

ELP CL LED Profile

User Guide

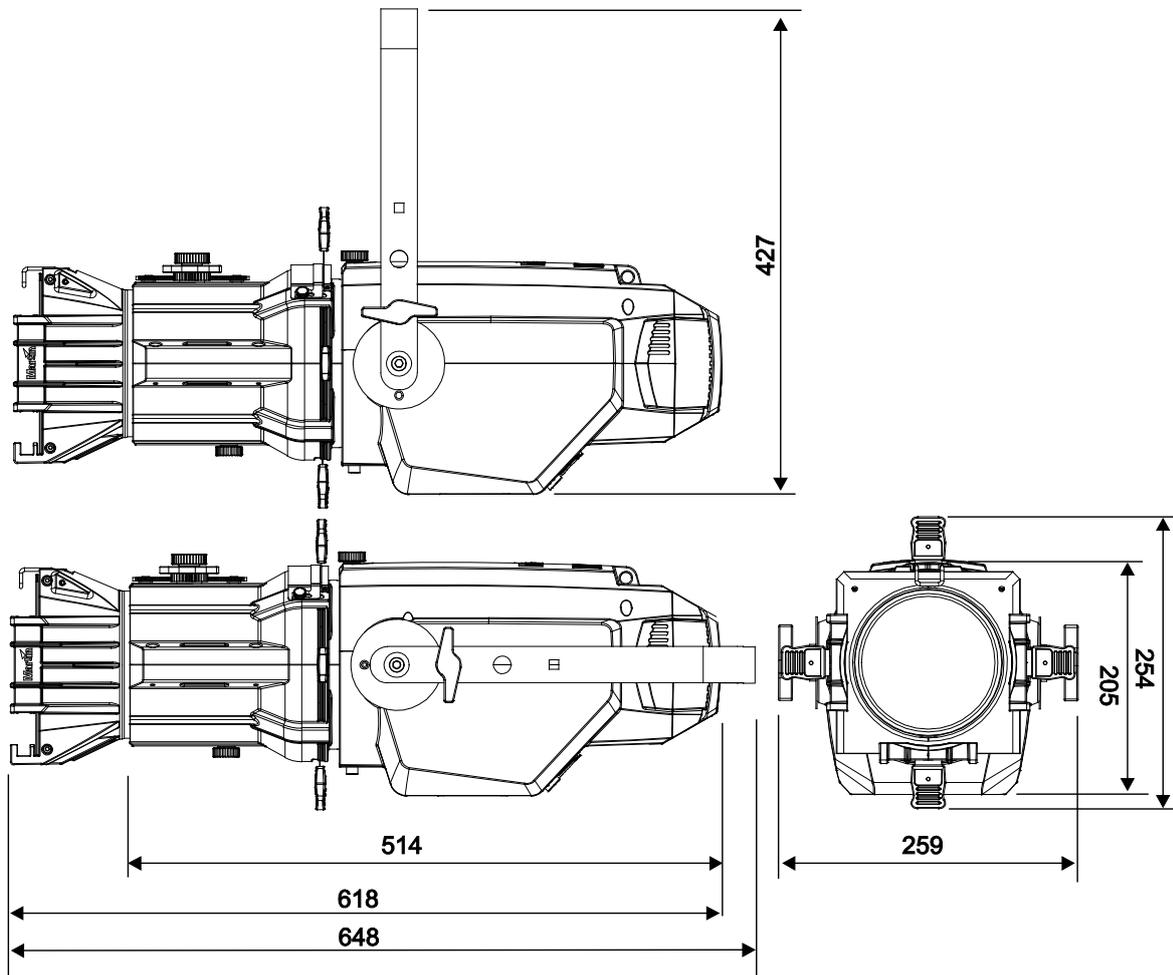


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Dimensions



All dimensions are given in millimeters.

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Safety information



WARNING!

Read the safety precautions in this manual before installing, operating or servicing this product.

The following symbols are used to identify important safety information on the product and in this manual:



Warning!

Safety hazard. Risk of severe injury or death.



Warning!

Powerful light emission. Risk of eye injury.



Warning!

See user manual for important safety information.



Warning!

Hazardous voltage. Risk of lethal or severe electric shock.



Warning!

Fire hazard.



Warning!

Hot surfaces.



Warning! Risk Group 3 (high risk) product according to EN 62471 and IEC/TR 62778. Possibly hazardous radiation emitted from this product. May be harmful to the eyes. Do not stare at operating lamp and do not view the light output with optical instruments or any device that may concentrate the beam.

This lighting fixture is for professional use only and must be installed by a qualified technician. It is not for household use. It presents risks of severe injury or death due to fire hazards, electric shock and falls. It can create a fire hazard or a risk of eye injury if the safety precautions below are not followed.



Install, operate and service Martin® products only as directed in their user manuals, or you may create a safety hazard or cause damage that is not covered by product warranties. Follow the safety precautions listed below and observe all warnings in this manual and printed on the product. Keep this user manual for future use.

For the latest user documentation and other information about this and all Martin® products, please visit the Martin® website at <http://www.martin.com>

If you have any questions about how to install, operate or service the fixture safely, please contact your Martin® distributor (see www.martin.com/distributors for details) or in the USA on 1-844-776-4899.

Respect all locally applicable laws, codes and regulations when installing, operating or servicing the fixture.



Protection from electric shock

Ensure that the fixture is electrically connected to ground (earth).

Disconnect the fixture from AC power when not in use.

Do not open the fixture or remove any cover. Refer any service operation not described in this manual to an authorized Martin Service partner.

Shut down power to the entire installation at the main power distribution board and lock out power before carrying out any installation or maintenance work.

Use only a source of AC power that complies with local building and electrical codes

and has both overload and ground-fault (earth-fault) protection.

Isolate the fixture from power immediately if any seal, cover, cable, or other component is damaged, defective, deformed or showing signs of overheating. Do not reapply power until repairs have been completed

Before using the fixture, check that all power distribution equipment and cables are in perfect condition and are of suitable type for the location (including water, pollution, temperature and UV resistance).

Do not immerse the fixture in water or any other fluid, or install it in a location where flooding may occur.



Protection from burns and fire

Do not operate the fixture if the ambient temperature (T_a) exceeds 45°C (113°F).

The surface of the fixture can reach up to 55°C (131°F) if the fixture is operated at the maximum permitted ambient temperature. Allow the fixture to cool for at least 5 minutes before handling.

Install the fixture on a non-combustible surface (brick, concrete, plaster etc.) only.

Do not aim the fixture towards combustible materials (fabric, wood, paper etc.) that are within 50 cm (19 in.) of the fixture.

Keep the fixture well away from flammable materials (volatile liquids etc.).

Ensure that there is free and unobstructed airflow around the fixture.

Allow at least 0.1 m (4 in.) free space around the fixture.

Do not attempt to bypass thermostatic switches or fuses.

Do not modify the fixture in any way not described in this manual or install other than genuine Martin® parts. Do not stick filters, masks or other materials onto any lens or other optical component. Use only accessories approved by Martin® to modify the light beam.



Protection from eye injury

Warning! Risk Group 3 (high risk) product according to EN 62471 and IEC/TR 62778.

Do not look directly into the product's light output.

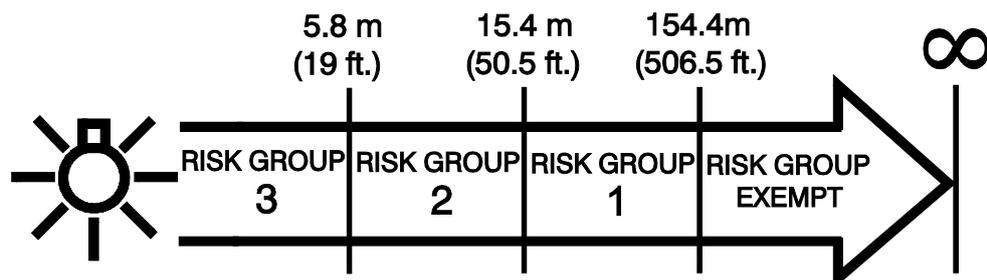
Do not look at operating lamp. Eye injury may result.

Do not look at the light output with magnifiers, telescopes, binoculars or similar optical instruments that may concentrate the light output.

Ensure that persons are not looking directly into the front of the fixture when the product lights up suddenly. This can happen when power is applied, when the product receives a DMX signal, or when certain control menu items are selected.

To minimize the risk of eye irritation or injury, disconnect the fixture from power at all times when the fixture is not in use and provide well-lit conditions to reduce the pupil diameter of anyone working on or near the fixture.

The ELP CL fixture fixtures fall into the following risk groups according to EN 62471 and IEC/TR 62778 at the distances indicated below.



The Luminaire should be positioned so that prolonged staring into the luminaire at a distance closer than 15.4 m is not expected.



Protection from injury

Fasten the fixture securely to a fixed surface or structure when in use. The fixture is not portable when installed.

Ensure that all supporting structures, surfaces, fasteners and lifting equipment can bear the weight of all the devices they are intended to support plus an adequate safety margin, and that they conform to local building and safety regulations.

Ensure that any accessory such as gel frames, gobo holders are securely fastened.

Block access below the work area and work from a stable platform whenever installing, setting, adjusting, or cleaning the fixture.

Do not operate the fixture with missing or damaged covers, shields or any optical component.

If an operating problem occurs, stop using the fixture immediately and disconnect it from power. Do not attempt to use a fixture that is obviously damaged.

Introduction

The ELP CL from Martin® is an ellipsoidal/profile lighting fixture with a 260W red, green, blue, amber & lime LED engine that produces a sharp gobo projection with a flat field

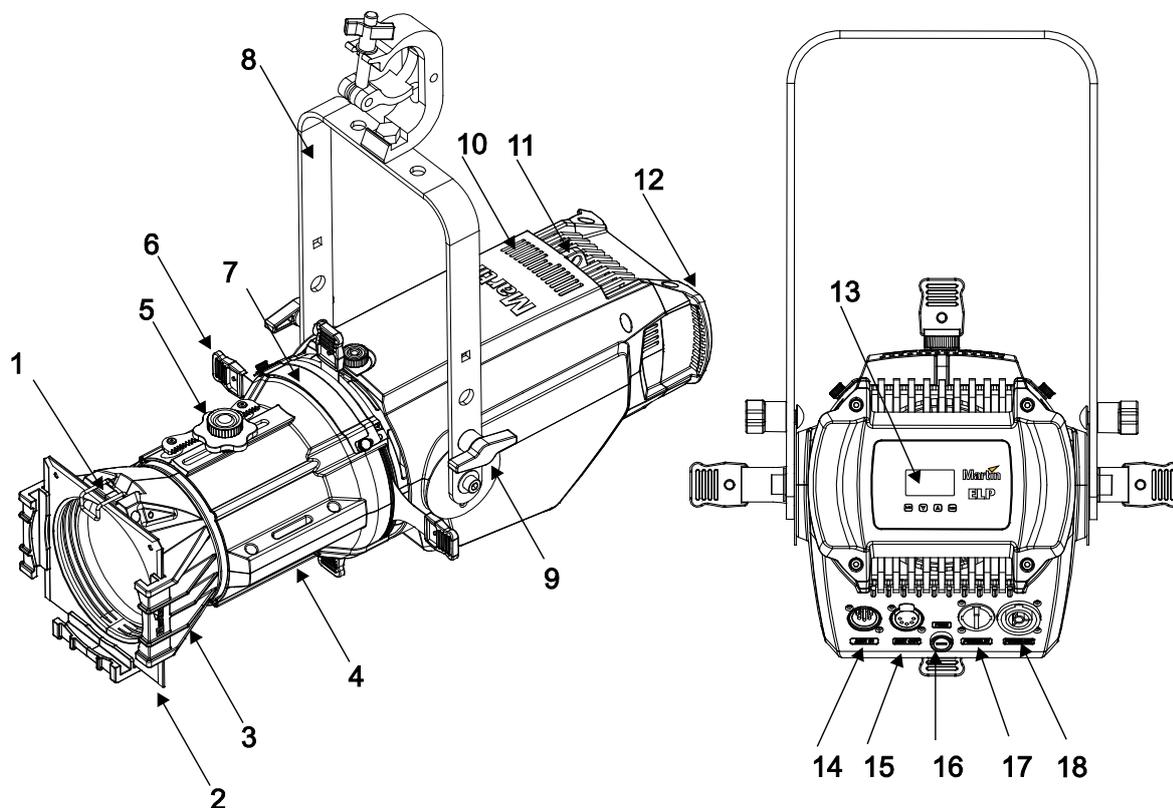
The fixture provides a calibrated color mixing system that offers 2 modes of operation: high quality mode with CRI of 90, CCT of 6000K at 5900 lumens output, or high performance mode with CRI of 85, CCT 5500K at 6900 lumens output. It has 16 bit dimming with 4 selectable curves. It includes innovative features including a gear-based fine focus system which is still compatible with industry standard accessories. The fixture is ideal for theatre, gobo projection, art lighting, architectural lighting and key lighting applications.

The Martin® ELP CL can be controlled using any DMX-compliant controller and may be remotely configured by RDM. It is supplied with this user manual, a 1.5 m (4.9 ft.) power cable ready for a local power plug (not included) and yoke for attachment of suitable, user supplied rigging clamps.

Before using the product for the first time

1. Read 'Safety information' on page 6 before installing, operating or servicing the fixture.
2. Unpack and ensure that there is no transportation damage before using the fixture. Do not attempt to operate a damaged fixture.
3. Before operating, ensure that the voltage and frequency of the power supply match the power requirements of the fixture.
4. If the fixture is not going to be hard-wired to a mains supply, install a local power plug (not supplied) on the end of the supplied power cable.
5. If fixtures are exposed to a sudden temperature change, give them time to warm or cool to the ambient temperature before applying power. This will help avoid damage due to condensation.
6. Check the support pages on the Martin® website at www.martin.com for the most recent user documentation and technical information about the fixture. Martin® user manual revisions are identified by the revision letter at the bottom of the inside cover.

Fixture overview



- 1 – Filter frame retaining clip
- 2 – Filter frame
- 3 – Interchangeable optical lens tube
- 4 – Aluminium lens tube housing
- 5 – Fine Focus adjustment knob
- 6 – Shutter knobs for beam shaping
- 7 – Gobo / accessory gate with sliding cover
- 8 – Mounting bracket / yoke
- 9 – Tilt locking knob for the mounting bracket
- 10 – Heat sink opening
- 11 – Safety eye to attach safety bond
- 12 – Rear handles for positioning

- 13 – Control panel. The display flashes when DMX is not present
- 14 – DMX input (5 pin XLR plug)
- 15 – DMX output (5 pin XLR socket)
- 16 – Mains fuse
- 17 – Mains power input
A Neutrik powerCON TRUE1 input connector is provided to connect the fixture to mains power.
- 18 – Mains power output
A Neutrik PowerCON TRUE1 output connector can be used to supply power to other fixtures. Please ensure you keep within the power limits listed in “Linking fixtures to power in a chain” on page 14.

Physical installation



Warning! Read 'Safety information' on page 6 before installing the fixture.

Warning! The safety and suitability of lifting equipment, installation location, anchoring method, mounting hardware and electrical installation are the responsibility of the installer. All local safety regulations and legal requirements must be observed when installing and connecting the ELP Profile fixture. Installation must be carried out by qualified professionals only.

Contact your Martin supplier for assistance if you have any questions about how to install this product safely.

Fixture location

The ELP Profile fixture is intended for interior use only. Do not install outside or in damp or humid locations. The fixture requires free and unobstructed airflow around it to ensure adequate cooling.

Observe the following limitations in selecting a location:

- Respect the limitations listed under 'Safety information' on page 6.
- Do not locate the fixture in an unventilated space.

Mounting the fixture



Warning! All fasteners used to mount ELP Profile fixtures must be strong enough to hold the fixture safely. Install a washer directly under the head of each fastener when anchoring the mounting bracket to the installation surface.

Fastening the fixture to a flat surface

The fixture can be fastened to a hard, fixed, flat surface in any orientation. Ensure that the surface and all fasteners used can support at least 10 times the weight of all fixtures and equipment they will support.

Fasten the fixture securely. Do not free stand on a surface where it may fall over. If you install the fixture in a location where it may cause injury or damage if it falls, secure it as directed below with a securely anchored safety cable that will hold the fixture if the primary fastening method fails.

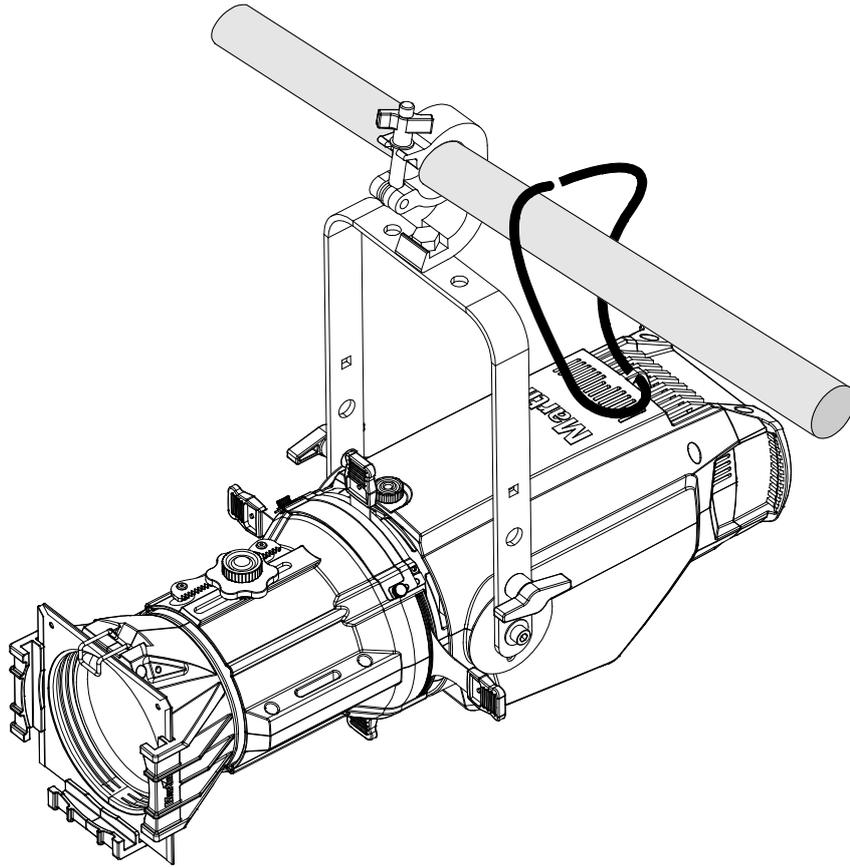
Mounting the fixture on a truss

The fixture can be clamped to a truss or similar rigging structure in any orientation. Use a suitable rigging clamps such as a G-clamp or a half-coupler clamp (see illustration on right) fastened to the mounting yoke.

To clamp the fixture to a truss:

1. Check that the rigging structure can support at least 10 times the weight of all fixtures and equipment to be installed on it.
2. Block access under the work area.
3. Bolt a rigging clamp securely to the mounting yoke. The bolts used must be M12, grade 8.8 steel minimum, and fastened with a self-locking nut.
4. Working from a stable platform, mount the fixture on the truss and fasten the rigging clamp onto the truss.
5. Secure the fixture with a safety cable through the rear safety eye as shown below.





Securing with a safety cable

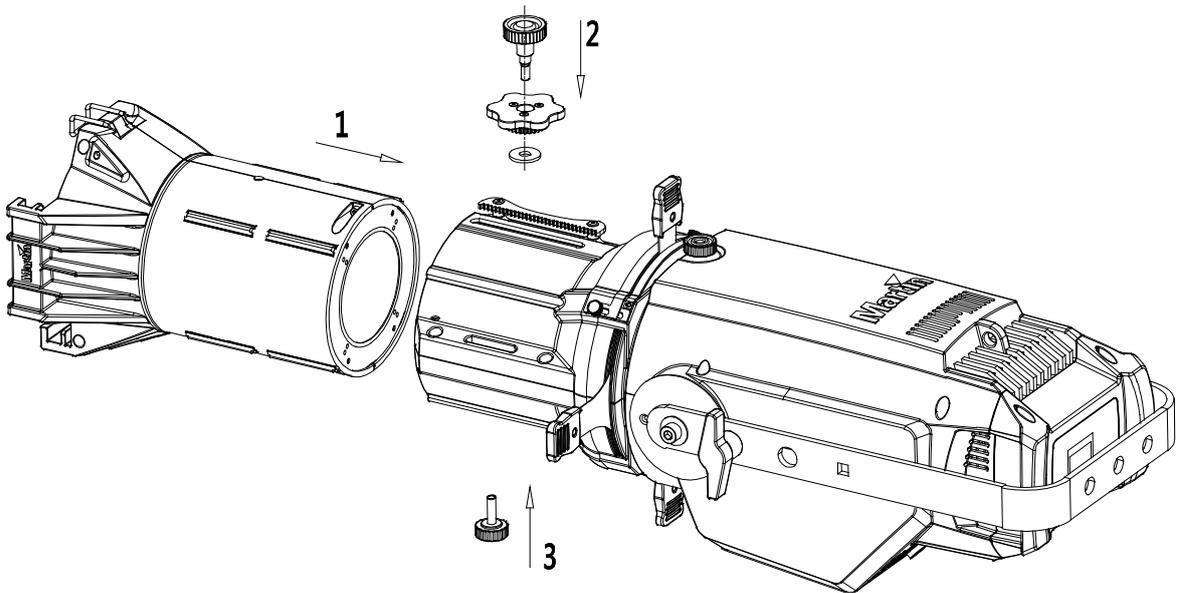
Secure the fixture with a safety cable (or other secondary attachment) that is approved for the weight of the fixture so that the safety cable will hold the fixture if the primary attachment fails. Loop the safety cable through the attachment eye at the rear of the fixture (see illustration above) and around a secure anchoring point.

If a safety cable attachment point becomes damaged or deformed, do not use the fixture. Return it to a Martin Service Centre for repair.

Changing the lens tube

Four different lens tubes with varying beam angles are available for the fixture. To change the lens tube, refer to the diagram on the next page:

1. Hold the front of the lens assembly with one hand so it cannot fall out.
2. Remove the thumbwheel screws on the top and bottom of the lens tube. The top screw also has the focusing knob attached.
3. Slide the lens tube forward out of the fixture.
4. Slide in the new lens tube (1).
5. Replace the thumbwheel screws (2) and (3). For the top screw (2), ensure the focusing knob is in place on the screw with the gear teeth on the underside. Rotate the focusing knob until the gear teeth mesh with the bar on the lens tube housing.
6. Tighten the screws.



AC power connection



Warning! Read 'Safety information' on page 6 before installing the fixture.



Warning! The mains power input cable supplied with the fixture is rated 6 A and can supply only one fixture with mains power. Do not connect any device to the fixture's MAINS OUT socket when using this input cable. If you want to connect other fixtures to the MAINS OUT socket, see 'Linking fixtures to power in a chain' on page 14.

For protection from electric shock, the fixture must be grounded (earthed). The power distribution circuit must be equipped with a fuse or circuit breaker and ground-fault (earth-fault) protection.

Do not use an external dimming system to supply power to the fixture, as this may cause damage to the fixture that is not covered by the product warranty.

The fixture can be hard-wired to a building electrical installation if you want to install it permanently, or a power plug (not supplied) that is suitable for the local power outlets can be installed on the power cable. Socket outlets or external power switches used to supply the fixture with power must be located near the fixture and easily accessible so that the fixture can easily be disconnected from power.

If you install a power plug on the supplied power cable, install a grounding type (earthed) plug with integral cable grip that is suitable for your local mains voltage at a current of 6A. Follow the plug manufacturer's instructions and connect the wires in the power cable as shown in this table:

	Live or L	Neutral or N	Earth, Ground or ⊕
US system	Black	White	Green
EU system	Brown	Blue	Yellow/green

The fixture has an auto-ranging power supply that accepts AC mains power at 100-240 V at 50/60 Hz. Do not apply AC mains power at any other voltage or frequency to the fixture.

Linking fixtures to power in a chain

The mains power input cable supplied with the fixture is rated at 6A and can only supply enough power for one fixture. If you want to use the MAINS OUT socket on the fixture to link power to the next fixture in a daisy-chain, you need to obtain the larger power input cables and power link cables available as an accessory from Martin, see 'Linking fixtures to power in a chain' on page 14.

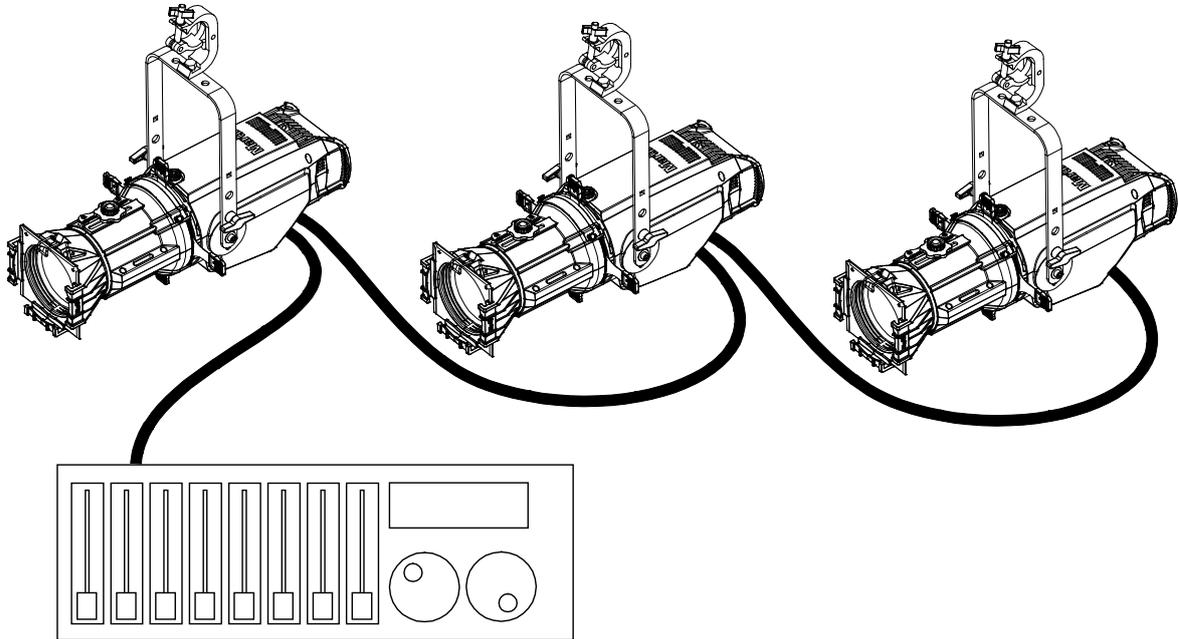
Using the 14 AWG or 1.5mm² cables from Martin™, you can link:

- Maximum four (4) ELP PROFILE fixtures in total at 100-120 V, or
- Maximum nine (9) ELP PROFILE fixtures in total at 200-240 V.

If you install a power plug on the 14 AWG / 1.5 mm² power input cable, install a grounding type (earthed) plug with integral cable grip that is rated minimum 16 A at the correct voltage rating for your local power supply.

Data network requirements

A DMX 512 data link is required in order to control the fixture via DMX. The fixture has 5-pin XLR connectors for DMX data input and output.



Up to 32 devices can be linked together on a single daisy chain. The total number of fixtures in one 512-channel DMX universe is limited by the number of DMX channels required by the fixtures. Note that if independent control of a fixture is required, it must have its own DMX channels. Fixtures that are required to behave identically can share the same DMX address and channels. To add more fixtures or groups of fixtures when the above limits are reached, add another DMX universe or split the daisy-chained link into branches using a powered DMX splitter.

Tips for reliable data transmission

Use shielded twisted-pair cable designed for RS-485 devices: standard microphone cable cannot transmit control data reliably over long runs. 24 AWG cable is suitable for runs up to 300 meters (1000 ft.). Heavier gauge cable and/or a DMX buffer is recommended for longer runs. The pin-out on all connectors is:

- pin 1 = shield
- pin 2 = cold (-)
- pin 3 = hot (+).

Pins 4 and 5 in the XLR connectors are not used in the fixture but are passed through for possible additional data signals as required by the DMX512-A standard. Standard pin-out is pin 4 = data 2 cold (-) and pin 5 = data 2 hot (+).

To split the link into branches, use an opto-isolated splitter such as the Martin™ DMX 5.3 Splitter. Terminate the link by installing a termination plug in the output socket of the last fixture. The termination plug, which is a male XLR plug with a 120 Ohm, 0.25 W resistor soldered between pins 2 and 3, “soaks up” the control signal so it does not reflect and cause interference. If a splitter is used, terminate each branch of the link.

Connecting the data link

To connect the fixture to data:

Connect the DMX data output from the controller to the closest fixture’s male XLR DMX input connector.

- Connect the first fixture's DMX output to the DMX input of the next fixture and continue connecting fixtures output to input. Terminate the last fixture on the link with a DMX termination plug.

Fixture Setup

This section explains the fixture characteristics you can set that determine how it can be controlled and will behave. You choose the settings using the menus available from the control panel, and they are retained even when the fixture is powered off.

Options can also be set over the DMX line using RDM from a suitable controller, see “Setting options by RDM” on page 21.

A complete map of the control menu structure and brief explanations of their purposes can be found in “Control menus” on page 28. Only the most-used functions are described in this section.

Using the control menus

To access the control menus, press the MENU button.

Navigate the menu structure using the ENTER, DOWN and UP buttons.

To select a menu option or to confirm a selection, press the ENTER button.

To return to a higher level in the menu structure without making a change, press the MENU button.

To exit the control menus completely, press and hold the MENU button.

The display flashes when DMX is not present.

Fast focus mode

If you need to focus the fixture but there is nobody to operate the lighting console, you can quickly turn the fixture on in “Fast Focus mode” using the control panel. Hold down the ENTER button for 5 seconds and the fixture will come on at full brightness in open white for 60 seconds, allowing you to set the focus. After 60 seconds the fixture will return to normal operation.

Setting DMX address

Each fixture must be assigned a DMX address. The DMX address, also known as the start channel, is the first channel used to receive instructions from a DMX controller. The fixture is controlled using between 1 and 17 DMX channels depending on the personality set. If a fixture using 17 channels has a DMX address of 1, then it uses channels 1 to 17 inclusive. The following fixture in the DMX chain can then be set to a DMX address of 18.

For independent control, each fixture must be assigned its own control channels. Two fixtures of the same type may share the same address if identical behavior is desired. Address sharing can be useful for diagnostic purposes and symmetric control.

To set the fixture’s DMX address:

1. Enter the control menu and select DMX SETUP. Press ENTER.
2. Select DMX ADDRESS and press ENTER.
3. Use the UP and DOWN buttons to select the desired address setting.
4. Press ENTER to confirm your selection (or to return to the top level menu without changing the settings, press the MENU button).

Setting DMX personality

The DMX personality sets how many control channels are used. There are 3 personalities to choose from:

1 channel – Dimmer only

10 channel – 8 bit dimmer with 8 bit control of functions (default)

17 channel – 16 bit dimmer with 16 bit control of functions

The function of each channel is described in the section “DMX protocol” on page 26.

To set the DMX personality:

1. Enter the control menu and select DMX SETUP. Press ENTER.

2. Select DMX MODE and press ENTER.
3. Use the UP and DOWN buttons to select 1, 10 or 17.
4. Press ENTER to confirm your selection (or to return to the top level menu without changing the settings, press the MENU button).

Other fixture settings

The PERSONALITY menu allows you to set other options for the fixture.

Stand-alone mode

The fixture can operate in stand alone mode allowing control of multiple fixtures from a single master fixture if no DMX console is connected. The options are MASTER and SLAVE (default). Stand alone operation will be automatically overridden by incoming DMX signal.

Light quality

The fixture can be set to either HIGH QUALITY mode (CRI 90, CCT of 6000K at 5900 lumens) or HIGH OUTPUT mode (CRI 85, CCT of 5500K at 6900 lumens).

Dimming curves

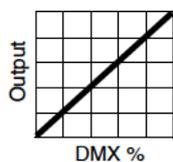
Four dimming modes are available:

LINEAR The increase in light intensity appears to be linear as DMX value is increased.

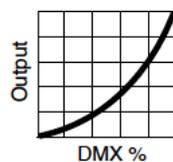
SQUARE LAW light intensity control is finer at low levels and coarser at high levels.

INV SQ LAW (Inverse square law) light intensity control is coarser at low levels and finer at high levels.

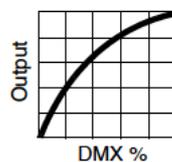
S-CURVE light intensity control is finer at low levels and high levels and coarser at medium levels.



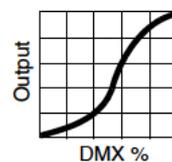
Optically linear



Square law



Inverse square law



S-curve

To set the fixture's dimmer curve, select DIMMER CURVE from the PERSONALITY menu and press ENTER to confirm. Use the UP and DOWN buttons to select the desired mode. Press ENTER to save your selection.

PWM Frequency

Sets the frequency of the PWM dimming used on the fixture. It can sometimes be necessary to change this if flickering is seen on TV cameras running at a high shutter speed.

The setting is 600Hz to 1200Hz, the default is 1200Hz.

No Data Mode

This option sets what will happen when DMX data is not present.

To set No Data Mode, select NO DATA MODE from the PERSONALITY menu and press ENTER to confirm. Use the UP and DOWN buttons to select:

BLACKOUT – If data connection is lost, fixture will blackout

HOLD – If data connection is lost, fixture holds latest received data value at all channels (default)

Press ENTER to confirm.

Cooling Mode

This option sets whether the cooling fans run at full speed all the time, or will be controlled by fixture output power.

To set cooling mode, select COOLING MODE from the PERSONALITY menu and press ENTER to confirm. Use the UP and DOWN buttons to select:

REG FAN – Fan speed will be controlled by heat demand in the fixture.

FULL – Fans set to full constant speed.

LOW – Fans set to constant low speed

Press ENTER to confirm.

Display

This option allows you to set some parameters for the display screen.

Select DISPLAY from the PERSONALITY menu and press ENTER to confirm.

Use the UP and DOWN buttons to select:

- DISPLAY SLEEP – Use the UP and DOWN buttons to select display sleep time, settings are ON (Display permanently on), 2 MINUTES, 5 MINUTES or 10 MINUTES
- DISPLAY ROTATION –Use the UP and DOWN buttons to select Normal (Display orientation normal) or ROTATE 180(Display orientation rotated 180°)
- DISPLAY INTENSITY –Use the UP and DOWN buttons to adjust display intensity from 10%-100% (default = 100%)
- TEMPERATURE UNIT – Use the UP and DOWN buttons to select ° C or ° F

Press ENTER to confirm.

Set all settings to factory default

To return all settings to factory default, select DEFAULT SETTINGS and press ENTER to confirm, FACTORY DEFAULT will show on the display. Press ENTER again.

Use the UP and DOWN buttons to select NO (cancel) or YES (return all settings except calibrations to factory defaults).

Press ENTER to confirm (or press MENU to exit without making a change).

Fixture Test

This menu allows you to run self test sequences on the fixture's LED emitters. Each color of emitters will be switched on in turn.

Fixture information

The INFORMATION menu allows you to view various fixture information: Power on time, LED hours, Software version, Fixture ID, RDM unique ID, Fan speeds, temperatures.

Viewing live DMX values

This menu allows you to view the current DMX values for any function.

Select the DMX LIVE menu and press ENTER.

Use the UP and DOWN buttons to select the function you wish to view.

Setting control values manually

You can manually set control values. This may be useful when testing, or to use the fixture in a static setting without a DMX controller.

This menu also allows you to reset the fixture.

Reset

To reset the fixture, go to the MANUAL CONTROL menu and press ENTER. Use the UP and DOWN buttons to select RESET and press ENTER again.

Then use UP and DOWN to select YES, and press ENTER to activate.

Setting values

Go to the MANUAL CONTROL menu and press ENTER. Use the UP and DOWN buttons to select the function you wish to control.

Once you have selected a function, press ENTER, then use the UP and DOWN buttons to select a value from 0 to 255.

Press MENU to go back up and select a different function to control.

Setting a sequence of scenes

The SHOW menu allows the fixture to store up to 20 scenes internally and display them in a timed sequence.

SET SCENE TOTALS sets how many scenes will be in the sequence, from 1 to 20.

To store scenes, select EDIT SCENE COLOR and press ENTER. Then use the UP and DOWN buttons to select the scene number to be edited. Press ENTER. Use the UP and DOWN buttons to select the color to be set (RED, GREEN, BLUE, LIME, AMBER), then press ENTER and finally use the UP and DOWN buttons to set the brightness of the color.

The FADE TIME option sets the fade time between scenes, from 0-120 seconds (default 3 seconds).

The HOLD TIME option sets the time each scene is shown for, from 0-600 seconds (default 3 seconds).

Color calibration

From the SERVICE menu you can select CALIBRATION. This menu allows you to adjust the overall brightness and individual colors of the fixture to match with other fixtures. The fixture is calibrated in the factory but over time the brightness of the LED emitters will gradually reduce, so this function can be useful if you need to match a new fixture with older ones.

DIMMER sets the overall maximum brightness of the fixture.

RED, GREEN, BLUE, LIME, AMBER can be made dimmer or brighter from -128 to 127.

LOAD DEFAULTS will load the factory set calibration values.

SAVE DEFAULTS will replace the factory set calibration values with the current calibration settings.

Setting options by RDM

You can remotely configure the fixture over the DMX line using RDM. Martin® offers a range of suitable RDM-compatible controllers.

Martin® M-PC is a Windows-based application available from Martin® that lets you set up, manage and control a lighting installation from a PC that is connected to the installation via a DMX data link. To use Martin® M-PC, connect a PC running the application to the data link via a USB-to-DMX interface box such as the Martin® M-DMX.

A full list of the RDM functions that the ELP fixture supports is given at the end of this chapter. These functions are generally referred to using the more specific term 'PIDs' or 'Parameter IDs'.

Scanning for RDM devices on the data link

Before you can communicate with fixtures using RDM, you must send a scan command (also called a device discovery command) to all the devices on the data link so that the RDM controller can identify them. It does this by retrieving each device's factory-set unique identifier (UID). This process can take some time depending on the number of devices on the link.

To identify the fixtures on the link:

Check that the fixtures are correctly connected to the RDM controller on the data link and that power is applied to all fixtures.

1. In Martin® M-PC, go to RDM CONTROLLER → DISCOVER DEVICES.
2. Give the controller time to identify the devices on the link and prepare for communication with the devices.

Getting status and setting options by RDM

The status and options listed in the table below can be read and set by RDM.

You can set an option on one fixture by sending a unicast RDM command to that one fixture only, or you can set the same option on all the fixtures on the data link by sending a broadcast RDM command to all the devices on the link.

For status reading, you can only use unicast RDM to read information from an individual fixture.

RDM

As a minimum, the ELP Profile fixtures support the following RDM functions:

Device discovery

DISC_UNIQUE_BRANCH
DISC_MUTE
DISC_UN_MUTE

Device management

	GET	SET
QUEUED_MESSAGE	✓	
STATUS_MESSAGES	✓	
STATUS_ID_DESCRIPTION	✓	
SUPPORTED_PARAMETERS	✓	
DEVICE_INFO	✓	
DEVICE_MODEL_DESCRIPTION	✓	
MANUFACTURER_LABEL	✓	
DEVICE_LABEL	✓	✓
SOFTWARE_VERSION_LABEL	✓	
BOOT_SOFTWARE_VERSION_ID	✓	
BOOT_SOFTWARE_VERSION_LABEL	✓	
DMX_PERSONALITY	✓	✓
DMX_START_ADDRESS	✓	✓
DEVICE_HOURS	✓	✓
IDENTIFY_DEVICE	✓	✓
LAST_STATE		✓
DIMMER_CURVE		✓

Effects

This section describes the effects provided by the ELP Profile fixture. See 'DMX protocol' on page 26 for a full list of the DMX channels and values required to control the different effects.

In 17Ch DMX control mode, all intensity controls are 16-bit. In 10Ch mode all controls are 8-bit.

Dimming

Overall intensity can be precisely adjusted from 0 to 100% using 16-bit coarse and fine control. In 10Ch mode the control is 8-bit. In 1Ch mode this is the only control and the fixture is fixed in white.

Strobe effects

An electronic shutter provides instant open and blackout, random and variable speed flash from 1 to 12 flashes per second, and pulse effects.

CTC

The color temperature of the fixture can be set from 2000K to 10000K using 16-bit coarse and fine control. When the CTC function is active, the color control channels are not used.

Color mix

The fixture is equipped with Red, Green, Blue, Lime and Amber emitters which can be individually controlled using 16-bit coarse and fine control.

Color Scene

You can select from a range of fixed color temperatures and color presets. If the Color Scene function is active the Color mix channels are not used.

Manual focus

The ELP profile has a unique "Fine Focus" system which allows you to easily make small focus adjustments using a gear-based knob on top of the lens tube. To focus the fixture, loosen the thumbwheel bolts on the top and bottom of the lens tube slightly, then turn the focus knob to slide the lens in or out of the tube. Tighten the thumbwheel bolts again to hold the focus setting.

Manual beam shaping shutters

The fixture has 4 manually operated beam shaping shutters.

Use of gobos and irises

The fixture will accept a standard A & B-size gobo holder or iris in the gobo/accessory gate. There is a sliding cover over the gate to prevent light spill and retain the gobo holder in the fixture. To open the cover, loosen the two thumbscrews at the sides of the cover and slide it towards the lens. When the gobo holder or accessory is installed, slide the cover back so it holds the gobo in place and tighten the thumbscrews.

Use of color filters

Using the color filter frame you can add color correction or diffusion filters to the front of the unit. Push the securing clip to one side to release it. Ensure the securing clip is clicked back into place to prevent the color filter frame from falling out.

Maintenance



Read Safety information on page 6 before maintaining the fixture. Always comply with the safety instructions.

Refer any service operation not described in this user manual to a qualified service technician.

Excessive dust, smoke fluid, and particle buildup degrades performance, causes overheating and will damage the fixture. Damage caused by inadequate cleaning or maintenance is not covered by the product warranty.

Disconnect mains power before cleaning or servicing the fixture.

Fixtures must be serviced in an area where there is no risk of anyone being injured by failing parts, tools or other materials.

Cleaning

The cleaning of external optical lenses must be carried out periodically to optimize light output. Cleaning schedules for lighting fixtures vary greatly depending on the operating environment. It is therefore impossible to specify precise cleaning intervals for the fixture. Environmental factors that may result in a need for frequent cleaning include:

- Use of smoke or fog machines.
- High airflow rates (near air conditioning vents, for example).
- Presence of cigarette smoke.
- Airborne dust (from stage effects, building structures and fittings or the natural environment at outdoor events, for example).

If one or more of these factors is present, inspect fixtures within their first 100 hours of operation to see whether cleaning is necessary. Check again at frequent intervals. This procedure will allow you to assess cleaning requirements in your particular situation. If in doubt, consult your Martin dealer about a suitable maintenance schedule.

Use gentle pressure only when cleaning, and work in a clean, well-lit area. Do not use any product that contains solvents or abrasives, as these can cause surface damage.

To clean the fixture:

1. Disconnect the fixture from power and allow it to cool for at least 10 minutes.
2. Vacuum or gently blow away dust and loose particles from the outside of the fixture and the air vents at the back and sides of the head and in the base with low-pressure compressed air.
3. Clean the lens by wiping gently with a soft, clean lint-free cloth moistened with a weak detergent solution. Do not rub the surface hard: lift particles off with a soft repeated press. Dry with a soft, clean, lint-free cloth or low-pressure compressed air. Remove stuck particles with an unscented tissue or cotton swab moistened with glass cleaner or distilled water. You can remove the lens tube to clean the rear side of the lens if needed.
4. Check that the fixture is dry before reapplying power.

Fuse replacement

If you need to replace a fuse:

1. Disconnect the fixture from power and allow it to cool for at least 10 minutes.
2. Unscrew the cap of the fuseholder (see Fixture overview on page 10) and remove the fuse. Replace with a fuse of the same size and rating only.
3. Reinstall the fuseholder cap before reapplying power.
4. Service and repairs

There are no user serviceable parts inside the fixture. Do not open the housing.

Never try to repair the fixture by yourself as this may result in damage, malfunction and it may potentially void your product warranty. The equipment must only be serviced or repaired by an authorized Martin service technician.

Installation, on-site service and maintenance can be provided worldwide by the Martin Professional Global Service organization and its approved agents, giving owners access to Martin's expertise and product knowledge in a partnership that will ensure the highest level of performance throughout the product's lifetime. Please contact your Martin supplier for details.

DMX protocol

Channel			DMX range	Function
1CH	10C H	17C H		
				Shutter
			000-009	Blackout
			010-019	Open
			020-089	Strobe (Slow-Fast)
	1	1	090-099	Open
			100-169	Pulse effect in sequences
			170-179	Open
			180-249	Random strobe effect (Slow-Fast)
			250-255	Open
1	2	2	0-255	Dimmer 0-100%
		3	0-255	Dimmer Fine
	3	4	0-255	Dimmer fade time
	4	5	0-255	CTC 2000K – 10000K
		6	0-255	CTC fine
	5	7	0-255	Red 0-100%
		8	0-255	Red fine
	6	9	0-255	Green 0-100%
		10	0-255	Green fine
	7	11	0-255	Blue 0-100%
		12	0-255	Blue fine
	8	13	0-255	Lime 0-100%
		14	0-255	Lime fine
	9	15	0-255	Amber 0-100%
		16	0-255	Amber fine
	10	17		Color Scene
			0-10	No function
			11-19	2000K-2700K
			20-28	2700K-3200K
			29-37	3200K-4200K
			38-46	4200K-5600K
			47-55	5600K-8000K
			56-65	8000K-10,000K
			66-74	Light Pink

Channel			DMX range	Function
1CH	10C H	17C H		
			75-84	Pale Amber Gold
			85-93	Yellow
			94-103	Deep straw
			104-112	Deep Amber
			113-122	Orange
			123-131	Primary Red
			132-141	Medium Pink
			142-150	Dark Pink
			151-160	Magenta
			161-169	Medium Purple
			170-179	Dark Lavender
			180-188	Deep Purple
			189-198	Sky Blue
			199-207	Light Blue
			208-217	Medium Blue
			218-226	Deep Blue
			227-236	Blue Green
			237-245	Moss Green
			246-255	Primary Green

Control menus

To access the control menus, press the MENU button. Use the UP and DOWN buttons to navigate the menus. Select any required menu option using the ENTER button. For more information, see Using the control menus on page 17.

Default fixture settings are shown in **bold**.

Top Menu	Menu level 2	Menu level 3	Menu level 4	Notes
DMX Setup	DMX Addr	1 - XXX		DMX address (default address = 1). The DMX address range is limited so that the fixture will always have enough DMX channels within the 512 available.
	DMX Mode	1/10/17		DMX control mode
Personality	Stand-Alone	Master		Fixture acts as master in master/slave operation - DMX/RDM signal will override master/slave operation
		Slave		Fixture copies master in master/slave operation - DMX/RDM signal will override master/slave operation
Quality		HI Quality		Output optimized for high CRI and CCT of 6000K
		HI Output		Full output mode
Dim Curve		Linear		Optically linear dimming curve
		Square		Square law dimming curve
		Inv Sq		Inverse square law dimming curve
		S-curve		S-curve (fixture emulates incandescent lamp voltage linear RMS dimming curve)
PWM Freq		600-1200 Hz		
No Data		Blackout		If data connection is lost, fixture will blackout
		Hold		If data connection is lost, fixture holds latest received data value at all channels
Cool mode		Reg fan		Fan optimized for light intensity (temperature controlled by regulating fan speed, light output)

Top Menu	Menu level 2	Menu level 3	Menu level 4	Notes
				unaffected)
		Full		Fans set to full/low, constant speed, fixture temperature controlled by regulating light output.
		Low		
	Display	Sleep	On	Display remains permanently on
			2 min	Display goes into sleep mode 2 minutes after last key press
			5 min	Display goes into sleep mode 5 minutes after last key press
			10 min	Display goes into sleep mode 10 minutes after last key press
		Rotation	Normal	Display orientation normal
			Rotate 180	Display orientation rotated 180°
		Intensity	10-100	Set display intensity in % (default = 100)
		Temp Unit	°C	All temperature readouts in C°
			°F	All temperature readouts in F°
Default Set		Fac Default	No	
	Yes			Return all settings to factory defaults
Fixture test	Test LEDs			Run test sequence of LEDs (Red, Green, Blue, Lime, Amber in each order), Dimmer and Strobe effect. Press Enter to restart test sequence. Press Menu button to exit test.
Information	Power On	0 - XXXX h		Hours fixture has been powered on since manufacture (not user-resettable)
	LED Hours	0 - XXXX h		Number of hours fixture LEDs have been powered on since manufacture (not user-resettable)
	SW Version	XX.XX.XX		Displays currently active software version
	Fixture ID	0 - 9999		User-settable fixture ID number

Top Menu	Menu level 2	Menu level 3	Menu level 4	Notes
	RDM UID	XXXXXXXXXX XX		Displays fixture's unique RDM ID
	Temperature	LED / CPU Temp		Displays temperature in °C of all PCBs and LED
DMX Live	Dimmer, Shutter etc	0 - 255 ...		Scroll to see values being received on each DMX channel
Show	Set Scene	1-20		Number of standalone scenes
	Scene Color	1 - last scene	Red	0-255
			Green	0-255
			Blue	0-255
			Lime	0-255
	Amber	0-255		
Fade Time	0-120 secs (3 secs)		Transition time between scenes	
Hold Time	0- 600 secs (3 secs)		Length of time scenes are displayed	
Manual control	Reset	No		
		Yes		Reset fixture
	Dimmer, Dimmer Fine, Dimmer Fade, CTC, Red, Green, Blue, Lime, Amber, Color Scene	0-255		Manual control of all 10 channels (Shutter should be set to open)
Service	Calibration	Dimmer	0- 100 %	Intensity master, defining maximum intensity
		Red, Green, Blue, Lime, Amber	-128 -> 127	Fine tune offset position of emitters to achieve uniform behavior across multiple fixtures
		Load Def	Load	Load factory default calibration settings
		Save Def	Save	Replace factory default calibration settings with current calibration settings

Troubleshooting

This section describes a few common problems that may occur during operation and provides some suggestions for easy troubleshooting:

Symptom	Potential cause	Remedies
No light from fixture.	Shutters are all pushed in, blocking the light. Power supply issue, such as blown fuse, faulty connector or damaged cable.	Pull out the 4 shutter blades. Ensure that the mains supply is connected and supplying power to the fixture. Ensure that the fixture's display screen lights up when a button is pressed. Check all power connections and cables. Replace the fixture fuse.
Fixture does not respond to DMX control.	Fault in the DMX network due to wiring problem, connector or cable damaged, or incorrect DMX addressing, or potential interference from proximity to a high voltage installation.	Check if the fixture display is flashing to show that DMX is not being received, and if so, check all DMX cables and connections to ensure the integrity of the physical network. Ensure that the DMX network is terminated. Check that the components in the DMX network all use standard DMX polarity. Ensure that the fixture is set to the correct DMX address, one that matches that set on the DMX control device. Check the pins on the connectors from the previous fixture in the DMX network. Attempt to control the fixture with another DMX control device. Move the fixture if it is being operated very close to an unshielded high-voltage installation.

Specifications

Physical

Weight 7.7 kg (17 lb)
Dimensions 648 x 259 x 254 mm (25.5 x 10.2 x 10 in)

Dynamic Effects

Color mixing RGBLA
Color selection 26 color presets
Electronic dimming 0 - 100%
Strobe and pulse effects Variable speed and action, random strobe
Electronic 'shutter' effect Instant open and blackout
Electronic dimming Four dimming curve options

Control and Programming

Control options DMX, stand-alone
DMX channels 1/10/17
Color Temperature Range 2000-10000K
PWM 600-1200Hz
DMX address setting Control panel with OLED display
Stand-alone programming Control panel with OLED display
Protocol USITT DMX512/1990

Optics

Light source 91 RGBAL Luxeon Rebel LEDs
..... (19 Red, 24 Green, 12 Blue, 24 Lime, 12 Amber)
CRI 90, 6000K @ 5900 Lumen (High Quality Mode)
CRI 85, 5500K @ 6900 Lumen (High Output Mode)
Lens Tube Options 19°, 26°, 36° & 50°
Gobo size A size, 100 mm OD, 75 mm image
Gobo size B size, 86 mm OD, 64.5 mm image
Color frame size 159 x 159mm (6.25 " x 6.25 ")
Minimum LED lifetime 30 000 hours (to >70% luminous output)*
**Figure obtained under manufacturer's test conditions:*

Construction

Housing Die-cast aluminum
Color(s) Black
Protection rating IP20

Installation

Mounting Adjustable bracket
Orientation Any
Location Indoor use only

Connections

AC power in/thru Neutrik PowerCON TRUE1
DMX & RDM data in/thru 5-pin XLR

Electrical

AC power 100-240 V nominal, 50/60 Hz
Typical total power consumption 270 W
Power consumption figures are typical, not maximum. Allow for +/-10% variation.:

Typical Power and Current

110 V, 60 Hz 2.4 A, 270 W
230 V, 50 Hz 1.1 A, 260 W

Measurements made at nominal voltage with all LEDs at full intensity. Allow for a deviation of +/- 10%.

Thermal

Cooling Forced air (temperature-regulated, low noise)
 Maximum ambient temperature (Ta max.)..... 40° C (104° F)
 Minimum ambient temperature (Ta min.)..... 0° C (32° F)
 Total heat dissipation (calculated, +/- 10%, at full intensity, full white)..... 1000 BTU/hr.

Approvals

EU safety..... EN 60598-2-17 (EN 60598-1), EN 62471, EN 62493
 EU EMC EN 55015; EN 55032; EN 55103-2; EN 61000-3-2,-3; EN 61547
 US safety..... UL 1573
 US EMC FCC Part 15 Class B
 Canadian safety CSA C22.2 No. 166
 Canadian EMC..... ICES-003 Class B, ICES-005 Class B
 Australia/NZ RCM

Included Items

Power cable 1.5 m without power plug
 Mounting bracket

Accessories

Cables, 16 A, for connection to power in chains:

Power input cable, H07RN-F, 2.5 mm², 14 AWG, bare ends to Neutrik
 TRUE1 NAC3FX-W (female), 1.5 m (4.9 ft.)..... P/N 91611797
 Power input cable, H07RN-F, 2.5 mm², 14 AWG, bare ends to Neutrik
 TRUE1 NAC3FX-W (female), 5 m (16.4 ft.)..... P/N 91611786
 Link Cable, H07RN-F Neutrik TRUE1-TRUE1 0.45 m (1.5 ft.)..... P/N 91611784
 Link Cable, H07RN-F Neutrik TRUE1-TRUE1 1.2 m (3.9 ft.)..... P/N 91611785
 Link Cable, H07RN-F Neutrik TRUE1-TRUE1 2.5 m (8.2 ft.)..... P/N 91611796

Power connectors:

Neutrik PowerCON TRUE1 NAC3MX-W (male)..... P/N 91611788
 Neutrik PowerCON TRUE1 NAC3FX-W (female) P/N 91611789

Lens Tube Options (see below for part numbers):

Martin ELP Lens Tube: 19°
 Martin ELP Lens Tube: 26°
 Martin ELP Lens Tube: 36°
 Martin ELP Lens Tube: 50°

Ordering Information

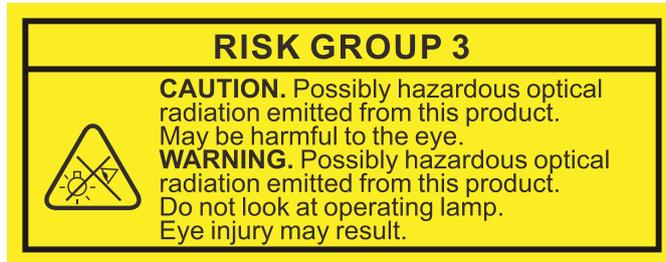
Martin ELP CL (Body Only) in cardboard box..... P/N 9045107780
 Martin ELP Lens Tube: 19° in cardboard box..... P/N 9045107782
 Martin ELP Lens Tube: 26° in cardboard box..... P/N 9045107783
 Martin ELP Lens Tube: 36° in cardboard box..... P/N 9045107784
 Martin ELP Lens Tube: 50° in cardboard box..... P/N 9045107785

Specifications are subject to change without notice. For the latest product specifications, see www.martin.com

	<p>Disposing of this product</p> <p>Martin™ products are supplied in compliance with Directive 2012/19/EC of the European Parliament and of the Council of the European Union on WEEE (Waste Electrical and Electronic Equipment), where applicable. Help preserve the environment! Ensure that this product is recycled at the end of its life. Your supplier can give details of local arrangements for the disposal of Martin products</p>
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Photobiological Safety Warning

The label shown below is displayed on this product. If it becomes difficult or impossible to read, it must be replaced using the illustration below to reproduce new labels sized 18 x 45 mm (each label), in black on a yellow background.





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