Fiber Optic Illuminator

Model 21AC
Model 21DC

Warning


```
                    CAUTION
         RISK OF ELECTRIC SHOCK
              DO NOT OPEN

        INPUT: 180 Watts, MAX
LINE                    FUSE, 5 x 20 mm
O 99-121 VAC, 60Hz       3A Quick Acting
O 200-244 VAC, 50Hz      2A Quick Acting
O 90-254 VAC, 47-63Hz    3A Quick Acting
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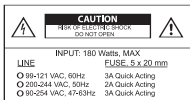
⚡ This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

⚠ This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions to the literature accompanying the appliance.

Important TÜV CE

This equipment has been tested and found to comply with IEC 61010-1 and UL3101-1 as an Overvoltage Category II: (local level, small appliances, portable equipment, etc. with smaller transient overvoltages than Overvoltage Category III.) Pollution II.

Caution

You are cautioned that any change or modifications not expressly approved in this manual could void your authority to operate this equipment.

Precautions

On Power Sources

• Before operating the product, check that the operating voltage is identical to your local power supply. See specific descriptions for operating voltages.

• This unit is not disconnected from the AC power source as long as it is connected to the wall outlet, even if the unit itself has been turned off.

• To disconnect the AC power cord, grasp the plug itself; never pull the cord.

• One blade of the plug is wider than the other for the purpose of safety and will fit into the wall outlet only one way. If you are unable to fully insert the plug into the outlet, contact Techniquip.

• AC power cord must be replaced with IEC compatible cord.

On Operation

• Before connecting to fiber optic components, be sure that all power connections are secure.

On Cleaning

• Clean the cabinet, panel and controls with a soft cloth slightly moistened with a mild detergent solution. Do not use any type of abrasive pad, scouring powder or solvent such as alcohol or benzine.

If you have any questions or problems concerning your product, please consult Techniquip.

For Customers in Canada
CAUTION
TO PREVENT ELECTRIC SHOCK, DO NOT USE THIS POLARIZED AC PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

Owners Record
The model and serial number are located on the bottom of the unit. Record the serial number in the space provided below. Refer to them whenever you call upon your Techniquip dealer regarding this product.

Model Number

_____

Serial Number

_____

Fiber Optic Illuminator

Model 21AC

MODEL 21AC

TECHNIQUIP   TECHNIQUIP

Unpacking - MODEL 21AC

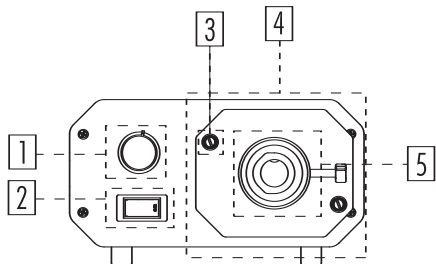Check that you received all items on the packing list.

Hookup Overview

The Model 21AC Illuminator allows you to connect and control a variety of fiber optic components. To learn the locations and names of important connections see "Illuminator Descriptions" beginning on this page below.

Before You Get Started

- Turn off the power to the Model 21AC Illuminator before making any connections.
- Do not connect the AC power cord to the local power supply until the connections are completed to the Model 21AC Illuminator.
- Be sure to make connections firmly.
- Be sure that the Model 21AC operating voltage matches the "local" power supply.
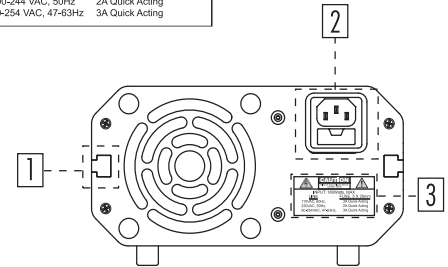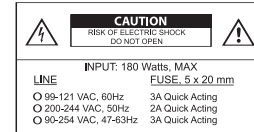
Illuminator Descriptions (Front Panel)

1. Variable intensity controller (0 to 100%).
2. On/Off rocker switch.
3. Front panel fasteners (2X)
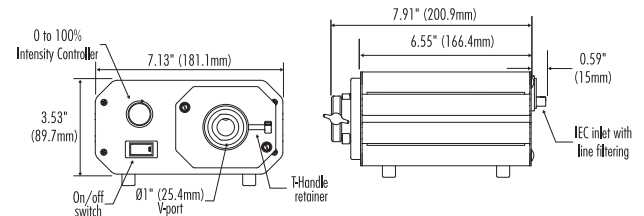4. Lamp module.
5. V-port with T-handle retainer

Illuminator Descriptions (Rear Panel)

1. T-slot mounting for #1/4 - 20 or M6 hexhead fastener; both sides (#10 - 32 or M5 barnut optional)
2. IEC inlet with line filtering (power cable input)
3. Operating voltage label:

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

INPUT: 180 Watts, MAX
LINE / FUSE, 5 x 20 mm
99-121 VAC, 60Hz   3A Quick Acting
200-244 VAC, 50Hz   2A Quick Acting
90-254 VAC, 47-63Hz 3A Quick Acting

Illuminator Descriptions (Rear Panel)

0 to 100% Intensity Controller
7.13" (181.1mm)
3.53" (89.7mm)
On/off switch
Ø1" (25.4mm) V-port
T-Handle retainer
7.91" (200.9mm)
6.55" (166.4mm)
0.59" (15mm)
IEC inlet with line filtering

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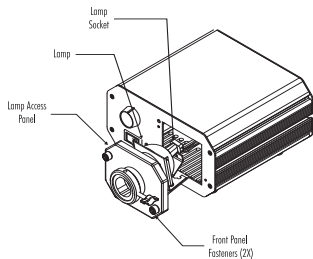## Lamp Replacement Instructions

1. To replace the lamp, shut off the power and remove the power cord from the AC outlet. To disconnect the AC power cord, grasp the plug itself; never pull the cord.

2. Located on the lamp access panel, manually loosen the front panel fasteners.

3. With front panel released, remove the lamp module from the unit.
   Use caution; fan blades are accessible while lamp module is removed.

4. Allow sufficient time for the unit to cool. **CAUTION: Lamp and surfaces may be extremely hot!**

5. Remove the lamp from the socket and place in a safe area.

6. Insert the replacement lamp into the socket; pressing firmly to ensure that pins are fully seated.

7. Close the access panel.

8. Secure the lamp access panel by manually tightening the front panel fasteners.

Lamp Socket

Lamp

Lamp Access Panel

Front Panel Fasteners (2X)

On Safety

Should any solid object or liquid fall into the assembly while access panel is open, have it checked by qualified personnel before operating.

Specifications

Environmental
Intended for indoor use only
Operating temperature: -4 to 104°F (-20° to 40°C)
Humidity range: 0 to 80%; non-condensing
Pollution degree: 2

Electrical TÜV CE (all units)
Operating frequency: 60 Hz (110 VAC) or 50 Hz (220VAC)
Power consumption: 180 watts at full light intensity
Power requirements: 110 VAC; 60 Hz
220 VAC; 50 Hz
Lamp adjustment range: 0 to 100%
Color temperature: 3200K at maximum intensity
(assuming standard EKE lamp)
Lamp life: 250 to 10,000 hours

Physical
Mass (approx.): 4.5lbs. (2.04kgs)
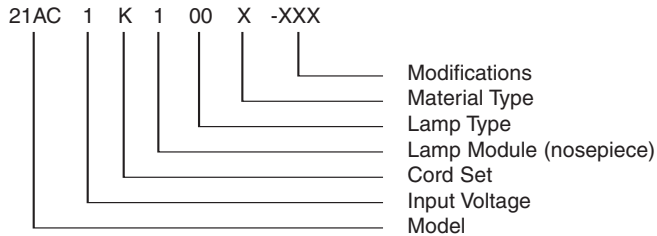
Replacement Parts

Lamp Replacement
Lamp Type: 150W EKE, 3250K (#20094145)*
150W EKE-HC, 4200K (#20094142)
150W EJV, 3400K (20094143)
* Standard lamp type provided with illuminator.

Fuse Replacement
Fuse Type: 3.15A 250V, 5x20mm (#02610014)

TECHNIQUIP   TECHNIQUIP

Fiber Optic Illuminator

Model 21DC

Model 21AC Matrix

21AC   1   K   1   00   X   -XXX

- Modifications
- Material Type
- Lamp Type
- Lamp Module (nosepiece)
- Cord Set
- Input Voltage
- Model

Model: 21AC   Model 21AC

Input Voltage: 1   110 VAC; 60 Hz
                     2   220 VAC; 50 Hz

Cord Set: A   Euro/Shuko   H Israel
                     C   Australia   I   Italy
                     D   United Kingdom   K North America
                     E   Denmark   L Switzerland
                     F   France/Belgium   R Russia
                     G   India   X No Plug

Lamp Module: 1   Ø1.0" (25.4mm) thru
                     2   Ø0.625" (15.88mm) V-port

Lamp Type: 00   EKE, 3250K (standard)
                     01   EKE-HC, 4200K (high color temperature)
                     02   EJV, 3200K (high output)

Material Type: X   Standard material finish

Modifications: To Be Determined (consult factory)

MODEL 21DC

Unpacking - MODEL 21DC

Check that you received all items on the packing list.

Hookup Overview

The Model 21DC Illuminator allows you to connect and control a variety of fiber optic components. To learn the locations and names of important connections see "Illuminator Descriptions" beginning on this page below.

Before You Get Started

- Turn off the power to the Model 21DC Illuminator before making any connections.
- Do not connect the AC power cord to the local power supply until the connections are completed to the Model 21DC Illuminator.
- Be sure to make connections firmly.
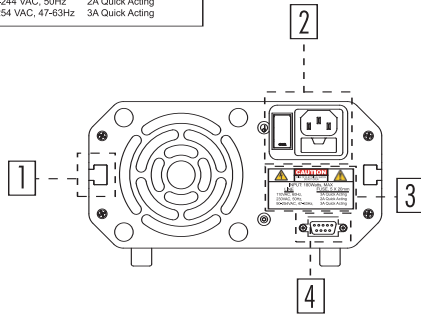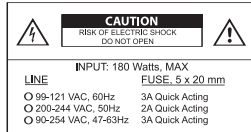- Be sure that the Model 21DC operating voltage matches the "local" power supply.

Illuminator Descriptions (Front Panel)

1. Variable intensity control knob (0 to 100%).
2. Power and lamp life indicators
3. Front panel fasteners (2X)
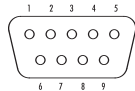4. Lamp module.
5. V-port with T-handle retainer
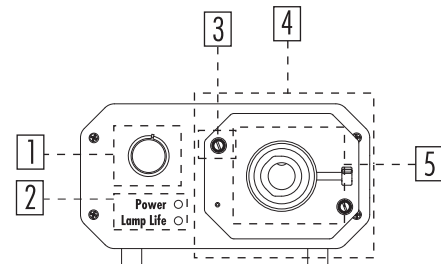
TECHNIQUIP

TECHNIQUIP

Illuminator Descriptions (Rear Panel)

1. T-slot mounting for #1/4 - 20 or M6 hexhead fastener; both sides (#10 - 32 or M5 barnut optional)
2. IEC inlet with line filtering (power cable input)
3. Operating voltage label:

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

INPUT: 180 Watts, MAX

LINE	FUSE, 5 x 20 mm
○ 99-121 VAC, 60Hz	3A Quick Acting
○ 200-244 VAC, 50Hz	2A Quick Acting
○ 90-254 VAC, 47-63Hz	3A Quick Acting

4. DB-9 connector for remote operation

1 = Internal 1mA, 5VDC output

2 = Secondary common (same as 7)
3 = Lamp intensity control
4 = Ties to common to engage supply programming
5 = No connection

6 = External shut off/interlock (external 5VDC/10mA will shut off lamp)
7 = Secondary common (same as 2)
8 = Chassis ground
9 = Lamp error signal

Intensity Control

- Pin 4 activates remote operation when tied to common (pin 2 or 7). Note: Front panel control is disengaged during remote operation.
- Intensity level is controlled by Pin 3 by supplying a 0-5DC signal
- The internal voltage from Pin 1 may be used in conjunction with a remote potentiometer to vary intensity through Pin 3.
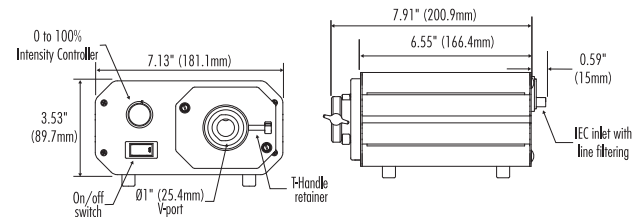
Remote On/Off

- Unit power, including the lamp, is controlled by Pin 6.
- An external isolated signal (5VDC, 10mA) will shut off power to the lamp. Power is restored to the lamp by removing the 5VDC signal from Pin 6 (open).
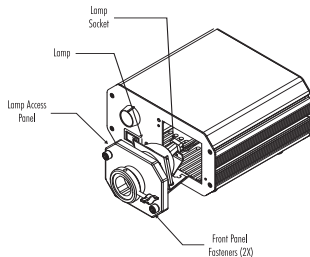
Lamp Error Signal

- Pin 9 is the lamp error signal output. If Pin 9 is at 5V, the lamp is okay. If Pin 9 is at 0V, the halogen lamp will burn out in the near future, or it is burnt out, or there is no lamp in the lamp module. Pin 9 is at 5V when the Lamp Life indicator is unlit. Pin 9 is 0V when the Lamp Life LED indicator is lit.

Illuminator Installation and Mechanical Dimensions

Lamp Replacement Instructions

1. To replace the lamp, shut off the power and remove the power cord from the AC outlet. To disconnect the AC power cord, grasp the plug itself; never pull the cord.

2. Located on the lamp access panel, manually loosen the front panel fasteners.

3. With front panel released, remove the lamp module from the unit.
   Use caution; fan blades are accessible while lamp module is removed.

4. Allow sufficient time for the unit to cool. ⚠ **CAUTION: Lamp and surfaces may be extremely hot!**

5. Remove the lamp from the socket and place in a safe area.

6. Insert the replacement lamp into the socket; pressing firmly to ensure that pins are fully seated.

7. Close the access panel.

8. Secure the lamp access panel by manually tightening the front panel fasteners.

Lamp Socket
Lamp
Lamp Access Panel
Front Panel Fasteners (2X)

On Safety

Should any solid object or liquid fall into the assembly while access panel is open, have it checked by qualified personnel before operating.

Specifications

Environmental
Intended for indoor use only
Operating temperature: -4 to 104°F (-20° to 40°C)
Humidity range: 0 to 80%; non-condensing
Pollution degree: 2

Electrical
Power consumption: 180W (Power factor corrected for CE)
Power requirements: 90-254 VAC; 47-63 Hz
Lamp adjustment range: 0 to 100%
Color temperature: 3200K at maximum intensity
                         (assuming standard EKE lamp)
Lamp life: 250 to 10,000 hours
Agency approvals   UL 1950, CSA, CE, TUV & FCC
                         (Pending)

Physical
Mass (approx.):   4.5lbs. (2.04kgs)

Replacement Parts

Lamp Replacement
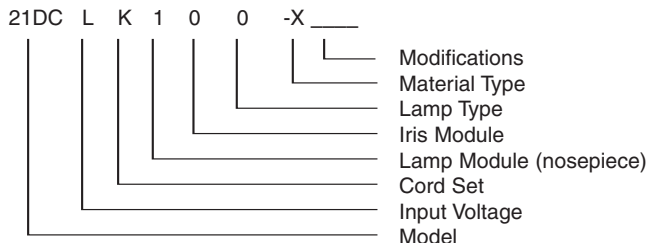Lamp Type: 150W EKE, 3250K (#20094145)*
                         150W EKE-HC, 4200K (#20094142)
                         150W EJV, 3400K (20094143)
* Standard lamp type provided with illuminator.

Fuse Replacement
Fuse Type: 3.15A 250V, 5x20mm (#02610014)

TECHNIQUIP

TECHNIQUIP

Model 21DC Matrix

21DC   L   K   1   0   0   -X ____

                                   Modifications
                                   Material Type
Lamp Type
Iris Module
Lamp Module (nosepiece)
Cord Set
Input Voltage
Model

Model: 21DC Model 21DC
Note: All options are universal input (90-254VAC; 47-63Hz) and include 0-5V analog control capabilities.

Options:
U   Standard DC regulated operation
P   DCU w/PC interface (RS232)
S   DCU w/optical loop feedback, no PC interface
L   DCU w/optical loop feedback <u>and</u> PC interface

Cord Set:
A   Euro/Shuko   K   North America
C   Australia   L   Switzerland
D   United Kingdom   Z   North America
H   Israel   X   No Plug

Lamp Module:
1   Ø1.0" (25.4mm) thru
2   Ø0.625" (15.88mm) V-port
3   Ø1.0" (25.4mm) V-port for use with/IR & color filter
4   Ø1.0" (25.4mm) V-port w/2 Hz shutter

Lamp Type:
0   EKE, 3250K (standard)
1   EKE-HC, 4200K (high color temperature)
2   EJV, 3200K (high output)

Material Type: X   Standard material finish

Modifications: To Be Determined (consult factory)

E:MAIL

Chuck Mathewson   blue@techniquip.com
George Grauer   gg@techniquip.com
Dave Wensley   dw@techniquip.com

PHONE

Toll Free   888-414-0789
International   1-925-251-9030

Fax

925-251-0704

MAILING

Street: 5653 Stoneridge Dr., Suite 101, Pleasanton CA 94588
Mailing: PO Box 3310, Danville, CA 94526

Warranty

TechniQuip warrants this product to be free from defect in material and workmanship for a period of 12 months following original purchase. This warranty excludes any product which may have been misused, neglected, damaged, or altered – including non-factory authorized repairs. TechniQuip's obligations under this warranty are limited to the repair, replacement, or reimbursement of the product only, and in no event is TechniQuip liable for any consequential or special damages, or any cost related to transportation, installation, or any other cost related to a warranted product.

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