ELP WW LED Profile

User Manual

Dimensions
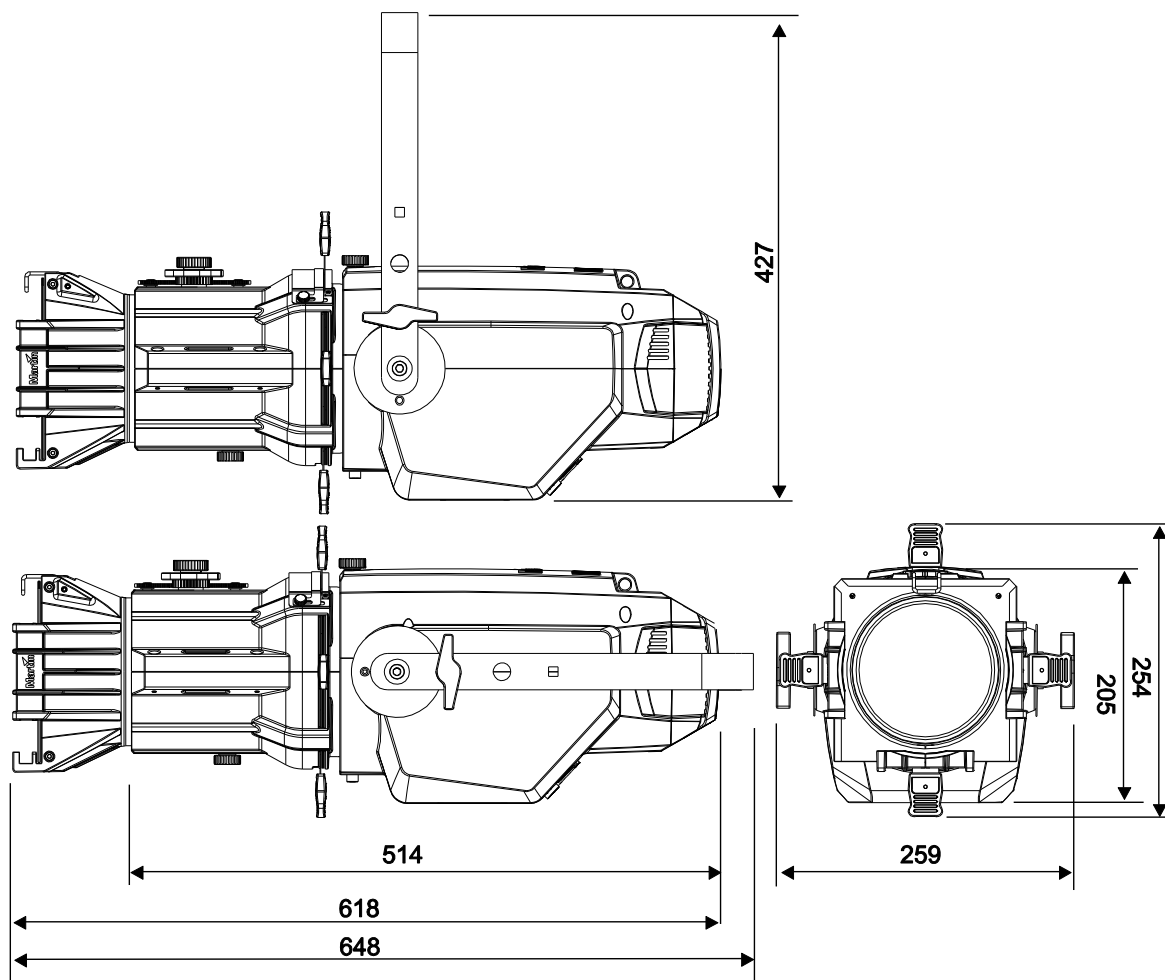
All dimensions are given in millimeters.

Martin ELP WW User Manual Revision F

Table of contents

Introduction

The ELP WW from Martin® is an ellipsoidal/profile lighting fixture with a 260 W warm white LED engine that produces a sharp gobo projection with a flat field.

Four fixed beam angle lens tubes and two zoom lens tubes are available for the fixture. We recommend that you order the lens tube of your choice at the same time as ordering the fixture body.

The fixture provides a class-leading CRI of 97 at a color temperature of 3000 K with an output of 7000 lumens and has 16-bit dimming with 4 selectable curves. Its innovative features include 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 ELP WW can be controlled using any DMX-compliant controller and can be remotely configured by RDM. It also features stand-alone operation with capacity for up to 20 scenes.

The fixture is supplied with this user manual, a 1.5 m (4.9 ft.) power cable ready for a local power plug (not included) and a yoke for attachment of suitable user-supplied rigging clamps.

Before using the product for the first time

1. Read 'Safety information' on page 4 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.

Changing the lens tube

Four different lens tubes with fixed beam angles of 19°, 26°, 36° or 50° are available for the fixture. Two zoom lens tubes with either 15°-30° or 25°-50° zoom ranges are also available. All lens tubes are available in black or white finish. See 'Ordering Information' on page 32 for ordering details.

To change the lens tube, refer to the diagram below:

1. Hold the front of the lens assembly with one hand so that it cannot fall out.

2. Remove the thumbscrews (2) and (3) from the top and bottom of the lens tube. The top screw also has the focusing wheel attached.

3. Slide the lens tube forward out of the fixture.

4. Slide in the new lens tube (1).

5. Begin to thread the thumbscrews (2) and (3) into their holes. For the top screw (2), ensure that the focusing wheel sits on the screw with the gear teeth facing downwards, towards the fixture. Rotate the focusing wheel until the gear teeth mesh with the toothed rack on the lens tube housing.

6. Tighten the thumbscrews (2) and (3).
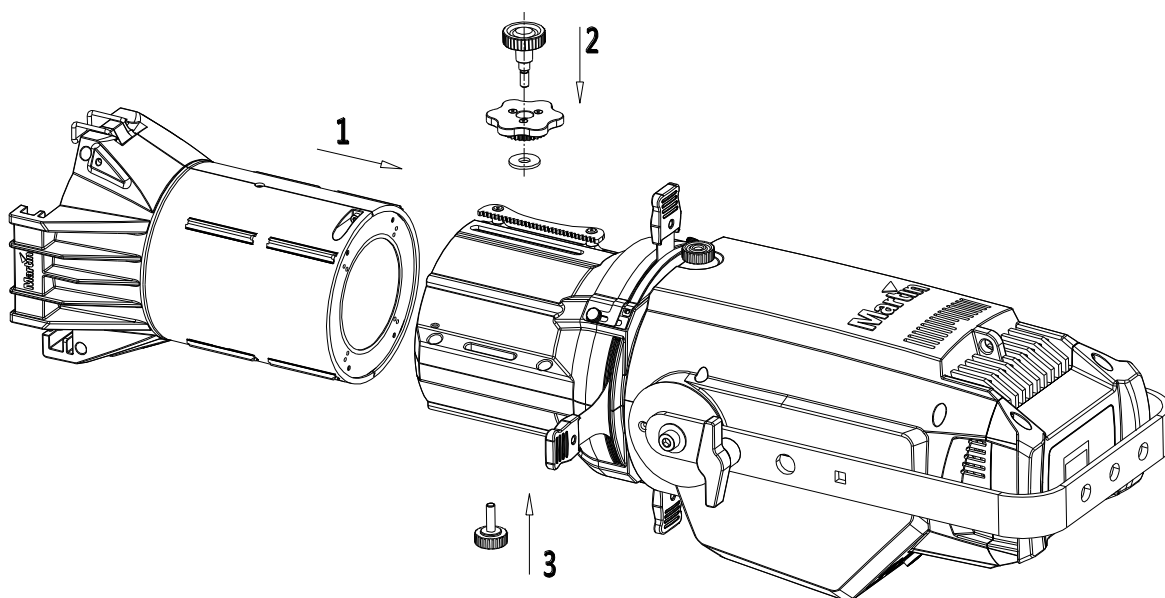
Control data

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.
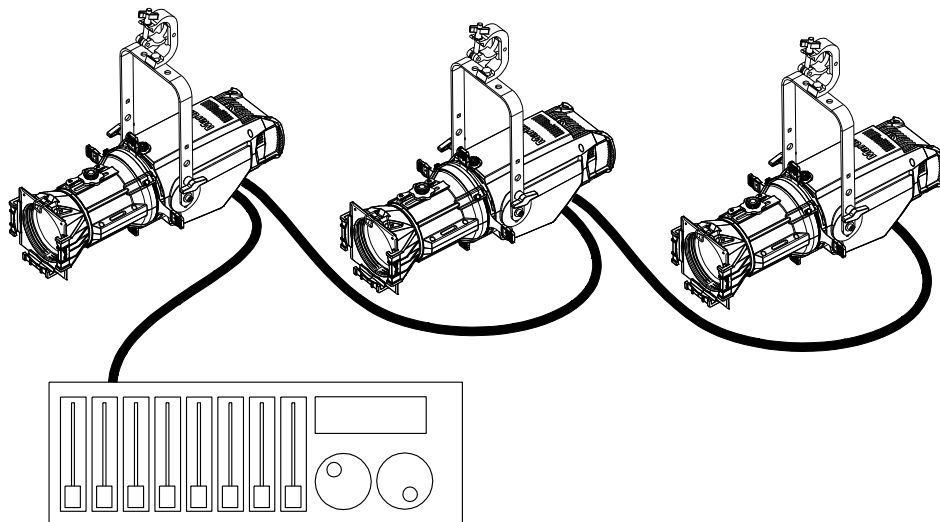
Up to 32 devices can be linked together on a single daisy chain. The total number of fixtures in one 512-channel DMX universe is limited by the number of DMX channels required by the fixtures. Note that if independent control of a fixture is required, it must have its own DMX channels. Fixtures that 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 RDM-compatible opto-isolated DMX 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 DMX 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 link using RDM from a suitable controller, see "Setting options by RDM" on page 19.

Only the main functions are described in this section. You can see a complete map of the control menu structure and brief explanations of their purposes in "Control menus" on page 26.

Using the control menus

See photo on right. Use the fixture's control panel as follows:

- 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.

Control panel display

See photo on right. When you power the fixture on it resets and then shows the following data in the control panel display:

- Name of product
- Temperature of LED module
- DMX address currently used
- DMX Channels currently occupied

The display flashes when the fixture is not receiving a valid DMX signal.

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 for 60 seconds, allowing you to set the focus. After 60 seconds the fixture will return to normal operation.

Setting the 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 4 DMX channels depending on the personality set. If a fixture using 4 channels has a DMX address of 1, then it uses channels 1 to 4 inclusive. The following fixture in the DMX chain can then be set to a DMX address of 5.

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

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

- 1 channel – Dimmer only
- 2 channel – 8-bit dimmer with adjustment of dimmer fade times
- 4 channel – 16-bit dimmer with shutter and adjustment of dimmer fade times
  (4-channel is the default mode)

The commands available on each channel are described in the section "DMX protocol" on page 25.

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, 2 or 4.
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 OFF (default), MASTER and SLAVE. Stand-alone operation will be automatically overridden by incoming DMX signal.

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.
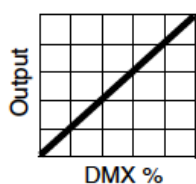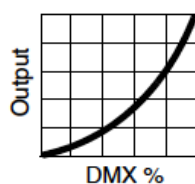
Optically linear   Square law   Inverse square law   S-curve
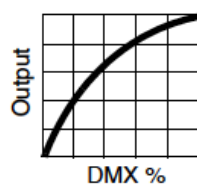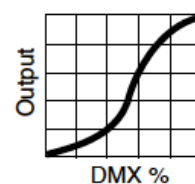
To set the fixture's dimmer curve, select DIMMER CURVE from the PERSONALITY menu and press ENTER to confirm. Use the UP and DOWN buttons to select the desired mode. Press ENTER to save your selection.

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.

From firmware v.1.2, the PWM frequency settings available range from 600 Hz to 2400 Hz. The default frequency is 1200 Hz.

No Data Mode

This option sets what will happen when no DMX data is 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 blacks out.
- HOLD – If data connection is lost, fixture obeys the last DMX commands received on all channels (default).

Press ENTER to confirm.

Cooling Mode

This option sets whether cooling fan speed is regulated depending on fixture temperature or whether the cooling fans run at a constant speed.

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

- REGULATED FANS – Fan speed is controlled by fixture temperature. Fans only run at the speed necessary to keep the fixture within its normal operating temperature range. Light output is not reduced unless full fan speed is not enough to keep the fixture within its safe operating temperature range.
- FULL – Fans are set to constant full speed. Light output is not reduced unless full fan speed is not enough to keep the fixture within its safe operating temperature range.
- LOW – Fans are set to constant low speed. The maximum light output available is reduced by approx. 15% and fan noise is significantly reduced.

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. A sequence of LED test, dimmer test, strobe test will be run.

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.

Calibration

From the SERVICE menu you can select CALIBRATION. This menu allows you to adjust the overall brightness 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 decrease, 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.
- WHITE (available from firmware v. 1.2) gives fine adjustment of the fixture's color temperature.
- LOAD DEF will load the factory-set calibration values. If you have replaced the factory-set values with custom values using SAVE SET (see below) it will load the custom values.
- SAVE SET replaces the factory-set DIMMER and WHITE values with any custom values that have currently been set.

You must enter a password (019 by default) before you can access the SAVE SET menu item.

Important! The SAVE SET command permanently overwrites the factory-set calibration values. It is not possible to restore the factory-set values by powering the fixture off and on, resetting the fixture or uploading new firmware. Once you have saved custom calibration values using SAVE SET, the only way to return to the original factory-set values is to re-adjust the DIMMER and WHITE calibration settings back to their original values.

Setting options by RDM

You can remotely configure the fixture over the DMX line using a suitable RDM-compatible controller that is connected to the installation via a DMX data link.

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.

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 WW supports 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 WW. See 'DMX protocol' on page 25 for a full list of the DMX channels and values required to control the different effects.

Dimming

Overall intensity can be precisely adjusted from 0 to 100% using 16-bit coarse and fine control.

In 1Ch or 2Ch mode only 8-bit intensity control is available. In 1Ch mode, 8-bit intensity control is the only control option.

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.

Manual focus

The ELP WW has a unique "Fine Focus" system which allows you to easily make small focus adjustments using a gear-based wheel on top of the lens tube. To focus the fixture, see drawings below. Loosen the thumbscrews **A** and **B** on the top and bottom of the lens tube slightly, then turn the focus wheel **C** to slide the lens in or out of the tube. Tighten the thumbscrews **A** and **B** again to hold the focus setting.
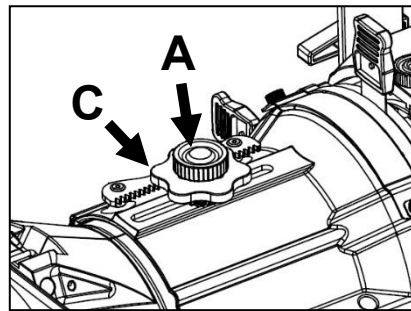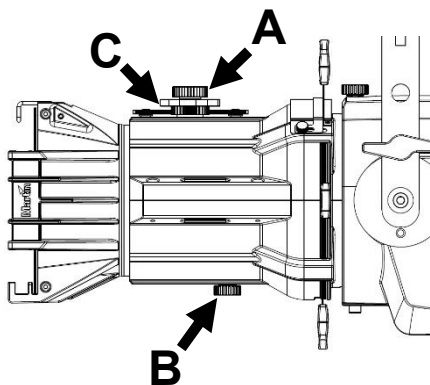
Manual beam shaping shutters

The fixture has 4 manually operated beam shaping shutters.

To change the shape of the beam, power the fixture on and aim the beam at the target. Use the four shutter blade handles (see **6** in 'Fixture overview' on page 8) to adjust the position of the shutter blades and obtain the desired beam shape.

Use of filters

The color filter frame that is supplied with the lens tube lets you add color correction or diffusion filters to the front of the fixture. Push the filter retaining clip (see **1** in 'Fixture overview' on page 8) to one side to insert and remove filters. Click the retaining clip back into place after inserting a filter and check that the clip is secure to prevent the color filter frame from falling out.

Use of gobos and irises

The fixture will accept an A-size or B-size goboholder or an iris (items not included) in the gobo/accessory gate. There is a sliding cover over the gate to prevent light spill and retain the goboholder in the fixture. To install a goboholder or iris:

1. Allow the fixture to cool. See drawing below. Loosen, but do not remove, the two thumbscrews (arrowed) at the sides of the cover.
2. Slide the cover towards the front of the fixture.
3. Slide the goboholder into the accessory gate in the fixture.
4. Slide the cover back so that it holds the goboholder in place and tighten the thumbscrews.
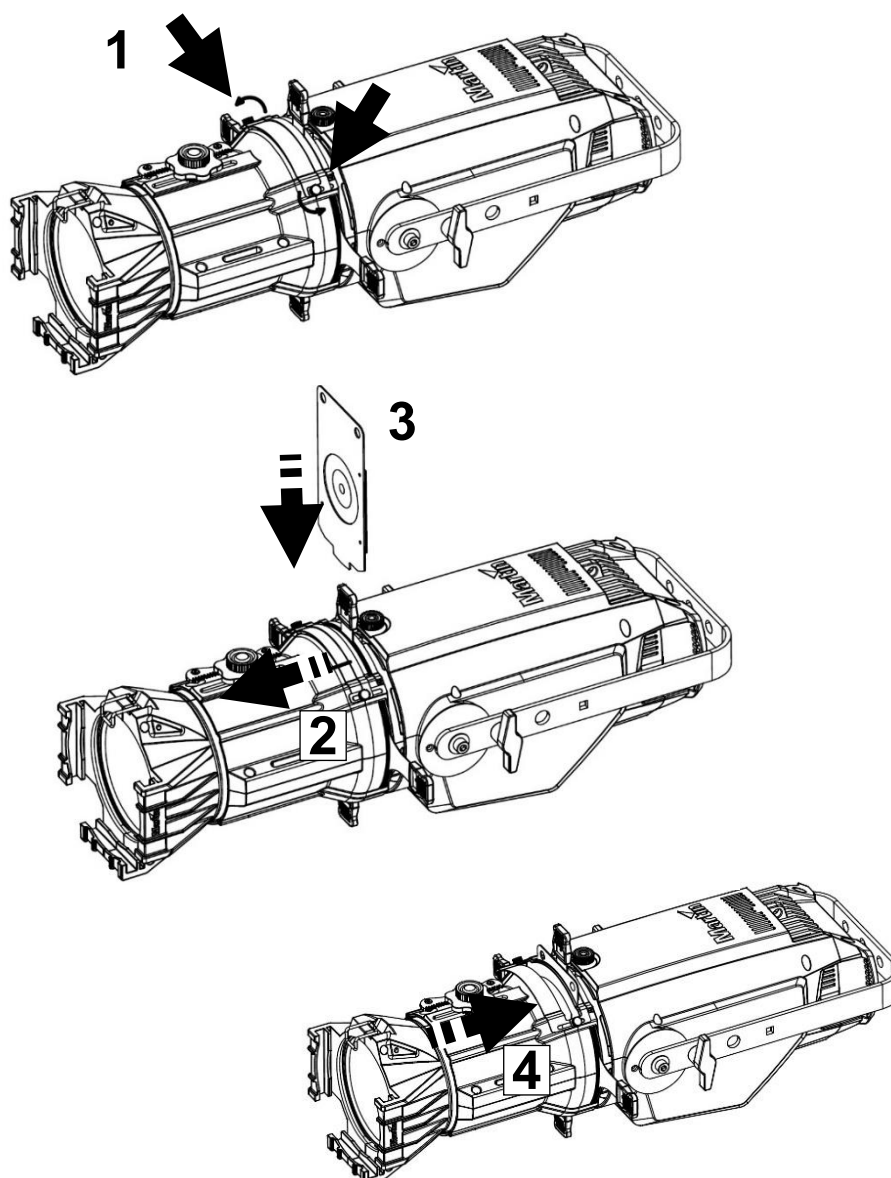
DMX protocol

Channel			DMX range	Function
1CH	2CH	4CH		
1	1	1	0-255	Dimmer 0-100%
		2	0-255	Dimmer Fine
		3		Shutter
			000-031	Blackout
			032-063	Open
			064-095	Strobe (Slow-Fast)
			096-127	Open
			128-159	Pulse effect in sequences
			160-191	Open
			192-223	Random strobe effect (Slow-Fast)
			224-255	Open
	2	4	0-255	Dimmer fade time

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 32.

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	1CH/2CH/**4CH**		DMX control mode
Personality	Stand-Alone	**Off**		
		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
	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	600-2400Hz		LED PWM frequency (Default = 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

Personality (continued)	Cool Mode	**Reg fan**		Fan optimized for light intensity (temperature is controlled by regulating fan speed, light output is unaffected)
		Full		Fans set to full/low constant speed (temperature is 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 settings	Fac Default	**No**		
		Yes		Return all settings to factory defaults
Fixture test	Test LEDs			Run test sequence of LEDs, 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

Information (continued)	Fixture ID	0 - 9999		User-settable fixture ID number
	RDM UID	XXXXXXXXXXX		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
Manual Ctrl	Reset	**No**		
		Yes		Reset fixture
	Dimmer, Dimmer Fine, Shutter, Dimmer Fade	0-255		Manual control of all 4 channels
Service	Calibration	Dimmer	0-**100** %	Intensity master, sets maximum permitted intensity
		White	0-255	White CT calibration
		Load Def	Load	Load factory calibration settings
		-Password-	XXX	Enter password (019) for access to Save Set
		Save Set		Replace factory calibration settings with current calibration settings

Specifications

Physical

Length	648 mm (25.5 in.)
Width	259 mm (10.2 in.)
Height	254 mm (10.0 in.)
Height (with bracket	427 mm (16.8 in.)
Weight	7.7 kg (17 lb.)

Dynamic Effects

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

DMX channels	1/2/4
16-bit control	Intensity
Control options	DMX, stand-alone
PWM	600-2400 Hz
DMX address setting	Control panel with OLED display or via RDM
Stand-alone programming	Control panel with OLED display
DMX compliance	USITT DMX512-A
RDM compliance	ANSI/ESTA E1.20
Transceiver	Opto-isolated RS-485

Optics

Light source	91 x 3 W warm white LEDs
Color Temperature	3000 K
Lens tube options	19°, 26°, 36°, 50°, 15-30° zoom, 25-50° zoom
Minimum LED lifetime	30 000 hours (to >70% luminous output)*

Figure obtained under manufacturer's test conditions:

Photometric Data

Light engine luminous output	16 000 lumens
Fixture luminous output	7000 lumens
CRI (Color Rendering Index)	>97
CQS (Color Quality Scale)	>93
TM-30 Rf (IES TM-30-15 Fidelity Index)	>93
TM-30 Rg (IES TM-30-15 Gamut Index)	>101
TLCI (Television Lighting Consistency Index)	>96

Construction

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

Gobos and Color Frame

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 159 mm (6.25 in. x 6.25 in.)

* Goboholder not included

Installation

Mounting .... Adjustable bracket
Location .... Indoor use only
Orientation .... Any
Minimum distance to combustible materials .... 0.2 m (0.7 ft.)
Minimum distance to illuminated surfaces .... 0.5 m (1.6 ft.)

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
Power supply unit .... Auto-ranging electronic switch-mode
Idle power (zero intensity) .... 5 W
Half-cycle RMS inrush current at 230 V, 50 Hz .... 18.0 A
Fixture link via PowerCON at 100-120 V .... Up to 4 fixtures
Fixture link via PowerCON at 200-240 V .... Up to 9 fixtures

Power consumption figures are typical, not maximum. Allow for +/-10% variation.

Typical Power and Current

110 V, 60 Hz .... 2.6 A, 280 W, PF 0.99
208 V, 60 Hz .... 1.4 A, 270 W, PF 0.97
230 V, 50 Hz .... 1.2 A, 269 W, PF 0.96
240 V, 50 Hz .... 1.2 A, 268 W, PF 0.96

*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

Global CB Certification/IECEE .... IEC 60598-2-17 (IEC 60598-1)
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 input cable (0.75mm^2, 18 AWG), bare ends to Neutrik TRUE1 NAC3FX-W (female), 1.5 m
(4.9 ft.)
Mounting yoke
User manual

Accessories

Cables, 16 A, for connection to power in chains

Power input cables
Power Input Cable, H07RN-F, 2.5 mm2, bare ends to
    TRUE1 NAC3FX-W (female), 1.5 m (4.9 ft.) .... P/N 91611797
Power Input Cable, H07RN-F, 2.5 mm2, bare ends to
    TRUE1 NAC3FX-W (female), 5 m (16.4 ft.) .... P/N 91611786

Power Input Cable, SJOOW, 12 AWG, bare ends to
    TRUE1 NAC3FX-W (female), 1.5 m (4.9 ft.)...P/N 91610173
Power Input Cable, SJOOW, 12 AWG, bare ends to
    TRUE1 NAC3FX-W (female), 5 m (16.4 ft.)..P/N 91610174
Power relay cables
Power Relay Cable, H07RN-F, 2.5 mm^2, TRUE1-TRUE1 0.45 m (1.5 ft.)............ P/N 91611784
Power Relay Cable, H07RN-F, 2.5 mm^2, TRUE1-TRUE1 1.2 m (3.9 ft.).............. P/N 91611785
Power Relay Cable, H07RN-F, 2.5 mm^2, TRUE1-TRUE1 2.5 m (8.2 ft.).............. P/N 91611796
Power Relay Cable, SJOOW, 12 AWG, TRUE1-TRUE1, 0.45 m (1.5 ft.) .... P/N 91610170
Power Relay Cable, SJOOW, 12 AWG, TRUE1-TRUE1, 1.2 m (3.9 ft.) .... P/N 91610171
Power Relay Cable, SJOOW, 12 AWG, TRUE1-TRUE1, 2.5 m (8.2 ft.) .... P/N 91610172

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

Related Items
Martin Companion Cable USB/DMX Interface ....P/N 91616091
Martin Companion software suite ....Free download from www.martin.com

Ordering Information

Fixtures without lens tubes
Martin ELP WW (fixture body only) .... P/N 9045107781
Martin ELP WW (fixture body only), White .... P/N 9045115165

Lens tube options*
Martin ELP Lens Tube 19° .... P/N 9045107782
Martin ELP Lens Tube 26° .... P/N 9045107783
Martin ELP Lens Tube 36° .... P/N 9045107784
Martin ELP Lens Tube 50° .... P/N 9045107785
Martin ELP Zoom Lens Tube 15-30°... P/N 9045121618
Martin ELP Zoom Lens Tube 25-50°... P/N 9045121619
Martin ELP Lens Tube 19°, White .... P/N 9045115166
Martin ELP Lens Tube 26°, White .... P/N 9045115167
Martin ELP Lens Tube 36°, White .... P/N 9045115168
Martin ELP Lens Tube 50°, White .... P/N 9045115170
Martin ELP Zoom Lens Tube 15-30°, White... P/N 9045122108
Martin ELP Zoom Lens Tube 25-50°, White... P/N 9045122109

*All lens tubes include a filter frame.

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