



TOKISTAR LIGHTING INSTRUCTION MANUAL

Fixture Type ____ - ____ - ____

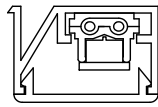
Cable Lighting

General Description

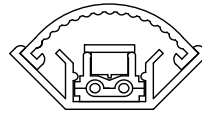
Tokistar's Cable Lighting Series is low-voltage lighting system using 0.2 Watt LEDs operating at 8 VDC and two types of incandescent lamps operating at 12 VAC. Each Cable Light fixture is labeled with wattage and operating voltage.



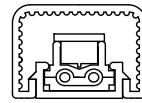
MC Series



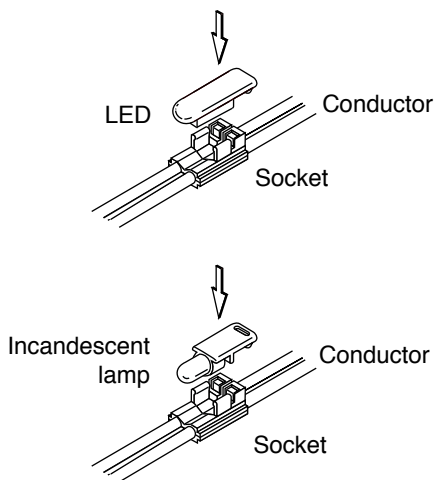
RC Series



CR Series



CT Series



MCC - 50 - 2000K

Series	Socket Spacing		Light Source	
	Code	Inches	Code	Watts/Volts
MCC	30	1.2" (30 mm)	2000K	0.2 W / 8VDC
MCCD	50	2.0" (50 mm)	2500K	0.2 W / 8VDC
MCW	80	3.0" (80 mm)	3000K	0.2 W / 8VDC
MCWD	100	4.0" (100 mm)	5000K	0.2 W / 8VDC
RC	150	6.0" (150 mm)	AM	0.2 W / 8VDC
RCD			BL	0.2 W / 8VDC
CRO			GR	0.2 W / 8VDC
CRL			RD	0.2 W / 8VDC
CRLD			201	0.48 W / 12 VAC
CTO			202	0.9 W / 12 VAC
CTL				
CTLD				

! PRECAUTIONS

1. Read all instructions completely before beginning installation.
2. Turn off electricity before beginning installation.
3. All wiring is to be performed by a qualified electrician.
4. Installation must comply with the National Electrical Code, and all applicable codes.
5. Turn main supply to the LED Driver or transformer on only after all connections have been made and tested.
6. Use only LED Drivers or transformers provided by Tokistar with the system.
7. Certain adhesives produce a bi-product of corrosive gas during their curing process, and should not be used in conjunction with our LED Systems where the gas cannot be vented. Consult with the Sealant company for such applications.

TOKISTAR® LIGHTING

1015 E. Discovery Lane

Anaheim, CA 92801

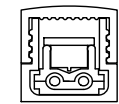
TEL: 714 772 7005 FAX: 714 772 7014

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Mounting Fixtures

Fixtures must be securely mounted in place. Never position the fixture where lamps may be in direct contact with any surface or object. Construction adhesive, adhesive tape or screws may be used to mount fixtures. When using screws, make sure the screw is located between lamp sockets.

When using construction adhesive or adhesive tape, the channel can be attached as one complete assembly.



Construction
Adhesive



Adhesive
Tape

Adhesive Tape Mounting
(Part #s: WF-CL20 & WF-CL50)

Adhesive tape works best on a smooth clean surface. First attach the adhesive tape to the surface, then remove the protective backing and press the Cable Lighting fixture in place.

Mounting with Screws

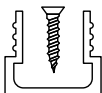
When using screws, gently pry the base and cover apart and remove the Cable Lighting fixture. Attach the base, making sure the screws are located between sockets, then snap the fixture back in place and reattach the cover.



3) Snap in lens



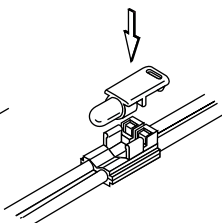
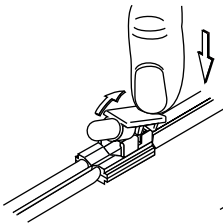
2) Snap in fixture



1) Mount Base

Replacing Lamps

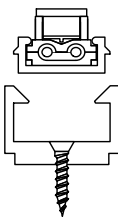
Fingertip pressure to the bulb or LED releases it from the socket for easy and quick relamping.



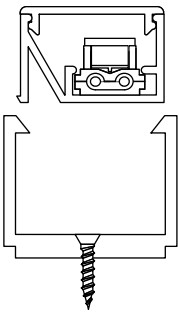
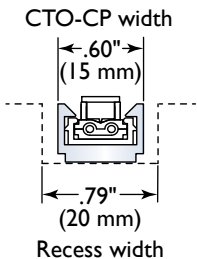
Mounting Clamps

(Part #s: CTO-CP & RC-CP)

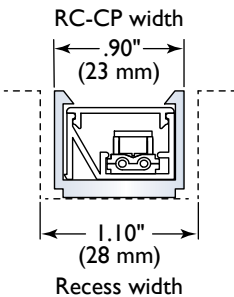
Mounting clamps are available for CTO and RC Series. Recommended spacing is every 12".



CTO-CP
for CTO Series

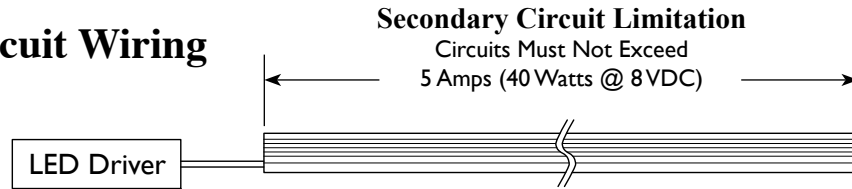


RC-CP
for RC Series



LED Systems

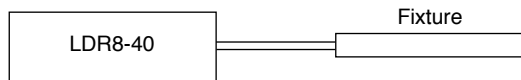
Secondary Circuit Wiring



LED Driver Installation

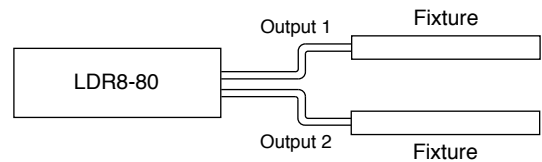
LDR8-40

This 40 Watt UL Recognized Class 2 LED Driver converts an AC input into an 8 VDC output. Refer to the manual provided with the LED Driver for detailed installation instructions.



LDR8-80

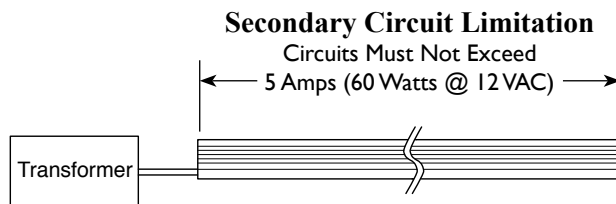
This dual output Class 2 LED Driver has two independent 40 Watt outputs. Refer to the manual provided with the LED Driver for detailed installation instructions.



Part#	Input Volts	Output Volts	Output Ratings	LED Capacity
LDR8-40	100~240	8VDC	1 @ 5 Amps	200
LDR8-80	100~240	8VDC	2 @ 5 Amps	400

Incandescent Systems

Secondary Circuit Wiring



Class 2 Transformers		Incandescent Lamp Capacity	
Part Number	Outputs	0.48 Watt	0.90 Watt
C2-60-12V	1 @ 60 Watt / 12VAC	125	66
C2-120-12V	2 @ 60 Watt / 12VAC	250	132
C2-180-12V	3 @ 60 Watt / 12VAC	375	198
C2-240-12V	4 @ 60 Watt / 12VAC	500	264

Maximum Run Lengths

LEDs and Incandescent Lamps

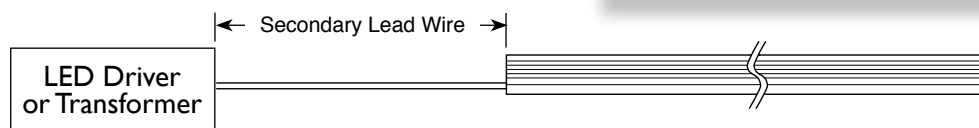
To minimize voltage drop and keep conductors safely within their rating, do not exceed the maximum lengths shown in the chart to the right for each independent length of Cable Light.

Spacing	0.2 Watt LED	0.48 Watt CL 201	0.9 Watt CL-202
1.2" (30 mm)	20' (6.0 M)	12' (3.6 M)	6' (3.0 M)
2.0" (50 mm)	33' (10.0 M)	20' (6.0 M)	11 (4.5 M)
3.0" (80 mm)	50' (15.2 M)	24' (7.3 M)	16 (5.8 M)
4.0" (100 mm)	60' (18.3 M)	30' (9.1 M)	21' (6.4 M)
6.0" (150 mm)	70' (21.3 M)	36' (11.0 M)	26' (7.9 M)

Recommended Lead Wire Size

The distance from the LED Driver or transformer to the fixture, and the load of the fixture, will determine the proper size of secondary wire. The chart on the right indicates recommended wire size based upon the driver/transformer being loaded to its full capacity of 5 Amps.

Secondary Lead Wires	
Wire Size	Wire Length
#16 AWG	12' (3.6 M)
#14 AWG	20' (6.1 M)
#12 AWG	30' (9.1 M)
#10 AWG	45' (13.7 M)



LED Dimmer Instructions (Optional)

LC Dimming System

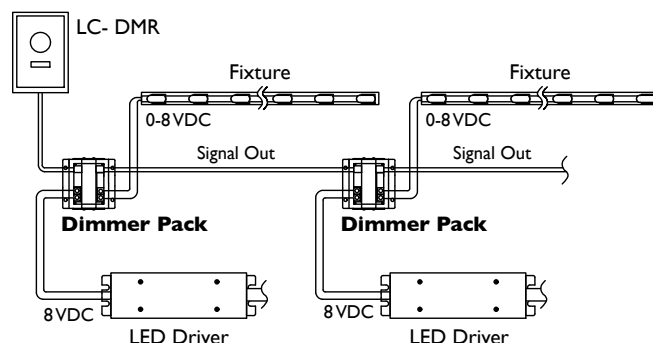
Wall Dimmer - Part #: LC-DMR

Power to the remote wall dimmer is provided from the LED Driver powering the first Dimmer Pack. A 50 foot CAT5 cable is provided.

Dimmer Pack - Part #: LC-1CH-DP

Each dimmer pack receives an 8 VDC output from an LDR8-40 LED Driver. The LDR8-80 LED Driver has 2 each 8 VDC outputs, and a dimmer pack is required for each output. A CAT5 cable is provided with each unit. Up to 25 dimmer packs may be connected in series if the total length of all CAT5 cable does not exceed 165 feet from wall dimmer to last dimmer pack.

For further information, refer to the instruction manual provided with the LC-1CH-DP.



LC-1CH-MULTI Dimming System

Tokistar's LC-1CH-MULTI Dimmer Pack is compatible with industry-standard dimmers working on DMX or 0/1-10 VDC protocol.

Dimmer Pack - Part #: LC-1CH-MULTI

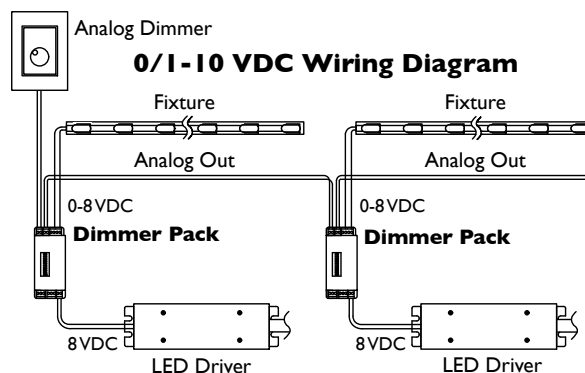
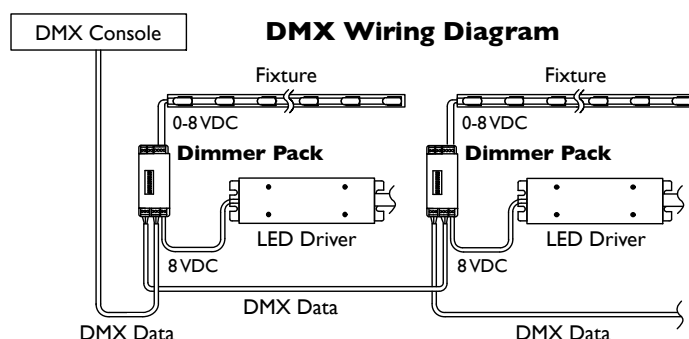
Each dimmer pack receives an 8 VDC output from an LDR8-40 LED Driver. The LDR8-80 LED Driver has 2 each 8 VDC outputs, and a dimmer pack is required for each output.

DMX Mode - Each unit is independently addressable. Up to 36 dimmer packs may be connected in series. For applications exceeding 36 dimmer packs, an additional feed from the DMX dimmer is required. The additional feed(s) can be sent directly from the dimmer, or you may use DMX Splitters.

Analog Modes - For operation from devices using 0/1-10VDC protocol, up to 10 dimmer packs may be connected in series. For applications exceeding 10 dimmer packs, an additional feed from the analog dimming device is required.

Manual Mode - You may select a light intensity the fixtures will operate at. In this case, no external dimming device is required.

For further information, refer to the instruction manuals provided with the units.



⚠ PRECAUTION

All dimming components are rated for dry location only. They must be installed within an enclosure suitable for the environment.

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