

MICROSCAN®

NERLITE Configuration Guides

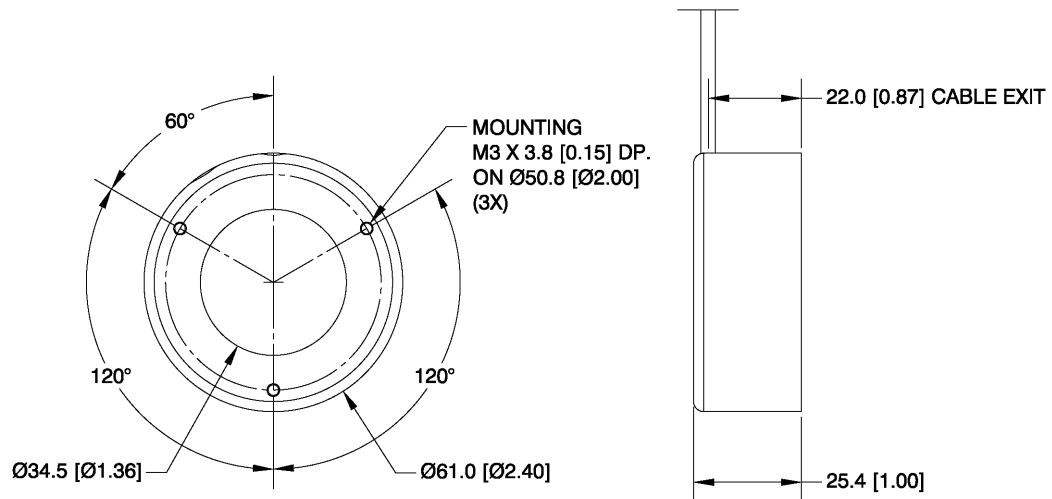


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HI-BRITE SERIES ILLUMINATORS

CONFIGURATION GUIDE



PART NUMBER	DESCRIPTION	Current Draw @ 24VDC (typ.)	Continuous Mode	Continuous Mode With Dimming Or On-Off Control	High Output Strobe Mode	Daisy Chain, All Modes
			No Controller Required (Can Be Connected Directly To 24VDC)	No Controller Required (Can Be Connected Directly To 24VDC)	No Controller Required (Can Be Connected Directly To 24VDC)	No Controller Required (Can Be Connected Directly To 24VDC)
NER-011660100G	HI-BRITE 45 Red 10 Degree	75mA	Figures A or E	Figure B	Figure C	Not Applicable
NER-011660101G	HI-BRITE 45 Red 50 Degree	75mA	Figures A or E	Figure B	Figure C	Not Applicable
NER-011660110G	HI-BRITE 45 White 10 Degree	75mA	Figures A or E	Figure B	Figure C	Not Applicable
NER-011660111G	HI-BRITE 45 White 50 Degree	75mA	Figures A or E	Figure B	Figure C	Not Applicable
NER-011660200G	HI-BRITE 100 Red 10 Degree	275mA	Figures A or E	Figure B	Figure C	Not Applicable
NER-011660201G	HI-BRITE 100 Red 50 Degree	275mA	Figures A or E	Figure B	Figure C	Not Applicable
NER-011660210G	HI-BRITE 100 White 10 Degree	275mA	Figures A or E	Figure B	Figure C	Not Applicable
NER-011660211G	HI-BRITE 100 White 50 Degree	275mA	Figures A or E	Figure B	Figure C	Not Applicable
NER-011660300G	HI-BRITE 300 Red 10 Degree	750mA	Figures A or E	Figure B	Figure C	Figure D
NER-011660301G	HI-BRITE 300 Red 50 Degree	750mA	Figures A or E	Figure B	Figure C	Figure D
NER-011660310G	HI-BRITE 300 White 10 Degree	750mA	Figures A or E	Figure B	Figure C	Figure D
NER-011660311G	HI-BRITE 300 White 50 Degree	750mA	Figures A or E	Figure B	Figure C	Figure D

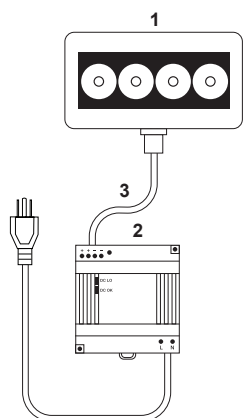


Figure A
HI-BRITE Series Illuminator
with power supply

Hardware Required

Item	Description	Part Number
1	HI-BRITE Lights	NER-011660XXXG
2	Power Supply DSP100 24VDC 4.2A DIN Mount	97-000006-01
2	Power Supply DSP60 24VDC 2.5A DIN Mount	NER-011504100
3	Cable, 5P M12 Female To Flying Leads, 3M	61-000186-01
3	Cable, 5P M12 Female To Flying Leads, 5M	61-000187-01
4	Cable, 5P M12 Male To 5P M12 Female, 1M	61-000184-01
4	Cable, 5P M12 Male To 5P M12 Female, 3M	61-000185-01
5	Cable, Power Smart Series to QX-1	61-000204-01

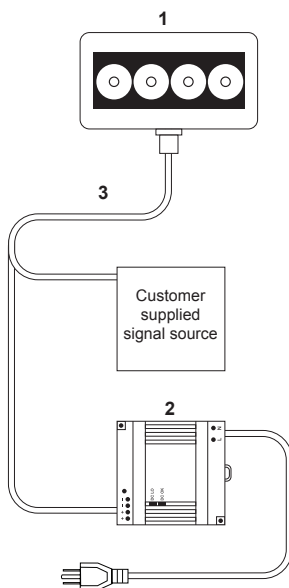


Figure B
HI-BRITE Series Illuminator
with customer supplied
dimming or on-off
signal source

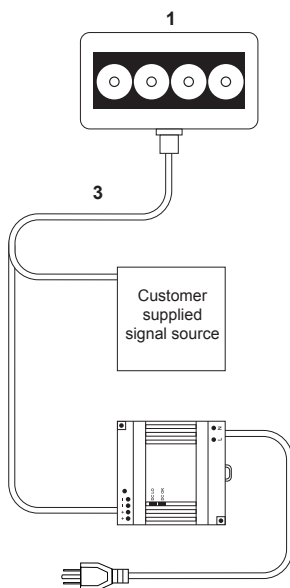


Figure C
HI-BRITE Series Illuminator
with customer supplied
strobe trigger signal source

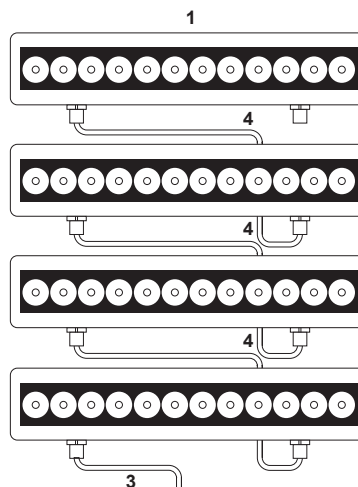


Figure D
HI-BRITE Series Illuminators in
a daisy chain configuration.
See figures A, B, or C for the
correct power supply and
signal connections for your
application.

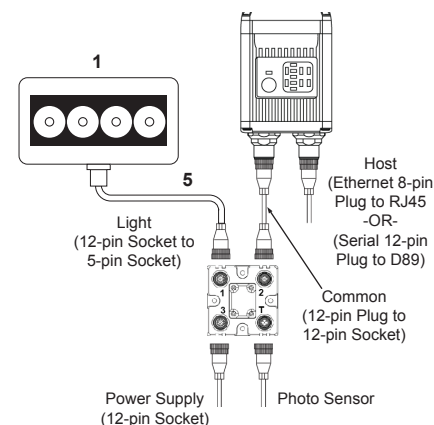


Figure E
HI-BRITE Series Illuminators
with QX-1 Interface Device.

Note: Figure E is not
Compatible with daisy
chaining. Powering more than
one HI-BRITE via the QX-1
will exceed the QX-1's
current capacity.

Accessories

Description	Part Number	Application
AC Power Cord US	NER-030028300	Power Cord For Power Supply
AC Power Cord EU	NER-030028400	Power Cord For Power Supply
AC Power Cord UK	NER-030028500	Power Cord For Power Supply

Connections:

Input Connector (M12 Male, 5 Circuit, A-Code)	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Backshell
Continuous Mode (Figures A & E):	+20.2-28.8VDC	DC GND	DC GND	+20.2-28.8VDC	No Connection	Shield
Continuous Mode With Dimming (Figure B):	+20.2-28.8VDC	DC GND	DC GND & DIM (-)	+20.2-28.8VDC	Dim (+)	Shield
Continuous Mode With On-Off Control (Figure B):	+20.2-28.8VDC	DC GND	DC GND & DIM (-)	+20.2-28.8VDC	Dim (+)	Shield
High Output Strobe Mode (Figure C):	+20.2-28.8VDC	TRIG (-)	DC GND	TRIG (+)	No Connection	Shield
Daisy Chain, All Modes, Hi-Brite 300 Only (Figure D):	<div>Note: The Output (Daisy Chain) Connector (M12 Female, 5 Circuit, A-Code) has an identical pin out to the Input Connector. The Output (Daisy Chain) Connector passes through any signal applied to the Input Connector. Do not attempt to connect more than a total of four lights in a daisy chain configuration. The 24VDC power supply's maximum current rating must be greater than or equal to the combined total current draw of all lights connected in the daisy chain.</div>					

SIGNALS

1 +24VDC

2 TRIG -

3 DC GND

4 TRIG +

5 DIM

M12 MALE INPUT

*M12 FEMALE OUTPUT

*APPLIES TO UNITS EQUIPPED WITH DAISY CHAIN, MULTIPLE LIGHT OPTION.

CONTINUOUS

CONTINUOUS DIM & ON/OFF

STROBE

Control Signals

DIM (Continuous Mode With PWM Dimming):

0VDC (LEDs off) to 3.1-3.5VDC (LEDs on) pulse width modulated (PWM) signal , <1mA, Modulation Frequency 2KHz +/- 100Hz

Note: When using Continuous Mode With Dimming, the LED duty cycle will equal the duty cycle of the dimming signal.

DIM (Continuous Mode With On-Off Control): 0VDC (LEDs off), 3.1-3.5VDC (LEDs on), (<1mA)

TRIG (High Output Strobe Mode):

optoisolated, 0VDC (LEDs off) to 3.1-28.8VDC (LEDs on), 10mA max, 20 µs min Trigger pulse width. Note: High Output Strobe internally limits LED frequency and pulse width to a maximum of 90Hz and 1ms respectively. Light output pulse will follow Trigger pulse width from 20 µs to 1ms.

Cable Specifications:

Wire colors for flying lead cables:

Pin 1 = Brown
Pin 2 = White
Pin 3 = Blue
Pin 4 = Black
Pin 5 = Gray
Connector Nut = Shield

Note: Non-Microscan cables may use different wire colors. It is the customer's responsibility to make sure the light is connected correctly per the pin numbers in the table above.

SMART SERIES RING LIGHT

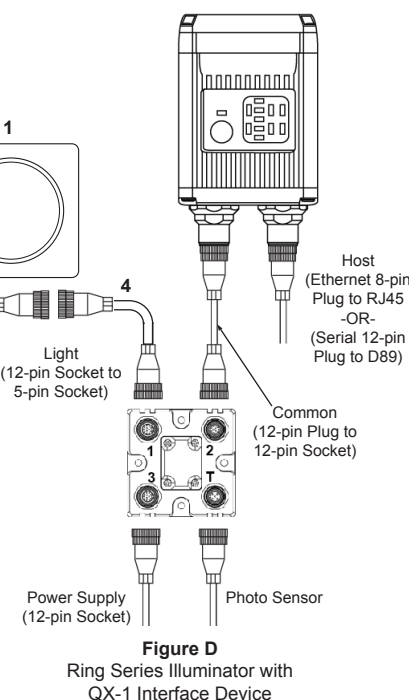
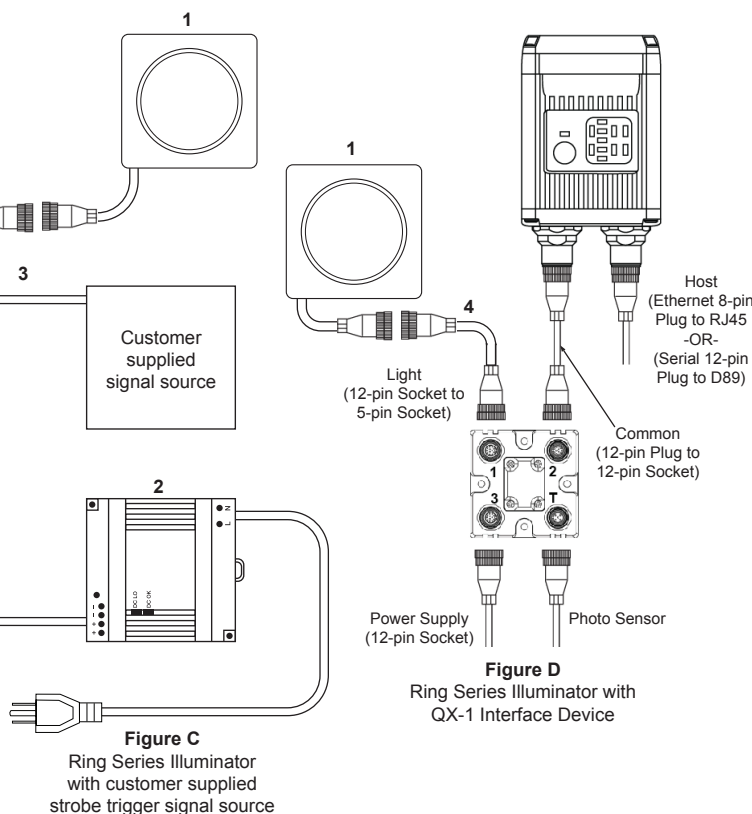
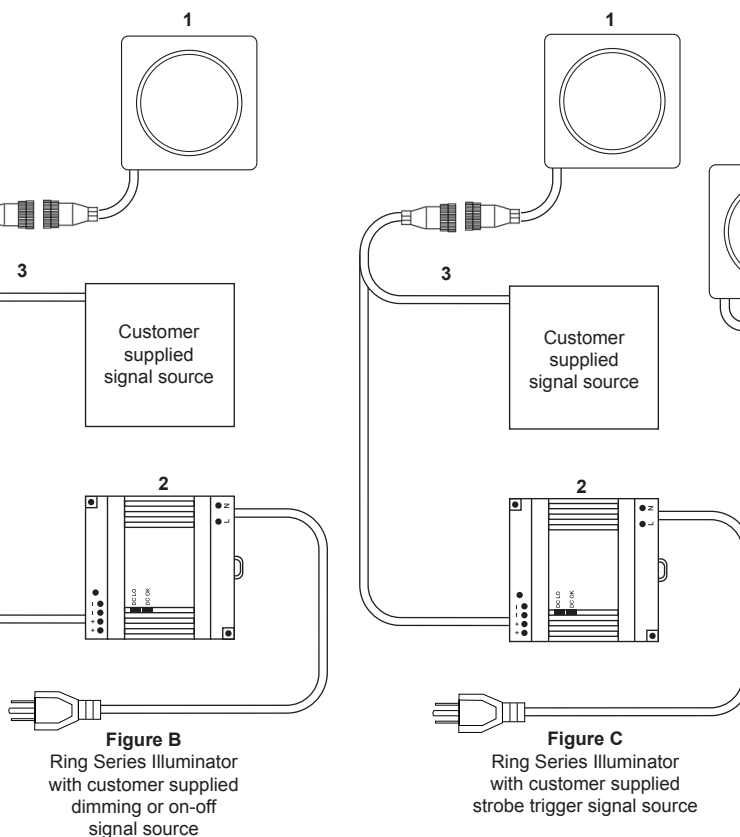
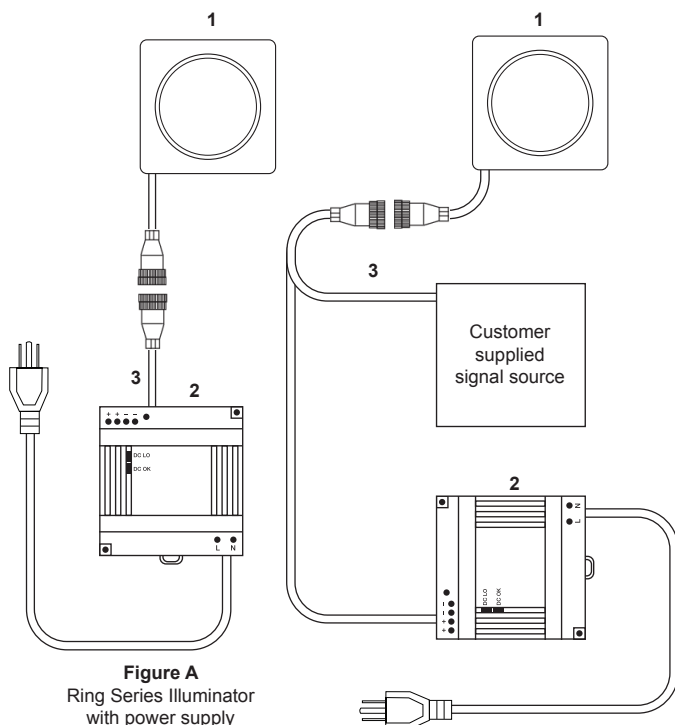
CONFIGURATION GUIDE



			Continuous Mode	Continuous Mode With Dimming Or On-Off Control	High Output Strobe Mode
PART NUMBER	DESCRIPTION	Current Draw @ 24VDC (max.)	No Controller Required (Can Be Connected Directly To 24VDC)	No Controller Required (Can Be Connected Directly To 24VDC)	No Controller Required (Can Be Connected Directly To 24VDC)
NER-011660800G	SMART SERIES R-60, RED	1.20A	Figure A or D	Figure B	Figure C
NER-011660810G	SMART SERIES R-60, WHITE	0.70A	Figure A or D	Figure B	Figure C
NER-011660820G	SMART SERIES R-60, BLUE	0.70A	Figure A or D	Figure B	Figure C
NER-011660830G	SMART SERIES R-60, INFRARED	1.00A	Figure A or D	Figure B	Figure C
NER-011660840G	SMART SERIES R-60, ULTRAVIOLET	0.23A	Figure A or D	Figure B	Figure C
NER-011660900G	SMART SERIES R-70, RED	1.20A	Figure A or D	Figure B	Figure C
NER-011660910G	SMART SERIES R-70, WHITE	0.85A	Figure A or D	Figure B	Figure C
NER-011660920G	SMART SERIES R-70, BLUE	0.85A	Figure A or D	Figure B	Figure C
NER-011660930G	SMART SERIES R-70, INFRARED	1.00A	Figure A or D	Figure B	Figure C
NER-011660940G	SMART SERIES R-70, ULTRAVIOLET	0.23A	Figure A or D	Figure B	Figure C
NER-011661100G	SMART SERIES R-100, RED	1.70A	Figure A or D	Figure B	Figure C
NER-011661110G	SMART SERIES R-100, WHITE	1.10A	Figure A or D	Figure B	Figure C
NER-011661120G	SMART SERIES R-100, BLUE	1.10A	Figure A or D	Figure B	Figure C
NER-011661130G	SMART SERIES R-100, INFRARED	1.30A	Figure A or D	Figure B	Figure C
NER-011661140G	SMART SERIES R-100, ULTRAVIOLET	0.39A	Figure A or D	Figure B	Figure C

Hardware Required

Item	Description	Part Number
1	Smart Series Ring Lights	NER-011660XXXG
2	Power Supply DSP60 24VDC 2.5A DIN Mount	NER-011504100
2	Power Supply DSP100 24VDC 4.2A DIN Mount	97-000006-01
3	Cable 5 Pin M12 Female To Flying Leads, 3M	61-000186-01
3	Cable 5 Pin M12 Female To Flying Leads, 5M	61-000187-01
4	Cable, Power Smart Series to QX-1	61-000204-01

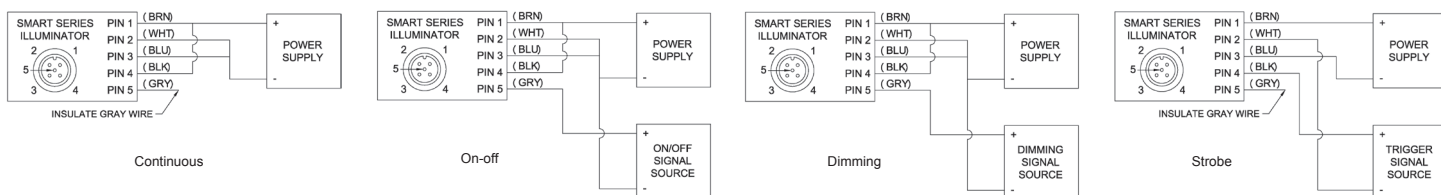


Accessories

Description	Part Number	Application
AC Power Cord US	NER-030028300	Power Cord For Power Supply
AC Power Cord EU	NER-030028400	Power Cord For Power Supply
AC Power Cord UK	NER-030028500	Power Cord For Power Supply

Connections:

Input Connector (M12 Male, 5 Circuit, A-Code)	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Backshell
Continuous Mode (Figure A & D):	+20.2-28.8VDC	DC GND	DC GND	+20.2-28.8VDC	No Connection	Shield
Continuous Mode With Dimming (Figure B):	+20.2-28.8VDC	DC GND	DC GND & DIM (-)	+20.2-28.8VDC	Dim (+)	Shield
Continuous Mode With On-Off Control (Figure B):	+20.2-28.8VDC	DC GND	DC GND & DIM (-)	+20.2-28.8VDC	Dim (+)	Shield
High Output Strobe Mode (Figure C):	+20.2-28.8VDC	TRIG (-)	DC GND	TRIG (+)	No Connection	Shield



Control Signals

DIM (Continuous Mode With PWM Dimming):

0VDC (LEDs off) to 3.1-3.5VDC (LEDs on) pulse width modulated (PWM) signal, <1mA, Modulation Frequency 2KHz +/- 100Hz

Note: When using Continuous Mode With Dimming, the LED duty cycle will equal the duty cycle of the dimming signal.

DIM (Continuous Mode With On-Off Control): 0VDC (LEDs off), 3.1-3.5VDC (LEDs on), (<1mA)

TRIG (High Output Strobe Mode):

optoisolated, 0VDC (LEDs off) to 3.1-28.8VDC (LEDs on), 10mA max, 20 μ s min Trigger pulse width. Note: High Output Strobe internally limits LED frequency and pulse width to a maximum of 90Hz and 1mS respectively. Light output pulse will follow Trigger pulse width from 20 μ s to 1ms.

Note: When using Continuous Mode With Dimming, the LED duty cycle will equal the duty cycle of the dimming signal.

Cable Specifications:

Wire colors for flying lead cables:

Pin 1 = Brown

Pin 2 = White

Pin 3 = Blue

Pin 4 = Black

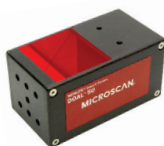
Pin 5 = Gray

Connector Nut = Shield

Note: Non-Microscan cables may use different wire colors. It is the customer's responsibility to make sure the light is connected correctly per the pin numbers in the table above.

SMART SERIES DOAL

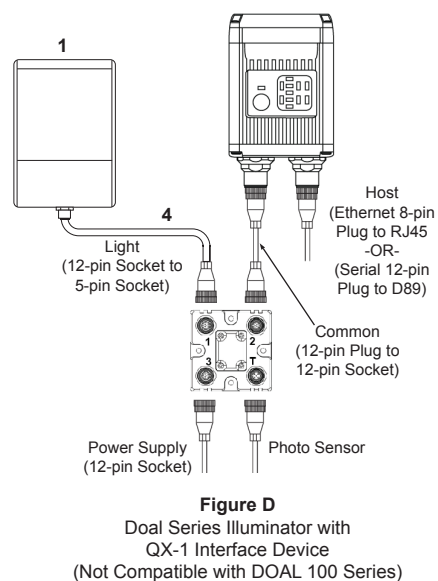
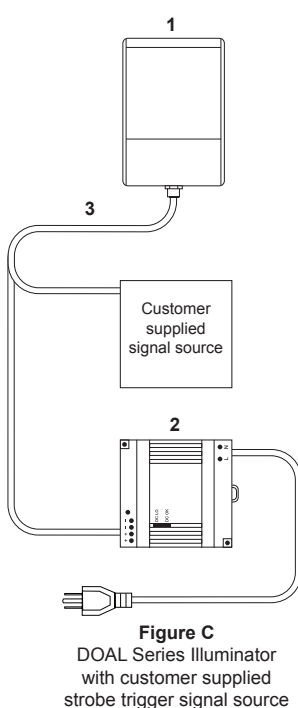
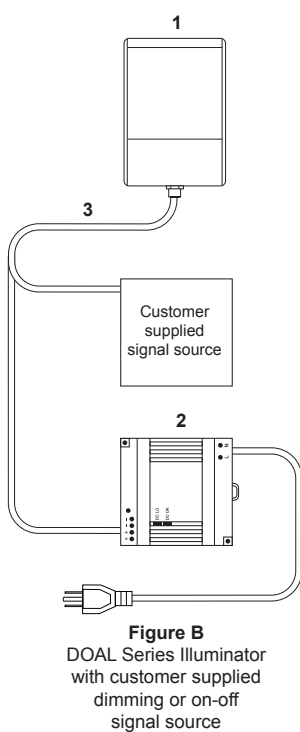
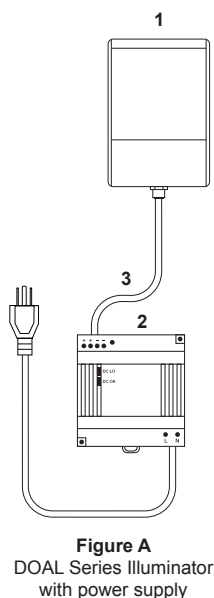
CONFIGURATION GUIDE



PART NUMBER	DESCRIPTION	Current Draw @ 24VDC (typ.)	Continuous Mode	Continuous Mode With Dimming Or On-Off Control	High Output Strobe Mode
			No Controller Required (Can Be Connected Directly To 24VDC)	No Controller Required (Can Be Connected Directly To 24VDC)	No Controller Required (Can Be Connected Directly To 24VDC)
NER-011660400G	SMART SERIES DOAL-25, RED	.40A	Figure A or D	Figure B	Figure C
NER-011660410G	SMART SERIES DOAL-25, WHITE	.20A	Figure A or D	Figure B	Figure C
NER-011660420G	SMART SERIES DOAL-25, BLUE	.20A	Figure A or D	Figure B	Figure C
NER-011660430G	SMART SERIES DOAL-25, INFRARED	.45A	Figure A or D	Figure B	Figure C
NER-011660500G	SMART SERIES DOAL-50, RED	1.3A	Figure A or D	Figure B	Figure C
NER-011660510G	SMART SERIES DOAL-50, WHITE	1.0A	Figure A or D	Figure B	Figure C
NER-011660520G	SMART SERIES DOAL-50, BLUE	1.0A	Figure A or D	Figure B	Figure C
NER-011660530G	SMART SERIES DOAL-50, INFRARED	1.7A	Figure A or D	Figure B	Figure C
NER-011660600G	SMART SERIES DOAL-75, RED	2.4A	Figure A or D	Figure B	Figure C
NER-011660610G	SMART SERIES DOAL-75, WHITE	1.5A	Figure A or D	Figure B	Figure C
NER-011660620G	SMART SERIES DOAL-75, BLUE	1.5A	Figure A or D	Figure B	Figure C
NER-011660630G	SMART SERIES DOAL-75, INFRARED	2.0A	Figure A or D	Figure B	Figure C
NER-011660700G	SMART SERIES DOAL-100, RED	3.6A	Figure A	Figure B	Figure C
NER-011660710G	SMART SERIES DOAL-100, WHITE	1.6A	Figure A	Figure B	Figure C
NER-011660720G	SMART SERIES DOAL-100, BLUE	1.6A	Figure A	Figure B	Figure C
NER-011660730G	SMART SERIES DOAL-100, INFRARED	2.3A	Figure A	Figure B	Figure C

Hardware Required

Item	Description	Part Number
1	Smart Series DOAL Lights	NER-011660XXXG
2	Power Supply DSP60 24VDC 2.5A DIN Mount	NER-011504100
2	Power Supply DSP100 24VDC 4.2A DIN Mount	97-000006-01
3	Cable 5 Pin M12 Female To Flying Leads, 3M	61-000186-01
3	Cable 5 Pin M12 Female To Flying Leads, 5M	61-000187-01
4	Cable, Power Smart Series to QX-1	61-000204-01

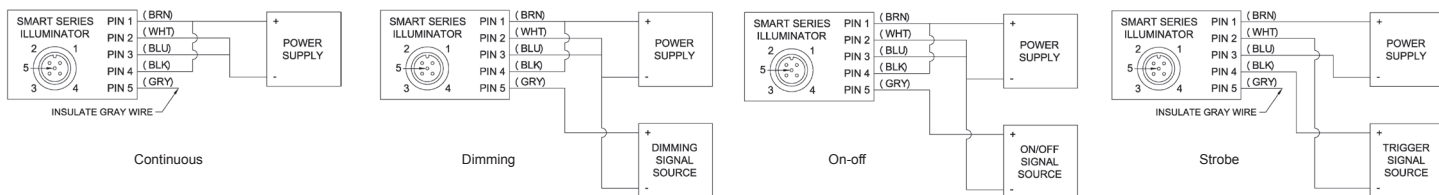


Accessories

Description	Part Number	Application
AC Power Cord US	NER-030028300	Power Cord For Power Supply
AC Power Cord EU	NER-030028400	Power Cord For Power Supply
AC Power Cord UK	NER-030028500	Power Cord For Power Supply

Connections:

Input Connector (M12 Male, 5 Circuit, A-Code)	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Backshell
Continuous Mode (Figures A & D):	+20.2-28.8VDC	DC GND	DC GND	+20.2-28.8VDC	No Connection	Shield
Continuous Mode With Dimming (Figure B):	+20.2-28.8VDC	DC GND	DC GND & DIM (-)	+20.2-28.8VDC	Dim (+)	Shield
Continuous Mode With On-Off Control (Figure B):	+20.2-28.8VDC	DC GND	DC GND & DIM (-)	+20.2-28.8VDC	Dim (+)	Shield
High Output Strobe Mode (Figure C):	+20.2-28.8VDC	TRIG (-)	DC GND	TRIG (+)	No Connection	Shield



Control Signals

DIM (Continuous Mode With PWM Dimming):

0VDC (LEDs off) to 3.1-3.5VDC (LEDs on) pulse width modulated (PWM) signal, <1mA, Modulation Frequency 2KHz +/- 100Hz

Note: When using Continuous Mode With Dimming, the LED duty cycle will equal the duty cycle of the dimming signal.

DIM (Continuous Mode With On-Off Control):

0VDC (LEDs off), 3.1-3.5VDC (LEDs on), (<1mA)

TRIG (High Output Strobe Mode):

optoisolated, 0VDC (LEDs off) to 3.1-28.8VDC (LEDs on), 10mA max, 20 μ s min Trigger pulse width. Note: High Output Strobe internally limits LED frequency and pulse width to a maximum of 90Hz and 1mS respectively. Light output pulse will follow Trigger pulse width from 20 μ s to 1ms.

Note: When using Continuous Mode With Dimming, the LED duty cycle will equal the duty cycle of the dimming signal.

Cable Specifications:

Wire colors for flying lead cables:

Pin 1 = Brown

Pin 2 = White

Pin 3 = Blue

Pin 4 = Black

Pin 5 = Gray

Connector Nut = Shield

Note: Non-Microscan cables may use different wire colors. It is the customer's responsibility to make sure the light is connected correctly per the pin numbers in the table above.

NERLITE AREA ARRAY SERIES ILLUMINATORS

CONFIGURATION GUIDE

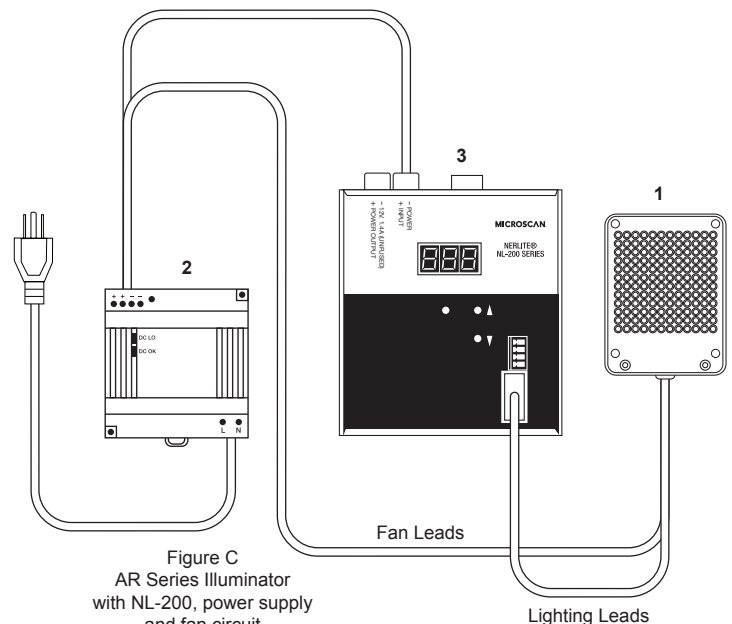
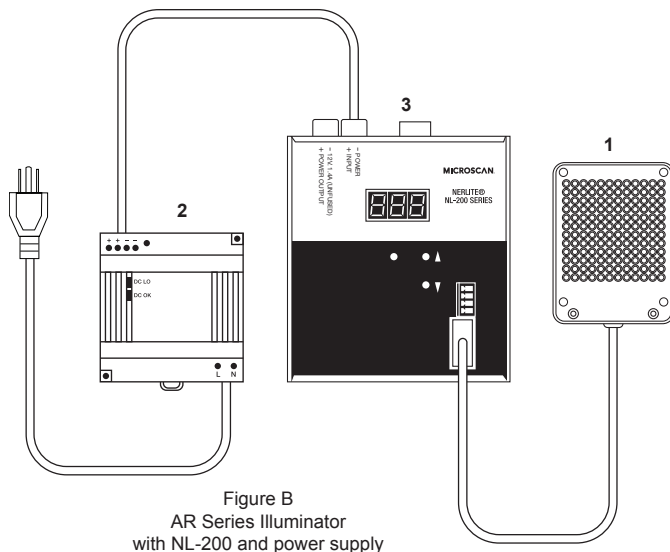
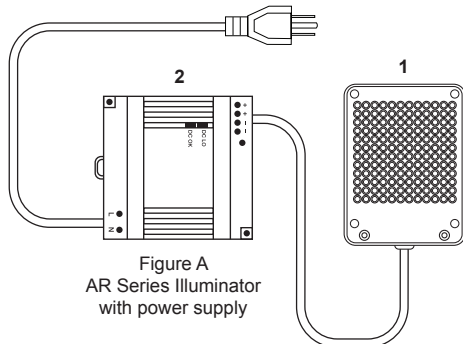


Part Number	Description	Continuous Current		Strobe Current		Fan Cooled	Continuous Operation			Strobe Operation	Connection Notes Reference Number (See the Connection Notes on back of page)
		Lighting	Fan	Lighting Channel 1	Lighting Channel 2		No Controller Required (Can be Connected Directly to 24VDC)	Controller Required (Select NL2XX Series Controllers)	NL-2XX Optional (Used only if Intensity And/Or Ethernet Control is Desired)		
NER-011652115	AR-50x50-HO, Red Continuous	160mA	NA	NA	NA		Figure A		Figure B	Figure B	1
NER-011652131	AR-50x50-HO, Red Strobe	NA	NA	3.20A	NA					Figure B	1
NER-011652114	AR-50x50-HO, White Continuous	204mA	NA	NA	NA		Figure A		Figure B	Figure B	1
NER-011652133	AR-50x50-HO, White Strobe	NA	NA	2.88A	NA					Figure B	1
NER-011652125	AR-50x50-HO, Blue Continuous	204mA	NA	NA	NA		Figure A		Figure B	Figure B	1
NER-011652135	AR-50x50-HO, Blue Strobe	NA	NA	2.88A	NA					Figure B	1
NER-011652143	AR-50x50-HO, Infrared Continuous	100mA	NA	NA	NA		Figure A		Figure B	Figure B	1
NER-011652144	AR-50x50-HO, Infrared Strobe	NA	NA	1.59A	NA					Figure B	1
NER-011652138	AR-50x50-HO Ultraviolet Continuous	176mA	NA	NA	NA		Figure A		Figure B	Figure B	1
NER-011652137	AR-50x50-HO Ultraviolet Strobe	NA	NA	510mA	NA					Figure B	1
NER-011903401	AR-75x75-HO, Red Continuous	420mA	NA	NA	NA		Figure A		Figure B	Figure B	1
NER-011652171	AR-75x75-HO, Red Strobe	NA	NA	4.80A	NA					Figure B	1
NER-011903502	AR-75x75-HO, White Continuous	369mA	NA	NA	NA		Figure A		Figure B	Figure B	1
NER-011652173	AR-75x75-HO, White Strobe	NA	NA	9.41A	NA					Figure B	1
NER-011903503	AR-75x75-HO, Blue Continuous	369mA	NA	NA	NA		Figure A		Figure B	Figure B	1
NER-011652175	AR-75x75-HO, Blue Strobe	NA	NA	9.41A	NA					Figure B	1
NER-011652182	AR-75x75-HO, Infrared Continuous	240mA	NA	NA	NA		Figure A		Figure B	Figure B	1
NER-011904006	AR-75x75-HO, Infrared Strobe	NA	NA	5.04A	NA					Figure B	1
NER-011652181	AR-75x75-HO Ultraviolet Continuous	250mA	NA	NA	NA		Figure A		Figure B	Figure B	1
NER-011652180	AR-75x75-HO Ultraviolet Strobe	NA	NA	1.49A	NA					Figure B	1
NER-011904101	AR-100x100-HO, Red Continuous	233mA	NA	NA	NA		Figure A		Figure B	Figure B	1
NER-011652226	AR-100x100-HO, Red Strobe	NA	NA	8.40A	NA					Figure B	1
NER-011904201	AR-100x100-HO, White Continuous	420mA	NA	NA	NA		Figure A		Figure B	Figure B	1
NER-011652228	AR-100x100-HO, White Strobe	NA	NA	8.62A	7.84A					Figure B	3
NER-011904301	AR-100x100-HO, Blue Continuous	420mA	NA	NA	NA		Figure A		Figure B	Figure B	1
NER-011652230	AR-100x100-HO, Blue Strobe	NA	NA	8.62A	7.84A					Figure B	3
NER-011652232	AR-100x100-HO, Infrared Continuous	218mA	NA	NA	NA		Figure A		Figure B	Figure B	1
NER-011904406	AR-100x100-HO, Infrared Strobe	NA	NA	5.04A	NA					Figure B	1
NER-011650005	AR-50x200-HO, Red Continuous	447mA	62mA	NA	NA	X	Figure A		Figure C	Figure B	2
NER-011650004	AR-50x200-HO, Red Strobe	NA	NA	8.80A	NA					Figure B	1
NER-011650012	AR-50x200-HO, White Continuous	862mA	62mA	NA	NA	X	Figure A		Figure C	Figure B	2
NER-011650013	AR-50x200-HO, White Strobe	NA	NA	8.62A	8.62A					Figure B	3

⚠ If using this product in strobe mode with an NL-2XX Series Lighting Controller, refer to the warning on the back of this document.

Hardware Required

Item	Description	Part Number
1	AR Series Illuminators	NER-011XXXXXX
2	Power Supply DSP60 24VDC 2.5A DIN Mount	NER-011504100
3	NL-200 Current Controller Series	98-000152-0X



Accessories

AC Power Cord US	NER-030028300	Power Cord For Power Supply
AC Power Cord EU	NER-030028400	Power Cord For Power Supply
AC Power Cord UK	NER-030028500	Power Cord For Power Supply

WARNING! When connecting a strobe light to an NL-2XX Series Lighting Controller, you must set the current rating to 10% of the current specified for the light in this document.

The NL-2XX Series Controller allows the operator to set the brightness (current) to 1000% in strobe mode. By setting the initial current rating to 10% of the light's specified current, a brightness setting of 1000% results in the light receiving 100% of its rated current. This will provide maximum light output without damaging the light.

Note: Certain lights require both channels of the NL-2XX Series Lighting Controller. Channel 1 and Channel 2 may have different current specifications on some models. Be sure each channel is set correctly as specified in this document.

General Notes:

1. Those lights that do not require a controller require 24VDC +/- 1%.
2. The NL-2XX series controllers require 24 to 48VDC.
3. The cable on all flying lead models is terminated with three, five, or seven leads. Each lead is labeled. See "Connection Notes" for connection instructions.
4. For all models with M12 connectors, the connector is a 4 pin, male, M12 connector. See "Connection Notes" or connector pin out and connection instructions.
5. All models with separate fan circuits must have 24VDC connected to the fan circuit at all times when the light is operating.
6. When operating in strobe mode at the maximum rated current, the maximum pulse width = 1mS and the maximum duty cycle = 6%. See the NL-2XX series controllers' manual for pulse width and duty cycle limitations under various conditions.

Connection Notes:

1. Connect the lead labeled "V+" to the positive(+) output terminal of the power supply or controller. Connect the lead labeled "GND" to the negative(-) output terminal of the power supply or controller. Connect the lead labeled "Shield" or "SHLD" to chassis ground.
2. Connect the lead labeled "V+" to the positive(+) output terminal of the power supply or controller. Connect the lead labeled "GND" to the negative(-) output terminal of the power supply or controller. Connect the lead labeled "Fan V+" to the positive(+) output terminal of a 24VDC power supply. Connect the lead labeled "Fan GND" to the negative(-) output terminal of a 24VDC power supply. Connect the lead labeled "Shield" to chassis ground.
3. Connect the lead labeled "V+1" to the positive(+) output terminal of channel 1 on an NL-2XX series controller. Connect the lead labeled "GND1" to the negative(-) output terminal of channel 1 on the NL-2XX series controller. Connect the lead labeled "V+2" to the positive(+) output terminal of channel 2 on the NL-2XX series controller. Connect the lead labeled "GND2" to the negative(-) output terminal of channel 2 on the NL-2XX series controller. Connect the lead labeled "Shield" to chassis ground.
4. Connect the lead labeled "+" to the positive(+) output terminal of the power supply or controller. Connect the lead labeled "-" to the negative(-) output terminal of the power supply or controller. Connect the cable's braided shield to chassis ground.
5. Connect the lead labeled "DOAL V+" to the positive(+) output terminal of channel 1 on an NL-2XX series controller. Connect the lead labeled "DOAL GND" to the negative(-) output terminal of channel 1 on the NL-2XX series controller. Connect the lead labeled "Ring V+" to the positive(+) output terminal of channel 2 on the NL-2XX series controller. Connect the lead labeled "Ring GND" to the negative(-) output terminal of channel 2 on the NL-2XX series controller. Connect the lead labeled "Fan V+" to the positive(+) output terminal of a 24VDC power supply. Connect the lead labeled "Fan GND" to the negative(-) output terminal of a 24VDC power supply. Connect the lead labeled "Shield" to chassis ground.
6. Connect the two leads labeled "RING 1, 2 V+" & "RING 3 V+" to the same positive(+) output terminal of the power supply or controller. Connect the two leads labeled "RING 1, 2 -" & "RING 3 -" to the same negative(-) output terminal of the power supply or controller. Connect the lead labeled "Shield" to chassis ground.
7. Connect Pin 1 of the M12-M connector to the positive(+) output terminal of the power supply or controller. Connect Pin 3 of the M12-M connector to the negative(-) output terminal of the power supply or controller. Connect the shell of the M12-M connector to chassis ground. Pins 2 and 4 are not used.

NERLITE LA50/LA100/LA150 SERIES ILLUMINATORS

CONFIGURATION GUIDE



Part Number	Description	Continuous Current	Strobe Current	Fan Cooled	Continuous Operation		Strobe Operation	Connection Notes Reference Number (See the Connection Notes on back of page)
					No Controller Required (Can be Connected Directly to 24VDC)	NL-2XX Optional (Used only if Intensity And/Or Ethernet Control Is Desired)	NL-2XX Required	
NER-011654195	LA-50-1 Red Continuous	23mA	NA		Figure A	Figure B		1
NER-011654120	LA-50-1 Red Strobe	NA	400mA				Figure B	1
NER-011654198	LA-50-1 White Continuous	40mA	NA		Figure A	Figure B		1
NER-011654150	LA-50-1 White Strobe	NA	784mA				Figure B	1
NER-011654170	LA-50-1 Blue Continuous	40mA	NA		Figure A	Figure B		1
NER-011654180	LA-50-1 Blue Strobe	NA	784mA				Figure B	1
NER-011654395	LA-100-1 Red Continuous	46mA	NA		Figure A	Figure B		1
NER-011654320	LA-100-1 Red Strobe	NA	800mA				Figure B	1
NER-011654340	LA-100-1 White Continuous	80mA	NA		Figure A	Figure B		1
NER-011654350	LA-100-1 White Strobe	NA	1.57A				Figure B	1
NER-011654370	LA-100-1 Blue Continuous	80mA	NA		Figure A	Figure B		1
NER-011654380	LA-100-1 Blue Strobe	NA	1.57A				Figure B	1
NER-011654593	LA-150-1 Red Continuous	69mA	NA		Figure A	Figure B		1
NER-011654520	LA-150-1 Red Strobe	NA	1.20A				Figure B	1
NER-011654540	LA-150-1 White Continuous	120mA	NA		Figure A	Figure B		1
NER-011654550	LA-150-1 White Strobe	NA	2.35A				Figure B	1
NER-011654570	LA-150-1 Blue Continuous	120mA	NA		Figure A	Figure B		1
NER-011654580	LA-150-1 Blue Strobe	NA	2.35A				Figure B	1

⚠ If using this product in strobe mode with an NL-2XX Series Lighting Controller, refer to the warning on the back of this document.

Hardware Required

Item	Description	Part Number
1	LA Series Illuminators	NER-011654XXX
2	Power Supply DSP60 24VDC 2.5A DIN Mount	NER-011504100
3	NL-200 Current Controller Series	98-000152-0X

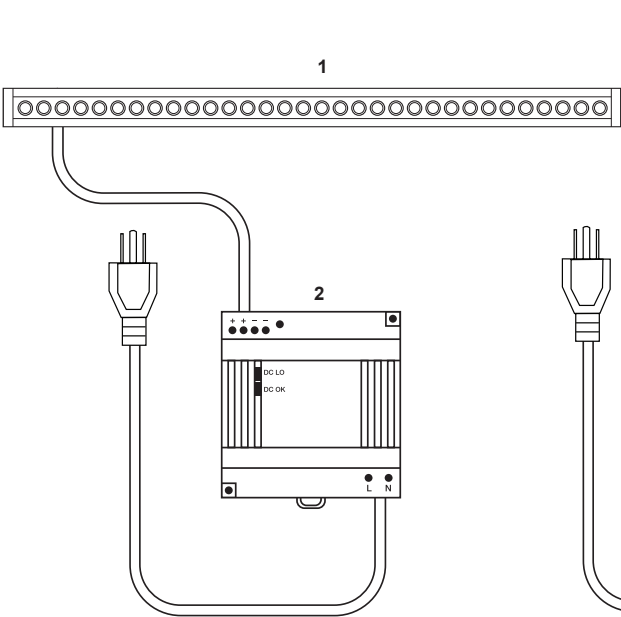


Figure A
LA50/LA100/LA150 Series Illuminator
with power supply

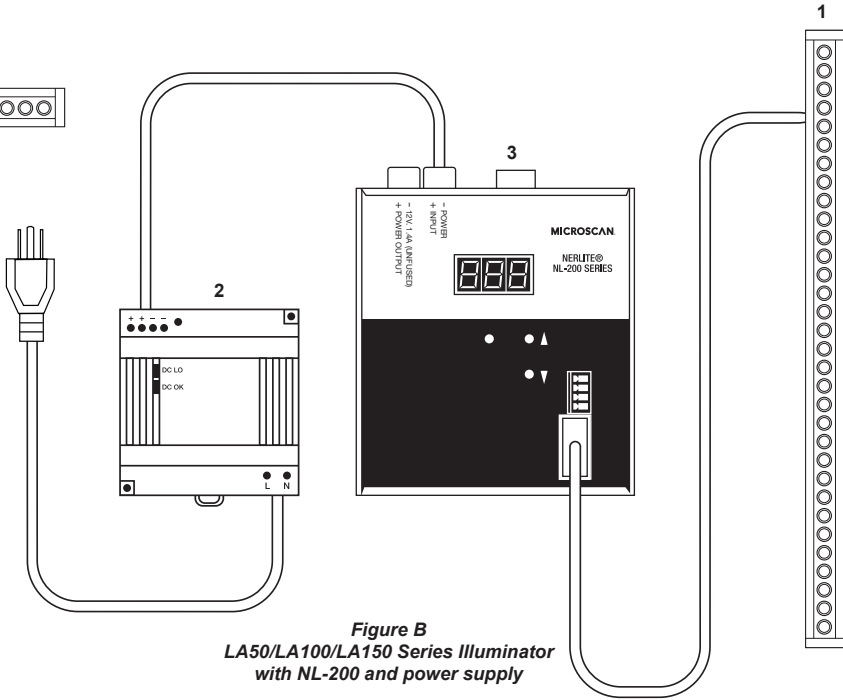


Figure B
LA50/LA100/LA150 Series Illuminator
with NL-200 and power supply

Accessories

AC Power Cord US	NER-030028300	Power Cord For Power Supply
AC Power Cord EU	NER-030028400	Power Cord For Power Supply
AC Power Cord UK	NER-030028500	Power Cord For Power Supply

WARNING! When connecting a strobe light to an NL-2XX Series Lighting Controller, you must set the current rating to 10% of the current specified for the light in this document.

The NL-2XX Series Controller allows the operator to set the brightness (current) to 1000% in strobe mode. By setting the initial current rating to 10% of the light's specified current, a brightness setting of 1000% results in the light receiving 100% of its rated current. This will provide maximum light output without damaging the light.

Note: Certain lights require both channels of the NL-2XX Series Lighting Controller. Channel 1 and Channel 2 may have different current specifications on some models. Be sure each channel is set correctly as specified in this document.

General Notes:

1. Those lights that do not require a controller require 24VDC +/- 1%.
2. The NL-2XX series controllers require 24 to 48VDC.
3. The cable on all flying lead models is terminated with three, five, or seven leads. Each lead is labeled. See "Connection Notes" for connection instructions.
4. For all models with M12 connectors, the connector is a 4 pin, male, M12 connector. See "Connection Notes" or connector pin out and connection instructions.
5. All models with separate fan circuits must have 24VDC connected to the fan circuit at all times when the light is operating.
6. When operating in strobe mode at the maximum rated current, the maximum pulse width = 1mS and the maximum duty cycle = 6%. See the NL-2XX series controllers' manual for pulse width and duty cycle limitations under various conditions.

Connection Notes:


1. Connect the lead labeled "V+" to the positive(+) output terminal of the power supply or controller. Connect the lead labeled "GND" to the negative(-) output terminal of the power supply or controller. Connect the lead labeled "Shield" or "SHLD" to chassis ground.
2. Connect the lead labeled "V+" to the positive(+) output terminal of the power supply or controller. Connect the lead labeled "GND" to the negative(-) output terminal of the power supply or controller. Connect the lead labeled "Fan V+" to the positive(+) output terminal of a 24VDC power supply. Connect the lead labeled "Fan GND" to the negative(-) output terminal of a 24VDC power supply. Connect the lead labeled "Shield" to chassis ground.
3. Connect the lead labeled "V+1" to the positive(+) output terminal of channel 1 on an NL-2XX series controller. Connect the lead labeled "GND1" to the negative(-) output terminal of channel 1 on the NL-2XX series controller. Connect the lead labeled "V+2" to the positive(+) output terminal of channel 2 on the NL-2XX series controller. Connect the lead labeled "GND2" to the negative(-) output terminal of channel 2 on the NL-2XX series controller. Connect the lead labeled "Shield" to chassis ground.
4. Connect the lead labeled "+" to the positive(+) output terminal of the power supply or controller. Connect the lead labeled "-" to the negative(-) output terminal of the power supply or controller. Connect the cable's braided shield to chassis ground.
5. Connect the lead labeled "DOAL V+" to the positive(+) output terminal of channel 1 on an NL-2XX series controller. Connect the lead labeled "DOAL GND" to the negative(-) output terminal of channel 1 on the NL-2XX series controller. Connect the lead labeled "Ring V+" to the positive(+) output terminal of channel 2 on the NL-2XX series controller. Connect the lead labeled "Ring GND" to the negative(-) output terminal of channel 2 on the NL-2XX series controller. Connect the lead labeled "Fan V+" to the positive(+) output terminal of a 24VDC power supply. Connect the lead labeled "Fan GND" to the negative(-) output terminal of a 24VDC power supply. Connect the lead labeled "Shield" to chassis ground.
6. Connect the two leads labeled "RING 1, 2 V+" & "RING 3 V+" to the same positive(+) output terminal of the power supply or controller. Connect the two leads labeled "RING 1, 2 -" & "RING 3 -" to the same negative(-) output terminal of the power supply or controller. Connect the lead labeled "Shield" to chassis ground.
7. Connect Pin 1 of the M12-M connector to the positive(+) output terminal of the power supply or controller. Connect Pin 3 of the M12-M connector to the negative(-) output terminal of the power supply or controller. Connect the shell of the M12-M connector to chassis ground. Pins 2 and 4 are not used.

NERLITE DOME LIGHT SERIES ILLUMINATORS

CONFIGURATION GUIDE



Part Number	Description	Continuous Current	Strobe Current	Fan Cooled	Continuous Operation		Strobe Operation	Connection Notes Reference Number (See the Connection Notes on back of page)
					No Controller Required (Can be Connected Directly to 24VDC)	NL-2XX Optional (Used only if Intensity And/Or Ethernet Control Is Desired)	NL-2XX Required)	
NER-011600403	D-150 Red Continuous	80mA	NA		Figure A	Figure B		1
NER-011600402	D-150 Red Strobe	NA	1.60A				Figure B	1
NER-011600411	D-150 White Continuous	160mA	NA		Figure A	Figure B		1
NER-011600412	D-150 White Strobe	NA	3.20A				Figure B	1
NER-011600421	D-150 Blue Continuous	160mA	NA		Figure A	Figure B		1

 If using this product in strobe mode with an NL-2XX Series Lighting Controller, refer to the warning on the back of this document.

Hardware Required

Item	Description	Part Number
1	Dome Series Illuminators	NER-0116004XX
2	Power Supply DSP60 24VDC 2.5A DIN Mount	NER-011504100
3	NL-200 Series Lighting Controller	98-000152-0X

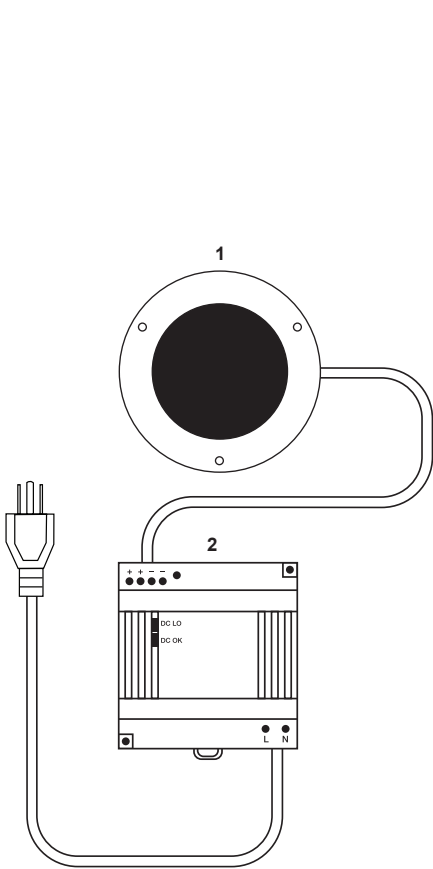


Figure A
Dome Light Series Illuminator
with power supply

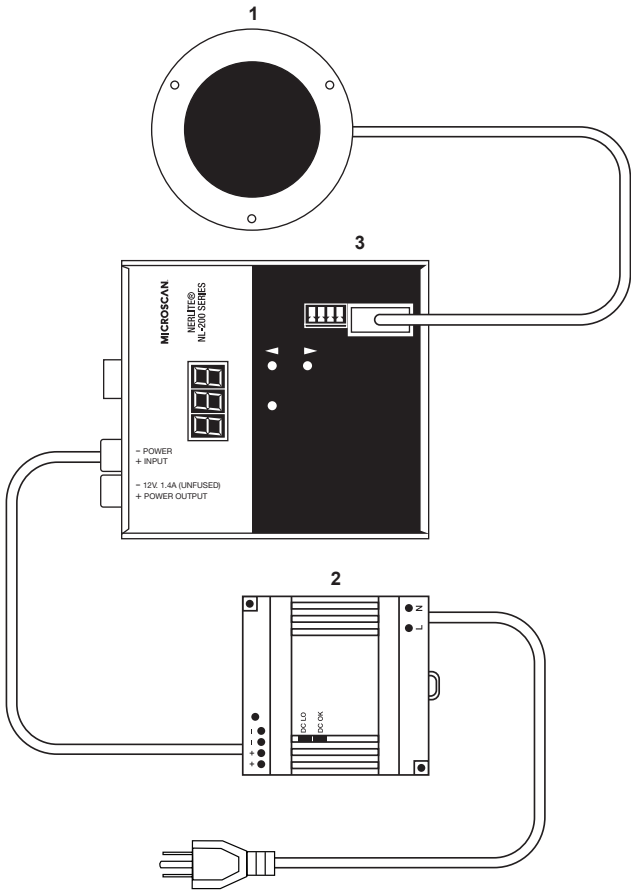


Figure B
Dome Light Series Illuminator
with NL-200 Controller and power supply

Accessories

AC Power Cord US	NER-030028300	Power Cord For Power Supply
AC Power Cord EU	NER-030028400	Power Cord For Power Supply
AC Power Cord UK	NER-030028500	Power Cord For Power Supply

WARNING! When connecting a strobe light to an NL-2XX Series Lighting Controller, you must set the current rating to 10% of the current specified for the light in this document.

The NL-2XX Series Controller allows the operator to set the brightness (current) to 1000% in strobe mode. By setting the initial current rating to 10% of the light's specified current, a brightness setting of 1000% results in the light receiving 100% of its rated current. This will provide maximum light output without damaging the light.

Note: Certain lights require both channels of the NL-2XX Series Lighting Controller. Channel 1 and Channel 2 may have different current specifications on some models. Be sure each channel is set correctly as specified in this document.

General Notes:

1. Those lights that do not require a controller require 24VDC +/- 1%.
2. The NL-2XX series controllers require 24 to 48VDC.
3. The cable on all flying lead models is terminated with three, five, or seven leads. Each lead is labeled. See "Connection Notes" for connection instructions.
4. For all models with M12 connectors, the connector is a 4 pin, male, M12 connector. See "Connection Notes" or connector pin out and connection instructions.
5. All models with separate fan circuits must have 24VDC connected to the fan circuit at all times when the light is operating.
6. When operating in strobe mode at the maximum rated current, the maximum pulse width = 1mS and the maximum duty cycle = 6%. See the NL-2XX series controllers' manual for pulse width and duty cycle limitations under various conditions.

Connection Notes:

1. Connect the lead labeled "V+" to the positive(+) output terminal of the power supply or controller. Connect the lead labeled "GND" to the negative(-) output terminal of the power supply or controller. Connect the lead labeled "Shield" or "SHLD" to chassis ground.
2. Connect the lead labeled "V+" to the positive(+) output terminal of the power supply or controller. Connect the lead labeled "GND" to the negative(-) output terminal of the power supply or controller. Connect the lead labeled "Fan V+" to the positive(+) output terminal of a 24VDC power supply. Connect the lead labeled "Fan GND" to the negative(-) output terminal of a 24VDC power supply. Connect the lead labeled "Shield" to chassis ground.
3. Connect the lead labeled "V+1" to the positive(+) output terminal of channel 1 on an NL-2XX series controller. Connect the lead labeled "GND1" to the negative(-) output terminal of channel 1 on the NL-2XX series controller. Connect the lead labeled "V+2" to the positive(+) output terminal of channel 2 on the NL-2XX series controller. Connect the lead labeled "GND2" to the negative(-) output terminal of channel 2 on the NL-2XX series controller. Connect the lead labeled "Shield" to chassis ground.
4. Connect the lead labeled "+" to the positive(+) output terminal of the power supply or controller. Connect the lead labeled "-" to the negative(-) output terminal of the power supply or controller. Connect the cable's braided shield to chassis ground.
5. Connect the lead labeled "DOAL V+" to the positive(+) output terminal of channel 1 on an NL-2XX series controller. Connect the lead labeled "DOAL GND" to the negative(-) output terminal of channel 1 on the NL-2XX series controller. Connect the lead labeled "Ring V+" to the positive(+) output terminal of channel 2 on the NL-2XX series controller. Connect the lead labeled "Ring GND" to the negative(-) output terminal of channel 2 on the NL-2XX series controller. Connect the lead labeled "Fan V+" to the positive(+) output terminal of a 24VDC power supply. Connect the lead labeled "Fan GND" to the negative(-) output terminal of a 24VDC power supply. Connect the lead labeled "Shield" to chassis ground.
6. Connect the two leads labeled "RING 1, 2 V+" & "RING 3 V+" to the same positive(+) output terminal of the power supply or controller. Connect the two leads labeled "RING 1, 2 -" & "RING 3 -" to the same negative(-) output terminal of the power supply or controller. Connect the lead labeled "Shield" to chassis ground.
7. Connect Pin 1 of the M12-M connector to the positive(+) output terminal of the power supply or controller. Connect Pin 3 of the M12-M connector to the negative(-) output terminal of the power supply or controller. Connect the shell of the M12-M connector to chassis ground. Pins 2 and 4 are not used.

NERLITE EDGE-TO-EDGE BACKLIGHT SERIES ILLUMINATORS

CONFIGURATION GUIDE



Part Number	Description	Continuous Current	Strobe Current	Fan Cooled	Continuous Operation		Strobe Operation	Connection Notes Reference Number (See the Connection Notes on back of page)
					No Controller Required (Can be Connected Directly to 24VDC)	NL-2XX Optional (Used only if Intensity and/or Ethernet Control is Desired)	NL-2XX (Required)	
NER-011659300G	BNER-011659300Continuous	93mA	NA		Figure A	Figure B		7
NER-011659301G	NER-011659301Gobe	NA	2.67A				Figure B	7
NER-011659310G	BNER-011659310Continuous	201mA	NA		Figure A	Figure B		7
NER-011659311G	BL 47X59 White Strobe	NA	3.34A				Figure B	7
NER-011659320G	BL 47X59 Blue Continuous	170mA	NA		Figure A	Figure B		7
NER-011659321G	BL 47X59 Blue Strobe	NA	3.00A				Figure B	7
NER-011659340G	BL 47X59 Infrared Continuous	140mA	NA		Figure A	Figure B		7
NER-011659341G	BL 47X59 Infrared Strobe	NA	4.00A				Figure B	7
NER-011659400G	BL 71X88 Red Continuous	170mA	NA		Figure A	Figure B		7
NER-011659401G	BL 71X88 Red Strobe	NA	5.01A				Figure B	7
NER-011659410G	BL 71X88 White Continuous	330mA	NA		Figure A	Figure B		7
NER-011659411G	BL 71X88 White Strobe	NA	9.00A				Figure B	7
NER-011659420G	BL 71X88 Blue Continuous	310mA	NA		Figure A	Figure B		7
NER-011659421G	BL 71X88 Blue Strobe	NA	9.00A				Figure B	7
NER-011659440G	BL 71X88 Infrared Continuous	220mA	NA		Figure A	Figure B		7
NER-011659441G	BL 71X88 Infrared Strobe	NA	7.50A				Figure B	7
NER-011659500G	BL 100X100 Red Continuous	155mA	NA		Figure A	Figure B		7
NER-011659501G	BL 100X100 Red Strobe	NA	4.99A				Figure B	7
NER-011659510G	BL 100X100 White Continuous	350mA	NA		Figure A	Figure B		7
NER-011659511G	BL 100X100 White Strobe	NA	9.98A				Figure B	7
NER-011659520G	BL 100X100 Blue Continuous	320mA	NA		Figure A	Figure B		7
NER-011659521G	BL 100X100 Blue Strobe	NA	9.98A				Figure B	7
NER-011659540G	BL 100X100 Infrared Continuous	250mA	NA		Figure A	Figure B		7
NER-011659541G	BL 100X100 Infrared Strobe	NA	7.99A				Figure B	7
NER-011659600G	BL 50X200 Red Continuous	155mA	NA		Figure A	Figure B		7
NER-011659601G	BL 50X200 Red Strobe	NA	4.99A				Figure B	7
NER-011659610G	BL 50X200 White Continuous	350mA	NA		Figure A	Figure B		7
NER-011659611G	BL 50X200 White Strobe	NA	9.98A				Figure B	7
NER-011659620G	BL 50X200 Blue Continuous	320mA	NA		Figure A	Figure B		7
NER-011659621G	BL 50X200 Blue Strobe	NA	9.98A				Figure B	7
NER-011659640G	BL 50X200 Infrared Continuous	250mA	NA		Figure A	Figure B		7
NER-011659641G	BL 50X200 Infrared Strobe	NA	7.99A				Figure B	7

! If using this product in strobe mode with an NL-2XX Series Lighting Controller, refer to the warning on the back of this document.

Hardware Required

Item	Description	Part Number
1	Edge-To-Edge Series Backlights	NER-011659XXXG
2	Power Supply DSP60 24VDC 2.5A DIN Mount	NER-011504100
3	NL-200 Series Lighting Controller	98-000152-0X
4	Cable 4 Pin M12 Female To Flying Leads	NER-030029100

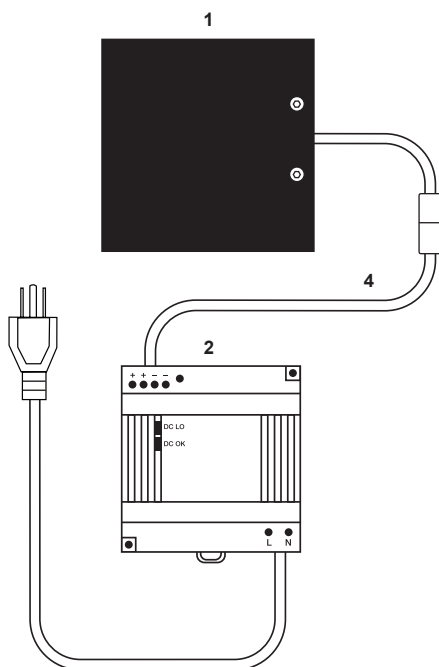


Figure A
Edge-to-Edge Backlight Series Illuminator
with power supply

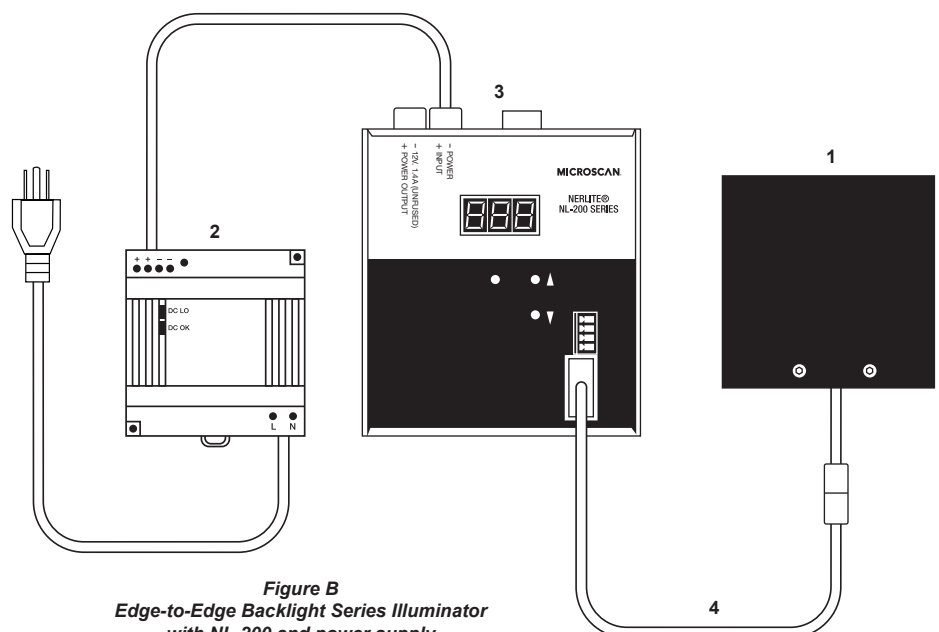


Figure B
Edge-to-Edge Backlight Series Illuminator
with NL-200 and power supply

NERLITE Edge-to-Edge Backlight Series Illuminators

AC Power Cord US	NER-030028300	Power Cord For Power Supply
AC Power Cord EU	NER-030028400	Power Cord For Power Supply
AC Power Cord UK	NER-030028500	Power Cord For Power Supply
CBL, M12F-FLYING LEADS, 4.5M [15FT]	NER-030029100	Connect Backlight To Power Supply Or Controller

WARNING! When connecting a strobe light to an NL-2XX Series Lighting Controller, you must set the current rating to 10% of the current specified for the light in this document.

The NL-2XX Series Controller allows the operator to set the brightness (current) to 1000% in strobe mode. By setting the initial current rating to 10% of the light's specified current, a brightness setting of 1000% results in the light receiving 100% of its rated current. This will provide maximum light output without damaging the light.

Note: Certain lights require both channels of the NL-2XX Series Lighting Controller. Channel 1 and Channel 2 may have different current specifications on some models. Be sure each channel is set correctly as specified in this document.

General Notes:

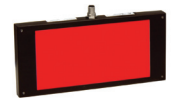
1. Those lights that do not require a controller require 24VDC +/- 1%.
2. The NL-2XX series controllers require 24 to 48VDC.
3. The cable on all flying lead models is terminated with three, five, or seven leads. Each lead is labeled. See "Connection Notes" for connection instructions.
4. For all models with M12 connectors, the connector is a 4 pin, male, M12 connector. See "Connection Notes" or connector pin out and connection instructions.
5. All models with separate fan circuits must have 24VDC connected to the fan circuit at all times when the light is operating.
6. When operating in strobe mode at the maximum rated current, the maximum pulse width = 1mS and the maximum duty cycle = 6%. See the NL-2XX series controllers' manual for pulse width and duty cycle limitations under various conditions.

Connection Notes:

1. Connect the lead labeled "V+" to the positive(+) output terminal of the power supply or controller. Connect the lead labeled "GND" to the negative(-) output terminal of the power supply or controller. Connect the lead labeled "Shield" or "SHLD" to chassis ground.
2. Connect the lead labeled "V+" to the positive(+) output terminal of the power supply or controller. Connect the lead labeled "GND" to the negative(-) output terminal of the power supply or controller. Connect the lead labeled "Fan V+" to the positive(+) output terminal of a 24VDC power supply. Connect the lead labeled "Fan GND" to the negative(-) output terminal of a 24VDC power supply. Connect the lead labeled "Shield" to chassis ground.
3. Connect the lead labeled "V+1" to the positive(+) output terminal of channel 1 on an NL-2XX series controller. Connect the lead labeled "GND1" to the negative(-) output terminal of channel 1 on the NL-2XX series controller. Connect the lead labeled "V+2" to the positive(+) output terminal of channel 2 on the NL-2XX series controller. Connect the lead labeled "GND2" to the negative(-) output terminal of channel 2 on the NL-2XX series controller. Connect the lead labeled "Shield" to chassis ground.
4. Connect the lead labeled "+" to the positive(+) output terminal of the power supply or controller. Connect the lead labeled "-" to the negative(-) output terminal of the power supply or controller. Connect the cable's braided shield to chassis ground.
5. Connect the lead labeled "DOAL V+" to the positive(+) output terminal of channel 1 on an NL-2XX series controller. Connect the lead labeled "DOAL GND" to the negative(-) output terminal of channel 1 on the NL-2XX series controller. Connect the lead labeled "Ring V+" to the positive(+) output terminal of channel 2 on the NL-2XX series controller. Connect the lead labeled "Ring GND" to the negative(-) output terminal of channel 2 on the NL-2XX series controller. Connect the lead labeled "Fan V+" to the positive(+) output terminal of a 24VDC power supply. Connect the lead labeled "Fan GND" to the negative(-) output terminal of a 24VDC power supply. Connect the lead labeled "Shield" to chassis ground.
6. Connect the two leads labeled "RING 1, 2 V+" & "RING 3 V+" to the same positive(+) output terminal of the power supply or controller. Connect the two leads labeled "RING 1, 2 -" & "RING 3 -" to the same negative(-) output terminal of the power supply or controller. Connect the lead labeled "Shield" to chassis ground.
7. Connect Pin 1 of the M12-M connector to the positive(+) output terminal of the power supply or controller. Connect Pin 3 of the M12-M connector to the negative(-) output terminal of the power supply or controller. Connect the shell of the M12-M connector to chassis ground. Pins 2 and 4 are not used.

NERLITE LARGE BACKLIGHT SERIES ILLUMINATORS

CONFIGURATION GUIDE



Part Number	Description	Continuous Current	Strobe Current	Fan Cooled	Continuous Operation			Strobe Operation	
					No Controller Required (Can be Connected Directly to 24VDC)	Controller Required (Select Any One of the Indicated LCXXX (Legacy) or NL2XX Series Controllers)	NL-2XX Optional (Used only if Intensity And/Or Ethernet Control Is Desired)	NL-2XX Required	Connection Notes Reference Number (See the Connection Notes on back of page)
NER-011659700G	BACKLIGHT 100X200 Red	700mA	1.00A			Figure A	Figure A	Figure A	7
NER-011659710G	BACKLIGHT 100X200 White	700mA	950mA			Figure A	Figure A	Figure A	7
NER-011659720G	BACKLIGHT 100X200 Blue	700mA	950mA			Figure A	Figure A	Figure A	7
NER-011659740G	BACKLIGHT 100X200 Infrared	700mA	1.00A			Figure A	Figure A	Figure A	7
NER-011659800G	BACKLIGHT 150X200 Red	1.05A	1.50A			Figure A	Figure A	Figure A	7
NER-011659810G	BACKLIGHT 150X200 White	1.05A	1.43A			Figure A	Figure A	Figure A	7
NER-011659820G	BACKLIGHT 150X200 Blue	1.05A	1.43A			Figure A	Figure A	Figure A	7
NER-011659840G	BACKLIGHT 150X200 Infrared	1.40A	2.00A			Figure A	Figure A	Figure A	7
NER-011659900G	BACKLIGHT 200X250 Red	1.40A	2.00A			Figure A	Figure A	Figure A	7
NER-011659910G	BACKLIGHT 200X250 White	1.40A	1.90A			Figure A	Figure A	Figure A	7
NER-011659920G	BACKLIGHT 200X250 Blue	1.40A	1.90A			Figure A	Figure A	Figure A	7
NER-011659940G	BACKLIGHT 200X250 Infrared	1.40A	2.00A			Figure A	Figure A	Figure A	7

⚠ If using this product in strobe mode with an NL-2XX Series Lighting Controller, refer to the warning on the back of this document.

Hardware Required

Item	Description	Part Number
1	Large Area Series Backlights	NER-011659XXXXG
2	Power Supply DSP60 24VDC 2.5A DIN Mount	NER-011504100
3	NL-200 Series Lighting Controller	98-000152-0X
4	Cable 4 Pin M12 Female To Flying Leads	NER-030029100

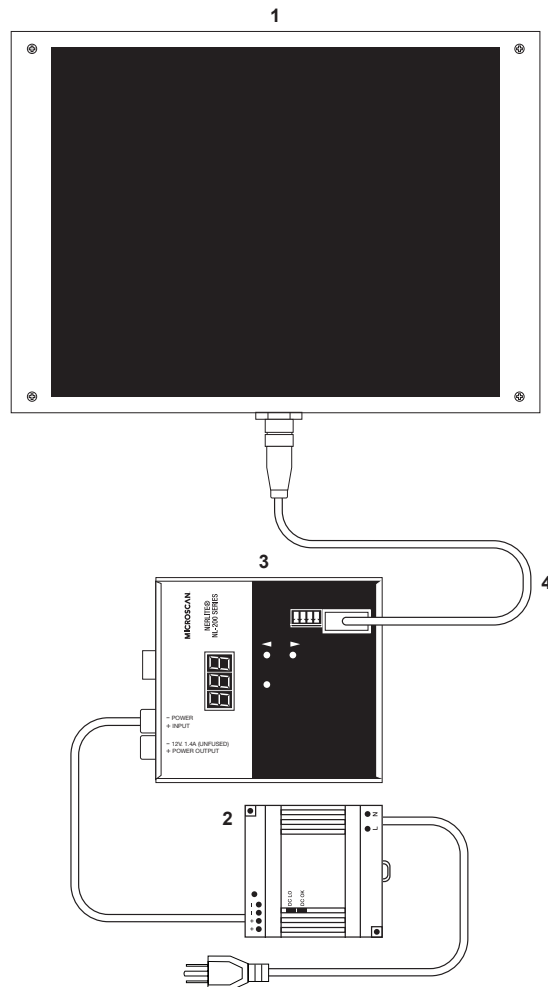


Figure A
Large Backlight Series Illuminator
with NL-200 Controller and power supply

Accessories

AC Power Cord US	NER-030028300	Power Cord For Power Supply
AC Power Cord EU	NER-030028400	Power Cord For Power Supply
AC Power Cord UK	NER-030028500	Power Cord For Power Supply
CBL, M12F-FLYING LEADS, 4.5M [15FT]	NER-030029100	Connect Backlight To Power Supply Or Controller

WARNING! When connecting a strobe light to an NL-2XX Series Lighting Controller, you must set the current rating to 10% of the current specified for the light in this document.

The NL-2XX Series Controller allows the operator to set the brightness (current) to 1000% in strobe mode. By setting the initial current rating to 10% of the light's specified current, a brightness setting of 1000% results in the light receiving 100% of its rated current. This will provide maximum light output without damaging the light.

Note: Certain lights require both channels of the NL-2XX Series Lighting Controller. Channel 1 and Channel 2 may have different current specifications on some models. Be sure each channel is set correctly as specified in this document.

General Notes:

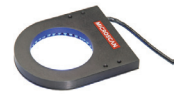
1. Those lights that do not require a controller require 24VDC +/- 1%.
2. The NL-2XX series controllers require 24 to 48VDC.
3. The cable on all flying lead models is terminated with three, five, or seven leads. Each lead is labeled. See "Connection Notes" for connection instructions.
4. For all models with M12 connectors, the connector is a 4 pin, male, M12 connector. See "Connection Notes" or connector pin out and connection instructions.
5. All models with separate fan circuits must have 24VDC connected to the fan circuit at all times when the light is operating.
6. When operating in strobe mode at the maximum rated current, the maximum pulse width = 1mS and the maximum duty cycle = 6%. See the NL-2XX series controllers' manual for pulse width and duty cycle limitations under various conditions.

Connection Notes:

1. Connect the lead labeled "V+" to the positive(+) output terminal of the power supply or controller. Connect the lead labeled "GND" to the negative(-) output terminal of the power supply or controller. Connect the lead labeled "Shield" or "SHLD" to chassis ground.
2. Connect the lead labeled "V+" to the positive(+) output terminal of the power supply or controller. Connect the lead labeled "GND" to the negative(-) output terminal of the power supply or controller. Connect the lead labeled "Fan V+" to the positive(+) output terminal of a 24VDC power supply. Connect the lead labeled "Fan GND" to the negative(-) output terminal of a 24VDC power supply. Connect the lead labeled "Shield" to chassis ground.
3. Connect the lead labeled "V+1" to the positive(+) output terminal of channel 1 on an NL-2XX series controller. Connect the lead labeled "GND1" to the negative(-) output terminal of channel 1 on the NL-2XX series controller. Connect the lead labeled "V+2" to the positive(+) output terminal of channel 2 on the NL-2XX series controller. Connect the lead labeled "GND2" to the negative(-) output terminal of channel 2 on the NL-2XX series controller. Connect the lead labeled "Shield" to chassis ground.
4. Connect the lead labeled "+" to the positive(+) output terminal of the power supply or controller. Connect the lead labeled "-" to the negative(-) output terminal of the power supply or controller. Connect the cable's braided shield to chassis ground.
5. Connect the lead labeled "DOAL V+" to the positive(+) output terminal of channel 1 on an NL-2XX series controller. Connect the lead labeled "DOAL GND" to the negative(-) output terminal of channel 1 on the NL-2XX series controller. Connect the lead labeled "Ring V+" to the positive(+) output terminal of channel 2 on the NL-2XX series controller. Connect the lead labeled "Ring GND" to the negative(-) output terminal of channel 2 on the NL-2XX series controller. Connect the lead labeled "Fan V+" to the positive(+) output terminal of a 24VDC power supply. Connect the lead labeled "Fan GND" to the negative(-) output terminal of a 24VDC power supply. Connect the lead labeled "Shield" to chassis ground.
6. Connect the two leads labeled "RING 1, 2 V+" & "RING 3 V+" to the same positive(+) output terminal of the power supply or controller. Connect the two leads labeled "RING 1, 2 -" & "RING 3 -" to the same negative(-) output terminal of the power supply or controller. Connect the lead labeled "Shield" to chassis ground.
7. Connect Pin 1 of the M12-M connector to the positive(+) output terminal of the power supply or controller. Connect Pin 3 of the M12-M connector to the negative(-) output terminal of the power supply or controller. Connect the shell of the M12-M connector to chassis ground. Pins 2 and 4 are not used.

NERLITE DARK FIELD LIGHT SERIES ILLUMINATORS

CONFIGURATION GUIDE



Part Number	Description	Continuous Current	Strobe Current			Continuous Operation		Strobe Operation	Connection Notes Reference Number (See the Connection Notes on back of the Page)
			Ring 1 & 2 Where Applicable	Ring 3	Fan Cooled	No Controller Required (Can be Connected Directly to 24VDC)	NL-2XX Optional (Used only if Intensity And/Or Ethernet Control is Desired)	NL-2XX (Required)	
NER-011609311	DF-50 Red Continuous, Non-Diffuse	69mA	NA	NA		Figure A	Figure B		1
NER-011609312	DF-50 Red Strobe, Non-Diffuse	NA	1.20A	NA				Figure B	1
NER-011609321	DF-50 White Continuous, Non-Diffuse	120mA	NA	NA		Figure A	Figure B		1
NER-011609322	DF-50 White Strobe, Non-Diffuse	NA	2.40A	NA				Figure B	1
NER-011609331	DF-50 Blue Continuous, Non-Diffuse	120mA	NA	NA		Figure A	Figure B		1
NER-011609332	DF-50 Blue Strobe, Non-Diffuse	NA	2.40A	NA				Figure B	1
NER-011601520	DF-100-1 Red Continuous, Non-Diffuse	100mA	NA	NA		Figure A	Figure B		1
NER-011601521	DF-100-1 Red Continuous, Diffuse	100mA	NA	NA		Figure A	Figure B		1
NER-011601502	DF-100-1 Red Strobe, Diffuse	NA	200A	NA				Figure B	1
NER-011600020	DF-150-1 Red Continuous, Non-Diffuse	100mA	NA	NA		Figure A	Figure B		1
NER-011600004	DF-150-1 Red Strobe, Non-Diffuse	NA	200A	NA				Figure B	1
NER-011600031	DF-150-1 White Continuous, Non-Diffuse	196mA	NA	NA		Figure A	Figure B		1
NER-011600032	DF-150-1 White Strobe, Non-Diffuse	NA	400A	NA				Figure B	1
NER-011600070	DF-150-1 Blue Continuous, Non-Diffuse	196mA	NA	NA		Figure A	Figure B		1
NER-011600080	DF-150-1 Blue Strobe, Non-Diffuse	NA	400A	NA				Figure B	1
NER-011600021	DF-150-1 Red Continuous, Diffuse	100mA	NA	NA		Figure A	Figure B		1
NER-011600007	DF-150-1 Red Strobe, Diffuse	NA	200A	NA				Figure B	1
NER-011600041	DF-150-1 White Continuous, Diffuse	196mA	NA	NA		Figure A	Figure B		1
NER-011600042	DF-150-1 White Strobe, Diffuse	NA	400A	NA				Figure B	1
NER-011600208	DF-150-3 Red Continuous, Non-Diffuse	300mA	NA	NA		Figure A	Figure B		1
NER-011600209	DF-150-3 Red Strobe, Non-Diffuse	NA	7.14A	NA				Figure B	1
NER-011600206	DF-150-3 White Continuous, Non-Diffuse	450mA	NA	NA		Figure A	Figure B		1
NER-011600207	DF-150-3 White Strobe, Non-Diffuse	NA	8.00A	4.00A				Figure B	6
NER-011603300	DF-200-1 Red Continuous, Diffuse	200mA	NA	NA		Figure A	Figure B		1
NER-011603301	DF-200-1 Red Strobe, Diffuse	NA	4.00A	NA				Figure B	1

⚠ If using this product in strobe mode with an NL-2XX Series Lighting Controller, refer to the warning on the back of this document.

Hardware Required

Item	Description	Part Number
1	DF Series Illuminators	NER-01160XXXX
2	Power Supply DSP60 24VDC 2.5A DIN Mount	NER-011504100
3	NL-200 Current Controller Series	98-000152-0X

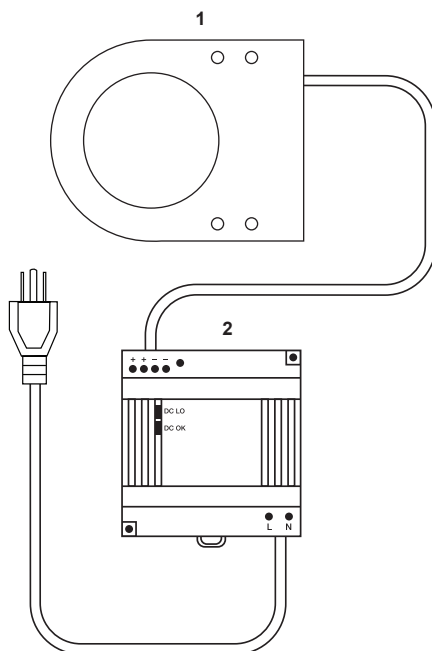


Figure A
Dark Field Series Illuminator
with power supply

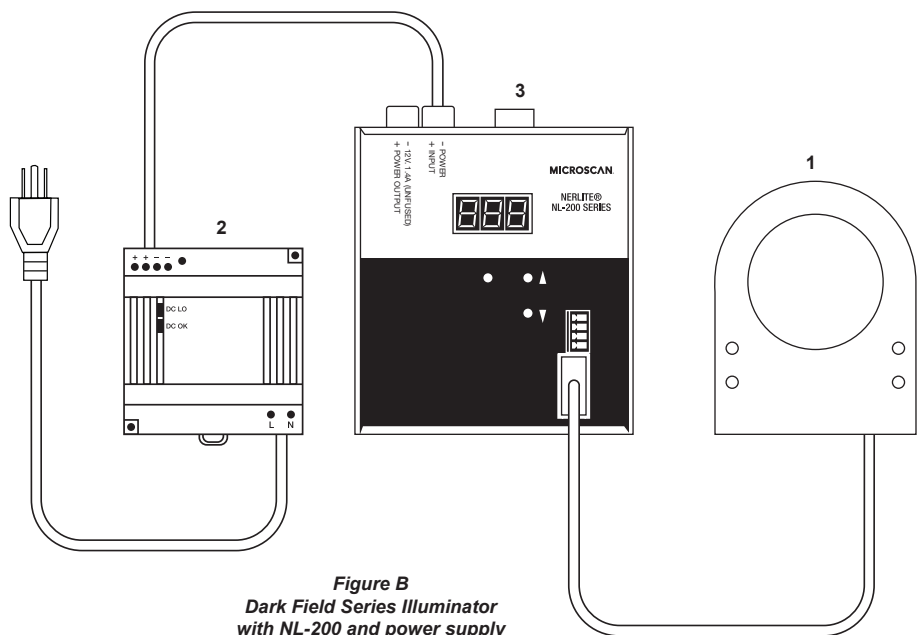


Figure B
Dark Field Series Illuminator
with NL-200 and power supply

Accessories

AC Power Cord US	NER-030028300	Power Cord For Power Supply
AC Power Cord EU	NER-030028400	Power Cord For Power Supply
AC Power Cord UK	NER-030028500	Power Cord For Power Supply

WARNING! When connecting a strobe light to an NL-2XX Series Lighting Controller, you must set the current rating to 10% of the current specified for the light in this document.

The NL-2XX Series Controller allows the operator to set the brightness (current) to 1000% in strobe mode. By setting the initial current rating to 10% of the light's specified current, a brightness setting of 1000% results in the light receiving 100% of its rated current. This will provide maximum light output without damaging the light.

Note: Certain lights require both channels of the NL-2XX Series Lighting Controller. Channel 1 and Channel 2 may have different current specifications on some models. Be sure each channel is set correctly as specified in this document.

General Notes:

1. Those lights that do not require a controller require 24VDC +/- 1%.
2. The NL-2XX series controllers require 24 to 48VDC.
3. The cable on all flying lead models is terminated with three, five, or seven leads. Each lead is labeled. See "Connection Notes" for connection instructions.
4. For all models with M12 connectors, the connector is a 4 pin, male, M12 connector. See "Connection Notes" or connector pin out and connection instructions.
5. All models with separate fan circuits must have 24VDC connected to the fan circuit at all times when the light is operating.
6. When operating in strobe mode at the maximum rated current, the maximum pulse width = 1mS and the maximum duty cycle = 6%. See the NL-2XX series controllers' manual for pulse width and duty cycle limitations under various conditions.

Connection Notes:

1. Connect the lead labeled "V+" to the positive(+) output terminal of the power supply or controller. Connect the lead labeled "GND" to the negative(-) output terminal of the power supply or controller. Connect the lead labeled "Shield" or "SHLD" to chassis ground.
2. Connect the lead labeled "V+" to the positive(+) output terminal of the power supply or controller. Connect the lead labeled "GND" to the negative(-) output terminal of the power supply or controller. Connect the lead labeled "Fan V+" to the positive(+) output terminal of a 24VDC power supply. Connect the lead labeled "Fan GND" to the negative(-) output terminal of a 24VDC power supply. Connect the lead labeled "Shield" to chassis ground.
3. Connect the lead labeled "V+1" to the positive(+) output terminal of channel 1 on an NL-2XX series controller. Connect the lead labeled "GND1" to the negative(-) output terminal of channel 1 on the NL-2XX series controller. Connect the lead labeled "V+2" to the positive(+) output terminal of channel 2 on the NL-2XX series controller. Connect the lead labeled "GND2" to the negative(-) output terminal of channel 2 on the NL-2XX series controller. Connect the lead labeled "Shield" to chassis ground.
4. Connect the lead labeled "+" to the positive(+) output terminal of the power supply or controller. Connect the lead labeled "-" to the negative(-) output terminal of the power supply or controller. Connect the cable's braided shield to chassis ground.
5. Connect the lead labeled "DOAL V+" to the positive(+) output terminal of channel 1 on an NL-2XX series controller. Connect the lead labeled "DOAL GND" to the negative(-) output terminal of channel 1 on the NL-2XX series controller. Connect the lead labeled "Ring V+" to the positive(+) output terminal of channel 2 on the NL-2XX series controller. Connect the lead labeled "Ring GND" to the negative(-) output terminal of channel 2 on the NL-2XX series controller. Connect the lead labeled "Fan V+" to the positive(+) output terminal of a 24VDC power supply. Connect the lead labeled "Fan GND" to the negative(-) output terminal of a 24VDC power supply. Connect the lead labeled "Shield" to chassis ground.
6. Connect the two leads labeled "RING 1, 2 V+" & "RING 3 V+" to the same positive(+) output terminal of the power supply or controller. Connect the two leads labeled "RING 1, 2 -" & "RING 3 -" to the same negative(-) output terminal of the power supply or controller. Connect the lead labeled "Shield" to chassis ground.
7. Connect Pin 1 of the M12-M connector to the positive(+) output terminal of the power supply or controller. Connect Pin 3 of the M12-M connector to the negative(-) output terminal of the power supply or controller. Connect the shell of the M12-M connector to chassis ground. Pins 2 and 4 are not used.

NERLITE SCDI LIGHT SERIES ILLUMINATORS

CONFIGURATION GUIDE



Part Number	Description	Continuous Current		Strobe Current	Fan Cooled	Continuous Operation			Strobe Operation	Connection Notes Reference Number (See the Connection Notes on back of page)
		Lighting	Fan			No Controller Required (Can be Connected Directly to 24VDC)	Controller Required (Select NL2XX Series Controller)	NL-2XX Optional (Used only if Intensity And/Or Ethernet Control Is Desired)		
NER-011301300	SCDI-25 Red Continuous	105mA	80mA	NA	X	Figure A		Figure C	Figure B	1
NER-011301301	SCDI-25 Red Strobe	NA	NA	1.80A						1
NER-011301302	SCDI-25 White Continuous	180mA	80mA	NA	X	Figure A		Figure C		1
NER-011304004	SCDI-50 Red Continuous	200mA	NA	NA		Figure A		Figure B		1
NER-011304002	SCDI-50 Red Strobe	NA	NA	4.00A					Figure B	1
NER-011304014	SCDI-50 White Continuous	200mA	NA	NA		Figure A		Figure B		1
NER-011304012	SCDI-50 White Strobe	NA	NA	4.00A					Figure B	1
NER-011302005	SCDI-75 Red Continuous	240mA	62mA	NA	X	Figure A		Figure C		2
NER-011302001	SCDI-75 Red Strobe	NA	NA	4.80A					Figure B	1
NER-011302012	SCDI-75 White Continuous	480mA	62mA	NA	X	Figure A		Figure C		2

! If using this product in strobe mode with an NL-2XX Series Lighting Controller, refer to the warning on the back of this document.

Hardware Required

Item	Description	Part Number
1	SCDI Series Illuminators	NER-01130XXXX
2	Power Supply DSP60 24VDC 2.5A DIN Mount	NER-011504100
3	NL-200 Series Lighting Controller	98-000152-0X

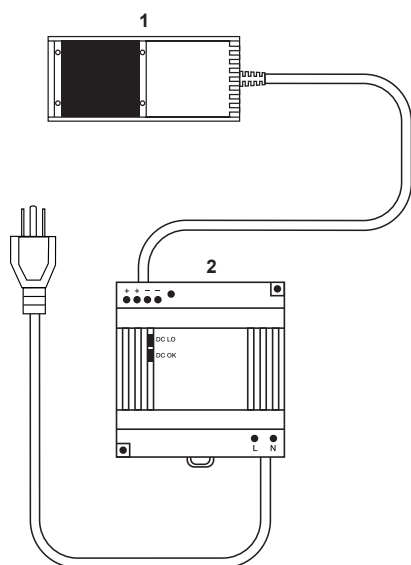


Figure A
SCDI Series Illuminator
with power supply

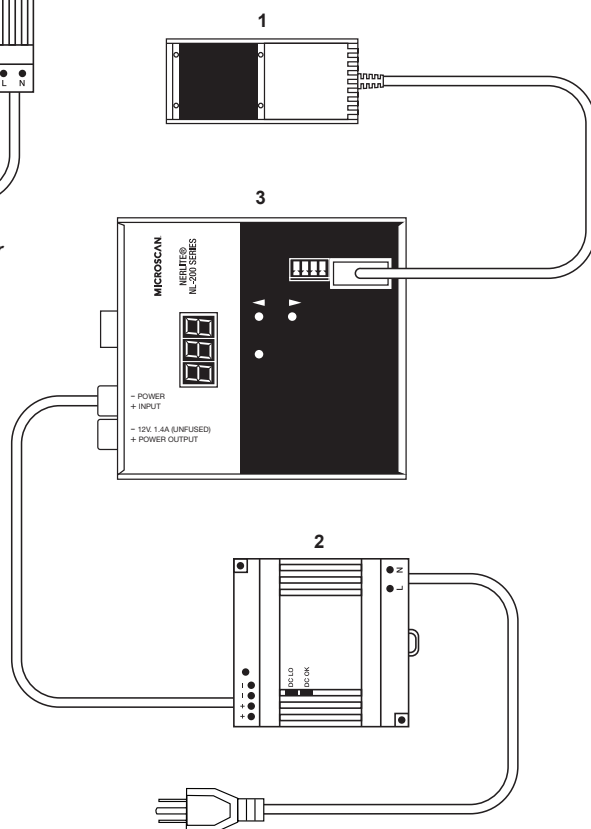


Figure B
SCDI Series Illuminator
with NL-200 Controller and power supply

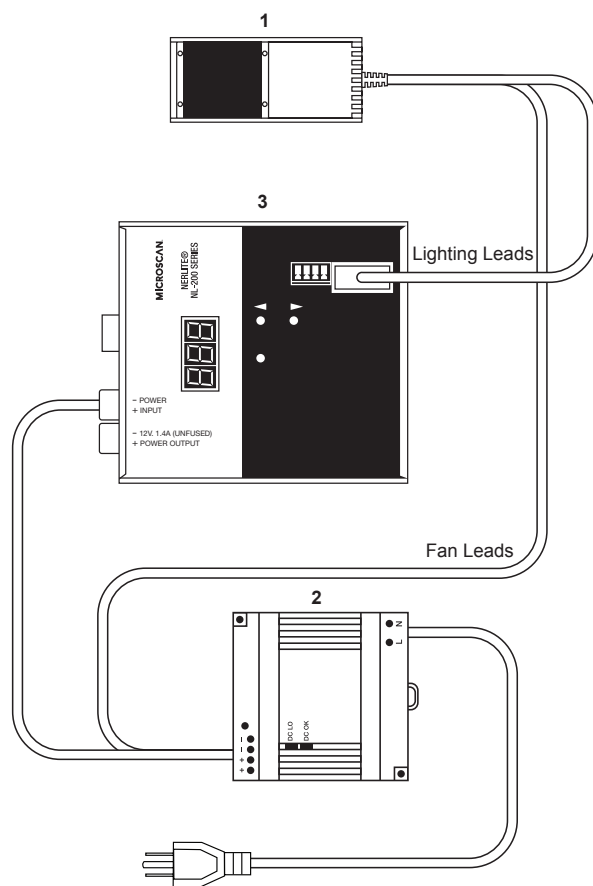


Figure C
SCDI Series Illuminator
with NL-200 Controller, power supply
and fan circuit

Accessories

AC Power Cord US	NER-030028300	Power Cord For Power Supply
AC Power Cord EU	NER-030028400	Power Cord For Power Supply
AC Power Cord UK	NER-030028500	Power Cord For Power Supply

WARNING! When connecting a strobe light to an NL-2XX Series Lighting Controller, you must set the current rating to 10% of the current specified for the light in this document.

The NL-2XX Series Controller allows the operator to set the brightness (current) to 1000% in strobe mode. By setting the initial current rating to 10% of the light's specified current, a brightness setting of 1000% results in the light receiving 100% of its rated current. This will provide maximum light output without damaging the light.

Note: Certain lights require both channels of the NL-2XX Series Lighting Controller. Channel 1 and Channel 2 may have different current specifications on some models. Be sure each channel is set correctly as specified in this document.

General Notes:

1. Those lights that do not require a controller require 24VDC +/- 1%.
2. The NL-2XX series controllers require 24 to 48VDC.
3. The cable on all flying lead models is terminated with three, five, or seven leads. Each lead is labeled. See "Connection Notes" for connection instructions.
4. For all models with M12 connectors, the connector is a 4 pin, male, M12 connector. See "Connection Notes" or connector pin out and connection instructions.
5. All models with separate fan circuits must have 24VDC connected to the fan circuit at all times when the light is operating.
6. When operating in strobe mode at the maximum rated current, the maximum pulse width = 1mS and the maximum duty cycle = 6%. See the NL-2XX series controllers' manual for pulse width and duty cycle limitations under various conditions.

Connection Notes:

1. Connect the lead labeled "V+" to the positive(+) output terminal of the power supply or controller. Connect the lead labeled "GND" to the negative(-) output terminal of the power supply or controller. Connect the lead labeled "Shield" or "SHLD" to chassis ground.
2. Connect the lead labeled "V+" to the positive(+) output terminal of the power supply or controller. Connect the lead labeled "GND" to the negative(-) output terminal of the power supply or controller. Connect the lead labeled "Fan V+" to the positive(+) output terminal of a 24VDC power supply. Connect the lead labeled "Fan GND" to the negative(-) output terminal of a 24VDC power supply. Connect the lead labeled "Shield" to chassis ground.
3. Connect the lead labeled "V+1" to the positive(+) output terminal of channel 1 on an NL-2XX series controller. Connect the lead labeled "GND1" to the negative(-) output terminal of channel 1 on the NL-2XX series controller. Connect the lead labeled "V+2" to the positive(+) output terminal of channel 2 on the NL-2XX series controller. Connect the lead labeled "GND2" to the negative(-) output terminal of channel 2 on the NL-2XX series controller. Connect the lead labeled "Shield" to chassis ground.
4. Connect the lead labeled "+" to the positive(+) output terminal of the power supply or controller. Connect the lead labeled "-" to the negative(-) output terminal of the power supply or controller. Connect the cable's braided shield to chassis ground.
5. Connect the lead labeled "DOAL V+" to the positive(+) output terminal of channel 1 on an NL-2XX series controller. Connect the lead labeled "DOAL GND" to the negative(-) output terminal of channel 1 on the NL-2XX series controller. Connect the lead labeled "Ring V+" to the positive(+) output terminal of channel 2 on the NL-2XX series controller. Connect the lead labeled "Ring GND" to the negative(-) output terminal of channel 2 on the NL-2XX series controller. Connect the lead labeled "Fan V+" to the positive(+) output terminal of a 24VDC power supply. Connect the lead labeled "Fan GND" to the negative(-) output terminal of a 24VDC power supply. Connect the lead labeled "Shield" to chassis ground.
6. Connect the two leads labeled "RING 1, 2 V+" & "RING 3 V+" to the same positive(+) output terminal of the power supply or controller. Connect the two leads labeled "RING 1, 2 -" & "RING 3 -" to the same negative(-) output terminal of the power supply or controller. Connect the lead labeled "Shield" to chassis ground.
7. Connect Pin 1 of the M12-M connector to the positive(+) output terminal of the power supply or controller. Connect Pin 3 of the M12-M connector to the negative(-) output terminal of the power supply or controller. Connect the shell of the M12-M connector to chassis ground. Pins 2 and 4 are not used.

NERLITE CDI SERIES ILLUMINATORS

CONFIGURATION GUIDE



Part Number	Description	Continuous Current				Continuous Operation			Strobe Operation	Connection Notes Reference Number (See the Connection Notes on back of page)
		On Axis Lighting	Off Axis Lighting	Fan	Fan Cooled	No Controller Required (Can be Connected Directly to 24VDC)	Controller Required (Select Any NL2XX Series Controllers)	NL-2XX Optional (Used only if Intensity And/Or Ethernet Control Is Desired)	NL-2XX Required)	
NER-011251500	CDI-150/25 Red Continuous	240mA	80mA	62mA	X		Figure A	Figure A		5
NER-011251510	CDI-150/25 White Continuous	480mA	160mA	62mA	X		Figure A	Figure A		5
NER-011252000	CDI-200/75 Red Continuous	300mA	380mA	100mA	X		Figure A	Figure A		5
NER-011252010	CDI-200/75 White Continuous	600mA	760mA	100mA	X		Figure A	Figure A		5

 If using this product in strobe mode with an NL-2XX Series Lighting Controller, refer to the warning on the back of this document.

Hardware Required

Item	Description	Part Number
1	CDI Series Illuminators	NER-01125XXXX
2	Power Supply DSP60 24VDC 2.5A DIN Mount	NER-011504100
3	NL-200 Series Lighting Controller	98-000152-0X

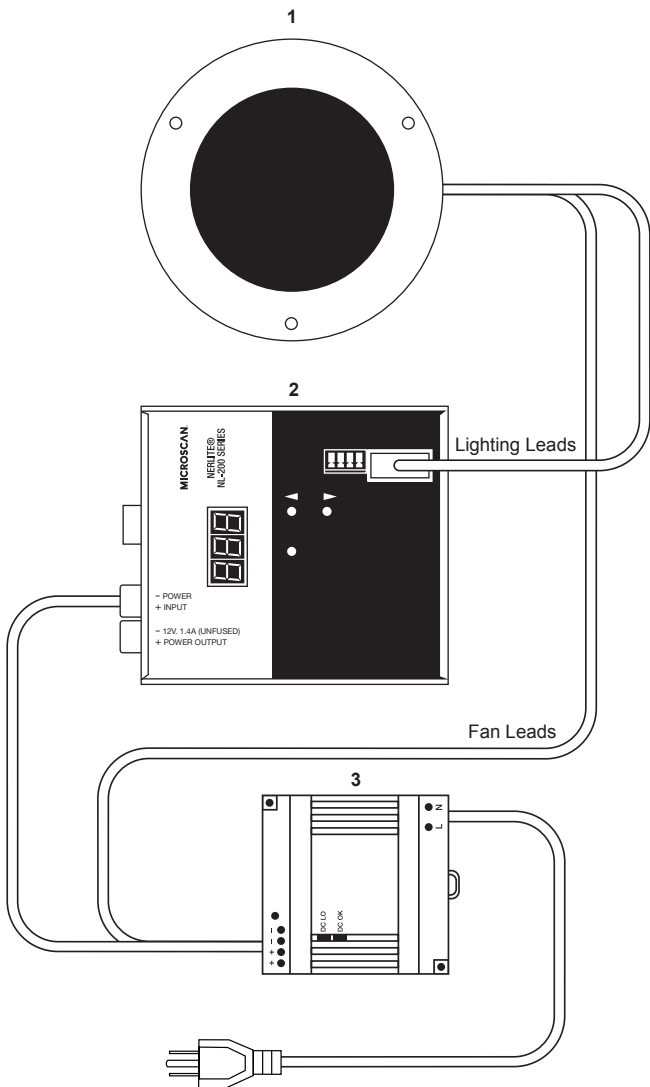


Figure A
CDI Series Illuminator
with NL-200 Controller, power supply
and fan circuit

CDI Calibration

1. After installation, set both the On Axis Lighting (DOAL) and Off Axis Lighting (Ring/Dome) channels to 100% of their rated currents.
2. Reduce the current to the On Axis Lighting (DOAL) until the desired image is displayed on your vision system.

Accessories

AC Power Cord US	NER-030028300	Power Cord For Power Supply
AC Power Cord EU	NER-030028400	Power Cord For Power Supply
AC Power Cord UK	NER-030028500	Power Cord For Power Supply

WARNING! When connecting a strobe light to an NL-2XX Series Lighting Controller, you must set the current rating to 10% of the current specified for the light in this document.

The NL-2XX Series Controller allows the operator to set the brightness (current) to 1000% in strobe mode. By setting the initial current rating to 10% of the light's specified current, a brightness setting of 1000% results in the light receiving 100% of its rated current. This will provide maximum light output without damaging the light.

Note: Certain lights require both channels of the NL-2XX Series Lighting Controller. Channel 1 and Channel 2 may have different current specifications on some models. Be sure each channel is set correctly as specified in this document.

General Notes:

1. Those lights that do not require a controller require 24VDC +/- 1%.
2. The NL-2XX series controllers require 24 to 48VDC.
3. The cable on all flying lead models is terminated with three, five, or seven leads. Each lead is labeled. See "Connection Notes" for connection instructions.
4. For all models with M12 connectors, the connector is a 4 pin, male, M12 connector. See "Connection Notes" or connector pin out and connection instructions.
5. All models with separate fan circuits must have 24VDC connected to the fan circuit at all times when the light is operating.
6. When operating in strobe mode at the maximum rated current, the maximum pulse width = 1mS and the maximum duty cycle = 6%. See the NL-2XX series controllers' manual for pulse width and duty cycle limitations under various conditions.

Connection Notes:

1. Connect the lead labeled "V+" to the positive(+) output terminal of the power supply or controller. Connect the lead labeled "GND" to the negative(-) output terminal of the power supply or controller. Connect the lead labeled "Shield" or "SHLD" to chassis ground.
2. Connect the lead labeled "V+" to the positive(+) output terminal of the power supply or controller. Connect the lead labeled "GND" to the negative(-) output terminal of the power supply or controller. Connect the lead labeled "Fan V+" to the positive(+) output terminal of a 24VDC power supply. Connect the lead labeled "Fan GND" to the negative(-) output terminal of a 24VDC power supply. Connect the lead labeled "Shield" to chassis ground.
3. Connect the lead labeled "V+1" to the positive(+) output terminal of channel 1 on an NL-2XX series controller. Connect the lead labeled "GND1" to the negative(-) output terminal of channel 1 on the NL-2XX series controller. Connect the lead labeled "V+2" to the positive(+) output terminal of channel 2 on the NL-2XX series controller. Connect the lead labeled "GND2" to the negative(-) output terminal of channel 2 on the NL-2XX series controller. Connect the lead labeled "Shield" to chassis ground.
4. Connect the lead labeled "+" to the positive(+) output terminal of the power supply or controller. Connect the lead labeled "-" to the negative(-) output terminal of the power supply or controller. Connect the cable's braided shield to chassis ground.
5. Connect the lead labeled "DOAL V+" to the positive(+) output terminal of channel 1 on an NL-2XX series controller. Connect the lead labeled "DOAL GND" to the negative(-) output terminal of channel 1 on the NL-2XX series controller. Connect the lead labeled "Ring V+" to the positive(+) output terminal of channel 2 on the NL-2XX series controller. Connect the lead labeled "Ring GND" to the negative(-) output terminal of channel 2 on the NL-2XX series controller. Connect the lead labeled "Fan V+" to the positive(+) output terminal of a 24VDC power supply. Connect the lead labeled "Fan GND" to the negative(-) output terminal of a 24VDC power supply. Connect the lead labeled "Shield" to chassis ground.
6. Connect the two leads labeled "RING 1, 2 V+" & "RING 3 V+" to the same positive(+) output terminal of the power supply or controller. Connect the two leads labeled "RING 1, 2 -" & "RING 3 -" to the same negative(-) output terminal of the power supply or controller. Connect the lead labeled "Shield" to chassis ground.
7. Connect Pin 1 of the M12-M connector to the positive(+) output terminal of the power supply or controller. Connect Pin 3 of the M12-M connector to the negative(-) output terminal of the power supply or controller. Connect the shell of the M12-M connector to chassis ground. Pins 2 and 4 are not used.

NERLITE SPOT LIGHT SERIES ILLUMINATORS

CONFIGURATION GUIDE



Part Number	Description	Continuous Current	Strobe Current	Fan Cooled	Continuous Operation			Strobe Operation	Connection Notes Reference Number (See the Connection Notes on back of page)
					No Controller Required (Can be Connected Directly to 24VDC)	Controller Required (Select NL2XX Series Controllers)	Optional (Used only if Intensity And/Or Ethernet Control is Desired)	NL-2XX Required)	
NER-011656003G	S-20 Red	350mA	500mA			Figure B	Figure B	Figure B	1
NER-011656013G	S-20 White	700mA	1.00A			Figure B	Figure B	Figure B	1
NER-011657600G	S-20 Ultraviolet	350mA	500mA			Figure B	Figure B	Figure B	1
NER-011657601G	S-20 Ultraviolet	700mA	1.00A			Figure B	Figure B	Figure B	1
NER-011650323	S-40 Red Continuous, Non-Diffuse	63mA	NA		Figure A		Figure B		1
NER-011650304	S-40 Red Strobe, Non-Diffuse	NA	600mA					Figure B	1
NER-011650320	S-40 Red Continuous, Diffuse	63mA	NA		Figure A		Figure B		1
NER-011650305	S-40 Red Strobe, Diffuse	NA	600mA					Figure B	1
NER-011651220	S-40 White Continuous, Non-Diffuse	45mA	NA		Figure A		Figure B		1
NER-011651204	S-40 White Strobe, Non-Diffuse	NA	1.00A					Figure B	1
NER-011651211	S-40 White Strobe, Diffuse	NA	1.00A					Figure B	1

 If using this product in strobe mode with an NL-2XX Series Lighting Controller, refer to the warning on the back of this document.

Hardware Required

Item	Description	Part Number
1	S Series Illuminators	NER-01165XXXXX
2	Power Supply DSP60 24VDC 2.5A DIN Mount	NER-011504100
3	NL-200 Current Controller Series	98-000152-0X

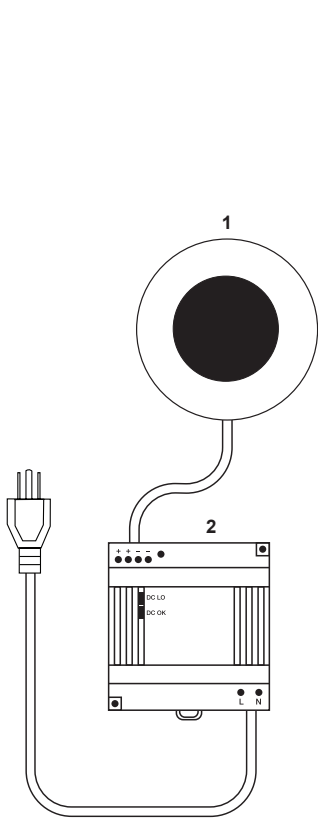


Figure A
Spot Light Series Illuminator
with power supply

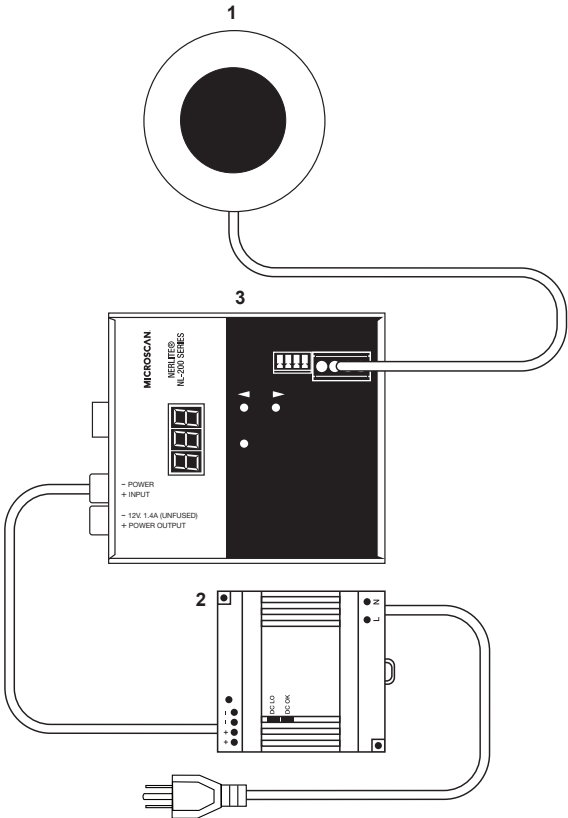


Figure B
Spot Light Series Illuminator
with NL-200 Controller and power supply

Accessories

AC Power Cord US	NER-030028300	Power Cord For Power Supply
AC Power Cord EU	NER-030028400	Power Cord For Power Supply
AC Power Cord UK	NER-030028500	Power Cord For Power Supply

WARNING! When connecting a strobe light to an NL-2XX Series Lighting Controller, you must set the current rating to 10% of the current specified for the light in this document.

The NL-2XX Series Controller allows the operator to set the brightness (current) to 1000% in strobe mode. By setting the initial current rating to 10% of the light's specified current, a brightness setting of 1000% results in the light receiving 100% of its rated current. This will provide maximum light output without damaging the light.

Note: Certain lights require both channels of the NL-2XX Series Lighting Controller. Channel 1 and Channel 2 may have different current specifications on some models. Be sure each channel is set correctly as specified in this document.

General Notes:

1. Those lights that do not require a controller require 24VDC +/- 1%.
2. The NL-2XX series controllers require 24 to 48VDC.
3. The cable on all flying lead models is terminated with three, five, or seven leads. Each lead is labeled. See "Connection Notes" for connection instructions.
4. For all models with M12 connectors, the connector is a 4 pin, male, M12 connector. See "Connection Notes" or connector pin out and connection instructions.
5. All models with separate fan circuits must have 24VDC connected to the fan circuit at all times when the light is operating.
6. When operating in strobe mode at the maximum rated current, the maximum pulse width = 1mS and the maximum duty cycle = 6%. See the NL-2XX series controllers' manual for pulse width and duty cycle limitations under various conditions.

Connection Notes:

1. Connect the lead labeled "V+" to the positive(+) output terminal of the power supply or controller. Connect the lead labeled "GND" to the negative(-) output terminal of the power supply or controller. Connect the lead labeled "Shield" or "SHLD" to chassis ground.
2. Connect the lead labeled "V+" to the positive(+) output terminal of the power supply or controller. Connect the lead labeled "GND" to the negative(-) output terminal of the power supply or controller. Connect the lead labeled "Fan V+" to the positive(+) output terminal of a 24VDC power supply. Connect the lead labeled "Fan GND" to the negative(-) output terminal of a 24VDC power supply. Connect the lead labeled "Shield" to chassis ground.
3. Connect the lead labeled "V+1" to the positive(+) output terminal of channel 1 on an NL-2XX series controller. Connect the lead labeled "GND1" to the negative(-) output terminal of channel 1 on the NL-2XX series controller. Connect the lead labeled "V+2" to the positive(+) output terminal of channel 2 on the NL-2XX series controller. Connect the lead labeled "GND2" to the negative(-) output terminal of channel 2 on the NL-2XX series controller. Connect the lead labeled "Shield" to chassis ground.
4. Connect the lead labeled "+" to the positive(+) output terminal of the power supply or controller. Connect the lead labeled "-" to the negative(-) output terminal of the power supply or controller. Connect the cable's braided shield to chassis ground.
5. Connect the lead labeled "DOAL V+" to the positive(+) output terminal of channel 1 on an NL-2XX series controller. Connect the lead labeled "DOAL GND" to the negative(-) output terminal of channel 1 on the NL-2XX series controller. Connect the lead labeled "Ring V+" to the positive(+) output terminal of channel 2 on the NL-2XX series controller. Connect the lead labeled "Ring GND" to the negative(-) output terminal of channel 2 on the NL-2XX series controller. Connect the lead labeled "Fan V+" to the positive(+) output terminal of a 24VDC power supply. Connect the lead labeled "Fan GND" to the negative(-) output terminal of a 24VDC power supply. Connect the lead labeled "Shield" to chassis ground.
6. Connect the two leads labeled "RING 1, 2 V+" & "RING 3 V+" to the same positive(+) output terminal of the power supply or controller. Connect the two leads labeled "RING 1, 2 -" & "RING 3 -" to the same negative(-) output terminal of the power supply or controller. Connect the lead labeled "Shield" to chassis ground.
7. Connect Pin 1 of the M12-M connector to the positive(+) output terminal of the power supply or controller. Connect Pin 3 of the M12-M connector to the negative(-) output terminal of the power supply or controller. Connect the shell of the M12-M connector to chassis ground. Pins 2 and 4 are not used.

NERLITE LLG SERIES ILLUMINATORS

CONFIGURATION GUIDE

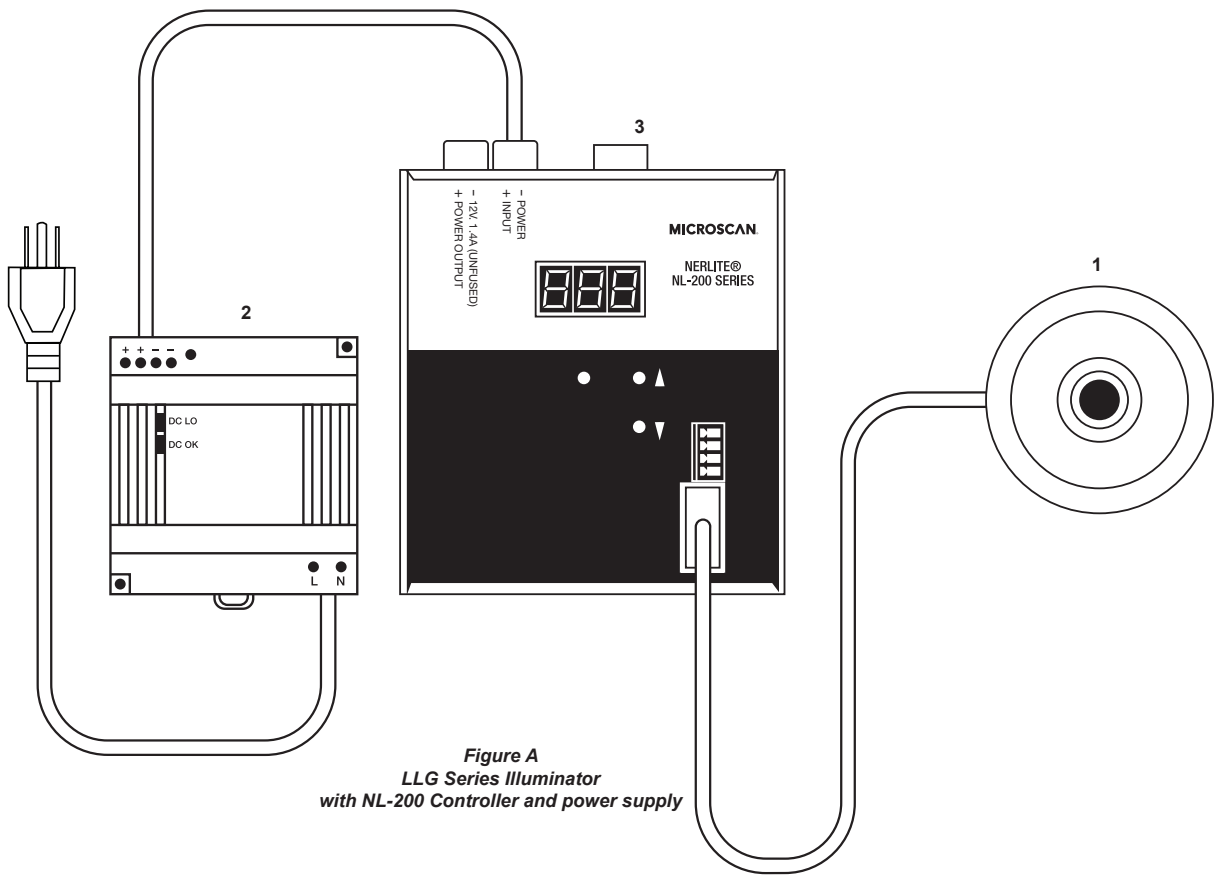


Part Number	Description	Continuous Current	Strobe Current	Fan Cooled	Continuous Operation			Strobe Operation	Connection Notes Reference Number (See the Connection Notes on back of page)
					No Controller Required (Can be Connected Directly to 24VDC)	Controller Required NL2XX Series Controllers	NL-2XX Optional (Used only if Intensity And/Or Ethernet Control Is Desired)	NL-2XX Required)	
NER-011656913	LLG-20-6 White	700mA	1.00A			Figures A	Figure A	Figure A	1

 If using this product in strobe mode with an NL-2XX Series Lighting Controller, refer to the warning on the back of this document.

Hardware Required

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3	NL-200 Series Lighting Controller	98-000152-0X



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