martinarchitectural

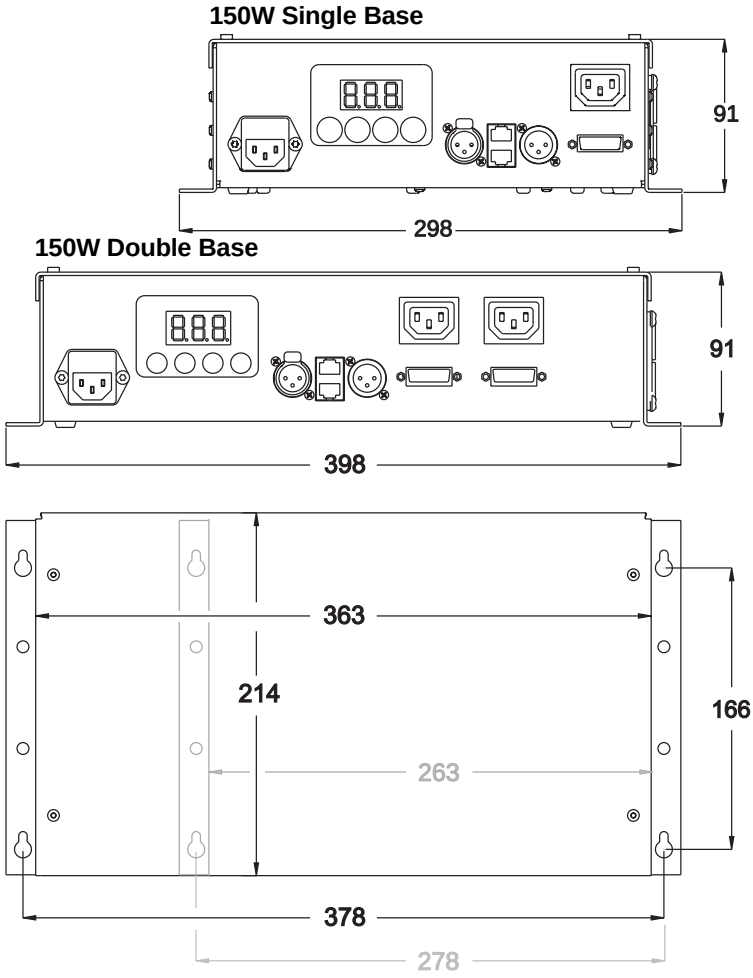
150W Base

user manual

Martin

Dimensions

Dimensions are in millimeters



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Contents

1. Introduction

Thank you for selecting the Martin 150W Base, the control unit for all the luminaires in the Alien 02 range. The 150W Base is available in single and double models that respectively control one or two Alien 02 luminaires. The 150W Base can be programmed – alone or in a synchronized group – to run stand-alone light shows in Alien 02 luminaires. The 150W Base can also be operated with DMX control devices.

This manual covers 150W Base fixtures equipped with software version 2.1.0.

Important! ***Read this manual to understand the configuration and control options available before you attempt to install this product.***

The Alien 02 is a 150 Watt color-changing medium-throw luminaire designed for fixed interior installation. It features seamless CMY color mixing and full-range continuous dimming. The Alien 02 product line contains a flexible range of luminaires and accessories:

Luminaires

- Alien 02 Spot – a pedestal- or arm-mounted luminaire
- Alien 02 Pendant – a ceiling-mounted luminaire

Accessories

- 150W Base – provides power and intelligent control functions to one or two Alien 02 luminaires (Single or Double models)
- Mounting arm for the Alien 02 Spot
- J-Box for mounting the Alien 02 Pendant
- Cable extension kits for extending the distance between an Alien 02 luminaire and a 150W Base

Optics

- 36° fresnel lens kit
- 90° x 70° beam shaper lens kit
- Micro lens diffuser kit
- Barn doors
- Glare control kit

Compatibility

A 150W Base that has been programmed to run a stand-alone show can perform synchronized scene changes with other Martin Architectural fixtures of the following types:

- 150W Base
- FiberSource CMY150
- Exterior 200
- MiniMAC Maestro
- Imager series
- Exterior 600
- Inground 200

A 150W Base controlled via DMX can be incorporated into a light show involving any other DMX-compatible fixtures.

Safety information

Warning! ***This product is for professional use only. It is not for household use.***

This product presents risks of lethal or severe injury due to fire and heat, electric shock and falls. **Read this manual** before powering or installing the product, follow the safety precautions listed below and observe all warnings in this manual and on the products. If you have questions about how to operate this product safely, please contact your Martin Architectural dealer or call the Martin 24-hour service hotline at +45 70 200 201.

Protection from electric shock

- Disconnect products from AC power before removing or installing a lamp, fuses, or any part, and when not in use.
- Always ground (earth) this product electrically.
- Use only a source of AC power that complies with local building and electrical codes and has both overload and ground-fault protection.
- Do not expose this product to rain or moisture.
- Do not use this product if any covers or components are damaged or missing.
- Refer all service to a Martin service technician.

Protection from burns and fire

- Never attempt to bypass the thermostatic switch or fuses. Always replace defective fuses with ones of the specified type and rating.
- Provide a minimum clearance of 0.1 meters (4 inches) around fans and air vents.
- Never place filters or other materials over the lens.
- Do not modify the product or install other than genuine Martin parts.

- Do not operate the product if the ambient temperature (Ta) exceeds 40° C (104° F).

Protection from injury due to falls

- Ensure that all external covers and rigging hardware are securely fastened
- Block access below the work area whenever installing, servicing or removing lighting equipment.

Task checklist

√	Task	See
	Unpack and check all parts are included	page 9
	Choose a location and screw/bolt 150W Base in place	page 9
	Set voltage	page 10
	Install the mains fuse	page 13
	Install power cord cap/plug	page 13
	Connect luminaire to power	page 14
	Create data link if using multiple luminaires	page 16
	Install Alien 02 luminaire	Alien 02 user manual
	Connect Alien 02 luminaire to 150W Base	page 15
	Set 150W Base personalities using the control menus in the control panel	page 19
When DMX control device is used		
	Connect DMX control device (if used)	page 48
	Using the control menus, set 150W Base profile option to “d1” and set the DMX address	page 19 and page 48
	Program show, or use live control, with DMX control device	page 49
When stand-alone program is used		
	If optional IR is used:	
	• Ensure data link is not terminated	page 29
	• If this is the first luminaire in the data link, install the optional IR receiver	page 29
	• Set luminaire’s IR address	page 19
	If synchronous triggering of multiple luminaires is to be used, set triggering options (is the luminaire receiving or sending scene change triggers?)	page 24
	Create stand-alone program, using:	
	• Luminaire control menus, or the	page 25
	• Optional IR remote control	page 29
	Run stand-alone program	page 33

2. Installation

This section describes how to mount the fixture and connect it to data and AC power. It contains the following sections:

- '*Unpacking*", below
- '*Fixture orientation and location*" below
- *"Configuring power"* on page 10
- *"Connecting an Alien 02 luminaire"* on page 15
- *"Data linking multiple luminaires"* on page 16

These procedures must be performed by qualified professionals.

Unpacking

The 150W Base is supplied with the following items:

- User manual
- Fuses
- 3 meter (9.8 ft), 3-pin IEC mains cable
- 5 meter (16.4 ft), black 3-pin XLR data cable

Fixture orientation and location

When choosing a location, bear in mind that the 150W Base must not be operated if ambient temperature (Ta) exceeds 40°C (104°F) or falls below 0°C (32°F).

The 150W Base is connected to an Alien 02 luminaire via the Alien 02's built-in cables. Cable extension kits are available if the 150W Base needs to be positioned further – up to 16 meters (52 feet) – away.

The 150W Base can be screwed or bolted to a surface (including combustible surfaces) using 8 mm (1/3 in.) high-tensile strength (minimum grade 8.8) fasteners.

The 150W Base can be hidden from view in a ceiling space, but keep in mind that access to the fixture may be necessary from time to time, for example, if a fuse blows, or when stand-alone programming is to be performed.

If you plan to use the infrared (IR) remote control unit to program the 150W Base, the fixture – or at least the IR receiver unit – will need to be placed where it can be seen by the IR remote control unit. Programming with the IR

remote control unit is easiest when the user can see the control panel display on the 150W Base.

Configuring power

Preparing the 150W Base for connection to local power has four steps:

1. '*Configuring the power settings*", below
2. *"Installing the main fuse"* on page 13
3. *"Installing a plug on the power cable"* on page 13
4. *"Connecting and applying mains power"* on page 14

Configuring the power settings

Depending on the 150W Base model that you are configuring, see:

- '*150W Single Base*" below, or
- *"150W Double Base"* on page 11

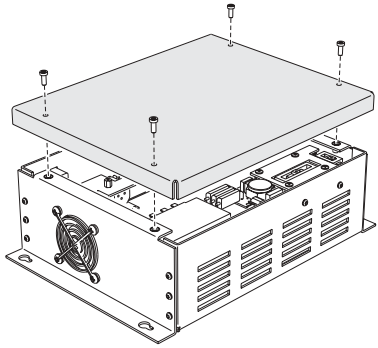
150W Single Base

Warning! ***For protection from electric shock, the 150W Base must be grounded (earthed). The power supply must have overload and ground-fault protection.***

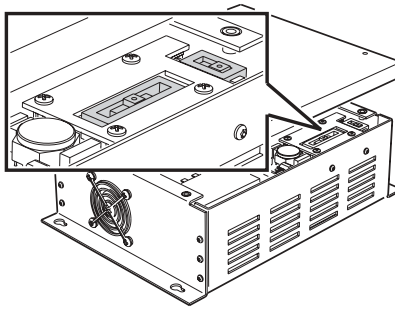
Verify that power supply settings match local AC supply and install the appropriate fuse before applying power.

The 150W Single Base has switch-selectable settings to configure the power supply for local conditions. The factory-default setting is indicated on the serial number label. Always use the setting that is closest to the local AC supply.

1. Ensure that the 150W Single Base is disconnected from power.
2. Remove the four cover bolts on the top of the 150W Single Base with a 2.5 mm Allen wrench.



3. Set the 5-position switch to the setting closest to the AC voltage. Use the higher setting if the voltage is halfway between 2 settings. For example, use the 230 V setting instead of the 210 V setting for operation with 220 V power.



4. Set the 2-position switch to the AC frequency (50 / 60 Hz).
5. Replace the cover and apply a new power setting label to the serial number label.

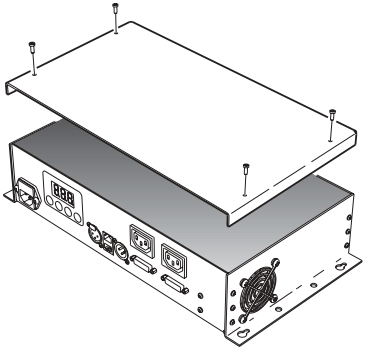
150W Double Base

Warning ***For protection from electric shock, the 150W Base must be grounded (earthed). The power supply must have overload and ground-fault protection.***

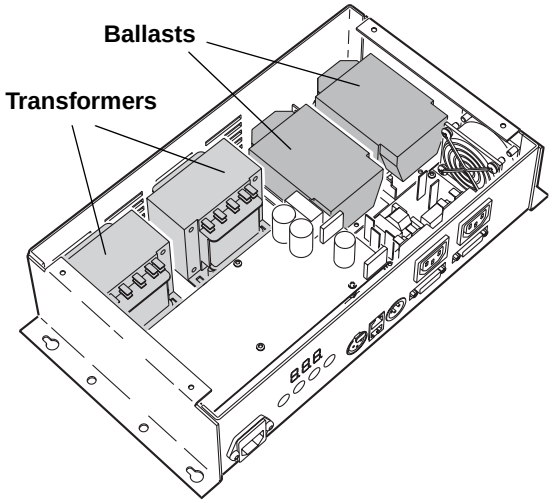
Verify that power supply settings match local AC supply and install the appropriate fuse before applying power.

The 150W Double Base has two transformers and two ballasts that must be identically configured to match the local power supply. The factory-default setting is indicated on the serial number label. If your local AC voltage or frequency differ from the settings for your model, the luminaire's power supply must be rewired by a qualified installer or technician.Always use the setting that is closest to the local AC supply.

1. Ensure that the 150W Double Base is disconnected from power.
2. Remove the four cover bolts on the top of the 150W Double Base with a 2.5 mm Allen wrench.
3. On each transformer, move the brown and grey wires (those with insulated spade plugs) to



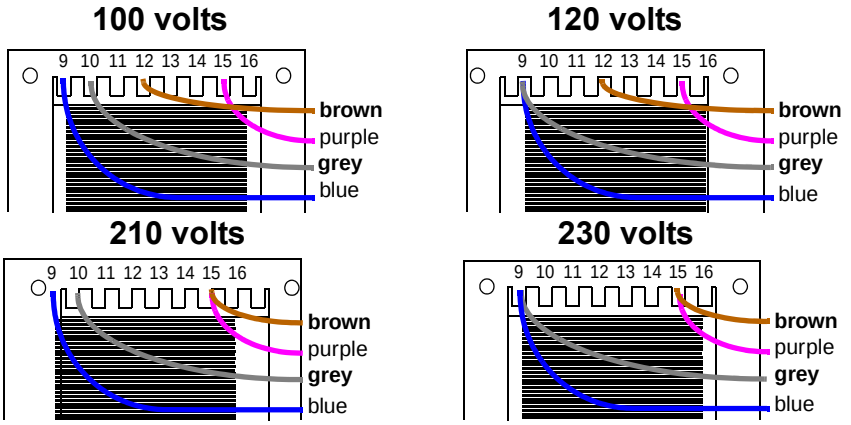
the transformer taps shown for your mains voltage (see Table 1 and the associated illustrations).

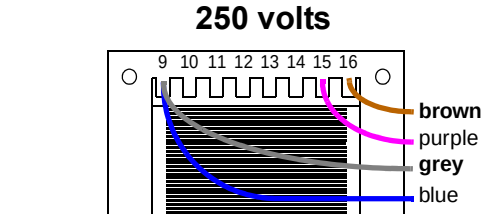


Important! ***Do not move the blue wire from terminal 9 or the purple wire from terminal 15.***

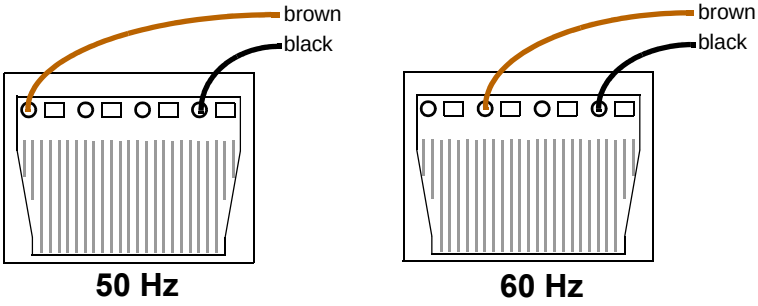
Mains voltage	Setting	Brown wire on tap	Grey wire on tap
95 - 109 V	100 V	12	10
110 - 130 V	120 V	12	9
200 - 219 V	210 V	15	10
219 - 239 V	230 V	15	9
240 - 260 V	250 V	16	9

Table 1: Transformer settings





4. To set the frequency, move the brown wire on each ballast to the “230-50” (50 Hz) or “230-60” (60 Hz) terminal as shown. The wire is released and locked by inserting a small screwdriver in the square hole next to the terminal and prying back the spring.
5. Tug lightly on the brown wire to make sure that it is connected securely.

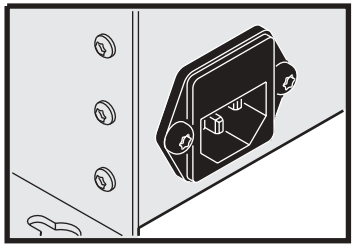


6. Replace the luminaire housing and apply a new power setting label to the serial number label.

Installing the main fuse

Fuses are provided for 100 - 130 V and 200 - 250 V operation. Use only the fuse specified for the operating voltage.

1. Locate the bag containing the fuse for your AC voltage.
2. Open the fuse holder just about the mains input socket using a small flat-head screwdriver to open it. The holder may contain the other fuse.
3. Insert the correct fuse and place the holder back in the mains input socket.



Installing a plug on the power cable

The power cable to the 150W Base must be fitted with a grounding-type cord cap (earthed-type mains plug) that fits your power distribution system. Consult an electrician if you have any doubts about proper installation.

Following the cord cap manufacturer's instructions, connect the yellow and green wire to ground (earth), the brown wire to live, and the blue wire to neutral. The table below shows some pin identification schemes.

Wire (EU)	Wire (US)	Pin	Marking	Screw (US)
brown	black	live	"L"	yellow or brass
blue	white	neutral	"N"	silver
yellow/green	green	ground	⏚	green

Table 2: Cord Cap Connections

Connecting and applying mains power

Connect the mains power cable to the 150W Base mains input socket and the AC mains distribution system. Do not connect the 150W Base to a dimmer system.

Warning! ***The power cables must be undamaged and rated for the electrical requirements of all connected devices.***

Important! ***Do not apply power through a dimmer system, as this can damage the luminaire.***

Connecting an Alien 02 luminaire

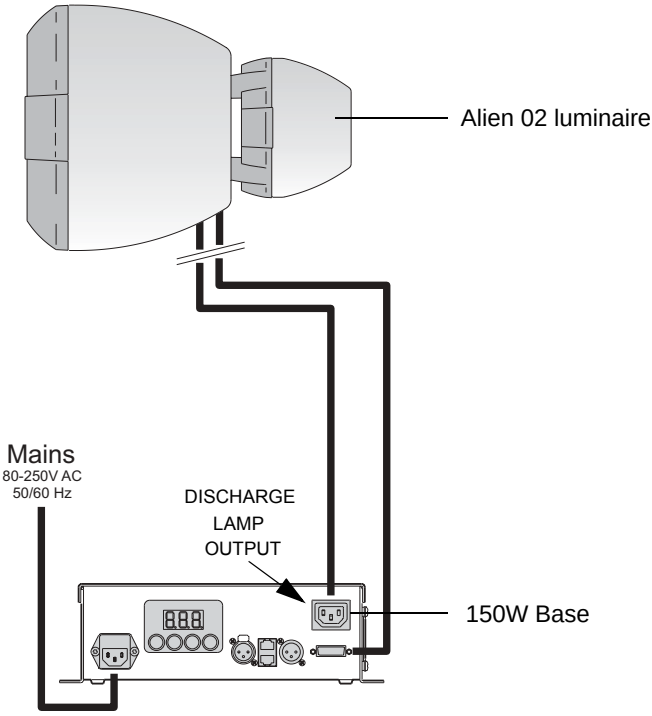
Connect the:

- Built in power-cable on the Alien 02 luminaire to a **DISCHARGE LAMP OUTPUT** socket on the 150W Base.
- 26-pin plug on the cable attached to the Alien 02 luminaire to a **DATA OUT** socket on the 150W Base. Screw the connector into place.

You can connect two Alien 02 luminaires in this way to a 150W Double Base.

Warning! ***DO NOT connect the Alien 02 luminaire directly to an AC mains power supply - doing so will result in damage to both the lamp and the local power supply.***

The Alien 02 luminaire receives its power from the 150W Base and must be connected to a DISCHARGE LAMP OUTPUT socket using the attached one-meter long power cable, or a Cable Extension Kit.



Cable extension kits

Cable extension kits are available that allow the distance between an Alien 02 luminaire and an 150W Base to be extended up to a maximum of 16 meters. The kits contain a power cable extension and a data cable extension. Kits are available in 2, 5 and 10 metre (6.5, 16 and 33 feet) extension lengths.

Data linking multiple luminaires

You need to create a data link to:

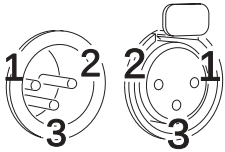
- Operate multiple 150W Bases in synchronous stand-alone mode
- Control more than one luminaire via a DMX control device
- Program multiple luminaires via the IR receiver and IR remote control.

In these cases you need to establish a data link between the devices so that they can communicate. You can use cables with RJ-45 or XLR connectors. You can mix both connector types as long as there is no more than one DMX connection in and one DMX connection out on any one device.

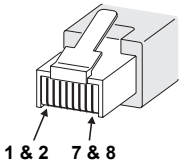
Creating a data link

Suitable cable is required for reliable data transmission. Most microphone cable does not transmit digital data reliably over long runs. For best results, use shielded, twisted-pair cable designed for RS-485 applications, with low capacitance and a characteristic impedance of 85 to 150 Ohms. The minimum wire size is 0.2 mm^2 (24 AWG) for runs up to 300 meters (1000 ft.) and 0.32 mm^2 (22 AWG) for runs up 500 meters (1640 ft.). Your Martin Architectural dealer can supply suitable cable in various lengths.

- XLR data sockets are wired pin 1 to ground, pin 2 to signal - (cold), and pin 3 to signal + (hot). This is the standard pin assignment for DMX devices.



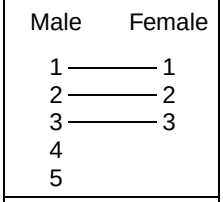
- RJ-45 sockets are wired pins 7 & 8 to ground, pin 2 to signal - (cold), and pin 1 to signal + (hot). The diagram identifies pins 1 and 8.



RJ-45 male plug

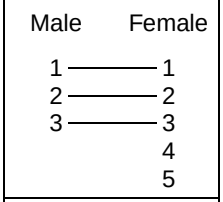
One or more adaptor cables may be required to connect the 150W Base to the controller and other fixtures if they have XLR 5-pin connectors or reversed signal polarity on XLR pins 2 and 3. Pin polarity is normally indicated on fixtures and in user manuals.

5-pin to 3-pin Adaptor



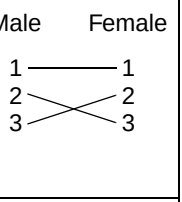
P/N 11820005

3-pin to 5-pin Adaptor



P/N 11820004

3-pin to 3-pin Phase-Reversing Adaptor

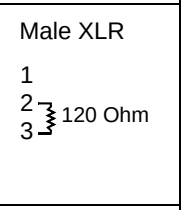


P/N 11820006

Creating the data link

1. Connect one the DMX outputs of the 150W Base to one of the DMX inputs of the next device. If connecting to a device with XLR reversed-polarity (pin 3 cold), insert a phase-reversing cable between the two devices.
2. Continue connecting devices output to input. Up to 32 devices may be connected on a serial link, unless you are using the optional infrared remote control and receiver (see *"Programming using the infrared remote control"* on page 29), in which case the limit is 10 devices.
3. If you are not using the infrared remote control and receiver, terminate the link by inserting a male termination plug (P/N 91613017) into the DMX data output of the last device. An XLR termination plug is a connector with a 120 Ohm, 0.25 W resistor soldered across pins 2 and 3. You can also use an RJ-45 termination plug, available from your Martin Architectural dealer (P/N 91613028), or a 100 Ohm RJ-45 ISDN terminator.

Male DMX Termination Plug



P/N 91613017

Note: ***Never use more than one DMX out and one DMX in connector on a single device.***

If you are setting up stand-alone programs (see "Stand-alone operation overview" on page 23) on multiple luminaires on a data link and you experience random "flicker" or other unexplained control problems, insert a female termination plug (P/N 91613018) into the DMX IN socket of the first luminaire.

3. General operation

The 150W Base can be operated in two ways:

- you can program a stand-alone show into the fixture's memory, as outlined in *"Stand-alone operation overview"* on page 23.
- you can use an external DMX control device, as described in *"DMX controller operation"* on page 48

When the 150W Base is connected to power, the display will first blink A02, and then the software version number (double base fixtures will then also blink dob). The fixture will then reset. The text rSt will appear in the control panel display while this occurs. When the reset is completed, the fixture's DMX address will appear in the control panel display.

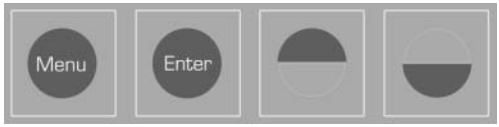
Two Alien 02 luminaires connected to a 150W Double Base will behave identically.

Control panel

The control panel is used to set the fixture address and other settings. It can also be used to create a stand-alone program, and to operate the fixture in a limited way manually for testing and service purposes.

Navigating the control menu

The control panel displays the fixture address at the top level of the menu. Any error messages are also displayed at the top level. To get to the top level of the menu, press [Menu] repeatedly. From the top level, press [Menu] to enter the main menu. Press [Up] or [Down] to scroll through menus and press [Enter] to view submenus. To activate a setting or function, press [Enter]. To return to the previous menu or to escape without making a selection, press [Menu].



Menu **Enter** **Up** **Down**

Inverting the display

Press [Up] and [Down] at the same time to turn the display upside-down for easier reading in ceiling-mount installations.

Control panel menus

The following menus and commands are available via the 150W Base control panel. See also page 59 for an overview of these.

Address menu (Adr)

Depending on the setting in the Profile menu (see below), the Address menu is used to set either the fixture's:

- DMX control address (1 - 506), allowing a fixture to be controlled by DMX signals from a DMX control device

or the fixture's:

- Infrared remote fixture ID number (0 - 9), allowing a fixture to be programmed using an IR remote control.

Profile menu (Pro)

Use the Profile menu to specify whether the fixture:

- should use the IR remote control system and has the IR receiver installed [rCS], or
- should use the IR remote control system and does not have the IR receiver installed [rCr], or
- should not use the IR remote system [d 1]. Always specify this option when the optional IR remote control system is not in use.

Stand-alone menu (SA)

Use the commands in the Stand-alone menu to program and execute scenes in stand-alone mode. See *"Setting synchronized triggering options"* on page 25 for further information.

Adjustment menu (AdJ)

The Adjustment menu (AdJ) allows manual control of luminaires for service use. See overview on page 61 for full details.

Personality menu (PEr)

The Personality menu sets the luminaire's basic characteristics:

Lamp-off [LOF] and reset [rES]

These options enable you to disable the lamp-off and reset commands that are used on DMX channel 1. If you are using a DMX control device with your 150W Base, these options eliminate the risk of accidentally selecting lamp-off on channel 1 during a show.

Automatic lamp on [ALO]

Automatic lamp on is set to [OFF] by default. If this option is enabled by setting to [On], the lamp strikes automatically within 90 seconds of applying power to the fixture. If you intend to run a stand-alone program (SA → run = On) that starts when the fixture is powered on, set Automatic lamp on to [On] to strike the lamp when the program starts.

Display [d IS]

If set to [On], the display panel on the 150W Base remains on permanently. If set to [OFF], the display is switched off 2 minutes after the last key press (but error and warning messages will still be displayed).

Store remote status [SrS]

This option is only relevant when you are using the optional infrared remote control and receiver. If the store remote status option is:

- set to [On] and you start or stop the programmed show using the IR remote control, the fixture will automatically start or stop the show next time it is powered on.
- set to [OFF], the IR remote control has no influence over the automatic starting of a programmed show at power-on. This is controlled by the SA → run menu (see *"Starting show playback"* on page 44).

Enable lamp off control from an MC-X [M7O]

With this option enabled, When using an MC-X control device to select and run scenes, button 7 can be used to turn the lamp off.

Error and warning message toggle [Err]

The default setting is [On], which means that any error messages can be seen at the top level of the control menu structure. When set to [OFF], error and warning messages are suppressed. This enables, for example, the continued programming of a fixture that has a non-critical error.

Head temperature fan regulation [tFH]

Switches the head fan in a 150W Single Base to temperature-regulated control (not available on a 150W Double Base).

Lamp hour warning [LHr]

Using this menu, you can enable or disable lamp life warnings and set the number of hours of expected lamp life. A resettable lamp hour counter operates that can be read and reset in the [InF] menu. When this counter reaches:

- 100 hours less than the predefined lamp hour warning level, the display will start blinking [Luu]. At this point you should change the lamp to avoid the risk of lamp explosion.
- the predefined lamp hour warning level, the lamp shuts off and cannot be turned on again before the counter is reset or the predefined lamp hour

warning level has been changed. At this point you must change the lamp, if you have not already done so.

We recommend that you activate the lamp hour warning function on the 150W Base and set hours to match expected lamp life. Remember to also reset the lamp hour counter using the Information menu.

Note: ***If you are operating two Alien 02 luminaires from a 150W Double Base, replace the lamps in both luminaires at the same time to ensure correct operation of the lamp hour warning function.***

Lamp error test [LEt]

When this option is set to [On] (the default setting), power to the lamp is cut if sensors detect a lamp error.

If power is cut while using a lamp that is known to be in good condition and cooling fans are clean and operating correctly, a sensor may be malfunctioning. Lamp error test can be set to [OFF] as a temporary measure. However, have the 150W Base inspected by a Martin service technician as soon as possible.

Restore factory defaults [FAC]

Restores factory default settings in the Personality menu.

Reset all counters [rEC]

Resets all resettable counters (these are found under the Information menu).

Information menu (InF)

The 150W Base provides readouts to track usage, temperature (in both the 150W Base and the Alien 02 luminaire), maintenance intervals, lamp life, and software version. For full details, see the Information menu (I nF) section of the Control Menu Overview on page 63.

The following readouts are available:

- [UEr] software version
- [tEH] head temperature
- [tEb] base temperature
- [Hr] fixture hours
- [LHr] lamp hours
- [LSt] lamp strikes

Note that lamp life hours are displayed in the control menu in multiples of 100, so that for example a lamp life of 5000 hours is displayed as 50. Note also that values from 1000 to 9999 are automatically scrolled, and counters roll over to 0 when they reach 10,000.

Displaying or resetting a counter

Scroll to [InF] in the main menu, press [Enter] and scroll to the desired readout. Press [Enter] and scroll to the desired option. Press [Enter] to display the information.

Note that the resettable counters [rES] in the [InF] menu can be set to zero by pressing and holding [Up] for approximately 5 seconds, until the readout displays [0].

Utility menu (Ut 1)

The Utility Menu is used to set Boot Upload Mode on and off. See *"Firmware updates"* on page 52.

Test menu (tSt)

This is for use by Martin service personnel only.

4. Stand-alone operation overview

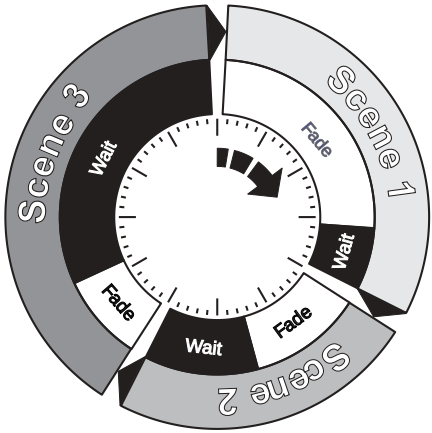
In stand-alone mode, no DMX control device is necessary. The 150W Base can be programmed to run a light show that consists of up to 20 scenes in a continuous loop. The light show can either be completely independent (single stand-alone operation) or light shows can be synchronized in a group of 150W Bases (synchronous stand-alone or host/client stand-alone operation).

Stand-alone light shows can be programmed by four methods:

- Fixture control panel. This method can be less convenient than the others, but no external devices are required. See *"Setting synchronized triggering options"* on page 25.
- Optional infrared remote control and receiver. Using this method, you can simultaneously select and program up to ten 150W Base fixtures on a single data link using a handheld remote. See *"Programming using the infrared remote control"* on page 29.
- PC running MUM software and connected to the 150W Base via a DABS1 interface device. See *"Programming using MUM"* on page 33.
- MP-2 uploading device. See*"Programming using the Martin MP-2 Uploader"* on page 40.

About scene timing

Each scene has a dynamic part – the fade – during which effects move to the scene's programmed positions, and a static part – the wait – where effects do not change.



The duration of the fade and wait is programmed individually for each scene. The fade time may be 0 - 120 seconds; the wait time may be 0 seconds - 12 hours. The total time it takes a scene to execute is the sum of the fade and wait times.

When operating multiple fixtures synchronously, the wait time is determined by the fixture that issues scene change commands (i.e. the host fixture). This fixture sends a scene change command when it reaches the end of the wait time for each of its scenes. Every other fixture (i.e. every client fixture) fades and waits at its own rate, then remains in the "wait state" until it receives a "start scene xx" command.

To avoid unexpected results when programming synchronous operation, try to ensure that:

1. All fixtures have the same number of scenes.
2. Respective scene times are a few seconds longer on the fixture that issues triggering commands.

For full details, see *"Synchronous triggering during stand-alone operation"* on page 46.

Synchronizing scene changes for multiple 150W Bases

If you are running multiple 150W Bases on a data link, you can synchronize scene changes. To set this up, you program all fixtures with their own light show, and then configure one fixture as host and the others as clients. The host fixture will trigger the scene changes in the client fixtures on the data link.

It is important to note that each individual fixture must be programmed with a show, and that the only commands that are passed are scene change triggers. No data about the appearance of the scene is transmitted between fixtures.

Setting synchronized triggering options

In the control menu:

1. Scroll to SA in the top level of the menus on the control panel and press [Enter].
2. Scroll to SAE and press [Enter].
3. Select:

   S In — If the fixture will operate in single fixture mode (independently of any other fixtures and with no synchronous triggering). This is the factory default setting.

   Snd — If the fixture will act as host, sending scene triggering signals to the other fixtures on the data link.

   SYn — If the fixture will act as a slave, "listening" for scene trigger signals on the data link.

4. Press [Enter].

5. Programming using the fixture control panel

The control menu in the 150W Base control panel can be used to program 20 scenes that make up a show. Note that:

- Each fixture can have up to 20 on-board scenes with individual fade and wait times.
- Scenes are numbered from 0 to 19.
- A scene contains a fade section where the fixture shifts to the scene, followed by a wait section where the scene effect is shown.

Before you begin programming

Stop the stand-alone program running:

1. Press [Menu] to return to the top level of the menu.
2. Scroll to SA in the top level of the menus on the control panel and press [Enter].
3. Scroll to run and press [Enter].
4. Scroll to OFF and press [Enter].
5. Press [Menu] to return to the top level of the menu.

If you are running multiple fixtures, ensure that:

- You have established a data link (see *"Data linking multiple luminaires"* on page 16).
- There is a termination plug in the last fixture in the data link.

Stand-alone programming menu (SA → Prg)

Use the stand-alone programming menu to create and store scenes. The paths described in this section can all be found under SA → Prg in the fixture control menu.

Scene “look” commands

SA → PrG	Int	0-255		Set intensity level (0 = closed).
	CYA	0-255		Set Cyan level
	MGA	0-255		Set magenta level
	YEL	0-255		Set Yellow level
	rAC	OFF		Disable random colors
		ALL	SLO	Set random colors, slow
			MED	Set random colors, medium
			FAS	Set random colors, fast
		CBG	SLO	Set random bluish colors, slow
			MED	Set random bluish colors, medium
			FAS	Set random bluish colors, fast
		MGY	SLO	Set random reddish colors, slow
			MED	Set random reddish colors, medium
			FAS	Set random reddish colors, fast
		CY	SLO	Set random greenish colors, slow
			MED	Set random greenish colors, medium
			FAS	Set random greenish colors, fast

Scene timing commands

SA → PrG	FAd	0-120	Set scene fade time in seconds
	uuA	0-55 seconds 1-50 minutes 1-12 hours	Set scene wait time (automatic rollover sec./min./hrs)

Scene management commands

SA → PrG	Add		Save scene to end of sequence
	nE		Call next scene
	PrE		Call previous scene
	StO		Save changes to current scene
	InS		Insert scene before current scene
	dEL		Delete current scene
	CLr	no	Cancel command
		YES	Delete all scenes (scene 0 and reload default)
	PrP		Preview program. Test run the currently stored scenes in the pre-programmed show once.
	gd		Capture DMX levels from a connected DMX control device. You can use a controller to set a scene, capture it with this menu command, and then store it as a scene.

Note: ***Control panel actions sometimes result in updates to the fixture's memory. If the fixture is powered off during this process, updates may be lost. A "Memory not yet stored" warning indicator appear as a blinking red dot in the left side of the control panel display during memory update. Do not power the fixture off while this is lit, or changes may not be stored in memory.***

6. Programming using the infrared remote control

Programming can be performed using an infrared (transmitter and receiver system that is available as an accessory from your Martin Architectural dealer. Infrared programming can be performed for a single fixture, or up to 10 fixtures on a data link.

The optional IR remote control device can be used to program 20 scenes that make up a show. Programming using the IR remote control is easiest when the display on the 150W Base control panel can be seen.

You can also program any MiniMAC Maestro and Imager fixtures on the same data link. Refer to these fixtures' user manuals for further information.

Before you begin programming

If you are running multiple fixtures, ensure that:

- You have established a data link (see *"Data linking multiple luminaires"* on page 16).
- There is no termination plug in the last fixture in the data link.

Ensure the stand-alone program is not running

To stop the current stand-alone program running:

1. Press [Menu] to return to the top level of the menu.
2. Scroll to SA in the top level of the menus on the control panel and press [Enter].
3. Scroll to run and press [Enter].
4. Scroll to OFF and press [Enter].
5. Press [Menu] to return to the top level of the menu.

Enabling infrared programming

Perform the following steps in this order:

1. Only the first fixture on the data link can have an IR receiver. Insert the receiver module into the serial data In socket. Position the sensor arm as desired but avoid turning it more than necessary as excessive strain may damage it.

2. From the top level of the menu, scroll to Pro, press [Enter].
3. If this fixture:
   - Does not have the IR receiver installed, scroll to rCr. Press [Enter].
   - Has the IR receiver installed, scroll to rCS. Press [Enter].
4. Press [Menu] to return to the top level of the menu.
5. Select Adr and press [Enter]. Select an IR fixture address from 0 to 9 and press [Enter]. Note that if you have multiple fixtures that will run the same stand-alone scenes, it might be a good idea for them to share the same IR fixture address. This will save time when programming, as they will all receive and process the scene programming instructions simultaneously.
6. Press [Menu] to return to the top level of the menu.
7. Stand 2 meters (6 ft.) away from the fixture, point the remote control at the receiver, and press the lamp power button. If there is no response, press the ID button. The fixture's display should blink. If there is still no response, reverse the sensor head by rotating the sensor arm 180° and folding it over.

Remote control commands

Important! ***The luminaire will acknowledge the receipt each valid IR command with a slight change in intensity.***

Fixture selection

Each fixture must be assigned an address from 0 - 9 during setup so that it can be individually controlled with the remote control. Note that fixtures can share an address if they are to have the same program.

To select a fixture, press ID and enter its address using the number keys. Multiple fixtures may be selected by entering more than one address. For example, pressing [ID] [1] [2] [3] selects fixtures 1, 2, and 3.

Lamp power

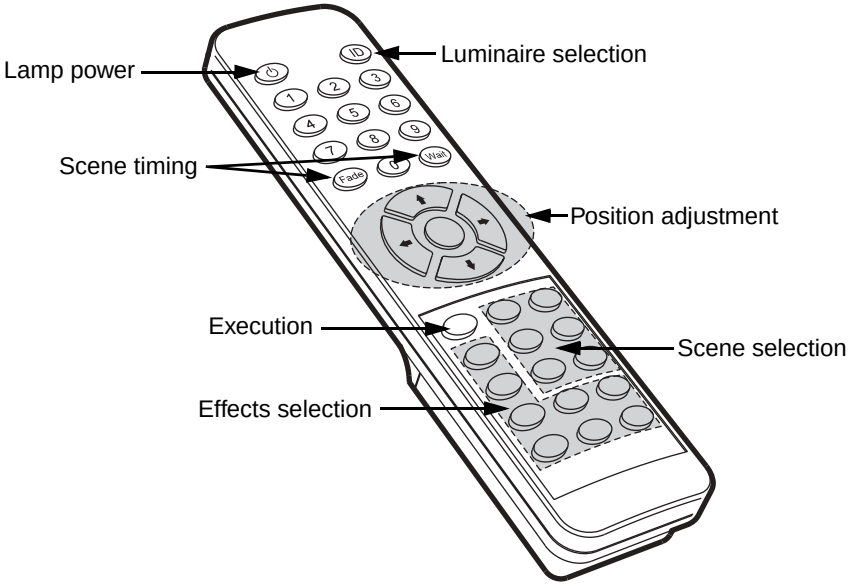
The lamp power button toggles lamp power on and off on selected fixtures. The button must be held for 5 seconds to turn lamp power off. Note: Lamps cannot be turned off during scene execution and a discharge lamp must cool for several minutes after being turned off before it can be turned back on. If the lamp is too hot to strike, Hot appears in the display.

Scene timing

Fade and wait times are set by pressing the scene timing buttons and entering the desired time in seconds using the number keys.

Scene Selection

Scenes are created, selected, saved, and deleted using the six scene keys. The current scene is displayed on the fixture display after the letter "r" during editing and after the letter "P" during execution.



- **Prev** (previous scene) scrolls backwards through scenes on selected fixtures.
- **Next** (next scene) scrolls forwards through scenes on selected fixtures.
- **Store** (store scene) saves effect and timing settings to the current scene.
- **Delete** (delete scene) removes the current scene from memory. Scenes above the deleted scene are renumbered.
- **INS** (insert scene) creates and saves a new scene before the current scene, which moves up a number.
- **ADD** (add scene) creates a new scene at the end of the sequence with the settings that are active when the scene is created.

00 | 01 | 02

Store saves settings in the current scene.

00 | 01 | 02 | 03

Add saves settings in a new scene at the end of the sequence.

00 | 01 | 02 | 03

Insert saves settings in a new scene before the current scene.

Effects Adjustment

The look of a scene is programmed by first selecting an option with the effect selection buttons and then adjusting the option with the position adjustment buttons. When two effects are assigned to a selection button, the up/down arrows control one effect and the left/right arrows control the other effect. If there is only one effect, the up/down arrows usually provide

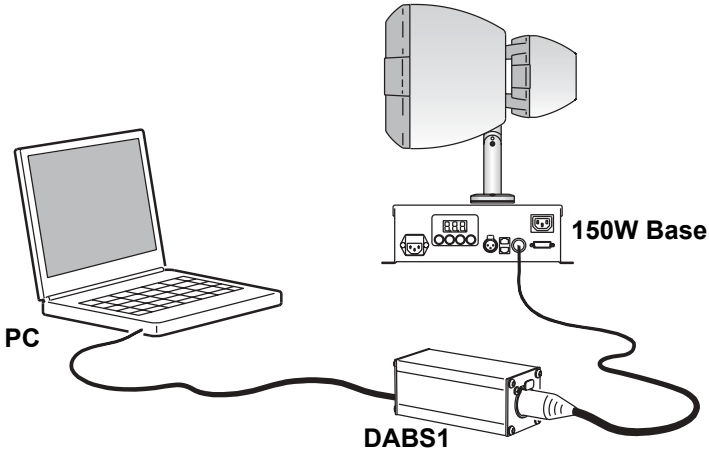
coarse adjustment and the left/right arrows usually provide fine adjustment. The middle button returns effects to a default position.

7. Programming using MUM

A PC running Martin Multi-Utility Manager (MUM) software, connected to the 150W Base via a DABS1 hardware interface, can be used to alter fixture settings or program stand-alone light shows containing up to 20 scenes. We recommend MUM because it provides an intuitive, easy-to-use, graphic user interface. A complete package containing MUM, the DABS1, documentation and all cables is available as an accessory from Martin Architectural dealers (P/N 90758090).

Before you begin programming

MUM software must be used with a DABS1 interface device. MUM only



allows you to connect to, and set up, one fixture at a time.

To get started:

1. Refer to the MUM user manual (available on the Martin website at http://www.martin.com) for instructions on installing and starting the MUM software.
2. Connect the PC and DABS1 to the XLR serial data link input of the 150W Base as described in the MUM user manual.

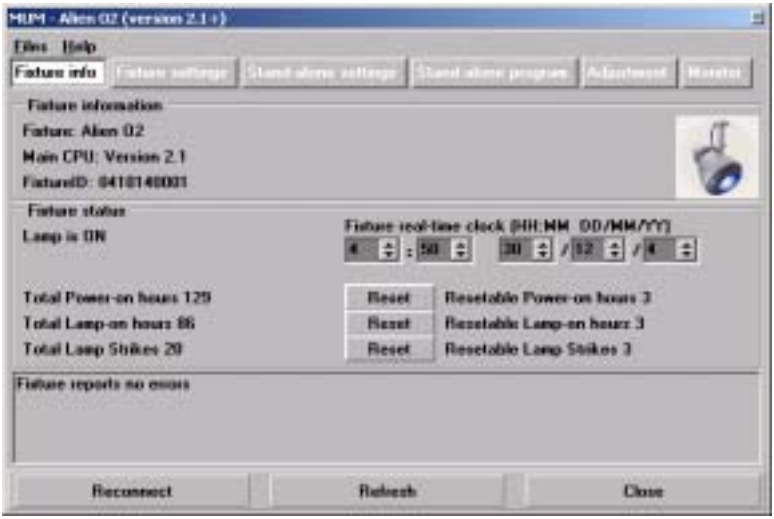
3. Power on the 150W Base and start the MUM application. The application will automatically detect a 150W Base if it is powered on and connected. It will also retrieve the current settings on the fixture and display them.

Fixture info

The MUM **Fixture info** window provides information about the 150W Base, including hours of use. It also gives access to the fixture's onboard battery-operated 24-hour clock.

To set the clock:

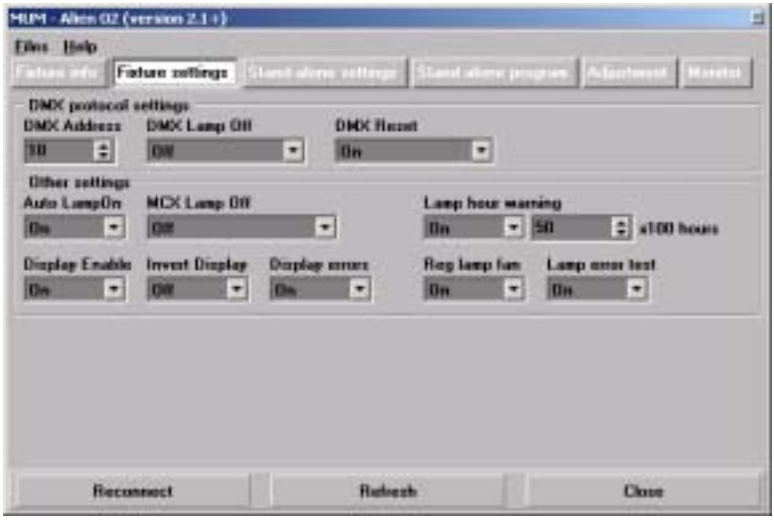
1. in the main MUM window, click on the **Fixture info** button:



2. Using the **Fixture real-time clock** spin buttons, set the fixture to the current time and date (expressed in the 24-hour clock in hours and minutes, then in DD/MM/YY format). The time will be updated in the fixture in real-time.

Fixture settings

To set additional fixture settings, click on the **Fixture settings** button:



DMX address

If you are not familiar with DMX lighting control, it will help if you read through *"DMX controller operation"* on page 48.

The DMX address (also known as the control address, or start channel) is the first channel used to receive instructions from the DMX controller. Each fixture needs its own DMX address set, and uses this address (and control channels immediately above this address) to receive instructions.

The 150W Base reads the data on its start channel and the next six channels. If the control address is set to 10, the fixture uses channels 10, 11, 12, 13, 14, 15 and 16. Channel 17 can be used as the DMX address for the next fixture.

If two or more fixtures are set up with the same address, they will receive the same instructions and should behave identically. Setting up identical fixtures with the same address is a good tool for troubleshooting unexpected behavior and an easy way to achieve synchronized action.

To set the DMX address in MUM, use the **DMX Address** spin buttons. The fixture address is updated in real time.

DMX Lamp Off

When the **DMX Lamp Off** personality is on (the default setting), lamp power can be turned off from the controller by setting channel 1 to a decimal value from 248 to 255.

DMX Reset

When the **DMX Reset** personality is on (the default setting), the fixture can be reset from the controller by setting channel 1 to a decimal value from 208 to 217.

Auto Lamp On

When the **Auto Lamp On** personality is on, the fixture turns on the lamp within 90 seconds of power on. When set to off (the default setting), a lamp-on command is required to turn on the lamp.

MC-X Lamp Off

By choosing the option **MCX Preset 7 key** from the **MCX Lamp Off** field, you enable button 7 on an MC-X controller to be used to control the lamp off function.

Lamp hour warning

Allows you to determine whether or not lamp life warning features are active and to set expected lamp life. To reduce the risk of lamp explosion, set the number of hours specified by the lamp manufacturer as a multiple of 100 (e.g. for a 5000 hour lamp life, set a value of 50) and set **Lamp hour warning** to **On**. The 150W Base will begin to flash a warning 100 hours before lamp life is reached and cut power to the lamp when lamp life is reached.

Display Enable

If the **Display Enable** option is set to **Off**, the display goes out two minutes after the last key press. A new key press (for minimum 2 seconds) or error message will reactivate the display.

Invert Display

Turns the display upside-down for easier reading if the 150W Base is ceiling-mounted.

Display errors

If the **Display errors** option is set to **On**, error messages are flashed on the display regardless of the **Display Enable** setting. If set to **Off**, error messages are not displayed.

Reg lamp fan

Sets the cooling fan to either temperature-regulated control for quieter operation or to full power for maximum cooling.

Lamp error test

Internal circuitry cuts power if a lamp error is detected. If power is cut while using a lamp that is known to be in good condition and cooling fans are clean and operating correctly, the sensors may be malfunctioning. **Lamp error test** is set to **On** by default. It can be set to **Off** as a temporary

measure, but if you do this, have the 150W Base inspected by a Martin service technician as soon as possible.

Stand-alone programming with MUM

Stand-alone Settings

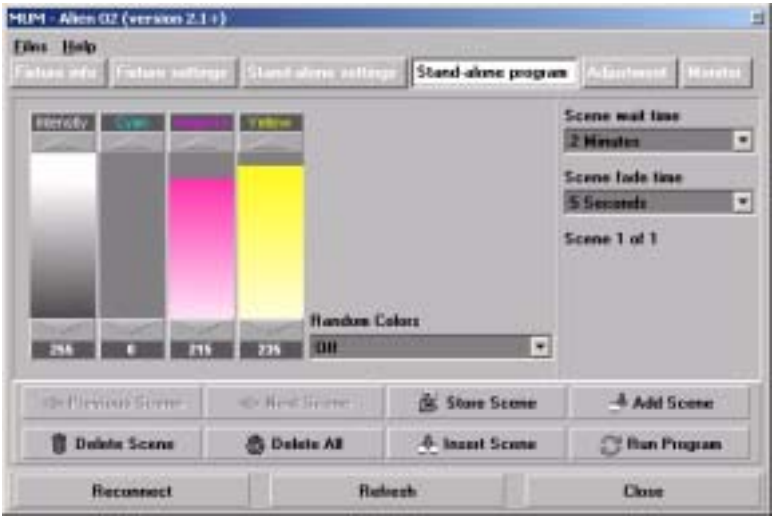
Each 150W Base needs to be configured in stand-alone mode. Click **Stand-alone settings** to display the following window.

The following options are available:

Stand-alone operation	Enables or disables stand-alone operation.
Synchronized	Specifies if the fixture operates as a: • **Single Fixture** (runs independently of any other fixtures) • **Host** (triggers other fixtures) or • **Synchronized** (client fixture, receives trigger signals from a host fixture). **Note:** No more than one fixture may operate as host. However, any fixture on the data link, regardless of its position, may be set as host. All other fixtures must be set as client fixtures by setting them to **Synchronized**.

Programming a stand-alone show

Once the stand-alone settings have been configured, click on **Stand-alone program** to program a light show.



The following options are available:

Intensity	Sets dimmer level.
Cyan **Magenta** **Yellow**	Selects color by CMY levels.
Scene fade time	The fade time, which can be between Snap (as close as possible to 0 seconds) and 2 minutes, is the time it takes to change from one color to another.
Scene wait time	This is the duration a color is applied. A wait time can be between 0 seconds and 12 hours. If wait times are set to 0 seconds, colors will change continuously.

Synchronizing shows on multiple fixtures

To synchronize scene changes, you need to set up one ‘host’ fixture to trigger show starts and scene changes in the other ‘client’ fixtures. Each client fixture needs to have its own show programmed. The host fixture triggers the client fixtures’ show starts and scene changes in a cycle in time with its own show.

Each client fixture will run its programmed show in a loop, changing scene when it receives a trigger from the host fixture that tells it to go to a scene number. When the host fixture finishes its own show, it sends a ‘go to

scene 1' trigger that causes the client fixtures to start their shows again from scene 1.

Note: Each individual fixture must be programmed with its own show – the host fixture only sends signals specifying the current scene number. No data about the appearance of the scene is transmitted between fixtures.

Scene management

Once you have specified a mix of effects, you can store the scene using the buttons available in the main MUM window:

Store scene	Save settings in the current scene.
Add scene	Save settings in a new scene at the end of the sequence.
Insert scene	Save settings in a new scene before the current scene, which moves up a number. *Tip: Think of the **Add scene** and **Insert scene** commands as Save commands, to be used as the last step after programming all effects.*
Delete scene	Remove the current scene from memory. Scenes after the deleted scene move one number closer to the start of the show.
Next scene	Step to the next scene.
Previous scene	Step to the previous scene.
Delete all	Remove all scenes from the fixture memory.
Run program	Run the scenes in the current programmed show.

When the show is run, scenes execute in a continuous, ascending loop.

Note: If a client fixture has:

- Fewer scenes than the host fixture, it will run these in a cycle continuously until the host fixture signals that the show should start from the beginning again.
- More scenes than the host fixture, then the additional scenes will never run, because the show will reset to the first scene when the host starts its show from the beginning.

Adjustment and monitoring with MUM

Click on the Adjustment and Monitor buttons respectively to manually move effects for adjustment during service and to monitor temperatures. Head temperature monitoring is only available for Single Base models.

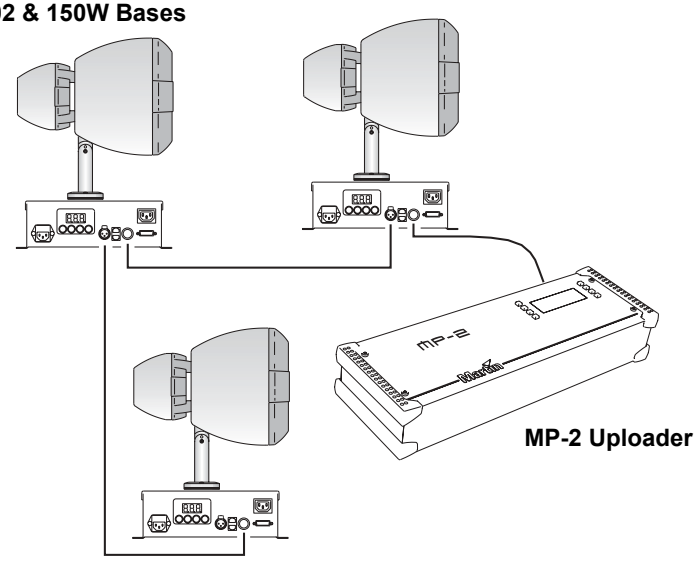
8. Programming using the Martin MP-2 Uploader

Defining fixture settings using an MP-2

The MP-2 Uploader can be loaded with the 150W Base's control software and connected to a fixture or data link. (Please refer to the MP-2 user manual for details on how to do this).

An MP-2 allows you to apply settings globally to multiple fixtures on a data link.

Alien 02 & 150W Bases



MP-2 Uploader

The MP-2 has a text-based interface and does not receive feedback from fixtures. Therefore, the current settings of the fixture can only be "read" by observing the behavior of the fixture.

Single Address and *All Addresses* modes

The MP-2 provides two ways to access fixtures: *Single Address* mode and *All Addresses* mode. In *Single Address* mode, the MP-2 communicates only

with the fixture at a designated address. In *All Addresses* mode, the MP-2 communicates with all fixtures of the same type to which it is connected.

Fixture-specific settings (such as the control address) should be made in *Single Address* mode. If no other fixtures are connected to the MP-2, however, *All Addresses* mode may be used.

Global settings are easiest to apply in *All Addresses* mode.

DMX address

The DMX address, also known as the control address, or start channel, is the first channel used to receive instructions from an external source. For individual control, each fixture needs its own control address set, and uses this address and the control channels immediately above it to receive instructions from an uploader or controller.

The 150W Base uses seven control channels. It reads the data on the start channel and the next six channels. If the control address is set to 100, the fixture uses channels 100, 101, 102, 103, 104, 105, and 106. Channel 107 is available as control address for the next fixture.

If two or more fixtures are set up with the same address, they will receive the same instructions and should behave identically. Setting up identical fixtures with the same address is a good tool for troubleshooting unexpected behavior and an easy way to achieve synchronized action.

Important! ***When setting an individual fixture's control address, either use Single Address mode, or isolate all other fixtures from the MP-2 and use All Addresses mode.***

To set an individual fixture's control address:

1. Prepare an MP-2 as described in its user manual. If you know the address to which the fixture is currently set, (i.e. the address to change *from*), connect the MP-2 to the data link and use *Single Address* mode. Otherwise, use *All Addresses* mode and isolate the other fixtures on the data link from the MP-2. Apply power to the fixture.
2. Apply power to the MP-2, select **Read Memory Card** and then scroll to and select **Alien02**. Scroll to and select **Fixture Menu**.
3. If using *Single Address* mode, select **Single Address**. Scroll to the fixture's current address in the **Select Start Address** window and press **OK**. The MP-2 will now communicate with the fixture at this address.

   If using *All Addresses* mode, select **All Addresses**. The MP-2 will now communicate with all connected fixtures.
4. Select **Fixture address**.
5. Scroll to the control address you want to set the fixture(s) to and press **OK**.
6. Press **OK** again to confirm and save the setting.

Personality settings

The following settings are available in the MP-2's Personality menu to modify fixture behavior.

DMX lamp off: When the DMX lamp off personality is **On** (the default setting), lamp power can be turned off from the controller by holding a DMX value from 248 to 255 on channel 1 for minimum 5 seconds.

If the DMX lamp off personality is set to **Off**, this feature is disabled. An override exists, however – if channels 3, 4 and 5 are all set to 231-232, the lamp can be turned off on channel 1 as described above even if DMX lamp off is set to **Off**.

DMX reset: When the DMX reset personality is **On** (the default setting), the fixture can be reset from the controller by setting channel 1 to a decimal value from 208 to 217 for minimum 5 seconds.

If the DMX reset personality is set to **Off**, this feature is disabled. An override exists, however – if channels 3, 4 and 5 are all set to 231-232, the fixture can be reset on channel 1 as described above even if DMX reset is set to **Off**.

Auto lamp on: When the Auto lamp on personality is **On** (the default setting), the fixture turns on the lamp within 90 seconds of power on. When set to **Off**, a lamp-on command from a DMX controller is required to turn on the lamp.

Display Enable: If the **Display Enable** option is set to **Off**, the display goes out two minutes after the last key press. A new key press (for minimum 2 seconds) or error message will reactivate the display.

Invert Display: Turns the display upside-down for easier reading if the 150W Base is ceiling-mounted.

Save Remote Set: This option is only relevant when you are using the optional infrared remote control and receiver. If the store remote status option is:

- set to **On** and you start or stop the programmed show using the IR remote control, the fixture will automatically start or stop the show next time it is powered on.
- set to **Off**, the IR remote control has no influence over the automatic starting of a programmed show at power-on. This is controlled by the SA → run menu in the fixture's control panel (see *"Starting show playback"* on page 44)..

MC-X Lamp Off: When the MC-X Lamp-off personality is **On** (the default setting), the lamp can be doused with a command from an MC-X controller.

Temp Fan Lamp: Sets the cooling fan to either temperature-regulated control for quieter operation or to full power for maximum cooling..

Lamp Hour: Activates or disables lamp life warnings (lamp life settings can be altered via the control panel Information menu).

Lamp Error Test: Internal circuitry cuts power if a lamp error is detected. If power is cut while using a lamp that is known to be in good condition and cooling fans are clean and operating correctly, the sensors may be malfunctioning. **Lamp Error Test** is set to **On** by default. It can be set to **Off** as a temporary measure, but if you do this, have the 150W Base inspected by a Martin service technician as soon as possible.

Restore default: Restores all factory default settings.

Reset counters: Resets all resettable counters (these are accessed via the control panel Information menu).

To define a personality setting:

1. Prepare an MP-2 as described in its user manual. If you know the address to which the fixture is currently set, (i.e. the address to change *from*), connect the MP-2 to the data link and use *All Addresses* mode. Otherwise, use *All Addresses* mode and isolate the other fixtures on the data link from the MP-2. Apply power to the fixture.
2. Apply power to the MP-2, select **Read Memory Card** and then scroll to and select **Alien02**. Scroll to and select **Fixture Menu**.
3. If using *Single Address* mode, select **Single Address**. Scroll to the fixture's current address in the **Select Start Address** window and press **OK**. The MP-2 will now communicate with the fixture at this address.

   If using *All Addresses* mode, select **All Addresses**. The MP-2 will now communicate with all connected fixture.
4. Scroll to and select **Personality**.
5. Select the desired personality and setting. (See *"MP-2 control menu structure"* on page 64). Press **OK**.

9. Stand-alone show playback

Starting show playback

1. Scroll to SA in the top level of the menus in the control panel and press [Enter].
2. Scroll to run and press [Enter].
3. Scroll to On and press [Enter].

When the show starts to run, the current scene number will appear in the control panel display (unless the PEr → d IS menu has been set to OFF, in which case the display will switch off two minutes after the last key is pressed).

Important! ***Execution of the pre-programmed scenes in a loop will automatically resume when the fixture is powered-on if stand-alone is enabled and the automatic lamp-on (PEr → ALO) function is enabled (see "Automatic lamp on [ALO]" on page 20).***

Show Execution with the IR remote control

The Run/Stop button on the IR remote control toggles scene execution on/off on fixtures that are selected (see *"Fixture selection"* on page 30). Scenes execute in a continuous ascending loop.

All remote control functions except Run/Stop are disabled during show execution.

If the Store Remote Status option (see *"Store remote status [S-S]"* on page 20) is enabled, the Run/Stop button will also toggle the SA → run option to OFF or On, determining whether or not the fixture will automatically start its stand-alone show the next time it is powered on.

Scene execution Using the optional MC-X

The MC-X is an optional remote control unit that is available from Martin. Once the remote controller is connected, 7 scenes can be conveniently called up on the MC-X's buttons.

To enable control:

1. Connect the MC-X controller to the 150W Base's data input. If multiple 150W Bases are connected, plug the controller into the first fixture in the link.
2. On each 150W Base, select SA → run → OFF and press [Enter]. Press [Menu] to exit the SA menu.
3. On each fixture, select Pro → d1 and press [Enter]. Press [Menu] to exit the Pro menu.
4. To trigger scenes 00-06, press the numbered preset buttons on the MC-X.
5. To have each fixture run its own routine, press [Auto].

Using the PEr → M10 menu it is possible to set button 7 on the MC-X to control the lamp off function. See *"Control menu structure"* on page 59.

DMX controller override during stand-alone show playback

If a 150W Base is connected to a DMX controller and receives DMX signals during stand-alone show playback, the show will stop running and the fixture will respond to the DMX controller. DMX signals always have priority over the running of a stand-alone show.

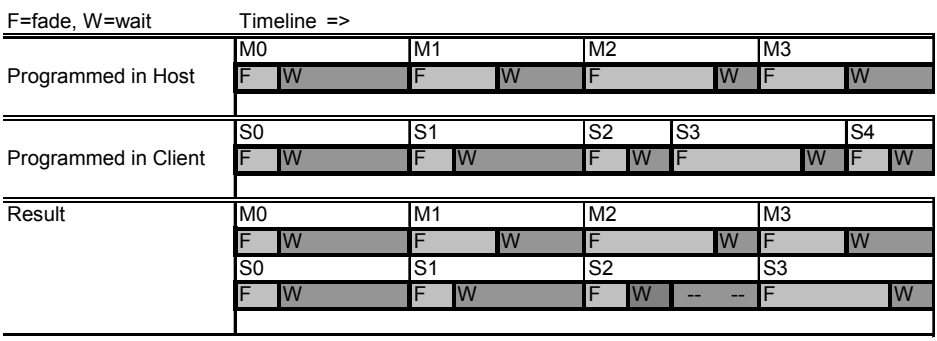
10. Synchronous triggering during stand-alone operation

Note: ***This chapter details the rules that are used in stand-alone synchronous triggering. It is not necessary to read this chapter unless you require help with problem diagnosis or unless you otherwise need a detailed understanding of the algorithm used for synchronous triggering.***

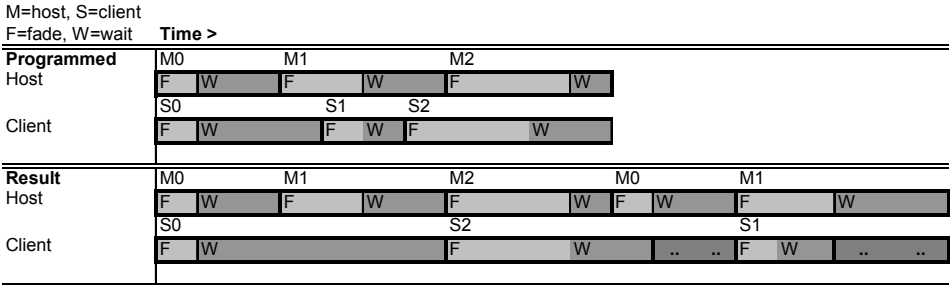
The rules are as follows:

1. Every fixture can have up to 20 on-board scenes with individual fade and wait times.
2. Scenes are numbered from 0 to 19.
3. A scene contains a fade-section, followed by a wait-section.
4. When running "synchronous triggering" one 150W Base issues commands to the other 150W Bases to "go to scene xx", where xx is the scene number that host will execute next.
5. If a client has fewer scenes than the host, it will derive which scene to go to by dividing the number of the scene it has been commanded to go to (scene 5, for example) by the total number of scenes that the client fixture has (4, for example) in whole numbers (no decimal places). In this example 5 divided by 4 results in 1, with 1 remainder. This remainder will be the number of the scene that the client fixture starts - scene 1. Generally though, when a client fixture reaches its own last scene before the host fixture, a "go to scene x" message will result in the first scene being played.

6. If a client has more scenes than the host calls, the last scenes in the client will never be executed, as is the case with scene S4 in the following example.



7. A client fixture will not listen for the next message from the host fixture before it has finished its current scene. This may result in a client skipping a scene if client has a longer scene time than host. Note that in the following example the scenes in the client run out of their programmed sequence because scenes 0 and 2 on the client are longer than the corresponding scenes on the Host.



11. DMX controller operation

The 150W Base may be programmed and operated with any lighting control device that is compatible with the USITT DMX standard. This section describes how to operate the system with a controller. See *"DMX protocol"* on page 67 for specific control values.

Connecting a DMX control device

Connect a data cable to the controller's data output. If you are using XLR connectors and the controller has a 5-pin output, use a 5-pin male to 3-pin female adaptor cable (P/N 11820005). Lead the cable from the controller to the first 150W Base and plug it into the data input.

Control address selection

The 150W Base requires 7 DMX control channels. The DMX address, also known as the start channel, is the first control channel used. It is a logical address to which control instructions are sent. In this way a controller, can send instructions to a fixture, or fixtures, at a particular address. For example when using seven channels of control data, the 150W Base reads the data on the start channel (DMX address) and the next six channels. If the DMX address is set to 100, the 150W Base uses channels 100, 101, 102, 103, 104, 105, and 106.

Be sure to allow adequate channels when setting the control address. If control channels for one fixture overlap control channels for another fixture, then one of the fixtures will receive the wrong commands. Two 150W Bases may share the same address if they are to respond identically. They will receive the same commands and individual control will be impossible.

The default factory set control address is '1'.

Setting the control address

1. Scroll to **Pro** in the top level of the menus on the control panel and press [Enter].
2. Select **d 1** to enable DMX control. Press [Enter].

3. Press [Menu] to return to the top level of the menu.
4. Scroll to Adr in the top level of the menus on the control panel and press [Enter]. The current address is displayed.
5. Scroll to the address that is assigned to the fixture on the controller. Press [Enter] to activate the address setting.

Disabling stand-alone operation

DMX control always overrides a stand-alone show that is running, but if stand-alone mode is enabled and no DMX signal is received, the 150W Base will attempt to run any stand-alone show in its memory. To prevent this:

1. Press [Menu] to return to the top level of the menu.
2. Scroll to SA in the top level of the menus on the control panel and press [Enter].
3. Scroll to run and press [Enter].
4. Scroll to OFF and press [Enter].

Lamp control

Important ***Avoid striking several lamps at once!***

The lamp can be turned on and off from the controller using the lamp-on and lamp-off commands on channel 1. To prevent accidental lamp-off commands, lamp off can be partially disabled from the using the PEr → LOF menu on the control panel (see *"Control menu structure"* on page 59). If the DMX Lamp-off personality is off, the lamp-off command on channel 1 executes only if each of the CMY channels (3, 4, and 5) is set to a DMX value from 230 to 232.

Strike lamps one at a time at 5 second intervals. Striking many lamps at once may cause a voltage drop large enough to prevent lamps from striking, damage electronics, and trip circuit breakers. To have the lamp strike automatically at power-up, set the Automatic Lamp-on personality to on (see *"Personality menu (PEr)"* on page 19).

The lamp must be allowed to cool for 5 minutes after turning it off before it can be turned back on. A 5-minute hot-restrike delay is programmed into the 150W Base software to ensure that this occurs. If a hot lamp does not strike, send the lamp off command and wait several minutes before trying again.

Based on the presence of a temperature change 5 minutes after lamp strike a 150W Single Base can detect if the lamp has not been successfully struck. It will wait 5 minutes and then automatically try re-strike the lamp. If

this second attempt fails the LE message will appear. When this happens a lamp off command must be issued before attempting to re-strike the lamp.

Effects

The mechanical effects reset to their home positions when the fixture is powered on. Effects can also be reset from the controller on channel 1. If the DMX Reset personality is off, the reset command on channel 1 executes only if each of the CMY channels is set to a DMX value from 230 to 232.

Intensity

The fixture provides smooth, high resolution, full-range intensity control on channel 2.

CMY subtractive color mixing

The CMY color mixing system is based on cyan, magenta, and yellow color filters. A continuous range of colors may be achieved by varying the amount of each filter from 0 to 100% on channels 3, 4, and 5. To execute specific color values, channel 6, random color mixing, must be set to 0%.

Note that mixing 3 colors results in a loss of light - the light is blacked out when all 3 colors are fully applied. For maximum brightness, mix only 2 colors at a time.

If you have Exterior 600 and Exterior 200 fixtures rigged in the same installation then refer to *"Service"* on page 52.

Random color mixing

Random color mixing at slow, medium, and fast speeds is available on channel 6. The colors can be mixed from any two, or all three, of the primary subtractive colors. Choosing a random mixing of just two of the primary subtractive colors will result in the following types of tones:

Combination	Result
Cyan & magenta	Bluish tones
Cyan & yellow	Greenish tones
Magenta & yellow	Reddish tones

Table 3: Random color mixing

These random commands take precedence over values set on the cyan, magenta, and yellow channels.

Effect speed

The speed at which effects fade, that is, move from one position to another, can be controlled in two ways known as tracking control and vector control. You may switch between tracking and vector control, but you cannot use both at the same time.

Tracking control is enabled by setting channel 7, the speed channel, to a decimal value from 0 to 2. Fades are then programmed using the controller's cross-faders. The 150W Base has a digital filter algorithm that averages several updates to ensure smooth movement.

Vector control provides a way to program fades on controllers without cross-faders and may provide smoother fades than tracking control with some controllers, particularly on very slow fades. A vector speed is programmed by setting channel 7 to a decimal value from 3 (fastest) to 245 (slowest). The speed setting applies to intensity control and color fades. When using vector control, the controller cross-fade time, if available, must be 0.

12. Service

This section describes service procedures that can be performed by the user. Refer all service not described here to a qualified Martin technician.

Warning! **Disconnect the fixture from power before removing any cover.**

Cleaning

Wipe the aluminum housing of the 150W Base with a soft brush or sponge and a mild, non-abrasive car washing detergent. Finally, wipe clean with a cloth rinsed in clean water and squeezed or wrung.

Use a vacuum cleaner on low suction and an artist's brush to clean the fan.

Firmware updates

Software updates are released when features are added. The latest version is available from the Support Area of the Martin web site at http://www.martin.dk.

The installed software version number is displayed in the control panel under the InF → UEr menu.

Requirements

Software is installed using one of the following upload devices:

- Martin MP-2 Uploader
- PC using any DMX interface that supports the Software Uploader program (for example a Martin LightJockey or DABS1 interface)

The following are required in order to install software:

- The 150W Base update file, available for download from the User Support Area of the Martin we site (http://www.martin.com).
- The Software Uploader program, version 5.3 or later - supplied with the Martin MP-2, LightJockey or MUM, or available for download from the support pages for these products in the User Support Area of the Martin website.

Important! ***In DMX or SA mode (stand-alone mode) the data link must be terminated.***

In IR-mode, press the ID button for approx 5 sec. The fixtures will then go into DMX-mode and the firmware can be uploaded. Remove the IR-remote receiver and terminate the link. Powering the fixture on and off will return it to IR mode again.

For guidance on preparing a LightJockey, MP-2 or Software Uploader, refer to the user documentation and online help for these products. Follow these instructions before proceeding to the next section.

Updating fixture firmware with the MP-2 Uploader

1. Connect a prepared MP-2 Uploader to the DMX link on the 150W Base. Apply power to the fixtures and the MP-2. Wait a few moments for the fixtures to reset.
2. Select **Read Memory Card** from the MP-2 main menu.
3. Use the buttons on the right to scroll through the card slots. Select the slot that holds the desired version of the 150W Base firmware.
4. Select **Update Software**. Select **Yes** to confirm.
5. Select **Update in DMX mode** to start the upload. The MP-2 initializes all connected 150W Bases.
6. After a successful upload the fixtures reset with the new software. If an error occurs and the fixtures do not reset, data was interrupted or corrupted during transmission. Perform a boot mode upload as described in the following section.

Boot sector upload

If the normal upload procedure does not work, or if the software update notes call for a boot sector update. Boot sector update mode needs to be set either in the control menu, or by moving a jumper on the PCB in the 150W Base.

Performing a boot sector update by moving a PCB jumper

1. Make sure the 150W Single Base is isolated from AC power.
2. Open the cover using a 2.5 mm Allen wrench.
3. Referring to *"Printed circuit board layout"* on page 58, locate the jumper at position PL12. Move the jumper to the "ENABLE" position (the two pins closest to the fuses on the printed circuit board).
4. Perform a boot mode upload as described in the uploader manual.
5. When the upload is complete, disconnect the fixture from power and move the jumper at PL12 back to the "DISABLE" position (the two pins farthest away from the fuses on the printed circuit board).
6. Replace the cover.

Performing a boot sector update via the control menu

1. Select the Utility (UtL) menu from the control menu.
2. Select Upload (UPL) and then select YES to place the fixture in Boot Upload Mode.
3. Perform a boot mode upload as described in the uploader manual.

Fuse replacement

Warning! ***Always replace fuses with ones of the same size, type and rating!***

The main fuse is a 3.15 AT fuse located in a holder above the mains input socket.

Replacing the main fuse

Main fuse replacement requires a small flat-head screw driver.

To replace a fuse:

1. Open the fuse holder just above the mains input socket using a small flat-head screwdriver.
2. Remove the installed fuse, insert a fuse of the correct type and rating, and place the holder back in the mains input socket.

13. Troubleshooting

Problem	Probable cause(s)	Remedy
No response from fixture when power is applied.	No power to fixture.	Check power and data cables.
	Primary fuse blown.	Replace fuse.
Fixture resets but does not respond correctly to controller (DMX mode operation).	Controller not connected.	Connect controller.
	Incorrect addressing of the fixtures.	Check address setting on fixture and controller.
	Bad data link connection.	Inspect cables and correct poor connections and/or broken cables.
	Conflict between tracking and vector control.	Eliminate scene cross-fade on controller or set ch. 7 to 0%.
	Data link not terminated.	Insert termination plug in output of last fixture.
	Defective fixture or 2 devices transmitting on link.	Bypass fixtures one at a time until normal operation is regained: unplug both connectors and connect them directly together.
Fixture does not reset correctly.	Electronic or mechanical failure.	Contact service technician.
No light, lamp cuts out intermittently, or burns out too quickly.	Lamp missing or blown.	Disconnect luminaire from power and replace lamp.
	Fixture or lamp is too hot.	Allow fixture to cool. If problem persists, contact service technician.
	Incorrect power supply setting.	Check setting.

Table 4: Troubleshooting

14. Error messages

Message in display	Error	Remedy
EEE	EPROM error	Contact your Martin Architectural dealer for service.
rAE	Memory error	Contact your Martin Architectural dealer for service.
FPE	FPGA error	Contact your Martin Architectural dealer for service.
drE	Driver error	Update the firmware. See *"Firmware updates"* on page 52.
		If updating the firmware does not help, then contact your Martin Architectural dealer for service.
Huu	Alien 02 head temperature warning: temperature in the Alien 02 luminaire too high. (applies to 150W Single Base only)	Check that there is enough space around the air vent.
		Check that the ambient temperature does not exceed 40° C (104° F).
		Clean the air filter as described in Alien 02 manual.
		Contact your Martin Architectural dealer for service.
tHE	Alien 02 head temperature error.	The lamp cannot be struck (applies to 150W Single Base only). Contact your Martin Architectural dealer for service.
buu	150W Base temperature warning.	Check that the fan is functioning and that there is enough space around the air vent.
		Check that the ambient temperature does not exceed 40° C (104° F).
		Contact your Martin Architectural dealer for service.
tbE	150W Base temperature error.	The fixture cannot operate correctly because of a temperature error. Contact your Martin Architectural dealer for service.
Luu	Lamp warning. The lamp has less than 100 hours until the end of its expected life.	Replace the lamp(s) in the Alien 02 luminaire(s).
LHE	Lamp hour expected life has been reached and the lamp shuts off.	Replace the lamp(s) in the Alien 02 luminaire(s).

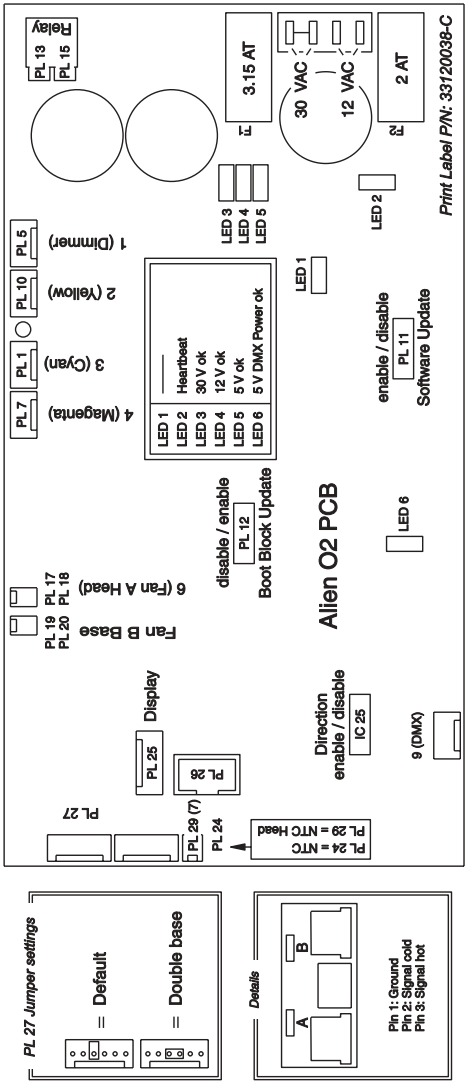
Table 5: Error messages

Message in display	Error	Remedy
rtE	Real time clock error.	The battery on the mother board needs to be replaced. Contact your Martin Architectural dealer for service.
LE	Lamp error. Based on the presence of a temperature change 6minutes after lamp strike a 150W Single Base can detect if the lamp has not been successfully struck. It will wait 6minutes and then automatically try re-strike the lamp. If this second attempt fails the LE message will appear. (note - feature available on 150W Single Base only)	Replace the lamp if necessary Check and replace fuses if necessary Check that the fan is functioning and that there is enough space around the air vent. Issue a Lamp off command before attempting to strike the lamp again. Contact your Martin Architectural dealer for service.
Hot	Lamp too hot to strike.	Allow total cooling time of 6 minutes before attempting to restrike a lamp.
SHt	Short circuit error.	Contact your Martin Architectural dealer for service.

Table 5: Error messages

15. Printed circuit board layout

Note that PL27 must be set if you are replacing the PCB in a 150W Double Base.



16. Control menu structure

The table below gives an overview of the control menu available in the 150W Base control panel.

Default settings appear in bold type.

Level 1	Level 2	Level 3	Level 4	Level 5	Effect (default = bold)
Adr	DMX: 1-506 IR: 0-9				Select control address for DMX or IR profile. (IR address is selectable when Pro → rCS or Pro → rCr are selected. DMX address is selectable when Pro → d1 is selected). **Default address is 1.**
Pro	d1				**IR remote not used (set to this option when using DMX control, or whenever infrared is not used).**
	rCS				Set IR remote control "send" mode. If the fixture has an IR receiver device installed, it will send programming and triggering signals to other 150W Base fixtures on the data link. Only one fixture on the data link may have this set.
	rCr				Set IR remote control "receive" mode. The fixture will listen for programming and scene triggering information. Set all 150W Base fixtures on the data link that do not have an IR receiving device installed to rCr.
SA	run	OFF			**Stop execution of the stand-alone program.**
		On			Execute the stand-alone program. When the luminaire is powered on, the stand-alone program will start automatically.
	SAE	S In			**Single fixture: luminaire operates in isolation.**
		Snd			Luminaire is set as host and will send synchronizing signals in stand-alone operation.
		Syn			Luminaire is set as client and will receive synchronizing signals in stand-alone operation.

Table 6: Control menu structure

SA (contd.)	Prg	Int	0-255		Set intensity level (0 = closed).
		CYA	0-255		Set cyan level.
		MGA	0-255		Set magenta level.
		YEL	0-255		Set yellow level.
		rAC	OFF		Disable random colors.
			ALL	SLO	Set random colors, slow.
				MED	Set random colors, medium.
				FAS	Set random colors, fast.
			CMG	SLO	Set random bluish colors, slow.
				MED	Set random bluish colors, medium.
				FAS	Set random bluish colors, fast.
			MGY	SLO	Set random reddish colors, slow.
				MED	Set random reddish colors, medium.
				FAS	Set random reddish colors, fast.
			CY	SLO	Set random greenish colors, slow.
				MED	Set random greenish colors, medium.
				FAS	Set random greenish colors, fast.
		FAd	0- 120		Set scene fade time in seconds.
		uuA	0- 12h		Set scene wait time in secs./mins./hrs.
		Add			Save scene to end of sequence.
		nE			Call next scene.
		PrE			Call previous scene.
		StO			Save changes to current scene.
		Ins			Insert scene before current scene.
		dEL			Delete current scene.
		CLr	no		Cancel command.
			YES		Delete all scenes (scene 0 and reload default).
		PrP			Preview program.
		9d			Capture DMX levels.

Table 6: Control menu structure

AdJ	rSt		Reset effects to home position.
	LOn		Turn lamp on.
	LOF		Turn lamp off.
	ALL	OPn	Move all effects to open position.
		CLO	Move all effects to closed position.
	Int	OPn	Intensity 100%.
		CLO	Intensity 0%.
	CYA	OPn	Move cyan flag to open position.
		CLO	Move cyan flag to closed position.
	MA	OPn	Move magenta flag to open position.
		CLO	Move magenta flag to closed position.
	YEL	OPn	Move yellow flag to open position.
		CLO	Move yellow flag to closed position.

Table 6: Control menu structure

PEr	LOF	OFF		Disable lamp off without confirmation.
		On		**Enable lamp off without confirmation.**
	rES	OFF		Disable reset without confirmation.
		On		**Enable reset without confirmation.**
	ALO	OFF		**Strike lamp from controller or display.**
		On		Automatically strike lamp within 90sec from power on.
	dI S	OFF		Turn display off 2 minutes after key press
		On		**Keep display lit permanently.**
	SrS	OFF		The Run/Stop button on the IR remote control does not affect the setting on the SA → run option. See *"Store remote status [SrS]"* on page 20.
		On		**The Run/Stop button on the IR remote control also toggles the SA → run option on or off. See *"Store remote status [SrS]"* on page 20.**
	mO	OFF		**Disable MC-X lamp off. See *"Scene execution Using the optional MC-X"* on page 45.**
		On		Enable MC-X button 7 lamp off. See *"Scene execution Using the optional MC-X"* on page 45.
	Err	OFF		Error and warning messages disabled.
		On		**Error and warning messages enabled.**
	tFH (single base only)	OFF		Head fan temperature regulation disabled.
		On		**Head fan temperature-regulated.**
	LHr	OFF		**Lamp hour warning disabled.**
		On	0.1 - 99.9	Enable lamp hour warning and set value in multiples of 1000 hours (e.g. 5.0 = 5000 hrs).
	LEt	OFF		Lamp error test disabled.
		On		**Lamp error test enabled.**
	FAC	no		Restore default factory settings.
		YES		
	rEC	no		Reset all counters.
		YES		

Table 6: Control menu structure

InF	UEr		Read firmware version number.
	tEH (150W Single Base only)	CUr	Read current temperature in head [°C].
		tOt	Read maximum temperature in head since fabrication [°C].
		rES	Read maximum temperature in head since reset [°C]. Press and hold the [Up] button for 5 seconds to reset.
	tEb	CUr	Read current temperature in base [°C].
		tOt	Read maximum temperature in base since fabrication [°C].
		rES	Read maximum temperature in base since reset [°C]. Press and hold the [Up] button for 5 seconds to reset.
	Hr	tOt	Read power-on hours since fabrication.
		rES	Read power-on hours since counter was reset. Press and hold the [Up] button for 5 seconds to reset.
	LHr	tOt	Read lamp hours since fabrication.
		rES	Read lamp hours since counter was reset. Press and hold the [Up] button for 5 seconds to reset.
		UAL	Read set value for lamp life warning. NB: the value displayed must be multiplied by 100 (e.g. 50 = 5000 hrs).
	LSt	tOt	Read lamp strikes since fabrication.
		rES	Read lamp strikes since counter was reset. Press and hold the [Up] button for 5 seconds to reset.
UtL	UPL	YES	Set luminaire to Boot Upload Mode.
		no	Disable Boot Upload Mode.
tSt	Pcb	YES	Test PCB (for service use only).
		no	

Table 6: Control menu structure

17. MP-2 control menu structure

To access the control options in the table below:

1. Connect and power on the MP-2
2. Select **Read Memory Card**
3. Scroll to and select **Alien02 VX.X.X** (where X.X.X is the software version number)
4. Select **Fixture Menu**
5. Select either **All Addresses** or **Single Address** (in *Single Address* mode you must indicate the DMX address of the fixture you want to upload to – see also page 42).

Level 1	Level 2	Level 3	Level 4	Level 5	Effect (default settings bold)
Fixture address	**1-506**				Select DMX address (start channel).
Stand alone	**Enable SA**	**Off**			Disable stand-alone operation.
		On			**Enable stand-alone operation (default setting).**
	SA Execution	**Single Fixture**			**Enable independent operation (default setting).**
		Host			Enable host operation.
		Synchronised			Enable client operation.

Table 7: MP-2 control menu structure

Level 1	Level 2	Level 3	Level 4	Level 5	Effect (default settings bold)
Stand alone (continued)	**Program**	**Intensity**	**0-255**		Set dimmer level.
		Cyan	**0-255**		Set cyan level
		Magenta	**0-255**		Set magenta level
		Yellow	**0-255**		Set yellow level
		Random colors	**Random off**		Disable random colors.
			CMY slow - Cyan/yel fast		Scroll to select random CMY, MY, CM and CY color mixes at fast, medium and slow rates.
		Fade time	**Snap**		Set scene fade time to zero, so that scene changes are immediate.
			1s - 2m 0s		Set scene fade time from 1 second to 2 minutes.
		Wait (trig) time	**0s - 12h**		Set scene wait time from 0 seconds to 12 hours.
		Add scene	**Go**		Save new scene to end of sequence.
		Next scene	**Go**		Call the next scene.
		Previous scene	**Go**		Call the previous scene.
		Store scene	**Go**		Save changes to current scene.
		Insert scene	**Go**		Save new scene before current scene.
		Delete scene	**Go**		Delete the current scene.
		Clr all scenes	**No**		Cancel command.
			Yes		Delete all scenes.
		Preview program	**Leave**		Preview the scenes in the program.
Adjust	**Reset**	**On**			Reset effects to home position.
	Lamp on	**On**			Turn on lamp.
	Lamp off	**Off**			Turn off lamp.
	All effects	**Open**			Move all effects to open position.
		Closed			Move all effects to closed position.
	Intens-ity	**Open**			Move dimmer to open position.
		Closed			Move dimmer to closed position.
	Cyan	**Open**			Move cyan flag to open position.
		Closed			Move cyan flag to full position.
	Magenta	**Open**			Move magenta flag to open position.
		Closed			Move magenta flag to full position.
	Yellow	**Open**			Move magenta flag to open position.
		Closed			Move magenta flag to full position.

Table 7: MP-2 control menu structure

Level 1	Level 2	Level 3	Level 4	Level 5	Effect (default settings bold)
Personal-ity	Dmx lamp off	**Off**			Disable lamp dousing via DMX.
		On			**Enable lamp dousing via DMX.**
	Dmx reset	**Off**			Disable fixture resetting via DMX.
		On			**Enable fixture resetting via DMX.**
	Auto lamp on	**Off**			Lamp must be struck from controller.
		On			**Strike lamp automatically within 90 seconds of power on.**
	Display Enable	**Off**			Display extinguishes 2 min. after last key press.
		On			**Display permanently on.**
	Save Remote Set	**Off**			The Run/Stop button on the IR remote control does not affect the setting on the SA → run option. See *"Store remote status [Sr-S]"* on page 20.
		On			**The Run/Stop button on the IR remote control also toggles the SA → run option on or off.** See *"Store remote status [Sr-S]"* on page 20.
	Invert display	**Off**			**Display normal.**
		On			Display inverted.
	MC-X lamp off	**Off**			Do not allow MC-X to douse lamp.
		On			**Allow MC-X to douse lamp.**
	Temp fan lamp	**Off**			Lamp cooling fans run at full power.
		On			**Lamp cooling fans temperature-regulated.**
	Lamp hour	**Off**			Lamp life warning disabled.
		On			**Lamp life warning enabled.**
	Lamp Error Test	**Off**			Lamp error cutout bypassed.
		On			**Lamp error cutout active.**
	Restore default	**Factory set 1**			Switch all personality settings to factory default settings 1.
		Factory set 2			Switch all personality settings to factory default settings 2.
		Factory set 3			Switch all personality settings to factory default settings 3.
		Factory set 4			Switch all personality settings to factory default settings 14.
	Reset counters	**Off**			Cancel resetting of all counters.
		On			Reset all counters.
Version	**Leave**				Not used in 150W Base.

Table 7: MP-2 control menu structure

18. DMX protocol

Start code = 0

DMX channel	Value	Percent	Function
1			**Reset, Lamp On/Off**
	0 - 207	0 - 81	Reserved (no change)
	208 - 217	82 - 85	Reset fixture*
	218 - 227	85 - 89	Reserved (no change)
	228 - 237	89 - 93	Lamp power on
	238 - 247	93 - 97	Reserved (no change)
	248 - 255	97 - 100	Lamp power off*
2			**Intensity**
	0 - 255	0 - 100	0 - 100%
3			**Cyan**
	0 - 255	0 - 100	White → Cyan
4			**Magenta**
	0 - 255	0 - 100	White → Magenta
5			**Yellow**
	0 - 255	0 - 100	White → Yellow
6			**Random Color Mixing**
	0 - 14	0 - 5	Off
	15 - 34	5-13	CMY, slow
	35 - 54	13-21	CMY, medium
	55 - 74	21-29	CMY, fast
	75 - 94	29-37	MY, slow
	95 - 114	37-44	MY, medium
	115 - 134	45-52	MY mix, fast
	135 - 154	53-60	CM, slow
	155 - 174	61-68	CM, medium
	175 - 194	68-76	CM, fast
	195 - 214	76-84	CY, slow
	215 - 234	84-92	CY, medium
	235 - 255	92-255	CY, fast
7			**Speed**
	0 - 2	0 - 1	Tracking
	3 - 245	1 - 96	Fast → slow
	246 - 251	96 - 98	Reserved (no change)
	252 - 255	99 - 100	Fast

Table 8: DMX protocol

* **Note**: To avoid sending them accidentally, the Reset fixture and Lamp power off commands on channel 1 must be held for minimum 5 seconds.
If these commands are disabled in the fixture's Personality settings, they can still be used if you set channels 2, 3 and 4 to DMX value 231-232.

19. Specifications

Physical - 150W Single Base

Length . . . . . 298 mm (11.7 in)
Width . . . . . 214 mm (8.4 in)
Height . . . . . 91 mm (3.6 in)
Weight . . . . . .5.7 kg (12.6 lbs)

Physical - 150W Double Base

Length . . . . . 398 mm (15.7 in)
Width . . . . . 214 mm (8.4 in)
Height . . . . . 91 mm (3.6 in)
Weight . . . . . .10. 4 kg (23 lbs)

Construction

Housing . . . . . .Aluminum

Installation

Minimum distance to combustible materials . . . . . 1 m (39 in)
Minimum distance to illuminated surfaces. . . . . 0.5 m (20 in)
Orientation. . . . . .any
Standard cable separation between Alien 02 and 150W Base . . . 1 m (40 in)

Thermal

Maximum ambient temperature (Ta) . . . . . 40° C (104° F)
Minimum ambient temperature (Ta). . . . . 0°C (32°F)
Maximum surface temperature, steady state, Ta=40° C . . . . . 80° C (176° F)

AC Supply

AC input. . . . . 3-pin IEC male socket
Power supply options. . . . . .100/120/208/230/250 V, 50/60 Hz

Maximum power and current - 150W Single Base

100 V, 50 HZ . . . . . 220 W, 2.8 A
100 V, 60 Hz . . . . . .205 W 2.3 A
120 V, 50 HZ . . . . . 210 W, 2.1 A
120 V, 60 Hz . . . . . 205 W, 1,8
208 V, 50 Hz . . . . . 196 W, 1.2 A
208 V, 60 Hz . . . . . .190 W, 1 A
230 V, 50 Hz . . . . . .198 W, 1 A
230 V, 60 Hz . . . . . 193 W, 0.9 A
250 V, 50 Hz . . . . . .208 W, 1 A
250 V, 60 Hz . . . . . 201 W, 0.9 A

Maximum power and current - 150W Double Base

100 V,50 Hz	423 W, 5,1 A
100 V, 60 Hz	408 W, 4,3 A
120 V, 50 Hz	418 W, 3,9 A
120 V, 60 Hz	410 W, 3,5 A
208 V, 50 Hz	386 W, 2,3 A
208 V, 60 Hz	378 W, 2 A
230 V, 50 Hz	393 W, 1,9 A
230 V, 60 Hz	389 W, 1,8 A
250 V, 50 Hz	412 W, 1,9 A
250 V, 60 Hz	409 W, 1,7 A

Control & Programming

Control options	DMX-512
Receiver	RS-485
Setting and addressing	3-digit LED control panel, remote w/ uploader
Firmware update	serial upload (MUF)
Data input	3-pin XLR male, RJ-45
Data output	3-pin XLR female, RJ-45
Data pinout	pin 1 shield, pin 2 cold (-), pin 3 hot (+)

Ordering information

150W Single Base	P/N 90724000
150W Double Base	P/N 90724200
Alien 02 Pendant	P/N 90345100
J-Box	P/N 91611065
Alien 02 Spot	P/N 90345000
Alien 02 Spot 135 mm (5.3 in) mounting arm	P/N 91611048

Accessories

MUM & DABS1 package	P/N 90758090
Martin infrared remote control transmitter	P/N 90760010
Martin infrared remote control receiver	P/N 91611047
MP-2 uploader:	P/N 90758420
2-meter cable extension kit	P/N 91611051
5-meter cable extension kit	P/N 91611060
10-meter cable extension kit	P/N 91611061
MC-X Controller, 220-245V/50Hz	P/N 90718200
MC-X Controller, 110-120V/60Hz	P/N 90718300

Included items

User manual
Fuses
3 meter (9.8 ft), 3-pin IEC mains cable
5 meter (16.4 ft), black, 3-pin XLR data cable

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