Lamps & Modulamp® Assemblies

**Lamp Features**
- 150 watt tungsten halogen bulbs.
- EJA, EKE and DDL types available.
- Use with ACE® series and DCR® series light sources.
- The correct lamp for your light source is specified on the label located on the front of the Modulamp® unit.
- More specifications are in the chart on the left and on the back side of this page.

**Modulamp® Assembly Features**
- Assures maximum light delivery to fiber optic components.
- Use with all ACE® series and DCR® series light sources.
- Full illumination on .60” (15 mm) active diameter input.
- Interchangeable Modulamp® units offer 2 lamp positions to maximize individual lamp efficiencies.
- Choice of three, 150 watt halogen lamps - EJA, EKE, DDL for intense, uniform illumination.
- IR interference filter for cool illumination.
- Iris version also available. See chart on left.
- 2-year warranty (excludes lamp and socket).
- In stock and ready to ship.
- Manufactured in the USA.

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**150 Watt Halogen Lamps**

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A08110</td>
<td>EJA</td>
<td>3350° K color temperature, 21 Volt. Most intense. Small spot size. Rated 40 hrs., 500 hrs. w/ a dimmer.*</td>
</tr>
<tr>
<td>A08120</td>
<td>EKE</td>
<td>3250° K color temperature, 21 Volt. High output for most applications. Rated 200 hrs., 2000 hrs. w/ a dimmer.*</td>
</tr>
<tr>
<td>A08130</td>
<td>DDL</td>
<td>3150° K color temperature, 20 Volt. Extremely uniform output. Rated 500 hrs., 5000 hrs. w/ a dimmer.*</td>
</tr>
</tbody>
</table>

* Voltage reduced to 80% of full intensity.

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**Modulamp® Assemblies**

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A08301</td>
<td>Lampholder for EKE Lamp</td>
<td></td>
</tr>
<tr>
<td>A08301.1</td>
<td>Lampholder for EJA Lamp</td>
<td></td>
</tr>
<tr>
<td>A08301.2</td>
<td>Lampholder for DDL Lamp</td>
<td></td>
</tr>
</tbody>
</table>

**Iris Diaphragm (without lamp)**

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A08321</td>
<td>Lampholder for EKE Lamp</td>
</tr>
<tr>
<td>A08321.1</td>
<td>Lampholder for EJA Lamp</td>
</tr>
<tr>
<td>A08321.2</td>
<td>Lampholder for DDL Lamp</td>
</tr>
</tbody>
</table>

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**Lamp Socket**

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A29506</td>
<td>Lamp Socket for ACE® series and DCR® series light sources.</td>
</tr>
</tbody>
</table>
Lamps and Modulamp® Assemblies

Dimensions in ( ) are in mm

A08110, A08120 & A08130 - Lamp Beam Patterns

Beam Patterns are Courtesy of GE

<table>
<thead>
<tr>
<th>Lamp Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bulb Type</td>
</tr>
<tr>
<td>EJA</td>
</tr>
<tr>
<td>EKE</td>
</tr>
<tr>
<td>DDL</td>
</tr>
</tbody>
</table>

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Shutter Module

For interrupting or altering light transmittance without turning the light source on and off.

Standard Features

- For use with DCR® series and ACE® series light sources.
- On/Off and momentary Off/On remote switch with a 6’ cable and a 24 VDC, 2.5 mm diameter input jack.
- Maximum speed is 2 cycles per second.
- Shutter blade is operated by a 24 volt, DC 225mA continuous solenoid.
- External power supply is required and offered as an option, part number A08396.
- Standard shutter blade is on/off configuration. Two other blade options can be used and should be specified when ordering. See chart on left for corresponding part numbers and drawing diagrams on back side of page for more details.
  A. Alternating illumination between two sections of fiber configurations in a dual assembly.
  B. Alternating colors. Filters are not included but can be purchased separately.
- Optional footswitch to activate shutter, part number A08394.
- Shutter module includes a complete Modulamp® assembly, but does not include the lamp, footswitch, or power supply. These items must be ordered separately.
- Manufactured in the USA.

<table>
<thead>
<tr>
<th>Shutter Module*</th>
<th>Part No.</th>
<th>Blade Option / Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Without Iris Diaphragm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A08390</td>
<td>Standard</td>
<td></td>
</tr>
<tr>
<td>A08390.1</td>
<td>A. Alternating illumination between two sections of special-order, dual configurations.</td>
<td></td>
</tr>
<tr>
<td>A08390.2</td>
<td>B. Alternating colors. Filters are not included but can be purchased separately.</td>
<td></td>
</tr>
<tr>
<td>With Iris Diaphragm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A08391</td>
<td>Standard</td>
<td></td>
</tr>
<tr>
<td>A08391.1</td>
<td>A. Alternating illumination between two sections of special-order, dual configurations.</td>
<td></td>
</tr>
<tr>
<td>A08391.2</td>
<td>B. Alternating colors. Filters are not included but can be purchased separately.</td>
<td></td>
</tr>
</tbody>
</table>

Accessory

| A08394          | Footswitch |

Power Supply

| A08396          | Power Supply, 24 VDC, 400 mA, 115 VAC Input Only |

* Lamp, Power Supply, and Footswitch are not included with Shutter Module.

Ordering Instructions

- Shutter Module with Light Source:
  - A08390* or A08391*
  - Power Supply of your choice:
    - A 20500.115 or A20510.230, DCR III A20801, DCR III Remote Kit A2085 or A20570.230, ACE Remote
  - Lamp of your choice

- Shutter Module Only:
  - A08390* without Iris Diaphragm or A08391* with Iris Diaphragm
  - Lamp of your choice

* If standard shutter blade is not required, indicate blade option A (A08390.1 / A08391.1) or B (A08390.2 / A08391.2)
Shutter Module

Dimensions in ( ) are in mm

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**Input Adapters**

For DCR® Series and ACE® Series Light Sources.

**SCHOTT** provides a series of adapter bushings which fit into the DCR® series and ACE® series light sources. The corresponding ferrule sizes they will accept, are shown below. The bushing attaches to the fiber bundle ferrule with a set screw. The bundle is then inserted into the light source receptacle. These adapters guarantee proper fiber bundle positioning in the focal plane of the lamp to receive the maximum light output.

*Dimensions in ( ) are in mm*

<table>
<thead>
<tr>
<th>PartNumber</th>
<th>Adapter</th>
<th>Ferrule</th>
</tr>
</thead>
<tbody>
<tr>
<td>A08001</td>
<td></td>
<td>Blank</td>
</tr>
<tr>
<td>A08002</td>
<td>0.315 (8.0)</td>
<td>0.570 (14.5)</td>
</tr>
<tr>
<td>A08003</td>
<td>0.278 (7.1)</td>
<td>0.4 (10.2)</td>
</tr>
<tr>
<td>A08004</td>
<td>0.190 (4.8)</td>
<td>0.31 (8.0)</td>
</tr>
<tr>
<td>A08005</td>
<td>0.175 (4.4)</td>
<td>0.266 (6.7)</td>
</tr>
<tr>
<td>A08006</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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02.03.01 REV E
## Input Adapters

*Dimensions in ( ) are in mm*

<table>
<thead>
<tr>
<th>PartNumber</th>
<th>Adapter</th>
<th>Ferrule</th>
</tr>
</thead>
<tbody>
<tr>
<td>A08007</td>
<td><img src="image" alt="Adapter A08007 Diagram" /></td>
<td><img src="image" alt="Ferrule A08007 Diagram" /></td>
</tr>
<tr>
<td>A08008</td>
<td><img src="image" alt="Adapter A08008 Diagram" /></td>
<td><img src="image" alt="Ferrule A08008 Diagram" /></td>
</tr>
<tr>
<td>A08009</td>
<td><img src="image" alt="Adapter A08009 Diagram" /></td>
<td><img src="image" alt="Ferrule A08009 Diagram" /></td>
</tr>
<tr>
<td>A08010</td>
<td><img src="image" alt="Adapter A08010 Diagram" /></td>
<td><img src="image" alt="Ferrule A08010 Diagram" /></td>
</tr>
<tr>
<td>A08011</td>
<td><img src="image" alt="Adapter A08011 Diagram" /></td>
<td><img src="image" alt="Ferrule A08011 Diagram" /></td>
</tr>
<tr>
<td>A08013</td>
<td><img src="image" alt="Adapter A08013 Diagram" /></td>
<td><img src="image" alt="Ferrule A08013 Diagram" /></td>
</tr>
</tbody>
</table>

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Dimmer Lock and Baffle

**Dimmer Lock**
- Designed to prevent accidental adjustment of light source dimmer during operation.
- For use with DCR® series and ACE® series light sources.
- Manufactured in the USA.

**Baffle**
- Blocks light emitting from the rear of the light source for people working at adjacent laboratory stations who could be disrupted by the light.
- For use with DCR® series and ACE® series light sources.
- Manufactured in the USA.

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A29502</td>
<td>Dimmer Lock</td>
</tr>
<tr>
<td>A29504</td>
<td>Baffle</td>
</tr>
</tbody>
</table>
Dimmer Lock and Baffle

Dimensions in ( ) are in mm

A29502 - Dimmer Lock

A29504 - Baffle
RS232 Interface

A modular approach to computer control.

Standard Features
- Can be used with any device requiring 0 to 5 volt control voltage input.
- Scaling feature can convert output to 0.0 to 2.5 volts.
- Permits full range intensity control.
- A single RS232 interface controls the intensity of up to three light sources. The intensity setting can vary for each.
- Lamp on/off feature is independent of intensity control. Manage on/off function of multiple light sources as one unit (DCR®II and DCR®III only).
- For maximized control from your computer, SCHOTT offers single, dual and triple RS232 cables (for DCR®III series light sources only). This gives the computer the added capability of reading lamp failure.
- User must supply standard cables when connected to DCR® and DCR®II series light sources.
- When used with SCHOTT’s RS232 cables, the interface can be powered from the 9-pin connector on the DCR®III light source, therefore a power supply is not required.
- RS232 single, dual, and triple cables are sold separately.
- Comes with LABVIEW® Driver, manuals, demo software and 5" Velcro® mounting strip.
- CE compliant.
- One year warranty.
- Manufactured in the USA.

### RS232 Interface

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A20650*</td>
<td>RS232 Interface with UL approved 120V wall transformer</td>
</tr>
<tr>
<td>A20660*</td>
<td>RS232 Interface without wall transformer</td>
</tr>
</tbody>
</table>

### RS232 Cables

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A20661</td>
<td>RS232 Single Cable with Plug</td>
</tr>
<tr>
<td>A20662</td>
<td>RS232 Dual Cable with Plug</td>
</tr>
<tr>
<td>A20663</td>
<td>RS232 Triple Cable with Plug</td>
</tr>
</tbody>
</table>

User supplies shielded DB-9 male/female connector and RS232 serial port to DB-25 Sub D type connector.
RS232 Interface

Dimensions in ( ) are in mm

- Three buffered 0 to 5 Volt analog outputs with 8 bit resolution and x-2 scaling bit.
- One open collector output.
- Four 0.0 to 5.0 Volt analog inputs* with 12 bit resolution. Three are individually wired to the analog outputs for read back capability. One is available for general use.
- For specific lightsource I/O listings, please refer to the lightsource user’s manual.

* DCR®II and DCR®III maintain stability regardless of intensity setting. DCR® may become unstable at voltage inputs less than 2 volts. Refer to RS232 User’s Manual or contact SCHOTT for more information.
DCR® III Remote Light Source Kit

Add to the features of the DCR® III by allowing remote operation of the lamp head for energy chain and robot arm applications.

Standard Features

- Lightweight design - perfect for robotic arm applications.
- Intrinsically rugged design. Simple components in light head allow for operation in potentially harmful environments, while DCR® III power supply remains at a safe distance.
- 10' shielded extension cord allows product to be used in dynamic applications where a fiber optic bundle may fail in time.
- Light source connection includes modulamp nose piece to maintain airflow in the DCR® III power supply.
- CSA approved to UL spec, CE compliant to low voltage and EMC directives.
- Quiet rear exhaust fan.
- Modulamp® not included.
- This product is not compatible with the DCR® or DCR® II light sources.
- Manufactured in the USA.

Universal Light Source

For applications where DC power is already available and the need for an economical light source exists.

Standard Features

- Many of the same functional features as the Remote Light Source Kit.
- Includes Modulamp®.
- Connectors are included.
- Power cable supplied by customer.
- CE compliant to low voltage directive.
- Will accept any MR-16 halogen lamp up to 150W/21V.
- Manufactured in the USA.

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A20850</td>
<td>DCR® III Remote Light Source Kit</td>
</tr>
<tr>
<td>A20855</td>
<td>Universal Light Source</td>
</tr>
</tbody>
</table>
DCR® III Remote Light Source Kit

Dimensions in ( ) are in mm

A20850

Universal Light Source

Dimensions in ( ) are in mm

A20855

Input: 0 – 21 VDC