## *Installation Instructions: Supplies you will need:* Drill,3/8" and 1-1/4" Drill Bits,Wire Tacks - 12-2 Wire - Table or Circular Saw Phillips Head Screw Driver - Wire Cutters/Strippers

Start by deciding and marking where each fixture will be installed and the sequence in which the secondary low voltage line will run. Fixtures should run in sequence with the total wattage of each run not exceeding the transformer's circuit. Total wattage is determined by multiplying # of lights x the wattage of their bulbs. IE (9 lights w/ 11 watt bulbs,  $9 \times 11 = 99$ ). Do not exceed the transformer's allowable circuit wattage.

Using the installation instructions provided with the transformer, mount the unit next to a GFI outlet and install the main secondary wire. The secondary wire must be UV resistant and UL listed 12-2 or thicker low voltage wire. Do not exceed 100' per run or 250 watts per run/circuit Use 10-2 or 8-2 wire for runs exceeding 100' or are over 250 watts. Make sure your main secondary wire is long enough to reach the first fixture. Never bury wire more than 6" below grade or install transformer or fixture within 10 feet of any source of water(spa, pool, etc).



Drill a 3/8" hole through the deck surface, feed main line through (B) to the under side of deck. Run wire under the deck to the first fixture. Secure the main wire to the deck using insulated cable tacks. Next, drill a second 3/8" hole through the deck and bring your secondary (C) wire up between the railing post and house up to the top rail. Tip: If using a hollow post or sleeve, this wire can be concealed inside. Also, the wire can be run up the front or back of post then covered with trim.



Secondary wire runs through a 3/8"W x 1/2"D slot (D)cut in rail cross support. Cut slot with a table saw or in place by making two side by side passes with a circular saw. A router is slower but can be used. Wire will be concealed when Top Cap is installed. **Do not** cut slot in center of rail, but instead, cut off to one side or the other leaving adequate space for top cap securing screws. *Tip:Use a chisel or flat head screw driver to remove any wood left in slot after making the cut.* Many composite, aluminum and vinyl railings are already hollow inside making cutting a groove unneeded

or they have sleeves or hollow post allowing the fixture wire to run down the post and be connected under the deck. Note: Wire nuts provided are for dry use only. If connection is made outside of the 1-1/4 hole where the fixture will cover the connection making it dry, a silicone filled wire nut must be purchased from us and used in the installation of this fixture. Purchase @ 888-582-5850 if silicone wire nuts are needed.



Mark and drill a 1-1/4"wide hole, 1-1/2"deep, in each rail post receiving a fixture. Center of hole should be a min. of 4" below top of rail to (F) allow slide-on face plate to function and ensure fixture is below one's eye level when seated in a chair. Ideal mounted fixture height is 30"-34" off deck floor. Next drill a 3/8" hole down from the top of the post to the inside of the 1 1/4" hole (G) to allow the wire running through the slot in the rail cross support to go down to where



the fixture is being connected. Repeat on other side of post if wire is continuing on to another fixture.



Feed main wire down 3/8" hole and cut back so approx 2" of wire is extending out of the 1-1/4" hole. Repeat if main wire is contiuing on to another fixture. Strip the insulating coating off the ends of each of the wires, exposing 5/8" of copper wire. Next, cut the wire on the fixture back to approx 4" and strip the black coating off the ends of each wire exposing 5/8" of copper wire. Securely attach the wire together using provided wire nuts. Do not exceed wire nut rating of 2-12 and 1-16



gauge wire. Connect 1 wire from fixture, 1 main wire coming from transformer and 1 main wire going to next fixture together by evenly grouping them together and tightly twisting on the wire nut. (H)Repeat this for the 2nd set of wires.Be sure wire nut is on tight and no copper wire slipped out when tightening wire nuts. Warning! loose wire connections can are causing fixture failure or fire. Be sure wires are securley fastened together





Tuck wire and wire nuts into 1-1/4" hole (I) and install back plate (J) over the 1-1/4" hole with the 2 screws provided. The last step is sliding (K) on the front fixture cover by sliding it down the sloted back plate from top to bottom. Plug in the transformer, turn on the circuit breaker and enjoy.



For further assistance please contact us @888-582-5850