Atomic 3000 LED

User Manual

Dimensions

All dimensions are in millimeters

442

424

245

234

160

Ø332

Ø270

4 x 90

106

Ø13

106

57

Safety Information

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

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

WARNING!
Safety hazard.
Risk of severe
injury or death.

WARNING!
Hazardous
voltage. Risk of
lethal or severe
electric shock.

WARNING!
Fire hazard.

WARNING!
Burn hazard. Hot
surface. Do not
touch.

WARNING!
Powerful light
emission. Risk of
eye injury.

WARNING! Refer
to user manual
for important
safety
information.

Warning! Risk Group 3 LED product according to EN 62471. Do not view the light output with optical instruments or any device that may concentrate the beam.

This lighting fixture is for professional use only - it is not for household use. The fixture must be installed by a qualified technician. The safety of the installation is the responsibility of the installer. The fixture presents risks of severe injury or death due to fire hazards, electric shock and falls. Flashing light is also known to trigger epileptic seizures in persons who are sensitive to it. The fixture can produce powerful, concentrated light that can create a fire hazard or a risk of eye injury if the safety precautions below are not followed.

If you have any questions about how to install, operate or service the fixture safely, please contact your Martin™ distributor (see www.martin.com/distributors for details) or call the Martin™ 24-hour service hotline on +45 8740 0000, or in the USA on 1-888-tech-180.

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

Install, operate and service Martin™ products only as directed in their user documentation, or you may create a safety hazard or cause damage that is not covered by product warranties. Refer any service operation not described in this manual to an authorized Martin™ service technician. Do not try to carry out any such operation yourself, as doing so may present a health or safety risk. It may also cause damage or malfunction and it may void your product warranty.

Before you install, operate or service the Atomic 3000 LED, check the Martin™ website and make sure that you have the latest user documentation for the fixture. Document revisions are indicated at the bottom of page 2. The latest versions of the product's user documentation, including this user manual, are available for download from the Atomic 3000 LED Product Support page on the Martin™ website at www.martin.com.

Follow the safety precautions listed below and observe all warnings in this manual and printed on the product. Keep this manual for future use.

PROTECTION FROM ELECTRIC SHOCK

- The Atomic 3000 LED fixture is for indoor use only. Do not expose it to rain or moisture.
- Disconnect the fixture from AC power before carrying out any installation or service work and when the fixture is not in use.
- Ensure that the fixture is electrically connected to ground (earth).
- Apply AC mains power to the fixture at 100 - 240 VAC nominal, 50/60 Hz only.

- Use only a source of AC power that complies with local building and electrical codes and has both overload and ground-fault (earth-fault) protection.
- Before using the fixture, check that all power distribution equipment and cables are in perfect condition and rated for the current requirements of all connected devices.
- Isolate the fixture from power immediately if the power cable, power plug or any seal, cover or other part is damaged, defective, deformed, wet or showing signs of overheating. Do not reapply power until repairs have been completed and any defective parts have been replaced with new items.
- The cable used to connect the product to AC power must be 14 AWG or 1.5 mm^2 minimum conductor size and heat-resistant to 90° C (194° F) minimum. It must have three conductors and an outer cable diameter of 5 - 15 mm (0.2 - 0.6 in.). In the USA and Canada, the cable must be UL/CSA recognized, hard usage, type SJT or equivalent. In the EU, the cable must be type H05VV-F or equivalent.
- Connect only a cable with a Neutrik PowerCON TRUE1 NAC3FX-W female connector to the fixture's power input socket.

PROTECTION FROM BURNS AND FIRE

- Do not operate the fixture if the ambient temperature (Ta) exceeds 40° C (104° F).
- The exterior of the fixture becomes hot during use. After 5 minutes of operation a surface temperature of 70° C (158° F) shall be expected, and the maximum steady state is 80° C (176° F). Avoid contact by persons and materials. Allow the fixture to cool for at least 10 minutes before handling.
- Keep all combustible materials (e.g. fabric, wood, paper) at least 20 cm (8 in.) away from the fixture.
- Keep flammable materials (e.g. volatile liquids, pyrotechnics, fuel of any kind) well away from the fixture.
- Ensure that there is free and unobstructed airflow around the fixture.
- Do not illuminate surfaces within 1 m (3 ft. 4 in.) of the Atomic 3000 LED.
- Do not expose the front glass to sunlight or other strong light source from any angle. Lenses can focus the sun's rays inside the fixture, creating a potential fire hazard.
- Do not attempt to bypass thermostatic switches or fuses.
- Do not modify the fixture in any way not described in this user manual or install other than genuine Martin™ parts. Do not stick filters, masks or other materials onto any lens or other optical component. Use only accessories approved by Martin™ to mask or modify the light beam.

PROTECTION FROM EYE INJURY

- Do not look at LEDs with magnifiers, telescopes, binoculars or similar optical instruments that may concentrate the light output.
- Do not operate the fixture with missing or damaged covers, shields or any optical component.
- To minimize the risk of eye irritation or injury, disconnect the fixture from power at all times when the fixture is not in use, and provide well-lit conditions to reduce the pupil diameter of anyone working on or near the fixture.

PROTECTION FROM INJURY

- To guard against risks from epileptic seizure:
  - Do not operate the fixture near stairways, in corridors or near public exits.
  - Provide advance notice that strobe lighting is in use. Display advisory notices at the point of ticket sales, on tickets if possible, in the program, and at the entrance(s) to the venue.
  - Avoid extended periods of continuous flashing, particularly at frequencies of 10 to 20 flashes per second. At flash rates below 5 flashes per second, it is estimated that only 5% of flicker-sensitive persons will be at risk of seizure.
  - Make sure that personnel at the venue are trained in the care of a person who is having an epileptic seizure and able to provide care if necessary.
  - If strobes are in use and a person has a seizure, switch the strobes off immediately.
  - Mount strobes as high above head height as practicable.
- Fasten the fixture securely to a fixed surface or rigging structure when in use. The fixture is not portable when installed.
- Block access below the work area and work from a stable platform whenever installing, servicing or moving the fixture.
- Make sure that all fasteners used to install the fixture are minimum grade 8.8 steel. Use unworn self-locking nuts on bolts and machine screws.

- When suspending the fixture, ensure that the supporting structure and all hardware used can hold at least 10 times the weight of all the devices they support.
- Install the fixture only as described under "Physical installation" on page 11. In all truss-mount installations where the fixture is not hanging vertically in 'free hanging mode', use a rigging clamp that completely encircles the truss chord, and bolt the clamp directly to the fixture's mounting bracket with a grade 8.8 strength bolt and unworn self-locking nut. Do not use any type of clamp that does not completely encircle the truss chord and do not use an omega bracket or any other intermediary rigging hardware.
- If you install the fixture in a location where it may cause injury or damage if it falls, install as described in this manual a secondary attachment such as a safety cable that is approved by an official body such as TÜV as a safety attachment for the weight that it secures.The safety cable must comply with EN 60598-2-17 Section 17.6.6 and be capable of bearing a static suspended load that is ten times the weight of the fixture and all installed accessories. Fasten the safety cable to a secure anchoring point and to a safety cable attachment point provided on the fixture and indicated in this manual so that the safety cable will catch and hold the fixture if a primary attachment fails. Do not use any other part of the fixture as a safety cable attachment point.
- If the safety cable attachment point becomes deformed, do not install the fixture. Have the fixture repaired by an authorized Martin service partner.
- Check that all external covers and rigging hardware are securely fastened.

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Tilt adjustment wheel

Base of fixture, base fans

DMX output

**Atomic Colors power + data**

USB

Figure 1: Fixture overview

Introduction

Thank you for selecting the Atomic 3000 LED™, an intelligent lighting fixture from Martin Professional™. This powerful LED-based stroboscopic effect light builds on the industry-standard Martin Atomic 3000 DMX™ strobe effect, and features:

• A 'Beam' LED array that gives powerful strobe and blinder effects

• An 'Aura' LED array that lights up the front surface of the fixture and has RGB color mixing

• Pre-programmed FX that can be synchronized, with or without offsets, in multiple fixtures

• Onboard control panel and backlit LCD display

• DMX control and RDM fixture management

• Atomic Colors color scroller unit (optional accessory)

For the latest firmware updates, documentation, and other information about this and all Martin Professional products, please visit the Martin website at http://www.martin.com

Comments or suggestions regarding this document may be e-mailed to service@martin.dk or posted to: User Documentation, Martin Professional ApS, Olof Palmes Allé 18, DK-8200 Aarhus N, Denmark.

Using for the first time

Warning! Read "Safety Information" on page 3 before installing, powering, operating or servicing the Atomic 3000 LED.

Important! The Atomic 3000 LED is a rugged fixture but it must be protected from environmental factors such as excessive physical shocks and vibration during transportation and storage.

Before applying power to the fixture:

• Check the Martin Professional website at www.martin.com for the most recent user documentation and technical information about the Atomic 3000 LED. Martin user manual revisions are identified by the revision letter at the bottom of page 2.

• Carefully review "Safety Information" starting on page 3.

• Check that the local AC mains power source is within the fixture's power voltage and frequency ranges.

• Check that the power input cable meets the requirements listed under "Protection from electric shock" on page 3.

• See "Power cables and power plug" on page 9. If drawing power from a mains power outlet, install a suitable power plug on the power input cable.

AC power

Warning! Read "Safety Information" on page 3 before connecting the Atomic 3000 LED to AC mains power.

Warning! For protection from electric shock, the Atomic 3000 LED must be grounded (earthed). The power distribution circuit must be equipped with a fuse or circuit breaker and ground-fault (earth-fault) protection.

Warning! Socket outlets or external power switches used to supply the Atomic 3000 LED with power must be located near the fixture and easily accessible so that the fixtures can easily be disconnected from power.

Important! Do not use an external dimming system to supply power to the Atomic 3000 LED, as this may cause damage to the fixture that is not covered by the product warranty.

Power voltage

Warning! Check that the voltage range specified on the fixture's serial number label matches the local AC mains power voltage before applying power to the fixture.

The Atomic 3000 LED has an auto-ranging power supply that accepts mains power at 100 - 240 VAC nominal, 50/60 Hz. Do not apply AC mains power at any other voltage or frequency to the fixture.

The Atomic 3000 LED can draw significant peak currents during normal use. To avoid overload, allow one 16 or 20 amp branch circuit per fixture to operate at full power. Two fixtures may be placed on a 16 amp branch circuit, but considerations for the type of MCB (Miniature Circuit Breaker) must also be respected: 16 A type C will fit most needs (IEC 60898 / UL489 / CSA C22.2 No. 5).

Power cables and power plug

The Atomic 3000 LED power input cable must meet the requirements listed under "Protection from electric shock" on page 3. The power input cable must have a Neutrik PowerCON TRUE1 NAC3FX-W cable connector for AC mains power input to the fixture. Keep cable runs as short as possible.

If you need to install a Neutrik PowerCON TRUE1 connector on a power cable, see the instructions from Neutrik that are reproduced at the end of this manual.

You can hard-wire the Atomic 3000 LED to a building electrical installation if you want to install it permanently, or you can install on the power cable a power plug that is suitable for the local AC power outlets.

If you install a power plug on the power cable for connection to an AC power outlet, install a grounding-type (earthed) plug with an integral cable grip that is rated 250 V, 20 A minimum. In the EU the plug must be rated 250 V, 16 A minimum. Follow the plug manufacturer's instructions. Table 1 shows standard wire color-coding schemes and some possible pin identification schemes; if pins are not clearly identified, or if you have any doubts about proper installation, consult a qualified electrician.

Wire Color (EU models)	Wire Color (US models)	Conductor	Symbol	Screw (US)
brown	black	live	L	yellow or brass
blue	white	neutral	N	silver
yellow/green	green	ground (earth)	⏚ or ⏚	green

Table 1: Wire color-coding and power connections

Data link

Warning! Read "Safety Information" on page 3 before installing, powering, operating or servicing the Atomic 3000 LED.

A DMX 512 data link is required in order to control the Atomic 3000 LED via DMX.

The Atomic 3000 LED has 5-pin XLR connectors for DMX data input and output. The pin-out on all connectors is pin 1 = shield, pin 2 = cold (-), and pin 3 = hot (+). Pins 4 and 5 in the 5-pin XLR connectors are not used in the Atomic 3000 LED but are available for possible additional data signals as required by the DMX512-A standard. Standard pin-out is pin 4 = data 2 cold (-) and pin 5 = data 2 hot (+).

Note that if independent control of a fixture is required, it must have its own DMX channels. Fixtures that are required to behave identically can share the same DMX channels.

You may connect up to 32 Atomic 3000 LED fixtures on one daisy-chained DMX link. To add more fixtures when the above limit is reached, create a new DMX universe and another daisy-chained link.

Tips for reliable data transmission

- Use shielded twisted-pair cable designed for RS-485 devices: standard microphone cable cannot transmit control data reliably over long runs. 24 AWG cable is suitable for runs up to 300 meters (1000 ft). Heavier gauge cable and/or an amplifier is recommended for longer runs.
- To split the link into branches, use a splitter such as the Martin 4-Channel Opto-Isolated RS-485 Splitter/Amplifier.
- Terminate the link by installing a termination plug in the output socket of the last fixture. The termination plug, which is a male XLR plug with a 120 Ohm, 0.25 Watt resistor soldered between pins 2 and 3, "soaks up" the control signal so it does not reflect and cause interference. If a splitter is used, terminate each branch of the link.

Connecting the data link

To connect the Atomic 3000 LED to data:

1. Connect the DMX data output from the controller to the closest Atomic 3000 LED's male 5-pin XLR DMX input connector.
2. Connect the DMX output of the fixture closest to the controller to the DMX input of the next fixture and continue connecting fixtures output to input.
3. Terminate the last fixture on the link with a DMX termination plug, which inserts a 120 Ohm resistor across the data hot and data cold terminals to 'soak up' the data signal.
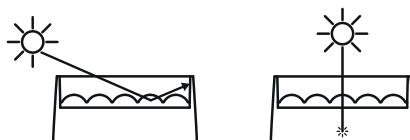
Physical installation

⚠ ***Warning! Read "Safety Information" on page 3 before installing, powering, operating or servicing the Atomic 3000 LED.***

Warning! Check that all surfaces to be illuminated are minimum 1 m (3 ft. 4 in.) from the fixture, that combustible materials (wood, fabric, paper, etc.) are minimum 20 cm (8 in.) from the fixture, that there is free airflow around the fixture and that there are no flammable materials nearby.

Warning! Do not expose the front glass to sunlight or other strong light sources.

Figure 2: Risk of sunlight damage

See Figure 2. If light from the sun or other fixtures hits the front glass directly or at an angle, it can create a fire risk and cause damage inside the fixture or around the edge of the front glass. Strong sunlight can cause damage within seconds! Before the fixture is exposed to sunlight or strong light, shield the front glass or point the fixture in the opposite direction to the light source.

Tilt adjustment

The Atomic 3000 LED mounting bracket lets you adjust and lock the fixture's tilt angle. To adjust tilt:

1. Loosen both tilt adjustment wheels (see 'Fixture Overview' on page 7) until the teeth in the tilt adjustment locking mechanism disengage and you can tilt the fixture freely. If you can feel resistance when you try to tilt the fixture, you have probably not loosened the wheels enough and you may damage the teeth in the adjustment mechanism.
2. Adjust aiming, then retighten both wheels by hand. Tighten firmly but do not use tools to tighten, or you may cause damage.

The first few times you adjust tilt, small particles of rubbed off paint or metal may become visible. This is not a fault and it does not lead to any problems.

Fastening the fixture to a flat surface

The Atomic 3000 LED can be fastened to a stage or other flat surface.

⚠ ***Warning! The supporting surface must be hard and flat or air vents in the base may be blocked, which will cause overheating. Fasten the fixture securely. Do not stand it on a surface or leave it where it can be moved or can fall over.***

To fasten the Atomic 3000 LED to a flat surface

1. Check that the surface can support at least 10 times the weight of all fixtures and equipment to be installed on it.
2. Fasten the fixture's mounting bracket to the surface using at least one M12 bolt, grade 8.8.
3. If the fixture may fall and cause injury or damage if the primary attachment fails, attach an approved safety cable as described above.

Mounting the fixture on a truss

The Atomic 3000 LED can be clamped to a truss or similar rigging structure in any orientation. When mounting on a truss:

• Check that the rigging structure can support at least 10 times the weight of all fixtures and equipment to be installed on it.
• Check that all rigging hardware is undamaged and rated for the weight it will secure.
• Block access under the work area.
• Work from a stable platform.
• Secure the fixture against rigging hardware failure with an approved safety cable.

Depending on the orientation of the fixture, you can use one of the following methods to mount the fixture on a truss.

Truss-mount installation in any orientation

Warning! ***Do not use G-clamps, quick-trigger clamps or any other type of clamp that does not completely encircle the supporting structure when fastened, do not use an omega clamp and do not use quarter-turn fasteners to attach rigging hardware unless the fixture is hanging vertically in 'free hanging mode' as described below.***

To suspend the fixture from a rigging structure such as a truss in any orientation:

1. Fasten a half-coupler rigging clamp (see "Accessories" on page 38) that completely encircles the truss chord directly to the fixtures's mounting bracket by means of an M12 grade 8.8 bolt passed through the hole in the mounting bracket and secured with an unworn self-locking nut. Do not use an omega bracket.

Figure 3: Half-coupler rigging clamp

2. Block access under the work area. Working from a stable platform, hang the fixture on the truss and fasten the half-coupler clamp around the truss chord.
3. If the fixture may fall and cause injury or damage if the primary attachment fails, attach an approved safety cable to a secure anchoring point and to one of the safety cable attachment points on the fixture (see Figure 1 on page 7).
4. If necessary, adjust the orientation of the fixture by loosening the tilt adjustment wheels (see Figure 1 on page 7), adjusting the aim of the fixture and retightening the tilt adjustment wheels. Apply firm pressure by hand only – do not use tools to tighten the tilt adjustment wheels.

Truss-mount installation hanging vertically in 'free hanging mode'
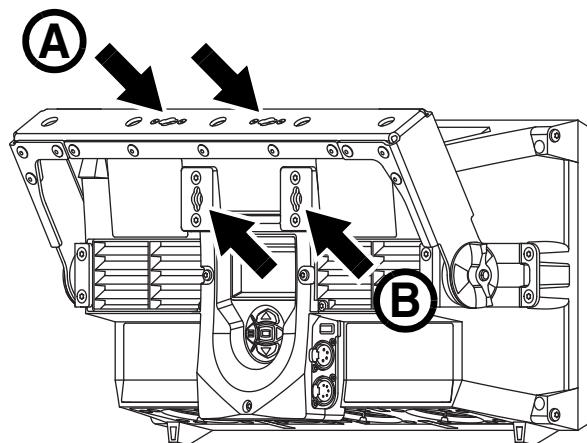
It is possible to install the Atomic 3000 LED hanging vertically downwards from a truss and then set it to the required tilt using the tilt adjustment wheels in the mounting bracket. To suspend the fixture from a rigging structure such as a truss *with the fixture hanging vertically in 'free hanging mode' only*:

1. See Figure 4. Bolt any safe type of rigging clamp (see "Accessories" on page 38) to a Martin omega bracket, P/N 91602001 with an M12 grade 8.8 bolt passed through the hole in the omega bracket and secured with an unworn self-locking nut.
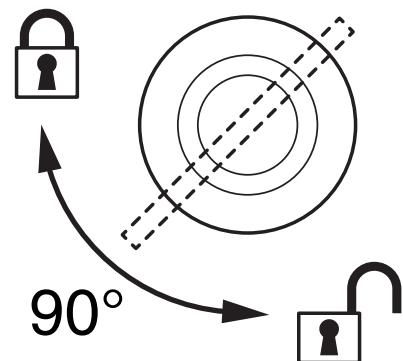
Figure 4: Omega bracket

2. See Figure 5. Fasten the omega bracket to the fixture's mounting bracket at **A** (or to the fixture housing itself at **B**) with quarter-turn fasteners. Fastening to the mounting bracket is preferable, as this will let you adjust the aim of the fixture.

3. See Figure 6. Make sure that quarter-turn fasteners are turned a full 90° to the fully locked position.

4. Block access under the work area. Working from a stable platform, hook the clamp over the truss chord and tighten the clamp enough to prevent the fixture from falling off the truss but leave the clamp loose enough for the fixture to hang freely.

Figure 5: Omega bracket fastening points

5. If you have fastened the omega bracket to the fixture's mounting bracket, adjust the orientation of the fixture to obtain the desired aiming by loosening the tilt adjustment wheels (see Figure 1 on page 7), adjusting the aim of the fixture and retightening the tilt adjustment wheels.

6. Keeping the fixture in the position where it is now hanging freely, tighten the rigging clamp completely so that the fixture is fastened securely to the truss.

7. If the fixture can fall and cause injury or damage if the primary attachment fails, attach an approved safety cable to a secure anchoring point and to one of the fixture's safety cable attachment points on the fixture (see "Fixture overview" on page 7).

8. If you need to adjust aiming further (and if you have fastened the omega bracket to the fixture's mounting bracket), loosen the rigging clamp on the truss chord slightly, loosen both tilt adjustment wheels, adjust the position of the fixture, retighten both wheels, applying firm hand pressure only, and then retighten the rigging clamp on the truss chord with the fixture in the position where it hangs freely.

Figure 6: Locking quarter-turn fasteners

Atomic Colors scroller

A DMX-controlled gel scroller, the Atomic Colors, is available for the Atomic 3000 LED. Your Martin supplier can give details. See Figure 7. The scroller installs on the front of the fixture and winds different colored gels past the front of the fixture, adding color changing to the effects that can be controlled via DMX.

Warning! The Atomic 3000 LED has two safety cable attachment points (see Figure 1 on page 7). Secure the Atomic Colors scroller against falling with a safety cable passed through the attachment point on the right when viewed from the back of the fixture. Use the other attachment point for the safety cable that secures the fixture.

Warning! Do not operate the Atomic 3000 LED with an Atomic Colors scroller in front of it unless the scroller is correctly connected to the fixture. If an Atomic Colors is fastened to the front of an Atomic 3000 LED but the power connection from the fixture to the scroller is interrupted or faulty, the light and heat output from the Atomic 3000 LED can very quickly melt the gel in the scroller.

Do not use a Martin™ MP-2 or MP-8 external power supply unit to supply power to an Atomic Colors scroller when you install the scroller on an Atomic 3000 LED.

Do not connect more than one Atomic Colors scroller to one Atomic 3000 LED. If you connect an Atomic Colors to an Atomic 3000 LED, do not connect anything to the 4-pin XLR power and data output connector of the Atomic Colors.

*Every time you install an Atomic Colors scroller on an Atomic 3000 LED and any time you are in doubt about whether there is a correct power connection between the two devices, check* **INFO** → **COLOR SCROLLER** → **CONNECTED** *in the Atomic 3000 LED's control panel. Only operate the fixture if the status here reads* **YES***. If the status reads* **NO***, check and rectify all connection problems before you operate the fixture.*

If you install an Atomic Colors scroller on an Atomic 3000 LED, select the following options in the Atomic Colors control panel:

- **Set Fan Speed** *Fn* **to maximum:** *Fn4*.
- **Set Light-Activated Fan** *LF* **to fans constantly on:** *LF0*.
- **Set the Gel Saver mode** *GL* **to active:** *GL1*.

4-pin XLR connector for Atomic Colors

Figure 7: Atomic Colors

To install an Atomic Colors scroller on the Atomic 3000 LED fixture:

1. See the Atomic Colors user manual for full installation details. This manual is available for download from the Martin™ website at www.martin.com.
2. Fasten the Atomic Colors in position on the fixture following the physical installation instructions in the Atomic Colors user manual. Do not over-tighten the retaining screws when fastening the Atomic Colors to the fixture.
3. See Figure 7. Connect the Atomic Colors to the 4-pin XLR connector (arrowed) on the back of the fixture to control the scroller and supply it with power. Do not use an external power supply with the Atomic Colors, as this will prevent the Atomic 3000 LED from sensing that the Atomic Colors is present and could cause damage to the colored gels. Use only the Atomic Colors scroller cable supplied by Martin™ to connect an Atomic Colors to an Atomic 3000 LED. Do not use a cable that is longer than 5 m (16.4 ft.) in length.

4. Fasten the carabiner clip on the Atomic Colors safety cable to the safety cable attachment point on the right-hand side of the Atomic 3000 LED when looking at the back of the fixture. Make sure that the clip is fully closed, repositioning the clip if necessary, so that the safety cable is secure.

5. As soon as you have installed the Atomic Colors on the Atomic 3000 LED, power the fixture on but do not activate light output until you have completed the next three points.

6. Check the Atomic 3000 LED control panel for confirmation that the Atomic Colors is connected: **INFO** → **COLOR SCROLLER** → **CONNECTED** must show **YES**. If it does not, check all connections, then check the control panel again.

7. Set the following options in the Atomic Colors control panel:
   - Set Fan Speed *Fn* to maximum: *Fn4*.
   - Set Light-Activated Fan *LF* to constant fan operation, not light-operated: *LF0*.
   - Set Gel Saver mode *GL* to active: *GL1*.

8. Check that you have DMX control of the Atomic Colors and that the gel string moves freely when you change a color via DMX.

9. You can now activate the Atomic 3000 LED's light output.

Setup

⚠️ *Warning! Read "Safety Information" on page 3 before installing, powering, operating or servicing the Atomic 3000 LED.*

Control panel and menu navigation

The onboard control panel and backlit graphic display on the back of the fixture are used to set the Atomic 3000 LED's DMX address, configure individual fixture settings, read out data and execute service utilities. See "Onboard control menus" on page 32 for a complete list of menus and commands.

Using the control panel

- Press the MENU button **A** or Enter button **C** to access the menus.
- Use the UP and DOWN buttons **B** to scroll up and down menus.
- Press the ENTER button **C** to enter a menu or make a selection.
- The currently selected item in a menu is indicated by a star ✛ .
- Press the MENU button **A** to step backwards through the menus.

Status LED

The LED **D** next to the control buttons indicates fixture status:

- **GREEN**: All parameters normal. Constant green switches off with the display if you have set the display to go into sleep mode in the **PERSONALITY** menu.
- **AMBER**: Warning:.
  - If **ERROR MODE** is set to **Normal**, the warning message will be shown in the display.
  - If **ERROR MODE** is set to **Silent**, you can display the error message by setting ERROR MODE to NORMAL or by opening ERROR LIST in the SERVICE menu.
- **RED**: Error detected.
  - If **ERROR MODE** is set to **Normal**, the error message will be shown in the display.
  - If **ERROR MODE** is set to **Silent**, you can display the error message by setting ERROR MODE to NORMAL or by opening ERROR LIST in the SERVICE menu.
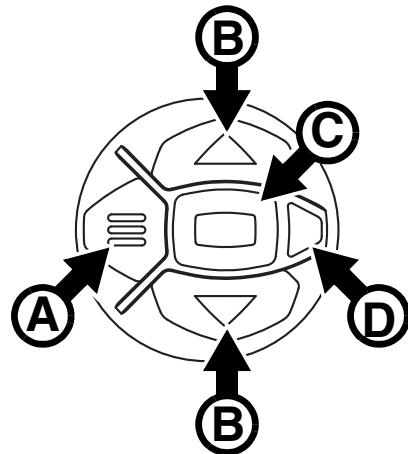
Besides color, the status LED also gives the following information:
- **FLASHING**: No DMX signal detected.
- **CONSTANT**: Valid DMX signal detected (note: constant green only active if display is active).

Figure 8: Control panel

Display panel

The DMX address is shown in the display panel when the Atomic 3000 LED is powered on and has reset.

The display can be set to go into sleep mode via **PERSONALITY** → **DISPLAY** in the control menu. Connecting a DMX signal 'wakes up' the display.

Control panel shortcuts

Two shortcuts are available in the control panel before you enter the menus:
- Pressing and holding the MENU button for 2 seconds opens a shortcut menu that lets you reset the fixture or rotate the display.
- Pressing the UP and DOWN arrows at the same time rotates the display through 180°.

DMX address setting

The DMX address, also known as the start channel, is the first channel used to receive instructions from the controller. For independent control, each fixture must be assigned its own control channels. If two Atomic 3000 LED fixtures share the same address, they will behave identically. Address sharing can be useful for diagnostic purposes and symmetric control.

The DMX address is configured using the **DMX ADDRESS** menu in the control panel.

The highest address that you can select is automatically limited to make sure that enough channels are available for the fixture – taking into account the mode that it is set to – within the 512 channels available in one DMX universe.

DMX modes

The Atomic 3000 LED gives you a choice of DMX control modes in the **CONTROL MODE** menu. Your choice of mode depends on how many features you want to control and how many DMX channels you have available. "DMX protocol" on page 27 gives full details of the commands available in the different DMX modes.

The modes available are:

3-channel DMX mode

3-channel mode offers control of the main effects of the Atomic 3000 LED only: high-power strobe on the Beam LEDs with adjustable flash intensity, duration and rate.

You can obtain a continuous blinder effect by increasing both flash duration and flash rate until duration exceeds the time available for a flash at the rate you set.

4-channel DMX mode

4-channel mode offers the same control as 3-channel mode plus basic pre-programmed effects: ramp up/down, random strobe, a lightning effect and spikes.

Note that the 3-channel and 4-channel DMX modes in the Atomic 3000 LED are consistent with the DMX modes in the original xenon-tube based Martin Atomic 3000 DMX™.

Extended DMX mode

Extended mode offers the same control as 4-channel mode plus control of the Aura LEDs. Both RGB color control and color presets are available for the Aura. Electronic 'shutter' and strobe effects plus overall Aura dimming control are also available.

Extended mode also includes a fixture control channel that allows fixture settings to be configured via DMX.

Finally, a range of pre-programmed FX is available. FX are effect sequences with adjustable parameters. The sequences repeat in cycles and can be synchronized across multiple fixtures. A synchronization offset can be set so that multiple fixtures start their effect sequences at specific points in the cycle.

Fixture ID

The Atomic 3000 LED lets you set a four-digit ID number to ease identification of the fixtures in an installation. When a fixture is powered on for the first time, it displays its DMX address by default. As soon as you set an ID number other than **0** in **FIXTURE ID**, the Atomic 3000 LED will display this ID number by default, and indicate **FIXTURE ID** in the display.

Personality

The Atomic 3000 LED provides several options that let you optimize the fixture for different applications in the **PERSONALITY** menu:

- **DIMMER CURVE** provides four dimming options that apply to both the Beam and the Aura light output (see Figure 9):
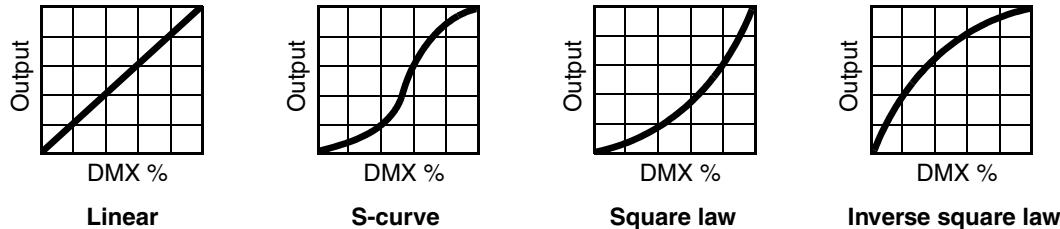

Figure 9: Dimming curve options

  - **LINEAR** – (optically linear) the increase in light intensity appears to be linear as DMX value is increased.
  - **S-CURVE** – light intensity control is finer at low levels and high levels and coarser at medium levels. This curve emulates the RMS voltage dimming characteristics of an incandescent lamp such as the tungsten halogen lamp of the Martin™ MAC TW1™.
  - **SQUARE LAW** – light intensity control is finer at low levels and coarser at high levels.
  - **INV SQUARE LAW** – light intensity control is coarser at low levels and finer at high levels.

- **STROBE BEHAVIOR** offers two options:
  - **LED** gives constant light intensity during a flash or a continuous blinder effect. This gives more intense output and provides an option for reducing flicker on video during a flash or blinder. Note that the constant intensity obtained at the LED setting will only eliminate video flicker that results from intensity variations within the duration of the light output. It will not affect video flicker that results from interruptions in the light output. In other words, flicker may still be visible on video if you set strobe flashes to a rate that produces interference between the flash rate and the video frame rate.
  - **XENON** replicates the xenon lamp behavior of the original Martin Atomic 3000 DMX by applying a 50 Hz pulse to all light output. No matter how long a flash lasts, it will have this 50 Hz light output pulse.

- **VIDEO TRACKING** optimizes performance if the Atomic 3000 LED is used with a video source.
  In normal use, the fixture processes the DMX signal it receives, tracking (or smoothing out) changes in values in order to ensure smooth fading between colors and/or intensities. This signal processing takes fractions of a second and is normally invisible, but if the fixture is used as a pixel in a video display (using Martin P3™ video system components to convert video to DMX, for example) the processing can interfere with video response times. If you enable video tracking, the fixture does not 'smooth out' DMX input but instead snaps instantly when a DMX value changes.
  For best results, we recommend that you enable video tracking during video display and disable it (the default setting) during normal DMX control.

- **DMX RESET** defines whether the fixture or individual effects can be reset by sending a DMX command on the fixture settings channel. Setting it to OFF can help you avoid accidentally sending a Reset command during a show, for example.

- **COOLING MODE** lets you select between five cooling fan options depending on whether your priority is highest light output or quietest cooling fan operation:
  - **REGULATE FANS** optimizes cooling fan operation for light output. It controls fixture temperature by varying cooling fan speed up to maximum level and will only limit light intensity if maximum cooling fan speed is not enough to keep the fixture within its operating temperature limits.
  - **CONSTANT FAN ULOW** / **LOW / MEDIUM / HIGH** sets the cooling fans to run at constant ultra-low, low, medium or high speed. If necessary, output intensity is reduced so that the fixture stays within its thermal limits at the cooling fan speed that is set.

  If light output is reduced, the fixture may be reaching its operating temperature limits. To avoid this, consider the following solutions:

- If the fixture is set to reduced cooling fan speed, increase the speed in the COOLING MODE menu.
- If necessary, clean the fixture, particularly the air vents.
- Check that there is sufficient airflow around the fixture. If possible, increase ventilation.
- If possible, provide reduced ambient temperature by moving the fixture away from sources of heat, providing airflow from a cooler source of air, etc.

- **DISPLAY** offers four options:
  - **DISPLAY SLEEP** lets you set whether the control panel display remains on permanently or whether it goes into sleep mode 2, 5 or 10 minutes after the last time a control panel button is pressed.
  - **DISPLAY INTENSITY** lets you adjust the brightness of the control panel display backlighting. You can set the intensity to a level from 10% to 100%.
  - **DISPLAY ROTATION** lets you rotate the display for easier reading depending on fixture orientation.
  - **DISPLAY CONTRAST** lets you adjust the contrast of the control panel display for easiest reading in different display backlighting and ambient light conditions.

- **ERROR MODE** enables or disables error warnings. If set to **NORMAL**, the display is activated and lights up if the fixture needs to report an error. If set to **SILENT**, the fixture does not light the display with error warnings but you can still read error messages by opening ERROR LIST in the SERVICE menu. In both **NORMAL** and **SILENT** modes, the status LED lights amber to indicate a warning and red to indicate an error.

Default and custom settings

The **DEFAULT** menu lets you reload the fixture's factory default settings or save and recall up to three sets of custom fixture settings. The savable settings comprise:
- all the settings in the PERSONALITY menu,
- the fixture's DMX address, and
- the fixture's DMX control mode.

Fixture information readouts

The following fixture information can be called up in the display:

- **POWER ON TIME** provides two counters:
  - The **TOTAL** counter is not user-resettable and displays total hours powered on since manufacture.
  - The **RESETTABLE** counter is user-resettable and displays the number of hours the fixture has been powered on since the counter was last reset.

- **POWER ON CYCLES** also provides two counters:
  - The **TOTAL** counter is not user-resettable and displays the total number of power on/off cycles since manufacture.
  - The **RESETTABLE** counter is user-resettable and displays the number of power on/off cycles since the counter was last reset.

- **COLOR SCROLLER** lets you check whether the fixture has recognized that an Atomic Colors scroller has been connected. If an Atomic Colors is fastened to the front of the fixture but not correctly connected to the Atomic 3000 LED, starting the Atomic 3000 LED strobe can very quickly melt the gel string in the Atomic Colors. Check the COLOR SCROLLER menu item immediately if you install an Atomic Colors scroller. Also check it at any time if you are not 100% sure that the Atomic Colors is correctly connected.

- **SW VERSION** displays the currently installed fixture software (firmware) version.

- **RDM UID** displays the fixture's factory-set unique ID for identification in RDM systems.

- **FAN SPEEDS** provides separate status readouts from the fixture's cooling fans.

- **TEMPERATURES** provides separate PCB temperature readouts. If you display a readout and press ENTER, you can choose to display the current temperature, the minimum or the maximum temperatures since the last power cycle.

DMX signal monitoring

The Atomic 3000 LED provides data on the DMX signal it is receiving in the **DMX LIVE** menu. This information can be useful for troubleshooting control problems.

RATE displays the DMX refresh rate in packets per second. Values lower than 10 or higher than 44 may result in erratic performance, especially when using tracking control.

QUALITY displays the quality of the received DMX data as a percentage of packets received. Any value below 100 indicates interference, poor connections, or other problems with the serial data link. Problems on the data link are the most common cause of control difficulties.

START CODE displays the DMX start code. Packets with a start code other than 0 (and that are not RDM data) may cause irregular performance.

The remaining options under **DMX LIVE** give a list of channels and display the DMX values in a range from 0 - 255 that are being received on each channel. The DMX channels displayed depend on which DMX mode the fixture is set to.

Test sequences

TEST LEDS activates the fixture's LEDs, allowing you to test them without a DMX controller. To run a test, press the ENTER button to start. Press Menu to stop the test.

Manual control

The **MANUAL CONTROL** menu lets you reset the Atomic 3000 LED and operate the fixture without a DMX controller.

RESET resets the fixture without cycling power off and on again.

To execute commands in the **MANUAL CONTROL** menu, scroll to the DMX channel that you want to control, press the ENTER button and then select a value from 0 to 255. Press the ENTER button if you want to hold the value or press the MENU button to exit without holding the value. The menu items and values correspond to the commands listed in "DMX protocol" on page 27.

Operation and effects

Warning! Read "Safety Information" starting on page 3 before installing, powering, operating or servicing the Atomic 3000 LED.

The Atomic 3000 LED can be controlled using a DMX control device. See "DMX protocol" on page 27 for a full list of the channels and values required to control the different effects via DMX.

The fixture has two LED arrays:
- The Beam is a high-intensity array that gives powerful strobe and blinder effects
- The Aura gives RGB effects that light up the front of the fixture to complement or contrast with the output from the Beam.

Strobe effects

The Atomic 3000 LED offers strobe effects from the Beam with variable flash rate, flash duration and intensity. It also offers the following pre-programmed effects:
- Ramp up/down intensity modulation effects
- Random flashes
- Lightning – simulates the instantly recognizable 'dirty' flash of a lightning strike
- Spikes – low-intensity light output with high-intensity flashes.

Blinder effects

To obtain a continuous blinder effect, set flash duration to a long value and flash rate to a high frequency value so that flashes 'overlap' and merge into continuous light output.

Aura RGB Color

Extended DMX mode gives control of the Aura. You can set Aura color with independent RGB control and you can also control overall Aura intensity.

The four different dimming curve options available in the fixture's control menus apply to both the Beam and the Aura dimming curves.

Pre-programmed FX

Extended DMX mode gives access to a library of pre-programmed effects. These effects are simply called **FX** in this manual and in the fixture menus.

See "FX: pre-programmed effects" on page 31 for an overview of the FX available. The Atomic 3000 LED Product Support / Tech Docs page on www.martin.com features a downloadable detailed description of the parameters adjusted and algorithms applied in the different FX.

You can select effects using the FX select DMX channel. You can modify speed (and sometimes other parameters depending on the FX selected) using the FX adjust channel. In many FX, you can also use the other DMX channels as input to generate further modification.

FX priority and overriding

If an FX is activated, it overrides any other settings for the parameters that the FX modifies. For example, an FX that modifies the flash rate will override the rate set on the flash rate channel.

FX sync

If two or more fixtures are set to display the same FX (and if the FX consists of a repeating cycle), its start point and duration can be synchronized in multiple fixtures by sending commands on the **FX sync** channel. For synchronization to work, you must send the commands to all the fixtures at the same time.

FX offset (synchronizing FX across multiple fixtures)

You can set fixtures so that they all start their FX cycle at the same time or you can shift any fixture's FX start time so that it displays its FX in sync with another fixture but with a time offset (delayed start).

Consider an FX cycle as consisting of 360° when you send an offset command on the **FX sync** channel. For example:

- If you send a 180° offset command, the fixture will start its FX cycle halfway through the cycle of a fixture that has 0° offset.
- If you set a line of fixtures on a DMX link to offsets of 0°, 10°, 20°, 30° etc. on the **FX sync** channel, you will create an FX chase down the line of fixtures.

Beam color with the Atomic Colors scroller

To obtain colored strobe light from the Beam array, install the Martin™ Atomic Colors scroller unit on the fixture (see "Atomic Colors scroller" on page 13).

Beam blackout after loss of data signal

To avoid possible difficulties stopping a strobe if data communication with the Atomic 3000 LED is interrupted while the strobe is running, Beam output shuts down after 2 seconds if the DMX signal is lost.

RDM

RDM (Remote Device Management) is implemented in the Atomic 3000 LED, and RDM communication is therefore possible over the DMX data link. As provided for in the ANSI/ESTA E1.20 RDM protocol, the fixture can send information about its RDM-accessible parameters to an RDM control device.

Service and maintenance

Warning! Read "Safety Information" on page 3 before servicing the Atomic 3000 LED.

Warning! Disconnect the fixture from AC mains power and allow to cool for at least 10 minutes before handling. Be prepared for the fixture to light suddenly if connected to power.

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

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

The user will need to clean the Atomic 3000 LED periodically, and it is also possible for the user to update the fixture's software. All other service operations on the Atomic 3000 LED must be carried out by Martin Professional or its approved service agents.

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

It is Martin policy to apply the strictest possible calibration procedures and use the best quality materials available to ensure optimum performance and the longest possible component lifetimes. However, LEDs are subject to wear and tear over the life of the product, resulting in gradual changes in color and overall brightness over many thousands of hours of use. The extent of wear and tear depends heavily on operating conditions and environment, so it is impossible to specify precisely whether and to what extent LED performance will be affected. However, you may eventually need to ask Martin Professional to replace LEDs if their characteristics are affected by wear and tear after an extended period of use and if you require fixtures to perform within very precise optical and color parameters.

The manufacturer's LED lifetime data is based on performance under the manufacturer's test conditions. As with all LEDs, the gradual reduction in luminous output will be accelerated when LEDs are used in a fixture, where conditions are much tougher than in manufacturer's testing. To maximize LED lifetimes, keep the ambient temperature as low as possible and drive the LEDs no harder and for no longer than necessary.
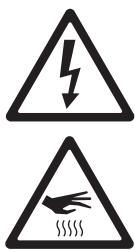
Cleaning

Cleaning schedules for lighting fixtures vary greatly depending on the operating environment. It is therefore impossible to specify precise cleaning intervals for the Atomic 3000 LED. Environmental factors that may result in a need for frequent cleaning include:

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

If one or more of these factors is present, inspect fixtures within their first 100 hours of operation to see whether cleaning is necessary. Check again at frequent intervals. This procedure will allow you to assess cleaning requirements in your particular situation. If in doubt, consult your Martin dealer about a suitable maintenance schedule.
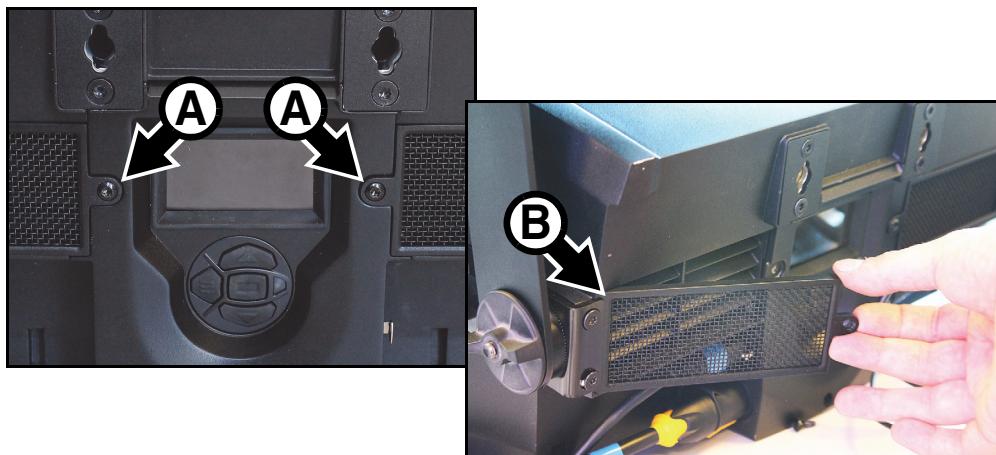
Use gentle pressure only when cleaning, and work in a clean, well-lit area. Do not use any product that contains solvents or abrasives, as these can cause surface damage.

Warning! Disconnect from power and allow to cool before cleaning.

To clean the fixture:

1. Disconnect the fixture from power and allow it to cool for at least 10 minutes.
2. Vacuum or gently blow away dust and loose particles from the outside of the fixture and the air vents at the back and base with low-pressure compressed air. Do not direct compressed air or air suction at fans, as this may damage them.
3. If the air grills on the back of the fixture are not perfectly clean, see Figure 10. Remove the air grill retaining screws **A**, swing the grills out and remove the grills from the back of the fixture. Clean the grills with a soft brush and vacuum cleaner. If there is any oily residue on the grills, clean them in a detergent solution, then dry them thoroughly. Reinstall the grills by first hooking the outside edge **B** into the grill aperture, then installing the screws **A**.
4. Clean the front glass by wiping gently with a soft, clean lint-free cloth moistened with a weak detergent solution. Do not rub the surface hard: lift particles off with a soft repeated press. Dry with a soft, clean, lint-free cloth or low-pressure compressed air. Remove stuck particles with an unscented tissue or cotton swab moistened with glass cleaner or distilled water.
5. Check that the fixture is dry before reapplying power.

Figure 10: Removing air grills

Control menu service utilities

The control panel **SERVICE** menu provides utilities for technicians rigging or servicing the fixture:

• **ERROR LIST** displays any error messages that are stored in internal memory.
• **FAN CLEAN** lets you set all cooling fans to run at maximum speed for a short period for cleaning purposes.
• **USB** lets you update the firmware (fixture software) using a USB memory device. For a detailed guide to updating the firmware, see the next section in this chapter.

Firmware installation

The currently installed firmware (fixture software) version can be viewed in the control panel INFORMATION menu.

Firmware updates can be downloaded from the Martin™ website and can be installed using a USB memory device or a Windows PC running the Martin Uploader application and either a Martin M-DMX USB-DMX interface device or a Martin DABS1™ USB-DMX interface device.

Fixture information and settings are not normally affected when you install new firmware, but check the firmware release notes and any service notes for the firmware version on the Martin™ website. These notes will give details if updating to the new firmware will affect settings. A firmware update can also affect fixture behavior and DMX control. If necessary, a new DMX protocol will be available with the release notes.

Do not switch the fixture off during a firmware update, or firmware may be corrupted.

Installing using a USB memory device

Important! ***Do not remove a USB memory device while the fixture is updating files.***

The following are required in order to install firmware using a USB memory device:
- The Atomic 3000 LED firmware update file, available for download from the Martin website at http://www.martin.com.
- A USB memory device with the update file copied from a PC into the USB device's root directory.

To install the Atomic 3000 LED firmware:

1. Download the .BANK (bank) firmware file from the Atomic 3000 LED Product Support / Tech Docs page at www.martin.com, unzip it if necessary, and copy it to the root directory of a USB memory device.

2. Read the firmware release notes carefully to check for any instructions or warnings.

3. Disconnect the data link from the Atomic 3000 LED.

4. See Figure 11. Insert the USB memory device into the Atomic 3000 LED's USB host socket. The fixture should recognize the USB device, illuminate the display and show **UPDATING FILE LIST** in the display while it checks and if necessary updates its internal memory with any new firmware versions stored on the USB device. If the fixture does not recognize the USB device, scroll to the **USB** menu under **SERVICE** in the control panel.

Figure 11: USB host socket

5. When the fixture has updated its internal memory, **AVAILABLE FIRMWARE** will appear in the display. You can now scroll through the firmware versions available in memory.

6. To install a firmware version, select it by scrolling with the UP and DOWN buttons and then pressing ENTER. The Atomic 3000 LED asks you to confirm installation of the new firmware. If you do not want to install that version, press MENU.

7. Allow the fixture to install the firmware and reboot.

8. Remove the USB memory device. The newly-installed firmware version will now be displayed in the **INFORMATION** menu.

9. Reconnect the data link.

10. Cycle power off and on. Check that the fixture resets correctly. If an error message appears in the display, cycle power off and on again and check that the fixture now resets correctly.

11. If you have installed a new firmware version, check the Martin™ website at www.martin.com to see whether an updated User Guide is available for the new firmware.

Installing using a PC and hardware interface

The following are required in order to install firmware using a PC:
- The latest version of the Atomic 3000 LED software, available for download free of charge from the product's support area on the Martin website at http://www.martin.com
- A Windows PC running the latest version of the Martin Uploader™ application (also available for download free of charge from www.martin.com) and loaded with the firmware update file.
- A USB-DMX hardware interface device such as the Martin M-DMX or Martin DABS1™.

To install the Atomic 3000 LED firmware:

1. Download the firmware '.MU3' file from the Atomic 3000 LED support page on the Martin website to the PC.

2. Read the firmware release notes carefully to check for any instructions or warnings.

3. Follow the instructions for an auto upload/upload via DMX in the Martin Uploader application help files and supplied with the hardware interface.

Fixture readouts

See also "Fixture information readouts" on page 19.

DMX input signal

The **DMX LIVE** menu lets you view the DMX values received on each channel in the mode it is currently set to. If the fixture does not behave as expected, reading the DMX values can help you troubleshoot the problem.

Fixture status

The Atomic 3000 LED gives fixture status readouts in the **INFORMATION** menu:
- Power on hours. You can view the number of hours since the resettable counter was last reset or the total number of hours since manufacture. You can also reset the resettable counter to zero.
- Power cycles. You can view the number of times power has been cycled on and off since the resettable counter was last reset or the total number of power cycles since manufacture. You can also reset the resettable counter to zero.
- Color scroller connection. This readout lets you check whether an Atomic Colors scroller unit has been correctly connected and recognized by the fixture.
- Current fixture software version information.
- The fixture's RDM ID number.
- Current fan speeds for each of the fixture's cooling fans.
- Temperature readouts from the fixture's PCBs. In each case, you can view the current temperature and the maximum temperature reached since power was applied to the fixture.

Display messages

If an error occurs, the Atomic 3000 LED gives fixture status readouts in the display. See "Service and display messages" on page 34.

DMX protocol

3-Channel DMX Mode

Channel	DMX value	Function	Fade status	Default value
1	0 1- 255	**Beam flash intensity** Blackout Minimum → maximum intensity	Snap	0
2	0 - 255	**Beam flash duration** 7→ 650 ms	Snap	0
3	0 - 255	**Beam flash rate** 0.289 → 16.67 Hz	Snap	0

Table 2: DMX Protocol - 3 Channel Mode

4-Channel DMX Mode

Channel	DMX value	Function	Fade status	Default value
1	0 1- 255	**Beam flash intensity** Blackout Minimum → maximum intensity	Snap	0
2	0 - 255	**Beam flash duration** 7→ 650 ms	Snap	0
3	0 - 255	**Beam flash rate** 0.289 → 16.67 Hz	Snap	0
4	0 - 5 6 - 42 43 - 85 86 - 128 129 - 171 172 - 214 215 - 255	**Beam special effects** No effect Ramp up Ramp down Ramp up, down Random Lightning Spikes (flash over low light)	Snap	0

Table 3: DMX Protocol - 4 Channel Mode

Extended DMX Mode

Channel	DMX value	Function	Fade status	Default value
		Main control channels		
1	0 1- 255	**Beam flash intensity** Blackout Minimum → maximum intensity	Snap	0
2	0 - 255	**Beam flash duration** 7→ 650 ms	Snap	0
3	0 - 255	**Beam flash rate** Slow (0.289) → fast (16.67 Hz)	Snap	0
4	0 - 5 6 - 42 43 - 85 86 - 128 129 - 171 172 - 214 215 - 255	**Beam special effects** No effect Ramp up Ramp down Ramp up, down Random Lightning Spikes (flash over low light)	Snap	0
5	0 - 9 10 - 14 15 - 22 23 24 25 26 27 - 35 36 37 38 - 51 52 53 54 55 56 57 58 59 60 61 - 255	**Control / settings** No function Reset entire fixture - 5 sec. *No function* Linear dimming curve - 1 sec. (menu override, setting unaffected by power off/on) Square law dimming curve - 1 sec. (menu override, factory default setting, setting unaffected by power off/on) Inverse square law dimming curve - 1 sec. (menu override, setting unaffected by power off/on) S-curve dimming curve - 1 sec. (menu override, setting unaffected by power off/on) *No function* Enable video tracking Disable video tracking *No function* Turn on control panel display - 1 sec. Turn off control panel display - 1 sec. Regulated fans speed, fixed light output intensity = full (default setting, menu override, setting unaffected by power off/on) Fixed fan speed = full, regulated light output intensity (menu override, setting unaffected by power off/on) Fixed fan speed = medium, regulated light output intensity (menu override, setting unaffected by power off/on) Fixed fan speed = low, regulated light output intensity (menu override, setting unaffected by power off/on) Fixed fan speed = ultra low, regulated light output intensity (menu override, setting unaffected by power off/on) Strobe behavior = LED (menu override, setting unaffected by power off/on) Strobe behavior = Xenon (menu override, setting unaffected by power off/on) *No function*	Snap	0
6	0 - 255	**FX select** Pre-programmed effect selection (see "FX: pre-programmed effects" on page 31)	Snap	0
7	0 - 126 127 - 128 129-255	**FX adjustment** Effect reversed fast → slow Effect stops Effect slow → fast	Fade	128

Table 4: DMX Protocol - Extended Mode

Channel	DMX value	Function	Fade status	Default value
8		**FX synchronization**	Snap	0
	0	No sync		
	1	Offset shift 10°		
	2	Offset shift 20°		
	3	Offset shift 30°		
	4	Offset shift 40°		
	5	Offset shift 50°		
	6	Offset shift 60°		
	7	Offset shift 70°		
	8	Offset shift 80°		
	9	Offset shift 90°		
	10	Offset shift 100°		
	11	Offset shift 110°		
	12	Offset shift 120°		
	13	Offset shift 130°		
	14	Offset shift 140°		
	15	Offset shift 150°		
	16	Offset shift 160°		
	17	Offset shift 170°		
	18	Offset shift 180°		
	19	Offset shift 190°		
	20	Offset shift 200°		
	21	Offset shift 210°		
	22	Offset shift 220°		
	23	Offset shift 230°		
	24	Offset shift 240°		
	25	Offset shift 250°		
	26	Offset shift 260°		
	27	Offset shift 270°		
	28	Offset shift 280°		
	29	Offset shift 290°		
	30	Offset shift 300°		
	31	Offset shift 310°		
	32	Offset shift 320°		
	33	Offset shift 330°		
	34	Offset shift 340°		
	35	Offset shift 350°		
	36	Synchronized: all fixtures start FX cycles at same time		
	37 - 100	*No function*		
	101 - 120	Random start		
	121 - 140	Random duration		
	141 - 255	*No function*		

Aura control channels

Channel	DMX value	Function	Fade status	Default value
9		**Aura strobe/shutter effect**	Snap	30
	0 - 19	Shutter closed		
	20 - 49	Shutter open		
	50 - 200	Strobe, slow → fast		
	201 - 210	Shutter open		
	211 - 255	Random strobe, slow → fast		
10		**Aura dimmer**	Fade	0
	0 - 255	Closed → Open		
11		**Aura red**	Fade	255
	0 - 255	0% → 100%		
12		**Aura green**	Fade	255
	0 - 255	0% → 100%		
13		**Aura blue**	Fade	255
	0 - 255	0% → 100%		

Table 4: DMX Protocol - Extended Mode

Channel	DMX value	Function	Fade status	Default value
14		**Aura color presets ('color wheel' effect)**	Snap	0
	0 - 10	Open. RGB color mixing enabled		
	11 - 15	Color 1 - LEE 790 - Moroccan pink		
	16 - 20	Color 2- LEE 157 - Pink		
	21 - 25	Color 3 - LEE 332 - Special rose pink		
	26 - 30	Color 4 - LEE 328 - Follies pink		
	31 - 35	Color 5 - LEE 345 - Fuchsia pink		
	36 - 40	Color 6 - LEE 194 - Surprise pink		
	41 - 45	Color 7 - LEE 181 - Congo Blue		
	46 - 50	Color 8 - LEE 071 - Tokyo Blue		
	51 - 55	Color 9 - LEE 120 - Deep Blue		
	56 - 60	Color 10 - LEE 079 - Just Blue		
	61 - 65	Color 11 - LEE 132 - Medium Blue		
	66 - 70	Color 12 - LEE 200 - Double CT Blue		
	71 - 75	Color 13 - LEE 161 - Slate Blue		
	76 - 80	Color 14 - LEE 201 - Full CT Blue		
	81 - 85	Color 15 - LEE 202 - Half CT Blue		
	86 - 90	Color 16 - LEE 117 - Steel Blue		
	91 - 95	Color 17 - LEE 353 - Lighter Blue		
	96 - 100	Color 18 - LEE 118 - Light Blue		
	101 - 105	Color 19 - LEE 116 - Medium Blue Green		
	106 - 110	Color 20 - LEE 124 - Dark Green		
	111 - 115	Color 21 - LEE 139 - Primary Green		
	116 - 120	Color 22 - LEE 089 - Moss Green		
	121 - 125	Color 23 - LEE 122 - Fern Green		
	126 - 130	Color 24 - LEE 738 - JAS Green		
	131 - 135	Color 25 - LEE 088 - Lime Green		
	136 - 140	Color 26 - LEE 100 - Spring Yellow		
	141 - 145	Color 27 - LEE 104 - Deep Amber		
	146 - 150	Color 28 - LEE 179 - Chrome Orange		
	151 - 155	Color 29 - LEE 105 - Orange		
	156 - 160	Color 30 - LEE 021 - Gold Amber		
	161 - 165	Color 31 - LEE 778 - Millennium Gold		
	166 - 170	Color 32 - LEE 135 - Deep Golden Amber		
	171 - 175	Color 33 - LEE 164 - Flame Red		
	176 - 180	Color 34 - Magenta		
	181 - 185	Color 35 - Medium Lavender		
	186 - 190	Color 36 - White		
		Aura 'color wheel rotation' effect		
	191 - 214	Clockwise, fast → slow		
	215 - 219	Stop (this will stop wherever the color is at the time)		
	220 - 243	Counter-clockwise, slow → fast		
		Aura random colors		
	244 - 247	Fast		
	248 - 251	Medium		
	252 - 255	Slow		

Table 4: DMX Protocol - Extended Mode

Note: DMX values labeled "*No function*" will have no effect - the last functional value will be used.

FX: pre-programmed effects

The table below lists the pre-programmed dynamic effects (macros) that can be controlled using DMX channels 6 and 7 in Extended mode.

Select an effect on channel 6 by sending the value listed in the table. Adjust effect parameters such as speed and intensity on channel 7, and adjust synchronization of effects across different fixtures on channel 8.

The dimmer channel will always control the intensity of the selected FX. Depending on which FX you select, the FX will either modify or override certain parameters without affecting control of others. If you select an RGB step, for example, it will override any values you are sending on the RGB channels, but the dimmer channel will still control intensity.

Applicable when running Atomic 3000 LED firmware version 1.0.0.

DMX value	Effect	DMX value	Effect	DMX value	Effect
	Beam effects	81	Random subtle wave	135	Color shaker CW vertical
0	*No function*	82-83	*No function*	136	Color shaker CW horizontal
1	Wave (sine wave)	84	Red white blue fade	137	Color shaker CW vertical and no black frame
2	Step (50/50 on/off)	85	Red white blue snaps	138	Color shaker CW horizontal and no black frame
3	Pulse	86-95	*No function*		
4-5	*No function*	96	Fire	139-143	*No function*
6	Double strobe	97	Water	144	Swimming pool
7	Triple strobe	98	Ice	145	Electric arc
8-10	*No function*	99	Hot and cold	146-150	*No function*
11	Up, down, flash	100	Warm and fuzzy		**Combined effects**
12	Up, flash, down, flash	101	Silver and gold	151	*No function*
13	Random levels	102	Gold and silver	152	Thunderstorm
14-19	*No function*	103	*No function*	153	Welding
20	House light	104	Circular chase slim	154	3 Step strobe
21-50	*No function*	105	Circular chase wide	155	Tick Tock
	Aura effects	106-107	*No function*	156	Aura ramp beam flash
51	Aura pulse	108	Double circular chase slim	157	Beam ramp aura flash
52-53	*No function*	109	Double circular chase wide	158-160	*No function*
54	Aura ramp	110-111	*No function*	161	Police Car 4
55	*No function*	112	Vertical scroll	162	Police Car 5
56	Rainbow wave	113	Horizontal scroll (L/R)	163	Police Car 6
57	Rainbow step	114-115	*No function*	164	Police Car 7
58	Rainbow pulse	116	Knight Rider slim	165	Police Car 8
59-60	*No function*	117	Knight Rider wide	166	Police Car 9
61	RGB wave	118	Knight Rider slim with CW surface	167-255	*No function*
62	RGB step	119	*No function*		
63	RGB pulse	120	4 segments scroll		
64-65	*No function*	121	6 segments scroll		
66	CMY wave	122-123	*No function*		
67	CMY step	124	Police car 1		
68	CMY pulse	125	Police car 2		
69-70	*No function*	126	Police car 3		
71	Mix to white wave	127-129	*No function*		
72	Mix to white step	130	Full bumps		
73	Mix to white pulse	131	Split bumps CW vertical		
74-75	*No function*	132	Split bumps CW horizontal		
76	Random mix wave	133	Random split bumps CW vertical		
77	Random mix step	134	Random split bumps CW horizontal		
78	Random mix pulse				
79-80	*No function*				

Table 5: FX in the Atomic 3000 LED

Note: DMX values labeled "*No function*" will clear any effect currently running.

Onboard control menus

Default settings are indicated in **bold print**

Menu	Item	Options	Notes
DMX ADDRESS		**1 – XXX**	DMX address (default address = **1**). **XXX** means that the DMX address range is limited so that the fixture will always have enough DMX channels within the 512 available.
CONTROL MODE		**3 CHANNEL**	Control of Beam strobe frequency, intensity and flash duration.
		4 CHANNEL	Control of Beam strobe frequency, intensity and flash duration plus access to basic Beam effects.
		EXTENDED	**Control of Beam strobe frequency, intensity and flash duration, basic Beam effects, RGB control of Aura, fixture control/settings, pre-programmed FX.**
FIXTURE ID		**0 – 9999**	User-definable fixture ID number.
PERSONALITY	**DIMMER CURVE**	**LINEAR**	Linear dimming curve
		SQUARE LAW	**Square law dimming curve**
		INV SQUARE LAW	Inverse square law dimming curve
		S-CURVE	S-curve dimming curve
	STROBE BEHAVIOR	**LED**	**Solid LED flash**
		XENON	Flash simulates mains frequency cycles of a Xenon tube
	VIDEO TRACKING	**ENABLED**	Color fading optimized for speed of changes
		DISABLED	**Color fading optimized for smoothness**
	COOLING MODE	**REGULATE FANS**	**Cooling fan speed thermostatically regulated**
		CONSTANT FAN ULOW	Constant fan speed, ultra-low speed
		CONSTANT FAN LOW	Constant fan speed, low speed
		CONSTANT FAN MID	Constant fan speed, medium speed
		CONSTANT FAN HIGH	Constant fan speed, high speed
	DMX RESET	**OFF**	Disable reset via DMX
		ON	**Enable reset via DMX**
	DISPLAY	**DISPLAY SLEEP**	**ON / 2 MINUTES / 5 MINUTES / 10 MINUTES** Display remains on constantly / sleeps if no control buttons pressed for 2, 5 or 10 minutes. Default = **2 minutes**.
		DISPLAY INTENSITY	Display intensity. Default=**100%**
		DISPLAY ROTATION	Display rotation **NORMAL / 180°**. Default= **NORMAL**
		DISPLAY CONTRAST	Display contrast 3% - 100%. Default=**41%**
	ERROR MODE	**NORMAL**	**Any errors detected are listed in display at 100% intensity (regardless of DISPLAY INTENSITY setting), status LED lights**
		SILENT	Error messages not shown in display, status LED lights
DEFAULT SETTINGS	**FACTORY DEFAULT**	**LOAD**	Return all settings (except calibrations) to factory defaults *NB: can take up to 2 minutes to complete!*
	CUSTOM 1	**LOAD**	Load Custom Settings 1 from memory
		SAVE	Save current fixture settings as Custom Settings 1 (overwrites existing Custom Settings 1)
	CUSTOM 2	**LOAD**	Load Custom Settings 2 from memory
		SAVE	Save current fixture settings as Custom Settings 2 (overwrites existing Custom Settings 2)
	CUSTOM 3	**LOAD**	Load Custom Settings 3 from memory
		SAVE	Save current fixture settings as Custom Settings 3 (overwrites existing Custom Settings 3)

Table 6: Control menu

Menu	Item	Options	Notes
INFO	POWER ON TIME	TOTAL X HOUR	Display total hours of operation since manufacture
		RESETTABLE X HOUR	**CLEAR COUNTER** → **YES/NO** Reset counter to zero
	POWER CYCLES	TOTAL X	Display total hours of operation since manufacture
		RESETTABLE X	**CLEAR COUNTER** → **YES/NO** Reset counter to zero
	COLOR SCROLLER	CONNECTED	**YES/NO** Display whether Atomic Colors scroller is correctly connected
	SW VERSION	X.X.X	Display current CPU firmware version
	RDM UID	4D50:XXXXXXXX	Display unique RDM ID
	FAN SPEEDS	BASE FAN 1 X RPM	Display current speed of base fan 1, **NA**, 0-10000 RPM
		BASE FAN 2 X RPM	Display current speed of base fan 2, **NA**, 0-10000 RPM
		BASE FAN 3 X RPM	Display current speed of base fan 3, **NA**, 0-10000 RPM
		BASE FAN 4 X RPM	Display current speed of base fan 4, **NA**, 0-10000 RPM
	TEMPERATURES	USER INTERFACE X C	**CURRENT** - **MIN** - **MAX** Display current, minimum or maximum temperature in degrees Celsius since power was last cycled off and on for user interface PCB
		STROBE X C	**CURRENT** - **MIN** - **MAX** Display current, minimum or maximum temperature in degrees Celsius since power was last cycled off and on for strobe LEDs PCB
		POWER UNIT X C	**CURRENT** - **MIN** - **MAX** Display current, minimum or maximum temperature in degrees Celsius since power was last cycled off and on for internal PSU
DMX LIVE	RATE	XX Hz	DMX transmission speed, live, in packets per second
	QUALITY	0 - 100%	Percentage of packets received with errors, live
	STARTCODE	0 - 255	Decimal value of DMX start code, live
	CHANNEL [Y] X	[Y] 0 - 255	Scrolls through DMX value received on each DMX channel: *[Y] = DMX channel number in current DMX control mode, X = DMX value received on that channel*
TEST	TEST LEDS	BEAM STATIC	Beam LEDs activated at low intensity for inspection purposes
		BEAM OFF	Beam LEDs blacked out
		BEAM STROBE	Test Beam LEDs only
		RED AURA	Test red Aura LEDs only
		BLUE AURA	Test blue Aura LEDs only
		GREEN AURA	Test green Aura LEDs only
MANUAL CONTROL	RESET		Reset fixture
	CHANNEL [Y] X		Send DMX value X on channel [Y]
SERVICE	ERROR LIST		Displays any active errors
	FAN CLEAN		**OFF**/ON Stops and starts fan self-cleaning
	USB		**NO DEVICE / 1.x etc.** Scrolls through valid software versions found on memory device at USB port

Table 6: Control menu

Service and display messages

The Atomic 3000 LED gives service and maintenance information by displaying a large 3- or 4-character short code and a smaller full-text message in the fixture's display. The short code is visible at a distance, allowing easier reading if the fixture is overhead in a rig, for example, while the full-text message gives more detailed information.

Warning messages

Warning messages indicate that either:
* problems might appear in the future if no action is taken, or
* the user needs to pay special attention to a function or procedure when working with the fixture.

The Atomic 3000 LED communicates warnings as follows:
* Warning codes are shown continuously in the display and disappear when the user reacts to the warning.
* If more than one warning is detected, all warnings are displayed in sequence.
* If the display is inactive, the fixture's status LED (see Figure 8 on page 16) flashes orange to indicate that there is a warning. Activating the display will show the warning.

The possible warning messages are listed in Table 7 below:

Short code	Long message and explanation
BANK	BANK NO ACCESS Error unpacking firmware bank during/after software upload. Fixture will continue to operate on existing firmware. Warning message is cleared by a successful software upload or at the next power off/on cycle.
BETW	BEAM TEMP HIGH Beam PCB sensor detects that normal operating temperature is exceeded.*
PUTW	PSU TEMP HIGH Power supply unit PCB sensor detects that normal operating temperature is exceeded.*
SL W	SAFETY LOOP A safety loop error occurred but is no longer active. Warning message is cleared at the next power off/on cycle.
UITW	UI TEMP HIGH Control panel PCB sensor detects that normal operating temperature is exceeded.*

Table 7: Warning messages

* High temperature warnings are canceled as soon as temperature returns to normal. If temperature reaches cutoff level, the warning is replaced by a cutoff error message.

Error messages

Error messages indicate that there is a serious problem. The Atomic 3000 LED communicates errors as follows:

- Error messages flash in the display.
- If more than one error is detected, the fixture flashes all errors three times each.
- Errors are shown in the display regardless of display status: they override an inactive display and any other information that the display might be showing.
- If an error is present, the status LED flashes red.

The possible error messages are listed in Table 8 below:

Short code	Long message and explanation
BETC	BEAM TMP CUTOFF Beam PCB temperature too high. Beam shut down, fans set to max. Error message is cleared when fixture is reset.
COLD	FIXTURE COLD PCBs are below -20° C (-4° F). Effect operation may be abnormal or disabled due to cold.
FAN	BASE FAN 1 ERR Base cooling fan 1 has stopped running. Error message is cleared when fixture is reset.
FAN	BASE FAN 2 ERR Base cooling fan 2 has stopped running. Error message is cleared when fixture is reset.
FAN	BASE FAN 3 ERR Base cooling fan 3 has stopped running. Error message is cleared when fixture is reset.
FAN	BASE FAN 4 ERR Base cooling fan 4 has stopped running. Error message is cleared when fixture is reset.
PUTC	PSU TEMP CUT OFF PSU temperature too high. Thermal cutoff activated. Light output is shut down, fans set to max. Error message is cleared when fixture is reset.
PUTE	PSU TEMP SEN ERR Error in PSU temperature sensor detected. Thermal cutoff activated. Light output is shut down. Error message is cleared when sensor error is no longer detected.
SLER	SAFETY LOOP Lamp safety loop circuit activated. Lamp temperature circuit breaker has cut lamp power. Circuit breaker resets automatically after lamp temperature has returned to normal operating range.
UITC	UI TEMP CUT OFF User interface PCB temperature too high. Thermal cutoff activated. Light output is shut down, fans set to max. Error message is cleared when fixture is reset.
UITE	UI TEMP SEN ERR Error in user interface temperature sensor detected. Thermal cutoff activated. Light output is shut down. Error message is cleared when sensor error is no longer detected.

Table 8: Error messages

Troubleshooting

Problem	Probable cause(s)	Remedy
Fixture is completely dead.	No power to fixture.	Check AC mains power and connections.
	Internal circuit fault.	Have faulty fixture serviced by Martin service technician.
One or more fixtures resets correctly but responds erratically or not at all to the controller.	Fault on data link.	Inspect connections and cables. Correct poor connections. Repair or replace damaged cables.
	Data link not terminated.	Insert termination plug in output connector of the last fixture on the link.
	Incorrect fixture DMX addressing.	Check addressing on fixture and controller. Check fixture profile on controller. Check fixture is set to correct DMX mode.
	One of the fixtures is defective and is disturbing data transmission on the link.	Unplug XLR in and out connectors and connect them directly together to bypass one fixture at a time until normal operation is regained. Have faulty fixture serviced by Martin service technician.
	XLR pin-out on fixtures does not match (pins 2 and 3 reversed).	Install a phase-reversing cable between the fixtures or swap pins 2 and 3 in the fixture that behaves erratically.
	DMX port exposed to electrostatic discharge during installation.	Cycle power off and on.
Light output shuts down unexpectedly.	Fixture is too hot.	Clean the fixture, especially air vents. Ensure free airflow around fixture. Check that ambient temperature does not exceed max. permitted level. Switch to FULL cooling mode. If problem persists, contact Martin for advice.
One or more color scrollers move their gel strip without receiving a command from the controller.	Electronic switching noise from other equipment.	Keep cables that carry data away from other equipment. Keep cable runs to a minimum, including cable that connects fixture to color scroller.
One or more color scrollers reset (gel strip scrolls to end position and back to set position within a few seconds).	Heavy load on mains branch circuit turned on or off, causing surge that affects color scroller.	Give fixtures their own separate DMX universe and/or mains branch circuit. Use an optically isolated DMX splitter-amplifier.
MCB (Miniature Circuit Breaker) trips and/or house lights flicker during initial power on or in use.	Fixtures generating current peaks.	See AC power chapter in this manual and follow recommendations for type of MCB and for maximum permitted number of fixtures on each mains branch circuit.

Table 9: Troubleshooting

Specifications

Physical

Length . . . . .245 mm (9.7 in.)
Width . . . . .425 mm (16.8 in.)
Height . . . . .240 mm (9.5 in.)
Weight . . . . 7.8 kg (17.2 lbs.)

All data including mounting bracket

Dynamic Effects

Strobe . . . . 0.289 - 16.667 Hz, variable flash rate, intensity and duration
Special effects . . . . .Blinder, ramp up/down, random flash, lightning. spikes, pre-programmed FX
Aura (secondary LED array illumination) color mixing. . . . . .RGB

Control and Programming

Control systems. . . . . .DMX, RDM
DMX channels 3/4/14
Setting and addressing . . . . Control panel with backlit monochrome graphic display
DMX compliance . . . . USITT DMX512-A
RDM compliance . . . . .ANSI/ESTA E1.20 RDM
Transceiver. RS-485
Firmware update . . . . USB memory key or via DMX with Martin™ M-DMX interface

Construction

Color . . . . Black
Housing . . . . Steel. high-impact thermoplastic, flame-retardant to UL 94 5VA
Protection rating. . . . . .IP 20

Installation

Mounting points . . . . .Two pairs of quarter-turn fastener points, M12 holes in adjustable bracket
Orientation . . . . .Any
Minimum distance to combustible materials . . . . 20 cm (8 in.) from fixture
Minimum distance to illuminated surfaces. . . . . .1 m (3 ft. 4 in.) from fixture
Location . . . . Indoor use only, must be fastened to structure or surface

Connections

AC power. . . . . Neutrik PowerCON TRUE1 male socket
DMX data in/out. . . . . .5-pin locking XLR
Atomic Colors color gel scroller . . . . .4-pin locking XLR
Software upload. . . . . USB 2.0

Electrical

AC power. . . . . 100-240 V~ nominal, 50/60 Hz
Power supply unit. . . . . Auto-ranging electronic switch mode
Maximum power consumption . . . . .740 W
Power consumption, zero light output . . . . <25 W
Rated current consumption . . . . 3.9 - 8.4 A
Peak current consumption . . . . .17.7 A
Typical half-cycle RMS inrush current . . . . .17.7 A

Typical Power and Current
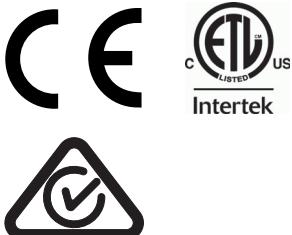
100 V, 60 Hz. . . . . 663 W, 6.8 A, PF 0.98
120 V, 60 Hz. . . . . 655 W, 5.7 A, PF 0.96
208 V, 60 Hz. . . . . 645 W, 3.5 A, PF 0.89
230 V, 50 Hz. . . . . 642 W, 3.2 A, PF 0.88
240 V, 50 Hz. . . . . 642 W, 3.1 A, PF 0.87

*Measurements made at nominal voltage with all LEDs at full strobe intensity. Allow for a deviation of +/-
10%. Allow for peak currents that exceed these figures when using the blinder effect. PF = power factor.*

Thermal

Cooling. . . . . .Forced air (temperature-regulated, low noise, user-definable fan settings)
Maximum ambient temperature (Ta max.) . . . . 40° C (104° F)
Minimum ambient temperature (Ta min.) . . . . 5° C (41° F)
Typical total heat dissipation (calculated, +/- 10%) . . . . 2270 BTU/hr.

Approvals

EU safety . . . . EN 60598-2-17 (EN 60598-1), EN 62471, EN 62493
EU EMC . . . . EN 55015, EN 55032, EN 55103-2
US safety . . . . UL 1573
US EMC . . . . 47 CFR 15 Class A
Canadian safety . . . . CSA E598-2-17 (CSA E60598-1)
Canadian EMC . . . . ICES-003 Class A
Australia/NZ . . . . .RCM

Accessories

Atomic Colors gel scroller . . . . P/N 91611086

Power cables

Power input cable, 14 AWG, SJT, 1.5 mm^2, H05VV-F,
   with female PowerCON TRUE1 NAC3FX-W power input connector, 3 m (9.8 ft.) . . . . P/N 11541513

Power connectors

Cable connector, power input, female, PowerCON TRUE1 NAC3FX-W . . . . P/N 05323416

Installation hardware

Small omega bracket with quarter-turn fasteners . . . . P/N 91602001
Half-coupler clamp. . . . . P/N 91602005
G-clamp (vertical hanging installation only) . . . . P/N 91602003
Quick trigger clamp (vertical hanging installation only) . . . . P/N 91602007
Safety wire, safe working load 50 kg . . . . P/N 91604003

Related Items

Martin M-DMX (USB-DMX Interface Box for firmware uploads)

M-PC 2U™ incl. Martin M-DMX Interface Box and USB cable . . . . P/N 90737070
LightJockey™/M-PC™ Package including Martin M-DMX
     Interface Box, USB cable and Martin One-Key™ dongle . . . . P/N 90737060

Data link splitter-amplifiers

Martin™ DMX 5.3 Splitter . . . . P/N 90758140
Martin™ RDM 5.5 Splitter . . . . P/N 90758150

Ordering Information

Atomic 3000™ LED in cardboard box . . . . P/N 90425000

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

Photobiological Safety Warning

The labels shown on the left are displayed on this product. If a label becomes difficult or impossible to read, it must be replaced using the illustration on the left to reproduce a new label.

FCC Compliance

This device complies with Title 47 Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Canadian Interference-Causing Equipment Regulations - *Règlement sur le Matériel Brouilleur du Canada*

This Class A digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.
Cet appareil numérique de la classe A respecte toutes les exigences du Règlement sur le Matériel Brouilleur du Canada.

Disposing of this product

Martin™ products are supplied in compliance with Directive 2012/19/EC of the European Parliament and of the Council of the European Union on WEEE (Waste Electrical and Electronic Equipment), where applicable.

Help preserve the environment! Ensure that this product is recycled at the end of its life. Your supplier can give details of local arrangements for the disposal of Martin products.
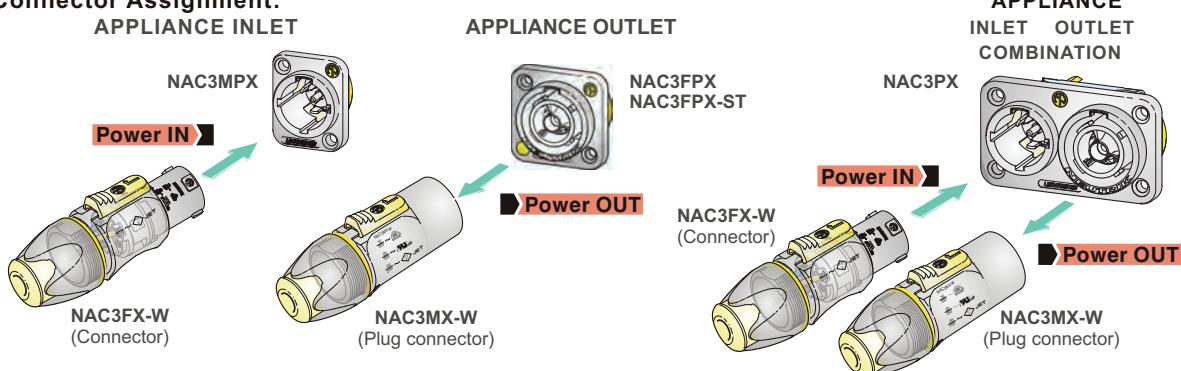
OPERATING & ASSEMBLY INSTRUCTION
NAC3MX-W | powerCON TRUE1

## A. OPERATING INSTRUCTION

Application:
The powerCON **TRUE1** system is certified as connector with breaking capacity according IEC 60320, VDE 0625. It is intended for use as appliance couplers and interconnection couplers. It serves to supply power to an appliance and from an appliance to another equipment. To be installed by qualified person only.

Connector Assignment:

APPLIANCE INLET

APPLIANCE OUTLET

APPLIANCE
INLET   OUTLET
COMBINATION

NAC3MPX

Power IN ▶

Power OUT

NAC3FPX
NAC3FPX-ST

NAC3PX

Power IN ▶

Power OUT

NAC3FX-W
(Connector)

NAC3FX-W
(Connector)

NAC3MX-W
(Plug connector)

NAC3MX-W
(Plug connector)

Approval based:	VDE EN 60320-1/EN60320-2-2	✓	UL UL 498 / CSA C22.2 No. 182.3	✓
Rating:	250 V ac / 16 A		250 V ac / 20 A	
Cable Type:	H05VV-F3G 1.0 mm^2, Length max. 2 m		SJTOW, SJOOW 3 x 12 AWG	
	H05VV-F3G 1.5 - 2.5 mm^2			
	H07RN-F3G 1.5 mm^2			
Strain Relief:	White chuck		White chuck	
Cable O.D.:	6.0 - 12.0 mm		6.0 - 12.0 mm	
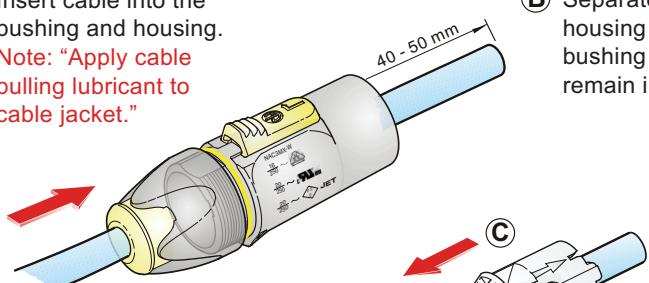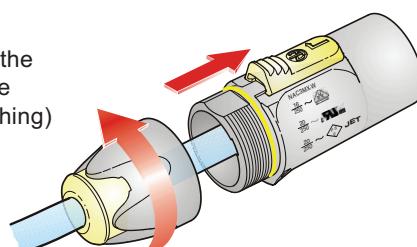
B. ASSEMBLY INSTRUCTION
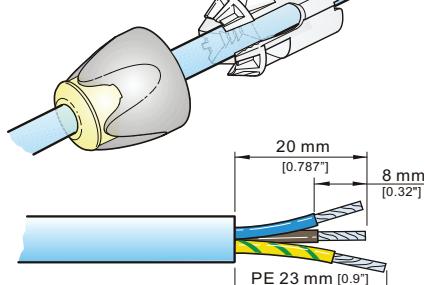
Ⓐ Insert cable into the bushing and housing.
Note: "Apply cable pulling lubricant to cable jacket."

40 - 50 mm
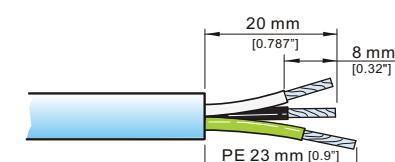
Ⓑ Separate the housing from the bushing (cable remain in bushing)

Ⓒ Place chuck over the cable.

Ⓒ

Ⓓ Prepare cable as shown.

20 mm
[0.787"]

8 mm
[0.32"]

PE 23 mm [0.9"]

20 mm
[0.787"]

8 mm
[0.32"]

PE 23 mm [0.9"]

VDE (EN 60320-1/EN60320-2-2)

**UL** (UL 498 / CSA C22.2 No. 182.3)

E

Torx size T8

Torque Value 0.7 Nm
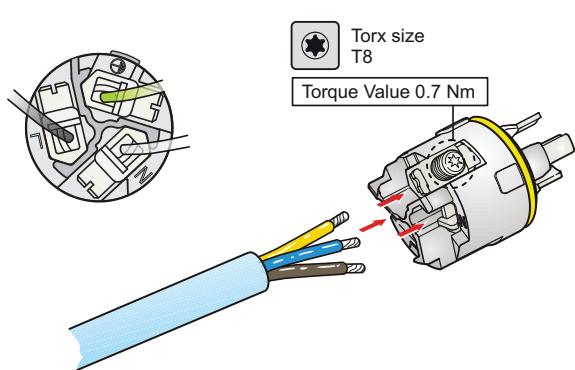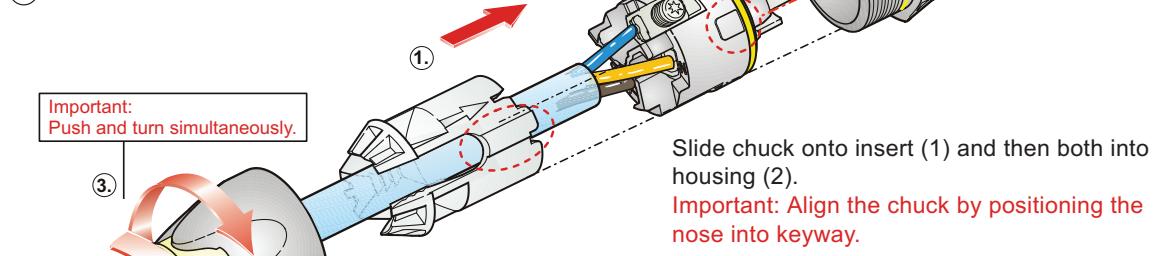
Slide the cable into the contacts and clamp with the screw with Torx size T8.

| Wiring		VDE	UL
L	⇒	brown	black
N	⇒	blue	white
⏚	⇒	green / yellow	green

NAC3MX-W

F

2.

1.

Important:
Push and turn simultaneously.

3.
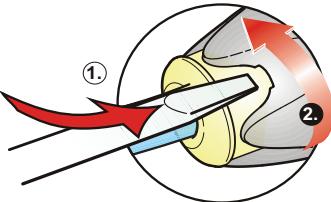
Slide chuck onto insert (1) and then both into housing (2).
Important: Align the chuck by positioning the nose into keyway.

5.

Torque Value 2.0Nm

⚠

6.

G

PRESS FIRMLY

4.

Wrench size 13 mm

Slide the cable clamp bushing up the cable and tighten it with the tool as shown.
Important: Yellow O-ring to hide to achieve IP protection (6).

(Tool available: Art. No. HTAC)

1.

2.
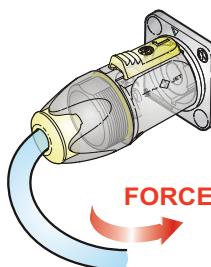
Disassembly (open twist lock):

1. Press with screw driver to unlock
2. Turn bushing while still pressing locking.

CAUTION

To ensure protection category, do not expose the connection to bending forces (e.g. do not attach loads to the cable, no free-dangling cable windings etc.).

FORCE

Instructions reproduced by kind permission of Neutrik AG