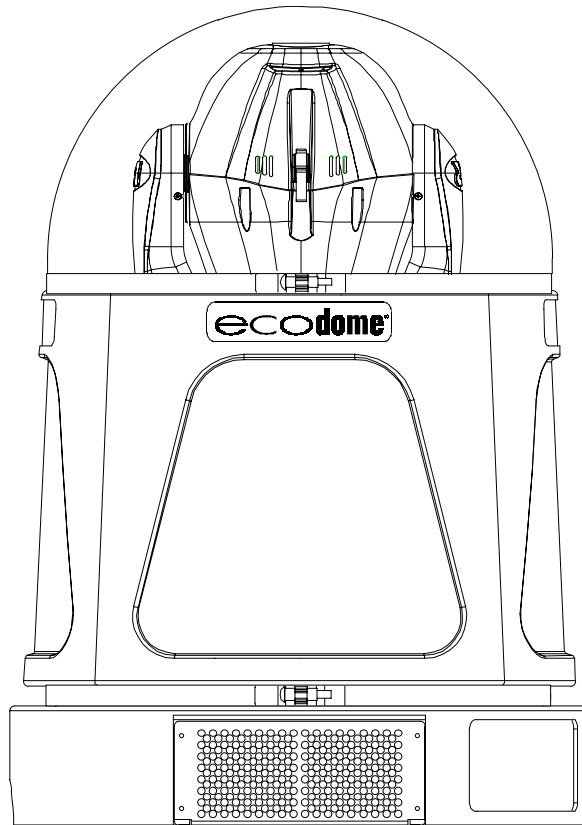


eco dome[®]



User Manual

High End



High End Systems, Inc.
2217 West Braker Lane
Austin, TX 78758 U.S.A.
(512) 836-2242
www.highend.com
p/n 60600135 Version 1.0



**For the latest product updates and information not contained
in this manual, visit the High End Systems Product Support page at:
<http://info.highend.com/service/prodsupt.html>**

eCOdome®

User Manual

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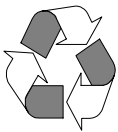
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For patent information, see the inside back cover of this manual.

Ecodome® User Manual
P/N 60600135 Version 1.0 February, 1999
Printed in the USA

C.C.



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Declaration of Conformity

according to ISO/IEC Guide 22 and EN45104

Manufacturer's name: Lightwave Research
Manufacturer's address: 2217 West Braker Lane
Austin, Texas 78758 USA

Distributor's name: High End Systems, Inc.
Distributor's address: 2217 West Braker Lane
Austin, Texas 78758 USA

Declares that the product

Product Name: Ecodome
Product Number: Universal Ecodome 115
Universal Ecodome 208-230
Product Options: All

conforms to the following EEC directives:
73/23/EEC, as amended by 93/68/EEC
89/336/EEC, as amended by 92/31/EEC and 93/68/EEC

Equipment referred to in this declaration of conformity first manufactured in 1999 in compliance with the following standards:

Safety: EN 60598-1: 1993
EMC: EN 55022, 1987 Class A ITE
IEC 801-2, 1991 Level 3 (6/8 kV)
IEC 801-3, 1991 Draft 5, Level 2 (3 V/m)
IEC 801-4, 1988 Level 2 (1 kV/0.5 kV)
ENV 50204, 1996 Level 2 (3 V/m)



USA, July 15, 1999
Kenneth Stuart Hansen, Compliance Engineer

Product Modification Warning

High End Systems products are designed and manufactured to meet the requirements of United States and International safety regulations. Modifications to the product could affect safety and render the product non-compliant to relevant safety standards.

Mise En Garde Contre La Modification Du Produit

Les produits High End Systems sont conçus et fabriqués conformément aux exigences des règlements internationaux de sécurité. Toute modification du produit peut entraîner sa non conformité aux normes de sécurité en vigueur.

Produktmodifikationswarnung

Design und Herstellung von High End Systems entsprechen den Anforderungen der U.S. Amerikanischen und internationalen Sicherheitsvorschriften. Abänderungen dieses Produktes können dessen Sicherheit beeinträchtigen und unter Umständen gegen die diesbezüglichen Sicherheitsnormen verstoßen.

Avvertenza Sulla Modifica Del Prodotto

I prodotti di High End Systems sono stati progettati e fabbricati per soddisfare i requisiti delle normative di sicurezza statunitensi ed internazionali. Qualsiasi modifica al prodotto potrebbe pregiudicare la sicurezza e rendere il prodotto non conforme agli standard di sicurezza pertinenti.

Advertencia De Modificación Del Producto

Los productos de High End Systems están diseñados y fabricados para cumplir los requisitos de las reglamentaciones de seguridad de los Estados Unidos e internacionales. Las modificaciones al producto podrían afectar la seguridad y dejar al producto fuera de conformidad con las normas de seguridad relevantes.

Important Safety Information

Instructions pertaining to continued protection against fire, electric shock, exposure to excessive ultraviolet (UV) radiation, and injury to persons are found in Appendix A.

Please read all instructions prior to assembling, mounting, and operating this equipment.

Important: Informations De Sécurité

Les instructions se rapportant à la protection permanente contre les incendies, l'électrocution, l'exposition à un rayonnement ultraviolet (UV) excessif et aux blessures corporelles se trouvent dans l'Annexe A.

Veuillez lire toutes les instructions avant d'assembler, de monter ou d'utiliser cet équipement.

Wichtige Sicherheitshinweise

Sicherheitsanleitungen zum Schutz gegen Feuer, elektrischen Schlag, übermäßige UV-Strahlung und Verletzung von Personen finden Sie in Anhang A.

Vor der Montage, dem Zusammenbau und der Inbetriebnahme dieses Geräts alle Anleitungen sorgfältig durchlesen.

Informazioni Importanti Di Sicurezza

Le istruzioni sulla protezione da incendi, folgorazione, esposizione eccessiva a raggi ultravioletti (UV) e infortuni sono contenute nell'appendice A.

Si prega di leggere tutte le istruzioni prima di assemblare, montare e azionare l'apparecchiatura.

Informacion Importante De Seguridad

En el Apéndice A se encuentran instrucciones sobre protección continua contra incendios, descarga eléctrica, exposición excesiva a radiación ultravioleta (UV) y lesiones personales.

Lea, por favor, todas las instrucciones antes del ensamblaje, montaje y operación de este equipo.

Warranty Information

Limited Warranty

Unless otherwise stated, your product is covered by a two year parts and labor limited warranty. It is the owner's responsibility to furnish receipts or invoices for verification of purchase, date, and dealer or distributor. If purchase date cannot be provided, date of manufacture will be used to determine warranty period.

Returning an Item Under Warranty for Repair

It is necessary to obtain a Return Material Authorization (RMA) number from your dealer or point of purchase **BEFORE** any units are returned for repair. The manufacturer will make the final determination as to whether or not the unit is covered by warranty. Lamps are covered by the lamp manufacturer's warranty.

Any Product unit or parts returned to High End Systems must be packaged in a suitable manner to ensure the protection of such Product unit or parts, and such package shall be clearly and prominently marked to indicate that the package contains returned Product units or parts and with an RMA number. Accompany all returned Product units or parts with a written explanation of the alleged problem or malfunction. Ship returned Product units or parts to: 2227 West Braker Lane, Austin, TX 78758 USA.

Note: Freight Damage Claims are invalid for fixtures shipped in non-factory boxes and packing materials.

Freight

All shipping will be paid by the purchaser. Items under warranty shall have return shipping paid by the manufacturer only in the Continental United States. **Under no circumstances will freight collect shipments be accepted.** Prepaid shipping does not include rush expediting such as air freight. Air freight can be sent customer collect in the Continental United States.

REPAIR OR REPLACEMENT AS PROVIDED FOR UNDER THIS WARRANTY IS THE EXCLUSIVE REMEDY OF THE CONSUMER. HIGH END SYSTEMS, INC. MAKES NO WARRANTIES, EXPRESS OR IMPLIED, WITH RESPECT TO ANY PRODUCT, AND HIGH END SPECIFICALLY DISCLAIMS ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. HIGH END SHALL NOT BE LIABLE FOR ANY INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGE, INCLUDING LOST PROFITS, SUSTAINED OR INCURRED IN CONNECTION WITH ANY PRODUCT OR CAUSED BY PRODUCT DEFECTS OR THE PARTIAL OR TOTAL FAILURE OF ANY PRODUCT REGARDLESS OF THE FORM OF ACTION, WHETHER IN CONTRACT, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY OR OTHERWISE, AND WHETHER OR NOT SUCH DAMAGE WAS FORESEEN OR UNFORESEEN.

Warranty is void if the product is misused, damaged, modified in any way, or for unauthorized repairs or parts. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

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Introduction

Congratulations on your purchase of the Ecodome[®] architectural housing. Ecodome is a weather-resistant, modular outdoor housing system designed for the Studio 250™ series and the Studio 575™ series of fixtures from High End Systems[®], Inc. Ecodome's ergonomic styling is both attractive and unobtrusive and gives a clean look to any architectural setting in which it operates.

Ecodome's high-density polymer is colored neutral gray. However, Ecodome can be ordered in custom colors to match existing architectural schemes. For more information on ordering a custom color, see "Optional Accessories" below.

The Dome

The dome is made of high impact, UV-resistant polycarbonate and allows full use of Studio 250 and Studio 575 series fixture's pan movement. However, the Ecodome housing limits the fixture's visible *tilt range* to the available 180° tilt area of the dome. Once the light beam passes beyond the available 180° tilt area of the dome, it will be blocked by the Ecodome housing.

Note: If you plan to use a Studio Spot 575 or Studio Spot 250 fixture in Ecodome, you must install light blocks to protect the Ecodome housing from possible damage due to the fixture's light beam shining directly on the inside of the housing. For more information on installing light blocks, see page 2-4.

Optional Accessories

Table -1 below shows the optional accessories available for Ecodome from your High End Systems[®] dealer/distributor:

Table intro-1. Ecodome Optional Accessories

Name	Part Number
Optional Ecodome colors	Call*
Fram CA 5056 air filter	99170003
Round dome	28010005
Ecodome road case	28070001

Call* - For more information about optional accessories, contact either your High End Systems dealer/distributor, High End Systems sales department, or visit the High End Systems web site. For contact information, see "Contacting High End Systems" on page ii.

Specifications

Model Numbers

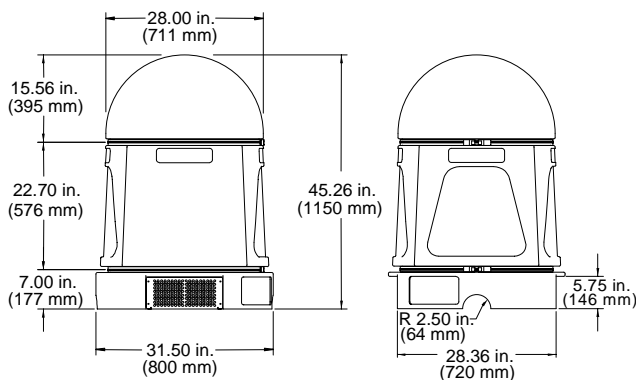
Model: Universal Ecodome
Manufacturer: Lightwave Research
Distributor: High End Systems, Inc.
2217 W. Braker Lane
Austin, Texas, 78758 USA

Dimensions

Height: 45 in. (115 cm)
Width: 32 in. (80 cm)
Depth: 32 in. (80 cm)

Weight

Dome: 7 lbs (3 kg)
Housing: 15 lbs (7 kg)
Base: 45 lbs (20 kg)



Assembled (no fixture installed): 67 lbs (30 kg)

Electrical Specifications

Universal Ecodome 115: 115V, 50/60 Hz, 930W maximum

Universal Ecodome 208-230: 208-230V, 50/60 Hz, 930W maximum

Refer to the fixture's user manual for the rated power and voltage of the fixture you plan to install inside Ecodome.



Warning: Class I equipment - For continued protection against electric shock, connect this equipment to a power source that is protected by a Ground Fault Circuit Interrupt (GFCI).

Environmental Specifications

- Ingress Protection: IP 45
- Suitable for outdoor use

DMX Data Cabling

DMX data cables: Belden® 9841 or equivalent (meets specifications for EIA RS-485 applications) with characteristics listed below:

- 2-conductor twisted pair plus a shield
- maximum capacitance between conductors - 30 pF/ft.
- maximum capacitance between conductor and shield - 55 pF/ft.
- maximum resistance of 20 Ω /1000 ft.
- nominal impedance 100–140 Ω
- 22–24 AWG with insulation having a dielectric rating of 300 volts or higher

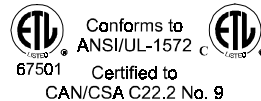
DMX data connectors: 3-pin male and female XLR connectors

DMX data terminators: male XLR connector with 120 ohm terminator

Test Standards

Ecodome conforms to the following standards:

- UL 1572
- EN 60598-1
- CSA 22.2 No. 9
- EMC standards:
 - EN 55022, Class A ITE
 - IEC 801-2, Level 3 (6/8kV)
 - IEC 801-3, Level 2 (3 V/m)
 - IEC 801-4, Level 2 (1kV/.5kV)
 - ENV 50204, 1996 Level 2 (3 V/m)



Safety

- Maximum ambient temperature (T_a): 40° C (104° F).
- Maximum exterior surface temperature: 62° C (144° F).
- Suitable for mounting on normally flammable surfaces.
- Not for residential use.



Caution and Warning Symbols

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



Caution: This symbol appears adjacent to Caution messages. Not heeding these messages could result in personal injury and/or damage to equipment.



Warning: This symbol appears adjacent to high voltage warning messages. Not heeding these messages could result in serious personal injury.



Fire Hazard: This symbol indicates that a fire hazard is present. Not heeding these messages could result in serious personal injury.

Chapter 1

Installing the Ecodome[®] Base

Intended Audience

Ecodome must be installed by a qualified electrician *only*. This manual is intended for electricians and/or building contractors already familiar with electrical wiring and construction.

Unpacking Ecodome[®]

Ecodome ships in three separate boxes—one for the dome, one for the housing, and one for the base. Carefully unpack each box and inspect the contents for damage. If any of the items listed in this section are missing or damaged, you must notify both the shipping agent and your sales agent immediately.

Saving the Shipping Materials

Do not discard the shipping box and packing materials. The box and packing materials are specifically designed to protect the product during transport.

High End Systems, Inc. assumes no responsibility for products damaged during transport. Therefore, you should return a product for repair in its original shipping carton and packing materials.

Note: Before sending anything to the factory, be sure to call your High End Systems, Inc. dealer/distributor for a Return Material Authorization (RMA) number. The factory cannot accept any goods shipped without an RMA number.

Shipping Ecodome[®] to Another Location

Ecodome was not designed to be shipped while a fixture is installed inside Ecodome. If you need to ship Ecodome to another location, High End Systems, Inc. strongly recommends you do the following:

1. Remove the fixture installed in Ecodome and repack the fixture in its original packaging and container.
2. Either disassemble Ecodome and repack it in its original packaging and containers, or pack the fully assembled Ecodome in a road case (see Figure 1-1).



Figure 1-1. Ecodome road case.

For more information on obtaining an Ecodome road case, see “Optional Accessories” on page intro-1.



Caution: Shipping Ecodome with a fixture installed could damage both the fixture and Ecodome.

Contents of the Dome Box

The dome box contains one round dome (see Figure 1-2). Carefully remove the dome and inspect it for cracks or scratches. If you notice cracks or scratches not caused by shipping damage, carefully repack it in its original container and contact High End Systems customer service (see “Contacting High End Systems” on page ii).

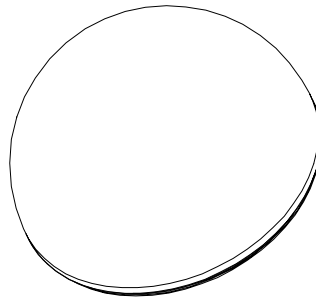


Figure 1-2. Ecodome dome.

Contents of the Housing Box

The housing box contains one housing with an attached clamp and four labels (see Figure 1-3).

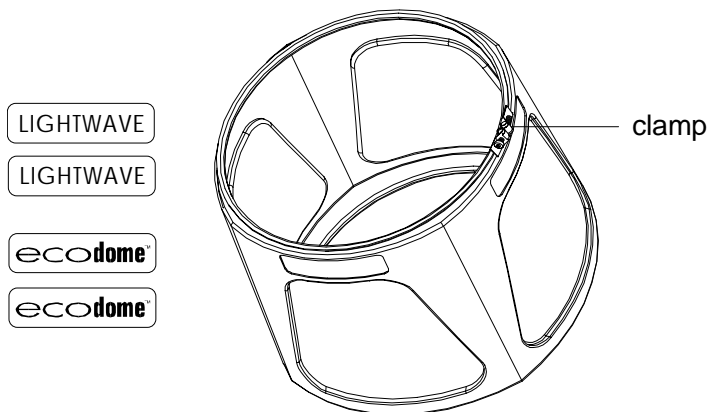


Figure 1-3. Contents of the housing box.

Contents of the Base Box

The base box contains one base with an attached clamp, two light blocks, and various hardware needed for installation (see Figure 1-4).

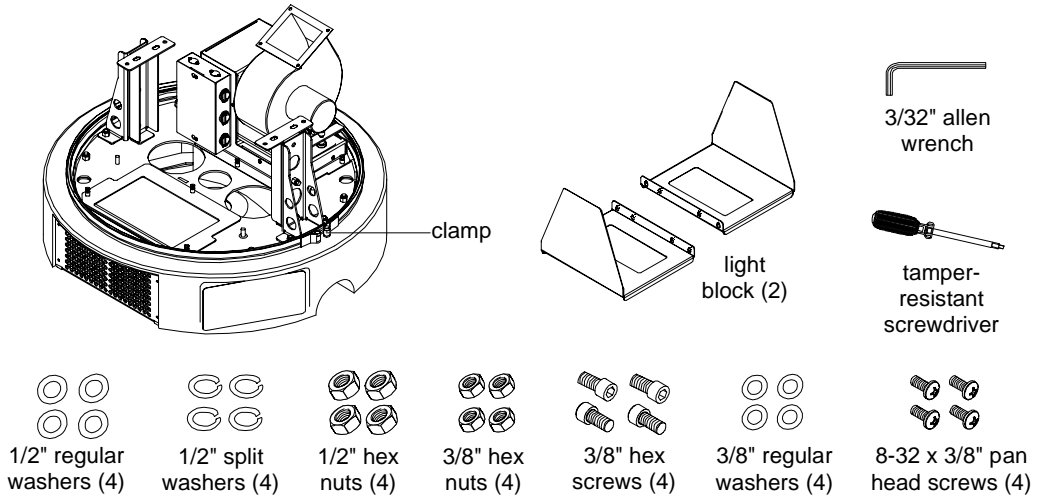


Figure 1-4. Contents of the base box.

Building a Foundation



Cautions: (1) Ecodome should not be mounted on a wall, upside-down, or on a surface inclined more than 45°.

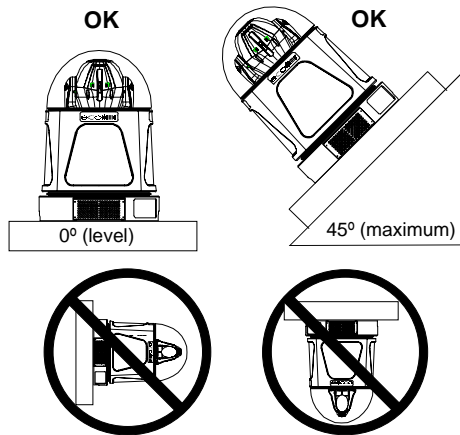


Figure 1-5. Correct mounting position.



(2) Allow at least 24 in. (61 cm) clearance around intake and exhaust vents.



Warning: Risk of fire and shock. This product is to be installed by a qualified electrician *only*.

Installation Requirements

1. Ecodome must be installed in accordance with local and national building and electrical codes.
2. The foundation on which Ecodome is installed must be at least 6 in. (15 cm) above ground level.
3. Ecodome must not be installed in low-lying areas subject to flooding. Ecodome must be mounted on a site that provides adequate drainage so that Ecodome is *never* immersed in standing water.
4. Ecodome model “Universal Ecodome” is to be used *only* with High End Systems fixture models “Studio Color 575-M,” “Studio Color 575-S,” “Studio Color,” “Studio Spot,” “Studio Color 250,” or “Studio Spot 250.”

Foundation Layout

You will need:

- suitable foundation materials (concrete, steel, wood, etc.) to build a 32 in. (81 cm) minimum diameter foundation
- four 1/2" Unified National Coarse (UNC) studs for mounting Ecodome

Use the following guidelines to build the Ecodome foundation:

1. Construct a foundation of suitable material (concrete, steel, wood, etc.) that allows at least 32 in. (81 cm) minimum diameter. Make sure the top of the foundation is at least 6 in. (15 cm) above ground level.

- 2. Install four 1/2" mounting studs into the foundation in a square pattern with the center of the studs measuring 17 inches apart (see Figure 1-6).

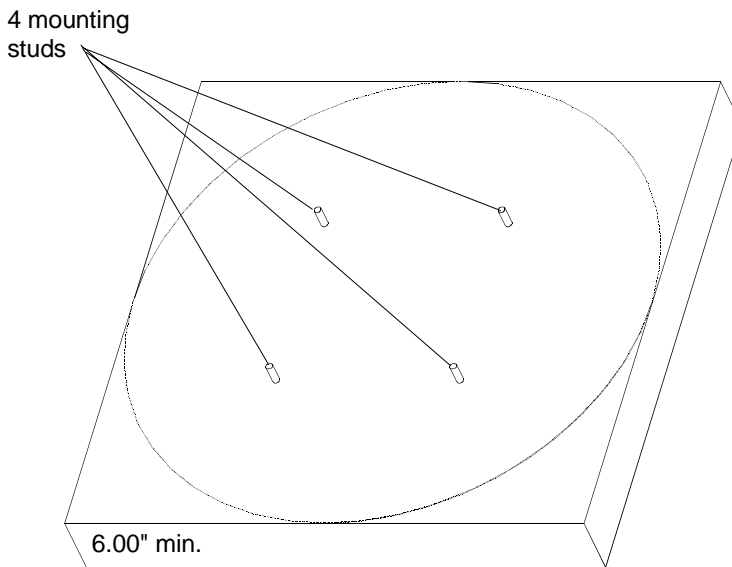
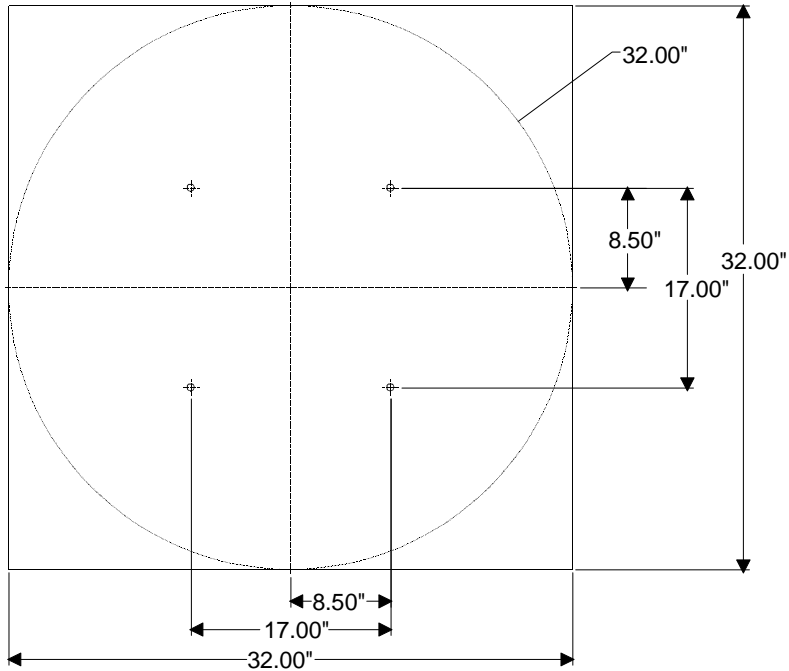


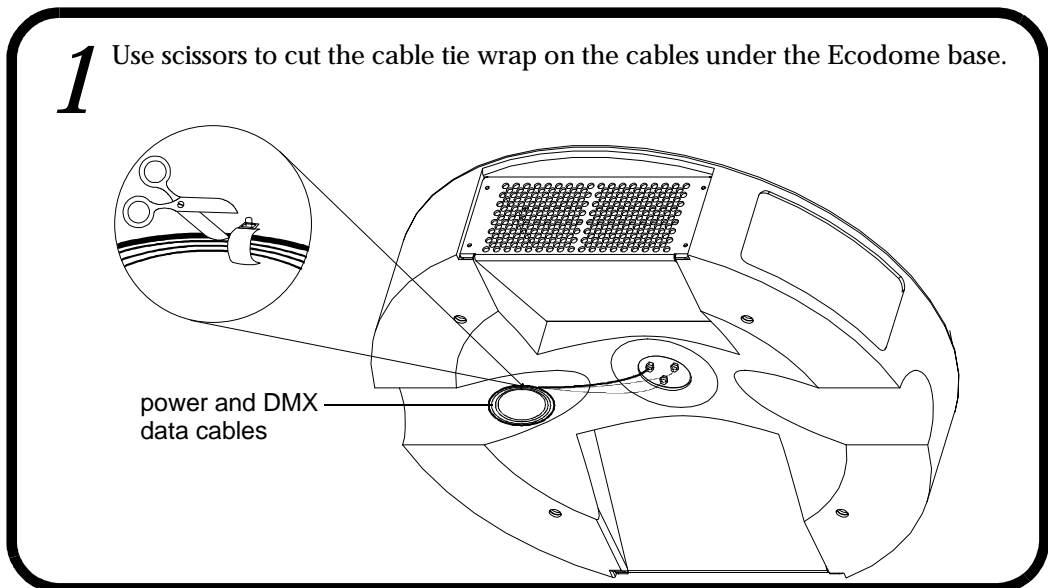
Figure 1-6. Recommended foundation layout for Ecodome.

Assembling and Mounting the Base

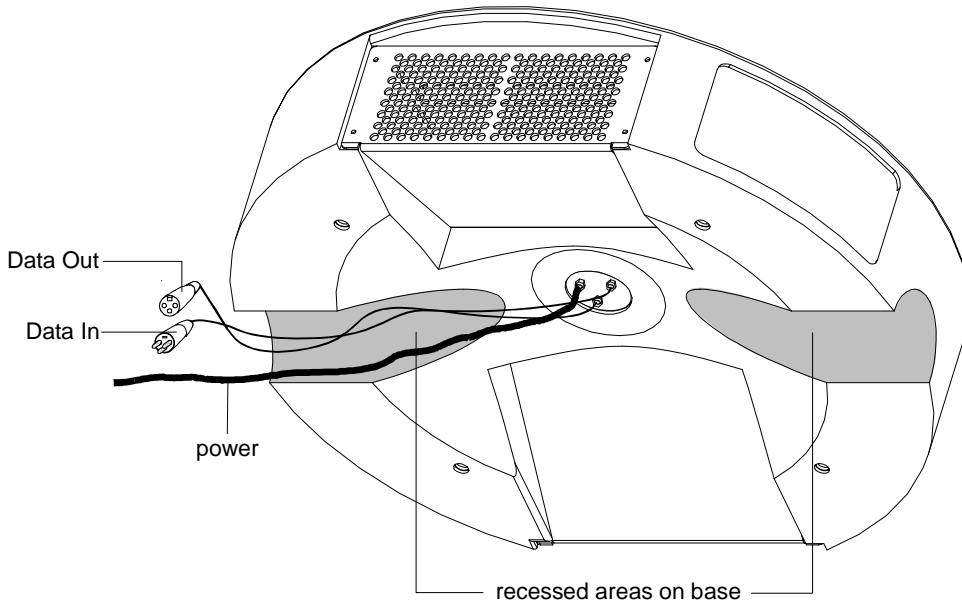
This section shows how to mount the Ecodome base on the foundation you have already prepared.

You will need:

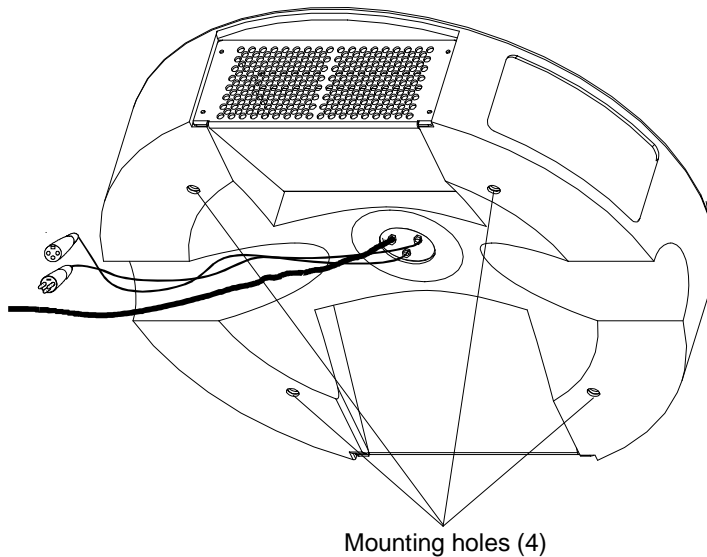
- ratchet and
 - 3/4" deep socket
 - 6" extension
- scissors
- four 1/2" regular washers (supplied with Ecodome)
- four 1/2" split washers (supplied with Ecodome)
- four 1/2" mounting nuts (supplied with Ecodome)



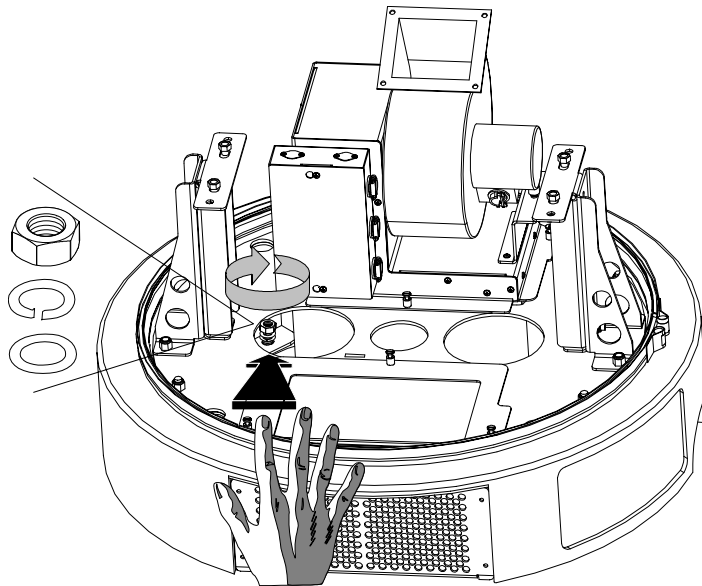
- 2** Extend the power and DMX data cables through either of the recessed areas on the Ecodome base.



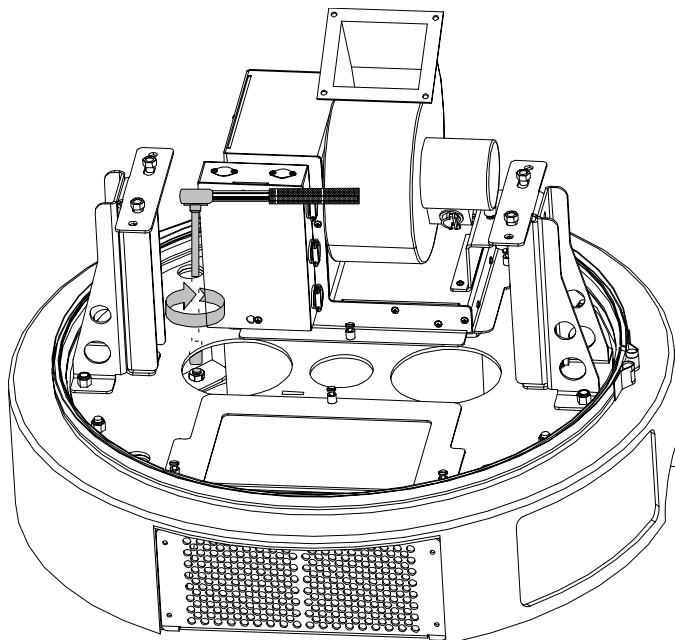
- 3** Place the four Ecodome mounting holes over the four studs in your foundation.



- 4** Place a 1/2" regular washer, a 1/2" split washer, and a 1/2" hex nut over each of the four foundation studs inside the Ecodome base.



- 5** Use a ratchet to tighten all four 1/2" hex nuts securely.



Chapter 2

Installing the Fixture

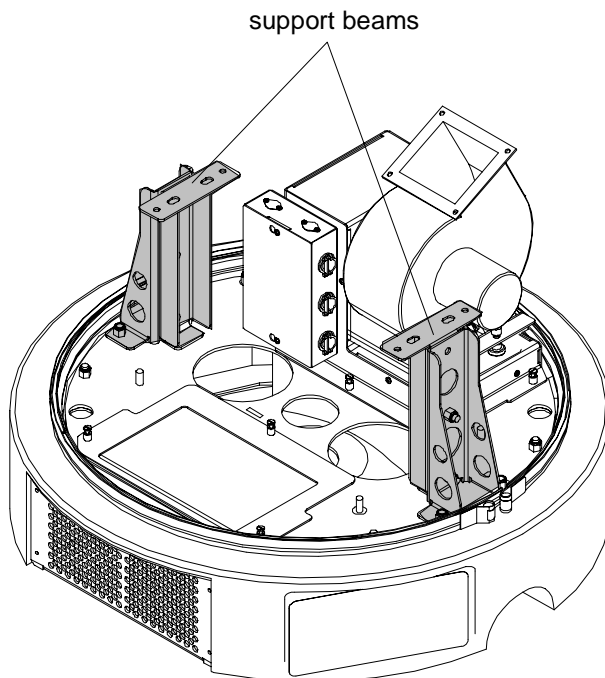
You should have already prepared the site and mounted the Ecodome base as described in Chapter 1 before following the instructions in this chapter.

You will need:

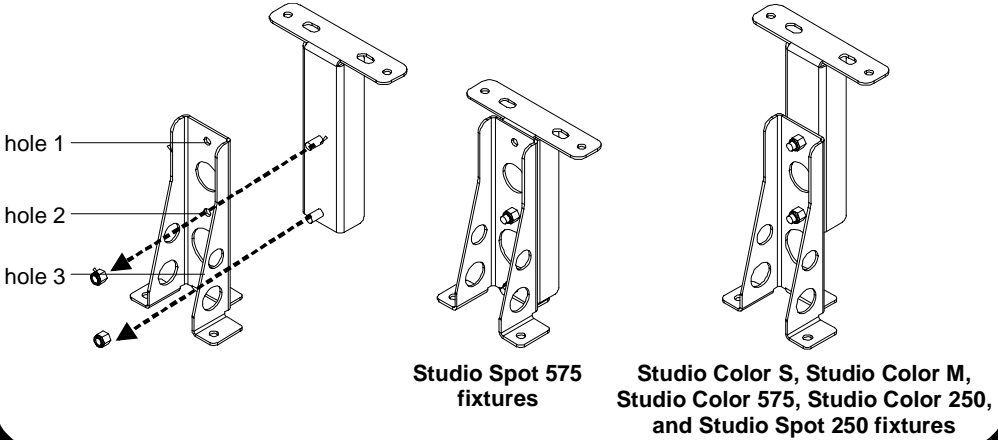
- a fixture suitable for mounting in Ecodome (see “Installation Requirements” on page 1-4)
- ratchet and
 - 3/4" deep socket
- #2 Philips-head (torque-measuring) screwdriver
- 3/32" allen wrench (supplied with Ecodome)
- two light blocks (supplied with Ecodome)
- four 8-32 x 3/8" pan head screws (supplied with Ecodome)
- four 3/8" hex screws (supplied with Ecodome)
- four 3/8" regular washers (supplied with Ecodome)
- four 3/8" hex nuts (supplied with Ecodome)

2

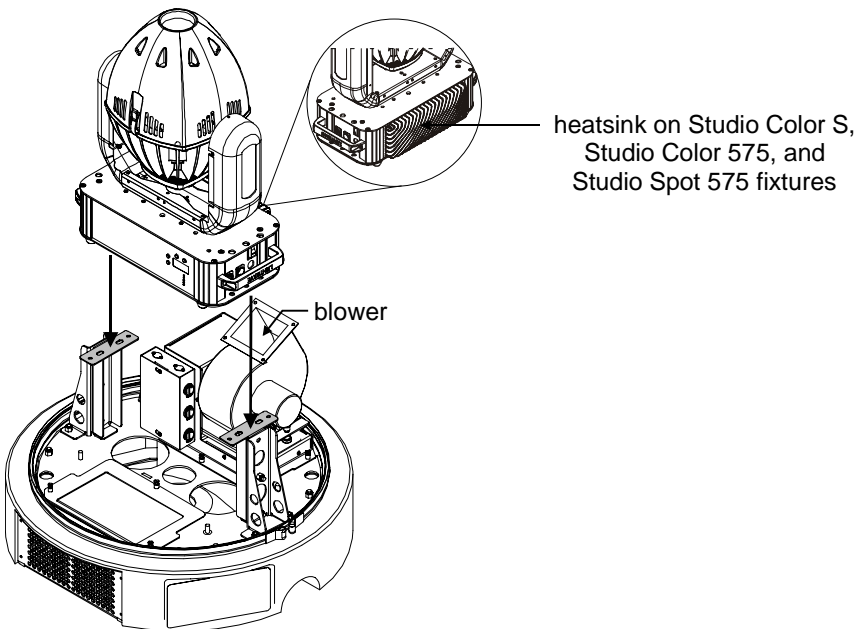
1 Locate the support beams on the Ecodome base.



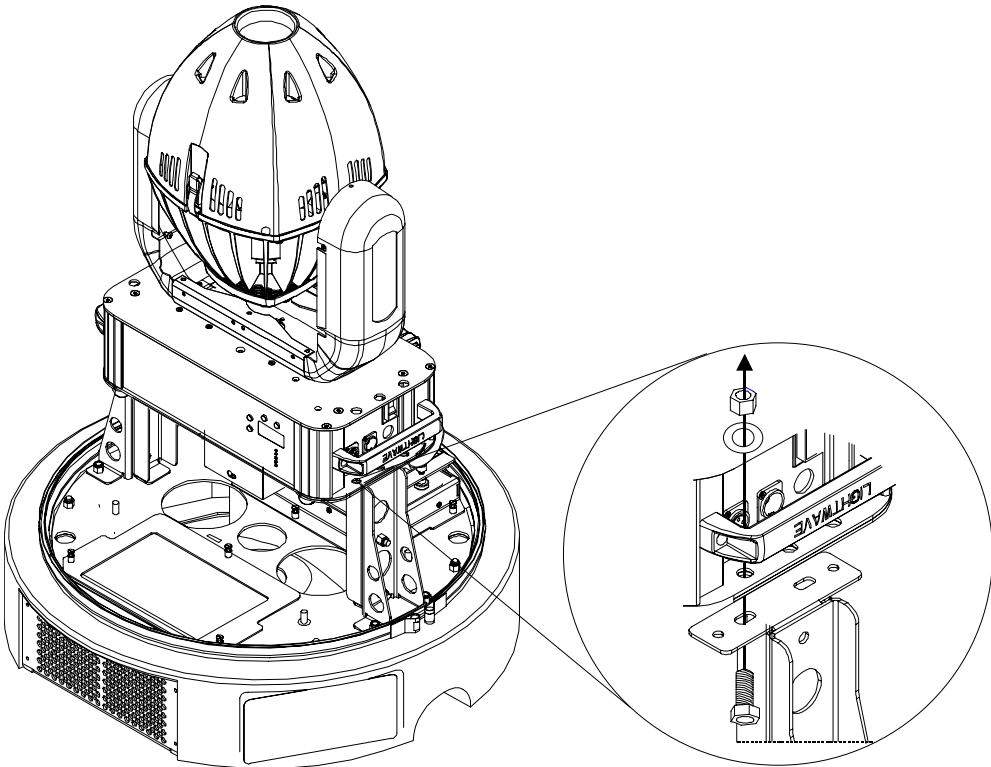
2 Determine whether the support beams are correctly assembled for the fixture you wish to install. If you wish to install a Studio Spot 575 fixture, position the support beams in holes 2 and 3. If you wish to install a Studio Color S, Studio Color M, Studio Color 575, Studio Spot 250, or Studio Color 250 fixture, position the support beams in holes 1 and 2.



3 Use two people to place the fixture on the Ecodome support beams. If you are installing a Studio Color S, Studio Color 575, or Studio Spot 575 fixture, you *must* orient the fixture so that the fixture's heatsink faces the Ecodome blower.



- 4** Secure the fixture to the Ecodome base by installing a 3/8" hex screw, 3/8" flat washer, and a 3/8" hex nut through the top of the Ecodome support beam and *each of the four* mounting holes on the fixture's bottom plate.



2

5 If you are installing a Studio Spot 575 or Studio Spot 250 fixture, you must attach a light block to *each side* of the fixture. The light blocks will prevent damage to the inside of the Ecodome housing.

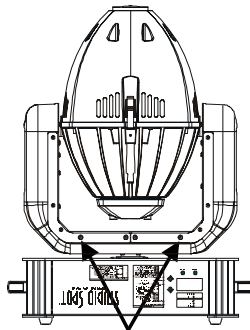


Caution: Failure to install light blocks will result in damage to the Ecodome Housing.

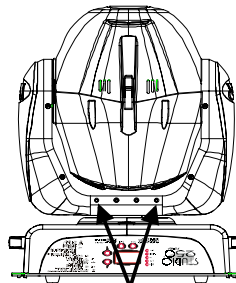
Using a 3/32" allen wrench (for Studio Spot 575 fixtures) or a #2 Phillips-head screwdriver (for Studio Spot 250 fixtures), remove the two *outer* screws on the bottom of the fixture's yoke. Insert an 8-32 pan head screw in each outer screw hole on the bottom of the fixture's yoke. *Do not fully tighten the screws.*

Install the light block by placing the large ends of its keyhole slots over the two 8-32 pan head screws on the fixture's yoke. Lightly press down on the light block until the screws are in the small end of the keyhole slots. Tighten the screws securely.

Replace the outer screws on the bottom of the fixture's yoke

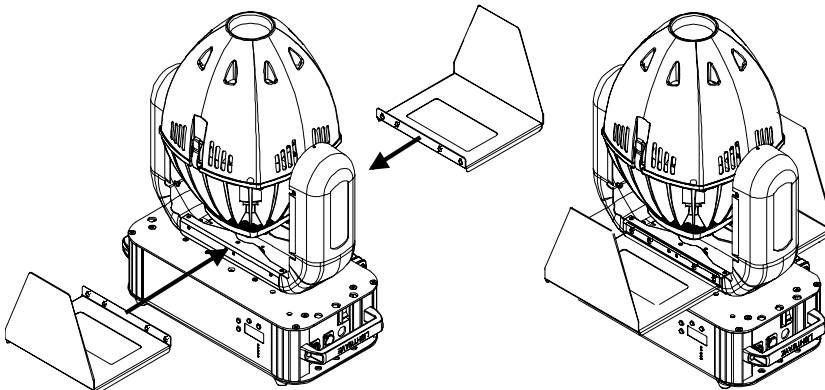


Studio Spot 575



Studio Spot 250

Install the light block

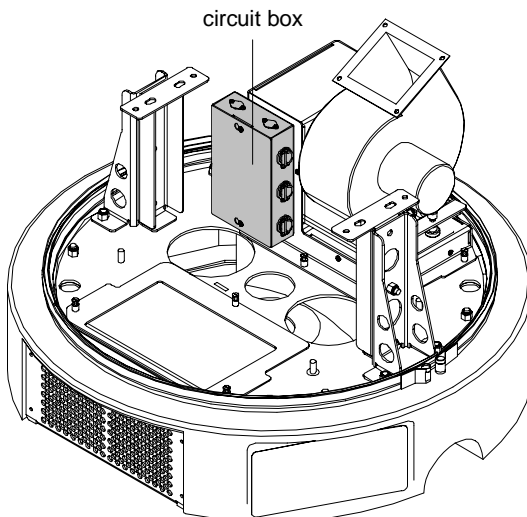


Connecting the Cabling

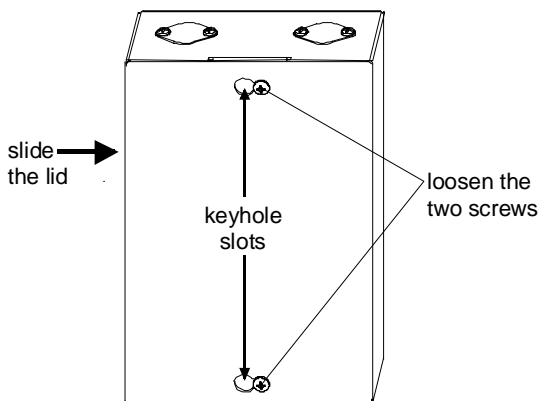
You will need:

- #2 Phillips-head screwdriver
- flat head screwdriver with a 3/16" blade

1 Locate the Ecodome circuit box on the Ecodome base.

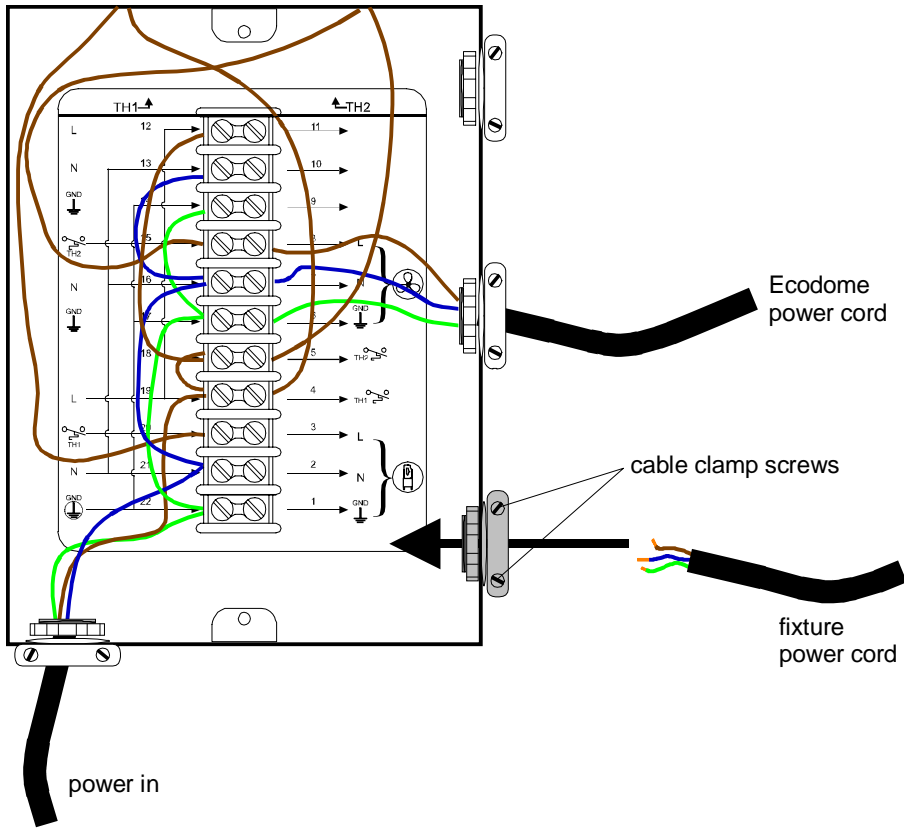


2 Using a #2 Phillips-head screwdriver, loosen (but do not remove) the two screws from the circuit box lid. Slide the circuit box lid to the side so that the screws are positioned in the large end of the keyhole slot. Pull the circuit box lid out and over the screws to remove the lid.



2

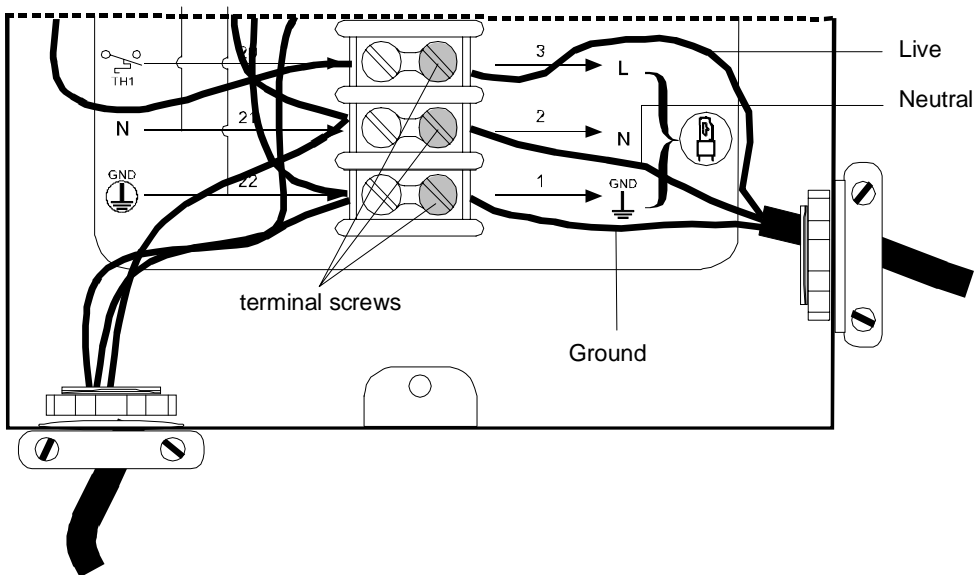
3 Using a flat head screwdriver, loosen the two cable clamp screws. Insert the fixture's power cord through the cable clamp into the circuit box.



4 Using a flat head screwdriver, loosen the three Ecodome terminal screws reserved for the fixture's cable (shaded below).

Insert the fixture's Live, Neutral, and Ground/Earth wires into the appropriately-marked terminal. The Ecodome terminals are marked "L" for Live, "N" for Neutral and "⊕" for Ground/Earth.

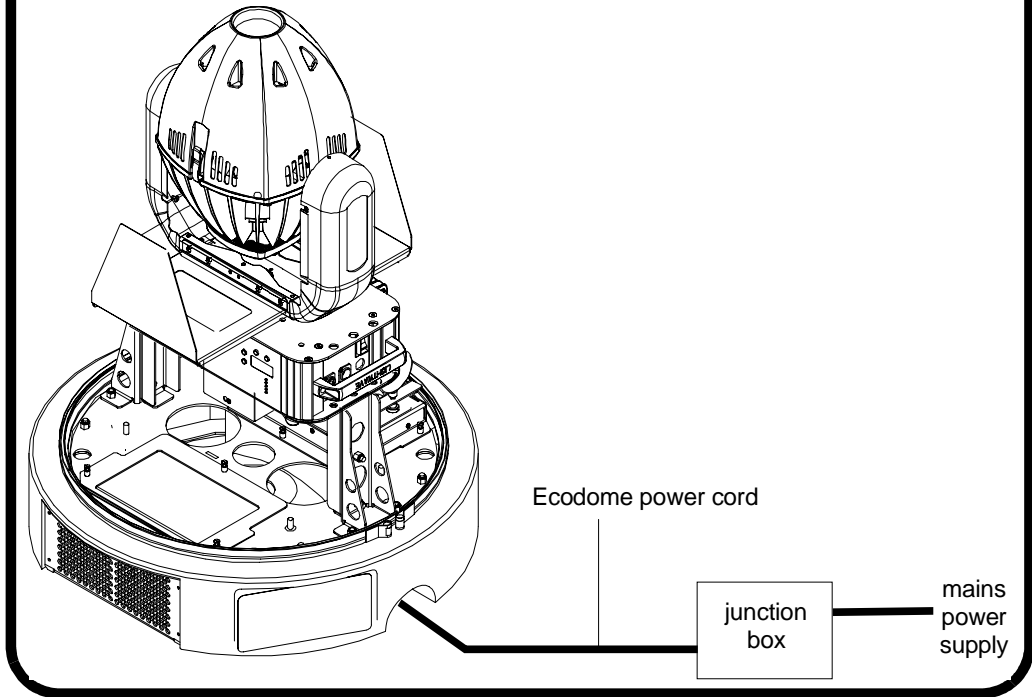
For more information on the fixture's power cord, consult the fixture's user manual.



After inserting each wire, tighten its terminal screw to 12 in. lb. (1.36 N-m) to secure the wire to the terminal block.

When you have finished, tighten the cable clamp screws and replace the circuit box lid.

5 Use a junction box to connect the Ecodome power cord to the mains power supply.



The mains power supply must include branch circuit protection sized in accordance with your local and national electrical codes. High End Systems, Inc. recommends that you also use a Ground Fault Circuit Interrupt (GFCI) for all outdoor installations.

The cores in the Ecodome mains lead are colored in accordance with the following code:

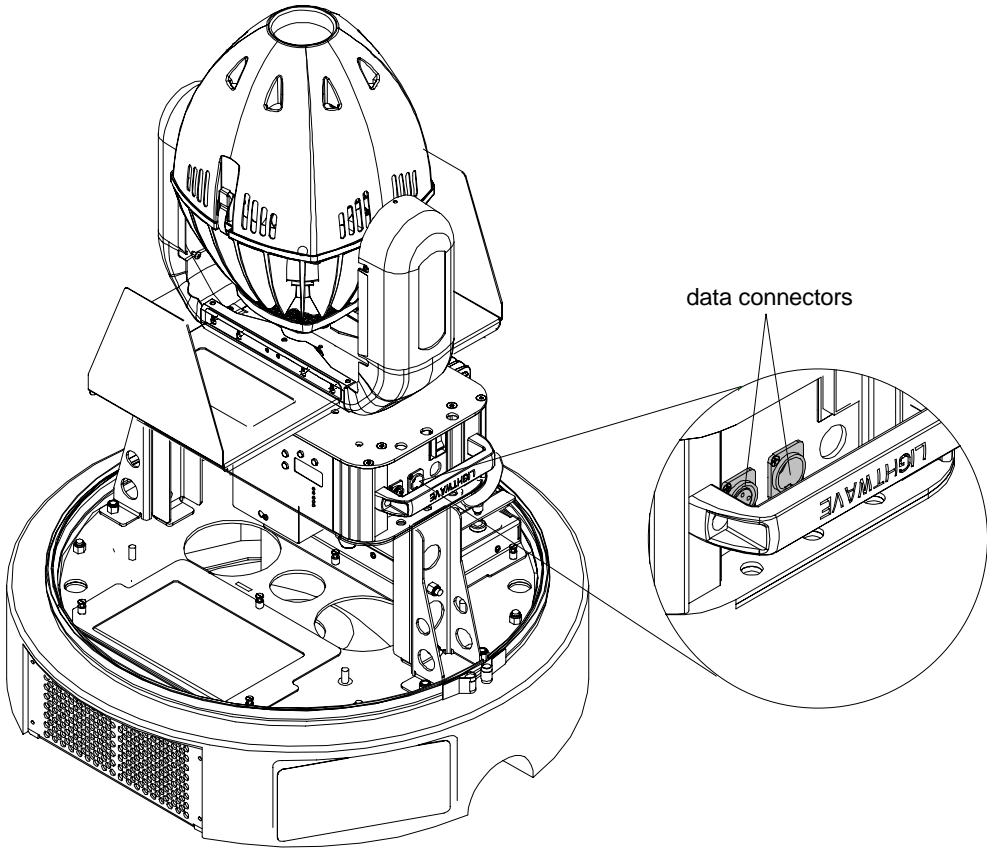
- **green and yellow:** earth
- **blue:** neutral
- **brown:** live



THIS EQUIPMENT MUST BE EARTHED.

6

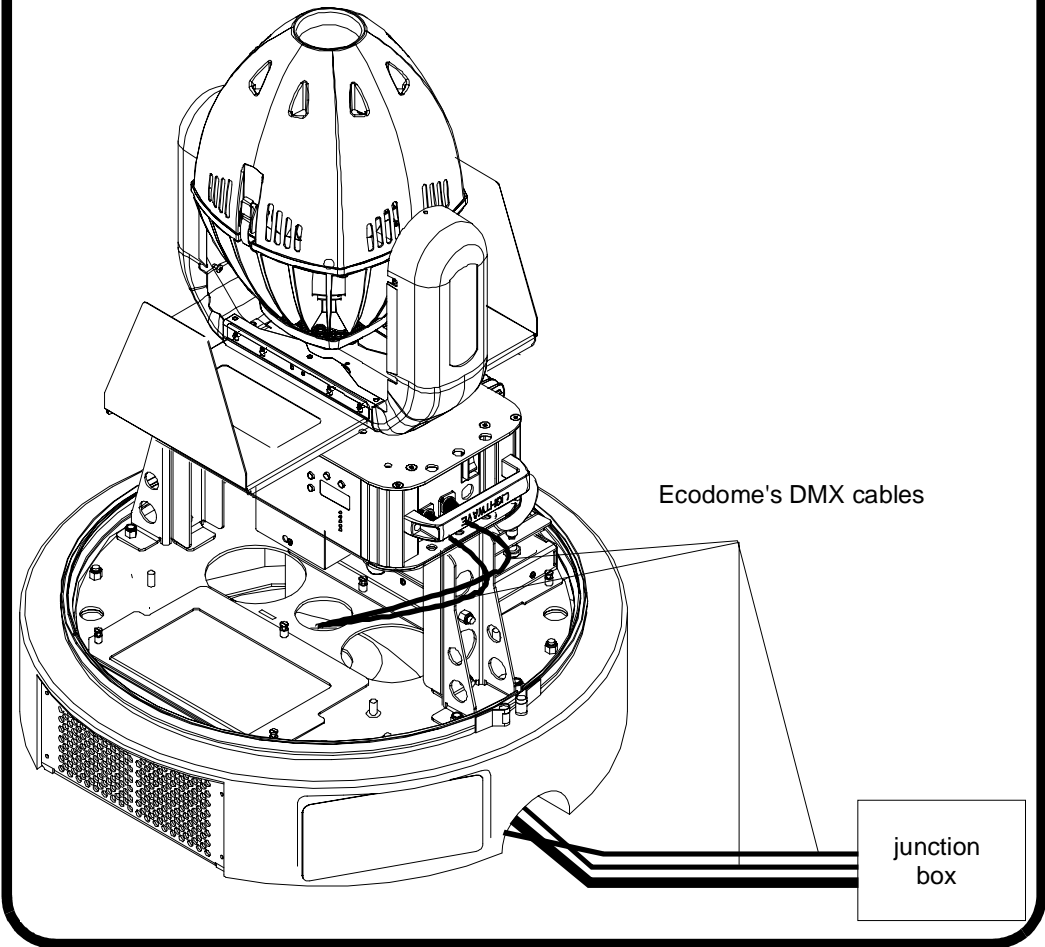
Locate the fixture's DMX data connectors.



2

7 Connect Ecodome's male data cable to the fixture's Data Out connector and Ecodome's female data cable to the fixture's Data In connector.

Use a junction box to connect the other end of Ecodome's data cables to either the controller or the next Ecodome on the DMX link.



Final Component Assembly

This section describes how to assemble the final components before putting Ecodome into use.

You will need:

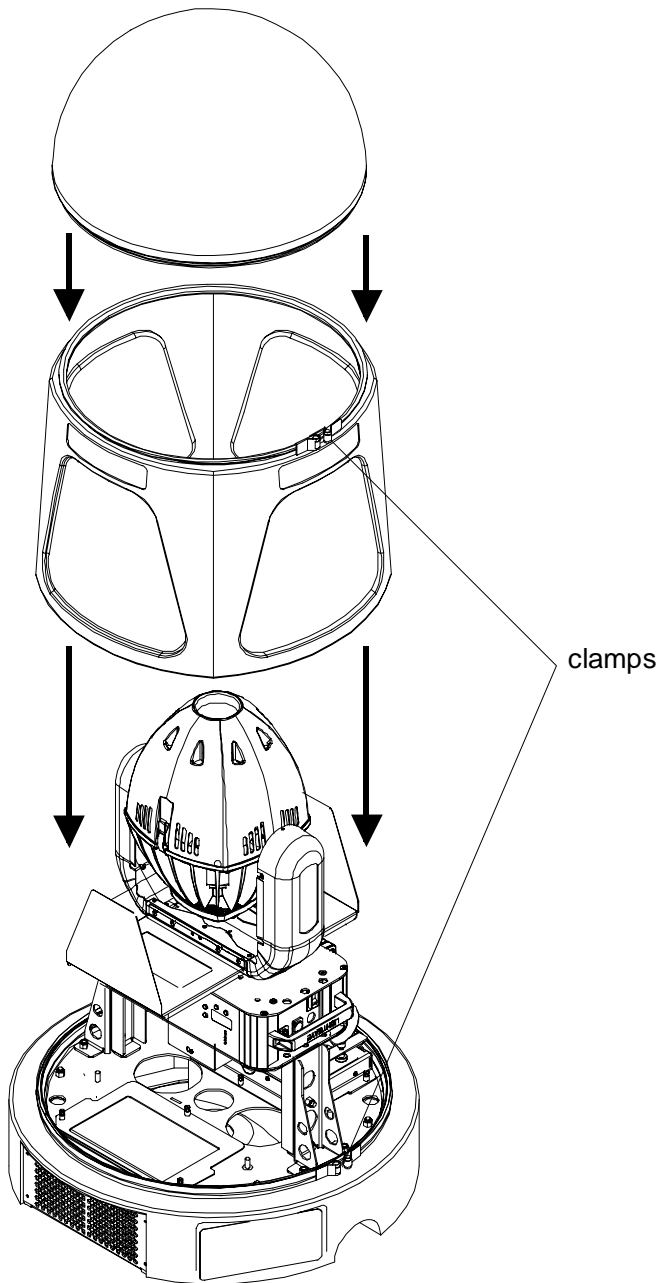
- four housing labels (supplied with Ecodome)
- tamper-resistant screwdriver tool (supplied with Ecodome)

2

1 Remove the paper backing from the housing labels and carefully apply one label to each recessed area at the top of the housing. Use firm, even pressure to prevent bubbles from forming under the label.

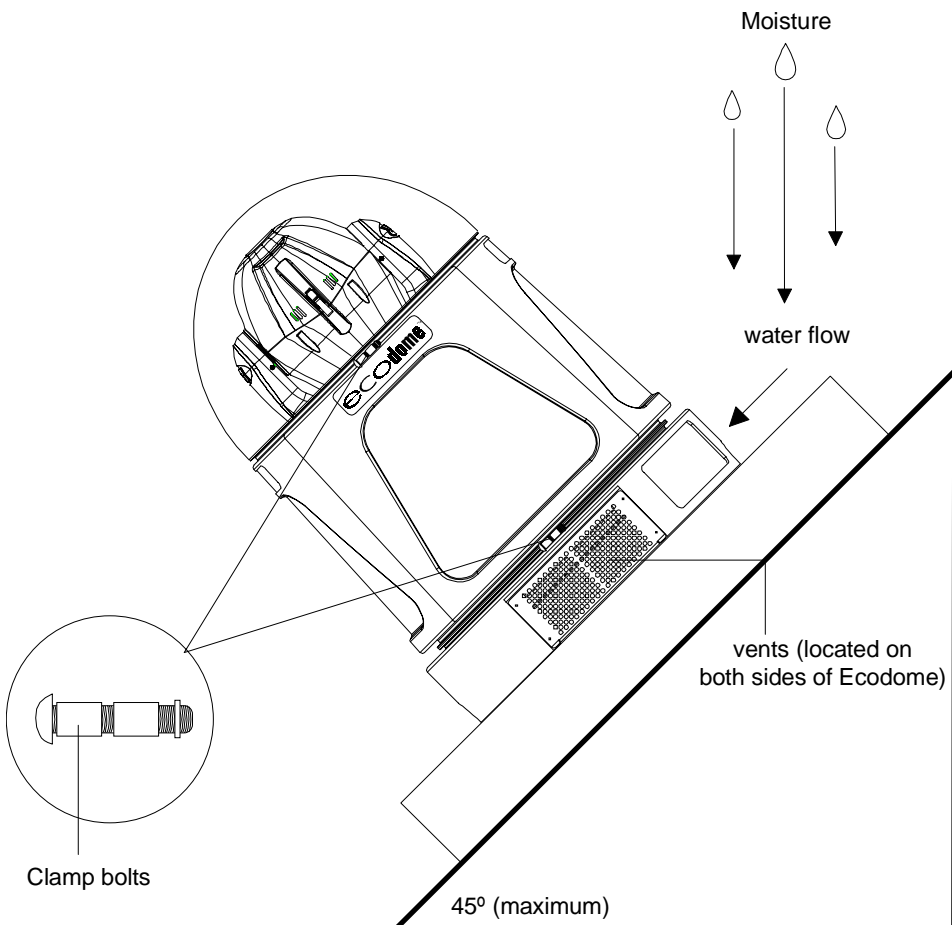


2 Place the Ecodome housing (with attached clamp) over the Ecodome base (with attached clamp). Place the dome over the housing.



3 Secure the clamps by tightening the clamp bolts with the tamper-resistant screwdriver tool. Tighten the bolts until you cannot rotate either the dome or the housing.

Note: If you mounted Ecodome on an incline, orient the clamp bolts and the base vents 90° away from the direction of the incline to provide added protection against moisture accumulating inside Ecodome.



Chapter 3

Performing Maintenance

You must observe the following warnings and cautions when performing any type of service on either Ecodome or the fixture installed inside Ecodome:



Warnings: (1) **Disconnect power before servicing.**

- (2) **Consult the documentation provided with the fixture installed inside Ecodome for important safety information.**
- (3) **Do not operate this equipment without complete lamp enclosure in place or if shields, lenses, or ultraviolet screens are damaged.**
- (4) **Change shields, lenses, or ultraviolet screens if they have become visibly damaged to such an extent that their effectiveness is impaired, for example by cracks or deep scratches.**
- (5) **Never look directly at the lamp while the lamp is on.**



Caution: **This fixture must be serviced by qualified personnel. The information listed in this section is intended to assist qualified service personnel only.**

Servicing the Fixture

Consult the fixture's documentation for recommended fixture cleaning and maintenance procedures.

Servicing Ecodome[®]

Some basic recommended service procedures for Ecodome are listed below.

Cleaning Ecodome[®]

To clean the housing, use a cloth and non-abrasive household soap and/or cleaner to wipe away built-up dirt from the housing.

To clean the dome, leave the dome *on* the Ecodome unit and follow the steps below:

1. If mud or other debris has accumulated on the dome, first spray the dome off with water.

2. After cleaning away built-up debris, use a soft cloth (a wet cotton rag, chamois, or cheese cloth is recommended) and water or mild glass cleaner to wipe away dirt and debris from the outer dome surface.



Caution: Do not use paper towels or other abrasive materials to clean the dome; doing so can leave scratches which may impair image quality.

3. *Optional.* As a final cleaning, dampen a soft cloth with denatured rubbing alcohol to thoroughly clean the dome's surface.

Checking Intake/Exhaust

You must leave at least 24 inches (61 cm) clearance around both the intake and exhaust vents, located on opposite sides of the Ecodome base. Because wind and weather conditions can cause debris to build up around the vents, you should regularly inspect for any of the following:

- **Grass clippings or leaves:** Use your hands or a vacuum to clear away leaves and clippings.
- **Water, snow, or soil:** Accumulations of water or soil within 24 inches (61 cm) of Ecodome's intake or exhaust could prevent the fixture from operating properly, or pose a major hazard to the fixture.

If any of the above regularly accumulate around Ecodome, contact High End Systems customer service (see "Contacting High End Systems" on page ii).

Replacing Air Filters



Caution: Electrically isolate Ecodome before following these instructions.

Check Ecodome's intake and exhaust air filters whenever you service the fixture installed in Ecodome (for example, when you change lamps). Ecodome's air filters must be replaced when they are visibly clogged with dirt.

To replace the air filter:

1. Use the tamper-proof screwdriver (shipped with Ecodome) to remove the base clamp.
2. Carefully lift the housing and dome from the base (and fixture).
3. Locate the air filters (see Figure 3-1).
4. Loosen the three air filter cover thumbscrews surrounding the air filter and remove the air filter cover.

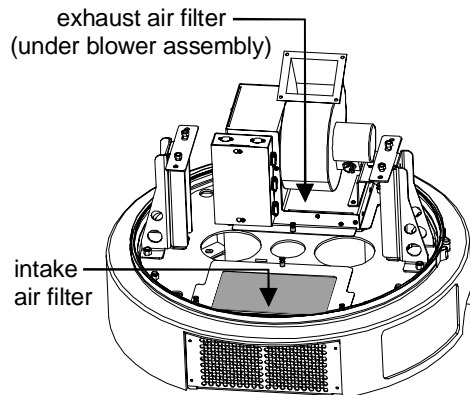


Figure 3-1. Location of the air filters.

Note: The *entire blower assembly* serves as the exhaust air filter cover. To access the exhaust air filter, loose the three thumbscrews around the base of the blower assembly and lift the entire blower assembly off the base.

5. Replace the air filter.

You must use a Fram[®] CA 5056 air filter. You can purchase CA 5056 air filters from your High End Systems dealer/distributor (see “Optional Accessories” on page intro-1).

6. Replace the air filter cover and tighten the air filter cover thumbscrews.
7. Replace the housing and dome over the base. Use the tamper-proof screwdriver to tighten the base clamp.

Oiling the Blower Motor

You should oil the blower motor every six months.



Caution: Electrically isolate Ecodome before following these instructions.

To oil the blower motor:

1. Use the tamper-proof screwdriver (shipped with Ecodome) to remove the base clamp.
2. Carefully lift the housing and dome from the base (and fixture).
3. Locate the blower motor (see Figure 3-2).
4. Oil the blower motor in the holes on each side of the motor (see Figure 3-2).

You must use 10 to 20 drops of either SAE 10W or 20W non-detergent oil (ML-type) or electric motor oil.

5. Replace the housing and dome over the base. Use the tamper-proof screwdriver to tighten the base clamp.

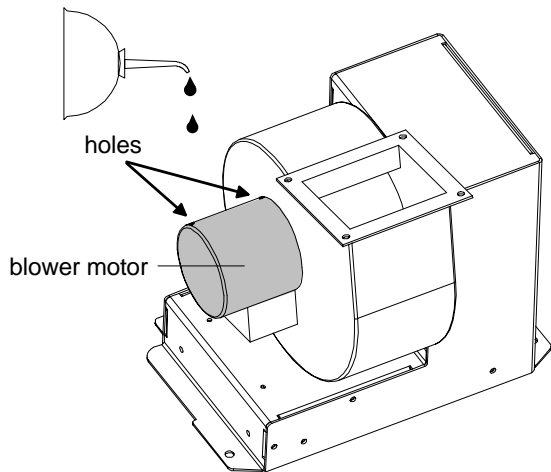


Figure 3-2. Oiling the blower motor.

Appendix A

Important Safety Information

A

Conditions of Acceptability for ETL/C-ETL Recognition of Ecodome

Ecodome is an ETL/C-ETL Recognized Component that is acceptable for use only under the following conditions:

1. Ecodome must be installed in accordance with local and national building and electrical codes.
2. A suitable mounting site with drainage is provided that does not subject the enclosure to submersion in liquid.
3. The model Universal Ecodome is to be used only with HID Lighting Fixture, Model “Studio Color 575-M,” “Studio Color 575-S,” “Studio Color,” “Studio Spot,” “Studio Color 250,” or “Studio Spot 250.”

WARNING - For Continued Protection Against Electric Shock

1. Risk of fire and electric shock. This product is to be installed by a qualified electrician *only*.
2. Class I equipment - For continued protection against electric shock connect this equipment to a ground fault protected power source only.
3. Disconnect power before servicing.
4. Do not install an accessory in Ecodome unless you first contact High End Systems customer service.
5. **IMPORTANT** – The cores in the mains lead are colored in accordance with the following code:
 - **green and yellow:** earth
 - **blue:** neutral
 - **brown:** live
6. THIS EQUIPMENT MUST BE EARTHED.

WARNING - For Continued Safe Operation

1. Consult the documentation provided with the luminaire you are using for installation instructions and important safety information.
2. Shipping Ecodome to another location with a fixture installed could result in damage to both the fixture and to Ecodome.
3. Not for residential use.
4. Change the lamp if it becomes damaged or thermally deformed.

Warning: For Continued Protection Against Exposure To Excessive Ultraviolet (UV) Radiation

1. Do not operate this equipment without complete lamp enclosure in place or if shields, lenses, or ultraviolet screens are damaged.

2. Change shields, lenses, or ultraviolet screens if they have become visibly damaged to such an extent that their effectiveness is impaired, for example by cracks or deep scratches.
3. Never look directly at the lamp while the lamp is on.

Installation Instructions

1. Allow at least 24 inches (61 cm) clearance around intake and exhaust. Do not operate in low-lying areas subject to flooding or in areas subject to standing water.
2. Ecodome cannot be mounted on a wall or upside-down.

Maintenance Instructions

1. Disconnect power before servicing.
2. Check both intake and exhaust air filters whenever you service the fixture (for example, when you change lamps). Air filters must be replaced when they are visibly clogged with dirt.
3. You must use a Fram[®] CA 5056 air filter or the equivalent. You can purchase CA 5056 air filters from your High End Systems, Inc. dealer distributor (part number 99170003).

Appendice A

Important: Informations De Sécurité

Conditions d'acceptation pour la reconnaissance d'Ecodome par l'ETL/C-ETL

Ecodome est un composant reconnu par l'ETL/C-ETL lorsque les conditions suivantes sont satisfaites :

1. Ecodome doit être installé conformément aux codes de réglementation locaux et nationaux concernant le bâtiment et les installations électriques.
2. Le support de base sur lequel est installé Ecodome doit être à une distance minimum de 15 cm (6 pouces) au-dessus du niveau du sol ; de plus, Ecodome ne doit pas être utilisé dans des zones basses susceptibles d'être inondées ou dans des zones pouvant être submergées sous des eaux stagnantes.
3. Le modèle "Ecodome Universal" doit être utilisé uniquement avec le modèle de projecteur "Studio Color 575-M," "Studio Color 575-S," "Studio Color," "Studio Spot," "Studio Color 250," ou "Studio Spot 250."

AVERTISSEMENT – Pour une protection continue contre l'électrocution

1. Risque d'incendie et d'électrocution. Ce produit doit être installé uniquement par un électricien qualifié.
2. Equipement de Classe I – pour une protection continue contre l'électrocution, branchez cet équipement à une source d'alimentation protégée par un interrupteur de mise à la terre.
3. Débranchez l'appareil avant toute intervention de maintenance.

4. N'installez pas d'accessoire dans Ecodome sans contacter d'abord le Service consommateurs de High End Systems.

AVERTISSEMENT – Pour une sécurité d'opération continue

1. Pour lire les instructions d'installation et d'importantes informations de sécurité, consultez la documentation livrée avec l'appareil d'éclairage que vous utilisez.
2. Le transport d'Ecodome alors qu'un projecteur est monté sur celui-ci risque d'endommager à la fois le projecteur et le composant Ecodome.
3. Cet appareil n'est pas destiné à un usage domestique.
4. Changer la lampe si elle est endommagée ou thermiquement déformée.

Mise en garde: pour une protection permanente contre des expositions excessives aux rayons ultra violets (UV)

1. Ne pas utiliser cet appareil si le boîtier de la lampe n'est pas complètement fixé ou si les blindages, lentilles, ou écrans ultraviolets sont endommagés.
2. Changer les blindages ou les écrans ultraviolets s'ils sont visiblement endommagés au point que leur efficacité aient été altérée, par exemple par des fissures ou de profondes égratignures.
3. Ne jamais regarder directement la lampe quand celle ci est allumée.

Instructions pour l'installation

1. Laissez un dégagement minimum de 61 cm (24 pouces) autour de l'entrée d'air et de l'échappement. N'utilisez pas l'appareil dans des zones basses susceptibles d'être inondées, ou dans des zones pouvant être submergées sous des eaux profondes et stagnantes.
2. L'Ecodome ne peut pas être monté sur un mur ou en tête-à-queue.

Instructions pour la maintenance

1. Débranchez l'appareil avant toute intervention de maintenance.
2. Vérifiez le filtre de l'entrée d'air et celui de l'échappement chaque fois que vous effectuez une opération de maintenance sur l'appareil (par exemple, lorsque vous changez une lampe). Les filtres à air doivent être remplacés lorsqu'ils sont visiblement encrassés.
3. Vous devez utiliser un filtre à air FRAM à CA 5056 ou équivalent. Les filtres à air FRAM à CA 5056 sont en vente chez les distributeurs agréés High End Systems, Inc. (numéro de pièce 99170003).

Anhang A

Wichtige Sicherheitshinweise

Anforderung der ETL/C-ETL-Norm für Ecodome

Ecodome entspricht der Norm einer von ETL/C-ETL akzeptierten Komponente, wenn die folgenden Anforderungen erfüllt sind:

1. Ecodome muß gemäß der örtlichen und nationalen elektrischen Richtlinien und Bauvorschriften installiert werden.
2. Das Fundament auf welches Ecodome installiert wird, muß sich mindestens 15 cm (6 Zoll) über der Grundgleiche befinden. Außerdem ist Ecodome nicht in tiefgelegenen Gebieten, die Überschwemmungen ausgesetzt sind oder in Gebieten mit stehendem Wasser zu betreiben.
3. Das Ecodome Modell "Universal" ist nur mit dem Leuchtenmodell "Studio Color 575-M," "Studio Color 575-S," "Studio Color," "Studio Spot," "Studio Color 250," oder "Studio Spot 250" zu verwenden.

WARNUNG – Zum Schutz vor elektrischen Schlägen

1. Feuergefahr und Gefahr eines elektrischen Schlages. Dieses Produkt sollte nur von einem qualifizierten Elektriker installiert werden.
2. Gerät der Klasse I – Zum Schutz vor elektrischen Schlägen ist dieses Gerät an eine mit Erdschluß geerdete Stromversorgung anzuschließen.
3. Vor dem Ausführen von Servicearbeiten ist das Gerät von der Stromversorgung zu trennen.
4. Bevor Zubehörgeräte in Ecodome installiert werden, müssen Sie sich mit der Kundendienstabteilung von High End Systems in Verbindung setzen.

WARNUNG – Zur sicheren Betriebsweise

1. Lesen Sie die Installationsanleitungen und wichtigen Sicherheitshinweise in der Dokumentation zur Leuchte.
2. Der Versand von Ecodome mit einer installierten Leuchte könnte sowohl die Leuchte als auch Ecodome beschädigen.
3. Nicht für den Hausgebrauch bestimmt.
4. Falls die Lampe beschädigt oder durch Wärmeeinwirkung verformt ist, muß sie ausgewechselt werden.

WARNUNG: ZUM SCHUTZ GEGEN ÜBERMÄSSIGE ULTRAVIOLETT (UV)-BESTRAHLUNG

1. Benutzen Sie dieses Gerät nur, wenn das komplette Lampengehäuse fest eingebaut ist; ebenfalls dürfen keine der Schutzabdeckungen, Linsen oder der UV-Schutz Beschädigungen aufweisen.

2. Die Schutzabdeckungen, Linsen und der UV-Schutz müssen ausgewechselt werden, wenn sie sichtlich dermaßen beschädigt sind, daß sie ihre Wirksamkeit einbüßen, z.B. infolge von Rissen oder tiefen Kratzern.
3. Nie direkt in die eingeschaltete Lampe schauen.

Installationsanleitungen

1. Um die Lufterinlaß- sowie um die Luftaustrittsöffnung ist ein Sicherheitsabstand von 61 cm (24 Zoll) erforderlich. Das Gerät nicht in tiefgelegenen Gebieten, die häufig Überschwemmungen ausgesetzt sind oder in Gebieten mit tief stehendem Wasser betreiben.
2. Der Ecodome darf nicht an der Wand oder kopfstehend befestigt werden.

Wartungsanleitungen

1. Vor dem Ausführen von Servicearbeiten ist das Gerät von der Stromversorgung zu trennen.
2. Bei der Wartung der Leuchten ist sowohl der Lufterinlaß- als auch der Luftaustrittsfilter zu prüfen (z.B. beim Wechseln der Lampen). Die Luftfilter sind zu ersetzen, wenn sie sichtbar verschmutzt sind.
3. Als Filter ist ein Fram CA5056 oder ein entsprechender Luftfilter zu verwenden. CA 5056 Luftfilter können bei Ihrem Vertragshändler von High End Systems, Inc. erworben werden (Teile-Nr.: 99170003).

Appendice A

Informazioni Importanti Di Sicurezza

Condizioni per l'omologazione ETL/C-ETL di Ecodome

Ecodome è un componente omologato ETL/C-ETL qualora siano rispettate le seguenti condizioni:

1. Ecodome deve essere installato conformemente alle normative edili ed elettriche locali e nazionali.
2. Il luogo di installazione di Ecodome deve essere rialzato dal suolo di almeno 15 cm. Ecodome non deve inoltre essere messo in funzione in aree ribassate dove sussiste il pericolo di inondazione o in zone con presenza di acque morte profonde.
3. Il modello "Universal" deve essere usato *unicamente* con apparecchiature "Studio Color 575-M," "Studio Color 575-S," "Studio Color," "Studio Spot," "Studio Color 250," o "Studio Spot 250."

AVVERTENZA - Per una protezione continua contro il rischio di scosse elettriche

1. Pericolo di incendio e scosse elettriche. Questo prodotto deve essere installato *solamente* da un elettricista qualificato.

2. Apparecchiatura di classe I - per garantire una continua protezione contro le scosse elettriche, collegare questo dispositivo a una fonte di alimentazione elettrica con messa a terra adeguata.
3. Scollegare dalla corrente prima di effettuare la manutenzione.

AVVERTENZA - Per garantire un funzionamento sicuro e duraturo

1. Fare riferimento alla documentazione acclusa al dispositivo in dotazione per le istruzioni di installazione e le informazioni sulla sicurezza.
2. La spedizione di Ecodome con un'apparecchiatura installata potrebbe provocare danni sia all'apparecchiatura sia a Ecodome.
3. Questa apparecchiatura non è per uso domestico.
4. Cambiare la lampada in caso si danneggi o deformi per le alte temperature.

AVVERTENZA: PER PROTEGGERSI CONTRO LE RADIAZIONI DEI RAGGI ULTRAVIOLETTI:

Non usare questa apparecchiatura se il dispositivo di chiusura della lampada non è completamente fissato o se gli schermi protettivi, le lenti, o gli schermi ultravioletti si sono visibilmente danneggiati di maniera tale che la loro efficacia sia stata ridotta --- ad esempio, se vi sono visibili spaccature o graffi profondi. Mai guardare direttamente verso la lampadina quando sia accesa.

Istruzioni per l'installazione

1. Lasciare uno spazio libero di almeno 61 cm attorno ai condotti di ingresso e di scarico. Non operare l'unità in aree ribassate dove sussiste il pericolo di inondazione o in zone con presenza di acque morte profonde.
2. Ecodome non può essere montato su una parete o sottosopra.

Istruzioni per la manutenzione

1. Scollegare dalla corrente prima di effettuare la manutenzione.
2. Controllare i filtri dell'aria dei condotti di ingresso e di scarico a ogni intervento di manutenzione (ad esempio, quando si cambiano le lampadine). Questi filtri devono essere cambiati quando appaiono otturati da depositi e sporco.
3. Utilizzare un filtro dell'aria Fram[®] CA 5056 o equivalente. I filtri CA 5056 sono disponibili presso distributori e rivenditori High End Systems, Inc. (numero di ordinazione 99170003).

Apendice A

Informacion Importante De Seguridad

A

Condiciones de aceptabilidad para el reconocimiento ETL/C-ETL de Ecodome

Ecodome es un componente reconocido por ETL/C-ETL cuando se cumplen las condiciones de aceptabilidad siguientes:

1. Ecodome debe instalarse de acuerdo con los códigos locales y nacionales de construcción y electricidad.
2. El cimiento sobre el cual se instale Ecodome debe estar por lo menos a 15 cm (6 pulgadas) sobre el nivel del suelo; además, no debe operarse el Ecodome en áreas bajas susceptibles de ser inundadas o en áreas que puedan sufrir aguas estancadas.
3. El modelo Ecodome llamado "Universal" debe utilizarse únicamente con el accesorio "Studio Color 575-M," "Studio Color 575-S," "Studio Color," "Studio Spot," "Studio Color 250," o "Studio Spot 250" modelo.

ADVERTENCIA: Para una protección constante contra las descargas eléctricas

1. Peligro de incendio y descarga eléctrica. Únicamente un electricista calificado debe instalar este producto.
2. Equipo Clase I. Para una protección constante contra las descargas eléctricas, conecte este equipo únicamente a una fuente de alimentación protegida contra fallas de tierra.
3. Desconecte la alimentación antes de dar servicio.
4. No instale un accesorio en el Ecodome sin antes ponerse en contacto con Servicio a clientes de High End Systems.

ADVERTENCIA: Para una operación segura

1. Consulte la documentación proporcionada con la luminaria que utiliza para obtener las instrucciones de instalación e información importante de seguridad.
2. El envío de Ecodome con un accesorio instalado puede dañar tanto al accesorio como al Ecodome.
3. Prohibido su uso en ambientes residenciales.
4. Cambie la lámpara si ésta se avería o deforma por acción térmica.

ADVERTENCIA: PARA PROTECCIÓN CONTINUA CONTRA LA EXPOSICIÓN A RADIACIÓN ULTRAVIOLETA (UV) EXCESIVA

1. No opere este equipo sin tener colocada en su lugar la caja protectora completa de la lámpara o bien, si el blindaje, los lentes o las pantallas ultravioletas están dañadas.
2. Cambie el blindaje, los lentes o las pantallas ultravioleta si nota una avería visible, a tal grado que su eficacia se vea comprometida. Por ejemplo, en el caso de grietas o rayaduras profundas.
3. Jamás mire directamente a la lámpara en tanto ésta esté encendida.

Instrucciones de instalación

1. Deje por lo menos 61 cm (24 pulgadas) de espacio alrededor de la entrada y el escape. No opere en áreas bajas susceptibles a inundaciones o en áreas donde pueda sufrir aguas profundas y estancadas.
2. El Ecodome no puede montarse en una pared ni boca abajo.

Instrucciones de mantenimiento

1. Desconecte la alimentación eléctrica antes de dar servicio.
2. Revise los filtros de aire de entrada y de escape siempre que dé servicio al accesorio (por ejemplo, cuando cambie lámparas). Los filtros de aire deben reemplazarse cuando presenten obstrucciones de suciedad.
3. Debe utilizar un filtro de aire Fram[®] CA 5056 o equivalente. Puede adquirir filtros de aire CA 5056 mediante su distribuidor de High End Systems, Inc. (número de pieza 99170003).

Vigtig Sikkerhedsinformation - DANMARK

Advarsel: Beskyttelse mod elektrisk chock.

Vigtigt!

Lederen med gul/groen isolation maa kun tilsluttes en klemme maerket



eller



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