Catenary Mounting Kit

KIT CONTENTS (shown below):

(1) S-Biner, #2
(2) Ace Connector, large
(2) Ace Connector, small
(2) Hex wrenches to fit Connectors
(2) Shrink wrap sleeve, small
(2) Shrink warp sleeve, large

NOT INCLUDED:

Stainless Steel Wire Rope (diameter to be specified by Engineer)
By Others
www.usrigging.com/wire-rope.html

12/2 Landscape Lighting Wire
By Others
www.paigewire.com

Stainless Steel Heavy Duty Wire Rope Clips (2 needed per fixture. Size dependent upon wire diameter.)
By Others
www.safelandindustrial.com

UV/sunlight/moisture-resistant black cable ties
By Others
e.g. Part # CT50175C00 on page G-5: http://ecat.burndy.com/Comergent//burndy/documentation/section%20g-unirap.pdf

Beachside Lighting fixture L-011-H hanging fixture shown as an example.

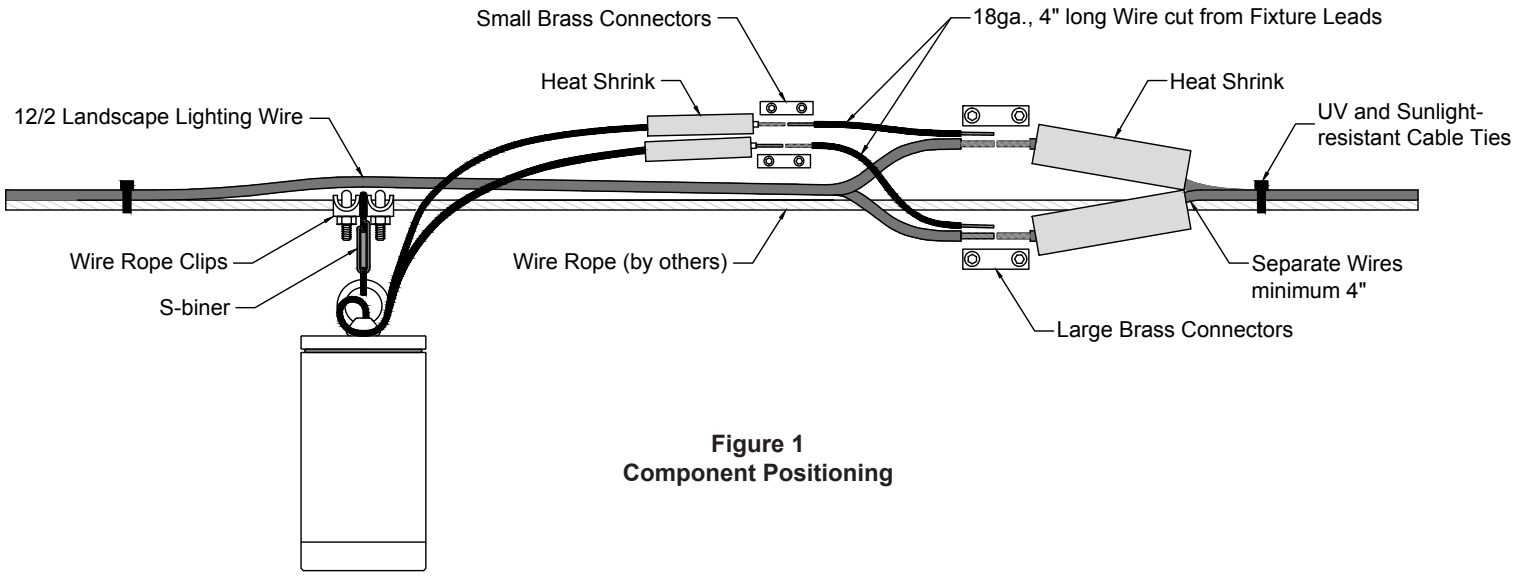

Figure 1
Component Positioning

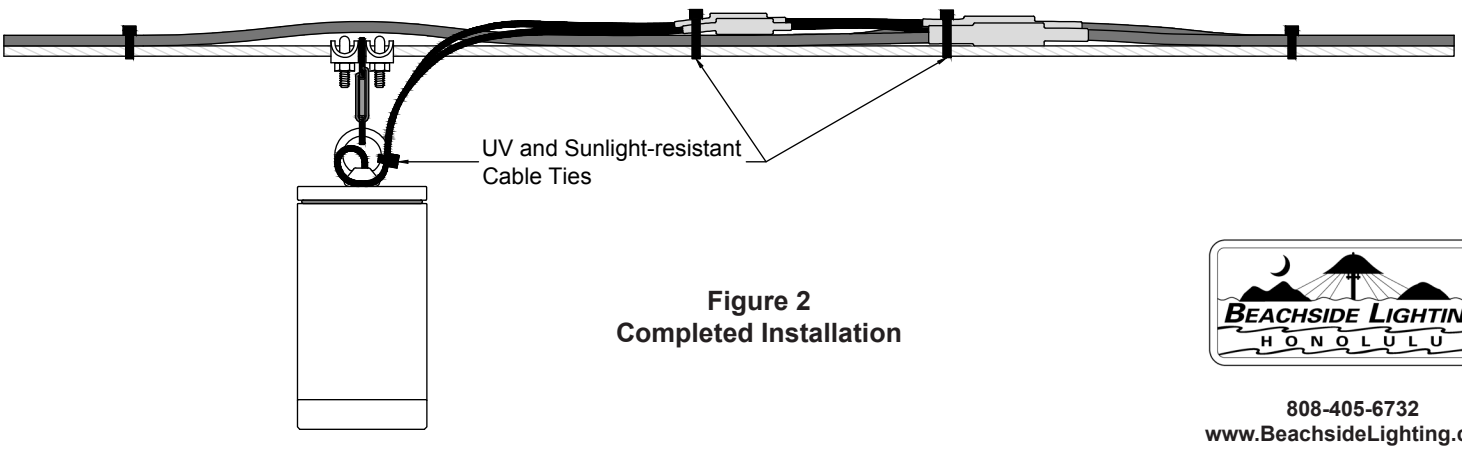

Figure 2
Completed Installation

BEACHSIDE LIGHTING
HONOLULU

808-405-6732
www.BeachsideLighting.com

These instructions reference the attachment of a hanging Beachside Lighting fixture to an existing catenary cable. An engineer needs to determine the size of the stainless steel cable based upon the total distance, positioning, number of fixtures, and total weight (see fixture weight on Beachside Lighting spec. sheets). These instructions are for low voltage (12 Volt) fixtures only. Fixtures require a remote transformer. Do not exceed total fixture load of 270 watts per line. The detail shows a removable "S" clip, as well as a second connection to the fixture off of the main connection, allowing any needed servicing of the fixture without involving the main electrical line along the cable. Refer to Figure 1 for component positioning.

1. If the electrical wire is already hooked up to a transformer and energized, verify that power is OFF.
2. Run 12/2 landscape lighting wire (UV and sunlight resistant) from source up to one end of catenary cable.
3. Use a UV- and sunlight-resistant cable tie to attach 12/2 wire to the cable at one end. Remaining attachments of 12/2 wire to cable should be at 18" – 24" (50 – 60cm) intervals, or as needed.
4. Mark desired fixture locations along the cable by taking a small section of electrical tape and folding it over cable at each fixture location.
5. Cut 12/2 landscape lighting wire at 12" (30cm) prior to marked fixture location.
6. Use a UV- and sunlight-resistant cable tie to secure 12/2 wire to the cable at approximately 5" (12.5 cm) behind the cut.
7. Using a small knife or razor, carefully separate the sections of jacketed wire, then pull them apart from each other so each section is 4" (10cm) long. Strip the jacketing off of each end approximately 5/8" (1.6cm).
8. Slide one LARGE heat shrink (3" / 7.5cm long) from Catenary Mount Kit (CMK) over each of the sections.
9. After aligning any frayed strands in wires, insert one stripped end of 12/2 wire in to one end of LARGE brass connector. Verify that that no copper wire is visible outside of connector. Use hex wrench to tighten brass set screw onto copper wires. Do not over torque. Repeat this step for second wire / connector.
10. Hook the "S-Biner" from the CMK onto the fixture's top brass loop. Hook the other end of the S-Biner at the fixture location marked by the tape; remove tape.
11. Position the stainless wire clips (by others) on either side of the S-Biner. Threaded screws and nuts should be facing down towards ground. The positioning should be tight enough to prevent the S-Biner from moving left or right on the catenary cable, but loose enough to freely allow fixture's own weight to pull the S-Biner straight down.
12. Take the 12/2 landscape lighting wire which feeds the next fixture and separate the sections of jacketed wire using a knife or razor. Pull them apart from each other so each section is 2" (5cm) long. Strip the jacketing off of each end approximately 5/8" (1.6cm).
13. Cut off two 4" (10 cm) long sections of 18 gauge wire from the lighting FIXTURE's own leads. Strip both ends of each wire approximately 1/2" (1.3cm).
14. After aligning any frayed strands in wires, insert one stripped end of 12/2 wire together with one stripped end of 4" long 18 gauge fixture wire in to open end of LARGE brass connector. Verify that that no copper wire is visible outside of connector. Use hex wrench to tighten brass set screw on to copper wires. Do not over torque. Repeat this step for second set of wires / connector. There should now be two sets of brass connectors, each with a 12 ga. wire coming in from power source on one end and a 12 ga. + 18 ga. wire exiting the brass connector on the other side.
15. Hold the two brass connectors apart and slide each of the heat shrink pieces so they are centered over the brass connectors. Heat evenly with heat gun or hand held torch until sealed.
16. Position UV- and sunlight-resistant cable tie to go over both heat-shrinked connections and the cable on the exit side of the connectors as shown in Figure 1. Orient the wires so that they are on the top (sky side) of the catenary cable. Do not place the cable tie over the brass connector directly in the middle of the heat-shrinked connection. The cable tie should be tight enough to hold all wires securely to the cable but loose enough not to risk damaging the heat shrink and/or wires.
17. Insert one of the 18 gauge wires into one end of the SMALL brass connectors. Verify that that no copper wire is visible outside of connector. Use hex wrench to tighten brass set screw onto copper wires. Do not over torque. Repeat this step for second wire / SMALL connector.
18. With hanging fixture secured in place, measure the length of fixture wire needed from fixture to the middle of the small brass connectors. This should be 6 – 7" (15 – 18cm). Allow enough slack to loop the wire down and away from the connectors and back up along the side of the fixture's loop nearest the connectors, securing the loops with a UV- and sunlight-resistant cable tie as shown in Figure 2. Cut off all excess fixture wire. Strip the jacketing off of each end of fixture wire approximately 1/2" (1.3cm).
19. Slide the shorter, 2" long heat shrink tubing over each fixture wire towards the fixture. (Each of the fixture's two lead wires now has its own heat shrink on it). Insert one of the 18 gauge fixture wires into open end of one of the small brass connectors. Verify that that no copper wire is visible outside of connector. Use hex wrench to tighten brass set screw onto copper wires. Do not over torque. Repeat this step for second wire / connector.
20. Hold the two brass connectors apart and slide the heat shrink pieces so they are centered over the brass connectors. Heat evenly with heat gun or hand held torch until sealed.
21. Position UV- and sunlight-resistant cable tie to go over both heat-shrinked connections, 12/2 wire, and cable on the exit side of the connectors as shown in Figure 1. Orient the wires so that they are on the top (sky side) of the catenary cable. Do not place the cable tie over the brass connector directly in the middle of the heat-shrinked connection. The cable tie should be tight enough to hold all wires securely to the cable but loose enough not to risk damaging the heat shrink and/or wires.
22. Use 12/2 wire exiting heat-shrinked LARGE connectors to feed the next fixture. Repeat steps for each fixture.