



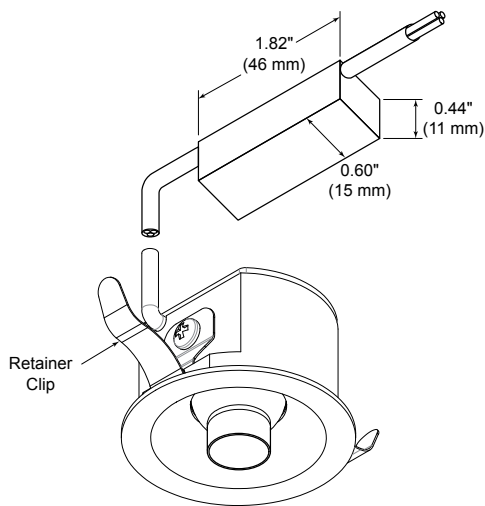
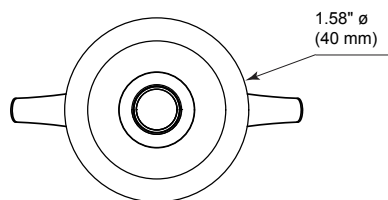
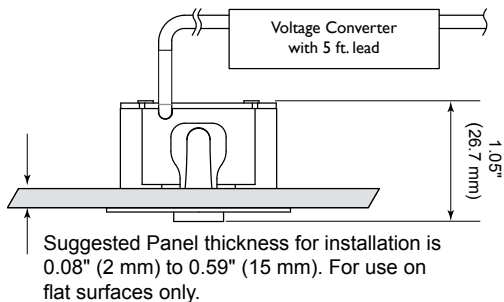
# TOKISTAR LIGHTING INSTRUCTION MANUAL

## Micro Downlight Series

Fixture Type: MDL

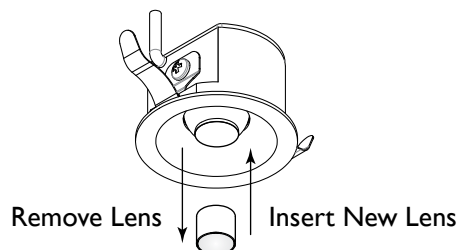
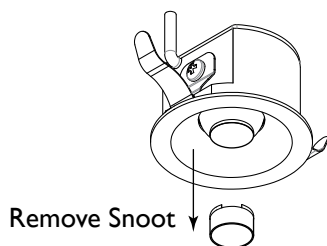
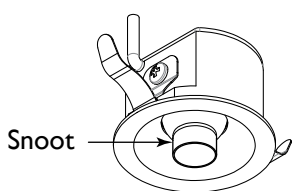
### General Description

Tokistar's Micro Downlight Series is a low-voltage lighting system. Each downlight consumes 1.6 watts, and operates at 24 VDC from Class 2 Power Supplies. Each fixture is supplied with a 59" (1.5 M) lead. Fixtures are labeled with wattage and operating voltage.

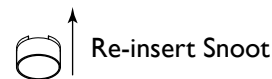


24 VDC Input  
 Red Wire: +V  
 White Wire: PWM Signal  
 Black Wire: -V

### Lens Replacement



To replace a lens: Remove the Snoot then gently tap the downlight on a hard surface and the lens will pop out. Insert new lens and re-insert Snoot.



### 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 Power Supply on only after all connections are made and tested.
6. Use only Power Supplies provided by Tokistar with the system.

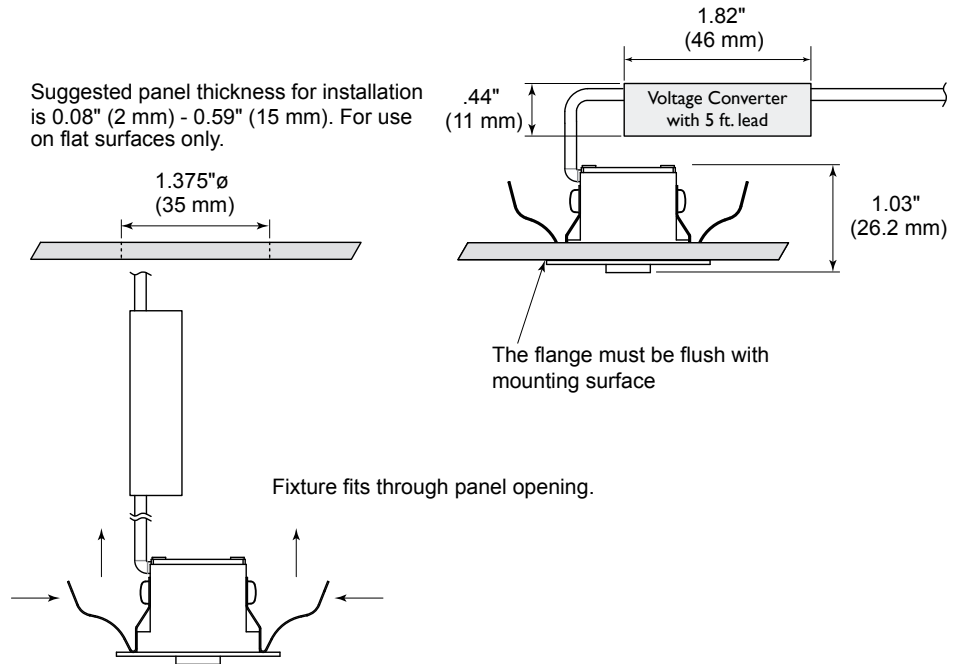
## TOKISTAR LIGHTING

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**Micro Downlight Series includes Fixtures and Power Supplies.**

**Mounting Detail**

Provide a 1-3/8" diameter hole in the mounting surface. Insert the fixture through the opening until the retainer clip locks in place.



**LED Driver Installation**

**LDR24-16 / LDR24-25 / LDR24-40**

These Class 2 LED Drivers convert an AC input into a 24 VDC output. Refer to the manual provided with the LED Driver for detailed installation instructions.

Part#	Input Volts	Output Volts	Output Ratings	Capacity
LDR24-16	100~240	24VDC	1 @ 0.67 Amps	10 Downlights
LDR24-25	100~240	24VDC	1 @ 1.0 Amp	15 Downlights
LDR24-40	100~240	24VDC	1 @ 1.67 Amps	25 Downlights

100~277 VAC Input (North America Only)

**LDR24-4A**

This 96 Watt Class 2 LED Driver converts an AC input into a 24 VDC output. Refer to the manual provided with the LED Driver for detailed installation instructions.

Part#	Input Volts	Output Volts	Output Ratings	Capacity
LDR24-4A	100~240	24VDC	1 @ 4.0 Amps	60 Downlights

100~277 VAC Input (North America Only)

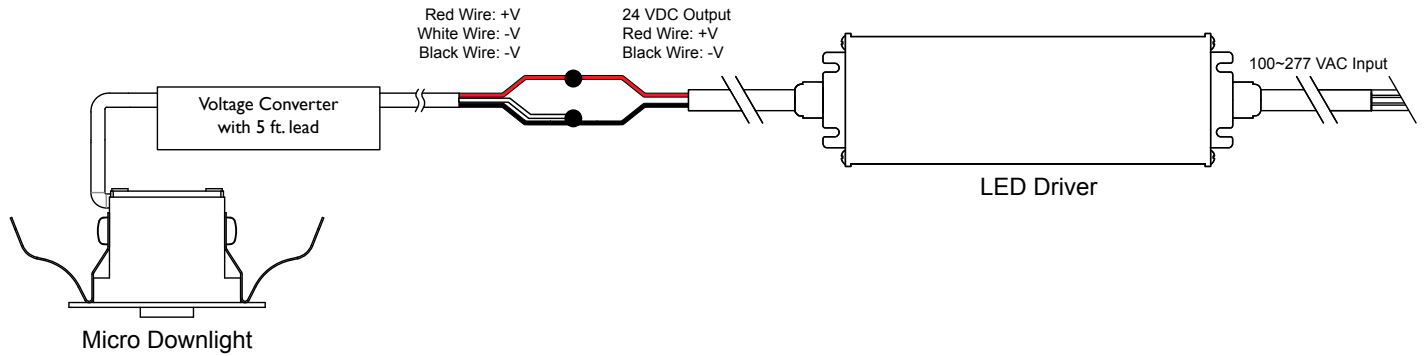
**LDR24-192**

Tokistar's LDR24-192 has two independent 96 watt outputs. If the system is dimmed, each of the outputs requires an independent dimmer pack. This unit has wiring compartments for splicing on input and output leads, and can be connected directly to conduit. Refer to the manual provided with the LED Driver for detailed installation instructions.

Part#	Input Volts	Output Volts	Output Ratings	Capacity
LDR24-192	100~277	24VDC	2 @ 4.0 Amps	120 Downlights

## Non-Dimming Wiring Details

### Single Output LED Driver



## Dimming Micro Downlight

### LC-1CH-MULTI Dimming System

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

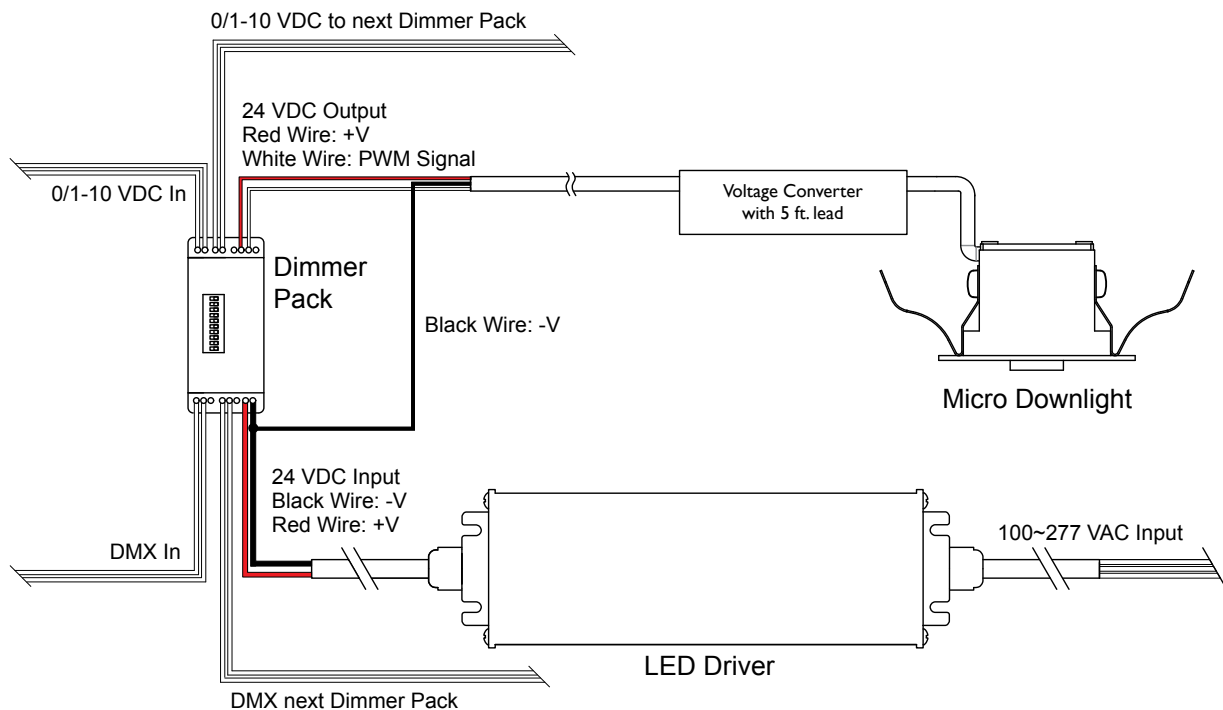
Each dimmer pack receives 24 VDC from an LED Driver. The LDR24-192 LED Driver has two independent 96 watt outputs. Each output requires an independent dimmer pack.

**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. Consult factory on details of DMX Splitters.

**Analog Modes** - For operation from devices using 0/1-10 VDC 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 manual provided with the LC-1CH-MULTI Dimmer Pack.



## Dimming Micro Downlight

### LC Dimming System

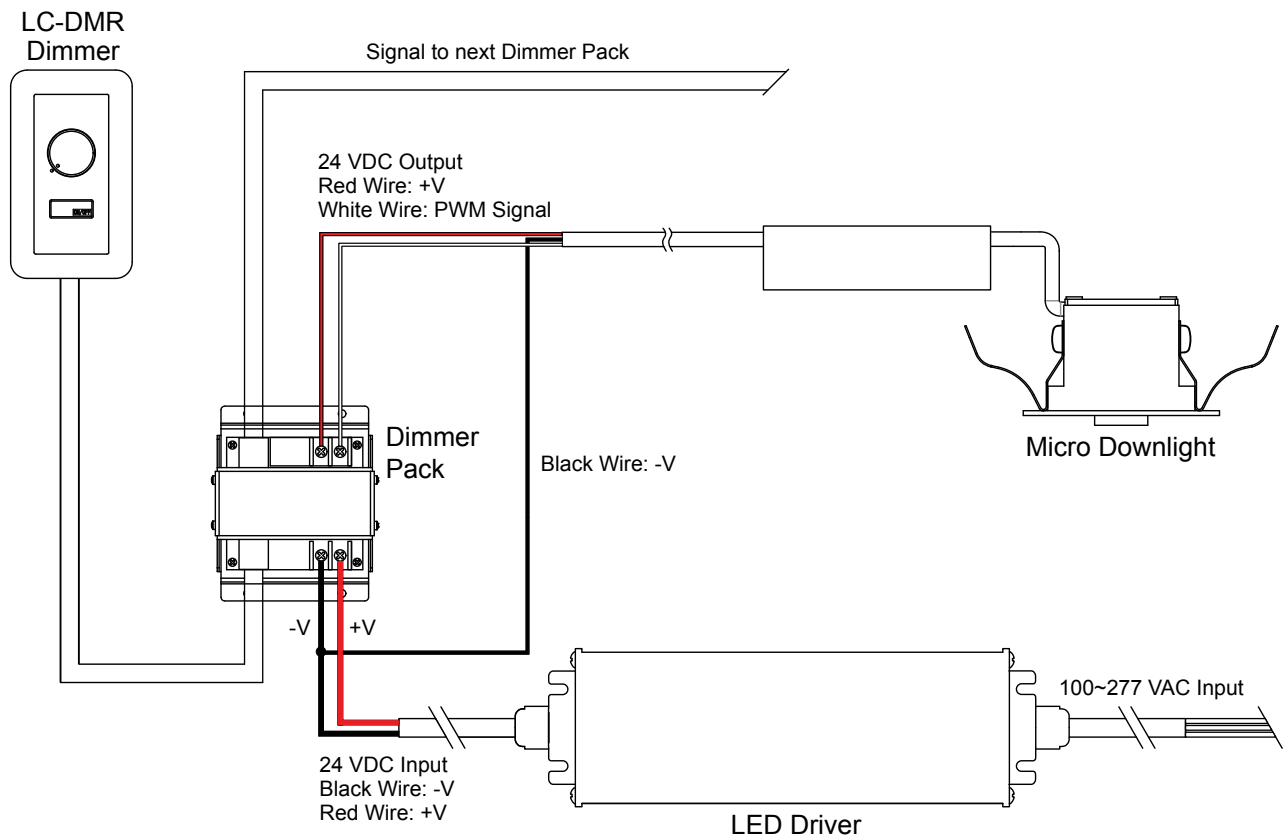
#### Wall Dimmer - Part #: LC-DMR

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 24 VDC from an LED Driver. The LDR24-192 LED Driver has two independent 96 watt outputs. Each output requires an independent dimmer pack. 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 the wall dimmer to the last dimmer pack.

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



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