



CAST Impressionist Series® - Technical Note

Gang Dimming - Dimmer Switch Box Assembly & Fixture Wire Connections

Part # CIGDS

Caution: The following instructions are meant to be a guide in the assembly of a control box used to adjust the light levels of a group of CAST LED Impressionist® fixtures. Users must follow all electrical codes that may apply.

Materials:

Electrical dimmer switch box is a single outlet Carlon T&B 1/2" model E988D series fitted with an IP65 Normally Open Push-Button switch that when depressed will start the "Gang dimming" of the impressionist fixtures. Kit also includes push on Spade terminal with lead wires: one Yellow, one Green, and insulated crimp connections to make wire splices. **NOTE:** You must press and hold the push button for fifteen seconds to synchronize all fixtures together so they dim at the same lumen level.

You will need to purchase the following additional items at a Lowe's, Home Depot, or any electric supply to complete the installation:

- 5 ft. 1/2" grey sch 40 PVC electrical conduit
- 1 pc. 1/2" grey sch 40 PVC 90' electrical sweep
- 2 pcs. 1/2" grey sch 40 PVC couplings (Just in case you make a mistake)
- 5 pcs. 1/2" grey PVC conduit "C" clamp Carlon T&B #E977DC-CTN used to secure pvc conduit to a wall, stone, deck, or post
- 10 pcs. 1" stainless wood screws, stone anchors, or other hardware specific to the surface you will be mounting the dimmer control to.
- 1 pc. PVC glue/cement to assemble PVC pipe
- (1) or more CAST Impressionist® fixtures wired together (with No-Ox #18/4 wire Part # CLW184250) in a series and with an #18/4 wire run to the Dimmer Switch Box location.
- (1) Impressionist Wire Splice Kit (CLWSI) per two fixtures.
- Note: Conduit and junctions allow weatherproof wire passage into switch box. ([See example](#))

Instructions:

1. Mount a group (no limit) of CAST LED Impressionist fixtures. This group will all be controlled together (as a gang). Note: If fixtures are to be mounted in elevated location, consider making all wire connections prior to mounting.
2. For any fixtures that have control plugs already attached, cut off and discard these plugs.
3. Trim fixture lead wires to suitable lengths, then strip away insulation to allow use of Impressionist Wire Splice Kits (CLWSI). Follow Kit instructions to connect all fixtures, and to run a wire from any fixture to the Control Box Location.

Caution: All wire connections between fixture and #18-4 No-Ox Wire should be same color. For example: Connect Green to Green, Yellow to Yellow, White to White, Black to Black.

4. Mount Dimmer Switch Box in suitable location. See attached assembly instructions.
5. Run power wire from transformer and #CLW184 multi-strand wire inside 1/2" conduit to inside dimmer electrical control switch box. Strip 1/2" insulation off each wire.

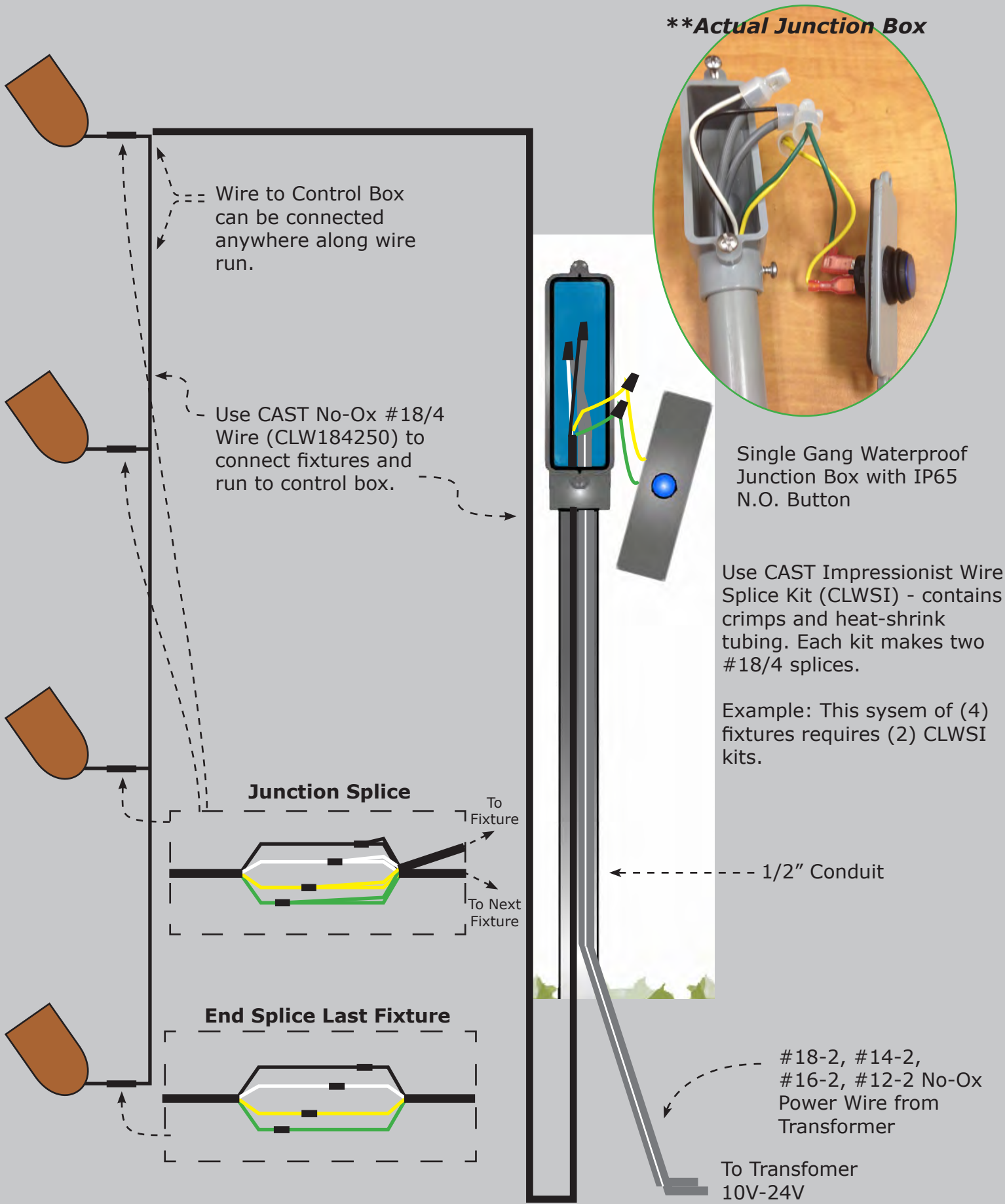
6. Connect wires from transformer to the **BLACK** and **WHITE** wires that feed power to the impressionist fixtures.
7. Connect the **YELLOW** wire to the **YELLOW** wire attached to the dimmer switch.
8. Connect the **GREEN** wire to the **GREEN** wire attached to the dimmer switch.
9. Fold wires inside the electrical control box and screw cover on tight to form a solid seal with molded gasket.

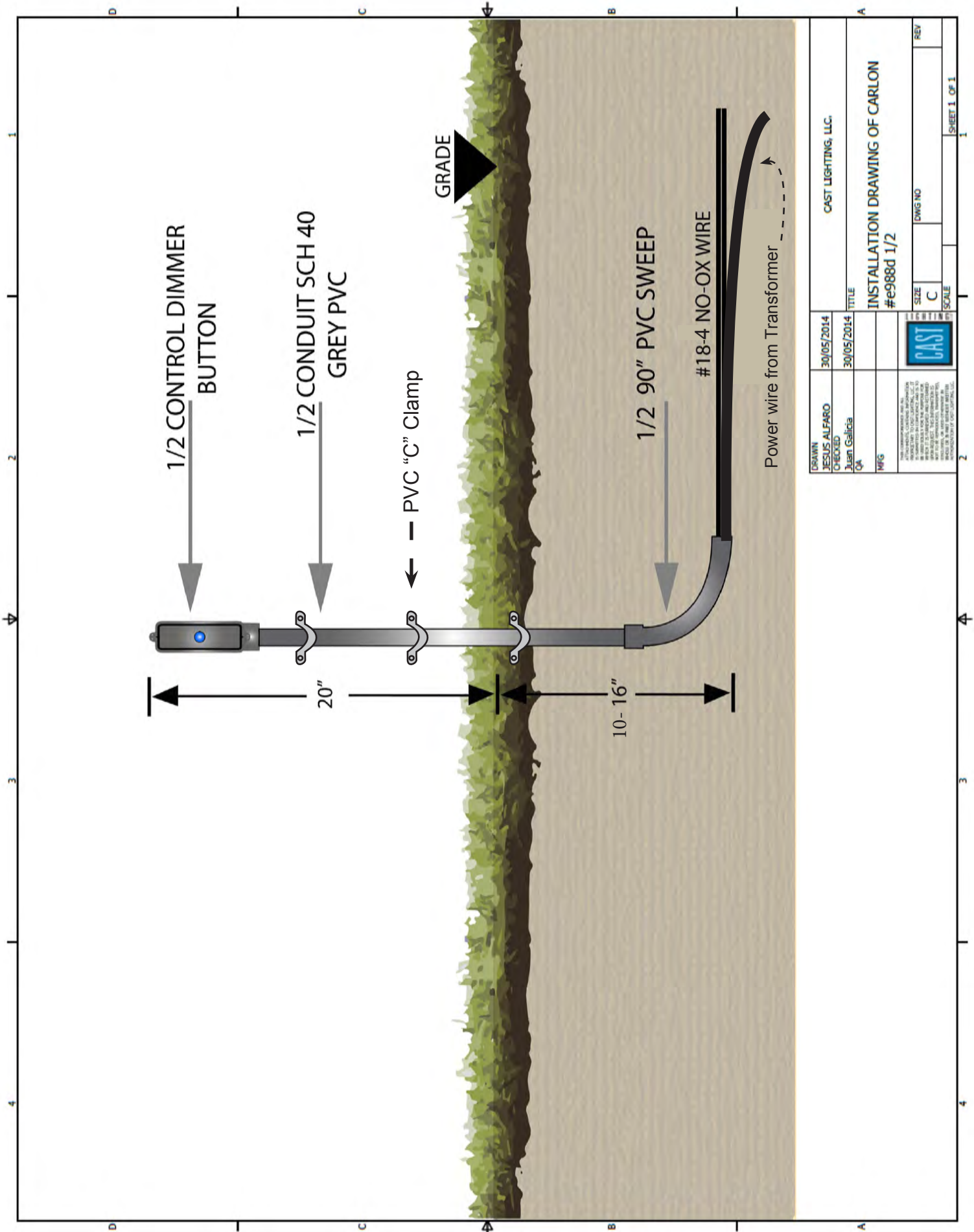
Notes on Operation

- During start up, the dimmer control switch must be depressed and held for fifteen seconds to synchronize all fixtures to the same 100% maximum lumen level setting.
- Push button once depressed, initiates either an up or down dimming sequence depending on the last sequence initiated.
- Each time the dimming button is depressed, the dimming sequence reverses.
- The dimming sequence will continue as long as the button is depressed until the light level reaches the upper light output level or the minimum light output level.
- Once dimming button is released, the lumen level set will remain in memory, even for extended periods after power is switched off.

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Gang Dimming - Wiring Schematic (7-1-14)





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<small>CAST LIGHTING, LLC. 10000 W. 10TH AVENUE, SUITE 100, DENVER, CO 80202 303.751.1111 WWW.CASTLIGHTING.COM ALL DIMENSIONS UNLESS OTHERWISE SPECIFIED ARE IN INCHES AND DECIMALS THEREOF. DIMENSIONS IN PARENTHESIS INDICATE DIMENSIONS OF HOLES AND CUTOUTS. DIMENSIONS IN PARENTHESIS INDICATE DIMENSIONS OF HOLES AND CUTOUTS. DIMENSIONS IN PARENTHESIS INDICATE DIMENSIONS OF HOLES AND CUTOUTS.</small>		DWG NO	SCALE
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Your Expression is our Passion® **⚠ Use caution in following these instructions. Obey all local electrical codes.**

Impressionist #18/4 Wire Splice Kit (CLWSI) Instructions: For Extending (1) Power/Control Cable (CLW184250) for any CAST Impressionist® Light Fixture

Introduction

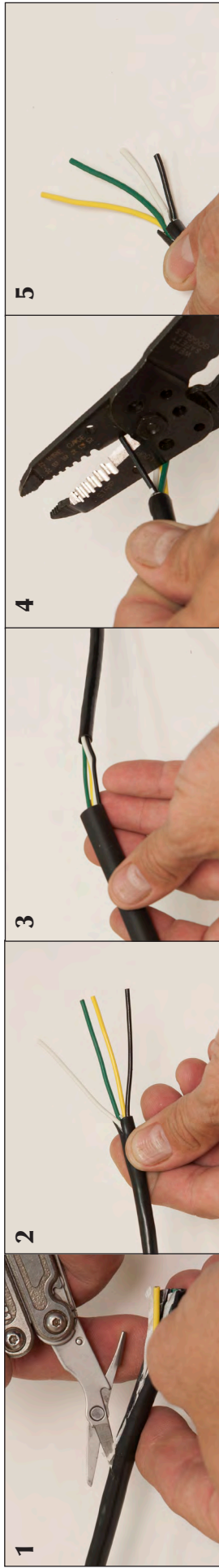
This splice kit enables the installer to extend one Impressionist power/control cable to a location distant from the Impressionist light. The kit contains enough materials for two complete splice connections.

Included: (For (2) complete splice connections)

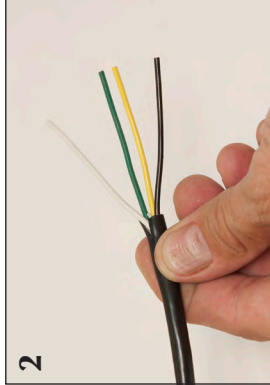
- ▶ (8) Parallel Crimps for #18 wire (XCEW92S)
- ▶ (8) 1.5" Pcs. 3/16" Heat Shrink Tubing (XCEWEPS300316)
- ▶ (2) 7" Pcs. 3/8" Heat Shrink Tubing (XCEWEPS30038)

Tools Required:

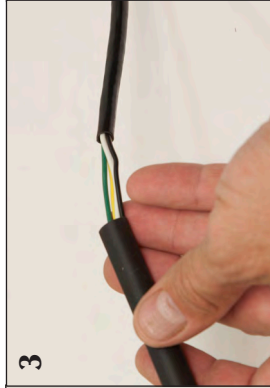
- ▶ Wire Cutter/Stripper
- ▶ Razor Knife or Scissors
- ▶ Non-Insulated Wire Crimper
- ▶ Heat Gun



Use wire cutters to cut fixture lead wire. Use small scissors or knife to strip away wire jacket.



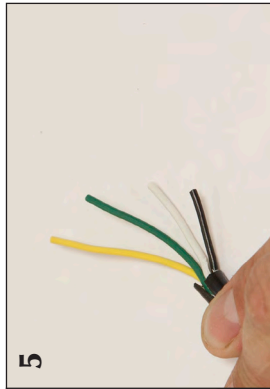
Cut away wire jacket to expose 2.5" insulated wires. Inspect wires for cuts or nicks.



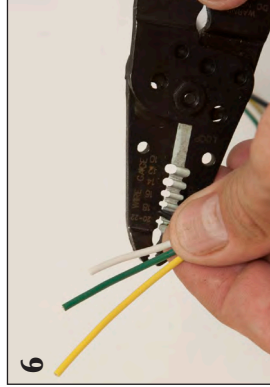
Slip 3/8" heat shrink tubing over wires and covered cable.



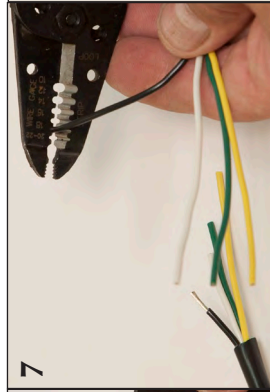
Cut black wire to 1" length.



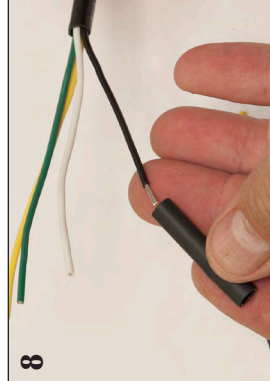
Cut each remaining wire to lengths of 1.5" (white), 2.0" (green), and 2.5" (yellow).



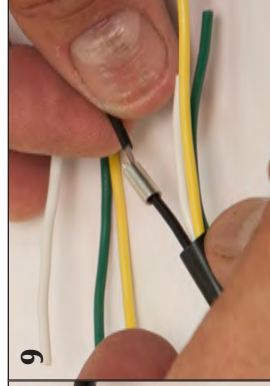
Use wire stripper to strip black wire 1/4".



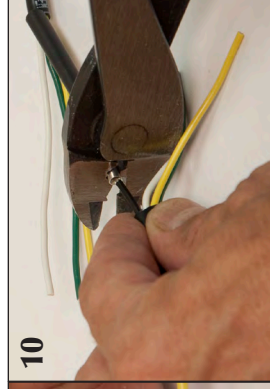
Repeat steps 1 and 2 for extension wire. Cut black wire to 2.5"; strip 1/4".



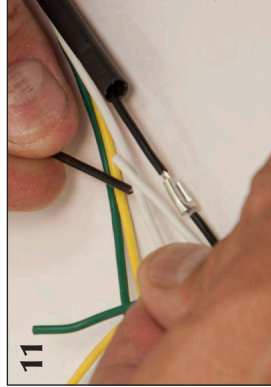
Slip 3/16" heat shrink tubing over black wire.



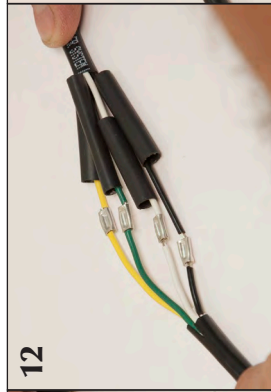
Insert stripped ends of black wires into parallel crimp.



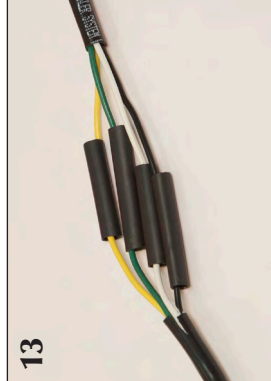
Use wire crimper to firmly compress parallel crimp.



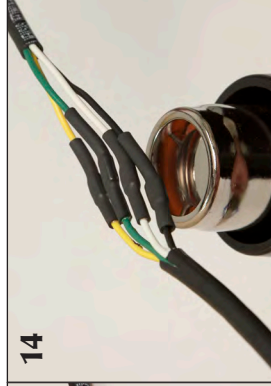
Line up wires and cut white wire (from extension cable) to overlap other white wire 1/4".



Strip white wires then crimp. Repeat steps 8 to 11 with other wires (staggering wire lengths).



Slip heat shrink tubing over crimps.



Use heat gun to completely shrink tubing on all sides.



Slip 3/8" heat shrink tubing over connections and apply heat - shrink completely on all sides.