High End Systems
SolaPix 37
Automated Luminaire User Manual

Version 1.1.2

Table of Contents

Introduction

Congratulations on your purchase of the SolaPix 37 automated fixture. This manual provides important information for the safe installation, configuration, and maintenance of your SolaPix 37 fixture.

Important Safety Information

Please read all instructions prior to assembling, mounting, and operating this equipment. Continued and safe operation of this fixture is the responsibility of the operator. This manual will give tips for that continued safe operation. At any time please contact Technical Services for any safety concerns.

The following international note, caution, and warning symbols appear in margins throughout this manual to highlight important messages.

Note: *Notes are helpful hints and information that is supplemental to the main text.*

CAUTION: *Hot Surfaces. This statement indicates that while operating, equipment surfaces may reach very high temperatures. Allow the fixture to cool before handling or servicing.*

CAUTION: *A Caution statement indicates situations where there may be undefined or unwanted consequences of an action, potential for data loss or an equipment problem.*

WARNING: A Warning statement indicates situations where damage may occur, people may be harmed, or there are serious or dangerous consequences of an action

WARNING: RISK OF ELECTRIC SHOCK! This warning statement indicates situations where there is a risk of electric shock.

All ETC High End Systems documents are available for free download from our website: etcconnect.com/Products/Live-Events.

Please email comments about this manual to: TechComm@etcconnect.com.

Help from Technical Services

If you are having difficulties and your problem is not addressed by this document, try the ETC support website at support.etcconnect.com or the High End Systems product website at etcconnect.com/Products/Live-Events. If none of these resources are sufficient, contact ETC Technical Services directly at one of the offices identified below. Emergency service is available from all offices outside of normal business hours.

When calling for help, take these steps first:

- Prepare a detailed description of the problem
- Go near the equipment for troubleshooting
- Find your notification number if you have called in previously

ETC, Inc.
Americas

Technical Services Department
3031 Pleasant View Road
Middleton, WI 53562
800-775-4382 (USA, toll-free)
+1-608 831-4116
service@etcconnect.com

ETC Austin
High End Systems Products

Technical Services Department
2105 Gracy Farms Lane
Austin, TX 78758 USA
800-890-8989 (USA, toll-free)
+1-512 836-2242
hesservice@etcconnect.com

ETC Ltd
Europe, Middle East, and Africa

Technical Services Department
26-28 Victoria Industrial Estate
Victoria Road,
London W3 6UU England
+44 (0)20 8896 1000
techservltd@etcconnect.com

ETC GmbH
Germany, Austria, Switzerland,
Eastern Europe, and Russia

Technical Services Department
Ohmstrasse 3
83607 Holzkirchen, Germany
+49 (80 24) 47 00-0
techserv-germany@etcconnect.com

ETC France
France

Zone Urbaparc -
Bâtiment E
6 Boulevard de la Libération
Saint-Denis, 93200
+33 1 4243 3535
techservfrance@etcconnect.com

ETC Asia
Asia

Technical Services Department
Room 1801, 18/F
Tower 1, Phase 1 Enterprise Square
9 Sheung Yuet Road
Kowloon Bay, Kowloon, Hong Kong
+852 2799 1220
techserv-asia@etcconnect.com

Safety Considerations

To ensure safe operation, follow the safety instructions and warning notes in this user manual.

- The SolaPix 37 is intended for professional use only. Not for residential use. Read the entire manual before using this equipment.
- Contact your ETC authorized dealer or Technical Services before performing any service in order to maintain warranty coverage.

Symbols used on the product label are defined below:

1.0 m	The luminaire must be installed at least 1.0 m (3.28 ft) away from all lighted objects.	Le luminaire doit être installé à au moins 1.0 m (3,28 pi.) de tout objet éclairé.
⚠	General warning	Avertissement général
☀	Do not stare at the operating light source.	Ne pas regarder la source de lumière lorsqu'elle fonctionne.
🗑	This product should not be discarded as unsorted waste but must be sent to separate collection facilities for recovery and recycling.	Ce produit ne doit pas être jeté avec les déchets ménagers mais doit être déposé dans une collecte de déchets électroniques ou dans un point de collecte.
⌂	Operate indoors only, not where this product would be exposed to the weather.	Ne fonctionne qu'à l'intérieur, pas là où ce produit serait exposé aux intempéries.

WARNING: Note the following safety warnings before use:

- This equipment is designed for operation by qualified personnel only.
- Replace fuses with the specified type and rating only. See *page 28*.
- Make sure that the available voltage is within the stated range. See *page 11*.
- Do not use this fixture with a damaged power lead (cord set). If the lead is damaged, it must be replaced by a qualified technician with an equivalent type before use. Contact your local authorized dealer for spare power leads.
- Do not use this fixture if the lens is damaged. Damaged lenses must be replaced before use. Contact your local authorized dealer for a replacement.
- Do not mount the fixture on or near flammable surfaces.
- Minimum distance from fixture head to combustible materials: 0.1 m (4.0 in).
- Minimum distance to lighted objects: 1.0 m (3.28 ft).

AVERTISSEMENT : Pour votre sécurité, lisez les mises en garde et les avis suivants avant toute utilisation :

- Cet équipement est conçu pour être utilisé par un personnel qualifié uniquement.
- Remplacez les fusibles uniquement par le type et le calibre indiqués. Voir *page 28*.
- Veillez à ce que la tension disponible soit dans la plage indiquée.Voir *page 11*.
- N'utilisez pas ce projecteur avec un cordon d'alimentation endommagé (fils électriques). Si le cordon est endommagé, un technicien qualifié doit le remplacer par un cordon de type équivalent avant que l'appareil ne puisse être utilisé. Contactez votre distributeur agréé local pour obtenir des cordons d'alimentation de rechange.
- N'utilisez pas cet appareil si la lentille est endommagée. Les lentilles endommagées doivent être remplacées avant l'utilisation. Contactez votre revendeur agréé local pour un remplacement.
- Ne pas installer le projecteur sur ou à côté d'une surface inflammable.
- Distance minimum entre la tête du luminaire et les matériaux combustibles : 0.1 m (4.0 in).
- Distance minimale avec les objets éclairés : 1.0 m (3.28 ft).

WARNING: RISK OF ELECTRIC SHOCK!

- Do not operate this device with the cover open.
- Disconnect the fixture from power and DMX and allow it to cool before performing any cleaning and maintenance.

AVERTISSEMENT : RISQUE DE CHOC ÉLÉCTRIQUE!

- N'utilisez pas cet appareil avec le couvercle ouvert.
- Débrancher la lampe de son alimentation et du DMX et la laisser refroidir avant d'effectuer un nettoyage ou un entretien.

RISK GROUP 2: CAUTION. *Possibly hazardous optical radiation emitted from this product. Do not stare at operating lamp. May be harmful to the eyes.*

GROUPE DE RISQUE 2 (RISQUE MODÉRÉ) : ATTENTION. *Rayonnement optique potentiellement dangereux émis par ce produit. Ne regardez pas la lampe en fonctionnement. Peut être nocif pour les yeux.*

CAUTION: *Hot Surfaces. Allow the device to cool completely before handling and servicing.*

ATTENTION : *Surfaces chaudes. Laissez le luminaire refroidir complètement avant de le manipuler et de procéder à son entretien.*

Note: *The light source in this luminaire is not user-replaceable, and must be replaced only by a qualified technician. Contact ETC Customer Support for assistance.*

General Operation and Use Guidelines

- This fixture is only allowed to be operated with the maximum alternating current that is stated in the technical specifications label provided on the fixture.
- Lighting effects are not designed for permanent operation. Consistent operation breaks may ensure that the fixture will function for a long time without defects.
- When choosing the installation location, make sure that the fixture is not exposed to extreme heat, moisture, or dust.
- Do not point the lens toward the sun or other bright light source. Doing so could damage the fixture.
- If using the supplied Omega brackets with quick-locking thumb screws for fixture hanging, ensure that the thumb screws have engaged a complete 90-degree positive latch.
- Operate the fixture only after having familiarized yourself with its functions. Do not permit persons who are not qualified and familiar with its functions to operate the fixture.
- Do not modify the fixture. Any modifications will void the warranty.
- This manual describes the proper installation and operation of this fixture. Using this fixture in any way other than the intended use may cause damage and void the warranty.
- When the fixture has been stored or transported in cold temperatures, allow it to warm to room temperature for a minimum of one hour before applying power. Applying power to a cold fixture may cause damage to the fixture and void the manufacturer warranty.
- When you power on the fixture, you may notice smoke or odor. This is normal and should decrease gradually. If smoke or odor persists, disconnect the fixture from power and contact your ETC dealer or Technical Services.
- Please use the original packaging if the fixture is to be transported. ETC will not be responsible for the fixture if packaging other than manufacturer provided packaging is used.

Fixture Overview

For technical specifications of the SolaPix 37 fixture, see the technical data sheet:

etcconnect.com/Products/High-End-Systems/Lighting-Fixtures/SolaPix/Documentation.aspx
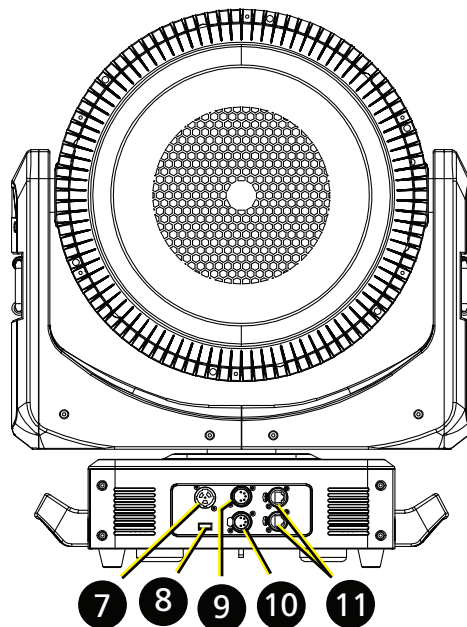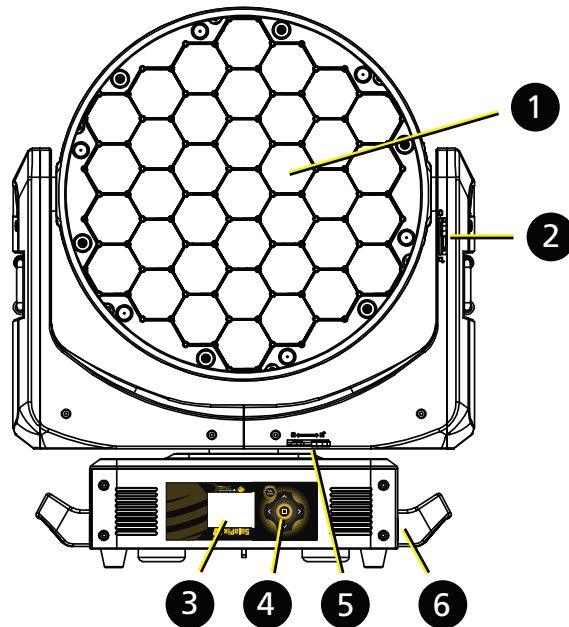
1: Lens
2: Tilt lock
3: Display
4: Navigation controls
5: Pan lock
6: Handle
7: Power In
8: USB
9: DMX In
10: DMX Thru
11: Ethernet ports (x2)

Modular Control

Note: *Some consoles may refer to the Flex effects by the feature name "Macro". For the purposes of the SolaPix 37 software and user manual, "Flex" and "Macro" are interchangeable.*

The SolaPix 37 fixture has three segments of control (or modules) that essentially give you three fixtures in one, letting you customize each fixture based on your control needs.

- The Base module is the master. The settings in this module control the basic functions of the fixture, which include pan, tilt, zoom, and the control settings for the fixture.
- The Flex module lets you build and customize animation effects based on a library of animations.
- The Pixel module gives you individual control of each pixel.

The Base module is always active. The Flex and Pixel modules can be disabled, or they can be set to Compound or Independent modes.

In Compound mode, a module automatically addresses itself to the same source as the Base module and follows immediately after the address of the Base module.

In Independent mode, you address a module individually to any source (DMX or Ethernet), Address, or Universe that your control setup requires.

Compounding the modules enables several different options:

- Base + Flex (default)
- Base + Pixel
- Base + Flex + Pixel

See *Configure the Fixture on page 16* for information about configuring the modules.

Because the modules all control the same light sources, you can set the priority of control using the Module Priority function (channel 12 in the Base module).

See the SolaPix 37 DMX channel map on the ETC website for details:
etcconnect.com/Products/High-End-Systems/Lighting-Fixtures/SolaPix/Documentation.aspx

Install the Fixture

WARNING:

- NEMA Type 1 enclosure, indoor use, dry locations only. Do not use outdoors. This fixture is intended for use where humidity does not exceed 90% (non-condensing).
- The installation location must support a minimum point load of 10 times the weight of the fixture.
- The installation must always be secured with a secondary safety attachment. An appropriate safety cable is supplied.
- Safety cable attachment must be rated by a safety factor of 10.
- Use of third party clamps are permitted, but they should comply with, and be approved by, the Authority Having Jurisdiction (AHJ).
- A supportive and stable surface must be used when the fixtures are placed on the feet.
- The operating temperature range for this fixture is -10°C–45°C (14°F–113°F). Do not operate the fixture outside of this range.
- Never stand directly below the installed fixture when mounting, removing, or servicing the fixture.
- All safety and technical aspects of fixture installation must be approved by a qualified personnel before operation.
- The installation must be regularly inspected by qualified personnel.
- Overhead rigging must be performed by qualified personnel.

AVERTISSEMENT :

- Boîtier NEMA de type 1, utilisation en intérieur, emplacements secs uniquement. Ne l'utilisez pas en extérieur. Ce projecteur est conçu pour être utilisé dans des environnements où l'humidité ne dépasse pas 90 % (sans condensation).
- L'emplacement d'installation doit supporter une charge concentrée minimale de 10 fois le poids de l'appareil.
- L'installation doit toujours être sécurisée par une fixation de sécurité auxiliaire. Un câble de sécurité approprié est fourni.
- La fixation du câble de sécurité doit être classée avec un facteur de sécurité de 10.
- Il est permis d'utiliser des pinces provenant de tiers, mais elles doivent être conformes et approuvées par l'Autorité compétente (AC).
- Une surface d'appui stable doit être utilisée quand les projecteurs sont placés sur pieds.
- La plage de température de fonctionnement de ce projecteur est de -10°C–45°C (14°F–113°F). Ne faites pas fonctionner le projecteur audelà de cette plage.
- Ne vous placez jamais directement sous le projecteur lors du montage, du démontage ou de son entretien.
- Tous les aspects techniques et de sécurité de l'installation du projecteur doivent être approuvés par un personnel qualifié avant qu'il ne soit utilisé.
- L'installation doit être régulièrement inspectée par du personnel qualifié.
- La fixation en hauteur doit être effectuée par du personnel qualifié.
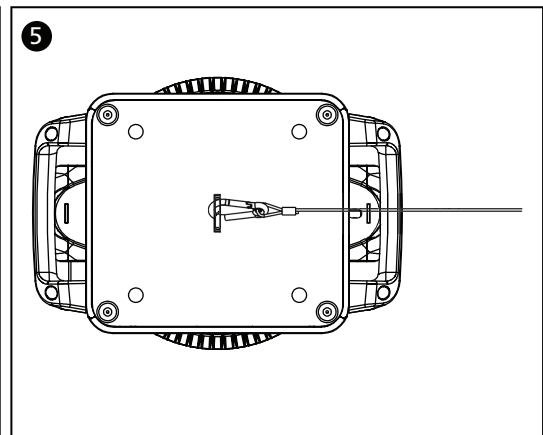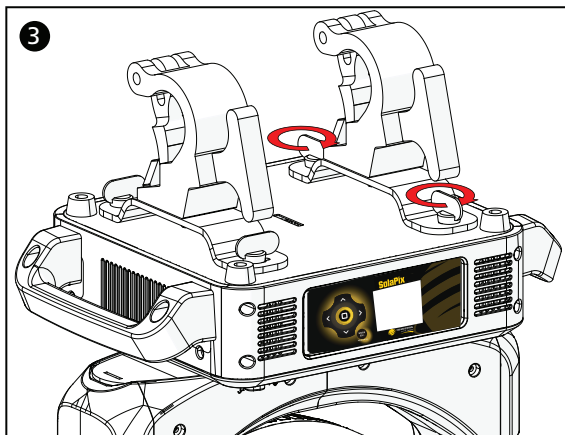
You can install the fixture in any of the orientations shown below.
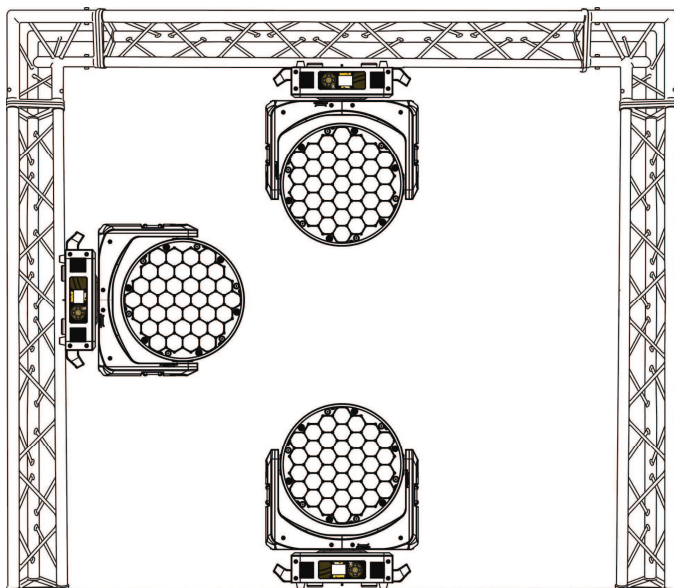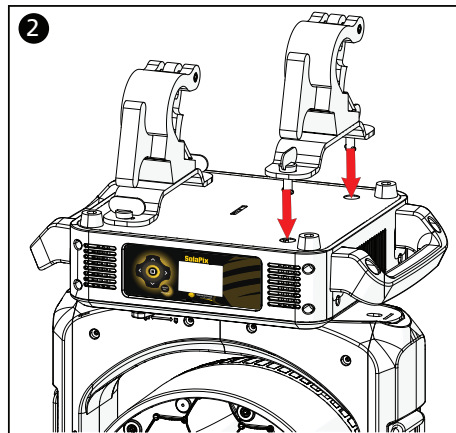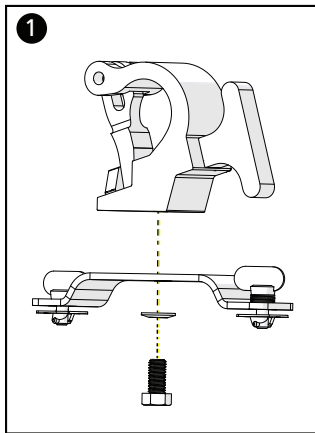
1. Assemble the clamp (provided by others) to the Omega bracket that was provided with the fixture and secure together using appropriately sized hardware (not provided).
2. Align the assembled Omega bracket and quick-lock fasteners into the respective holes on the bottom of the fixture upper enclosure.
3. Tighten each of the quick-lock fasteners fully, turning clockwise. You will hear and feel a click when the fastener is fully secured.
4. Repeat steps 1 through 3 for the second clamp and bracket.
5. Attach the provided safety cable through the attachment point on the bottom of the fixture upper enclosure and secure to the trussing system or other safe installation point. Follow local codes and recommended safety standards for securing the fixture to the installation location.
6. Attach the fixture to the installation location using the installed clamps, using the clamp manufacturer's instructions for a secure fit. When using an Omega clamp, close the safety and fully tighten the clamp wing nut until secure.
7. Inspect the installation prior to lifting the fixture overhead.

Power

Input and Power Factor

VAC	Amps	Hz	Watts	VA	PF
100	19.4	50	1891	1938	0.99
120	15.2	60	1815	1822	0.99
200	8.6	50	1710	1723	0.99
208	8.3	60	1716	1730	0.99
220	7.8	50	1704	1721	0.98
240	7.2	60	1704	1726	0.98

⚠ **CAUTION:** *Using this fixture below 100 V on a 15 A breaker may cause the breaker to trip. Ensure that the circuit can handle the fixture's maximum potential draw before you connect it.*

Connector Specification

WARNING: Risk of Shock and Fire. Assemble a grounding-type attachment plug with integral cord grip that is within the voltage and amperage rating of this luminaire.

AVERTISSEMENT : Risque de choc et d'incendie. Assurez-vous d'utiliser une prise de mise à la terre avec décharge de traction intégrée qui respecte la tension et l'ampérage de ce luminaire.

A power input cable with powerCON® TRUE1® TOP input to bare ends is provided. The power input cable is rated for maximum 20 A/120 VAC and 16 A/240 VAC. Install a suitable connector to meet the installation requirements. See the following wire color code chart:

| Wire Color Code (EU)	Wire Color Code (US Standard)	Connection type	Terminal
Green/Yellow	Green	Earth/Ground	⏚
Blue	White	Neutral	N
Brown	Black	Line (Live)	L

DMX Control

The SolaPix 37 fixture operates on standard DMX-512 control bus, controlled by a DMX console. The fixture requires 186 channels of DMX-512.

Attach the fixture to the control bus using a two-core, shielded cable with a 5-pin XLR connector (Belden 9729 is preferred).

Two XLR termination receptacles are available: one for connection of DMX Input, and one for DMX Thru (used when daisy-chaining to additional fixtures on the DMX control bus).

DMX Connector Pinout

For DMX Input, the DMX cable must have a XLR plug connector on one end of the cable that connects to the fixture. When daisy-chaining DMX to the next device, prepare a DMX cable with a XLR socket connector on one end and a XLR plug connector on the other end. Terminate the cable ends as indicated in the pinout image below.

DMX Thru
5-pin XLR

DMX Input
5-pin XLR

1: Ground
2: Signal (−)
3: Signal (+)
4: N/A
5: N/A
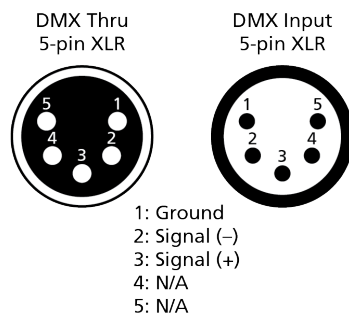
Connect DMX Cables to Fixture

The following instructions are guidelines for connecting DMX to your fixture. Your installation may vary.

1. Connect the XLR plug connector of a DMX data cable to the DMX Thru connector on the DMX control source.
2. Connect the XLR socket connector of the DMX data cable to the DMX In connector of the first fixture on the DMX control run.
3. Continue linking the remaining fixtures by connecting a cable from the DMX Thru connector of a fixture to the DMX In connector of the next fixture on the control run.

Note: *A maximum of 32 DMX devices may be connected in any one DMX data run when installed in a daisy-chain fashion.*

DMX-512 control source

DMX-512
(Belden 9729 or equivalent)

terminate DMX
with a 120 Ohm
resistor
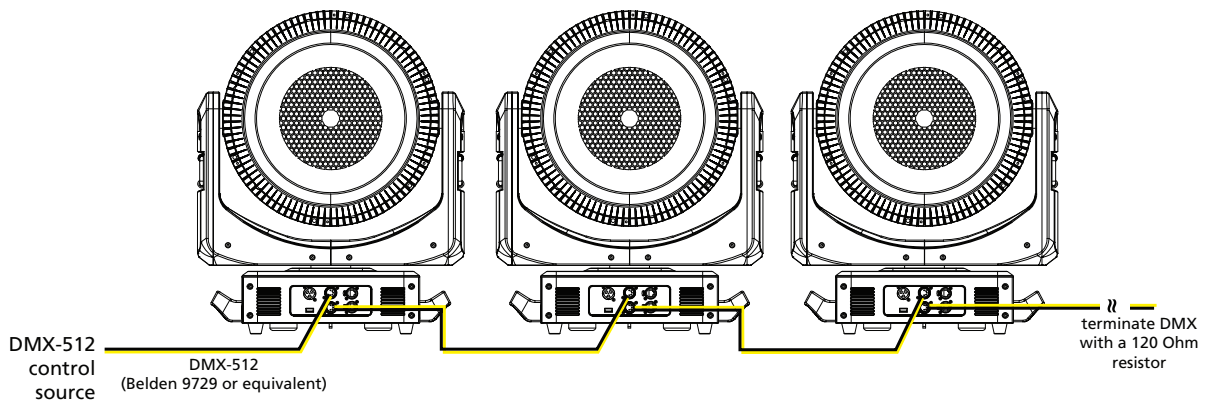
Terminate DMX

Use a DMX terminator or install a resistor on the last fixture of the DMX control run to prevent corruption (data reflection) of the digital control signal by electrical noise.

A DMX terminator is an XLR plug with a 120 Ω resistor connected between pins 2 and 3 that can be installed into the DMX output receptacle of the last fixture in the DMX control run. This plug is available and sold separately. Contact your authorized dealer or ETC for ordering information (etcconnect.com/contactETC/).

Set the DMX Start Address

Give each fixture a unique DMX starting address so that the correct fixture responds to the control signals. This DMX start address is the channel number from which the fixture starts to "listen" to the digital control information sent out from the control source.

Modify the fixture DMX start address on the user interface, located on the upper enclosure. See *Address on page 17*.

Example: The SolaPix 37 requires up to 186 channels of control depending on the configuration of the modules. The Base module uses 21 channels. When the Flex module is set to Compound mode, an additional 17 channels are added. If the Pixel module is also set to Compound mode, then an additional 148 channels are added, making 186 channels total.

If you are using the Base and Pixel modules (the Pixel module is set to Compound mode and the Flex module is disabled) the total channel usage is 169 channels.

DMX Channels

The current DMX channel map for the SolaPix 37 can be found on the ETC website:

etcconnect.com/Products/High-End-Systems/Lighting-Fixtures/SolaPix/Documentation.aspx

Ethernet Control

The SolaPix 37 fixture includes two Ethernet ports that allow sending and receiving of control signals using the Art-Net protocol or sACN.

Use a Cat5e (or better) cable and terminate to RJ45 connectors following the TIA/EIA 568B wiring standard.

Connect Ethernet Cables to a Fixture

The following instructions are guidelines for connecting Ethernet to your fixture. Your installation may vary.

1. Connect a cable from the Ethernet control source to one of the Ethernet ports on the first fixture in the Ethernet control run.
2. Connect the first fixture to a second fixture by connecting a cable from the second Ethernet port on the first fixture to one of the Ethernet ports on the second fixture.
3. Continue linking the remaining fixtures by connecting a cable from Ethernet port to Ethernet port on the fixtures on the control run.

Note: *The Cat5e cable distance should not exceed 100 m (328 ft), and you should not connect more than 20 fixtures in one Ethernet control run when the fixtures are linked together.*

Ethernet control source   Cat5e (or better)   Cat5e (or better)   Cat5e (or better)

Set the DMX Start Address

Give each fixture a unique DMX starting address so that the correct fixture responds to the control signals. This DMX start address is the channel number from which the fixture starts to "listen" to the digital control information sent out from the control source.

Modify the fixture DMX start address on the user interface, located on the upper enclosure. See *Address on page 17*.

> **Example:** The SolaPix 37 requires up to 186 channels of control depending on the configuration of the modules. The Base module uses 21 channels. When the Flex module is set to Compound mode, an additional 17 channels are added. If the Pixel module is also set to Compound mode, then an additional 148 channels are added, making 186 channels total.
>
> If you are using the Base and Pixel modules (the Pixel module is set to Compound mode and the Flex module is disabled) the total channel usage is 169 channels.

Set the Control Source and Universe

For Ethernet control, you must configure the control source (Art-Net or sACN) and set a universe (000-255) for each fixture. See *Address on page 17* for details.

Configure the Fixture

You can configure SolaPix 37 fixtures through the onboard user interface.

Navigate the User Interface
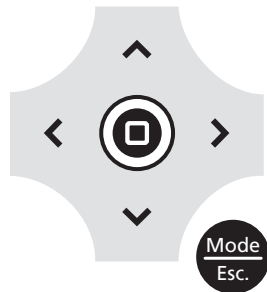
1. Press the [MODE/ESC] button ⬤ to access the main menu. (The display is powered by battery when the fixture has no power; press and hold the [MODE/ESC] button ⬤ for three seconds to access the main menu.)
2. Browse the menu by pressing the up, down, left, or right navigation buttons.
3. Press the Enter button ⬤ to select a menu item.
4. Modify the selection by pressing the up, down, left, or right navigation buttons according to the selection.
5. Press the Enter button ⬤ to confirm a modified selection.
6. To exit the menu, press the [MODE/ESC] ⬤ button.

Note: *If you press the Enter button to confirm a selection and push no other buttons, the user interface returns to the default display after 15 seconds.*

Set Fixture Parameters

This section provides instructions to configure and set up the SolaPix 37. See *Navigate the User Interface on the previous page* for information about the navigation buttons.

Provide power to the fixture before configuring it. If you do not provide power, the fixture will use battery power to power the user interface.

Address

The Address menu provides access to configure the three modules: Base, Flex, and Pixel. You can configure each module individually, or you can compound some or all of the modules. For information about the modules, see *Modular Control on page 7*.

ⓘ **Note:** *Some consoles may refer to the Flex effects by the feature name "Macro". For the purposes of the SolaPix 37 software and user manual, "Flex" and "Macro" are interchangeable.*

Base module configuration is mandatory. You must configure this module for each fixture.

Settings	Value	Description
Source	• DMX • Art-Net • sACN	Select the control source for the Base module.
Address	001-xxx	Set the DMX address for the Base module.
Universe	000-255	When using Art-Net or sACN control source, set the universe.

The Flex module is an optional feature. Select **Disable** in the Mode menu to turn off the module.

Settings	Value	Description
Mode	• Independent • Compound • Disable	Select how the Flex module is implemented: • Compound - the module inherits its settings from the Base module. See the *Source*, *Address*, and *Universe* settings for details. • Independent - the addressing and control of the module are independent of the other modules. • Disable - the module is off. The default mode is Compound.
Source	• DMX • Art-Net • sACN	Select the control source for the Flex module. Note: This option is only available when the Mode selection is set to **Independent**. When you set the module to **Compound** mode, the Source is inherited from the Base module.
Address	001-xxx	Set the DMX address for the Flex module. Note: This option is only available when the Mode selection is set to **Independent**. When you set the module to **Compound** mode, the Address is inherited from the Base module Address (Base module Address+21).
Universe	000-255	When using Art-Net or sACN control source, set the universe. Note: This option is only available when the Mode selection is set to **Independent**. When you set the module to **Compound** mode, the Universe setting is inherited from the Base module.

The Pixel module is an optional feature. Select **Disable** in the Mode menu to turn off the module.

Settings	Value	Description
Mode	• Independent • Compound • Disable	Select how the Pixel module is implemented: • Compound - the module inherits its settings from one of the other modules. See the *Source*, *Address*, and *Universe* settings for details. • Independent - the addressing and control of the module are independent of the other modules. • Disable - the module is off. The default mode is Disable.
Source	• DMX • Art-Net • sACN	Select the control source for the Pixel module. Note: This option is only available when the Mode selection is set to **Independent**. When you set the module to **Compound** mode, the Source is inherited from the Flex module (or the Base module if the Flex module is disabled).
Address	001-xxx	Set the DMX address for the Pixel module. Note: This option is only available when the Mode selection is set to **Independent**. When you set the module to **Compound** mode, the Address is inherited from the Flex module Address (Flex module Address+17). If the Flex module is disabled, then the Address is inherited from the Base module Address (Base module Address+21).
Universe	000-255	When using Art-Net or sACN control source, set the universe. Note: This option is only available when the Mode selection is set to **Independent**. When you set the module to **Compound** mode, the Universe setting is inherited from the Base module.

Example Use Cases

Default Use Case

The system has a small number of fixtures and limited universes of DMX, so numerous channels of DMX cannot be dedicated to each individual fixture.

> ### Example:
>
> For each fixture:
> - Configure the Base module with DMX source and a unique address.
> - Use the default settings for the Flex and Pixel modules:
>   - Flex module set to Compound mode
>   - Pixel module set to Disable mode
>
> The result: All fixtures have 38 channels of control for Base module functions and Flex module animations. The recommended console library is Base + Flex.

Many Universes of DMX Controlled by a Console

The system has many universes of DMX available, so 186 channels of DMX can be dedicated to each individual fixture.

> ### Example:
>
> For each fixture:
> - Configure the Base module with DMX source and a unique address.
> - Set both the Flex and Pixel modules to Compound mode.
>
> The result: All fixtures have 186 channels of control for Base module functions, animations, and pixels. The recommended console library is Base + Flex + Pixel.

Limited Universes of DMX with Individual Control

The system does not have enough DMX to dedicate 38 channels of DMX to each fixture, but individual control of each fixture is necessary.

> ### Example:
>
> For each fixture:
> - Configure the Base module with DMX source and a unique address, for example:
>   - Fixture 1 = address 1
>   - Fixture 2 = address 22
>   - Fixture 3 = address 43
>   .
>   .
>   .
>   - Fixture 24 = address 484
> - Configure the Flex module with the Independent mode and an address that is common for all fixtures (address 505 in this example).
>
> The result: You can control each fixture individually and you can access the Flex effects (although all fixtures will perform the same animation). The recommended console libraries are Base for each unique fixture and a single instance of Flex for the Flex/Macro control.

Separate Console Control and Video Server Control

The system contains a video control source in addition to a DMX console.

> ⚙ **Example:**
>
> For each fixture:
> - Configure the Base module with DMX source and a unique address.
> - Set the Flex module to Compound mode.
> - Set the Pixel module to Independent mode, set the sACN or Art-Net source, and assign a unique DMX address and universe.
>
> The result: All fixtures have control for the 38 channels of Base module functions and animations via DMX, and 148 channels of control for the Pixel module via Ethernet from a video server.

Info Menu

Set the Time Information

Navigate: Main Menu → Info → Time Info

Parameter	Value	Description
Current Time	XXXX (Hours)	Running time of the fixture from the last time that the fixture was powered on, shown in hours (h). The counter resets after the fixture is turned off.
Ttl Life Hrs	XXXX (Hours)	Total running time of the device, shown in hours (h).
Last Run Hrs	XXXX (Hours)	Running time of the fixture from the last time that the run time value was reset, shown in hours (h).
LED Hours	XXXX (Hours)	Total running time of the fixture LEDs, shown in hours (h).
Timer PIN	Timer PIN XXX	You must enter the Timer PIN in order to access the Clr Last Run menu item. The default Timer PIN is 038.
Clr Last Run	• ON • OFF	This password-protected menu item resets the Last Run Hrs value. You must enter the Timer PIN to access this menu item. Select ON to clear the value for the Last Run Hrs parameter for the fixture.
LED Time PIN	LED Time PIN XXX	You must enter the LED Time PIN in order to access the Clear LED Time menu item. The default LED Time PIN is 038.
Clear LED Time	• ON • OFF	This password-protected menu item resets the LED Hours value. You must enter the LED Time PIN to access this menu item. Select ON to clear the value for the LED Hours parameter.

View Fixture Errors

Navigate: Main Menu → Info → Error Info

Displays any current fixture errors. See *Error Codes on page 27* for information about the errors.

View DMX Values for Channels

View the DMX value of each of the fixture's channels (parameters of the fixture). Scroll to the parameter that you want to view (Pan, Tilt, etc.) and view the value. The DMX value that you view is the DMX value that displays on the main window of the UI until you select a different DMX value to view.

View Fixture Head Temperature

Displays the current fixture temperature as read from the fixture head (near the CMY filter).

View Power Temperature

Displays the current temperature as read from the power supply in the fixture base, which can help you to determine if the power supply is overheating.

View Fan Speeds

Displays the speeds of the fixture's fans (in RPM).

View Ethernet IP Address

Displays the Ethernet IP address for the fixture. You can modify this value in the Set menu. See *Access Service Settings on page 24*.

View Software Version

Displays the software version for the fixture.

Set Menu

Set the Status Options

Parameter	Value	Description
No DMX Mode	• Close Shutter • Hold • Auto Program	Control mode when DMX is absent. The default value is Hold.
Pan Reverse	• ON • OFF	Reverse the pan movement of the fixture. The default value is OFF.
Tilt Reverse	• ON • OFF	Reverse the tilt movement of the fixture. The default value is OFF.
Pan Degree	• 630 • 540	Change the pan rotation of the fixture from the default setting of 540 degrees to 630 degrees.
Encoders	• ON • OFF	Turn on or off the encoder feedback for pan and tilt movement. You may want to turn off encoders when working on a fixture so that you can move pan and tilt without the fixture automatically moving back to position.
Hibernation	• OFF • 1–99 minutes	Hibernation mode forces the LEDs and stepper motors to power off when the fixture loses DMX control signal for a set period of time. The default time setting is 15 minutes.
Refresh Rate	• 2.4 kHz • 16 kHz	Set the refresh rate of the fixture. The 16 kHz setting is quieter than the 2.4 kHz setting and creates a beam that does not flicker when shown on camera. The 2.4 kHz setting prioritizes flawless, stepless dimming.
P/T Home Mode	• Standard • Tilt First • Pan First	Set the order in which pan and tilt homing is performed. • Standard: the pan and tilt home procedures run simultaneously. • Tilt First: the tilt home procedure runs to completion, then the pan home procedure begins. • Pan First: the pan home procedure runs to completion, then the tilt home procedure begins.
Dim Control	• Master Base Intensity • Independent Base Intensity	Set the modules to which the Dimmer DMX channel is applied. • Master Base Intensity: the Dimmer DMX channel is applied to the Base, Flex, and Pixel modules. • Independent Base Intensity: the Dimmer DMX channel is applied only to the Base module.

Access Service Settings

Parameter	Value	Description
Service PIN	Service PIN XXX	You must enter the Service PIN in order to access the other Service Setting parameters. The default Service PIN is 050.
RDM UID	Manufacturer ID and a randomly generated number	This password-protected menu item lets you modify the RDM UID. You must enter the Service PIN to access this menu item. **Note:** Remote Device Management (RDM) requires that all RDM devices have a unique identifier (UID). Modifying this setting can break the RDM capability of this fixture. Duplicate RDM UIDs on the same DMX control run will result in a data collision, causing a communication failure. Ensure that all fixtures have a unique RDM UID if RDM functionality is to be used. If DMX splitters are used and RDM control is to be used, these splitters must support RDM.
Ethernet IP	XXX.XXX.XXX.XXX	This password-protected menu item lets you modify the IP address. You must enter the Service PIN to access this menu item. The default IP address is 002.142.058.034.
Ethernet Mask IP	XXX.XXX.XXX.XXX	This password-protected menu item lets you modify the IP subnet mask. You must enter the Service PIN to access this menu item. The default IP subnet mask is 255.000.000.000.
Clr Err Info	• ON • OFF	This password-protected menu item lets you clear error messages after you have fixed the errors. You must enter the Service PIN to access this menu item. Set this parameter to ON in order to clear the error messages. The default setting is OFF.

Set the Fans Mode

Select the fan mode for the fixture:

• Standard
• Studio (reduces fan noise, but decreases fixture output by ~20%)

Note: *Fan Speed DMX control overrides the Fans Mode setting in the fixture user interface when the DMX control is set to Standard or Studio. See the SolaPix 37 DMX channel map for more details: etcconnect.com/Products/High-End-Systems/Lighting-Fixtures/SolaPix/Documentation.aspx*

Set Display Settings

Parameter	Value	Description
Shutoff Time	02–60 minutes	Enter the amount of time the fixture waits after the last user interface button press until the display goes to sleep. The default value is 5 minutes.
Flip Display	• ON • OFF	Flip the display 180° when the fixture is mounted vertically. The default value is OFF. Shortcut: With the main UI window displayed, press [>] to flip the display 180°. Press [<] to flip it back to its original orientation.
Key Lock	• ON • OFF	Lock the user interface. The default value is OFF. To unlock the user interface buttons, press and hold the [MODE/ESC] button for three seconds.

Set the Temperature Scale

Select the temperature scale for the fixture:

- Celsius (default value)
- Fahrenheit

Update Fixture Firmware Using the USB Port

Fixture firmware updates are available on the ETC website at etcconnect.com/Products/Live-Events.

1. Save the firmware update file to a USB drive.
2. Insert the USB drive in the fixture base (see *Fixture Overview on page 6* for the USB port location).
3. On the **Main Menu**, select **Set → USB Update**. The fixture reads the USB drive and displays a list of any firmware update files on the USB drive.
4. Select the appropriate file and then press the Enter button.
5. The software prompts you to confirm the update with the message "Update fixture?" Use the navigation buttons to select "Yes," and then press the Enter button.
    - The firmware update begins. A progress monitor shows you the progress of the update.
    - The fixture restarts when the update is complete, and the fixture performs a data check to verify the update.
    - The firmware update is complete when the display returns to its default state.
6. Remove the USB drive from the fixture.

Reset Fixture to Factory Default Settings

Select ON to reset the fixture to the factory default settings.

Test Menu

Reset (Home) the Mechanical Positions on the Fixture

Navigate: Main Menu → Test → Home

Reset ("home") all features on the fixture, including, pan, tilt, colors, gobos, etc.

Test the Fixture

Navigate: Main Menu → Test → Self Test

Run a self-test program on the fixture. When you run the test, the display indicates "Running" and the fixture automatically runs a self-test procedure, testing each of the functions. Press [MODE/ESC] button to end the self-test and return the display to the previous menu.

Test an Individual Channel

Navigate: Main Menu → Test → Test Channel

Run a self-test program on individual channels. The default value is Control. Select a different channel to run a self-test on that channel.

Manually Set an Individual Channel

Navigate: Main Menu → Test → Manual Ctrl.

Select an individual channel on the fixture and manually set the channel value. While in Manual Control mode, all effects are canceled, the shutter opens, and the dimmer intensity is set to 100%.

Re-Calibrate an Individual Feature

Navigate: Main Menu → Test → Calibration

Please contact Technical Services before using this parameter. See *Help from Technical Services on page 2*.

You must enter the Calibration PIN in order to access the Calibration menu items. The default Calibration PIN is 050.

Once you have accessed the Calibration menu, select an individual feature on the fixture and manually calibrate it to a new "home" setting.

Preset Menu

Navigate: Main Menu → Preset

Presets are built by combining scenes into programs and then assigning the programs to Program Partitions for playback. For information about the **Preset** menu, access the *High End Systems Preset Menu Guide* from the ETC website: support.etcconnect.com/Source_Articles/HES/Sola_Series_Fixtures/High_End_Systems_Preset_Menu_Guide.

Error Codes

When you apply power to the fixture, it runs a calibration (homing) sequence and displays any errors that it detects.

> 💡 **Example:** When the display shows "Error channel: Pan Coarse", it means there is an error in channel 1. When multiple errors are present they will cycle on the display twice, and then the fixture will reset (restart). Any errors that remain after two reset cycles are not correctable by reset alone and will require service. Please contact Technical Services for assistance.

This message displays after the reset of the fixture if any of the following conditions exist:

Pan

This message displays after the reset of the fixture if any of the following conditions exist:

- the yoke's magnetic-indexing circuit malfunctions (optical or magnetic sensor failure)
- the stepper motor is defective or the related IC driver on the main PCB has failed
- the Pan movement is not located in the default position after the reset

Tilt

This message displays after the reset of the fixture if any of the following conditions exist:

- the fixture head magnetic-indexing circuit malfunctions (optical or magnetic sensor failure)
- the stepper motor is defective or the related IC driver on the main PCB has failed
- the Tilt movement is not located in the default position after the reset

Zoom

This message displays after the reset of the fixture if any of the following conditions exist:

- the magnetic-indexing circuit malfunctions (optical or magnetic sensor failure)
- the stepper motor is defective or the related IC driver on the main PCB has failed
- the Zoom wheel is not located in the default position after the reset

Maintenance

⚠️ **CAUTION:** *RISK OF ELECTRIC SHOCK! Disconnect power before servicing.*

ATTENTION : *RISQUE DE CHOC ÉLECTRIQUE! Couper l'alimentation avant l'entretien.*

Keep the following in mind during regular service and inspection:

- All screws for installing the fixture or parts of the fixture must be tightly connected and must not be corroded.
- There must not be any deformations to the housing, lenses, rigging, and installation points (ceiling, suspension, trussing).
- Moving parts must not show any signs of wear and must move smoothly without issue.
- The power supply cables must not show any damage, material fatigue, or sediment.
- If spare parts are required, order only genuine parts from your local authorized dealer.

To ensure that the fixture remains in good working condition and does not fail prematurely, regular maintenance is recommended.

Clean the Fixture

⚠️ **CAUTION:** *The backside of each lens in the SolaPix 37 fixture is coated with a HazeFree lens coating technology (patent pending) that keeps the lens clear when the fixture is used with theatrical haze. Use of paper toweling or other abrasive, high-friction wipes and ammonia-based glass cleaners may permanently damage the coating.*

If the lens coating wears away, contact ETC Technical Services for assistance.

1. Clean the lens only when necessary, and only use a Silky Microfiber Optical Cloth with purified water or an ammonia-free glass cleaner such as Miller Stevenson MS-260 Glass Cleaner.
2. Clean the fans regularly to ensure maximum airflow and efficient cooling. This will ensure that the light source operates in the best possible condition.

Replace the Fuse

The fuse in this fixture is not user-replaceable. Contact ETC Technical Services for assistance. See *Help from Technical Services on page 2* for contact information.

Compliance

For current and complete compliance information, view the SolaPix 37 datasheet:

etcconnect.com/Products/High-End-Systems/Lighting-Fixtures/SolaPix/Documentation.aspx

FCC - Part 15 Class A

This device complies with 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.

Note: *This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.*

Declarations of Conformity

EC DECLARATION OF CONFORMITY

We, Electronic Theatre Controls France SAS

declare under sole responsibility that the product(s):

Product series:	High End Systems SolaPix 37 luminaire
Product type/model:	SolaPix 37

to which this declaration relates is/are in conformity with the following Directives by the application of the quoted Standards.

Low Voltage Directive (LVD) 2014/35/EU:

EN 60598-1:2015+A1:2018	Luminaires. General requirements and tests
EN 60598-2-4:2018	Luminaires. Particular requirements. Portable general purpose luminaires
EN 60598-2-17:2018	Luminaires. Particular requirements. Luminaires for stage lighting, television and film studios (outdoor and indoor)
EN 61347-1:2015	Lamp controlgear. General and safety requirements
EN 62031:2008+A2:2015	LED modules for general lighting. Safety specifications
EN 61347-2-13:2014+A1:2017	Lamp controlgear. Particular requirements for d.c. or a.c. supplied electronic controlgear for LED modules

Electromagnetic Compatibility Directive (EMCD) 2014/30/EU:

EN 55015:2013+A1:2015	Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment
EN 61547:2009	Equipment for general lighting purposes. EMC immunity requirements
EN 61000-3-2:2019	Electromagnetic compatibility (EMC). Limits. Limits for harmonic current emissions (equipment input current up to and including 16 A per phase) Class A
EN 61000-3-3:2013	Electromagnetic compatibility (EMC). Limits. Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current <= 16 A per phase and not subject to conditional connection

Artificial Optical Radiation Directive (AORD) 2006/25/EC:

EN 62471:2008	Photobiological safety of lamps and lamp systems

Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Directive (RoHS2) 2011/65/EU:

These product(s) do not contain any of the following substances, or they contain trace amounts below

allowable or measurable levels in each component or mechanically separable part:

Lead (Pb), Mercury(Hg), Cadmium (Cd), Hexavalent Chromium (Cr6+), Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ether (PBDE)

Informational notes: The product(s) named herein have been found to comply with the testing and marking requirements of Australia and New Zealand and are suitable for importation into those countries.
To ensure Compliance of this product with the stated Directives it must be installed and operated for its intended use according to the manufacturer's instructions

Saint-Denis, France	M. LIABEUF Nicolas
(Place of issue)	(Name of authorised person)
19th Jan 2021	
(Date of Issue)	(Signature of authorised person)

Printed 3 February 2021
Previous issue: 19th Jan 2021

Page 1 of 1
Filename: HES SolarPix37 luminaire CE DofC 333

Declaration:
333 A

Zone Urbaparc - Bâtiment E | 6 Boulevard de la Libération | 93200 Saint-Denis | +33 (0)1 42 43 35 35 | etcconnect.com
Electronic Theatre Controls France SAS | SAS au capital de 10.000 EUR | Siège social: 4, rue Marivaux, 75002 Paris | 822 232 773 RCS Paris

visual environment technologies

UK CA
UK DECLARATION OF CONFORMITY
ETC

We, Electronic Theatre Controls Limited

declare under sole responsibility that the product(s):

Product series:	**High End Systems SolaPix 37 luminaire**
Product type/model:	**SolaPix 37**

to which this declaration relates is/are in conformity with the following Directives by the application of the quoted Standards.

Low Voltage Directive (LVD) 2014/35/EU:

EN 60598-1:2015+A1:2018	**Luminaires. General requirements and tests**
EN 60598-2-4:2018	**Luminaires. Particular requirements. Portable general purpose luminaires**
EN 60598-2-17:2018	**Luminaires. Particular requirements. Luminaires for stage lighting, television and film studios (outdoor and indoor)**
EN 61347-1:2015	**Lamp controlgear. General and safety requirements**
EN 61347-2-13:2014+A1:2017	**Lamp controlgear. Particular requirements for d.c. or a.c. supplied electronic controlgear for LED modules**
EN 62031:2008+A2:2015	**LED modules for general lighting. Safety specifications**

Electromagnetic Compatibility Directive (EMCD) 2014/30/EU:

EN 55015:2013+A1:2015	**Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment**
EN 61547:2009	**Equipment for general lighting purposes. EMC immunity requirements**
EN 61000-3-2:2019	**Electromagnetic compatibility (EMC). Limits. Limits for harmonic current emissions (equipment input current up to and including 16 A per phase) Class A**
EN 61000-3-3:2013	**Electromagnetic compatibility (EMC). Limits. Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current <= 16 A per phase and not subject to conditional connection**

Artificial Optical Radiation Directive (AORD) 2006/25/EC:

EN 62471:2008	**Photobiological safety of lamps and lamp systems**

Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Directive (RoHS2) 2011/65/EU:

These product(s) do not contain any of the following substances, or they contain trace amounts below

allowable or measurable levels in each component or mechanically separable part:

Lead (Pb), Mercury(Hg), Cadmium (Cd), Hexavalent Chromium (Cr6+), Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ether (PBDE)

<table>
<tr><td>London, United Kingdom</td><td>Mr. Adam Bennette</td></tr>
<tr><td>(Place of issue)</td><td>(Name of authorised person)</td></tr>
<tr><td>19th Jan 2021</td><td>Adam Bennette</td></tr>
<tr><td>(Date of Issue)</td><td>(Signature of authorised person)</td></tr>
</table>

Printed 3 February 2021
Previous issue: 19th Jan 2021

Page 1 of 1
Filename: HES SolarPix37 luminaire UK
DofC 333

Declaration:
333 A

Electronic Theatre Controls Ltd | Unit 26-28 Victoria Industrial Estate | Victoria Road | London W3 6UU | +44 (0) 208 896 1000
etcconnect.com | Registered in England No. 3057796 | VAT No. GB 662 9487 90

visual environment technologies

Compliance   31