

Installation Instructions Please Leave for Occupant

Incandescent Dimmers

C-600, C-1000, C-1500, C-2000 $_{120\ V\sim\ 60\ Hz}$

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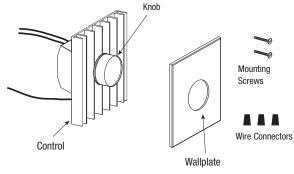
Single Unit Installation

- **1.** Turn power OFF at fusebox or circuit breaker. Wiring with power on can result in personal injury. Damage to product caused by wiring with power on voids warranty.
- **2.** Remove wallplate from dimmer to prevent damage and to access mounting holes. Pull out at top and bottom edges, plate will snap off.
- **3.** Strip insulation from dimmer wires and from wires to which dimmer is to be connected as follows:
 - 1/2 in (13 mm) for 10, 12, and 14 gauge wire
 - 5/8 in (16 mm) for 16 and 18 gauge wire



- Using the wire connectors provided, connect the green ground wire on the dimmer to the green or bare copper ground wire in the wallbox. Note: If a green or bare copper ground wire is not in the wallbox, contact a licensed electrician.
- Connect the 2 dimmer leads to the 2 wallbox leads (see Figure A). The hot wire may be connected to either of the dimmer wires. Be sure copper conductor is not exposed.





Important Notes

Please Read Before Installation

Install in accordance with national and local electrical codes.

Lamp Type: Use this product with incandescent and halogen lamps $only-120 \text{ V}\sim 60 \text{ Hz}$. Do *not* connect to low-voltage lamps or any appliance.

Caution: To avoid overheating and possible damage to other equipment, do not install to control receptacles, fluorescent lighting fixtures, motor-operated appliances, or transformer supplied appliances.

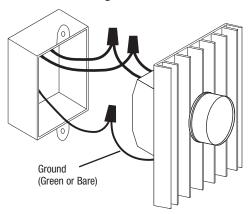
Short Circuit Check: Check new installation for short circuits prior to installation of dimmer by using a single pole switch and connecting the appropriate terminals to the hot wire and the lamp with power OFF. Turn power on. If lights do not work, or breaker trips, a short is present. Correct the wiring and check circuit again. Install dimmer only when short is no longer present.

Wire Connectors: Wire connectors provided can be used to join one 10-, 12-, 14-, 16-, or 18-gauge wire with one or two 12- or 14-gauge wires. Use them with copper wire *only*.

Clean dimmer with a *soft damp cloth only.* Do not use any chemical cleaners.

Wallbox and Location: A single-gang wallbox (3 in high x 2 in wide x 2-1/2 in deep (76 mm high x 51 mm wide x 64 mm deep)) will service all individual *Centurion* dimmers. These dimmers are designed to operate in ambient temperatures from 0-°C to 40-°C (32-°F to 104-°F). Allow a minimum space of 4-1/2 in (114 mm) above and below the dimmers for proper heat dissipation.

Figure A. Wallbox Wiring

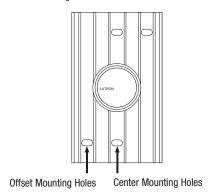


4. Push wires into wallbox, allowing room for dimmer backcover to be inserted.



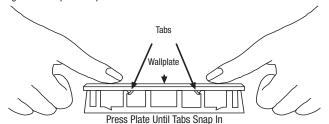
5. Mount dimmer to wallbox using 2 screws provided and center mounting holes. Unit *must* be mounted vertically. See Figure B.

Figure B. Front View - Single Unit Installation



- **6.** Check knob for correct positioning. Lutron inscription on knob indicates light level. When dimmer is off, knob is positioned as shown in Figure B. If not, remove knob from the stem, align in the correct position, and push securely back on.
- 7. Snap wallplate on. See Figure C.

Figure C. Snap on Wallplate



8. Turn power ON. Turn knob clockwise to increase light intensity; counterclockwise to decrease light intensity and click off.

Multigang Installation-

No Side Sections Removed (No Derating Required)

In multigang installations several dimmers or controls are grouped horizontally in one ganging wallbox or in a series of connected wallboxes. Installation of dimmers without removing side sections allows operation at full capacity (no derating). Follow instructions below. For retrofit installations side sections can be removed to fit existing wallboxes. This requires derating and is described in "Multigang Installation - Side Sections Removed" on page 3.

1. Determine the number of wallboxes necessary by using the Wallbox Requirement Chart (Table A). When ganging any combination of small dimmers (C-600, C-1000) and large dimmers (C-1500, C-2000), keep all small dimmers together at one end of the gang and all large dimmers together at the other end of the gang.

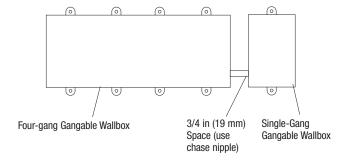
Table A. Wallbox Requirement Chart No Side Sections Removed

Number of Small Controls								
		0	1	2	3	4	5	6
	Number of Wallboxes Required							
Number of Large Controls	0	0	1	1+1*	4	4+1*	7	1+7*
	1	1	3	5	6	8	9	11
	2	4	6	7	9	10	12	13
	3	6	8	10	11	13	14	16
	4	9	11	12	14	15	17	18

*See item #2

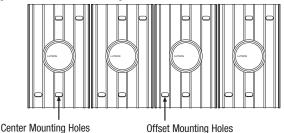
2. When ganging an even number of small controls use gangable wallboxes with tapped ears. Do not use plaster rings or gangbox covers. One wallbox in addition to the total number of controls is required in order to provide space for wallplates (e.g. 4 dimmers require 5 wallboxes). Place additional wallboxes 3/4 in (19 mm) apart from other wallbox to provide space for wallplate(s). See Figure D.

Figure D. Wallbox Positioning Four-Gang Controls



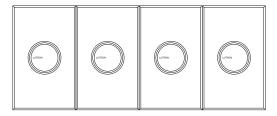
- **3.** Turn power OFF. Wire each dimmer according to step 3 in "Single Unit Installation" on page 1.
- **4.** Install controls in wallbox. Use center mounting holes for first unit, then use offset mounting holes as required for proper alignment (see Figure E). Allow 1/32 in (0.8 mm) between controls for ease in attaching wallplates.

Figure E. Front View - Four-Gang Installation



5. Snap multiple single wallplates onto controls and adjust up or down for a snug fit. See Figure F.

Figure F. Front View - Four-Gang Installation



Multigang Installation-

Side Sections Removed (Derating Required)

In multigang installations several dimmers or controls are grouped horizontally in one ganging wallbox or in a series of connected wallboxes.

1. Derating is necessary when side sections are removed. Use the Derating Chart (Table B) to determine maximum wattage of lamps safely dimmed when side sections are removed. Match the dimmer model number and the number of side sections removed to determine the maximum load that can be controlled.

Table B. Derating Chart - Maximum Wattage

Model	Control Size	No Sides Removed	1 Side Removed	2 Sides Removed
C-600	S	600 W	600 W	500 W
C-1000	S	1000 W	900 W	700 W
C-1500	L	1500 W	1250 W	1000 W
C-2000	L	2000 W	1800 W	1500 W

2. Determine the number of wallboxes necessary by using the Wallbox Requirement Chart (Table C). When ganging any combination of small controls (C-600, C-1000) and large dimmers (C-1500, C-2000), place all small controls together at one end of the gang and all large controls at the other end of the gang.

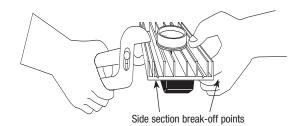
Table C. Wallbox Requirement Chart Side Sections Removed

Number of Small Controls								
		0	1	2	3	4	5	6
		Number of Wallboxes Required						
Number	0	0	1	2	3	4	5	6
of Large	1	1	3	4	5	6	7	8
Controls	2	3	5	6	7	8	9	10
	3	5	7	8	9	10	11	12
	4	7	9	10	11	12	13	14

3. Remove only inner side sections. Using pliers, bend side sections as far as you can and then back to their original positions. Repeat several times until side sections break off (See Figure F).

Note: Do not remove outer side sections of the two dimmers which are on the ends of the gang.

Figure G. Side Section Removal

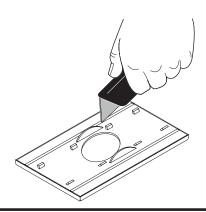


- **4.** Turn power OFF. Wire each dimmer according to step 3 in "Single Unit Installation" on page 1.
- **5.** Install controls in wallbox(es). Use center mounting holes. (With large controls, you can use offset mounting holes as required for proper alignment). Allow 1/32 in (0.8 mm) between controls for ease in attaching wallplates.
- **6.** Remove appropriate sides of wallplates to match the side sections removed from the controls (see Wallplate Cutting). Then snap multiple single wallplates onto controls and adjust up or down for a snug fit.

Wallplate Cutting

Some wallplates will need to be cut if removing side sections of dimmers. Position wallplate on a soft cloth face down. Press firmly and score the groove on the back of wallplate with a razor-sharp knife, using vertical side groove to keep knife on straight course (see Figure G). Bend section back and forth to break it off. Smooth edges by placing fine-grained sandpaper on a flat surface and rub edge of the wallplate over the sandpaper a few times. Hold wallplate steady as you rub to keep a true edge.

Figure G. Cutting Wallplate



Technical Assistance

If you have questions concerning the installation or operation of this product, call the *Lutron Technical Support Center.* Please provide exact model number when calling. 1-800-523-9466 (U.S.A., Canada, and the Caribbean)

Other countries cell +1 610 292 2900

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Fax +1-610-282-3090 Internet: www.lutron.com

Limited Warranty

Valid only in U.S.A., Canada, Puerto Rico, and the Caribbean.

Lutron will, at its option, repair or replace any unit that is defective in materials or manufacture within one year after purchase. For warranty service, return unit to place of purchase or mail to Lutron at 7200 Suter Rd., Coopersburg, PA 18036-1299, postage prenaid

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