



High End Systems Halcyon Titanium Automated Luminaire User Manual

Version 1.5.10

Part Number: 2572M1200-1.5.10 Rev: A

Released: 2024-06

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Introduction

This manual provides important information for the safe installation, configuration, and maintenance of your High End Systems Halcyon Titanium fixture. For your safety, read this entire manual prior to installing, operating, or servicing the fixture.

ETC recommends that you update your fixture with the latest version of software before you use the fixture. Software is available for free download from the ETC website:

etcconnect.com/Products/Automated-Fixtures.

- See [View Software Version on page 24](#) to determine which version of software is currently installed on your fixture.
- See [Update Software on page 20](#) for instructions about updating your fixture.

Document Conventions

This document uses the following conventions to draw your attention to important information.



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



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



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.*



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/Automated-Fixtures.

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

Help from Technical Services

If you have questions that are not answered by this document, try the ETC support website at support.etcconnect.com or the High End Systems product website at etcconnect.com/Products/Automated-Fixtures. 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

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Safety Considerations

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

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



WARNING: Note the following safety warnings before use:

- This equipment is designed for operation by qualified personnel only.
- Do not stare at the operating lamp. May be harmful to the eyes.
- Replace fuses with the specified type and rating only. See [page 31](#).
- Ensure that the available voltage is within the stated range. See [page 9](#).
- 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 replacement 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.
- The fixture should be positioned so that prolonged staring into the fixture at a distance closer than 6.4 m (21 ft) is not expected.
- Minimum distance from fixture head to combustible materials: 0.1 m (4 in).
- Minimum distance to lighted objects: 3.0 m (9 ft 10 in).



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.
 - Ne regardez pas la lampe en fonctionnement. Peut être nocif pour les yeux.
 - Remplacez les fusibles uniquement par le type et le calibre indiqués. Voir [page 31](#).
 - Veillez à ce que la tension disponible soit dans la plage indiquée. Voir [page 9](#).
 - 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.
 - L'appareil doit être positionné de manière à ce qu'un regard prolongé dans l'appareil à une distance inférieure à 6,4 m (21 pi) soit peu probable.
 - Distance minimum entre la tête du luminaire et les matériaux combustibles : 0.1 m (4 in).
 - Distance minimum avec les objets éclairés : 3.0 m (9 ft 10 in).
-

**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 ÉLECTRIQUE!

- 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.*

Symbols used on the product label are defined below:

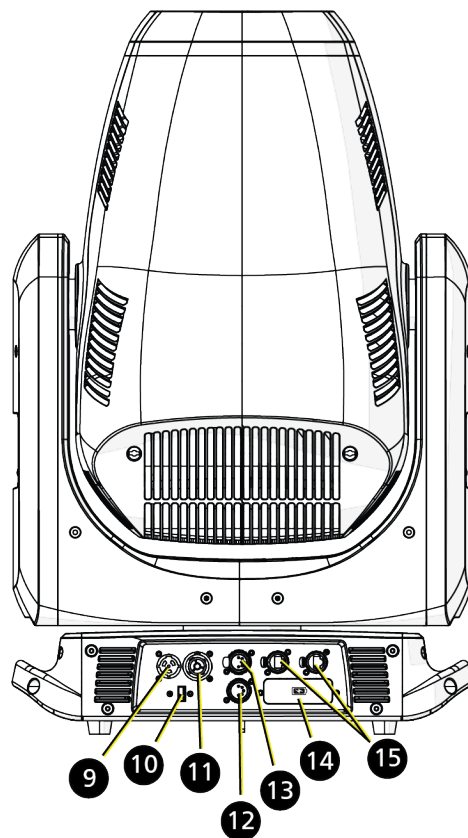
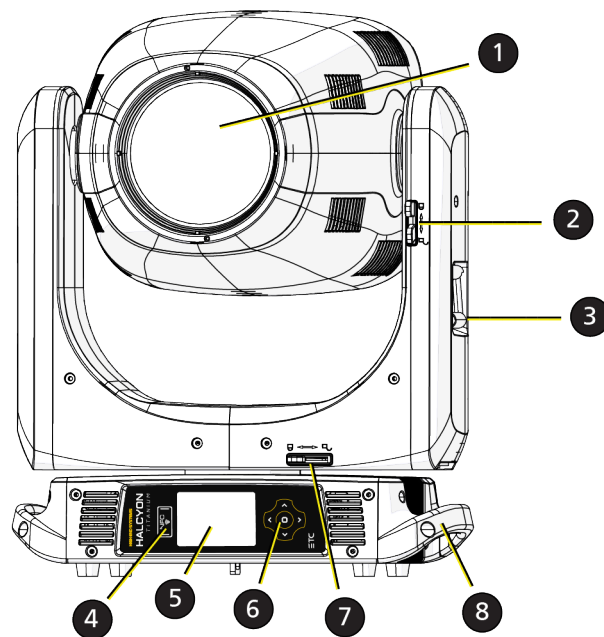
	The luminaire must be installed at least 3.0 m (9 ft 10 in) away from all lighted objects.	Le luminaire doit être installé à au moins 3,0 m (9 pi. 10 po.) de tout objet éclairé.
	General warning	Avertissement général
	Do not stare at the operating light source.	Ne pas regarder la source de lumière lorsqu'elle 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.
t_a or T_a	Rated maximum ambient temperature	Température ambiante maximale recommandée
	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.

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 extend the life of the fixture.
- When choosing the installation location, make sure the fixture will not be 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 brackets with quick-locking thumb screws to hang the fixture, 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.
- 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.

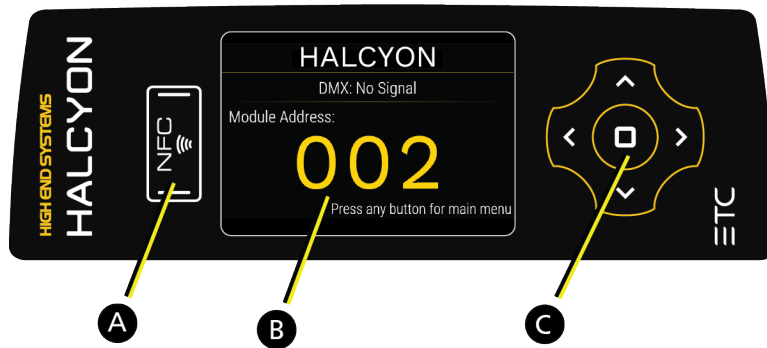
Overview

Fixture



- 1. Lens
- 2. Tilt lock
- 3. Yoke handle
- 4. NFC (Near Field Communication) tag
- 5. Touchscreen display
- 6. Navigation controls
- 7. Pan lock
- 8. Handle
- 9. Power in
- 10. USB port
- 11. Power out
- 12. DMX in
- 13. DMX thru
- 14. Battery compartment
- 15. Ethernet ports (x2)

User Interface



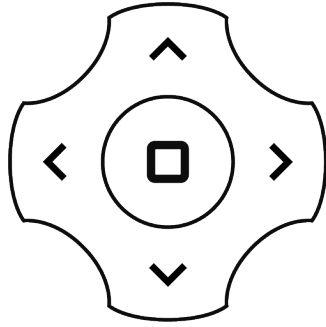
A	NFC Tag: Use the ETC Set Light app to wirelessly configure the fixture, with or without power applied to the fixture. See Configure the Fixture Wirelessly on page 26 .
B	Touchscreen display: Displays the fixture configuration options in menu format. Tap the display to access the Main Menu . See Touchscreen Display below for details.
C	Navigation controls: Provides an alternative to the touchscreen display for configuring the fixture. Use the up, down, left, right, and Enter buttons to navigate the Main Menu . See Navigation Controls on page 8 for details.

Touchscreen Display

Tap an item on the touchscreen display to select the item.

UI Element	Description	Example
	Move back to the previous menu.	
	Indicates that the menu item has a submenu.	
	Shown in number pads. Tap to save changes.	
	Shown in number pads. Tap to select the number to the left of the currently highlighted number on the touchscreen display.	
	Indicates the active option.	
	Increase or decrease values.	

Navigation Controls



1. Press any of the navigation buttons to access the **Main Menu**.



Note: *The display is powered by the onboard battery when the fixture is not connected to power; press and hold the Enter 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 **Main Menu**, press the left navigation button until the main window is shown in the user interface display.

Specifications

For complete technical specifications, see the technical datasheet:

etconnect.com/Halcyon/Documentation.

Environment

- Ambient operating temperature range: -10°C to 40°C (14°F to 104°F).
- Relative humidity: 0%–90%, non-condensing.
- Storage temperature: -20°C to 60°C (-4°F to 140°F).
- Indoor use only.
- Dry locations only, IP20 rated.

Power



WARNING: Connect the fixture to a non-dimmable power source in order to avoid damage to the fixture's internal power supply and other electrical components. Using a dimmable power source can damage the fixture and will void the warranty.

Electrical

- 100–240 VAC at 50/60 Hz
- Maximum power consumption: 1126 W

Input and Power Factor

The values listed below were measured with LEDs at full and all motors functioning.

VAC	Amps	Hz	Watts	VA	PF
100	11.3	50	1126	1140	0.99
120	9.2	60	1100	1109	0.99
200	5.4	50	1070	1073	0.98
208	5.2	60	1065	1079	0.98
220	4.8	50	1046	1070	0.98
230	4.7	50	1051	1065	0.98
240	4.5	60	1055	1070	0.97

Fixtures per Circuit

One fixture is allowed per circuit via an ETC R20 or similar breaker module. Consult the upstream breaker trip curves when using other equipment.

Connector Specifications



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/60 Hz) and 16 A (240 VAC/50 Hz). 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

Install the Fixture

Overhead rigging must be performed by qualified personnel. Follow all local and national codes and recommended practices.



WARNING:

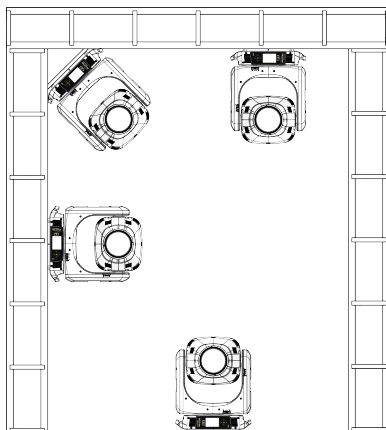
- The installation location must support a minimum point load of 10 times the weight of the fixture. Fixture weight is 34.5 kg (76 lb).
 - The installation must always be secured with a secondary safety attachment. An appropriate safety cable is supplied.
 - Safety cable attachment must be rated by a safety factor of 10.
 - A supportive and stable surface must be used when fixtures are placed on their feet.
 - 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 qualified personnel before operation.
 - The installation must be regularly inspected by qualified personnel.
-

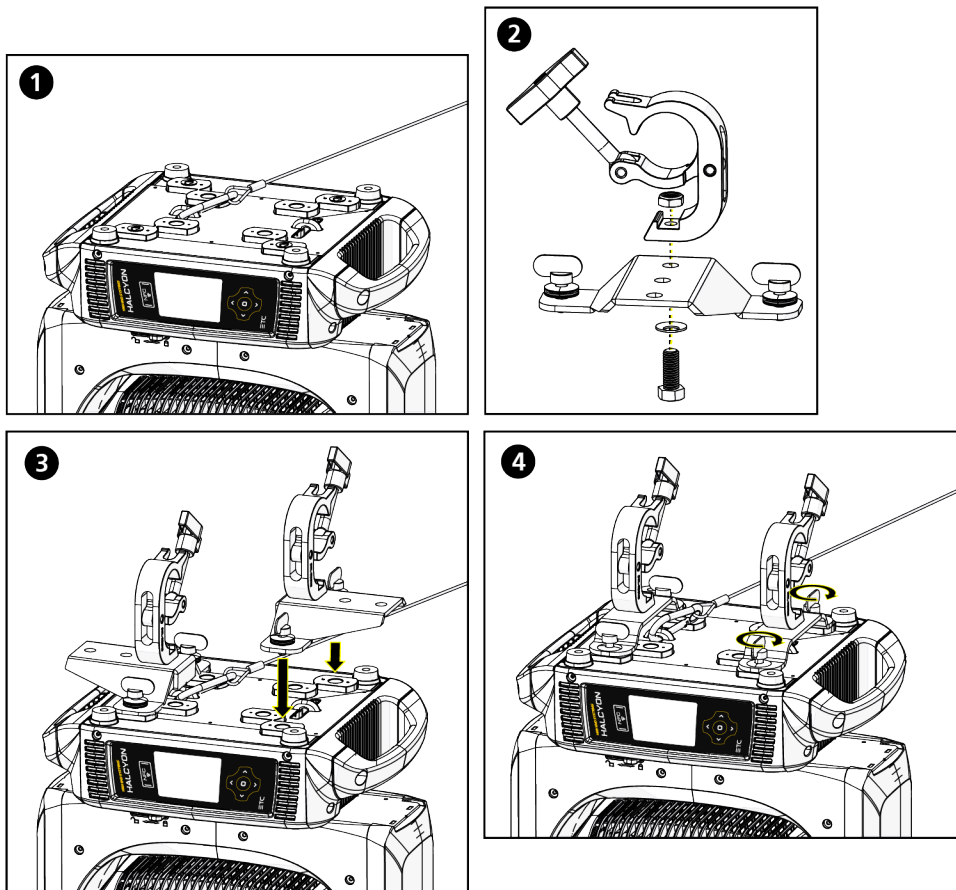


AVERTISSEMENT :

- L'emplacement d'installation doit supporter une charge concentrée minimale de 10 fois le poids de l'appareil. Le poids du projecteur est de 34.5 kg.
 - 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.
 - Une surface d'appui stable doit être utilisée quand les projecteurs sont placés sur pieds.
 - 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.
-

You can install the fixture in any of the orientations shown below.





1. Attach the provided safety cable through one of the two attachment points on the bottom of the fixture upper enclosure.
2. Assemble the clamp (provided by others) to the bracket that was provided with the fixture and secure together using appropriately sized hardware (not provided). You can use any of the holes in the three-hole bracket depending on how you want to align the fixture in the truss.
3. Align the assembled bracket and quick-lock fasteners into the respective holes on the bottom of the fixture upper enclosure.
4. Tighten each of the quick-lock fasteners fully, turning clockwise. You will hear and feel a click when the fastener is fully secured.
5. Repeat steps 2 through 4 for the second clamp and bracket.
6. Attach the fixture to the installation location 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. Secure the safety cable to the trussing system or some other safe installation point. Follow local codes and recommended safety standards for securing the fixture to the installation location.
8. Unlock the pan and tilt locks.
9. Apply power to the fixture.
10. Inspect the installation prior to lifting the fixture overhead.

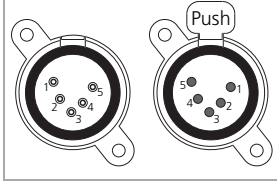
DMX Control

The Halcyon Titanium fixture operates on standard DMX-512 control bus, controlled by a DMX console. The fixture requires 60 channels of DMX-512.

The fixture includes two 5-pin XLR connectors, one for DMX Input and one for DMX Thru (for use when daisy-chaining fixtures on the DMX control bus).

DMX Connector Pinout

Use the following standard pinout when preparing DMX cable with 5-pin XLR connectors. ETC recommends using Belden 9729 or equivalent cable. (See the ETC cable cross database for equivalent alternatives: etcconnect.com/Support/Cable-Cross-Database.aspx.) The second data pair in the recommended cable type is not used, but is reserved future service.

DMX-512 Pinout for Five-Pin XLR	Pin	Use
	1	Common (shield)
	2	Data -
	3	Data +
	4	Not connected
	5	Not connected

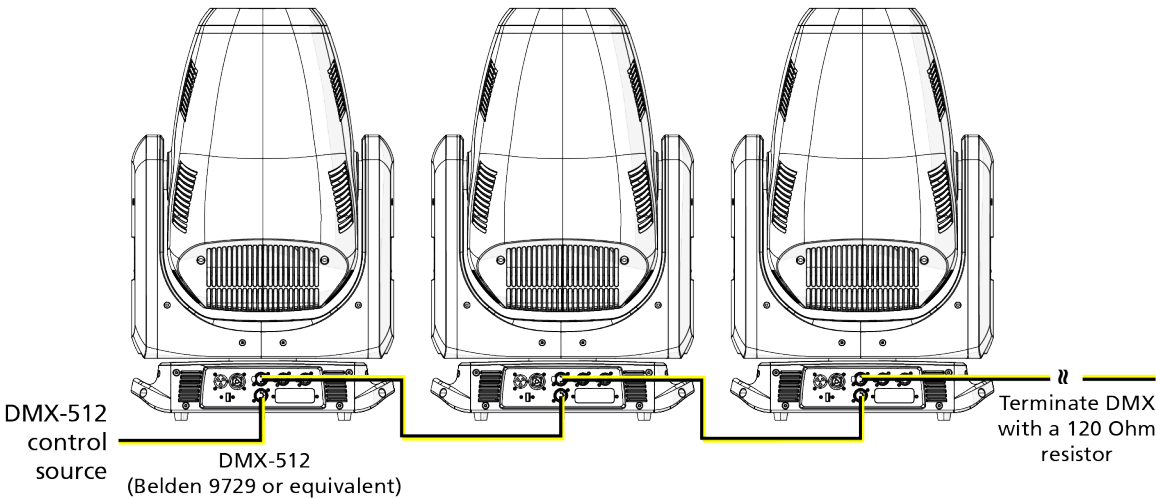
Connect DMX Cables to Fixture

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

1. Connect a DMX data cable to the DMX control source and the DMX In XLR receptacle on the first fixture in the DMX data run.
2. Link the remaining fixtures in the data run by connecting a DMX data cable from the DMX Thru connector on a fixture to the DMX In connector on the next fixture in the data run.



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



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 $120\ \Omega$ 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. Contact your authorized dealer or ETC for ordering information (etcconnect.com/contactETC), or purchase an XLR DMX terminator from the ETC Online Shop (shop.etcconnect.com).

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 DMX start address on the user interface, which is located on the upper enclosure. See [DMX Address on page 16](#).



Example: *The Halcyon Titanium requires 60 channels of control. If you set the DMX starting address of the first fixture to 1, you could set the second fixture to 61 ($60+1$), the third to 121 ($60+61$), and so on.*

DMX Channels

The current DMX channel map for the Halcyon Titanium can be found on the ETC website: etcconnect.com/Halcyon/Documentation.

Ethernet Control

The Halcyon Titanium 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.

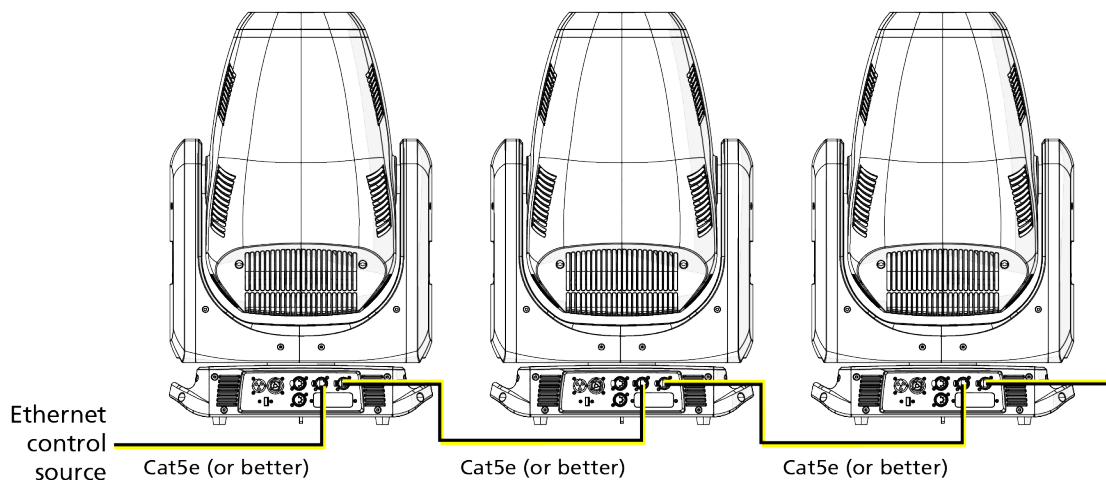
Connect Ethernet Cables to a Fixture

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.

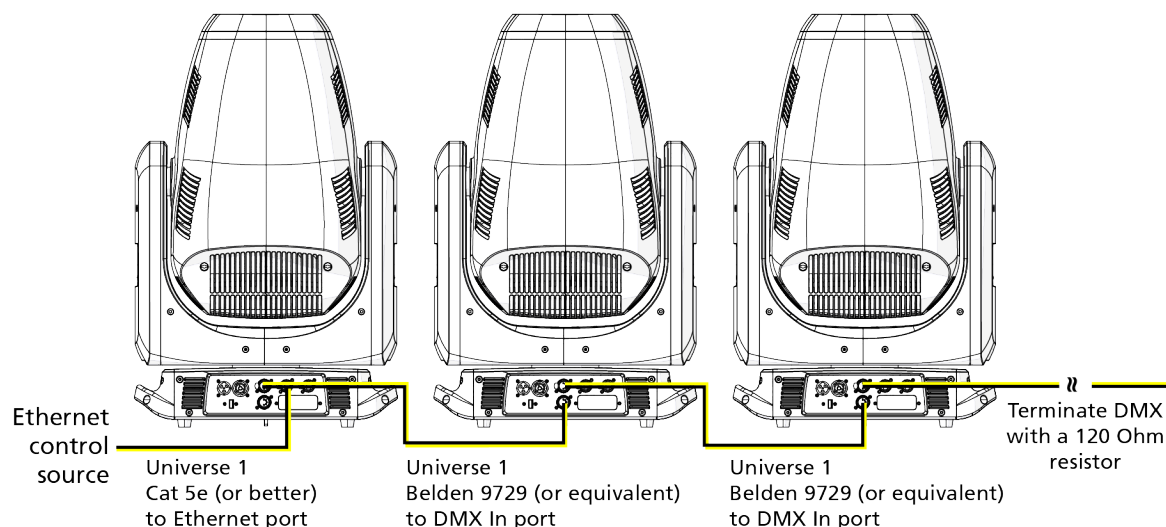


Note: The Cat5e cable distance should not exceed 100 m (328 ft), and you should not connect more than 20 fixtures in one Ethernet control run when the fixtures are linked together.



Ethernet Control and DMX Thru

You can use Ethernet control and DMX Thru. When a fixture is set up to receive Ethernet control input, it automatically distributes DMX via the DMX Thru port. The DMX-512 signal is sent as a single universe that corresponds to the universe of the fixture that is receiving Ethernet control. This works with either the Art-Net protocol or sACN.



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. Contact your authorized dealer or ETC for ordering information (etcconnect.com/contactETC), or purchase an XLR DMX terminator from the ETC Online Shop (shop.etcconnect.com).

Set the DMX Start Address

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Modify the DMX start address on the user interface, which is located on the upper enclosure. See [DMX Address on page 16](#).



Example: The Halcyon Titanium requires 60 channels of control. If you set the DMX starting address of the first fixture to 1, you could set the second fixture to 61 (60+1), the third to 121 (60+61), and so on.

Set the Control Source and Network

For Ethernet control, you must configure the control source (Art-Net or sACN) and set a universe for each fixture. See [Set Control Options on page 16](#) and [Set Network Options on page 17](#) for details.

Configure the Fixture

Use the onboard user interface to configure the fixture, or use the ETC Set Light App to wirelessly configure the fixture (see [Configure the Fixture Wirelessly on page 26](#) for details).

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

DMX Address

Navigate: Main Menu → DMX Address

Set the DMX address for the fixture.

Settings Menu

Set Control Options

Navigate: Main Menu → Settings → Control

Menu Item	Options	Description
DMX Mode	DMX	Set the control input for the fixture.
	Art-Net	
	sACN	
Data Loss	Fade	Set the control mode when DMX is absent.
	Hold Last Look	
Protocol	Standard	Set the DMX protocol.

Set Network Options

Navigate: Main Menu → Settings → Network

Configure the network settings when the Control DMX Mode is set to Art-Net or sACN.

Menu Item	Options	Description
Universe	Net	Set a net value. Note: A net is a group of 16 consecutive subnets or 256 consecutive universes. There are a total of 128 nets.
	Subnet	Set a subnet value. Note: A subnet is a group of 16 consecutive universes. This is different than the Subnet Mask discussed later in this table.
	Universe	When using Art-Net control input, set a universe value of 000-255. When using sACN control input, set a universe value of 001-255.
IP Address*	XXX.XXX.XXX.XXX	Set the IP address.
Subnet Mask*	255.XXX.XXX.XXX	Set the subnet mask IP address.
IP Mode	Manual	Set the IP mode.
	DHCP	
* If IP Mode is set to DHCP , the IP Address and Subnet Mask IP address are assigned by the DHCP server and you cannot change them.		

Set Pan and Tilt Options

Navigate: Main Menu → Settings → Pan/Tilt

Menu Item	Options	Description
Pan Invert	Off	Invert the pan movement of the fixture.
	On	
Tilt Invert	Off	Invert the tilt movement of the fixture.
	On	
Pan/Tilt Feedback	Off	When set to On , the fixture automatically moves back to the correct pan and tilt positions (based on position data from the pan and tilt encoders) if the fixture head is manually moved.
	On	
Pan/Tilt Limits	Pan Limits	Set pan and tilt limits. Fixture pan and tilt movement is restricted to the ranges you define.
	Tilt Limits	
Pan Range	540	Set the range of pan movement.
	630	
Pan/Tilt Speed	Speed 1	Set the speed (scan mode) of pan and tilt movement. Use this setting to make fine adjustments to pan and tilt movement to correct for misstepping when the fixture is installed on its side (side-hung, or "Outrig").
	Speed 2	
	Speed 3	
	Speed 4	
Pan/Tilt Home Mode	Standard	Set the order in which pan and tilt homing is performed. • Standard: The pan and tilt home procedures run simultaneously. • Pan First: The pan home procedure runs to completion, then the tilt home procedure begins. • Tilt First: The tilt home procedure runs to completion, then the pan home procedure begins.
	Pan First	
	Tilt First	
Follow Spot Mode	Off	When set to On , the pan and tilt motors are disabled so that you can move the head of the fixture manually. In addition, the touchscreen display shows "FSM" instead of the address.
	On	CAUTION: The Follow Spot Mode setting is retained when the fixture is powered down. If a fixture's pan and tilt are not moving as expected, make sure this setting is Off .
Pan/Tilt Curve	S-Curve	Set the acceleration/deceleration mode of the fixture's pan and tilt movements. • S-Curve: Use gentle acceleration and deceleration to create smooth pan and tilt movements. This mode reduces incidental head movement that can occur when the pan and tilt movements start and stop. This is the default setting. • Linear: Use constant acceleration and deceleration for pan and tilt movements. This mode provides more responsive control when you use the fixture with third-party follow spot software or hardware.
	Linear	

Set Dimming Options

Navigate: Main Menu → Settings → Dimming

Set the dimming curve and pulse width modulation (PWM) frequency. The default value is 16 kHz.

- **2.4 kHz** – prioritizes flawless, stepless dimming
- **16 kHz** – quieter than 2.4 kHz and creates a beam that does not flicker when shown on camera

Set Fan Options

Navigate: Main Menu → Settings → Fans

Select the fan mode for the fixture.

- **Standard**
- **Studio** – reduces fan noise, but decreases fixture output by approximately 20%



Note: Fan speed DMX control overrides the Fans setting in the fixture user interface when the DMX control is set to Auto or Studio. See the Halcyon Titanium DMX Channel Map Reference Guide for details: etconnect.com/Halcyon/Documentation.

Set Gobo Color Correction

Navigate: Main Menu → Settings → Gobo Color Correction

- **OFF** (default for High Fidelity fixtures)
- **ON** (default for Ultra-Bright fixtures)

When set to On, the fixture automatically uses the CTB slot of the color wheel whenever a gobo is used and no color is mixed or used on the color wheel.

When set to Off, the fixture does not use the color wheel with gobos unless it is programmed to do so.

Set Color Mixing Method

Navigate: Main Menu → Settings → CMY Curve

- **Color Linear** – Makes color mixing with color pickers as accurate as possible. This is the default setting.
- **Mech Linear** – Provides mechanically linear motion.

Set Units for Temperature Display

Navigate: Main Menu → Settings → Temperature Units

Set the units in which temperature is displayed.

- **Celsius** (default value)
- **Fahrenheit**

Set Display Options

Navigate: Main Menu → Settings → Display

Menu Item	Options	Description
Timeout	1 minute–60 minutes	Set the amount of time the fixture waits after the last user interface interaction until the display goes to sleep. The default is 5 minutes.
Flip	Off	Set the orientation of the display. • Off: The orientation of the display does not change. • On: Overrides the Auto setting and flips the display 180°. • Auto: The fixture determines the orientation of the display based on how the fixture is mounted.
	On	
	Auto	
Brightness	10%–100%	Set the brightness of the display. To change the brightness, drag the slider left or right in the display or tap the left and right navigation buttons.

Update Software

When Halcyon Titanium fixtures are connected to data, you can update software directly using UpdaterAtor. For information about UpdaterAtor, see the *UpdaterAtor Software Quick Guide* and the *UpdaterAtor Software Release Note*, which you can download from etcconnect.com/Products/Networking/System-Configuration/Software/UpdaterAtor.aspx.

You can also update software using the USB port on the fixture.

Navigate: Main Menu → Settings → Software Update

The menu displays the software update options for the Halcyon Titanium: USB and Crossload.

USB Update



CAUTION: *Do not remove the USB drive from the fixture until the update procedure is finished and the fixture display returns to its default state.*

Navigate: Main Menu → Settings → Software Update → USB

Update software on a fixture using a USB drive.

Software updates for the Halcyon Titanium fixture are available on the ETC website at etcconnect.com/Products/Automated-Fixtures.

1. Download the software zip file from the ETC website.
2. Unzip the contents of the zip file.
3. Save the contents of the zip file to the root directory of a FAT32-formatted USB drive.
4. Insert the USB drive in the USB port on the fixture.
5. In the **Main Menu**, navigate to **Settings → Software Update**.
6. Tap **USB**. The fixture reads the USB drive and shows the contents of the drive in the touchscreen display.
7. Tap the software update file (.NCW).

8. Tap **Yes**. The software update begins.
 - The display provides information about the progress of the update.
 - The fixture restarts when the update is complete, and the touchscreen display returns to its default state.
9. Remove the USB drive from the fixture when the fixture restart is complete.

Crossload

Navigate: Main Menu → Settings → Software Update → Crossload

Load software from one fixture to another via DMX connections.



CAUTION: *For best results, ETC recommends that you bypass or power down all non-ETC products in the DMX data run when you update fixture software using the Crossload option.*



Note: *Fixtures cannot be updated using the **Crossload** option if an sACN or Art-Net signal is present.*

1. If necessary, follow the instructions in [USB Update on the previous page](#) to install the new software version on the host fixture (the fixture from which you will initiate the software update to the remaining fixtures on the data run).
2. Disconnect the DMX control source from the host fixture's DMX IN port.
3. In the **Main Menu** on the host fixture, navigate to **Settings → Software Update**.
4. Tap **Crossload**.
5. Tap **Yes** to initiate the update process. The software update begins.
 - The display provides information about the progress of the update.
 - Each fixture restarts when the update is complete, and the touchscreen display returns to its default state.
6. When all of the Halcyon Titanium fixtures on the data run have been updated to the new software, reconnect the DMX control source to the host fixture's DMX IN port.

Set Calibration

Navigate: Main Menu → Settings → Calibration

This menu is passcode protected and reserved for authorized technician use only. Contact ETC Technical Support for assistance.

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



Note: *Changes you make to the fixture settings in the Calibration menu are not changed if you reset the fixture to the factory default settings. The Calibration settings are saved until they are changed in the Calibration menu.*

Access Service Settings

Navigate: Main Menu → Settings → Service

This menu is passcode protected and reserved for authorized technician use only. Contact ETC Technical Support for assistance.

Menu Item	Options	Description
RDM UID	Randomly generated number	Modify the RDM unique identifier (UID). If you are using RDM control, ensure that each fixture in the same DMX control run has a unique RDM UID. Duplicate RDM UIDs in the same DMX control run will result in a data collision, causing a communication failure. If you are using DMX splitters and RDM control, the splitters must support RDM.
Reset Error History	Yes	Clear error messages after you have fixed the errors.
	Cancel	
CMY Curve	Color Linear	Set the method used for color mixing. • Color Linear: Makes color mixing with color pickers as accurate as possible. This is the default setting. • Mech Linear: Provides mechanically linear motion.
	Mech Linear	
LED Engine Type	Ultra-Bright	Change the LED engine type if you replace the LED engine with the other engine type. Changing the LED Engine Type setting also: • Changes the fixture's RDM UID, which the console uses to determine the engine type of the fixture • Changes the default setting for the Gobo Color Correction option in the Settings menu. The default Gobo Color Correction is On for Ultra-Bright LED engines and Off for High Fidelity LED engines. See Set Gobo Color Correction on page 19 for details.
	High Fidelity	
NFC Lock	Off	When set to Off, the NFC tag is available to wirelessly configure the fixture. See Configure the Fixture Wirelessly on page 26. The default setting is Off.
	On	

Configure the Encoder

Navigate: Main Menu → Settings → Encoder Select

Select the position encoder.

- **Photoelectric Encoder** disables the Whisper Home feature so that the fixture goes through its entire pan and tilt homing routine upon start up.
- **Magnet Encoder** uses the Whisper Home feature to home pan and tilt with minimal movement and noise.



Note: *Photoelectric calibration values are stored on the Display PCB, and magnetic calibration values are stored on the 2U PCB. If you replace either of these PCBs, you must recalibrate the fixture. Please contact ETC Technical Support for assistance.*

Calibrate Auto Focus

Navigate: Main Menu → Settings → AF Config

Use the options in this menu to calibrate the auto focus feature. For details, see the *Halcyon Auto Focus Calibration Reference Guide*, which is available for free download from the ETC website: etconnect.com/Halcyon/Documentation.

Reset Fixture to Factory Default Settings

Navigate: Main Menu → Settings → Restore Defaults

Tap **Yes** to reset the fixture to the factory default settings.

Test/Home Menu

Reset the Mechanical Positions on the Fixture

Navigate: Main Menu → Test/Home → Home

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

Test the Fixture

Navigate: Main Menu → Test/Home → Self Test

The fixture automatically runs a self-test procedure to test each of its functions. Tap the **SELF TEST** back button to end the self-test and return the display to the previous menu.

Test an Individual Channel

Navigate: Main Menu → Test/Home → Test Function

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/Home → Manual Control

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%.

Calibrate Pan and Tilt Encoders

Navigate: Main Menu → Test/Home → MagnEncoder AutoCalibrate

Navigate: Main Menu → Test/Home → MagnEncoder P/T 50%50% Set

These menu items are passcode protected and are reserved for authorized technician use only. Contact ETC Technical Support for assistance.

These items let you calibrate pan and tilt after you have serviced the pan and tilt driver PCB, sensor, encoder sensor, or motor.

Diagnostics Menu

View Software Version

Navigate: Main Menu → Diagnostics → Software Version

Displays the software version installed on the fixture.

View Temperatures

Navigate: Main Menu → Diagnostics → Temperatures

Displays the current fixture temperatures as read from the fixture head, the LED, and the power supply in the fixture base.

View Usage Information

Navigate: Main Menu → Diagnostics → Time

Parameter	Value	Description
Total Fixture Hours	XXXX hours	Total running time of the fixture.
Fixture Hours	XXXX hours	Running time of the fixture from the last time that the fixture was powered on. The counter resets after the fixture is turned off.
Total LED Hours	XXXX hours	Total running time of the fixture LEDs.
LED Hours	XXXX hours	Running time of the fixture LEDs from the last time that the fixture was powered on. The counter resets after the fixture is turned off.
Reset Fixture Hours	Yes	This password-protected menu item resets the Total Fixture Hours to zero. Contact ETC Technical Support for assistance.
	Cancel	Once you have accessed the menu item, tap Yes to reset the total fixture hours.
Reset LED Hours	Yes	This password-protected menu item resets the Total LED Hours to zero. Contact ETC Technical Support for assistance.
	Cancel	Once you have accessed the menu item, tap Yes to reset the total LED hours.

View Fixture Errors

Navigate: Main Menu → Diagnostics → Error History

Displays current fixture errors. See [Error Codes on page 27](#) for information about the errors.

View Fan Speeds

Navigate: Main Menu → Diagnostics → Fan Speed

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

View Sensor Status

Navigate: Main Menu → Diagnostics → Sensors

Displays the status of the sensors, which can help you determine whether the fixture is recognizing movement and position. The display toggles between **ON** and **OFF** as the magnet passes the sensor.

View DMX Values for Channels

Navigate: Main Menu → Diagnostics → DMX Monitoring

View the DMX value of each of the fixture's channels (the parameters of the fixture). Scroll to the parameter that you want to view (Pan, Tilt, etc.) and view the value.

View Encoder Information

Navigate: Main Menu → Diagnostics → Encoder

Displays the position data for the pan and tilt encoders, which can help you troubleshoot pan and tilt issues.

View RDM and IP Address Information

Navigate: Main Menu → Diagnostics → Device

Displays the following for the fixture:

- RDM device label
- RDM device ID
- IP address
 - IP address (you can modify the IP address in the **Settings** menu)
 - Mask address (you can modify the subnet mask address in the **Settings** menu)
 - MAC address

Configure the Fixture Wirelessly



Note: The *NFC Lock* option in the *Service* menu must be set to **Off** in order to configure the fixture wirelessly. See [Access Service Settings on page 22](#).

Download the ETC Set Light app to a smartphone with NFC functionality, use the app to set fixture parameters, and then tap the smartphone to the NFC tag on the fixture to configure it wirelessly—even when the fixture is not powered on.

Visit etcconnect.com/Apps or scan the code for more information about the Set Light app.



Set Light

Replace a Gobo

Halcyon Titanium gobos are user-replaceable. The *Halcyon Replacement Gobo Installation Guide* is available for free download from the ETC website: etcconnect.com/Halcyon/Documentation.

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. These errors are stored in the fixture error history until the errors are cleared. Please contact Technical Services for assistance.*

Animation

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 Animation wheel is not located in the default position after the reset

Animation_Rot

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 Animation Rotating wheel is not located in the default position after the reset

Blade Rot

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 Blade rotation is not located in the default position after the reset

Color

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

- the fixture head'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 Color wheel is not located in the default position after the reset

CMY

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

- the fixture head'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 CMY wheel is not located in the default position after the reset

CTO Color

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

- the fixture head'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 CTO wheel is not located in the default position after the reset

Errors Detected

This message displays when an error is detected during the fixture homing procedure. If you see this message:

1. In the Main Menu, navigate to Diagnostics → Error History.
2. View the fixture errors.
3. Repair the fixture, as necessary, to correct the errors.
4. Disconnect power to the fixture, and then reconnect power to home the fixture again.

Focus

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 Focus wheel is not located in the default position after the reset

Frost 1

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
- Frost wheel 1 is not located in the default position after the reset

Frost 2

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
- Frost wheel 2 is not located in the default position after the reset

Frost 3

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
- Frost wheel 3 is not located in the default position after the reset

Gobo 1

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
- Gobo Wheel 1 is not located in the default position after the reset

Gobo 2

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
- Gobo Wheel 2 is not located in the default position after the reset

Gobo Rot 1

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
- Gobo Rotating Wheel 1 is not located in the default position after the reset

Gobo Rot 2

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
- Gobo Rotating Wheel 2 is not located in the default position after the reset

Iris

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 Iris is not located in the default position after the reset

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

Prism 1

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
- Prism wheel 1 is not located in the default position after the reset

Prism 2

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
- Prism wheel 2 is not located in the default position after the reset

Prism_Rot 1

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
- Prism rotating wheel 1 is not located in the default position after the reset

Prism_Rot 2

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
- Prism rotating wheel 2 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.*

To ensure that the fixture remains in good working condition and does not fail prematurely, ETC recommends that you perform regular maintenance on the fixture.

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 ETC or your authorized ETC dealer.

Clean the Fixture

1. Clean the inside and outside of the lens regularly using a damp, lint-free cloth to avoid loss of output due to accumulation of dust/dirt on the lens. Never use alcohol or solvents.
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.



Note: *If you use compressed air to clean the fans, hold the fan blades in place while cleaning them. Letting the fans spin while using compressed air could damage the fans.*

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.

Replace the Battery



WARNING: Replace the battery with the specified type and rating only.

AVERTISSEMENT : Remplacez la batterie uniquement par le type et le calibre indiqués.

Replacement batteries for Halcyon fixtures are available for purchase from ETC. Contact ETC or your authorized ETC dealer and order part number 2595A3220.

Parts and tools required:

- One replacement battery: Lithium-ion rechargeable; ICR 14500; 3.7 V, ≥ 700 mAh
 - #2 Phillips screwdriver
1. Disconnect power to the fixture.
 2. Using a #2 Phillips screwdriver, remove the two screws that secure the battery cover to the fixture.
 3. Remove the old battery and install the replacement battery.
 4. Reattach the battery cover to the fixture.

Compliance

For current and complete compliance information, view the product datasheet at etcconnect.com/Products/Automated-Fixtures. For complete product documentation, including compliance documentation, visit etcconnect.com/products.

FCC Compliance

Halcyon Titanium

(For any FCC matters):

Electronic Theatre Controls, Inc.
3031 Pleasant View Road
Middleton, WI 53562
+1 (608) 831-4116
etcconnect.com

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. Visit etcconnect.com/products for current and complete compliance information including FCC compliance.



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. Any modifications or changes to this product not expressly approved by Electronic Theatre Controls, Inc. could void the user's authority to operate the product. 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 their own expense.*



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2572M1200-1.5.10 Rev A Released 2024-06