USER
MANUAL

⣿SGM®

G-4 SERIES

G-4 RGBAM WASH
G-4 RGBAM WASH-BEAM
G-4 W WASH
G-4 W WASH-BEAM
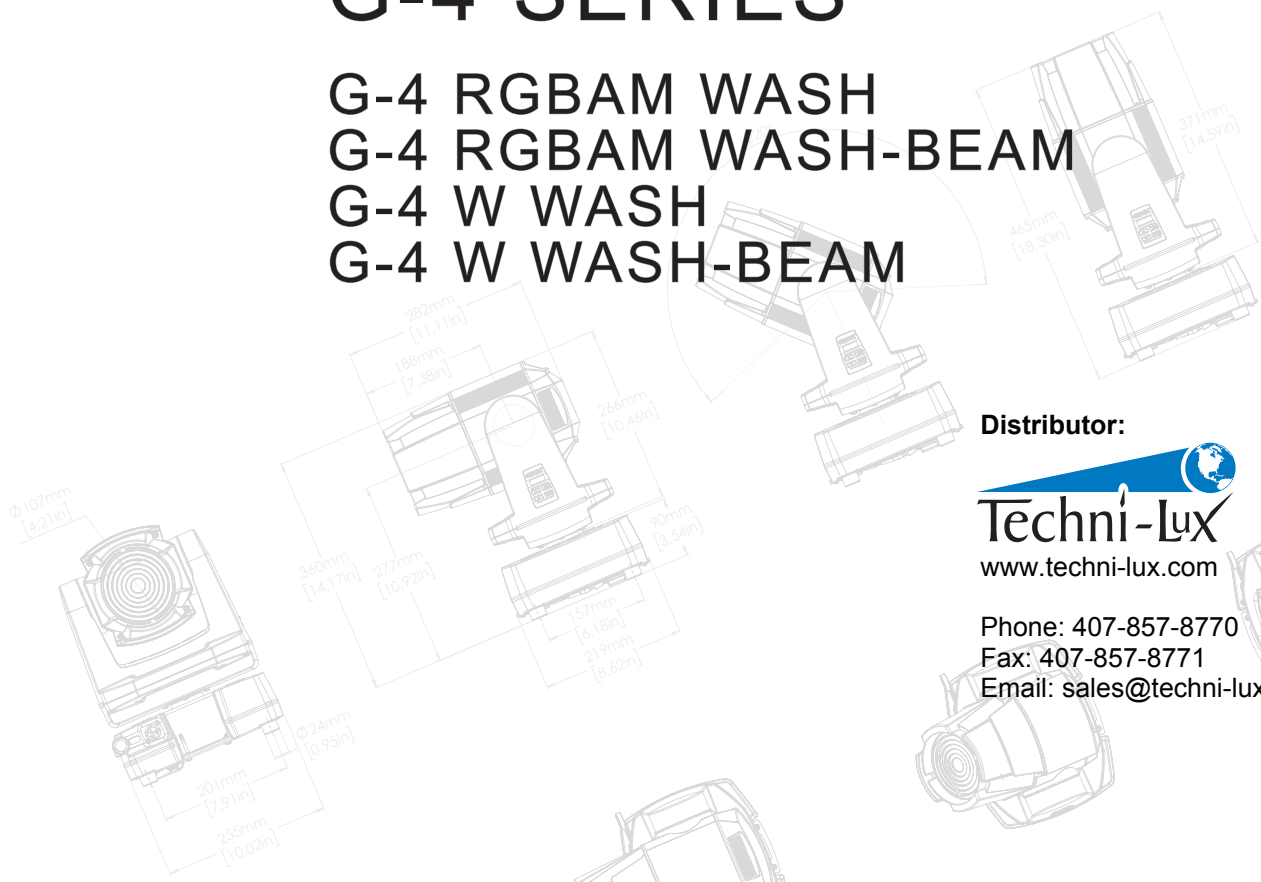
G-4 Series dimensions
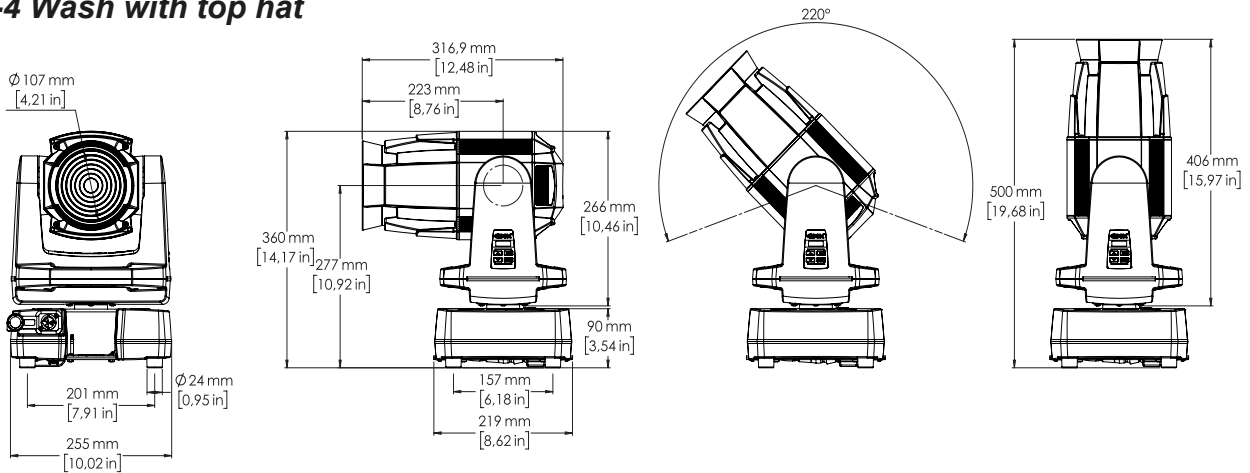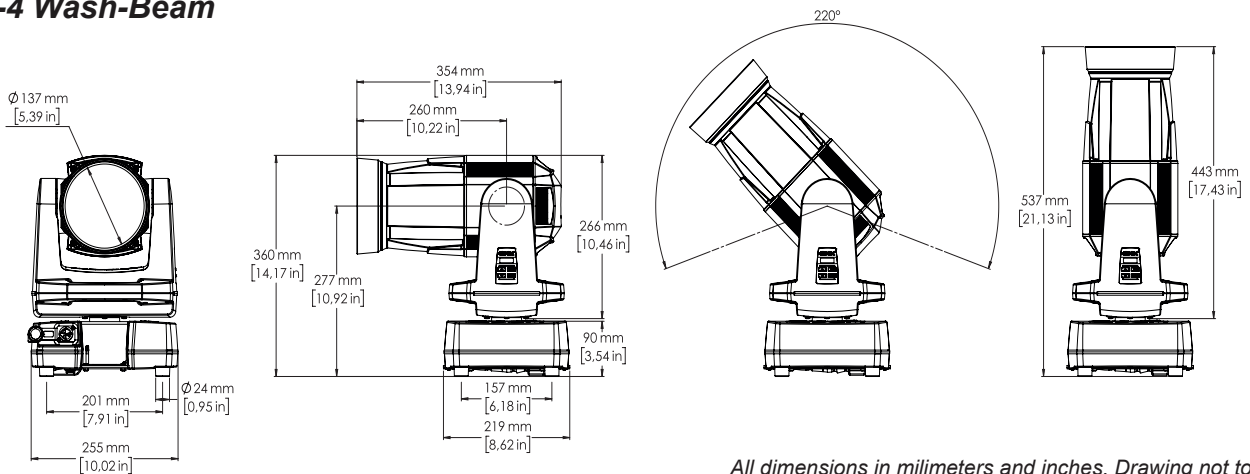
G-4 Wash
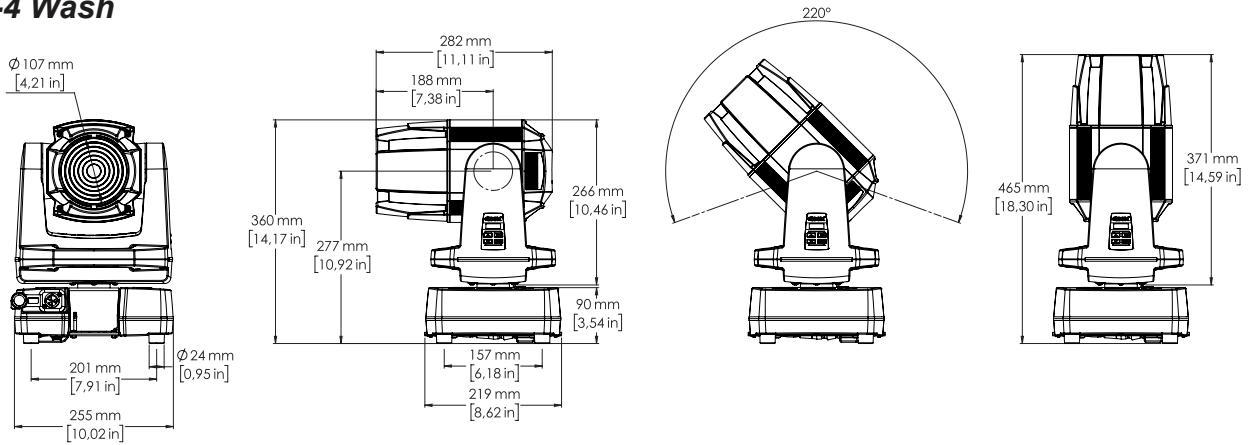
G-4 Wash with top hat

G-4 Wash-Beam

All dimensions in milimeters and inches. Drawing not to scale.

G-4 SERIES USER MANUAL REV. A
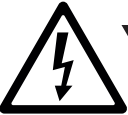
Contents

Safety information

WARNING!
Read the safety precautions in this section before installing, powering or operating this product.

*SGM luminaries are intended for professional use only. They are not suitable for household use.
Review the following safety precautions carefully before installing or operating the device.*

DANGER! Risk of electric shock. Do not open the device.

- Do not open the device; there are no user-serviceable parts inside.
- Ensure that power is cut off when wiring the device to the AC mains supply.
- Ensure that the device is electrically connected to earth (ground).
- Do not apply power if the device or mains cable is in any way damaged.
- Do not immerse the fixture in water or liquid.

WARNING! Take measures to prevent burns and fire.

- Install in a location that prevents accidental contact with the device.
- Install only in a well-ventilated space.
- Install at least 0.3 m (12 in.) away from objects to be illuminated.
- Install only in accordance with applicable building codes.
- Ensure a minimum clearance of 0.3 m (12 in.) around the cooling fans.
- Do not paint, cover, or modify the device, and do not filter or mask the light.
- Keep all flammable materials well away from the device.
- Allow the device to cool for 15 minutes after operation, before touching it

CAUTION: Exterior surface temperature after 5 min. operation = 45 °C (113 °F). Steady state = 68 °C (154 °F).

WARNING! Take measures to prevent personal injury.

- Do not look directly at the light source from close range.
- Take precautions to prevent injury due to falls when working at height.
- For Permanent Outdoor Installation(POI), ensure that the fixture is securely fastened to a load-bearing surface with suitable corrosion-resistant hardware.
- For temporary installation with clamps, ensure that the quarter-turn fasteners are turned fully and secured with a suitable safety cable.
- The standard safety wire cable must be approved for a safe working load (SWL) of 10 times the weight of the fixture, and it must have a minimum gauge of 4 mm.

Overview

The G-4 series is

- A lightweight moving head luminaire weighing only 10 kg/22 lbs.
- IP-65-rated (standard) and IP-66-rated (POI) can operate in temperatures from -40˚C to 50˚C in all kinds of weather.
- Working within the 100-240V 50/60 Hz range (standard base)
- Providing built-in wireless DMX and preset-able stand-alone programs.
- Capable of continuous clockwise and counter-clockwise pan rotation, controlled in 4 different pan modes.
- Fully RDM implemented.
- Interchangeable lens kit and optional top hat accessory to minimise stray light.

The variants

- The G-4 RGBAM (5 color 150W LED red, green, blue, amber and mint. CRI >90)
- The G-4 W (White 7,200K 150W LED, CRI >72) (5,000K with CTO filter inserted)

G-4 RGBAM also features

- Color filter macro using a CTO filter to mimic congo blue and deep saturated red
- Color filter emulating 89 LEE colors + raw amber and raw mint
- Fully adjustable CTC from 2,000K to 10,000K
- Plus / Minus green control

Lens options

	G-4 RGBAM	G-4 White	
Wash	9-76° Zoom	9-80° Zoom	standard lens kit
Wash w/top hat	-	-	accessory for standard lens kit to minimize stray light
Wash-Beam	5-35° Zoom	4.4-34° Zoom	available as complete fixture or accessory lens kit

The lightsource of the fixture is expected to run until about 50,000 hours LM-70/TM-21.

This manual covers installation, use and maintenance of the G-4 Series.
All documentation is also available on the SGM website: www.sgmlight.com

Parts identification and terminology

A: Interchangeable front lens
B: Power in
C: Tophat (accessory)
D: Display panel

E: Yoke handles
F: Wash-Beam front lens
G: Camlocks for omega bracket
H: DMX in and out

I: Safety wire attachment point
J: Ceiling mount bracket (accessory)
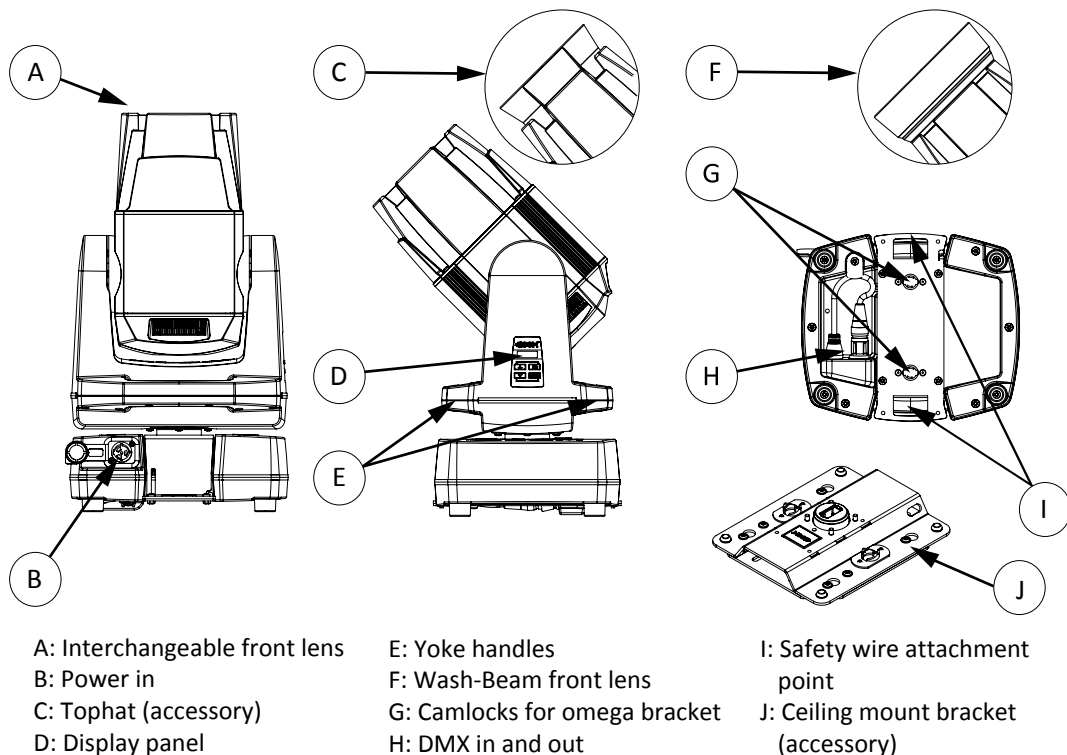
Preparing for installation

Unpacking

Unpack the device and inspect it to ensure that it has not been damaged in transport.

The G-4 Series is shipped with:

- User manual
- One Neutrik TRUE1 power input connector, 2 m (78 in.)
- One Omega bracket with 1/4-turn fasteners

Location / application

The fixture is IP65-rated and designed for use in outdoor events. This means that it is protected from:
- Dust, to the degree that dust cannot enter the device in sufficient quantities as to interfere with its operation
- Lower pressure jets of water from any direction

When selecting a location for the device, ensure that:
- It is situated away from public thoroughfares and protected from contact with people
- It is not immersed in water or exposed to high-pressure water jets
- It has adequate ventilation

When using the fixture for outdoor events, ensure that:
- **For wireless DMX or standalone operation**, the DMX out cable is securely attached to the DMX-in connection. (See "Parts identification and terminology" on page 5.)
- **For cabled DMX operation**, the DMX out of the last fixture is terminated with a 120 Ohm resistor between pin 2 and 3 (according to the RS485 standard), and the DMX out is properly sealed, in accordance with the IP65 requirements. It can be connected a maximum of 32 fixtures to the same DMX link.
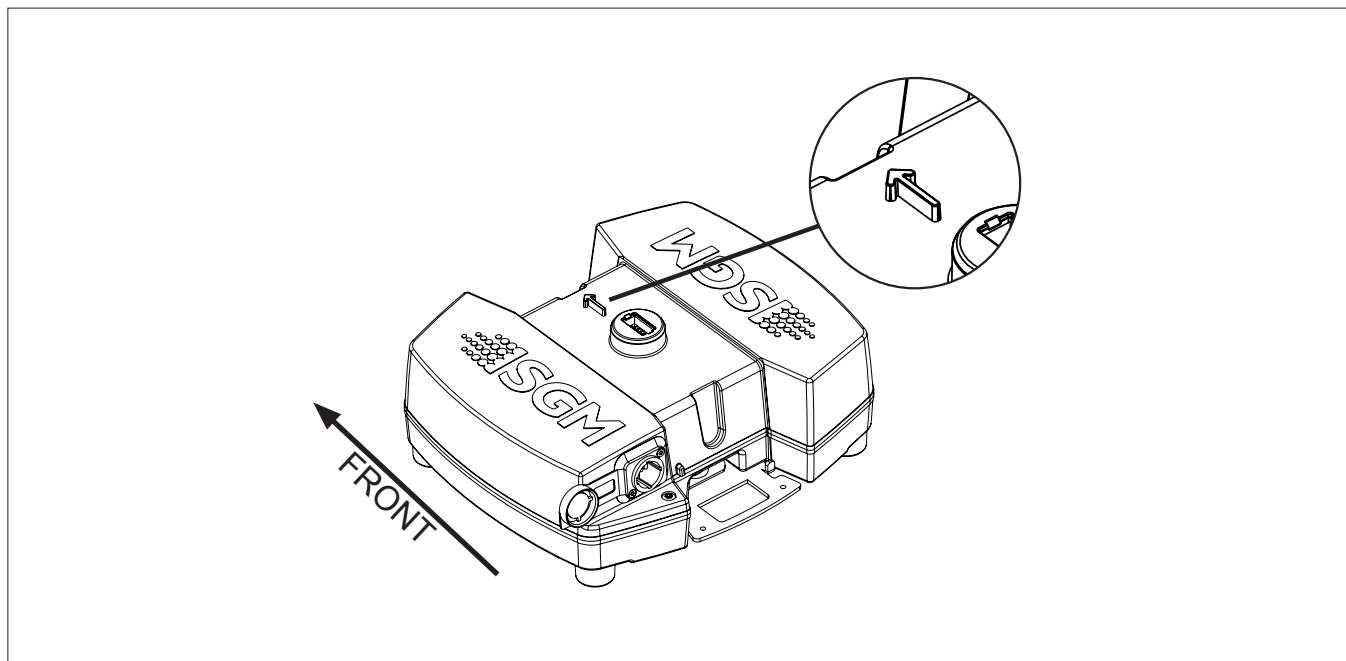
Transportation

Always use the supplied packaging or suitable flight case for transportation and storage.
Never carry the fixture by connected cables or wires, use the handles.

Locating the front of the fixture

The front of the fixture is the side opposite of the AC power socket.

Installing / rigging the G-4

The G-4 Series may be installed in any orientation, with base or with ceiling mount.

Rigging

Always use an omega bracket to rig the fixture. Lock the bracket with the 1/4-turn fasteners.

Please note:
The 1/4-turn fasteners are only locked when turned fully clockwise.

Rigging process
Start the rigging process by blocking the work area below, and make sure the work is performed from a stable platform.

1. Check that the clamp is undamaged and can bear at least 10 times the weight of the fixture. Check that the structure can bear at least 10 times the weight of all installed fixtures, lamps, cables etc.
2. Bolt the Clamp securely to the omega bracket with a M12/ ½" bolt (min. grade 8.8) and a lock nut.
3. Align the omega bracket with the two 1/4 turns in the base. Insert the fasteners into the base and turn both levers a full 1/4-turn clock wise to lock.
4. Working from a stable platform, hang the fixture on a truss or other structure. Tighten the clamp.
5. Install a safety wire that can bear at least 10 times the weight of the fixture. The safety wire attachement point is designed to fit a carabine.
6. Verify that there are no combustible materials, cables or surfaces to be illuminated within 0.3 m (12 in.) of the fixture.
7. Check that there are no possibility of head or yoke colliding with other fixtures or structures.
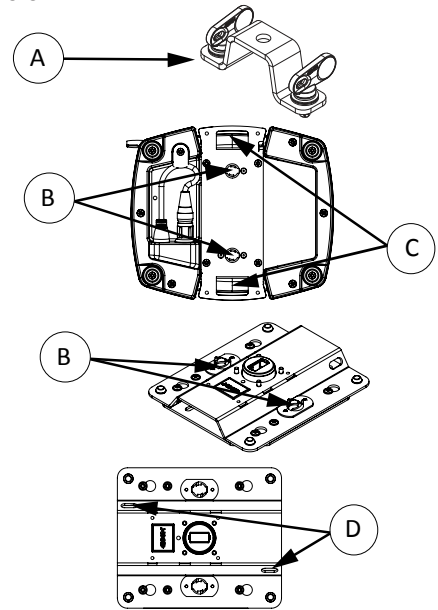
A: Omega Bracket
B: 1/4-turn locking points
C: Safety wire points - Base
D: Safety wire points - Ceiling mount

Ceiling mount bracket (accessory sold separately)

When using the ceiling mount, there are no base with power supply, therefore the fixture must be powered by an external PSU. All mounting information and how to install the ceiling mount can be found inside the shipping package.

A: Back view
B: Front view
C: Right view
D: Left view
E: ISO View
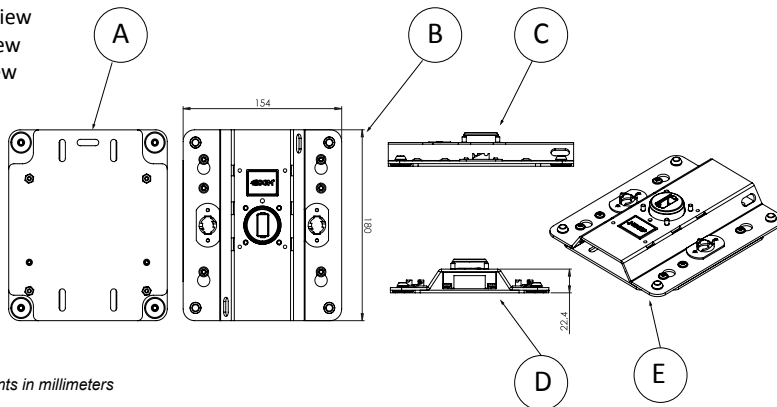
Measurements in millimeters
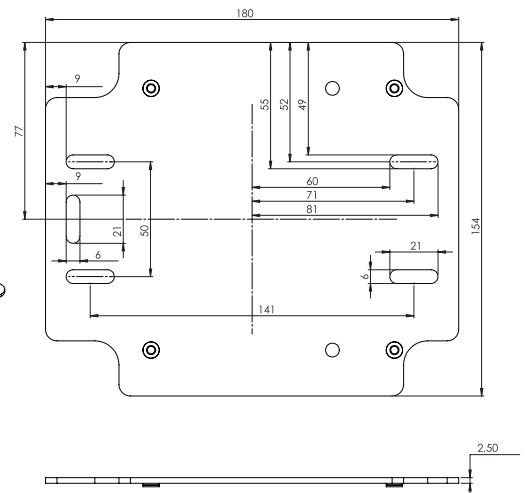
WARNING! *Always secure an elevated G-4 with a safety wire*

Fasten a safety wire (not shown) between the support structure and the safety wire attachment point on the device.
The safety cable (not included in the package) must be able to bear at least 10 times the weight of the device (SWL) and have a minimum gauge of 4 mm.

CAUTION!!
- **Always use a safety wire.**
- **Min. safety wire gauge = 4 mm**
- **Max. safety wire length (free fall) = 30 cm (12 in.)**
- **Make sure the slack of the safety wire is at a minimum.**
- **Never use the carrying handles for secondary attachment.**

Safety wire attachment point
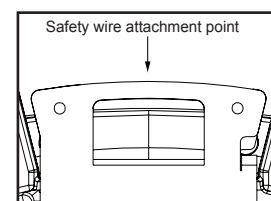
Connecting AC power

The G-4 standard version can operate on any 100–240 V, 50/60 Hz AC mains power supply. The maximum power consumption is 220W.

In POI versions the product supplies a power cable with bare ends. Please refer to page 20 for connecting AC power in POI fixtures.

For standard G-4, connect the fixture to AC power using the supplied cable with overmolded Neutrik powerCON TRUE1 NAC3FX-W or similar to ensure the correct ingress protection (IP).

The fixture must be grounded/earthed and be able to be isolated from AC power. The AC power supply must incorporate a fuse or curcuit breaker for fault protection.

Wire	Color	Symbol	Conductor
▇▬	Black	L	live
▭▬	White	N	neutral
▭▬	green/yellow	⏚ or ⏚	ground (earth)

Please note: **Both DMX in and DMX out must be connected in order to maintain the IP65 rating.**
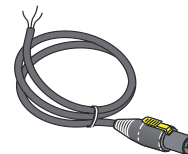
NB! The G-4 without base or with ceiling mount bracket operates on 36V DC power and external power supply.
Also: See "Ceiling mount bracket" on page 15 for installation details.

For permanent installation, have a qualified electrician wire the mains cable directly to a suitable branch circuit. The junction's ingress protection (IP) rating must be suitable for the location.

For temporary installation, the mains cable must be fitted with a grounded connector intended for exterior use.

The device must be grounded/earthed and be able to be isolated from AC power. The AC power supply must incorporate a fuse or circuit breaker for fault protection.

When installing standard type C circuit breakers there will be no limitations due to the fixture in-rush current.

For assistance with alternative configurations, contact your SGM representative.

The fixture must be grounded/earthed and be able to be isolated from AC power. The AC power supply must incorporate a fuse or circuit breaker for fault protection.

After connecting the G-4 to power, run the on-board test, using the "MENU → TEST →AUTOMATED TEST" menu, to ensure that the fixture and each LED are functioning correctly. Please see "Control menu" on page 13

CAUTION: Do not open the fixture to replace the supplied power cable, or connect the fixture to an electrical dimmer system, as this can damage it.

Configuring the device

Set up the fixture using the control panel and OLED display at the yoke of the fixture. Navigate the menus and options using the keyboard buttons and select items using the Enter button. The options available are listed in "Control menu" on page 13. After powering on the G-4, the display shows the currently selected operating mode and other information.

Please note: In POI versions there is no display mounted in the fixture. The adjustments are made through RDM.

OLED Display (A)
The OLED multiline display is the human interface of the fixture. It displays the current status and menu of the fixture. See settings in "Control menu" on page 13.

Using the keyboard (B)
Press the 'ENTER' button to enter a menu or make a selection.

- Press the arrow buttons to scroll up and down the menus.
- Press the 'ESC' button to take a step back.
- Press the 'UP' and 'DOWN' arrows simultaneously to flip the display upside-down.
- Press the 'ESC' button to take a step back.
- Press any button to disable pan/tilt. (It generates time out for 10 sec., after which it will return to the correct position).
- In the settings menu the display can be set to dim or turn of when not used.
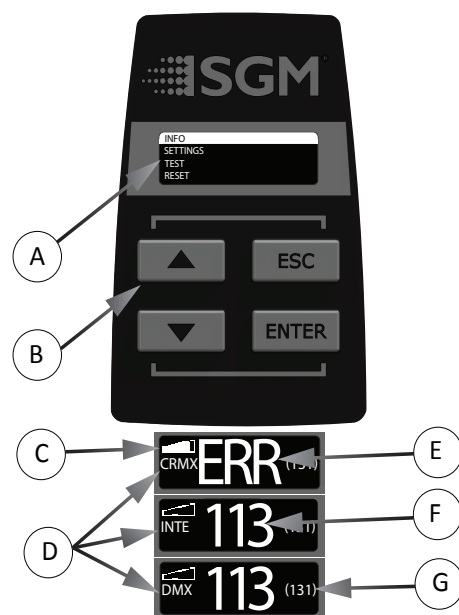
A: OLED Display
B: Keyboard
C: Wireless signal strenght
D: Active input type
E: Error indicator
F: DMX adress
G: Next fixture adress

Wireless signal strength (C)

Displays the signal strength of the wireless CRMX connection. The wireless signal strength symbol will be flashing if the paired transmitter is out of range. If no transmitter is paired the symbol will be off.

Active input type (D)

The active input is displayed for quick and simple verification of the input status.

Error indicator (E)

If any errors are detected, the message 'ERR' will be flashing in the display for easy detection.
To read the error message go to: MENU → INFO → ERRORS

Current DMX address (F)

Displays the current DMX address. The DMX address is altered directly from this view. The next available DMX address is displayed to the right. The DMX address will flash on no data input.

Next fixture (G)

Showing the next available DMX address depending on the fixtures DMX footprint.

Connecting to a DMX control device

The G-4 Series is controllable using a DMX control device and it can be connected using either a DMX cable or via the fixture's build-in LumenRadio CRMX wireless receiver system.

If using a cabled DMX system, connect the DMX in cable to the input connector under the base of the fixture (chassis mounted male 5-pin XLR connector) and DMX out to the output cable also under the base (female 5-pin XLR plug).

Terminate the DMX out cable of the last fixture in the data link.

For outdoor events, use only IP65-rated XLR connectors.
If using a wireless DMX system, ensure that the DMX output is connected to the DMX in connector and properly inserted.
Connect both DMX in and DMX out cables in order to maintain the fixtures IP65 rating.

Connecting a wireless transmitter

If the G-4 is not paired to a wireless transmitter it is designed to look for wireless transmitters in 'connect' state.
To connect the G-4 to a wireless transmitter:
   • Log off the currently paired wireless transmitter. See "Disconnecting a wireless transmitter" on page 9.
   • Press the connect button on the wireless transmitter.
   • Confirm that the fixture has paired with the wireless transmitter.

Disconnecting a wireless transmitter

To disconnect the fixture from the currently paired wireless transmitter, go to:

 MENU → SETTINGS → WIRELESS DMX → LOG OFF.

Signal priority

The G-1 Wash can be paired to an active wireless transmitter simultaneously as being connected to cabled DMX. The fixture will prioritize cabled DMX over wireless DMX. The active input type is displayed under the wireless signal strength indicator.

Configuring the device for DMX control

About DMX

The G-4 can be controlled using signals sent by a DMX controller on a number of DMX channels. DMX is the USITT DMX512-A standard, based on the RS-485 standard. The signal is sent as DMX data from a console or a controller, to the fixtures via shielded twisted pair cable designed for RS-485 devices. The cables are daisy chained between the fixtures, and up to 32 fixtures on the same DMX link can be connected. Cable runs up to 300 meters (1000ft.) can be achieved with high quality DMX cables. All DMX links must be terminated in the last fixture connecting a DMX termination plug to the last fixtures 5 pin DMX out connector.

Please Note:
Standard microphone cable are not suitable for transmitting DMX.
Up to 32 fixtures can be on the same DMX link. Additional fixtures will overload the link.
The last fixture must always be fitted with a DMX termination plug to the fixtures DMX out.

DMX Start adress

The G-4 Series operates in a single DMX mode (G-4 RGBAM 18 channels and G-4 W 10 channels). The first channel used to receive data from a DMX control device is known as the DMX start address. For independent control, each G-4 must have a DMX start address set. For example, if the first G-4 RGBAM has a start DMX address of 113, the following G-4 RGBAM in the DMX chain could then be set to a DMX address of 131 as the first fixture uses all the first 18 DMX channels, including channel 113, the next available channel is 131 (113+18=131 >> 131). If two or more fixtures of the same type have the same DMX address, they will behave identically.
Incorrect settings will result in unpredictable responses to the lighting controller. Address sharing can be useful for diagnostic purposes and symmetrical control.
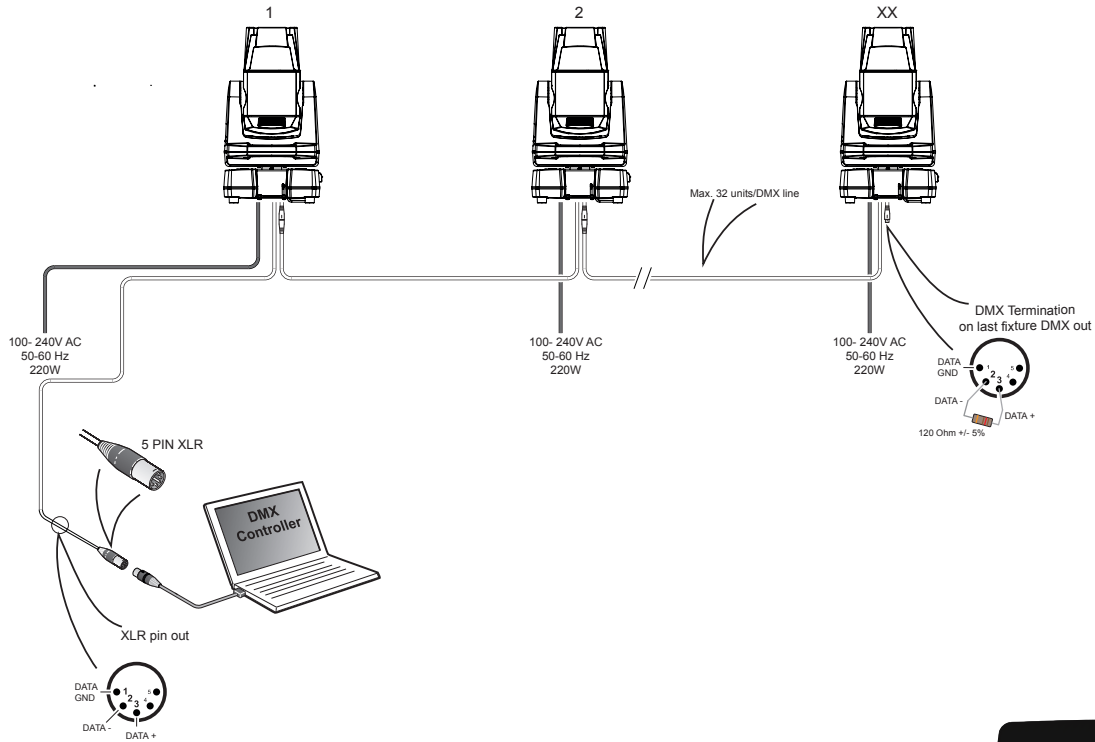
Set/edit DMX adress

The DMX address is shown in the OLED display on the display panel. To change the address setting, press the up and down arrows. When the desired address is displayed, press 'OK' to save the setting. For your convenience, the next available DMX address is displayed to the right. The G-4 Series also offers the option to set the DMX address through RDM (POI fixtures are only addressable via RDM).
See for instructions on using the display panel in "Configuring the device" on page 8.

DMX modes overview

The G-4 operates in different modes depending on the fixture type.
Please see corresponding DMX chart* to the DMX mode.
Please note: **This is subject to change without notice.**

G-4 RGBAM mode	FCC*	Function
18	Yes	Control for: 16 Bit intensity, Red, Green and Blue, CTC, 16 Bit P/T, Continuous Pan, Color filter Emulation, Functions

G-4 W (White) mode	FCC*	Function
10	NO	Control for:16 Bit intensity, CTC 7,200K / 5,000K, 16 Bit P/T, Continuous Pan, Functions

(*FCC, Full Color Calibrated) Please see "Full Color Calibration and Color Temperature Correction" on page 11.

*All the DMX charts are available on the SGM website: http://www.sgmlight.com under the respective products or under request via support@sgmlight.com.

Full color calibration and Color temperature correction

G-4 RGBAM

The Full Color Calibration and Color Temperature Correction enables the fixture to mimic different color temperatures.

When enabling the CTC channel 11, the DMX values are:
0   = Default 5,600K
1 - 4   = No CTC Raw White
5 - 255 = Seamless viation 2,000K to 10,000k. Please refer to the DMX Chart for specifications

The CTC channel sets the white reference, of which any color will mix towards.

Example:
1.   CTC is set to DMX value 182 / 71,3% = 5,600K white (default value)
2.   Green + Blue at 100% = Full cyan
3.   Red is added/faded to 100% = Cyan will fade to 5,600K white.

G-4 W

The G-4 W has a CTC funtion that inserts at CTO filter which will modify the White 7,200K LED to 5,000K. This filter can be changed to any CTO filter upon request when ordering the fixture.

When enabling the CTC channel 10, the DMX values are:
0   = Default 7,200K
255   = 5,000K (Standard CTO filter inserted. Any CTO filter upon request when ordering the fixture)

Internal programs

The G-4 series features a selection of internal programs which can be used standalone without a controller. There are seven internal programs ranging from simple continuous pan rotation, pan / tilt circles to sequential fade between nine programmable position presets.
Programming the position presets for the internal programs is performed by utilizing the innovative SGM patented system, which lets you determine the position by directly and physically altering the direction of pan / tilt by hand. Use below.
These position presets can also be captured directly from DMX values sent from a controller. Program 1,2,4,5 and 7 will use the pan/ tilt values programmed in position preset 1 of the internal position presets.

Program	Color	Movement	Position preset reference
1	White	Small circle slow	Stored position preset 1
2	White	Large circle slow	Stored position preset 1
3	White	Pan continuous and tilt swing	N/A
4	White	Large circle slow	Stored position preset 1
5	White	Pan continuous	Stored position preset 1 (for tilt only)
6	White	Sequential stored position preset fade	All
7	White	Static stored position preset 1	Stored position preset 1
8	N/A	N/A	N/A

Pan / Tilt positions

To edit and store any of the 7 internal pan/tilt position presets, please follow the procedure below:

1. Press 'ESC' to disable pan/tilt
2. Navigate to MENU → MANUAL → STORE POSITION.
   The fixture will turn on the light automatically
3. Navigate to the position preset required
4. Manually, point the head in the direction desired for the chosen position preset
5. Store/overwrite the position preset by pressing 'ENTER'.
   The fixture will confirm by briefly snapping to green and back to white light
6. Repeat step 3-5 for other position presets

A   B   C

Press 'ENTER' to start.   Adjust position manually.   Press 'ENTER' to confirm position Proceed to the next position.

The internal pan/tilt position presets can be recalled and stored by DMX through the pan mode channel. These position presets are also used as position references for the internal programs.

Fixture personality settings

Flipping the OLED display

If the fixture is installed hanging upside down, it might be useful to flip the display so that it is easier to read.
To flip the display, use the "Settings→Display Flip" menu, or press the up and down buttons on the control panel at the same time.

Setting the OLED display saver

By default the OLED display dims down after a short period when the control panel is not in use, but it can also be set to turn off completely. Pressing any key will always turns on the display or restore it to normal brightness. To change the display saver, use the "Settings → Display Off" menu. This can also be change via RDM, please see "RDM" on page 14.

NOTE: To avoid the risk of display deterioration caused by long term use in permanent installations, it is recommended to use the "Display saver → Display off" setting.

Fixture properties

Factory default

When restoring factory defaults the following settings will be set:

• DMX address = 1
• Startup mode = DMX
• Display saver = Off
• Flip screen = Off
• RDM device label set to = Fixture type name
• Internal program reset

Effects

Colors

The G-4 RGBAM features five high-power LEDs. (Red, Green, Blue, Amber, Mint). The fixture operates in RGB calibrated mode which ensures that colors are compatible across the range of SGM fixtures. However the G-4 also offers the ability to utilize the Amber and Mint LEDs only in Color filter emulation mode with full control of each color.

Color macro

The G-4 features a color macro that corrolates to the G-1 beam color wheel. This macro is a very powerfull tool to easily mach i.e. the G-1 colors (fixed color wheel) with the G-4.

Color emulation

The G-4 features an unique color filter emulation, which is based on the LEE filters ranging from LEE 004 to LEE 353. By the combination of the RGBAM LEDs and a physical internal filter, the G-4 can mimic Congo blue and deep saturated red.

Plus and Minus green control

The G-4 RGBAM features a plus/minus green function, accessible from the Color filter emulation channel. Plus / Minus green feature allows the user to slightly change the amount of green used in the different color temperatures. The G-4 RGBAM can match different camera settings and also emulate other light sources. In order to use this feature correctly. Please see the latest DMX chart and Color filter emulation chart available on the SGM website: www.sgmlight.com or upon request via support@sgmlight.com.

Pan modes

The G-4 features four different pan modes: 540° mode, 360° mode, 360° Shortest Path mode and Continuous Rotation mode.
When powering the fixture up, it is in 540 ° mode. (industry standard reference). The pan mode is changed by DMX on the Pan mode channel 16, wich gives the user the abillity to choose any pan mode at any given time. The Pan 16 bit channels 12 and 13, are still pan control channels regardless the pan mode.

Color temperature correction

The G-4 offers seamless CTC (color temperature correction) control from 2,000° Kelvin - 10,000° Kelvin.

Ultra high-speed strobe effect

The ultra high-speed strobe effect (1-50 Hz) introduces the possibility to strobe up to 50 times per second.
Random strobe and pulse effects can be generated with variable speed.

Beam angle(s)

	G-4 RGBAM	**G-4 W**	
Wash	9-76° Zoom	9-80° Zoom	Standard lens kit
Wash w/top hat	-	-	Accessory for standard lens kit to minimize stray light
Wash-Beam	5-35° Zoom	4.4-34° Zoom	Available as complete fixture or accessory lens kit

Accessories

The G-4 is compatible with various accessories.

To know more, please visit the SGM website: http://www.sgmlight.com or contact customercare@sgmlight.com.

Control menu

Level 1	Level 2	Level 3	Function
INFO	Firmware Version	-	Displays installed firmware version.
	Serial Number	-	Displays SGM serial# for Fixture and LED
	DMX View	-	Displays recieved DMX levels. Channel 1 thru 512 pres 'UP or 'DOWN' to scroll.
	Sensors	-	Main Board temperature.
			Head CPU temperature.
			LED Temperature.
			Pan Angle.
			Tilt Angle.
			Wireless Signal Strength.
			Wireless Paired.
			Mains voltage.
			Humidity.
			Light PWM.
	Errors	-	Displays the errors detected.
	Timers	-	Displays fixtures total LED ON hours Red, Green, Blue, Amber, Mint 1, Mint 2.
SETTINGS	Wireless DMX	Log Off	Pres enter to confirm.
		Status	Displays the status of the connection.
	Display Flip		Toggle On / Off.
	Display Off		Toggle On / Off.
	Factory Default	-	Resets the fixture to factory default. See "Factory default" on page 12.
	Service PIN		Service use only.
	Service Menu		Service use only.
TEST	Automated test	-	Initiates a self-test sequence. Press 'ESC' to stop self-test sequence.
	LED test	-	Service use only.
	Display Test	-	Service use only.
RESET	-	-	Press enter to reset fixture.
MANUAL	Run Program	-	Select program 1 through 8. See "Internal programs" on page 11.
	Stop Program	-	Stops any running program.
	Store Position	-	Store position 1 through 9. See how in "Pan / tilt positions" on page 11.

RDM

Supported RDM functions

The G-4 features support for various RDM functions.

RDM (Remote Device Management) is a protocol enhancement to USITT DMX512 that allows bi-directional communication between the fixtures and the controller over a standard DMX line. This protocol will allow configuration, status monitoring, and management.

You will need a RDM controller to get control over the supported parameters. See the tables below for supported RDM functions.

RDM functions

Please note: *The RDM controller communicates with the fixtures to show only the available options for each RDM function. The table is subject to change without notice.*

PID	Actions Allowed		Name	PID	Actions Allowed		Name
0x00F0	GET	SET	DMX Start Address	0x0400	GET	SET	Device Hours
0x00E0	GET	SET	DMX Personality / Mode	0x0401	GET	SET	Lamp Hours
0x00E1	GET		DMX Personality Description	0x0501	GET	SET	Display Level, 0=OFF, 1 and above=ON
0x1000	GET	SET	Identify	0x0500	GET	SET	Display Invert
0x1001		SET	Reset Device	0x8626		SET	CRMX Log Off
0x0080	GET		Device Model Description	0x8060	GET		SGM Serial Number
0x0081	GET		Manufacturer Label				
0x0082	GET	SET	Device Label				
0x0090		SET	Factory Default				
0x0200	GET		Sensor Definition				
0x0201	GET	SET	Sensor Value				

Sensors

RDM enables various sensor readouts for remote device monitoring. See the table below for sensors and sensor types.

Please note: *The RDM controller communicates with the fixtures to show only the available sensors for this fixture. The table is subject to change without notice.*

Name	Sensor Type	Name	Sensor Type
Main Board Temperature	Temperature	Wireless Signal Strength	Other
Head CPU Temperature	Temperature	Wireless Paired	Other
Light Source Temperature	Temperature	Mains Voltage	Other
Pan Angle	Other	Humidity	Other
Tilt Angle	Other	Light PWM	Other

Troubleshooting

Problem	Potential cause(s)	Remedies
Fixture does not respond or appears to be off.	No power to the fixture.	Confirm that the power is switched on, confirm that the cables are plugged in.
	Main fuse is blown.	Contact SGM support or certified SGM service partner.
Fixture suddenly turned off.	Power was turned off.	Check the power supply, switches and breakers.
Fixture suddenly stopped responding.	The wireless transmitter or connections, was disconnected/tampered with.	Inspect the wireless transmitter and connections.
	DMX cables was disconnected.	Inspect DMX cables.
Fixture operates irregularly / abnormal.	DMX cable polarization is inverted (pin 2 + 3).	Install a phase-inverter or replace cables.
	DMX link is not terminated.	Install a XLR 120ohm DMX termination at the end of the DMX link.
	Corrupted DMX cable.	Replace or repair defective cables and/or connections.
	The fixture operates an internal program.	Go to MENU → MANUAL → STOP PROGRAM
	A corrupted fixture generates noise/disruptions on the DMX link.	Track and isolate the corrupted fixture.
Color is uneven	The SGM Calibration Data set has been lost	Contact your local SGM dealer or support@sgmlight.com

Ceiling mount bracket

The ceiling mount bracket lets the fixture replace the base unit and to be mounted directly to a surface. Also it supports the ability to be hung with 1/4-turn omega bracket.

The ceiling mout is fitted directly to the head and offers a very low installation height.

When using ceiling mount there are two options for powering the fixture:

1. Power from an external 36V power supply.
   See "Connecting fixtures with ceiling mount to a DC power supply and DMX" on page 8

2. Use a SGM G-4 extension cable, that connects the base to the ceiling mount .
   Contact your local SGM dealer for information on the extension cable.

Overview

A: Back view
B: Front view
C: Right view
D: Left view
E: ISO View
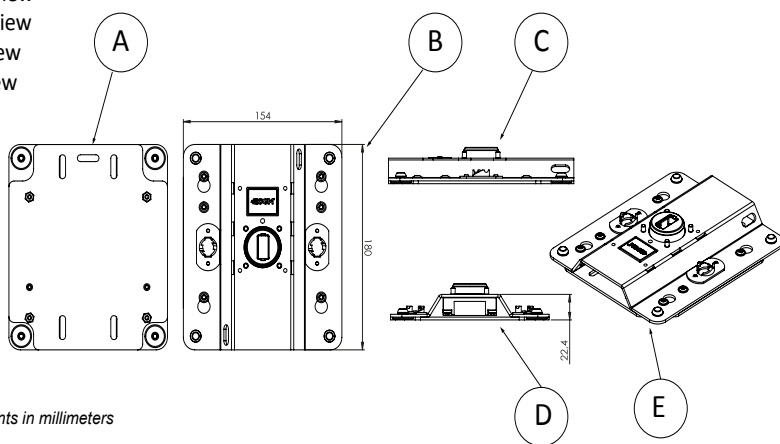
*Measurements in millimeters*
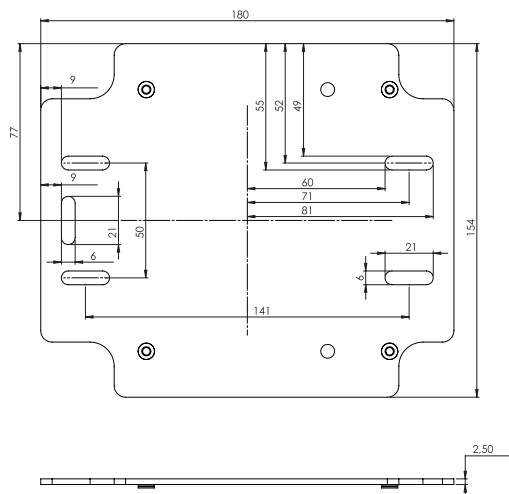
Removing the head from the base

To attach the base to the ceiling mount, the base need to be removed. This is easily done in three steps.

Before any action, ensure there is no power on the fixture before removing the head from the base.

1. Remove the four screws that are holding the base to the bracke

2. Remove the head from the base with a firm grip in one single motion

3. Remove the bracket by unscrewing the four screws (not shown) that are holding it to the head.

NB! Carefully observe that when removing the head from the base, it is possible to get dust into the fixtures connector housing. Ensure the rubber sealing (O-ring) is not damaged, and there is no contaminants after removing the base.
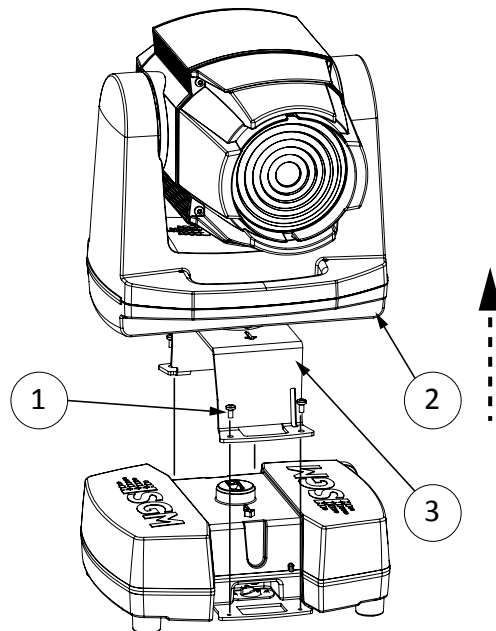
Preparing for installing the ceiling mount

The ceiling mount bracket consist of two major parts:

- the trapeze shaped head part,
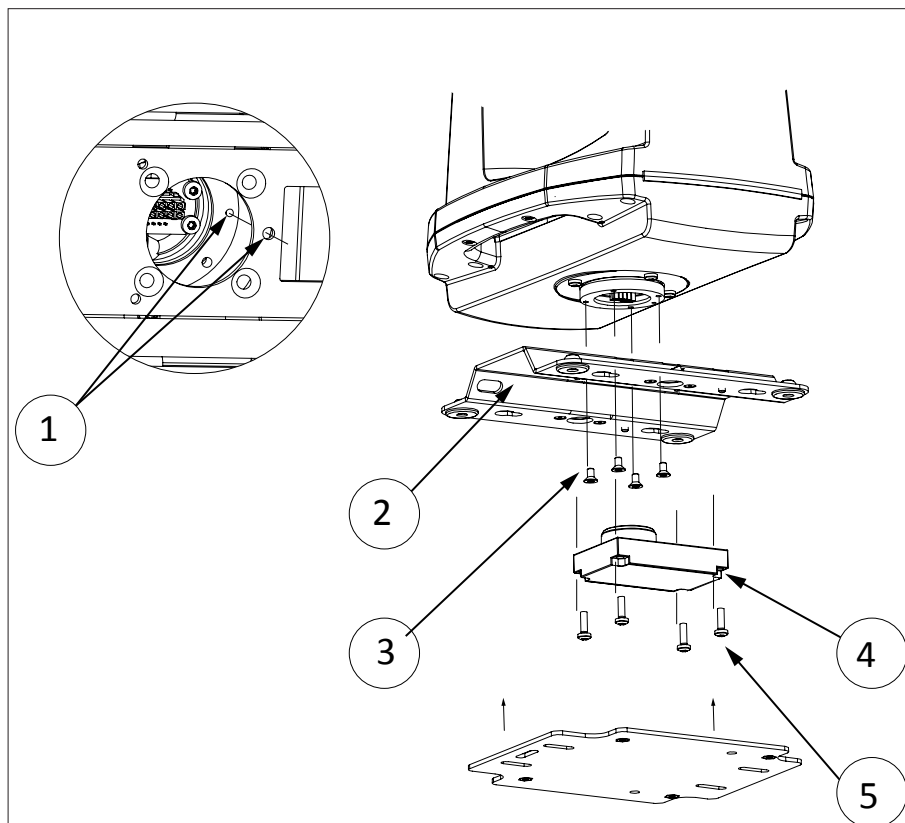- the base plate.

With the base removed from the head, prepare the ceiling mount:

1. Remove the two lock-screws (if installed) and separate the two parts.
2. Remove the wire harness from the bracket (if installed) to expose the four holes for attaching the bracket to the head unit.

Attaching the ceiling mount bracket

1. Align the bracket to the head (the hub), so all four screws and the pilot holes are aligned.

2. Mount the bracket.

3. Insert the four screws, tighten with 1Nm of torque.

4. Mount the wire harnes to the bracket, ensure the connector is properly fitted.

5. Insert the four screws, tighten with 0,6Nm of torque.

NB! Carefully observe that the orientation of the pilot hole on the ceiling mount bracket matches the pilot hole on the head unit.

Installing the ceiling mount bracket

- Securely mount the base plate to the surface using the five oval shaped holes.
- Remove the lock-screws from the trapeze shaped head part if installed.
- Position the trapeze shaped head part over the four slide-locks and slide to the locked state.
- Install the two lock-screws to secure the parts from sliding off.
- Attach a safety wire between the head part and a secure location.


Saftety wire attachment point
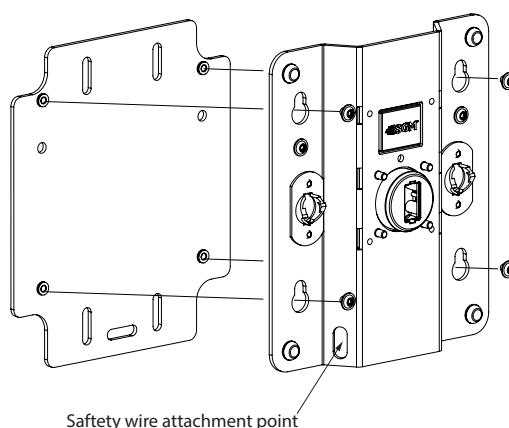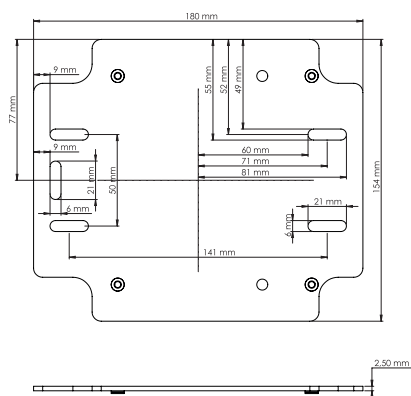
Service

Apart from the interchangeable front lens, tophat and ceiling mount, there are no user-serviceable components in the fixture.

Do not open other parts in G-4, as doing so is likely to damage the ingress protection. Consult your SGM dealer if the fixture operates abnormally, is defective or otherwise in need of service or repair.

Changing the front lens

To replace the front lens:

1. Locate the four screws on the front.

2. Remove the four screws with a Torx 20 screwdriver.

3. Detach the front lens with a firm grip.

4. Mount the new front lens and tigthen the screws witn 1 Nm.
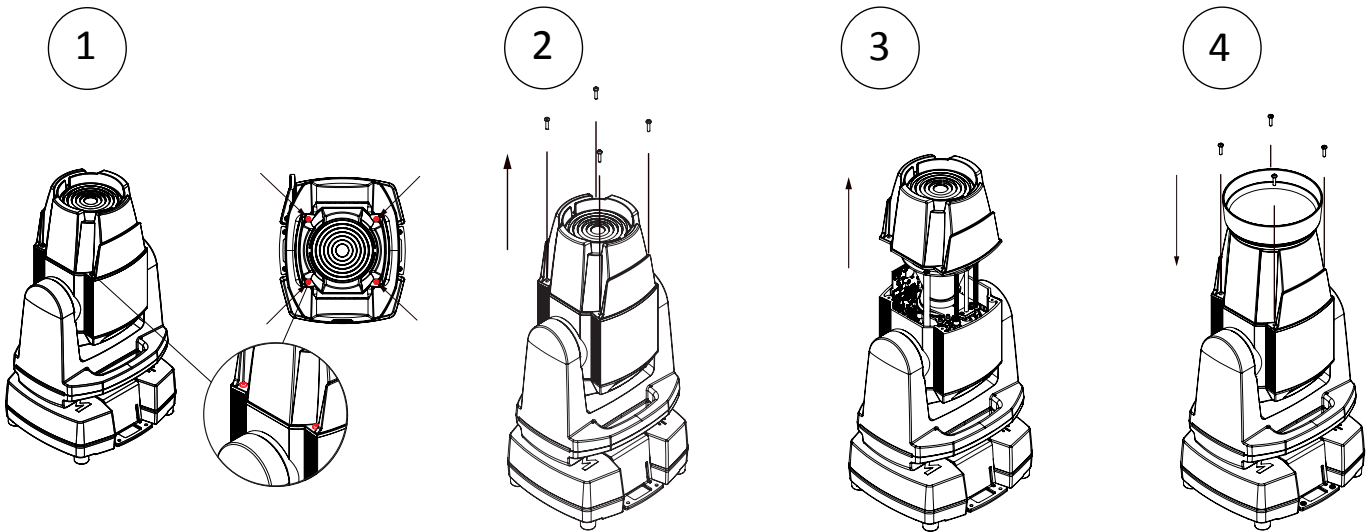
Please check if the rubber sealing O-ring is in the front lens (not shown) is located correctly and not damaged.

Attach Tophat

The attachable tophat is easily fitted by aligning the tophat with the front lens.

When correct alligned the tophat will snap on to place with four powerful magnets.

A: Insert the tophat correct aligned to the front lens

B: Insert the powerful magnets to keep the tophat in place.

C: Remove the tophat in a straight upwards line with at firm grip.

D: Ensure there are no metal dust or any debree collected where the magnets are located.
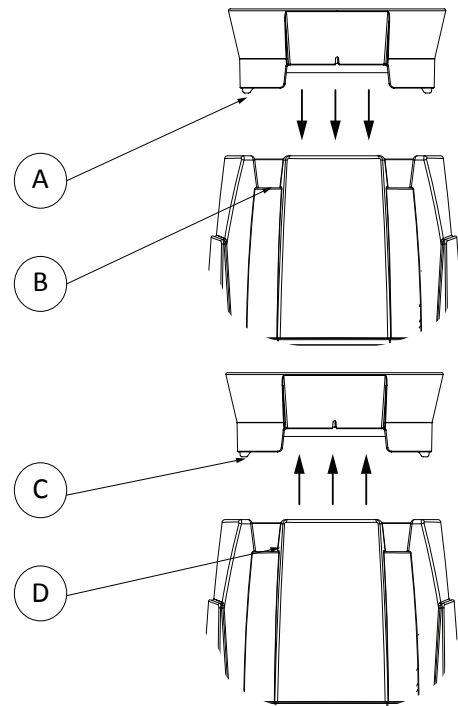
POI Permanent Outdoor Installation

The POI versions are designed for permanent outdoor installation and is IP66-rated. POI versions are designed for use in maritime and offshore environments, as per the C5-M corrosion-resistance class.

Physical differences

The POI version differs from the standard version by having fixed-chassis power and DMX cables and heavy-duty cable glands. The display and control panel have been removed.

Configuration

The POI version is configured exclusively via RDM (Remote Device Management). See "RDM" on page 14 for information. DMX start address, DMX mode etc. are configured via RDM. All DMX modes are the same as the standard G-4 Series. See "DMX modes overview" on page 10 and the DMX Chart for this product in www.sgmlight.com or request it via support@sgmlight.com"

LED Indicator

An LED indicator is located next to the power input cable.
This LED indicator has two colors and three stages; on, flashing or off.

- Green static: Fixture is on and receiving DMX.
- Green flashing: Fixture is on and no DMX is received.
- Red flashing: An error message is stored, review via the SGM Service Tool or SGM RDM Addressing Tool.
                    Please contact SGM support for diagnostic help.
- Off: Fixture is off or indicator LED is set to auto dimming.

Connecting DMX and AC power

DMX in and DMX out are in the same cable. See description below on the right.
Power is wired as the standard version. See "Connecting AC power" on page 8
For permanent installation, have a qualified electrician wire the mains cable directly to a suitable branch circuit. The junction's ingress protection (IP) rating must be suitable for the location.
For temporary installation, the mains cable may be fitted with a grounded connector intended for exterior use.
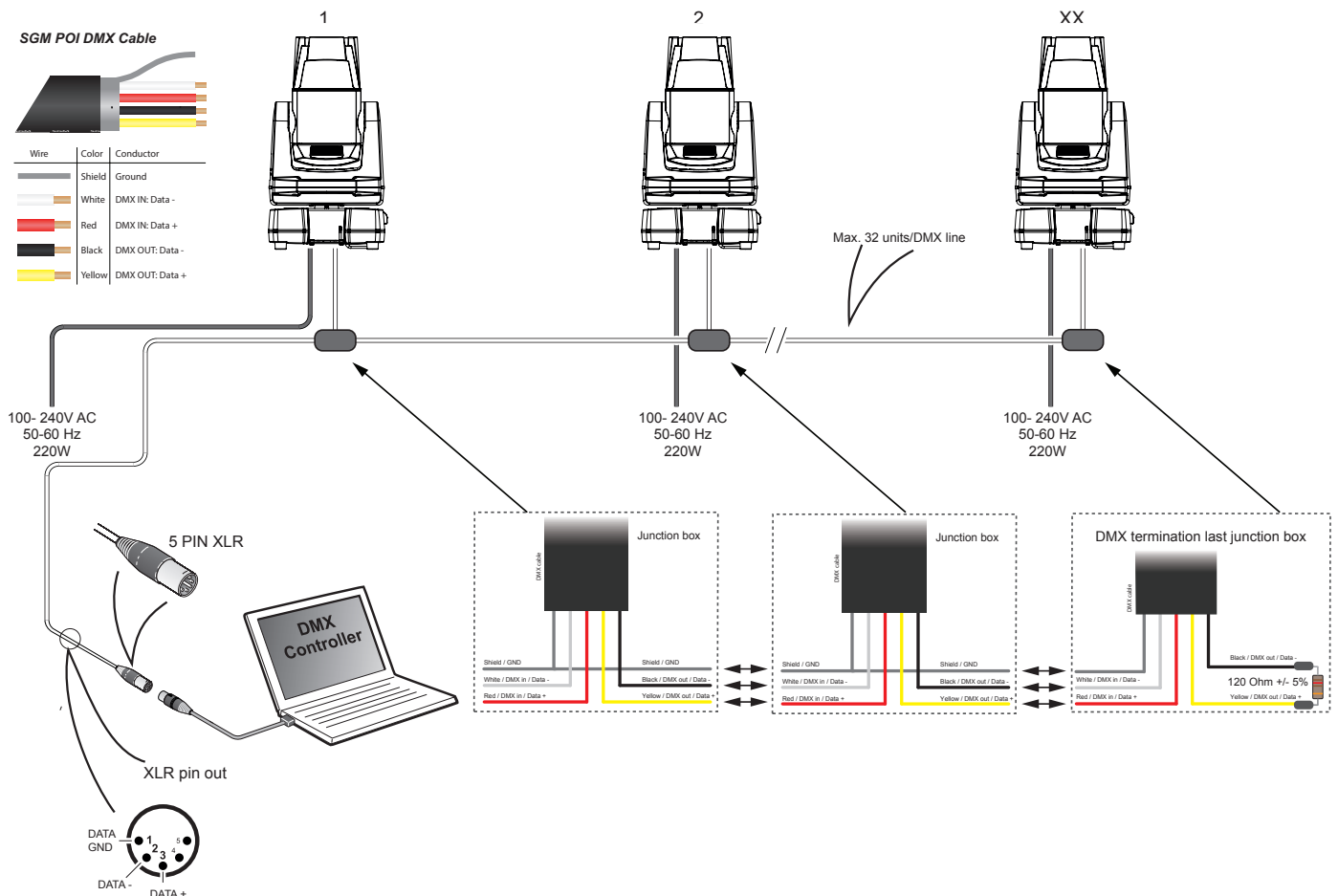
Upgrading the firmware

The firmware currently installed on the fixture can be identified in two ways:

1. When powering on the fixture, the display will show the currently installed firmware.

2. Go to the MENU → SETTINGS → SOFTWARE VERSION.

To perform firmware updates, use a Windows-based personal computer, the SGM Firmware Tool software (available on the SGM website, http://www.sgmlight.com) and a SGM USB 5-Pin-XLR uploader cable (available from your SGM dealer).
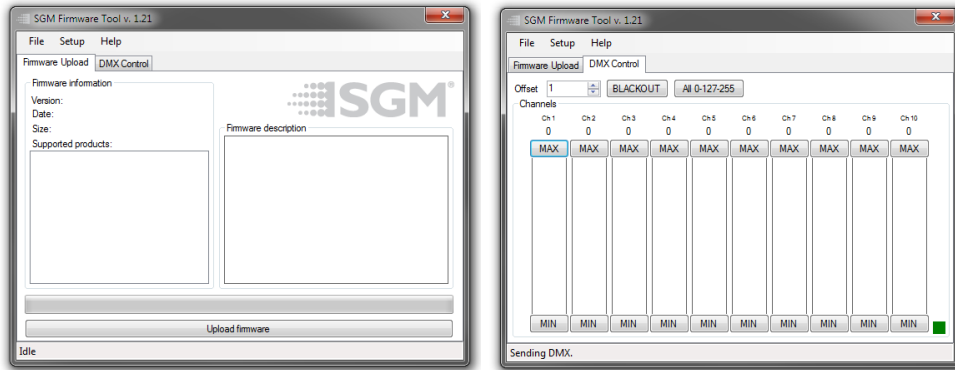
Additionally, the Firmware Tool software offers a simple DMX controller featuring 512 DMX channels for test purposes.

We recommend that the fixture's firmware is always up-to-date. Visit http://sgmlight.com to download the latest firmware.

Cleaning

SGM luminaires with IP65 or IP66 rating do not need any cleaning procedures inside the fixture. However, cleaning the front lens may be needed in case of dust, sand or dirt in order to achieve the maximum light output. Exterior housing can be also cleaned to get a better look.

Cleaning will vary greatly depending on the operating environment and installation. It should therefore be checked at frequent intervals within the first few weeks of operation to see whether cleaning is necessary.

Clean the fixture using a soft cloth dampened with a solution of water and a mild detergent. Do not use products that contain solvents, abrasives or caustic agents for cleaning, as they can cause hardware, cables and connectors damages.

Support hotline

SGM offers 24/7 technical support hotline.
Worldwide: +45 3840 3840
US: +1 877 225-3882
support@sgmlight.com

Approvals and certifications

Conforms to	*2014/35/EU: Low Voltage Directive*
Conforms to	*2014/30/EU: EMC Directive*
Conforms to	*2011/65/EU: RoHS2 Directive*

User Notes

User Notes

User Notes

User Notes

SGM

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