REQUIRED SYSTEM PARTS:

(1)	QUADMOD Panel Light - 12"x12" (30.5x30.5 cm)	P/N:	QM-1212-CW
(1)	Power Supply (24VDC Class 2 96W max.)	P/N:	LED-24V-4A*
(1)	Power Link Cable - 12" (305mm)	P/N:	QM-PWL12
or	Power Link Cable - 39" (1cm)	P/N:	OM-PWL39

Accessories (purchased separately): Extension Cords and Connecting Cables (various lengths). Direct Connectors, and additional Mounting Clips.

INSTALLATION INSTRUCTIONS LED QUADMOD PANEL LIGHT

DIMMABLE, 8W/ft2, 24VDC SYSTEM

Outwater Industries' LED QUADMOD Panel Lights are designed for backlighting, shelf lighting and cabinet lighting applications (indoor locations only). To be used with 24VDC Class 2 96W max Power Supplies only. This system is dimmable.

READ ALL INSTRUCTIONS BEFORE INSTALLING SYSTEM.

Before beginning installation, be sure power is turned OFF to light system.

WARNING: DO NOT handle or assemble while QUADMOD Panels are turned on. The electrostatic discharge could damage the LEDs.

Information to help determine installation layout:

- QUADMOD Panel Lights come in 12"x12" (30.5x30.5 cm) panels and are scored every 3" (7.6 cm) to snap off as needed.

QUADMOD Panel Lights:	8W	Full 12" x 12" Panel
	.5W/3"	Individual Square
	12ft²	Maximum per 96W Power Supply

⁻ Maximum distance between 96W Power Supply and first QUADMOD Panel Light is 25' (7.6m).

Installing the QUADMOD Panel Light System:

Roughly lay out the lighting system before installation to verify final positioning of all components. Check that the Power Cord will properly reach the 120V power source.

- First, install the 24VDC Class 2 96W Power Supply (see Fig. #1). Keep power OFF to the Power Supply until the complete system is installed. Keep the Power Supply in an accessible location.
 NOTE: Use insulated staples or plastic ties to secure ALL cords throughout the installation.
- Next mount the Power Link Cable. If hardwiring, cut the barrel connector off the Power Link and hardwire to the 24VDC Class 2 96W Power Supply following NEC codes.
 IMPORTANT: Make sure to mate the Power Link's red wire (+) to red wire (+) of the Power Supply output; and the Power Link's black wire (-) to black wire (-) of the Power Supply output.
 - If using Plug-in, Outwater's 96W Power Supplies are available (part no. LED-24V-4A*) to allow you to quick-connect the barrel connector directly to the Power Supply (see #2).
 - Also if needed, **Extension Cords** (QM-EXT*) are available in 39", 79" and 118" (1m, 2m and 3m) lengths to use between the Power Link and the Power Supply (see #3).
- 3. Route Power Link and plug the other end of Power Link with small white QUADMOD Panel Connector into first QUADMOD Panel Light. Gently push in small connector until fully seated (see#4). QUADMOD Panel Connectors can be applied to any set of contacts on any edge of a QUADMOD Panel Light as long as the (+) and (-) polarity match.

 ${\bf NOTE: QUADMOD\ Panel\ Connectors\ and\ QUADMOD\ Panel\ Light\ will\ only\ mate\ when\ oriented\ properly\ since\ the\ positive\ blade\ is\ narrower\ than\ the\ negative\ blade.}$

4. Mount QUADMOD Panels to a flat surface using either Clips or Screws as noted below. For backlighting applications and to achieve even illumination (without seeing LEDs as dots of light), space QUADMOD Panel Lights at a minimum of 2" (50 mm) behind a translucent display panel.

Two Ways to Mount:

Mounting Clips or Screws can be placed into any mounting hole in Snap Panels, although refer to Fig. #5 for recommended positioning of clips and screws to differently sized panels.

When applying clips and screws be sure LEDs are facing in the proper direction.

Mounting with Clips:

- (6) Plastic clips are provided with each 12"x12" (30.5x30.5 cm) panel. Clips have 3M° double-sided tape
 on flat side for mounting. Additional bags of (6) clips may be purchased.
- b. Insert clips into mounting holes on QUADMOD Panel (see Fig. #5 for a guide). After clips are applied to a panel, peel-off tape backing and mount panel section to surface. Apply firm, even pressure for proper adhesion to take place on a smooth, clean surface. (NOTE: To remove an installed clip requires squeezing the pointed-end with pliers.)

Mounting with Screws:

- a. (6) #4 flat head Phillips screws 1/2"(1.3cm) are provided with each 12"x12"(30.5x30.5cm) panel.
- b. Use the QUADMOD Panel as a template and mark screw holes on mounting surface (see Fig #5 for a guide). Drill small pilot holes. Position QUADMOD Panel on surface. Insert screws into mounting holes on QUADMOD Panel and screw panel section to surface. DO NOT overtighten.

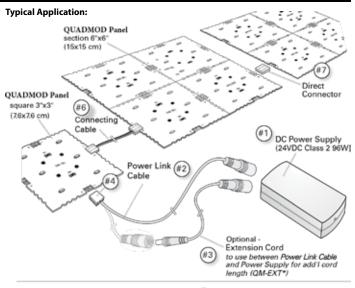
IMPORTANT: Each 3" (7.6 cm) section has <u>Rubber Spacers</u> to help protect the QUADMOD Panel Connectors and must be used when screwing panels directly to a metal surface or the light system may short out!

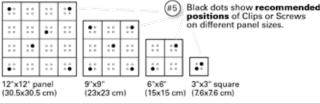
Continue adding the QUADMOD Panel sections as needed, linking the panels with Connecting Cables or using Direct Connectors to directly link panels (i.e. without cords). (see #6 and #7).

IMPORTANT: Make sure to match (+) and (-) on ALL links made in the run. If necessary flip Direct Connector or end of Connecting Cables or Power Link to match polarity.

 ${\it 6. \ \, Final \, step: Check \, all \, connectors \, and \, turn \, 120V \, power \, source \, onto \, the \, Power \, Supply.}$

ACCESSORIES: Outwater Industries offers other accessories including Switches and Dimmers. Check our catalog or website (www.outwater.com) for more details.





IMPORTANT SAFETY INSTRUCTIONS

CAUTION: To reduce the risk of fire, electric shock, or injury to persons:

- Not intended for outdoor use or where exposed to excessive moisture.
- DO NOT solder your own wires to input/outputs of QUADMOD Panel Lights. Must use Outwater QUADMOD Panel Connectors.
- Be careful when handling QUADMOD Panel Lights. QUADMOD Panel Lights are scored every 3" (7.6 cm) and can snap and break off.
- Use only insulated staples or plastic ties to secure ALL cords.
- Route and secure cords so that they will not be pinched or damaged when the sign or other structure is pushed to the wall.
- DO NOT run line voltage power supply cord through holes in walls, ceilings, floors or similar permanent structures.
- If required, a licensed electrician should be consulted for wiring through permanent structures. When mounting and wiring light system, follow all local electric codes and the National Electrical Code (NEC).
- Disconnect electrical power before modifying system.
- Individual LEDs cannot be replaced. Instead replace entire QUADMOD Panel Light section.

This light is intended to be used as a fixture on metal, wood, particle board or other structurally sound, heat-resistant surface. Also intended for use with indoor signage. Care should be taken during and after installation to avoid contact of light with wiring, cord, or any combustible material.

SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE. For Technical Assistance: 1.800.631.8375



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Outwater Industries, Inc. assumes no liability for improper installation.