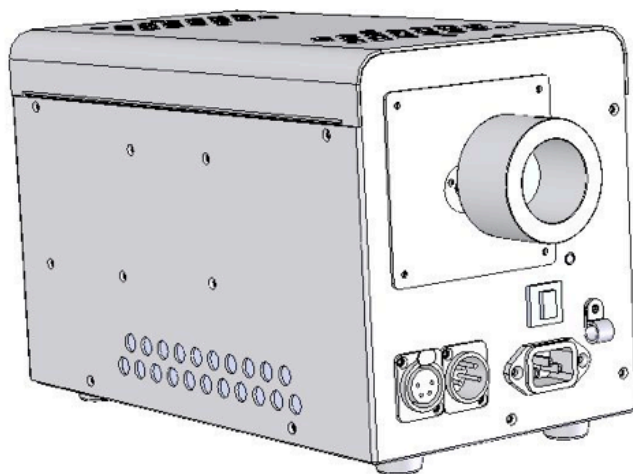


TRANSITION

CMY Fiber Optic Illuminator
CMY with TW -White light with WT -White light

Transition
User Manual



Advancing The Art Of Lighting

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Declaration of Conformity

Manufacturer Name: Wybron, Inc.
Manufacturer Address: 4830 List Drive, Colorado Springs, CO 80919

Equipment Name: Transition Fiber Optic Illuminator
Equipment Model: 8670

This product is in conformity with the following standards:

Referenced Safety Standards	Referenced EMC Standards
EN 60598-1:04 + A1	EN 61000-6-1
EN 60598-2-17:89 + A2:91	EN 61000-3-2
	EN 61000-3-3
	EN 61000-4-2
	EN 61000-4-3
	EN 61000-4-4
	EN 61000-4-5
	EN 61000-4-6
	EN 61000-4-11
	EN 61000-6-1

Emissions - Requirements according to
FCC Part 18
ICES-003
Radiated/Conducted Emissions FCC Part 18

Following the provisions of the EU LV Directive 73/23/EEC and the EU
EMC Directive 89/336/EEC

I declare that the equipment specified above conforms to the above Directive(s)
and Standard(s).

Signature: Lee Schlais
Printed Name: Lee Schlais
Title: Vice President of Engineering
Date: 15-Aug-2007

Safety Notice

SAVE THESE INSTRUCTIONS READ AND FOLLOW ALL INSTRUCTIONS

This manual gives step-by-step instructions for preparation, setup, and operation of the Transition™ Fiber Illuminator.

There is a potential risk of fire, electric shock or injury to persons if the product is not used as instructed.

The Transition Fiber Illuminator is to be used in an indoor environment only.

WARNING: When using electrical appliances, use basic precautions, including:

- Read this manual before connecting power.
- Use supervision around children.
- Do not touch moving parts.
- Only use attachments recommended or sold by Wybron.
- Use in a dry location only.

Product Modification Warning

Wybron, Inc. products are designed and manufactured to meet the requirements of United States and International safety standards. Modifications to the products could affect safety and render the product non-compliant to relevant safety standards.

Notes de Sécurité

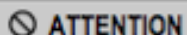
EPARGNER CES INSTRUCTIONS LIRE ET SUIVRE TOUTES NOTES DE SÉCURITÉ

- ❖ Ce manuel donne des instructions pour la préparation, l'organisation, et l'opération du NexeraLX Luminaire.
- ❖ Il y a un risque de feu, décharge électrique, ou la blessure aux gens si le produit n'est pas utilisé comme instruit.
- ❖ Le NexeraLX Luminaire va être utilisé à la maison seulement et pas pour l'usage résidentiel.

L'Avertissement de Modification de Produit

Les produits de Wybron, Inc. sont conçus et a fabriqué pour rencontrer les conditions d'Etats-Unis et de norms de sûreté internationaux. Les modifications aux produits pourraient affecter la sûreté et rendent le produit non-conciliant aux normes de sûreté pertinentes.

Les Instructions Importantes de Sûreté



***Ce produit est pour l'usage professionnel seulement.
Ce n'est pas pour l'usage résidentiel.***

Lire ce manuel avant d'alimenter ou l'installation de l'accessoire. Suivre les précautions de sûreté et observer tous avertissements dans ce manuel et sur l'accessoire. Si vous avez des questions sur la manière de fonctionner l'accessoire sans accident, s'il vous plaît contacter votre négociant de Wybron ou Wybron d'appel directement à 1-800-624-0146.

Pour vous protéger et les autres de la décharge électrique :

LES AVANCES PRINCIPAUX SONT CONFORMEMENT COLORES AU CODE SUIVANT ET DOIVENT ETRE CONNECTES DANS L'ARRANGEMENT SUIVANT :

UNITES DE TUNGSTENE (Modèles #2560, #2570, #2640):

- vert et jaune- terre (⬇)
- bronzage – neutre
- bronzage – ligne

UNITES DE CDM (Modèles #2580, #2600, #2650):

- vert et jaune- terre (⬇)
- bleu – neutre
- marron – ligne

L'AVERTISSEMENT – CET EQUIPEMENT DOIT ETRE FONDE.

Aviso Sobre Seguridad

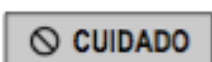
SALVE ESTAS INSTRUCCIONES LEA Y SIGA TODAS INSTRUCCIONES

- ❖ Este manual da el paso por paso las instrucciones para la preparación, para arreglo, y para la operación del NexeraLX™ Luminaire.
- ❖ Hay un riesgo potencial del fuego, el calambre o la herida a personas si el producto no se utiliza como instruido.
- ❖ El NexeraLX Luminaire deberá ser utilizado en un ambiente interior sólo y no es pensado para el uso residencial.

Advertencia de Modificación de Producto

Wybron, los productos S.a. se diseñan y son fabricados para encontrar los requisitos de Estados Unidos y estándares Internacionales de seguridad. Las modificaciones a los productos podrían afectar la seguridad y rendir el producto no conformista a estándares pertinentes de seguridad.

Instrucciones importantes de Seguridad



*Este producto es para el uso profesional sólo.
No es para el uso residencial.*

Lea este manual antes de accionar o instalar la instalación fija. Siga las precauciones de la seguridad y observe todas advertencias en este manual y en la instalación fija. Si usted tiene las preguntas acerca de cómo operar la instalación fija seguramente, contacta por favor su comerciante de Wybron o la llamada Wybron directamente en 1-800-624-0146.

Para protegerlo y los otros del calambre:

- EL PRINCIPAL DIRIGE SON COLORADOS DE ACUERDO CON EL CODIGO SIGUIENTE Y se DEBE CONECTAR EN EL ESQUEMA SIGUIENTE:

Las UNIDADES del TUNGSTENO (los Modelos #2560, #2570, #2640) :

- verde y amarillo – molió/la tierra ⚡
- bronceado – neutral
- bronceado – línea

Las UNIDADES de CDM (los Modelos #2580, #2600, #2650) :

- verde y amarillo – molió/la tierra ⚡
- azul – neutral
- brown – línea

La ADVERTENCIA – ESTE EQUIPO DEBE SER EARTHED.

Transition Product Introduction

Wybron is pleased to announce the introduction of the Transition fiber illuminator. Contained within a small easy to integrate package and ultra bright fiber optic illuminator, the Transition brings quality and durability to your venue. In addition, the Transition is designed to be an integral component of Wybron's industry leading Infotrace system.

The Transition is a high specification performance fiber optic illuminator in a small easy to integrate package. The Transition produces a high lumen output with a CRI of greater than 85 by using an efficient 150 UHI source. The UHI lamp has a rated life span of 10,000 hours minimizing maintenance concerns. The precision-engineered lamp housing and reflector allow for lamp changes and no in-the-field lamp optimization. With its dichroic-coated borosilicate cold mirror reflector and hexagonal color integration element, the Transition isolates the fiber bundle from heat and UV radiation. Additionally the Transition is engineered so that it will not burn PMMA fiber.

The Transition fiber illuminator features a color module capable of producing millions of colors. The Transition uses four channels of DMX control; cyan, magenta, yellow and a mechanical dimmer. Transitions colors are mixed by using durable dichroic coated borosilicate glass, the colors will not fade over the expected lifetime of the device. Precision control allows for smooth subtle fades or near instantaneous jumps to new colors.

As previously noted, the Transition fiber illuminator is compatible with and can be incorporated into Wybron's InfoTrace, a 2-way DMX / RDM (Remote Device Management) communication and management system.

The heart of the InfoTrace (IT) system is InfoGate — specialized hardware & software that uses the bi-directional communications protocol, Remote Device Management (RDM), to communicate with potentially every piece of equipment mounted on a lighting rig.

RDM packets are interleaved with DMX-512 data packets. These RDM command / response packets allow configuration, control, interrogation and response.



Figure 1 - DMX & RDM signal packet diagram

Transition Quick Start Configuration

1. Connect the Equipment

- a) Connect fiber bundle common end to the Transition output port.
- b) Connect the Transition to a DMX source with a 5-pin cable
- c) Connect to AC power (110 – 240 VAC 50/60Hz)

2. Control Transition with DMX

Leave Transition addressed at channel 1 (factory default)

DMX channel 1 controls Cyan (0% = no color, 100% = full saturation)

DMX channel 2 controls Magenta (0% = no color, 100% = full saturation)

DMX channel 3 controls Yellow (0% = no color, 100% = full saturation)

DMX channel 4 controls Dimmer (0% = no output, 100% = full output)

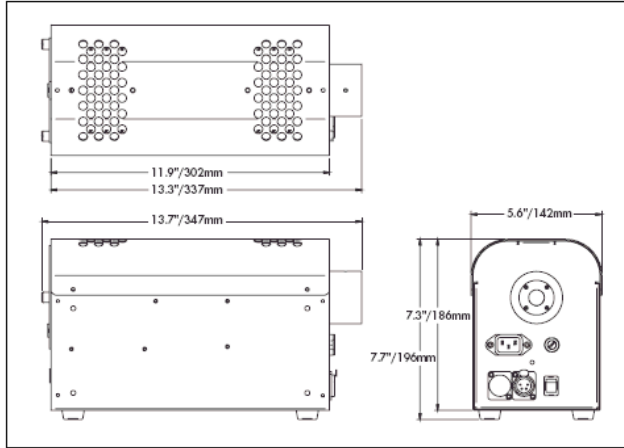
DMX channel 5 controls Twinkle wheel (Transition TW model only)

3. Control Transition using Demo Mode

- a) Press 'Menu' until display reads 'dEn
- b) Press 'Enter', display will read 'OFF'
- c) Press '+' or '-' to scroll through demo mode options
- d) Press 'Enter' at the desired demo mode. Transition will immediately begin executing the demo loop.

Transition Specifications

Model 8670: Transition CMY Fiber Illuminator



Features:

- No lamp optimization required
- Rubber feet for cabinet or countertop installation
- Durable all metal construction
- Output supports fiber bundles ranging from 17 – 30 mm dia.
- High output 150W UHI compact arc source
- Legendary Wybron Reliability

Dimensions:

Height: 7.750"

Width: 5.625"

Length (including fiber port): 13.500"

Weight: 8.75 pounds

Electrical Specifications:

CAUTION: RISK OF FIRE

Use MAX 150 watt, type M142 lamp

Power: 4A @110-120V ~ 50/60Hz or

2A @ 220-240V ~ 50-60Hz

Isolate electrically before re-lamping

Environmental Specifications:

Maximum Ambient Temperature: 40°C / 104°F

Maximum Exterior Surface Temperature: 90°C / 194°F

Minimum Air Space Sides: 2"

Minimum air space top: 6"

CAUTION: Risk of exposure to ultraviolet (UV) radiation. Do not operate without complete lamp enclosure in place.

Fixture Setup and Configuration

Installing the Lamp

DANGER: Disconnect fixture from line voltage before replacing lamp.

CAUTION: Lamp and lamp mounting surfaces are hot! Allow lamp to cool 10 minutes before replacing

Lamp Specifications

Lamp socket / base: G22

Part#

UHI-S150DW/A/UVP	Lamp, Eurospot UHI Series 3000K 150W
UHI-S150DM/A/UVP	Lamp, Eurospot UHI Series 4200K 150W
CDM150/T6/830	Lamp, CDM 150W with UV Fade Block 3000K
CDM150/T6/942	Lamp, CDM 150W with UV Fade Block 4200K

Figure 1.1

- ❖ Disconnect fixture from AC power.
- ❖ Remove lamp plate by unscrewing mounting screws and pulling the lamp assembly straight back from the illuminator.
- ❖ Grasping lamp by the base remove old lamp from the socket.
- ❖ Insert new lamp into base. Lamp is fully seated when spring clips snap over lamp base.

CAUTION: Touching the glass lamp envelope can reduce lamp life. Handle new lamps with a clean cloth. Fingerprints can be cleaned off the lamp envelope with alcohol and a clean cloth.

Locating the Fixture

The Transition CMY fiber illuminator is designed to be surface mounted, located in a cabinet or closet, or hung from mounting pipe with the optional pipe bracket.

Surface Mounting

The Transition may be surface mounted on a hard surface table, counter top, or floor (wood, laminate, metal, tile).

Do not mount the Transition on soft surfaces such as carpet, linoleum, cushions, or fabric.

Maximum ambient temperature (t_a) may not exceed 40°C (104°F)
Keep objects at least 2" (50mm) from sides of the fixture.
Keep objects at least 6" from the top of the fixture.

Cabinet or Closet Mounting

The Transition may be mounted in a closet or cabinet on a hard surface such as wood, laminate, or metal.

Do not mount the Transition on soft surfaces such as linoleum or fabric.

Maximum ambient temperature (t_a) may not exceed 40°C (104°F)
Keep objects at least 2" (50mm) from sides of the fixture.
Keep objects at least 6" from the top of the fixture.

Pipe mounting

The Transition may be pipe mounted using the optional pipe mount bracket. See diagram for acceptable pipe mounting orientations.

Connecting Fiber Common End

Connecting fiber to the illuminator is as simple as inserting the fiber common end into the mounting port and tightening the set screw.

The Transition CMY Fiber Illuminator works with fiber common end bundles with clear apertures ranging from 17 – 32mm diameter. The mounting port is interchangeable to match the type of fiber bundle ferrule being used. Consult the factory regarding the correct mounting port to be used in your application.

Connecting AC Power

CAUTION: Be sure the fixture is properly grounded.

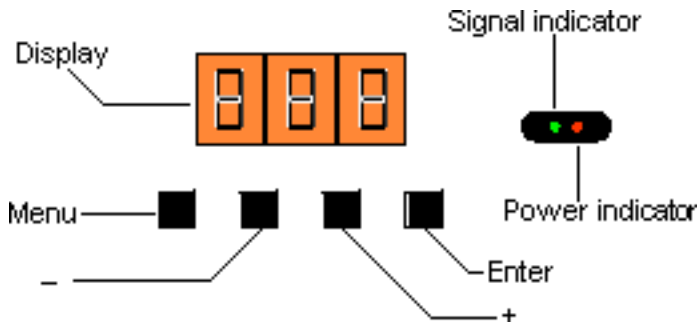
The user should ensure that a good source of AC power is available that complies with local building and electrical codes and has both overload and ground fault protection. Use only 18/3, type IEC power cord.

Input power must be 110 – 240VAC, 50/60Hz.

DMX / RDM Setup and Operation

Controls and Indicators

Transition controls and indicators as follows:



- A three character seven-segment display
- 4 push buttons: **Menu**, (+), (-), and **Enter**
- Power (red) and signal (green) indicator LED's

The seven-segment display shows the address number (1-508) and the Demo mode (OFF, d1, d2). It also displays any error messages that are covered in the service section of the manual.

The **Menu** button allows the user to switch between address and demo mode selection.

The (+) button allows you to increment Transition's DMX address when in the address mode, or select between Demo 1 (d1), Demo 2 (d2), and Demo Off / DMX control (OFF) in demo mode selection.

The (-) button allows you to decrement Transition's DMX address when in address mode, or select between Demo 1 (d1), Demo 2 (d2), and Demo Off / DMX control (OFF) in demo mode selection.

The **Enter** button allows you to accept the mode or address currently displayed. Changes are saved in non-volatile memory when the **Enter** button is pressed.

The red power indicator LED remains lit when the device is powered.

The green signal indicator LED flashes when a DMX or DMX/RDM signal is present. It turns off 60 seconds after the last button press.

Display Messages

Normal Messages

- 680** Displayed for 1 second after power is applied. This is the RDM manufacturer device identification number
- Ini** Indicates that the unit is initializing the diachronic filters
- 001 – 508** The first DMX address Transition will respond to.
- Adr** Top menu item. Pressing 'Enter' here will allow the current DMX address to be changed.
- DEn** Top menu item. Pressing 'Enter' here will allow the current DMX control/ Demo control state to be changed.
- OFF** Demo modes are off. Transition will respond to DMX commands.
- d1** Transition will execute demo loop 1 commands.
- d2** Transition will execute demo loop 2 commands.
- Blank** Unit is running, nor error conditions exist, and it has been longer than 60 seconds since the last button press.

Error Messages (Flashing)

- Er1** Indicates motor 1 has encountered an error and stopped moving.
- Er2** Indicates motor 1 has encountered an error and stopped moving.
- Er3** Indicates motor 1 has encountered an error and stopped moving.
- Er4** Indicates motor 1 has encountered an error and stopped moving.
- Lo DC** Supply voltage dropped below 17 volts. The unit will stop operation at 16 volts.

EEP Err An attempt to write to non-volatile memory failed. The unit will continue to respond to commands.

SEr Err The RDM unique ID has been corrupted. The unit will operate normally but should not be used in an RDM environment. Contact dealer or factory for assistance.

RDM Functionality

Transition is compliant with the RDM v1.0 standard and can be used with the Wybron Info-Trace system or other RDM systems. By definition, all required RDM parameters are supported including, discovery, device info, DMX start address, identify device, etc.

Additional RDM functions supported include:

- Status and Queued messages. This allows the device to let the controller know it has something to say – like ‘my address has been changed locally’
- Device Model Description – gives the controller a human readable description of the Transition
- Manufacturer Label
- Device Label – user definable field up to 32 characters allowing the user to give it a meaningful name in the particular application like ‘Star curtain 2’ or ‘Shark display upper right’.
- Software version information
- DMX personality – The Transition personalities include DMX control, Demo mode 1, and Demo mode 2.
- DMX Start Address – This can be set remotely through an RDM system.
- Slot description – human readable explanation of the function of each of the Transition’s DMX channels.
- Sensor information including operating voltage, and voltage history.
- Device operational hours.
- Remote device reset.

Service

Lamp Replacement

DANGER: Disconnect fixture from line voltage before replacing lamp.

WARNING: Lamp and lamp mounting surfaces are hot! Allow lamp to cool before replacing.

- Disconnect fixture from AC power.
- Remove lamp plate by removing mounting screws as shown in figure 1.1 and pull lamp assembly straight back from reflector.
- Grasping lamp by the base remove old lamp from the socket.

CAUTION: Touching the glass lamp envelope can reduce lamp life. Handle new lamps with a clean cloth. Fingerprints can be cleaned off lamp envelope with alcohol and a clean cloth.

- Insert new lamp into base. Lamp is fully seated when spring clips snap over lamp base.

Cleaning the Reflector

WARNING: To avoid burns or damage to the fixture, allow fixture to cool before cleaning.

- Remove Transition lid.
- Remove lamp plate by removing mounting screws as shown in figure 1.2 and pull lamp assembly straight back from reflector.
- Remove top two reflector mount screws and washers.
- Lift reflector up and back to remove from fixture.
- Use clean pressurized air or a soft cloth with alcohol to clean the reflective surface.
- Reseat the reflector and secure in place by replacing the top screws and washers.
- Replace lamp plate and lid.

CAUTION: Harsh chemicals and rough cloth can damage the cold mirror coating on the reflector. Replace damaged reflectors.

Cleaning the Color Filters

It is recommended that the color filters be only cleaned with low-pressure air without disassembling the color filters from the motor shafts. If the color module must be disassembled to clean the dichroic filters take careful note of the location and offset height of the individual color flags.

Color filters must be reassembled in exactly the same orientation and correct heights to ensure proper operation!

CAUTION: Dichroic filters are easy to break! Support the glass from the behind when cleaning the surface.

- Remove cover.
- Remove 4 screws holding color filter plate into Transition chassis.
- Holding glass hex rod, slide the motor plate back toward the reflector and then up out of the chassis after it is clear of the rod.
- Noting filter location and height loosen hub setscrew and slide filter and hub from motor shaft.
- Reverse previous operation to reassemble color module

Cleaning the hex integration rod

- Initialize unit, command flags to open white positions, and power down.
- Allow unit to cool.
- Disconnect fiber bundle from output port
- Remove cover
- Clean rod sides and ends with window cleaner
- Reassemble cover, and fiber bundle.

Flash Reprogramming

Transition firmware can be updated as new firmware versions become available through the DMX/RDM port using an Infogate gateway and the Infogate application. Transition firmware updates can be found at www.wybron.com.

Specific instructions for upgrading firmware in Transition and other Wybron equipment can be found in the Infogate User Manual, Firmware Upgrades section.

Warranty Information

WYBRON, INC. warrants to the original owner or retail customer that for a period of one year from date of delivery of a portable system or energization of a permanently installed system (up to a maximum of 18 months from delivery) its products will be free from defects in materials and workmanship under normal use and service.

Warranty does not cover any product or part of a product subject to accident, negligence, alteration, abuse, misuse or any accessories or parts not supplied by WYBRON, INC. Warranty does not cover "consumable" parts such as fuses, lamps, or color media. WYBRON INC.'s warranty does not extend to items not manufactured by us. Freight terms on warranty repairs are FOB WYBRON, INC. factory or designated repair facility. Collect shipments or freight allowances will not be accepted.

WYBRON, INC.'s sole responsibility under this warranty shall be to repair or replace at WYBRON, INC.'s option such parts as shall be determined to be defected on WYBRON, INC.'s inspection. WYBRON, INC. will not assume any responsibility for any labor expended or materials used to repair any equipment without WYBRON, INC.'s prior written authorization. WYBRON, INC. shall not be responsible for any incidental, general or consequential damages to property, damages for loss of use, time, profits or income, or any other charges.

The owner's obligations during the warranty period under this warranty are to notify WYBRON, INC. at WYBRON, INC.'s address within one week of any suspected defect, and return the goods prepaid to WYBRON, INC. at their factory or authorized service center.

This warranty is contingent on the customer's full and timely compliance with the terms of payment set forth in said purchase order. This warranty is expressly in lieu of any and all other warranties expressed or implied including the warranties of merchantability and fitness for a particular purpose and of other obligations and liabilities on our part. The owner acknowledges that no other representations were made to him or relied upon him with respect to the quality and function of the goods sold.

This written warranty is intended as a complete and exclusive statement of the terms thereof. Prior dealings or trade usage shall not be relevant to modify, explain or vary this warranty. Acceptance of, or acquiescing in, a course of performance under this warranty shall not modify the meaning of this agreement even though either party has knowledge of the performance and a chance to object.

Figure 2.1

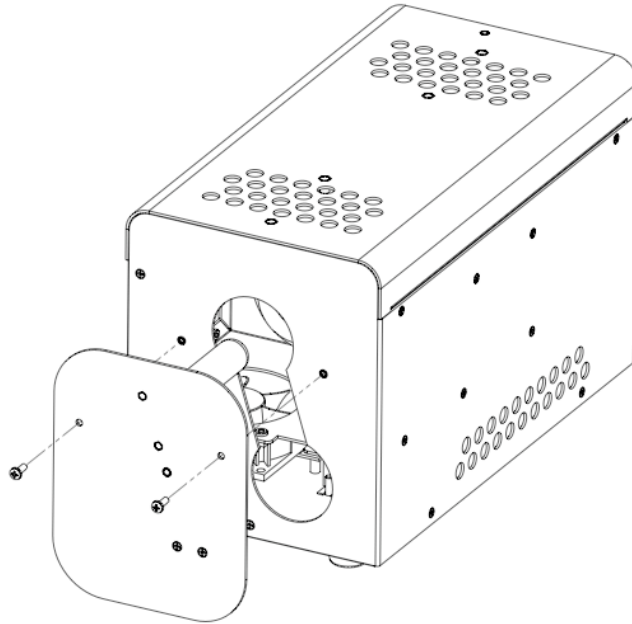


Figure .2

