

Thin-Lite

Recommended Installation Procedures

Which size wire should I use for installation?

We recommend you use 16-gauge wire for optimal installation of a single fixture. Please see note below under "How much voltage drop is in my circuit?"

What is the recommended voltage at the battery?

Test input voltage at mounting location of fixture. Thin-Lite 12VDC fixtures are designed for optimal performance with input power of 12VDC + 2 VDC/ -1.5 VDC.

How much voltage drop is on my circuit?

First, test the voltage on the circuit at the battery. Next, test the voltage at the farthest fixture on a series or loop run. Subtract the fixture voltage from the battery voltage. This is the amount of voltage you have lost through your wiring, or your voltage drop. The optimal voltage for lighting is between 13.2 volts and 10.8 volts.

How do I fix a voltage drop problem?

You can fix a voltage drop problem a few different ways:

Increase the wire size. Larger wire has a lower resistance, and less voltage drop will occur. See table 1.

If you are using a series run, you can reduce voltage drop by changing it to a loop or T run.

CAUTION: DO NOT OVER-AMP WIRE; IT CAN CAUSE FIRE DANGER!

Table 1

Wire Gauge	Max Amps	Max Watts	Resistance Per Foot
12	16	192	.00162
10	24	288	.00108
8	32	384	.00064

How do I mount the fixture?

1. Carefully remove lens. When necessary remove lamps and reflector to locate mounting holes in fixture chassis.
2. Attach black wire from fixture to + (positive) power input lead with wire nut or similar connector (not supplied).
3. Attach white wire from fixture to - (negative) power input lead.
4. Mount fixture on flat surface. Use with at least two threaded fasteners (not supplied).
5. Re-install reflector and lamp(s) and test unit for proper operation.
6. Carefully re-install lens.