

SCHOTT North America, Inc.

DCR[®] III

Direct Current Regulated Light Source

User's Manual and Technical Reference



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SCHOTT

Warning

1. Never look directly at the lamp when on.
 2. Lamp and surrounding surfaces may be hot!
 3. Do not use this unit near water or in an area with excessive moisture.
 4. Do not place flammable materials near the unit.
 5. Do not defeat the safety purpose of the 3-prong grounded plug. Use only the approved power cord supplied with the unit. Route cord so that it will not be pinched, severed or walked upon.
 6. Do not defeat the purpose of the fuse. Replace only with the fuse type described in the manual and as marked on the unit.
 7. Unplug before servicing. High voltage is present internally.
 8. Refer to the Technical References Section for safety instructions.
-

Attention

1. Ne pas regarder directement la lampe quand elle fonctionne.
 2. La lampe et son logement peuvent être chaud.
 3. Ne pas utiliser cette source près de l'eau ou d'une zone particulièrement humide.
 4. Ne pas placer de matériau inflammable près de la source lumineuse.
 5. Ne pas démonter la protection de sécurité de la fiche 3 broches. Utiliser uniquement le cordon secteur approprié, livré avec l'unité. Faire passer le cordon de façon à ce qu'il ne soit ni pincé, ni abîmé et qu'on ne marche pas dessus.
 6. Ne pas défaire la protection du fusible. Le remplacer uniquement avec le même type de fusible comme décrit dans le manuel et comme marqué sur la source.
 7. Débrancher avant entretien - Haute tension présente à l'intérieur.
 8. Se référer à la section Références Techniques, pour les instructions de sécurité.
-

Warnhinweise

1. Niemals direkt in die Lampe blicken, wenn die Kaltlichtquelle eingeschaltet ist.
2. Die Lampe und angrenzende Oberflächen können heiss sein!
3. Betreiben Sie die Lichtquelle nicht in der Nähe von Wasser und bei extrem hoher Luftfeuchtigkeit.
4. Halten Sie leicht entzündliches Material von der Lichtquelle fern.
5. Der Schutzkontakt am Netzkabel darf nicht entfernt werden. Benutzen Sie nur das mitgelieferte Netzkabel. Führen Sie das Netzkabel so, dass es nicht durch äussere Einflüsse beschädigt werden kann.
6. Setzen Sie die Sicherung nicht ausser Funktion. Ersetzen Sie sie nur durch den in der Bedienungsanleitung und auf dem Gerät angegebenen Typ.

7. Vor dem Öffnen des Gerätes Netzstecker ziehen: Vorsicht Hochspannung!
8. Beachten Sie auch die Sicherheitshinweise in Abschnitt der technischen Hinweise.

Precauzioni

1. Mai guardare direttamente la lampadina quando é accessa.
 2. La lampadina e la superficie circostante possono essere surriscaldate.
 3. Non utilizzare il generatore in presenza di acqua o in aree eccessivamente sporche.
 4. Non mettere materiali infiammabili vicino al generatore di luce.
 5. Non danneggiarc l'isolamento della spina a tre pin. Utilizzare esclusivamente il cavo di alimentazione fornito con il generatore. Inserire il cavo di alimentazione in canalina onde evitare di tagliarlo, pizzicarlo o pestarlo.
 6. Sostituire il fusibile solamente con un fusibile avente le caratteristiche descritte nel manuale e come indicato sul generatore.
 7. Disinscrivere la spina prima di effettuare riparazioni. All'interno é presente alta tensione.
 8. Per istruzioni sulla sicurezza fare riferimento alla sezione delle informazioni tecniche.
-

Attender

1. Nunca mirar directamente la lámpara cuando iluminada.
2. La lámpara y las superficies cerca de la lámpara pueden estar muy calientes.
3. No use la unidad cerca del agua o en una zona muy humeda.
4. No ponga material inflamable cerca de la unidad.
5. No arruine el propósito de seguridad del enchufe a tres puntas. Emplee solamente la cuerda eléctrica aprobada y provista con la unidad. Dirija la cuerda de modo que no sea apretada, cortada o pisada.
6. No arruine el efecto del fusible. Sustituya solamente con tipo de fusible descrito en el manual y como indicado sobre la unidad.
7. Desconecte antes de revisar. Voltaje elevado está presente al interno.
8. Refierase a la sección referencias técnicas para las instrucciones de seguridad

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1.1 English - Operation

1.1.1 Universal Voltage Input

1.1.2 Turning the Light Source "on"

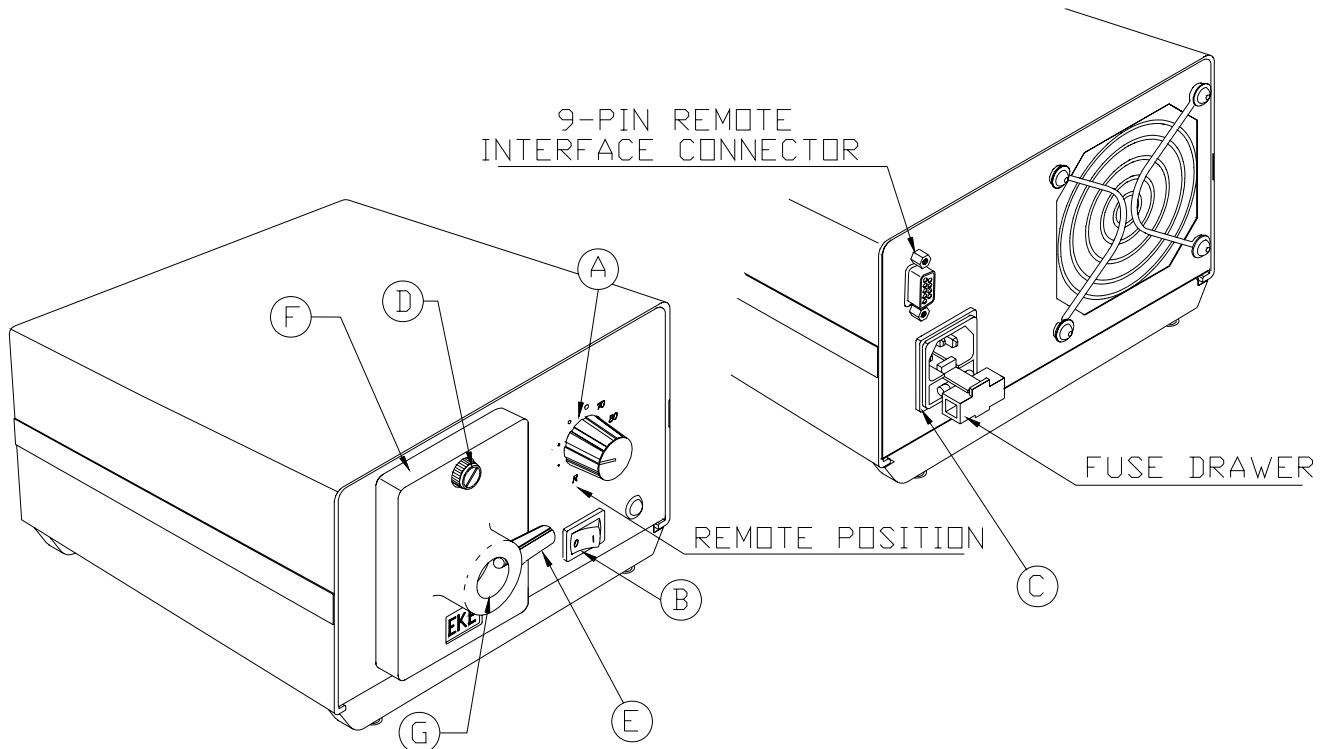
1.1.3 Lamp Replacement

1.1.1 Universal Voltage Input

The “DCR III” light source was designed to accept line voltage in the range 90 to 264 VAC.

1.1.2 Turning the Light Source “on”

1. Make sure the power switch on the front panel is in the “off” position (B).
2. Plug the power cord into the back panel connector (C).
3. Plug the other end into a power source.
4. Make sure that the captive thumbscrew on the “Modulamp” assembly is firmly tightened (D),(F).
5. Insert any fiber optic component with a compatible light source adapter into the “Modulamp” receptacle (G).
6. Tighten the fiber optic positioning thumbscrew (E).
7. Turn the light source power switch to the “on” position (B).
8. Adjust the light intensity with the intensity control knob (A).
9. To turn the unit off, press the power switch to the “off” position (B).

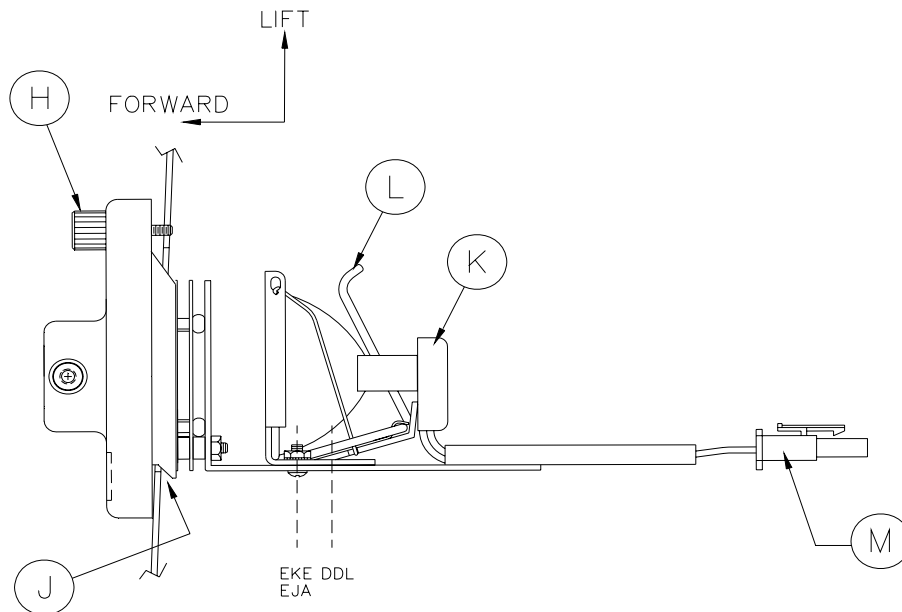


1.1.3 Lamp Replacement

1. Turn the power switch to the “off” position.
2. Remove the fiber optic component.
3. Allow the lamp to cool.
4. Unscrew the “Modulamp” assembly captive thumbscrew until the head springs forward (H).
5. Pull the top of the “Modulamp” assembly forward and lift the unit out of the recess (J). Do not pull the assembly beyond the length of the cable assembly (M).

CAUTION: Lamp, lamp socket and surrounding surfaces may be hot!

6. Push back on the lampholder release lever to raise the lamp (L).
7. Gently unplug the ceramic lamp socket (K).
8. Lift the release lever. Insert a new lamp into the lamp holder. Push the lamp all the way down. Be careful not to touch the bulb or the inside of the reflector. Fingerprints may affect the light output.
9. Push the ceramic socket on to the two lamp pins until flush with the lamp base.
10. Return the “Modulamp” assembly into the recess and tighten captive thumbscrew.
11. For complete “Modulamp” assembly removal and installation, see Sections 5.1 and 5.2.



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1.2 Français – Mode d'emploi

1.2.1 Tension d'entrée universelle

1.2.2 Pour mettre la source lumineuse en position « marche »

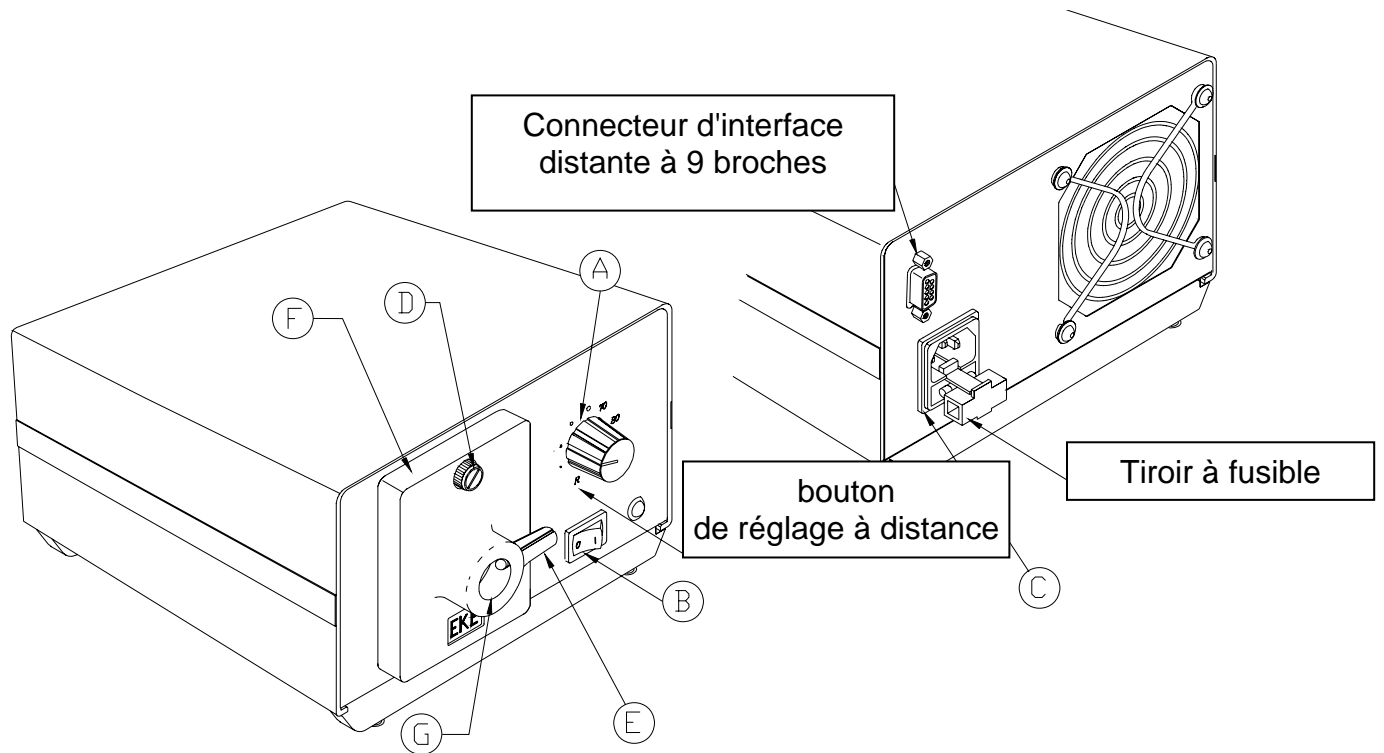
1.2.3 Remplacement de la lampe

1.2.1 Tension d'entrée universelle

La source lumineuse « DCR III » peut accepter une tension de secteur comprise entre 90 et 264 Vca.

1.2.2 Pour mettre la source lumineuse en position « marche »

1. Vérifiez que l'interrupteur situé sur le panneau avant est en position « arrêt » (B).
2. Branchez le cordon d'alimentation dans la prise située sur le panneau arrière (C).
3. Branchez l'autre extrémité du cordon à la source d'alimentation.
4. Vérifiez que la vis à oreilles située sur l'assemblage « Modulamp » est bien serrée (D), (F).
5. Pour insérer un élément à fibres optiques dans la prise du « Modulamp », utilisez un adaptateur de source lumineuse compatible (G).
6. Resserrez la vis de réglage à fibres optiques (E).
7. Mettez l'interrupteur de la source lumineuse en position « marche » (B).
8. Réglez l'intensité lumineuse à l'aide du bouton de réglage de l'intensité (A).
9. Pour éteindre l'appareil, appuyez sur l'interrupteur pour le mettre en position « arrêt » (B).

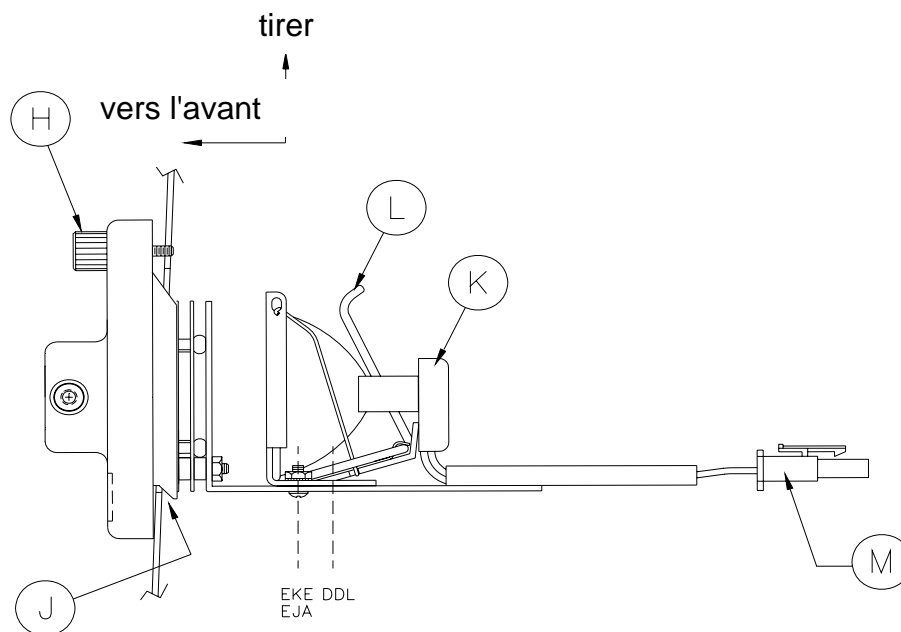


1.2.3 Remplacement de la lampe

1. Mettez l'interrupteur d'alimentation en position « arrêt ».
2. Enlevez l'élément à fibres optiques.
3. Laissez la lampe refroidir.
4. Dévissez la vis à oreilles de l'assemblage « Modulamp » jusqu'à ce que la tête bascule vers l'avant (H).
5. Tirez le dessus de l'assemblage « Modulamp » vers l'avant et sortez l'élément du renforcement (J). Ne tirez pas l'assemblage au-delà de la longueur du câble de connexion (M).

ATTENTION : la lampe, la douille et les bords peuvent être chauds !

6. Appuyez sur le levier de sûreté en plastique (M) pour déconnecter le câble de connexion de l'encastrement.
7. Poussez le levier de déclenchement de la douille vers l'arrière pour dégager la lampe de la douille (L)
8. Débranchez avec soins la douille de lampe en céramique (K)
9. Insérez une nouvelle lampe dans la douille. Mettez la lampe dans l'encastrement en prenant soins de ne pas toucher l'ampoule ou l'intérieur du réflecteur car les empreintes digitales peuvent altérer le flux lumineux.
10. Remettez l'assemblage « Modulamp » dans le renforcement puis serrez la vis à oreilles.
11. Pour le mode d'emploi complet du démontage et de l'installation « Modulamp », reportez-vous aux sections 5.1 et 5.2.



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1.3 Deutsch Bedienungsanleitung

1.3.1 Universeller Stromversorgungsanschluss

1.3.2 Einschalten der Lichtquelle

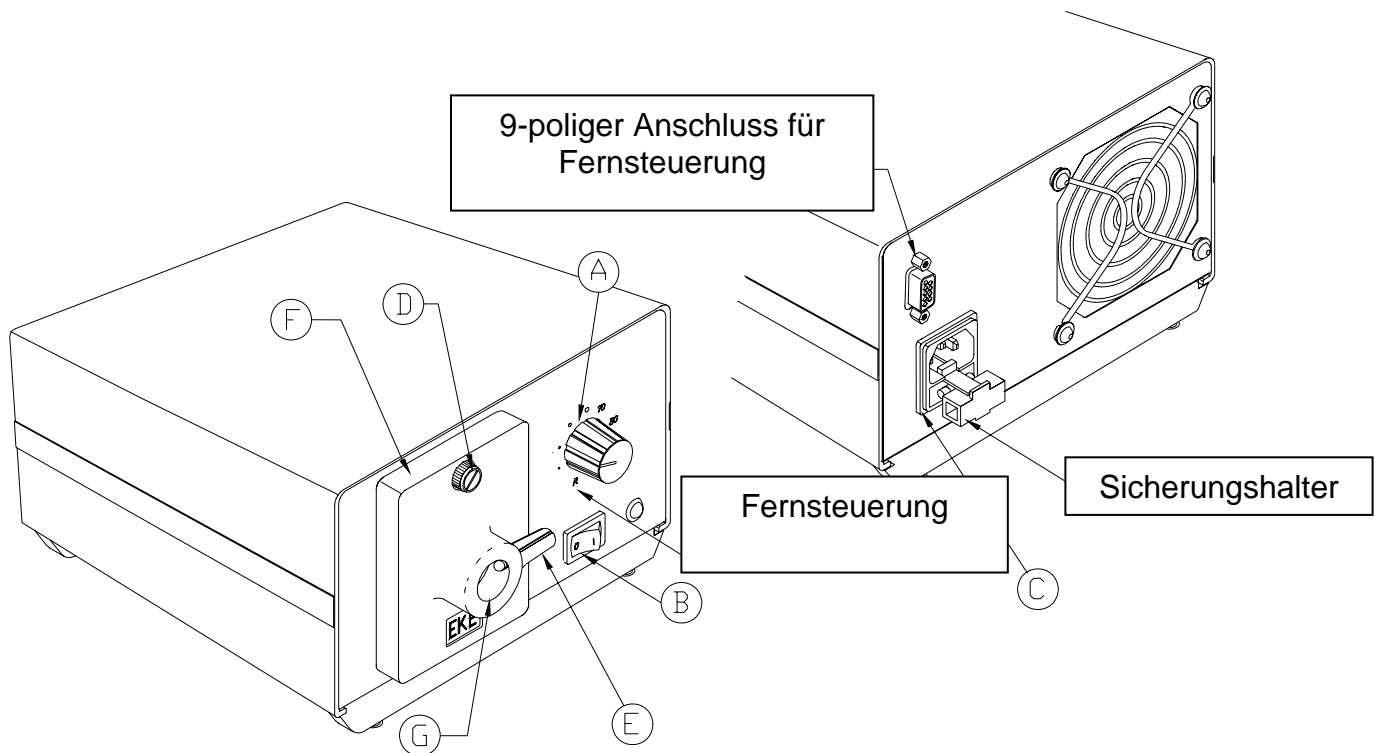
1.3.3 Auswechseln der Glühbirne

1.3.1 Universeller Stromversorgungsanschluss

Die "DCR III" Lichtquelle ist für eine Eingangsspannung von 90 bis 264 Volt Wechselstrom ausgelegt.

1.3.2 Einschalten der Lichtquelle

1. Stromschalter am vorderen Anschluss muss auf "off" sein (B).
2. Anschlusskabel in den hinteren Anschluss einstecken (C).
3. Den Stecker am anderen Ende in Steckdose einstecken.
4. Die Rändelschraube an der "Modulamp" Baugruppe muss fest angezogen sein (D), (F).
5. Beliebige Fiber Optik Komponente mit einem kompatiblen Lichtquellenadapter in die "Modulamp" Gerätebuchse einführen (G).
6. Rändelschraube (E) anziehen.
7. Stromschalter für die Lichtquelle einschalten: Schalter auf "on" stellen (B).
8. Lichtintensität mit dem Intensitätskontrollknopf (A) einstellen.
9. Stromversorgung ausschalten: Schalter auf "off" stellen. (B)

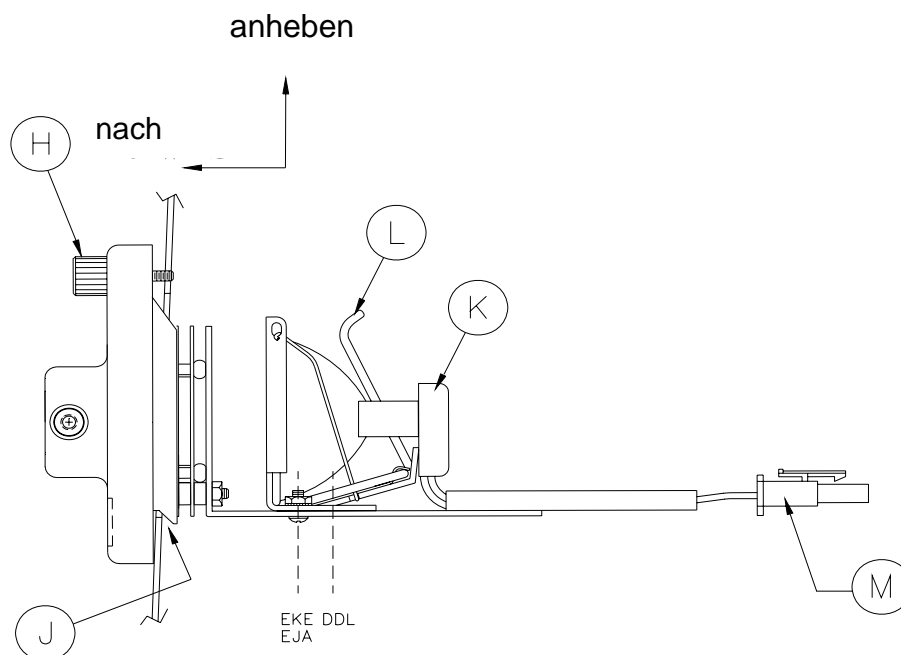


1.3.3 Auswechseln der Glühbirne

1. Stromversorgung ausschalten: Schalter auf "off" stellen.
2. Fiber Optik Komponente entnehmen.
3. Abwarten bis die Glühbirne abgekühlt ist.
4. Rändelschraube an der "Modulamp" Baugruppe lösen bis der Kopf nach vorne kommt (H).
5. "Modulamp" Baugruppe nach vorne ziehen und die Einheit aus der Aussparung herausnehmen (J). Baugruppe nur entsprechend der Kabellänge herausziehen (M).

VORSICHT: Glühbirne, Lampensockel und Umgebung können heiss sein!

6. Kabelbaugruppe durch Herunterdrücken des Plastikhalterungshebels abschalten (M).
7. Lampenhalterungshebel zurückdrücken, um die Glühbirne aus der Halterung zu lösen (L).
8. Den keramischen Lampensockel vorsichtig ausstecken (K).
9. Neue Glühbirne in den Sockel einführen. Glühbirne in den Lampenhalter einsetzen. Vorsicht: Birne bzw. die Innenseite des Reflektors dürfen nicht berührt werden! Fingerabdrücke können die Lichtleistung beeinflussen.
10. Die "Modulamp" Baugruppe wieder in die Aussparung einsetzen und die Rändelschraube anziehen.
11. Abschnitt 5.1 und 5.2 beinhalten Anweisungen für den Austausch und die Installation der kompletten "Modulamp" Baugruppe.



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1.4 Italiano - Funzionamento

1.4.1 Alimentazione a voltaggio universale

1.4.2 Accensione della sorgente di luce

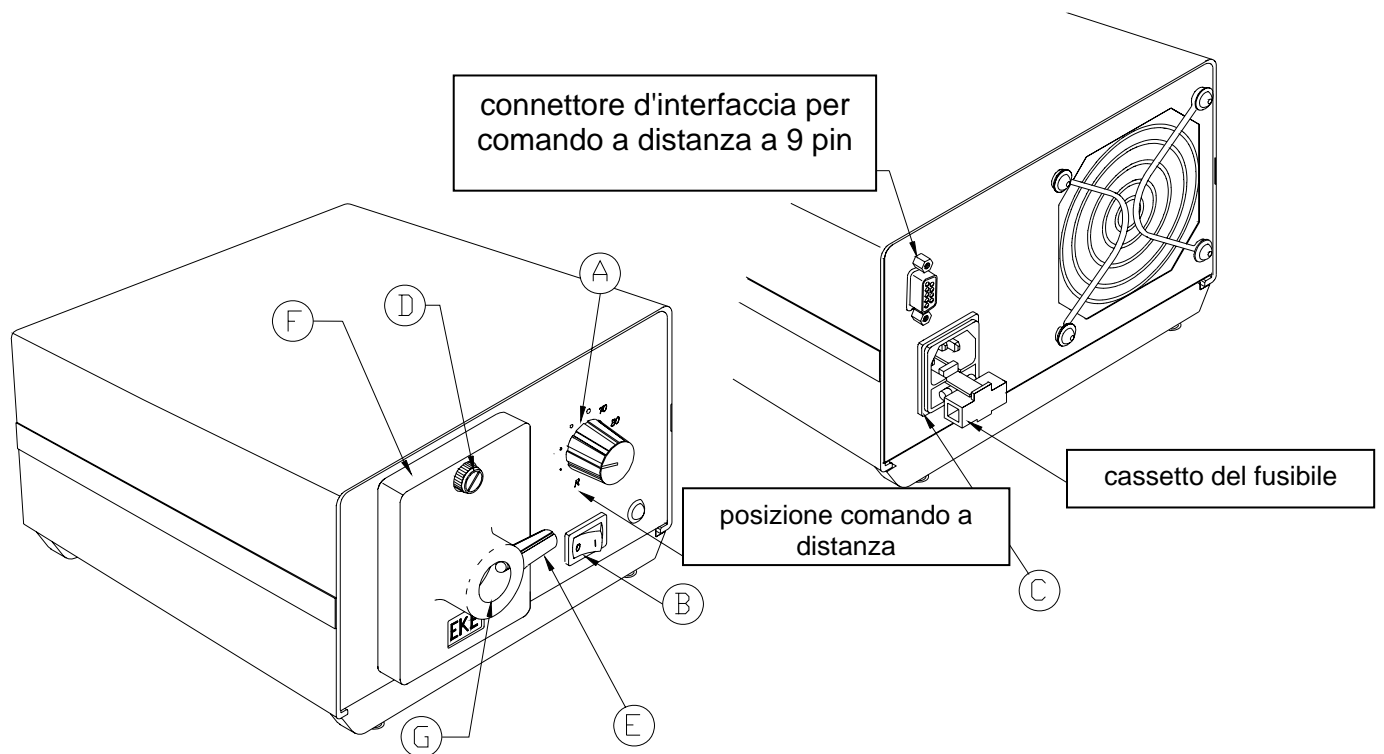
1.4.3 Sostituzione della lampada

1.4.1 Alimentazione a voltaggio universale

La sorgente di luce "DCR III" è stata progettata per accettare una tensione di linea da 90 a 264 V CA.

1.4.2 Accensione della sorgente di luce

1. Accertarsi che l'interruttore del quadro anteriore sia in posizione "off" (B).
2. Collegare il cordone di alimentazione nel connettore del quadro posteriore (C).
3. Collegare l'altra estremità all'alimentazione.
4. Accertarsi che la vite prigioniera con testa zigrinata che si trova sul gruppo della "Modulamp" sia ben serrata (D),(F).
5. Inserire qualunque componente a fibre ottiche, con un adattatore per sorgente di luce compatibile, nella presa del "Modulamp" (G).
6. Serrare la vite di posizionamento a fibre ottiche con testa zigrinata (E).
7. Porre l'interruttore della sorgente di luce in posizione "on" (B).
8. Regolare l'intensità della luce con la manopola di controllo dell'intensità (A).
9. Per spegnere l'unità, premere l'interruttore e porlo in posizione "off"(B).

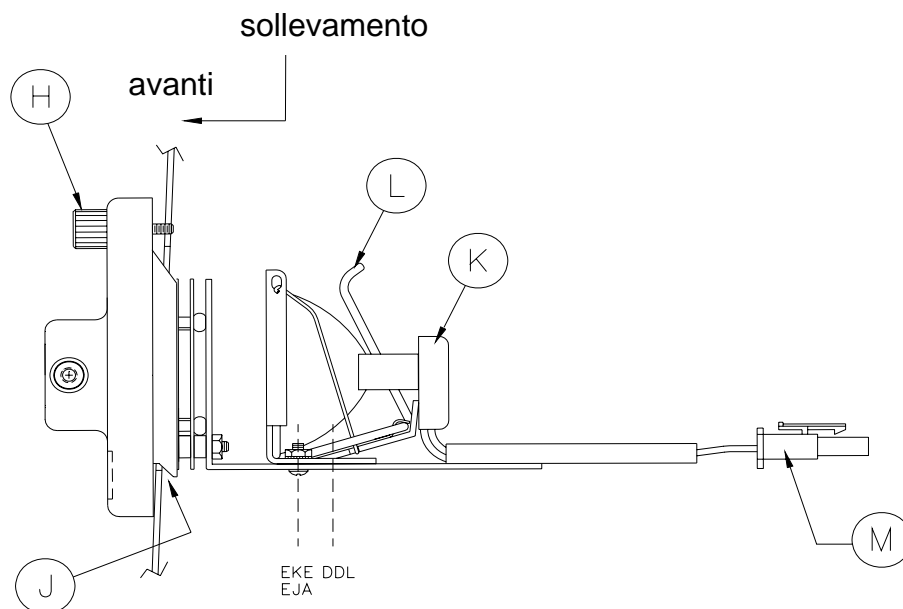


1.4.3 Sostituzione della lampada

1. Porre l'interruttore in posizione "off".
2. Togliere il componente a fibre ottiche.
3. Lasciare raffreddare la lampada.
4. Svitare la vite prigioniera con testa zigrinata del gruppo "Modulamp", fino allo scatto in avanti della testa (H).
5. Porre in avanti la parte superiore del gruppo "Modulamp" e sollevare l'unità fuori dalla cavità (J). Non tirare il gruppo oltre la lunghezza del cavo dello stesso (M).

ATTENZIONE: La lampada, il portalamпада e le superfici circostanti possono essere roventi!

6. Scollegare il gruppo cavo dalla cappottatura premendo la leva di fissaggio di plastica (M).
7. Spingere indietro sulla leva di sblocco del portalamпада per liberare la lampada dal portalamпада (L).
8. Togliere delicatamente la spina dalla lampada di ceramica dalla presa (K).
9. Inserire nella presa una nuova lampada. Collocare la lampada nel portalamпада. Fare attenzione a non toccare il bulbo o l'interno del riflettore. Le impronte digitali potrebbero compromettere l'efficacia della luminosità.
10. Riporre il gruppo "Modulamp" nella cavità e serrare la vite prigioniera con testa zigrinata.
11. Per la rimozione e l'installazione complete del gruppo "Modulamp", consultare le sezioni 5.1 e 5.2.



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1.5 Español - Operación

1.5.1 Entrada voltaje universal

1.5.2 "Encendido" de la fuente luminosa

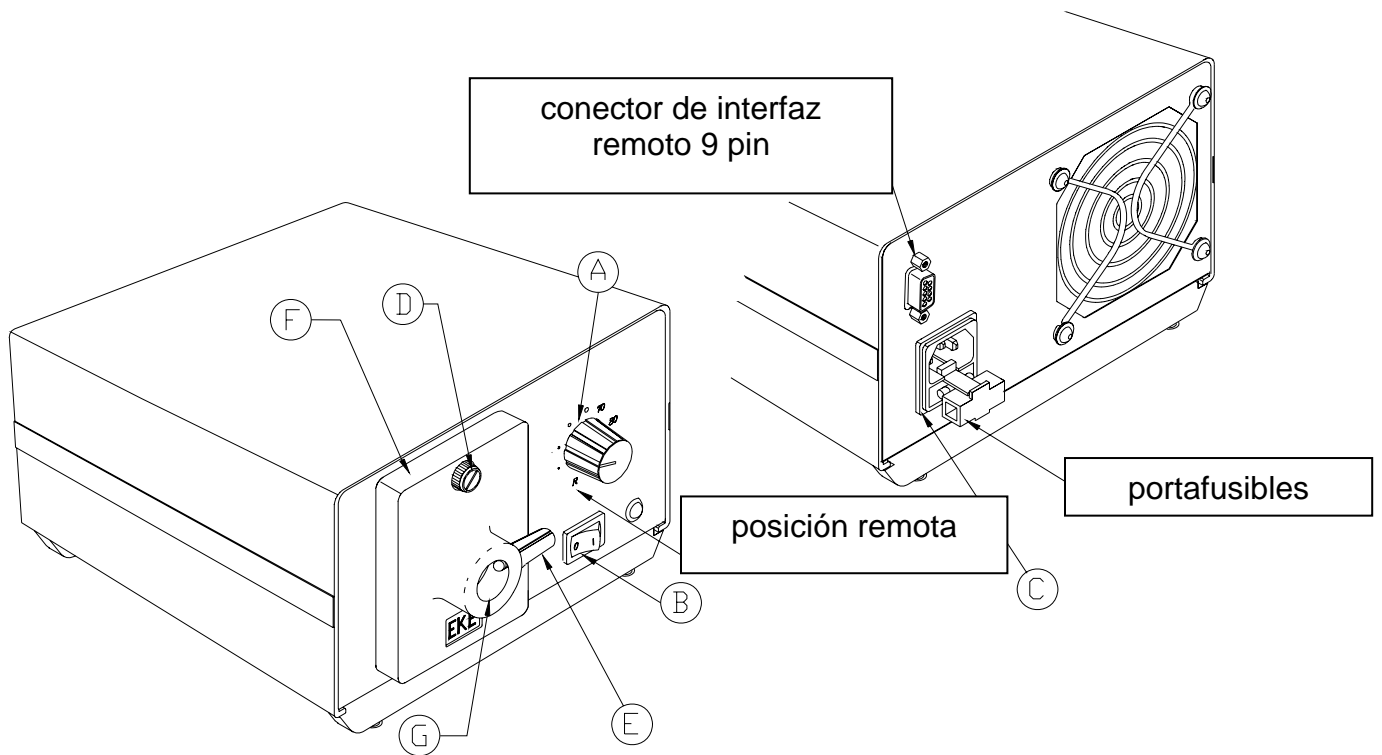
1.5.3 Sustitución de la lámpara

1.5.1 Entrada universal de voltaje

La fuente luminosa "DCR III" ha sido diseñada para aceptar voltajes de línea dentro del rango de 90 a 264 VCA.

1.5.2 "Encendido" de la fuente luminosa

1. Asegúrese de que el interruptor general del panel anterior está en la posición "off" (apagado) (B).
2. Conecte el cable de potencia en el conector del panel trasero (C).
3. Conecte el otro extremo a la fuente de energía.
4. Asegúrese de que el tornillo de ajuste aprisionado de la instalación "Modulamp" esté firmemente apretado (D),(F).
5. Introduzca cualquier componente de fibra óptica con un adaptador de fuente luminosa compatible en el receptáculo "Modulamp" (G).
6. Apriete el tornillo de aletas de posicionamiento de la fibra óptica (E).
7. Gire el interruptor general de la fuente luminosa a la posición "on" (encendido) (B).
8. Ajuste la intensidad luminosa con el mando de control de intensidad (A).
9. Para apagar la unidad, ajuste el interruptor general a la posición "off" (apagado) (B).

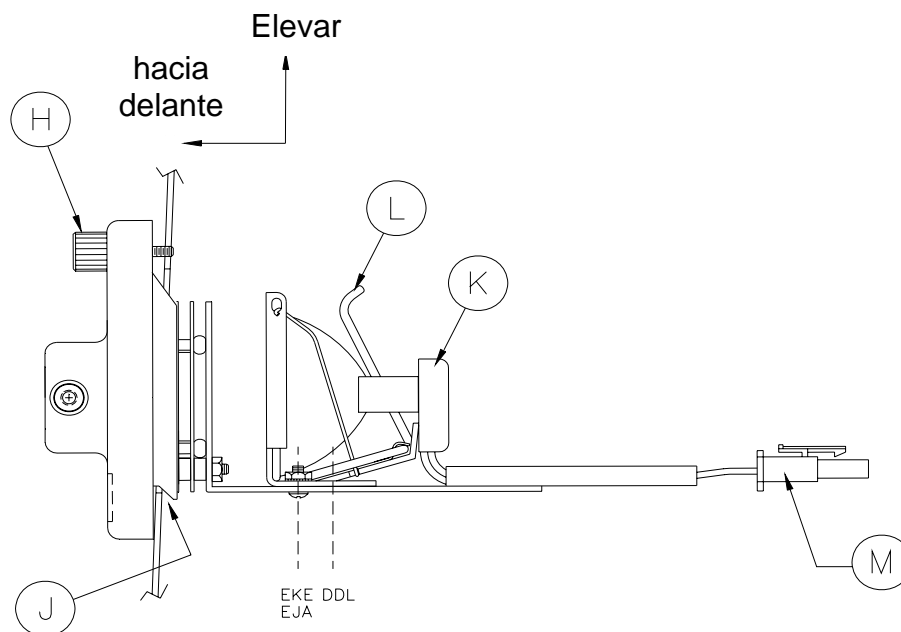


1.5.3 Sustitución de la lámpara

1. Gire el interruptor general a la posición "off".
2. Retire el componente de fibra óptica.
3. Permita que la lámpara se enfríe.
4. Destornille el tornillo de ajuste prisionero de la instalación "Modulamp" hasta que la cabeza salte hacia delante (H).
5. Tire de la parte superior de la instalación "Modulamp" hacia delante y levante la unidad fuera de la cavidad (J). No tire de la instalación más allá de la longitud de la instalación del cable (M).

ATENCIÓN: ¡La lámpara, el receptáculo y las superficies colindantes pueden estar calientes!

6. Desconecte la instalación del cable de su alojamiento presionando la palanca de fijación de plástico (M).
7. Empuje hacia atrás la palanca de liberación del portalámpara para liberar la lámpara del portalámpara (L).
8. Desconecte suavemente el receptáculo de cerámica (K).
9. Introduzca una nueva lámpara en el receptáculo. Coloque la lámpara en el portalámpara. Tenga cuidado de no tocar la bombilla o la parte interior del reflector. Las huellas dactilares pueden afectar la emisión lumínica.
10. Regrese la instalación "Modulamp" a la cavidad y apriete el tornillo de ajuste aprisionado.
11. Para una retirada y montaje completo de la instalación "Modulamp", véanse las secciones 5.1 y 5.2.



Technical References

2.0 General Instructions

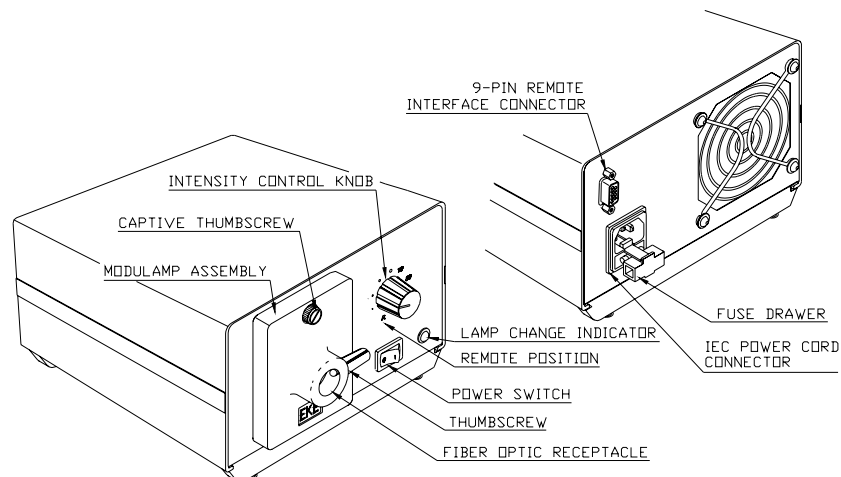
2.1 Safety Instructions

1. Read, understand and follow all instructions in this manual.
2. Keep all safety and operating instructions for future reference.
3. Do not block ventilation openings on this unit. Do not impede airflow.
4. Use only standard glass type cleaners. Do not use solvents or petroleum distillates.
5. Never spill liquid on the unit or push objects into ventilation openings.
6. Disconnect power cord when unit will be left unused for long periods of time.
7. Allow the unit to cool before servicing.
8. Do not service the unit beyond that described in this manual. Return the light source to an authorized SCHOTT Service Center. For a **Return Material Authorization**, see Section 7.3.

2.2 Product Description

Congratulations on the purchase of your “**DCR III**” light source! This light source provides cool, intense white light for all types of fiber optic illumination components. The “**DCR III**” light source is CSA listed to UL-1571 and CE compliant to standards set for the year 2001. CE compliance for the year 2001 requires power factor correction and sets limits for harmonic current emissions. It was designed and manufactured under the ISO 9000 guidelines.

The “**DCR III**” light source provides up to 150 watts of light from a tungsten halogen lamp. The adjustable, regulated voltage supply provides less than 0.5 to 20.5 VDC. The light source may be controlled manually from the front panel or remotely via the 9-pin remote interface connector on the rear of the unit. (See Sections 3.0 and 4.0) The removable “Modulamp” assembly contains the lamp holder, which supports three different lamp choices. The high output fan provides maximum airflow resulting in extremely cool operation.



2.3 Installation Guidelines

To insure proper operation of the light source, the following conditions must be met:

- Minimum Clearances:

Rear	2" (51 mm)
Bottom	5/8" (16 mm)
Sides	1" (25 mm)

- Do not block any air vents.

- Proper ventilation must be guaranteed.

- If the "Modulamp" assembly will be removed from the power supply during operation, care must be taken to cover the opening left by the "Modulamp" assembly. This will ensure proper cooling of the electronics.

- Avoid areas of excessive vibration.

- Operate the light source only in an environment where people do not require protective equipment.

CAUTION: Dust accumulation will restrict air flow which can damage the unit. (See Section 2.6 for cleaning recommendations.)

2.4 Soft-Start Feature

The "DCR III" light source is equipped with a "Current Limiting" circuit to protect the lamp from in-rush current. After turning the power switch to the "on" position, the fan will run immediately at full capacity. The lamp will be supplied full rated current until the bulb warms up, typically .5 second. This unique feature allows for the fastest possible turn-on time, while obtaining the maximum life from the lamp.

If all the intensity controls are at their minimum settings, less than 0.5 volts will be supplied to the lamp. This results in a minimal glow of the lamp filament.

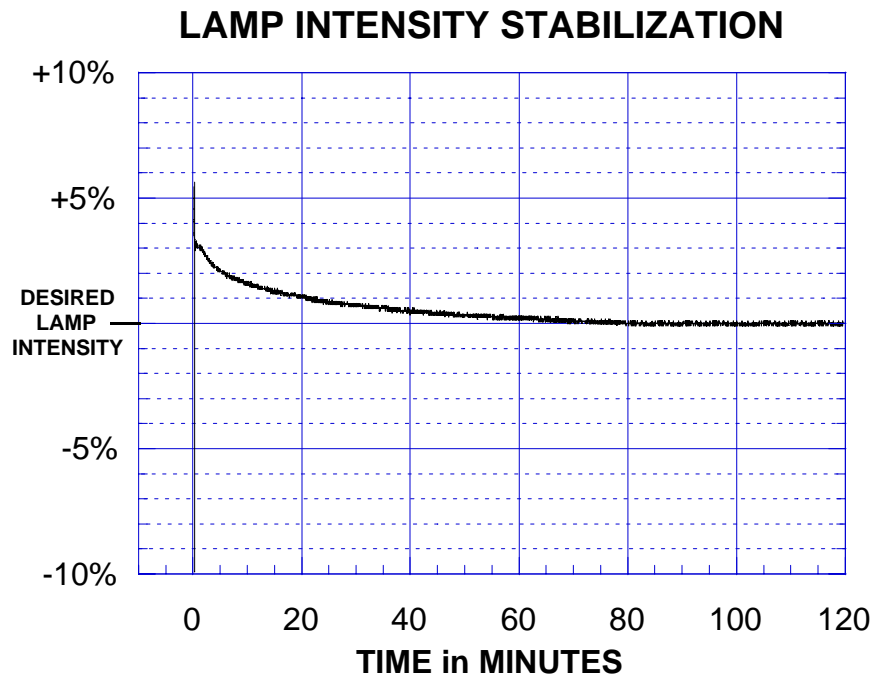
2.5 Lamp Change Indicator

Next to the power switch on the front label is the "lamp-change" indicator (LED). When a functioning 150W, 21V lamp is powered by the "DCR III" light source, the "lamp-change" indicator will display green light. Upon excessive degradation of the lamp or removal of the lamp, the "lamp-change" indicator will switch its display to red. When the "lamp-change" indicator is red, it is time to change the lamp.

2.6 Lamp Characteristics

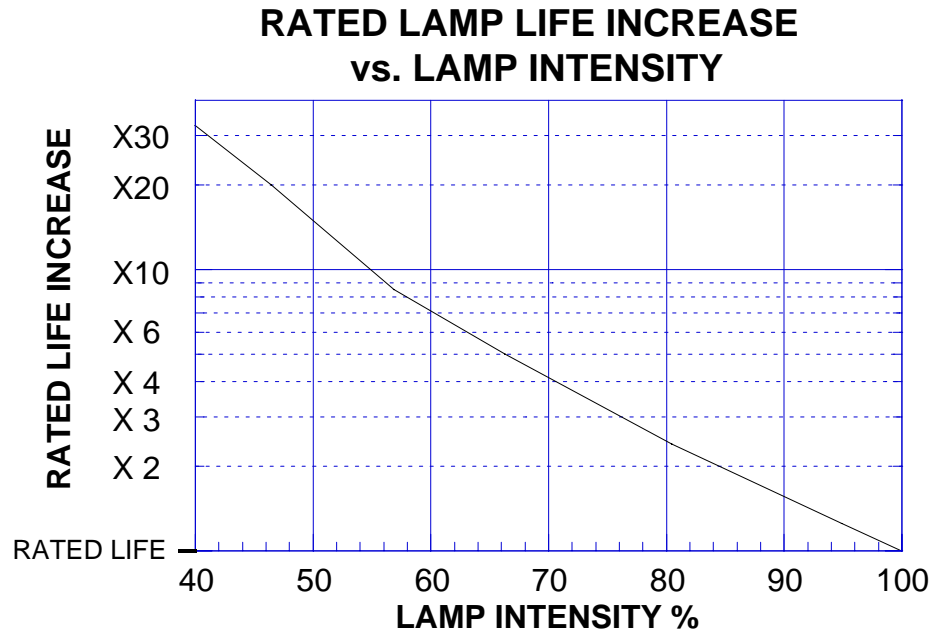
2.6.1 Lamp Stabilization

The output voltage of the power converter stabilizes immediately; however, it takes a cold lamp typically 25 minutes to stabilize within 1% or better. This stabilization period is only slightly affected by lamp voltage.



2.6.2 Lamp Life

For optimum and stable lamp performance, lamp manufacturers recommend halogen lamps be operated above 80% of their rated intensity.

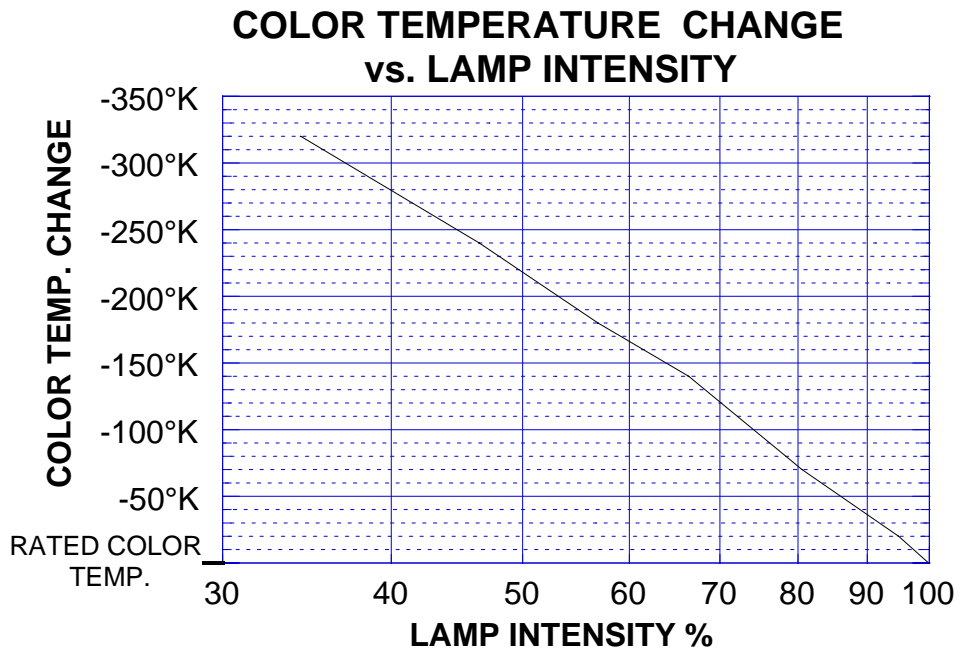


For intensity versus dial setting, see Section 3.0.

Nominal Rated Lamp Life at Rated Voltage

<u>Lamp Type</u>	<u>Life in Hours</u>
EJA	40
EKE	200
DDL	500

2.6.3 Lamp Color Temperature



For intensity versus dial setting, see Section 3.0.

Rated Color Temperature at Rated Lamp Voltage

<u>Lamp Type</u>	<u>Color Temperature</u>
EJA	3350° K
EKE	3250° K
DDL	3150° K

2.7 Cleaning

The steel housing and the “Lexan” front and back plates have a durable finish that should retain their original luster for many years to come. Cleaning the exposed areas with a commercial glass cleaner will help to maintain the finish.

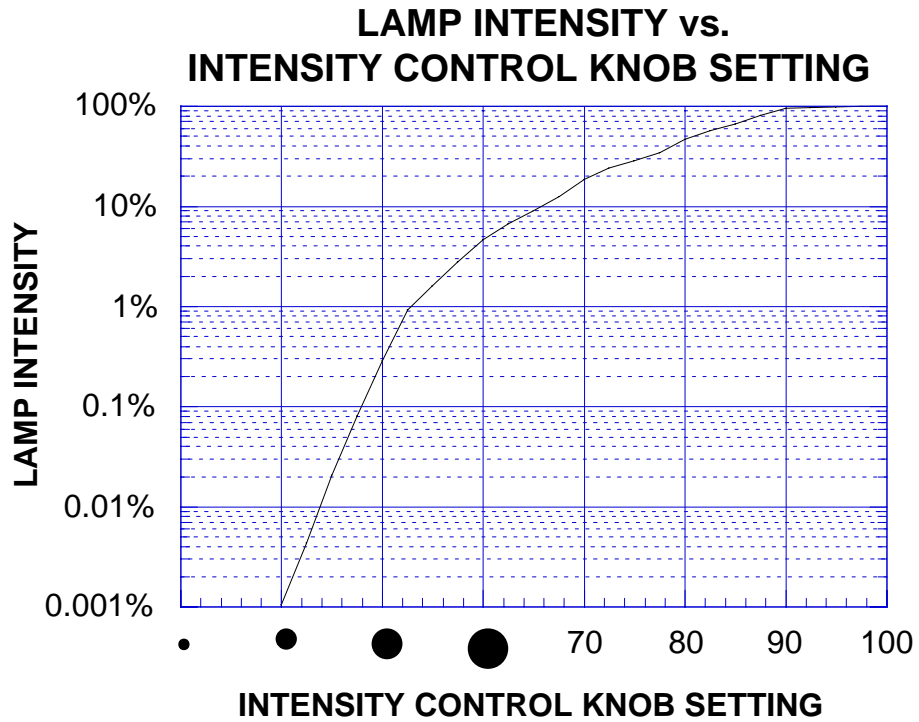
Press the power switch on the front of the unit to the “off” position. Remove the power cord from the IEC connector on the back of the unit. Wipe the exposed areas of the housing and front and back plates with a soft cloth or paper towel moistened with any commercial glass cleaner.

CAUTION: Do not use detergents, excess water, treated cloths, harsh cleaning agents or sprays. Use cleaning fluid sparingly. If fluid is spilled into the interior, let the unit dry thoroughly before using.

Periodically, dust should be removed from the unit using a vacuum or commercially available cans of compressed air. Pay special attention to the fan blades at the rear of the unit, the air vents in the front and bottom of the unit and the “Modulamp” assembly.

3.0 Manual Intensity Control

The “**DCR III**” light source is equipped with an intensity control knob on the front panel which sets the regulated voltage to the lamp (less than 0.5 to 20.5 VDC).



NOTE: If the intensity control knob is turned to the **R (Remote)** position, lamp **intensity** control is switched to the rear 9-pin connector. Front panel intensity control will always override the remote intensity control.

4.0 Remote Operations

The front panel power switch must be in the “on” position to operate in the remote mode. The fan will run continuously. Located on the rear of the “DCR III” light source is a DB 9-pin female remote interface connector (**not** an RS232). The following remote operations are available.

4.1 Remote Lamp Intensity Control Using the Optional Hand Remote. Part Number A20601 (no battery required)

Remotely adjust lamp intensity through the 9-pin remote interface connector located on the back of the light source.

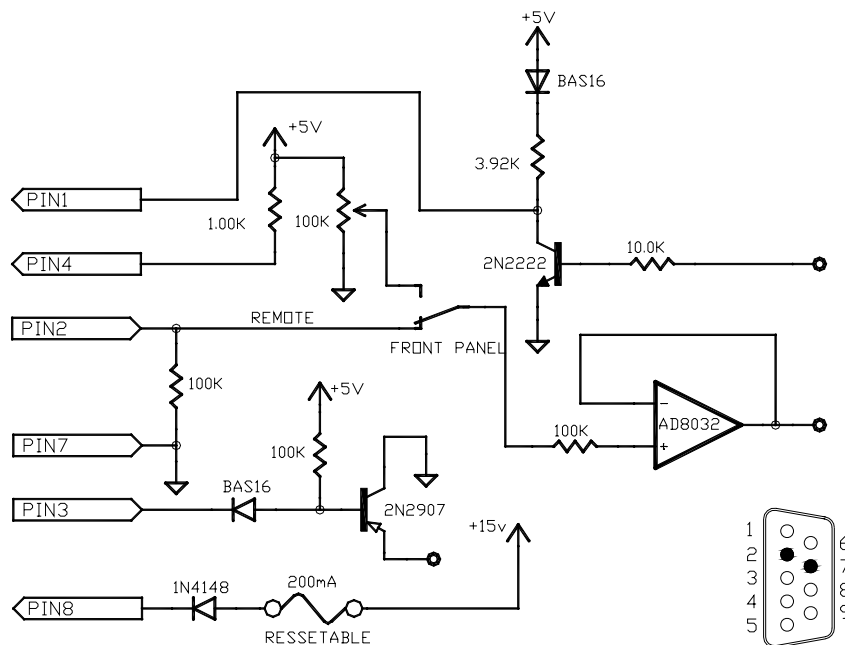
- Set the front panel intensity control knob to the **R (Remote)** position.
- Connect the unit to the 9-pin remote interface connector.

Note: SCHOTT remote, P/N A20601, is a 100kΩ potentiometer connected between pins 2 and 4. Specifically, the fixed end of the potentiometer is connected to pin 2 and the wiper of the potentiometer is connected to pin 4.

4.2 Remote Lamp Intensity Control Using an External DC Control Voltage

Remotely adjust lamp intensity through the panel 9-pin remote interface connector located on the rear back of the light source.

- Set the front panel intensity control knob to the **R (Remote)** position.
- Connect pin 2, referenced to pin 7 (ground), to a 0 to +5 VDC Source, (minimum to maximum intensity).



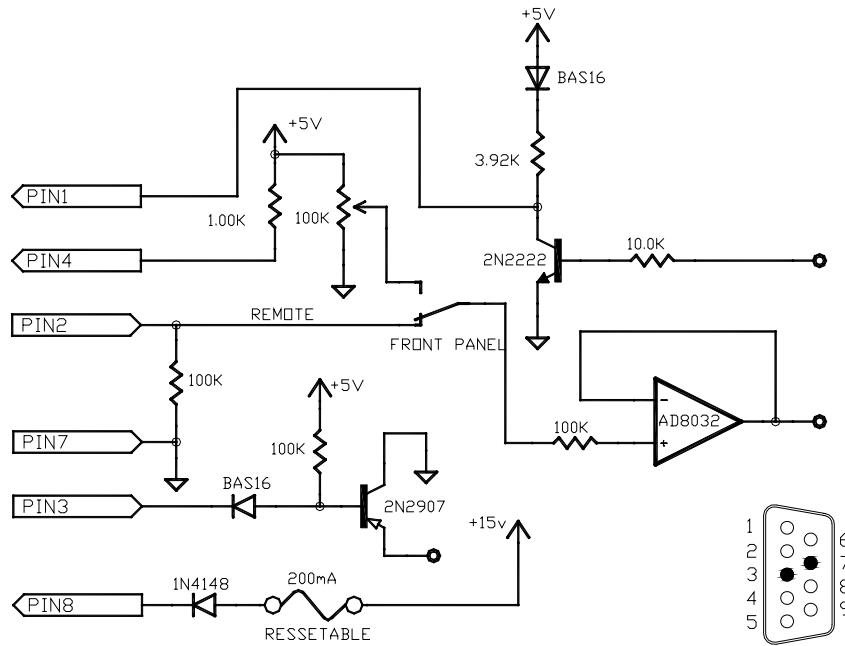
Remote Interface Internal Schematic
for Reference Only

Remote Interface Connector
Rear View

4.3 Remote Lamp Shutdown & Front Panel Lamp Intensity Control

Allows the user to turn the lamp completely off from a remote location. Intensity is set by the front panel intensity control knob. (See Section 3.0.)

- If switch or relay is used: connect to pin 3 and pin 7 (ground), (closed condition = off).
- If TTL or open collector interface is used: connect logic signal to pin 3, logic ground to pin 7, (logic 0 = off).



Remote Interface Internal Schematic
for Reference Only

Remote Interface Connector
Rear View

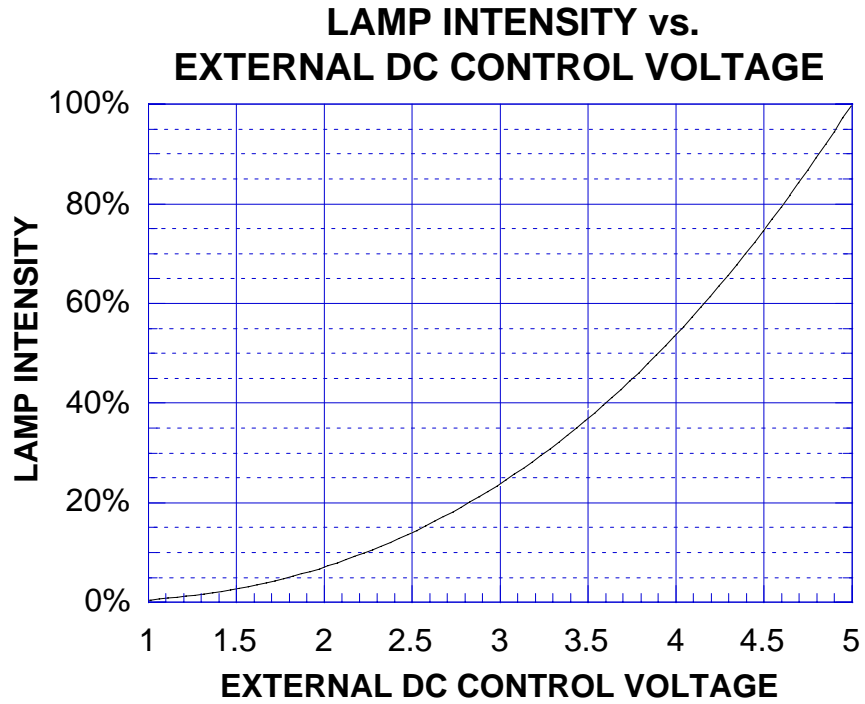
4.4 Remote Lamp Shutdown with Remote or Front Panel Lamp Intensity Control

Adds option 4.3 to option 4.2.

- Set the front panel intensity control knob to the **R** (Remote) position.
- For pin connections, see options 4.3 and 4.2

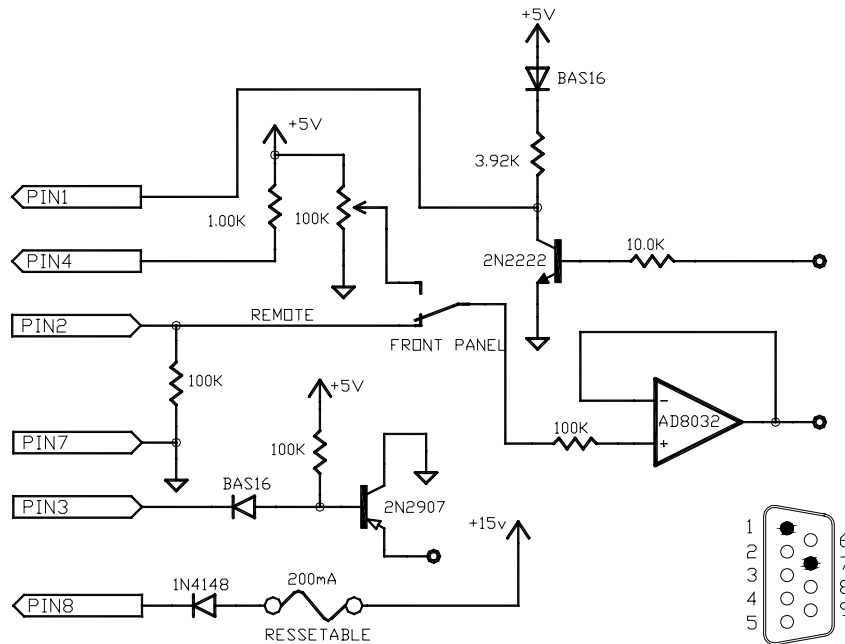
4.5 Lamp Intensity versus External DC Control Voltage

This graph applies to Remote Operations, Sections 4.2 and 4.4.



4.6 Lamp Change Indicator on Remote Interface Connector

Pin 1, referenced to pin 7 (ground), is an open-collector output which indicates major failure modes of the lamp. These major failure modes include: (A) there is not a minimum current through the lamp, (B) current limiting is active in the lamp control circuitry.

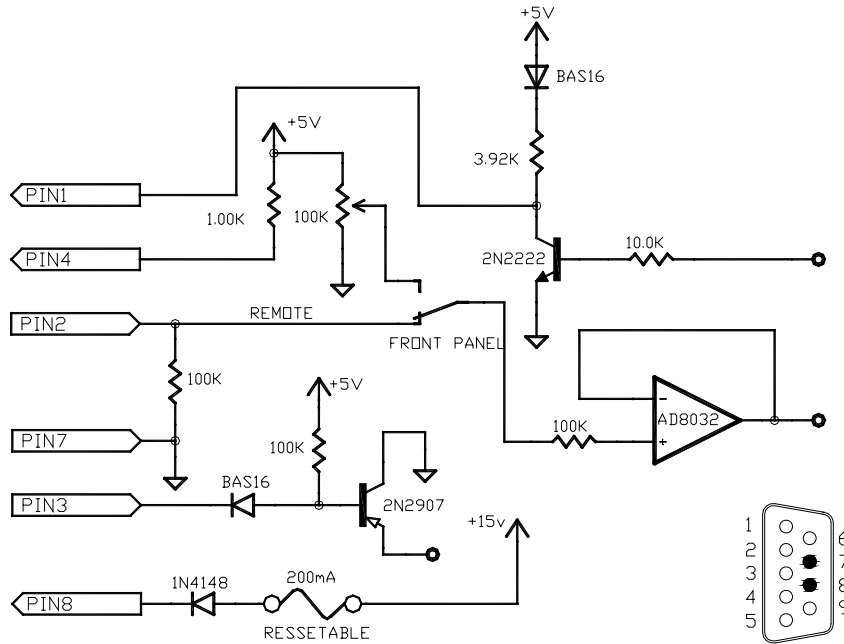


Remote Interface Internal Schematic
for Reference Only

Remote Interface Connector
Rear View

4.7 User's Supply Voltage on Remote Interface Connector

Pin 8, referenced to pin 7 (ground), is a +15v DC supply available for the user. This supply is intended for low power (< 1.5W) applications. There is a fuse in series with the output, which will automatically reset if tripped by over current draw.



Remote Interface Internal Schematic
for Reference Only

Remote Interface Connector
Rear View

5.0 “Modulamp” Assembly

5.1 “Modulamp” Assembly Removal

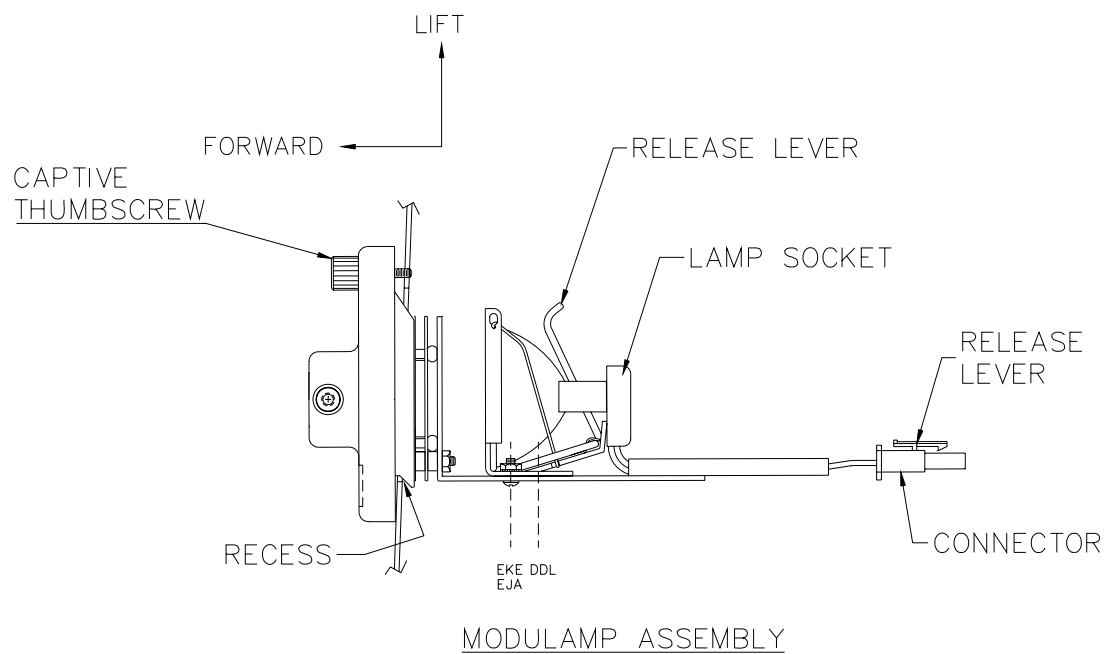
1. Turn the power switch to the “off” position.
2. Remove the fiber optic component.
3. Allow the lamp to cool.
4. Unscrew the “Modulamp” assembly captive thumbscrew until the head springs forward.

CAUTION: Lamp, lamp socket and surrounding surfaces may be hot!

5. Pull the top of the “Modulamp” assembly forward and lift the unit out of the recess.
6. Reach into the recess and depress the release lever on the connector.
7. Slide the connector apart and remove the “Modulamp” assembly.

5.2 “Modulamp” Assembly Installation

1. Make sure the power switch is in the “off” position.
2. Slide the connector into the mating receptacle until the release lever clicks into place.
3. Place the “Modulamp” assembly into the recess with the two bottom “ears” riding over the bottom edge of the recess first.
4. Slide the “Modulamp” assembly into place.
5. Depress the captive thumbscrew and tighten firmly.



5.3 “Modulamp” Assembly Options

5.3.1 “Modulamp” Assembly Change

The “Modulamp” concept allows a quick change of the lamp, lamp type or intensity control (iris) by simply exchanging “Modulamp” assemblies.

Modulamp Assembly	Part Number
Without Iris	A08301 EKE Position
	A08301.1 EJA Position
	A08301.2 DDL Position
With Iris	A08321 EKE Position
	A08321.1 EJA Position
	A08321.2 DDL Position

5.3.2 Lamp Type Change

Each “Modulamp” assembly can be adjusted to accommodate any of the three recommended lamps (EJA, EKE or DDL). Repositioning after changing the lamp type is very important. It will assure maximum intensity at the fiber optic input.

After removing the “Modulamp” assembly from the housing, note the two sets of pre-drilled holes provided in the “Modulamp” base. The set closest to the front of the “Modulamp” assembly provides the correct positioning for the EJA and EKE lamps. The set furthest from the front of the “Modulamp” assembly is positioned for the DDL lamp.

To move the lamp holder: remove the two screws holding the lamp holder to the “Modulamp” base, align the set of holes for the desired position, and screw the holder back into place.

6.0 Troubleshooting

If you are unsuccessful at resolving the following conditions, contact SCHOTT. See Section 7.3 for a **Return Materials Authorization (RMA)**. Do not attempt to repair the light source. Removing the cover will void the warranty.

Do not attempt to troubleshoot the light source with any remote control device connected. If the light source operates after removal of the remote connection, check your remote set-up.

Fan operates, but low light output.

1. Check the “CHANGE LAMP WHEN RED” indicator, if green, continue to step two, if red, continue to step three.
2. Check the lamp to ensure that it is fully seated. See Section 1.1.3.
3. Change the lamp.

Fan operates, but the light turns on and off. (The light source is running too hot.)

1. Check your installation against Section 2.3, Installation Guidelines.
2. Check air intakes and exhaust areas for dust or dirt accumulation. Clean per Section 2.6.

Fan operates, but the light turns briefly on and then off.

Fan operates, but no light.

1. Turn the intensity control knob to 100.
2. Change the lamp using the instructions in section 5.0.
3. Examine the lamp socket assembly for damage and continuity.

Fan does not operate, light is on.

1. Return to SCHOTT North America, Inc.

Fan nor lamp operates.

1. Make sure the power cord is inserted completely into the IEC connector and also into the correct power source.
2. Check the power cord for damage.
3. Check the fuse.

7.0 Appendix

7.1 Product Specifications

Physical Dimensions: Overall Height: 4.62" (177 mm)
Overall Width: 7.27" (185 mm)
Overall Depth: 8.61" (219 mm)
Unit Weight: 4.94 lbs. (2.24 kg)
Fiber Receptacle: 0.720" (18.3 mm) diameter

Lamp Types (tungsten halogen): 150 watt, 21 volt: EJA, EKE
150 watt, 20 volt: DDL

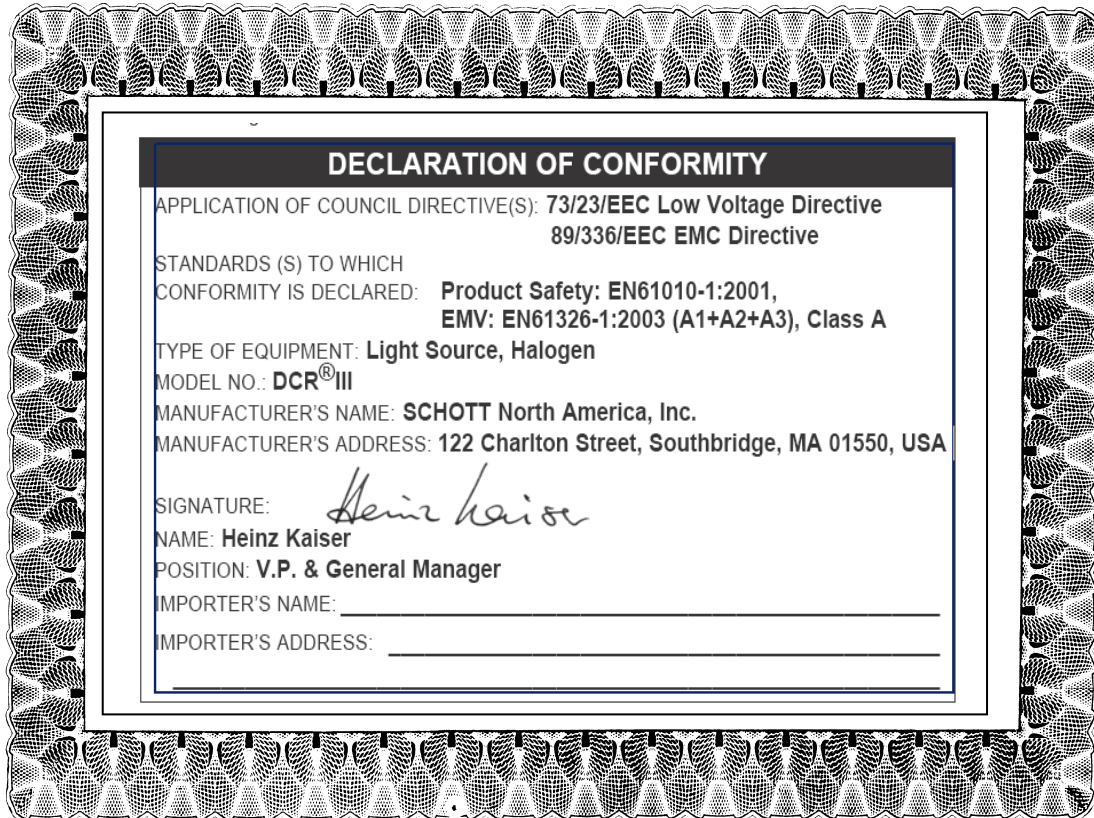
Please Note: SCHOTT Light Sources are designed to be used exclusively with Ushio or GE lamps. Light Source performance will not be guaranteed with any other manufacturer's lamps.

Environmental Conditions: Operating Temperature Range:
32 to 113° F, (0 to 45° C)
Storage Temperature Range:
-13 to 185° F, (-25 to 85° C)
Relative Humidity Range:
0 to 95%, Non-condensing

Electrical Specifications: Input Voltage: 90 – 264 VAC
Output Voltage: Less Than 0.5 – 20.5 VDC
Power Consumption: 224 VA Nominal

Vibration Tests: 3 orthogonal axes, 0.75g peak, 5 to 500 Hz, at 1 oct/min, 2 hrs each axis. 1.5g for 5 min dwell at 3 major component resonance's

CSA listed to **UL** (1571),
CE compliant (EN61326-1:1997/A1:1998 CLASS A,
EN61000-3-2:1995+A1:1998 + A2:1998,
IEC 950)



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.: DCR® III

Manufacturer's Name: Schott North America, Inc.

Manufacturer's Address: 122 Charlton Street, Southbridge, MA 01550-1960 USA

Signature:

Name: Heinz Kaiser

Position: V.P. & General Manager

Importer's Name:

Importer's Address:

Power Converter Specifications	
Rated Power Output	150 Watts
Output Voltage	0.0, 0.5 to 20.5 VDC
Input Voltage Rating, 50/60 Hz.	90 to 265 VAC
Power Factor Correction @ 230VAC, 50Hz	> 0.99 , < 4°
Hold-up Time, nominal AC input, full load	8.3 milliseconds
Line Regulation, over entire input range	+/- 0.5%
Output Current Limit Set Point	8.5 Amps
User Supply (unregulated)	15 VDC @ 100 mA
FCC & VDC - Class A EMI Filter	Yes

PLEASE BE ADVISED: IN ORDER TO COMPLY WITH EN61000 CLASS A EMISSION STANDARDS, THE ENCLOSED FERRITE CABLE CLAMP MUST BE INSTALLED ONTO THE POWER CORD. PLACE THE CABLE CLAMP OVER THE POWER CORD AS CLOSE AS POSSIBLE TO THE LIGHT SOURCE'S POWER INLET.

NOTE: Improvements may result in specification or feature changes without notice.

7.2 Replacement Parts List

The following replacement parts are available from SCHOTT to maintain and support your “**DCR III**” light source:

<u>Part Number</u>	<u>Description</u>
A08110	Lamp - EJA
A08120	Lamp - EKE
A08130	Lamp - DDL
A08126	Fuse 3 A (10) 250VAC
A29506	Lamp Socket , Assy
D08375.026	Decal, Trim Label
D08375.063	Scr, Assy, Thumb, Modulamp
H09050.008	Knob, Control, “DCR III”
H09050.045	Knob, Iris
H09063.002	Cord, Power, IEC, Shielded
D208000.028	Manual, “DCR III”, Technical Reference
D20800.040	EMI Cable Clamp

7.3 Support/Service/RMA Policy

Support: SCHOTT maintains a variety of support services to assist you:

Contact SCHOTT North America, Inc.:

Phone: **508-765-9744** Fax: **508-765-1299**

for immediate assistance from our Sales Associates or Sales Engineers.

Contact your local SCHOTT distributor from whom you made your purchase for an immediate response.

Be sure to have your part number and serial number available, as well as a complete description of the problem or situation for the quickest, most accurate assistance.

Service/RMA Policy

Any service required for any reason must be performed by SCHOTT or an authorized service representative. All service outside warranty will be performed upon the purchaser's request according to normal service charges in effect at the time.

To return any item, whether for warranty repair or chargeable servicing, an RMA number (Return Materials Authorization) must be obtained from SCHOTT. This number must be clearly visible on the shipping label. All shipping must be prepaid.

SCHOTT guarantees all warranty repairs will be completed within two weeks of receipt. All units will ship prepaid using our shipping method of choice. Alternate shipping methods will be shipped freight collect.

7.4 Warranty

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

If, within two (2) years from shipment date, any product and/or part thereof is determined by SCHOTT to be defective, we will repair or replace with new or reconditioned equipment (excluding lamp, lamp socket and fuses).

Warranty is void if:

- We determine the product has been subjected to neglect or misuse or has been installed following procedures not in accordance with our instruction manual.
- Unauthorized repairs or modifications have occurred.
- The warranty seal has been broken or the serial number label has been altered.

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 SCHOTT or our authorized representatives.

Liabilities

Any warranty implied under State Law shall be limited to one year from original delivery to original purchaser. Specifically excluded from SCHOTT 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 SCHOTT 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.

Lighting and Imaging
SCHOTT North America, Inc.
122 Charlton Street
Southbridge, MA 01550-1960
Phone: 508-765-9744
Fax: 508-765-1299
Email: lightingimaging@us.schott.com
Web: www.us.schott.com/lightingimaging

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