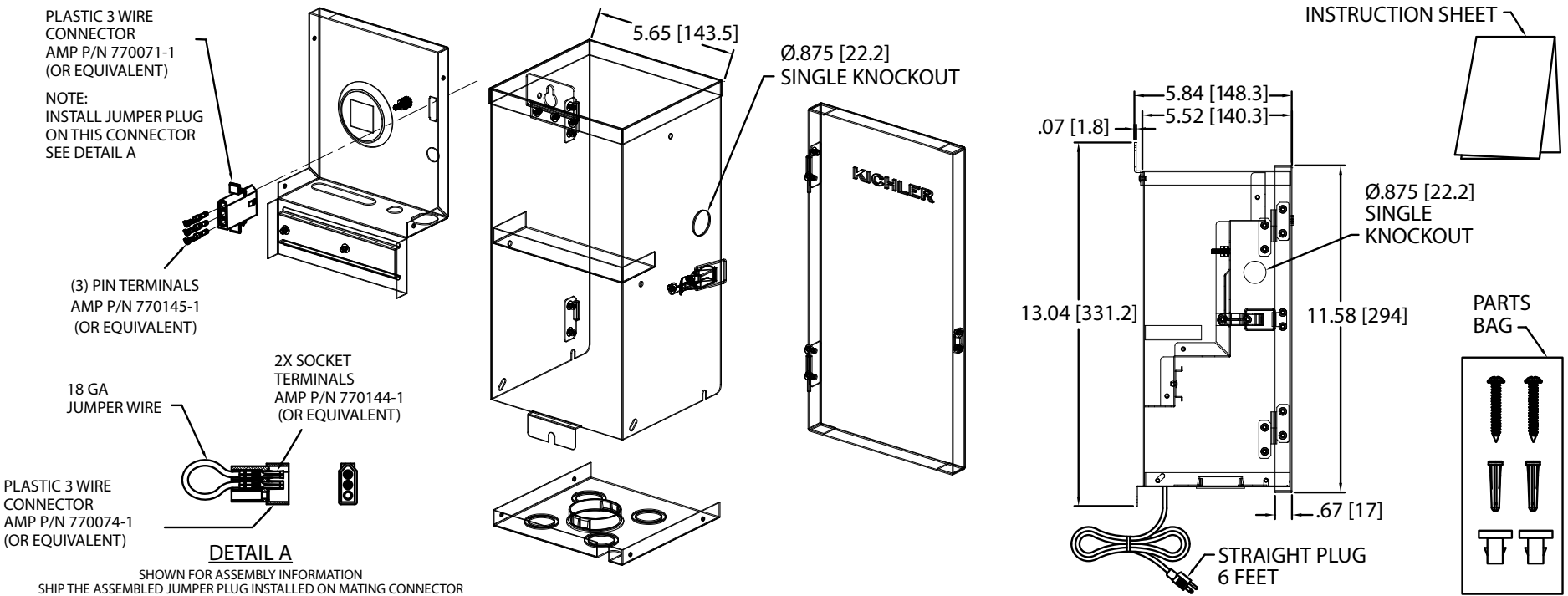


15CS150SS, 15CS300SS Transformers



Read these instructions carefully before installing this unit.

- This power supply is for use with landscape lighting systems only.
- Do not submerge transformer.
- This device is accepted as a component of a landscape lighting system where the suitability of the combination shall be determined by National Electric Code or local authorities having jurisdiction.
- **WARNING:** Risk of electric shock, use only with low voltage landscape fixtures and accessories. DO not use with swimming pool or spa lighting fixtures.
- Do not connect two or more power supplies in parallel.
- Suitable for indoor or outdoor use.
- For use in dwellings only with provided conduit adapter plate.
- National Electrical Code requires that wiring where concealed or extended through a building wall must be enclosed in conduit.
- Transformer should be mounted close to power source. Extension cords should not be used with this unit.
- **WARNING:** (for Power Supply Cord connected POWER UNIT)
RISK OF ELECTRIC SHOCK. Install power unit 5 feet (1.5m) or more from the pool, spa, or fountain where the power unit is installed (a) indoor within 10 feet (3.0m) of a pool, spa, or fountain, or (b) outdoor, connect power to unit to a receptacle protected by a GFCI.
- This outdoor power unit shall be connected to a 115/120 volt covered GFCI receptacle marked "Wet Location" while in use.

- Mount the rain-tight transformer at least one foot above ground level with the wire terminals facing down. **Note:** Do not energize transformer until installation of system is complete.
- Direct burial rated wire is to be buried a minimum of 6" (152mm) beneath the surface of the ground.
- **Note:** If additional Direct Burial wire is needed, contact your local Kichler® landscape distributor.
- 8 GA wire can be purchased in length of 250' (76 M), 15503-BK.
- 10 GA wire can be purchased in length of 250' (76 M), 15504-BK.
- 12 GA wire can be purchased in lengths of 100' (30 M), 15501-BK; 250' (76 M), 15502-BK; 500' (152M), 15505-BK; and 1000' (304 M), 15506-BK.
- **Finding Transformer Load:** Low voltage systems require the use of a transformer to reduce standard 120-VOLT power from your home to 12-VOLTS. To determine the transformer size you will need, add up the wattages of all lamps you plan to use. Select a transformer that matches as closely as possible to the total lamp wattage. For example, if you have 11 fixtures all rated at 24.4 watts, you will need a 300 watt (VA) transformer (11 x 24.4 = 268.4 watts). Generally, the total lamp load should not be less than one-third the transformers wattage rating, nor exceed its maximum wattage capacity. If your total wattage is too high, either divide the load between two transformers, or use a more powerful transformer.

Installation Instructions.

1. Determine desired location for mounting transformer. **Note:** When deciding location for mounting consideration should be taken for the requirements listed above.
2. Mark position of top portion of the keyhole slot location at top of transformer and the slot located at bottom.
3. If mounting to a solid surface such as wood, siding, etc;
A) Drill 1/8" diameter pilot holes at positions marked in Step 2.
B) Drive screws approximately half way into holes.
- If mounting to drywall:
A) Drill 1/4" diameter holes at positions marked in Step 2.
B) Push plastic anchors into holes and tap until flush.
C) Drive screws approximately half-way into plastic anchors.
4. Slip large portion of keyhole over head of top screw and allow transformer to slide down, making sure bottom slot is behind head of bottom screw.
5. Tighten screws until transformer is secure.
6. Split 12/2, 10/2, or 8/2 cable approximately 3", and strip 1/2" insulation off each wire. 12/2, 10/2, and 8/2 cable is the heavy black cable which all Kichler® 12-volt low voltage lighting fixtures will be connected.
(Reference above for description and part numbers).
7. On the bottom of the terminal block push one bare wire into the hole marked "COM" and tighten the corresponding screw on terminal block face until wire is secure. See chart for terminal screw torque specification.

See chart for maximum wire sizes and counts.

Wire Sizes	Max. no. of conductors	Tightening Torque
#12	8	3.6-4.0 N-m (32-35 lb-in)
#10	4	3.6-4.0 N-m (32-35 lb-in)
#8	1	4.1-4.5 N-m (36-40 lb-in)

CHART 1 (WIRE RUNS IN FEET)

	TAP 1 12V		TAP 2 13V		TAP 3 14V		TAP 4 15V		TAP 5 16V		TAP 6 17V		TAP 7 18V	
WATT	AWG 12	AWG 10	AWG 12	AWG 10	AWG 12	AWG 10	AWG 12	AWG 10	AWG 12	AWG 10	AWG 12	AWG 10	AWG 12	AWG 10
100-149	38	60	76	120	113	180	151	240	189	300	227	360	264	420
150-199	25	40	50	80	76	120	101	160	126	200	151	240	176	280
200-249	19	30	38	60	57	90	76	120	94	150	131	180	132	210
250-300	N/A	24	N/A	48	N/A	72	N/A	96	N/A	120	N/A	144	N/A	168

8. Determine the appropriate voltage tap (holes marked 12V, 13V 14V, or 15V) for remaining bare wire.
- For optimum light output, the voltage at the lamp socket should range between 10.8 and 12 volts (incandescent).
- For optimum light output, the voltage at the lamp socket should range between 12 to 15 volts (LED).
- For more information on voltage drop, consult the Kichler Landscape Lighting Catalog or contact your local Kichler distributor.
9. Push remaining bare wire into the appropriate hole on bottom of terminal block and tighten the corresponding screw on terminal block face until wire is secure. Again, refer to torque specifications in chart.
10. Above terminal blocks are a receptacle and a short power cord.
 - If using plug-in timer (15556WH/15557BK):
 - A) Plug timer into receptacle.
 - B) Plug short power cord into timer.
 - C) Set timer following instructions provided with timer.
 - If not using plug-in timer:
 - A) Plug short power cord into receptacle.
11. Optional Photo Control Installations:
 - A) Make sure power is off and transformer is NOT plugged into an electrical outlet. **Note:** No splice is required, transformer is equipped with jumper connector.
 - B) Open front cover of the transformer case by lifting the cover up. Locate and disconnect the white jumper connector inside the housing. *Save the jumper connector with these instructions for possible future use.
 - C) Remove one (1) of the 7/8" diameter knockouts on the side of the transformer and push the photo control white connector through the knockout hole. Inside the housing, slide the spacer and star nut over the white connector and thread it on to the photo control and tighten.
 - D) Plug photo control white connector into the housing connector. Ensure that the side latch locks the connectors.
 - E) Locate transformer and position photo control so that no light will shine on the cell. It will cause the photo control to cycle on and off. *In the unlikely event that the photo control should fail, the lighting fixtures will remain on, even in the daytime. If this should happen, follow these instructions and remove the defective photo control and place the jumper connector in its place.
12. Plug power supply cord into standard 115/120 volt receptacle. **Note:** The power supply cord must be plugged into a weather tight receptacle equipped with a Ground Fault Interrupter (GFCI).

CIRCUIT BREAKER

(SECONDARY SIDE - 12 VOLT SIDE)

- Circuit breaker will trip if there is a short or if total wattage installed exceeds rated wattage per circuit.
- To reset breaker, flip switch to 'OFF' then back to 'ON' position.
- If the unit cycles on and off without regard to the timer setting, it should be checked by a qualified service person.

THERMAL PROTECTION

(PRIMARY SIDE - 120 VOLT SIDE)

This unit is equipped with a thermal protector and will shut off if overheated.