

SCHOTT

The **ACE**[®] Series

Owner's Manual



**150 Watt
Tungsten Halogen
Light Source**

CSA Listed to UL-1571



LIGHT SOURCE MODELS	115 VAC/60Hz		230 VAC/50Hz/60Hz	
SOLID STATE RHEOSTAT	A20500 A20500.1 A20500.2	EKE Lamp EJA Lamp DDL Lamp	A20510 A20510.1 A20510.2	EKE Lamp EJA Lamp DDL Lamp
SOLID STATE RHEOSTAT AND IRIS DIAPHRAGM	A20520 A20520.1 A20520.2	EKE Lamp EJA Lamp DDL Lamp	A20530 A20530.1 A20530.2	EKE Lamp EJA Lamp DDL Lamp

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CONGRATULATIONS on the purchase of your “ACE” light source! This light source provides COOL, INTENSE WHITE light for all types of fiber optic illumination components and either meets or exceeds the performance standards of all the safety certification agencies like UL, ETL, CSA, and VDE. It was de-signed and is manufactured under the ISO 9000 guidelines.

The “ACE” light source provides a variable powered output of up to 150 watts of light from a tungsten halogen lamp. The voltage-adjustable supply provides ≈ 1.0 to 21 VAC at 60 Hz. Lamp intensity is controlled manually from the front panel. The removable Modulamp[®] assembly contains the lampholder which supports three different bulb choices depending on intensity, lifetime and uniformity requirements. The high output fan provides maximum airflow resulting in extremely cool operation.

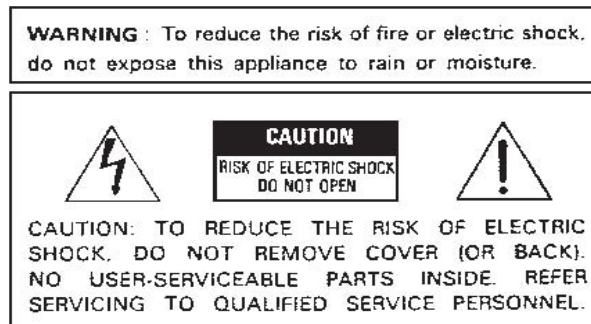
We suggest you read this manual carefully to become familiar with all the light source features and how they work.

MAINTENANCE

Although your light source is designed to be maintenance free, it does contain sensitive electronic parts. TREAT IT WITH CARE TO ASSURE BEST PERFORMANCE. The original packaging should be used for protection, if you must ship the system.

CLEANING

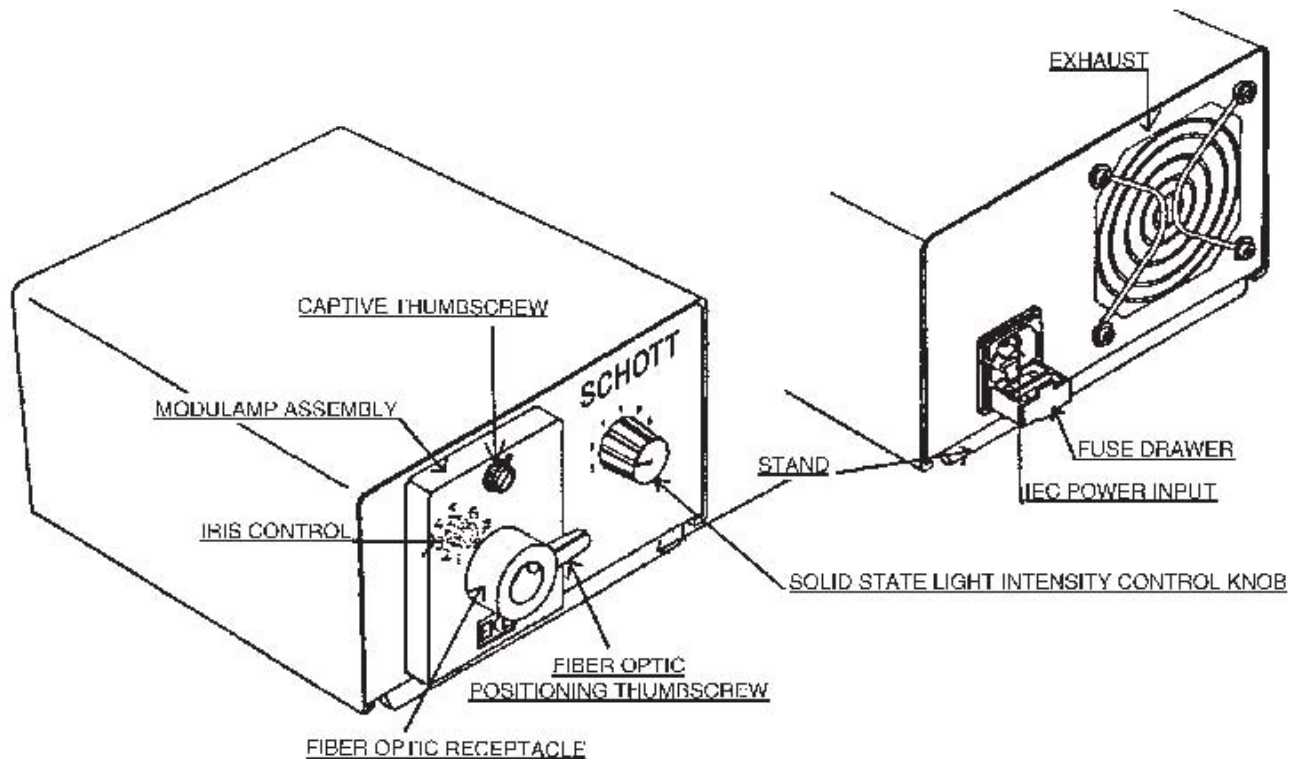
The steel housing and the Lexan front and back plates have a durable finish that should retain their original luster for many years. Clean exposed parts with any commercial glass cleaner. DO NOT USE detergents, excess water, treated cloths, harsh cleaning agents or sprays. Use cleaning fluid SPARINGLY. If you spill fluid into the interior, unplug the power cord and let the unit dry thoroughly before using.



WARNING:

This product produces heat as a normal part of its operation. Hot lamp and internal surfaces can cause burns. Operators are advised to allow the unit to cool before opening or relamping “Modulamp” assembly.

OPERATION



To begin, make sure the intensity control switch on the front panel is in the "OFF" position. Plug one end of the power cord into the IEC connector on the back of the unit and the other end into a power source which meets the specifications printed above the IEC connector.

Make sure that the captive thumbscrew on the "Modulamp" assembly is firmly tightened. Insert any fiber optic component with a compatible light source adapter into the "Modulamp" receptacle and tighten the fiber optic positioning thumbscrew. Adjust the intensity of the lamp using the control knob.

To turn the unit off, turn the intensity control knob to the "OFF" position.

OPERATIONS

- 1 Mettre l'interrupteur sur position "off".
- 2 Connecter le cordon d'alimentation à la source et le brancher au secteur.
- 3 Vérifier que la vis sur la face avant du module lampe soit fermement visée.
- 4 Insérer le conducteur fibre optique à l'intérieur de la source.
- 5 Serrer pour maintenir la fibre en place.
- 6 Mettre l'interrupteur sur "ON".
- 7 Ajuster l'intensité de la lampe en utilisant le rhéostat de contrôle.
- 8 Remettre l'interrupteur sur "off" pour éteindre la source.

FUNCIONAMIENTO

- 1 Interruptor apagado.
- 2 Enchufar en el conector IEC.
- 3 Enchufar en un enchufe conforme a las especificaciones encima del conector IEC.
- 4 Apretar el tornillo en el aparato "Modulámpara".
- 5 Insertar la parte constitutiva fibra-óptica compatible en el ajustador del origen de luz.
- 6 Apretar el tornillo que retiene la fibra-óptica.
- 7 Interruptor encendido.
- 8 Ajustar la intensidad de la lámpara con la perilla (el botón).
- 9 Apagar la luz.

INBETRIEBNAHME DER KALTLICHTQUELLE

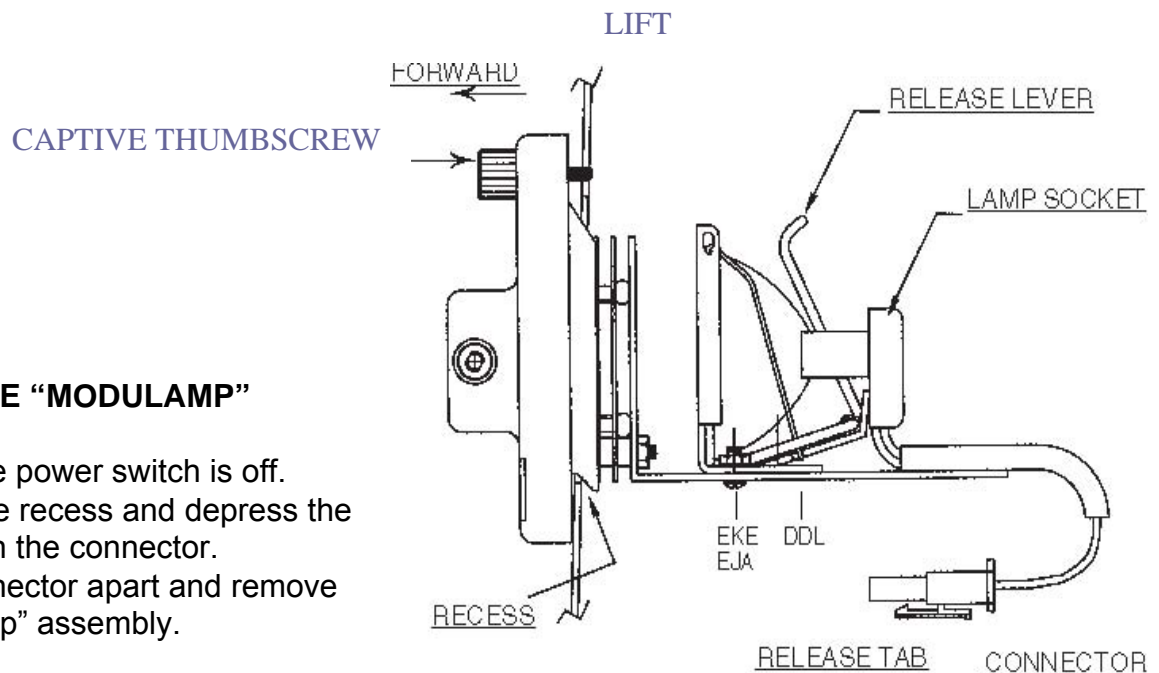
- 1 Netzschalter in die "OFF"-Stellung bringen.
- 2 Netzkabel in die Buchse auf der Rückseite der Kaltlichtquelle stecken.
- 3 Netzkabel mit der Spannungsquelle verbinden. Die Spannungsquelle muß die über der Netzkabelbuchse unter "Input" angegebene Spannung und Netzfrequenz liefern.
- 4 Feststellschraube des Lampeneinschubes fest anziehen.
- 5 Kompatibles Faserbündel in den Faserbündeladapter der Lichtquelle einführen.
- 6 Feststellschraube des Faserbündeladapters anziehen.
- 7 Netzschalter in "ON"-Stellung bringen.
- 8 Intensität der Lampe mit Kontrollpotentiometer auf gewünschten Wert einstellen.
- 9 Zum Abschalten der Lichtquelle den Netzschalter in "OFF"-Stellung bringen.

FUNZIONAMENTO

- 1 Pulsante di potenza in posizione OFF.
 - 2 Innestare il cavo nel connettore IEC sul retro dell'elemento.
 - 3 Innestare il cavo nella sorgente elettrica secondo le istruzioni sopra il connettore IEC.
 - 4 Avvitare fermamente la vite nel montaggio della modulampada.
 - 5 Inserire il componente compatibile Fibra Ottica nel dispositivo elettrico.
 - 6 Avvitare la vite per mantenere ferma la Fibra Ottica.
 - 7 Pulsante di potenza in posizione ON.
 - 8 Regolare l'intensità della lampadina usando la manopola di controllo.
 - 9 Pulsante a OFF per spegnere la sorgente di luce.
-

LAMP REPLACEMENT

- Turn power off.
- Remove the fiber optic component.
- Allow the lamp to cool.
- Loosen the “Modulamp” captive thumbscrew until the head springs forward.
- Pull the top of the “Modulamp” assembly forward and lift the unit out of the recess.
CAUTION: LAMP, LAMP SOCKET AND SURROUNDING SURFACES MAY BE HOT!
Do not pull the Assembly beyond the length of the cable and connector assembly. You can remove the “Modulamp” assembly, if you desire. Instructions follow.*
- Push down on the lampholder release lever to raise the lamp.
- Gently unplug the ceramic lamp socket.
- Insert a new bulb into the lamp socket. **BE CAREFUL NOT TO TOUCH THE BULB OR THE INSIDE OF THE REFLECTOR. FINGER-PRINTS MAY AFFECT THE LAMP OUTPUT.**
- Push the ceramic socket on the two lamp pins until flush with the reflector.



TO REMOVE THE “MODULAMP” ASSEMBLY:

- Make sure the power switch is off.
- Reach into the recess and depress the release tab on the connector.
- Slide the connector apart and remove the “Modulamp” assembly.

TO REPLACE THE “MODULAMP” ASSEMBLY:

- Slide the connector into the mating receptacle until the release tab clicks into place.
- Place the “Modulamp” assembly into the recess with the two bottom “ears” riding over the bottom edge of the recess first.
- Slide the “Modulamp” assembly into place and depress the captive thumbscrew while turning clockwise. TIGHTEN FIRMLY.

TO CHANGE BULB TYPES

- The “Modulamp” concept allows quick change of bulb, bulb type and/ or intensity control (Iris diaphragm or solid state rheostat) by exchanging “Modulamp” assemblies. However the bulb settings may be changed by moving the lamp holder into the correct position. Consult the factory for correct lamp locations.

REPLACEMENT DE LA LAMPE

- 1 Mettre l'interrupteur sur position "off".
- 2 Retirer le conducteur fibre optique.
- 3 Laisser la lampe refroidir.
- 4 Dévisser le module lampe avec un petit tournevis jusqu'à ce que la tête "s'éjecte par devant"
- 5 Tirer l'ensemble du module lampe et l'enlever de son logement. Ne pas tirer l'ensemble plus loin que la longueur de câble.
- 6 Appuyer sur le porte lampe pour retirer la lampe.
- 7 Défaire doucement la base en céramique de la lampe.
- 8 Insérer la nouvelle lampe dans la base. Ne pas toucher le bulbe ou l'intérieur du réflecteur.
- 9 Pousser la base en céramique de la lampe jusqu'à ce qu'il y ait contact avec la base.

PARA REEMPLAZAR LA LÁMPARA (la bombilla)

- 1 Apagar el aparato.
- 2 Separar la parte fibra-óptica.
- 3 La lámpara debe estar fresca.
- 4 Desatar el tornillo de la "Modulámpara" hasta que la cima se abalanza hacia adelante.
- 5 Tirar la cima de la lámpara y levantar del hueco. No tirar más allá el largo del cable.
- 6 Empujar la palanca para quitar la lámpara.
- 7 Deshacer el enchufe (encaje) cerámico.
- 8 Insertar la nueva lámpara. No tocar la bombilla. No tocar el interior del reflector.
- 9 Empujar en la lámpara el enchufe cerámico.
- 10 Deslizar la "Modulámpara" en las "orejas" del origen de luz (por encima del borde del fondo, al principio).
11. Apretar el tornillo.

LAMPENWECHSEL

- 1 Netzschalter in "OFF"-Stellung bringen.
- 2 Faserbündeladapter herausziehen.
- 3 Lampe abkühlen lassen.
- 4 Feststellschraube des Lampeneinschubes so lange lösen, bis die Einschubkassette herauspringt.
- 5 An der Oberseite des Lampeneinschubes ziehen und die Kassette über die Vorderkante der Einschuböffnung der Lichtquelle herausheben. Niemals den Lampeneinschub so weit herausziehen, daß die Länge des Lampenkabels überschritten wird.
- 6 Durch Herunterziehen des Hebels die Lampe nach oben drücken und Lampe vorsichtig herausnehmen.
- 7 Lampe vorsichtig aus Keramiksockel herausziehen.
- 8 Neue Lampe in Keramiksockel einstecken. Niemals die Halogenbirne oder das Innere des Reflektors berühren!
- 9 Die Lampe in den Lampeneinschub einsetzen; die Lampe muß dabei die Grundfläche berühren.
10. Lampeneinschub in Kaltlichtquelle wieder einsetzen. Die Einschubkassette auf die Unterkante der Einschuböffnung setzen.
11. Feststellschraube des Lampeneinschubes fest anziehen.

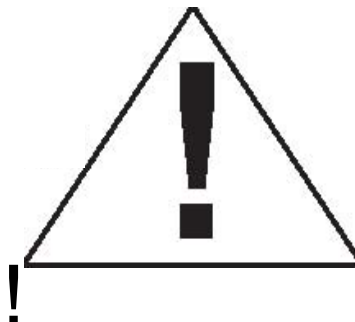
PER SOSTITUIRE LA LAMPADINA

- 1 Pulsante di potenza in posizione OFF.
- 2 Rimuovere il componente Fibra Ottica.
- 3 Lasciare raffreddare la lampadina.
- 4 Allentare la vite nella modulampada fino a quando la testa non scatta in avanti.
- 5 Tirare la parte superiore della modulampada e sollevarla dal recesso. NON rimuovere il montaggio oltre la lunghezza del cavo.
- 6 Abbassare il dispositivo di sgancio del portampada per rimuovere la lampadina.

- 7 Delicatamente staccare il portalampada in ceramica.
- 8 Inserire la nuova lampadina nel portalampada. NON toccare il bulbo o l'interno del riflettore.
- 9 Spingere la lampadina nel portalampada in ceramica fino a livello di base.

WARNING

-
- Never look directly at lamp when on.
- Modulamp™ assembly must be firmly in place to operate
- Lamp and surrounding surfaces may be hot!



ATTENTION

- Ne pas regarder directement la lampe quand elle fonctionne.
- Le module lampe doit être fermement en place pour être opérationnel.
- La lampe et son logement peuvent être chaud.

ATTENDER

- Nunca mirar directamente la lámpara cuando iluminada.
- La “Modulàmpara” debe estar bien en su sitio para funcionar.
- La lámpara y las superficies cerca de la lámpara pueden estar muy calientes.

WARNHINWEISE

- Niemals direkt in die Lampe blicken, wenn die Kaltlichtquelle eingeschaltet ist.
- Der Lampeneinschub (Modulamp) muß fest montiert sein, damit die Kaltlichtquelle betrieben werden kann.
- Die Lampe und angrenzende Oberflächen können heiß sein!

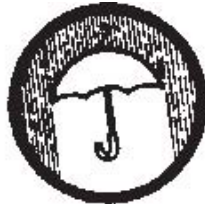
PRECAUZIONI

- Mai guardare direttamente la lampadina quando é accessa.
- La modulampada deve essere fissata fermamente per funzionare.
- La lampadina e la superficie circostante possono essere surriscaldate.

SAFETY INSTRUCTIONS

- 1 READ, UNDERSTAND AND FOLLOW ALL INSTRUCTIONS in this manual.
- 2 KEEP all safety and operating instructions for future reference.
- 3 HEED ALL WARNINGS on the unit and in this manual.
- 4 DO NOT USE this unit near water or in any area with excessive moisture.
- 5 MOUNT on surface, platform or wall ONLY as recommended by the manufacturer.
- 6 DO NOT BLOCK ventilation openings in this unit. It may cause overheating. Be sure that the unit is NOT resting on or against any material or object that may IMPEDE air flow.
- 7 DO NOT PLACE FLAMMABLE materials on or near the unit at any time. Keep unit AWAY from other sources of HEAT. ALLOW BULB TO COOL before attempting to replace.
- 8 USE THE CORRECT POWER SOURCE as marked on the unit.
- 9 DO NOT DEFEAT the safety purpose of 3-pronged grounding plug.

- 10 USE ONLY APPROVED POWER CORD supplied with the unit. Route cord so that it will not be pinched, severed or walked on.
- 11 DO NOT DEFEAT THE PURPOSE OF THE FUSE. Replace only with fuse type described in the operating instructions or as marked on the unit.
- 12 USE ONLY STANDARD GLASS TYPE CLEANERS. Do not use solvents, cleansers or petroleum distillates. UNPLUG all cords before cleaning.
- 13 NEVER SPILL LIQUID ON THE UNIT OR PUSH OBJECTS INTO VENTILATION OPENINGS. You may short out parts, resulting in risk of fire or electric shock.
- 14 DISCONNECT POWER CORD from outlet when unit will be left unused for a long period of time.
- 15 DO NOT OPEN THIS UNIT. There are no user serviceable parts inside.
- 16 The unit should be serviced ONLY by SCHOTT authorized service personnel if it does not operate normally or exhibits any marked change in performance; or if the power cord or enclosure has been damaged; or if objects or moisture have entered the unit.
- 17 DO NOT SERVICE the unit beyond that described in this manual. All other servicing should be referred to qualified service personnel.



TROUBLESHOOTING

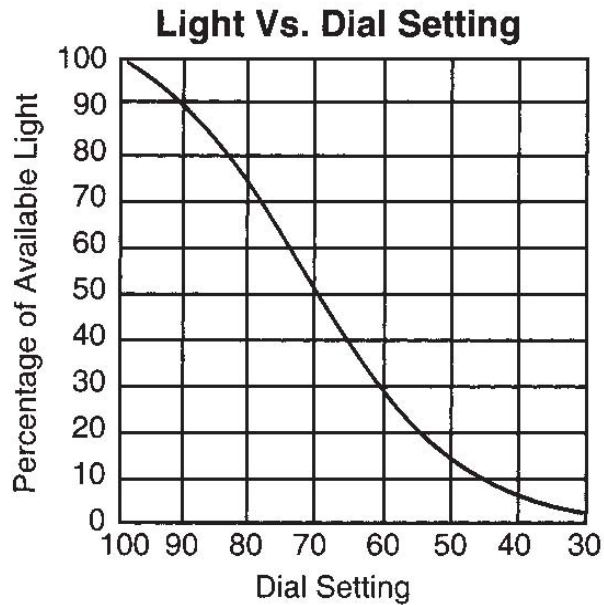
If the fan operates, but there is no light, check the following in sequence.

- 1 Turn the Intensity Control knob to 100.
- 2 Change the bulb.
- 3 Examine lamp socket for damage. Check continuity of wiring. If contacts are carburized or the ceramic base is cracked or the wiring is frayed, replace socket.
- 4 Make sure that the two pin modular connector is properly engaged in the locking position (see lamp replacement section). Check contacts for proper operation.

If neither the lamp nor the fan operates, check the following in sequence.

- 1 Make sure the power cord is inserted completely into the IEC connector on the rear panel and also into the correct power source.
- 2 Check power cord for damage.
- 3 Check fuse. Remove the power cord. Slide fuse drawer out and remove inner fuse. Check for continuity. Replace with spare fuse if blown. **REPLACE ONLY WITH FUSE TYPE DESCRIBED ON REAR PANEL.** Replace or reorder spare fuse.
- 4 If the unit feels warm, check for any obstruction to the air intakes or exhaust area. This light source has an automatic reset, thermal cut-out device for safety protection. Let the unit cool down for 10 minutes and turn it back on.

If the light source still doesn't operate, refer to qualified SCHOTT authorized service personnel. DO NOT ATTEMPT TO REPAIR THE LIGHT SOURCE!



SPECIFICATIONS	
<p>PHYSICAL:</p> <p>Overall dimensions Height: 4.62" (177 mm) Width: 7.27" (185 mm) Depth: 8.61" (219 mm) Weight: 9 pounds</p> <p>Fiber Receptacle .720" diameter (18.3 mm)</p> <p>Environmental Operating Temperature Range: 0° to 50°C Relative humidity Range: 0% to 95% non-condensing</p>	<p>ELECTRICAL:</p> <p>Input Voltage 115VAC/60Hz (Models A20500 & A20520) 230VAC/50Hz (Models A20510 & A20530)</p> <p>Output 21VAC</p> <p>Power Consumption 190 Watts (nominal)</p> <p>Lamp Types –Tungsten Halogen 150 Watt, 21 Volt (EJA, EKE) 150 Watt, 20 Volt (DDL) CSA to UL-1571, </p>
Improvements may result in specification or feature changes without notice.	

PARTS LIST			
EJA Lamp	A08110	Rheostat Control Knob	H09033-100
EKE Lamp	A08120	Iris Control Knob	H09050-045
DDL Lamp	A08130	Fuse (10/pkg) 115 V units	A08126
Lamp Socket Assembly	D08375-070	Fuse (10/pkg) 220 V units	A08127
Fiber Optic Positioning Screw	D08375-063	Power Cord	H09050-016

SCHOTT

Declaration of Conformity

Lighting and Imaging
SCHOTT North America, Inc.

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<http://www.us.schott.com/lightingimaging>

CSA Listed to UL-1571



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DECLARATION OF CONFORMITY

APPLICATION OF COUNCIL DIRECTIVE(S): **73/23/EEC Low Voltage Directive**
89/336/EEC EMC Directive

STANDARDS (S) TO WHICH

CONFORMITY IS DECLARED: **Product Safety: EN61010-1:2001,**
EMV: EN61326-1:2003 (A1+A2+A3), Class A

TYPE OF EQUIPMENT: **Light Source, Halogen**

MODEL NO.: **ACE® Series**

MANUFACTURER'S NAME: **SCHOTT North America, Inc.**

MANUFACTURER'S ADDRESS: **122 Charlton Street, Southbridge, MA 01550, USA**

SIGNATURE: 

NAME: **Heinz Kaiser**

POSITION: **V.P. & General Manager**

IMPORTER'S NAME: _____

IMPORTER'S ADDRESS: _____

KONFORMITÄTSBESCHEINIGUNG

FÜR DIE RICHTLINIE: **73/23/EEC Niederspannungsrichtlinie**
89/336/EWG des Rates vom 3. Mai 1989

NORMEN, FÜR WELCHE DIE

KONFORMITÄT BESCHEINIGT WIRD: **Produktsicherheit: EN61010-1:2001,**
EMV: EN61326-1:2003 (A1+A2+A3), Class A

GEGENSTAND: **Kaltlichtquelle mit Halogenlampe**

TYPEN: **ACE® Series**

HERSTELLER: **SCHOTT North America, Inc.**

ADRESSE DES HERSTELLERS: **122 Charlton Street, Southbridge, MA 01550, USA**

UNTERSCHRIFT: 

NAME: **Heinz Kaiser**

POSITION: **V.P. & General Manager**

IMPORTEUR: _____

ADRESSE DES IMPORTEURS: _____

DECLARATION DE CONFORMITE

APPLICATION DES

DIRECTIVES EUROPEENNES: **73/23/EEC Directive Basse Tension
89/336/EEC Directive CEM**

CONFORMITE AUX NORMES: **Sécurité du Produit: EN61010-1:2001,
EMV: EN61326-1:2003 (A1+A2+A3), Class A**

TYPE D'EQUIPMENT: **Source De Lumiere Halogene**

MODELE N°: **ACE® Series**

NOM DU FABRICANT: **SCHOTT North America, Inc.**

ADRESSE DU FABRICANT: **122 Charlton Street, Southbridge, MA 01550, USA**

SIGNATURE:

NOM: **Heinz Kaiser**

FONCTION: **V.P. & General Manager**

NOM DE L'IMPORTATEUR: _____

ADRESSE DE L'IMPORTATEUR: _____

DECLARACION DE CONFORMIDAD

APLICACION DE LAS

INSTRUCCIONES DE CONSEJO: **73/23/EEC Directiva de baja voltaje
89/336/EEC EMC Instrucciones**

DECLARACION DE

CRITERIOS CONFORMIDAD: **Seguridad de Producto: EN61010-1:2001,
EMV: EN61326-1:2003 (A1+A2+A3), Class A**

TIPO DE EQUIPO: **Fuente De Luz, Halogena**

MODELO N.: **ACE® Series**

NOMBRE DEL FABRICANTE: **SCHOTT North America, Inc.**

DIRECCION DEL FABRICANTE: **122 Charlton Street, Southbridge, MA 01550, USA**

FIRMA:

NOMBRE: **Heinz Kaiser**

CARGO: **V.P. & General Manager**

NOMBRE DEL IMPORTADOR: _____

DIRECCION DEL IMPORTADOR: _____

DICHIARAZIONE DI CONFORMITA

APPLICAZIONE DELLE

DIRETTIVE DI CONSIGLIO: **73/23/EEC Basso Electrico Directiva
89/336/EEC EMC Direttive**

DICHIARAZIONI DI

STANDARDS, DI CONFORMITA: **Produce Buono: EN61010-1:2001
EMV: EN61326-1:2003 (A1+A2+A3), Class A**

TIPO DI ATTREZZATURA: **Sorgente DI LUCE, Alogena**

MODELLO N.: **ACE® Series**

NOME DEL FABBRICANTE: **SCHOTT North America, Inc.**

INDIRIZZO DEL FABBRICANTE: **122 Charlton Street, Southbridge, MA 01550, USA**

FIRMA:

NOME: **Heinz Kaiser**

INCARICO: **V.P. & General Manager**

NOME DELL' IMPORTATORE: _____

INDIRIZZO DELL' IMPORTATORE: _____

WARRANTY

SCHOTT warrants its light sources to be free from both defective workmanship and materials.

If, within two years from shipment date, any product and/or part thereof is determined by the manufacturer to be defective, we will repair or replace with new or reconditioned equipment (excluding lamp, lamp socket and fuses).

Any product which we determine has been subjected to neglect or misuse or has been installed following procedures not in accordance with our instruction manual, are excluded from this warranty. This warranty does not include products which have been repaired or modified outside our factory, or products on which the serial number has been altered or to accessories we did not manufacture.

Our obligation is limited to repair or replacement, FOB Southbridge, MA. We will not be held responsible for consequential damages, transportation, installation, adjustment or other expenses arising in connection with our products or parts.

This warranty is in lieu of all other statements or guaranties, written or implied by the manufacturer or authorized reps.

LIABILITIES

Any warranty implied under State Law shall be limited to one year from original delivery to original purchaser. Specifically excluded from the manufacturer liability is damage resulting from acts of any deity, malicious mischief, vandalism, riots, wars, improper installation or neglect in the operation or maintenance of the unit or misunderstanding of the properties of the unit. Under no circumstances shall the manufacturer be obligated for consequential or other damages of any kind or description, losses or expenses in connection with or by reason of the use of, or inability to use this unit for any reason. The stated warranty provides the purchaser with specific legal rights, and there may be additional rights which vary from State to State. Some States for example, do not allow exclusion of consequential damage.

SERVICE POLICY

Any service required for any reason must be performed by the manufacturer or an authorized service representative. All service out-side the warranty will be performed upon the purchaser's request according to normal service charges in effect at the time. To return any item, an RMA# (Return Materials Authorization) from the manufacturer must be obtained. This number must be affixed to the shipping label in plain sight. All shipping must be prepaid. The manufacturer guarantees all repairs will be completed within two weeks. The manufacturer will return ship all units prepaid using carrier of choice. All expedited shipping charges will be the responsibility of the purchaser.