° swivel mount included, 90° swivel mount optional
Operating temperature	-40°F to 122°F (-40°C to 50°C)
Weight	3 lbs/1.4Kg (1' model), 12 lbs/5.4Kg (4' model)
Certifications	

1' (305mm)

2.8" (70.9mm)

3.9" (98.5mm)

(1' model)

2.82" (71.8mm)

4' (1220mm)

(4' model)

Release 1.0d
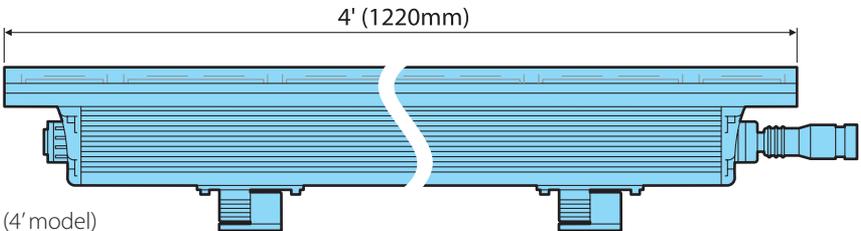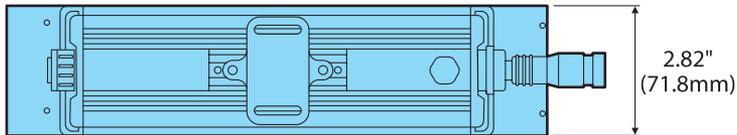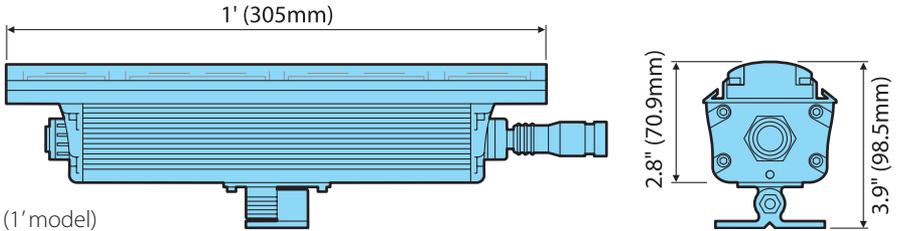
Limited product warranty

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.
- 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.

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