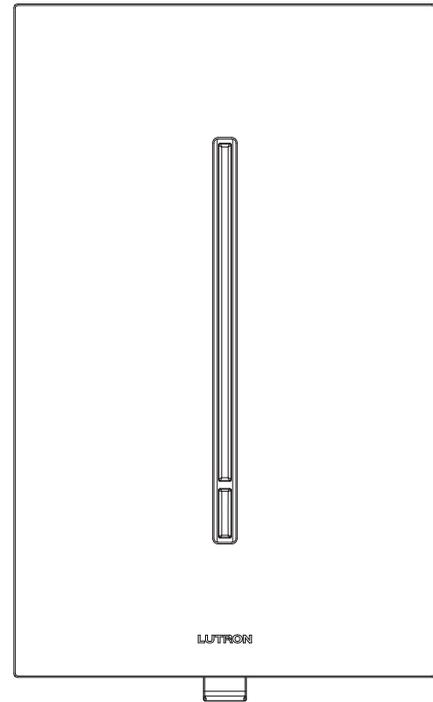


RadioRA 2 Architectural RF GRAFIK T Local Controls

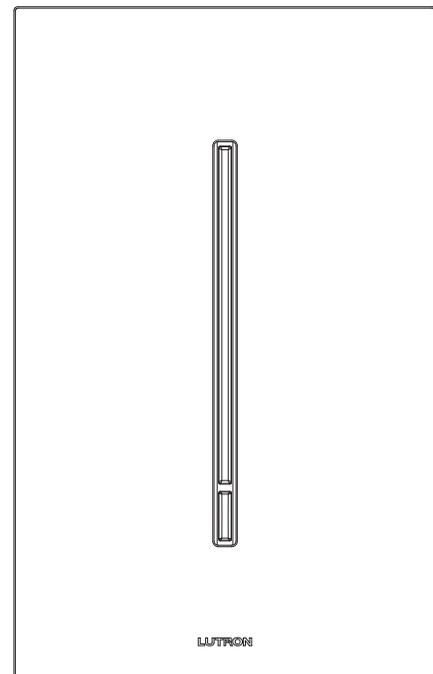
RadioRA 2 architectural RF GRAFIK T local controls function much like standard dimmers or switches, but can be operated as part of a lighting control system. GRAFIK T controls are useful in locations where single circuits of lighting need to be dimmed or switched.

Features

- Controls include dimmers, switches, and companion devices.
- Simple touch control.
- Distinctive architectural aesthetic.
- Softly lit white LEDs indicate light level and coordinate with any décor.
- Advanced microprocessor dimming technology for control of dimmable LED lamps.¹
- Low-end and high-end trim are available for improved LED dimming performance (dimmer only).
- Optional neutral connection available for superior LED dimming performance (C•L dimmer only).²
- Phase selectable technology allows forward or reverse phase dimming for compatibility with more load types.
- Installs in single-pole or multi-location applications. Companion devices are available for multi-location control with dimmers and switches (maximum 4 companion devices per dimmer or switch, 1 main control per circuit).
- Use Lutron GRAFIK T wallplates (sold separately). See the **Colors and Finishes** on page 3 for details.
- Lutron GRAFIK T wallplates snap on with no visible means of attachment.



Dimmer / Switch



Companion Device

¹ If using LED bulbs, they must be Lutron compatible! For compatibility and performance information, visit our website at www.lutron.com/led, which is constantly being updated.

² GRAFIK T switch and Phase Selectable dimmer requires neutral connection.

RadioRA 2 Architectural RF GRAFIK T Local Controls

Model Numbers

C•L Dimmers	
RRT-G25LW	Clear Connect RF Technology 250 W Dimmable LED ¹ 600 W Incandescent/Halogen 400 VA (300 W) Magnetic Low-Voltage with Halogen based lamps 3.3 A (400 VA) Dimmable Fluorescent ² 3.3 A (400 W) Hi-lume 1% 2-wire LED driver (10 driver maximum) Neutral connection available Multi-location dimmer
Phase Selectable Dimmers	
RRT-G5NEW	Clear Connect RF Technology 500 W Electronic Low-Voltage 250 W Dimmable LED ¹ 500 W Incandescent/Halogen 400 VA (300 W) Magnetic Low-Voltage with Halogen based lamps 3.3 A (400 VA) Dimmable Fluorescent ² 3.3 A (400 W) Hi-lume 1% 2-wire LED driver (10 driver maximum) Neutral connection required Multi-location dimmer
Switches	
RRT-G5ANSW ³	Clear Connect RF Technology 5 A Incandescent/Halogen/Fluorescent/LED/MLV/ELV/HID/Relay 3 A Fan 1/10 HP Motor Neutral connection required Multi-location switch
Companion Device	
RT-GRDW	Companion device (works with dimmer or switch)

¹ If using LED bulbs, they must be Lutron compatible! For compatibility and performance information, visit our website at www.lutron.com/led, which is constantly being updated.

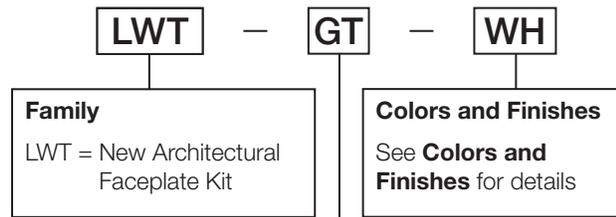
² Includes Mark X, Tu-Wire, and POWERSENSE.

³ Not for use with receptacles or appliances (e.g., garbage disposals). See Application Note #109 for compatibility with dimmable receptacles.

RadioRA 2 Architectural RF GRAFIK T Local Controls

How to Build a Faceplate Kit Model Number

Gangging with GRAFIK T controls.



Gangs and Openings

G = GRAFIK T opening^{1,3,4}
 T = New Architectural opening²

Available Combinations

1-Gang	2-Gang	3-Gang	4-Gang
G	GG	GGG	GGGG
	GT	GGT	GGGT
	TG	GTT	GGTT
		TGG	GTTT
		TTG	TGGG
			TTGG
			TTTG

Colors and Finishes

Architectural Matte Finishes

- AL
- BE
- BL
- BR
- GR
- IV
- LA
- SI
- TP
- WH

Architectural Metal Finishes (faceplate only)

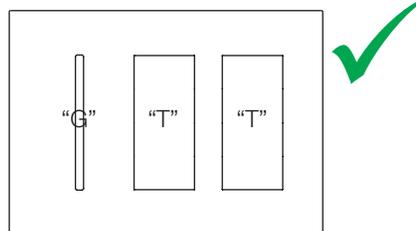
- BN
- SC
- SN
- BB
- BC
- SB
- QB
- QZ

Architectural Glass Finish (faceplate only)

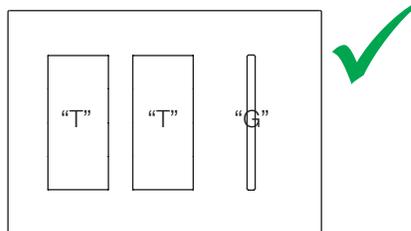
- CWH
- CBL

- Due to printing limitations, colors and finishes shown cannot be guaranteed to perfectly match actual product colors.
- Color chip keychains are available for more precise color matching:
 - Architectural Matte Finishes: AM-CK-1
 - Architectural Metal Finishes: AMTL-CK-1

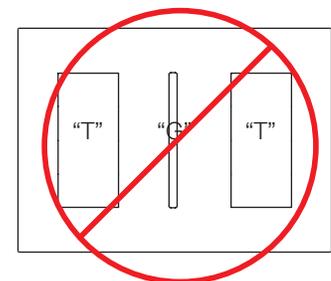
Correct (LWT-GTT-XXX⁵)



Correct (LWT-TTG-XXX⁵)



Incorrect



¹ GRAFIK T controls will only fit into "G" openings.

² New Architectural accessories will fit into "T" openings when gangging with GRAFIK T controls.

³ GRAFIK T controls cannot be gangged with Vierti controls or wallplates.

⁴ GRAFIK T controls cannot be gangged with Palladiom controls ("P" openings)

⁵ "XXX" in the model number represents color/finish code. See **Colors and Finishes** on page 3 for details.

RadioRA 2 Architectural RF GRAFIK T Local Controls

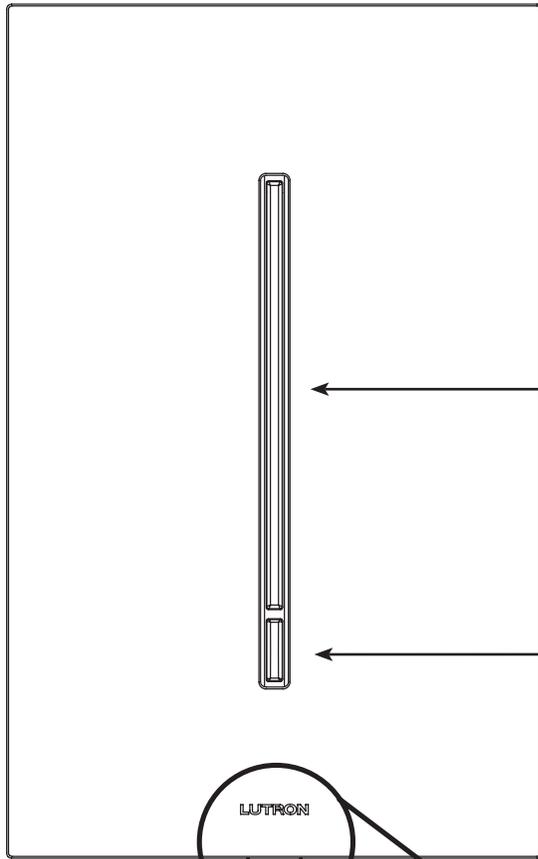
Specifications

Model Numbers	Dimmers: RRT-G25LW, RRT-G5NEW Switch: RRT-G5ANSW Companion Device: RT-GRDW Wallplate: LWT-G-XXX ¹ , LWT-GG-XXX ¹ , LWT-GGG-XXX ¹ , LWT-GGGG-XXX ¹ LWT-GT-XXX ¹ , LWT-GGT-XXX ¹ , LWT-GGGT-XXX ¹ , LWT-TG-XXX ¹ LWT-GTT-XXX ¹ , LWT-GGTT-XXX ¹ , LWT-TGG-XXX ¹ , LWT-GTTT-XXX ¹ LWT-TTG-XXX ¹ , LWT-TGGG-XXX ¹ , LWT-TTTG-XXX ¹ LWT-TTGG-XXX ¹
Power	120 V~ 50/60 Hz
Typical Power Consumption	Dimmer/Switch: 0.20 W Companion Device: 0.10 W Test conditions: load is off
Regulatory Approvals	UL, cUL , NOM, FCC, IC, IFTEL
Environment	Ambient operating temperature: 32 °F to 104 °F (0 °C to 40 °C), 0% to 90% humidity, non-condensing. Indoor use only.
Communications	Dimmers/Switches communicate with the RadioRA 2 system through Radio Frequency (RF) and must be located within 30 ft (9 m) of a repeater. Companion devices are not required to be within a specific range of a repeater.
ESD Protection	Tested to withstand electrostatic discharge without damage or memory loss.
Surge Protection	Tested to withstand surge voltages without damage or loss of operation, in accordance with IEEE C62.41-1991 Recommended Practice on Surge Voltages in Low-Voltage AC Power Circuits.
Power Failure	Power failure memory: should power be interrupted, the control will return to its previous state when power is restored.
Mounting	Requires a U.S. wallbox. 3½ in (89 mm) deep recommended, 2¼ in (57 mm) deep minimum.
Wiring	Uses conventional 3-way and 4-way wiring. Total multi-location wire length (blue wire) between all units must not exceed 150 ft (45 m).
Warranty	www.lutron.com/TechnicalDocumentLibrary/warranty.pdf

¹ "XXX" in the model number represents color/finish code. See the Colors and Finishes on page 3 for details.

RadioRA 2 Architectural RF GRAFIK T Local Controls

Operation

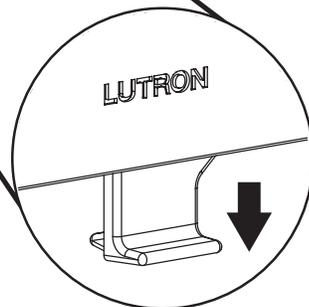


Adjust

- Touch to set lights to desired level (dimmer only)
- Slide to adjust light level (dimmer only)
- Touch anywhere to toggle load On/Off (switch only)

Toggle

- Touch to turn off or to turn on to previous or programmed light level
- When On, press and hold to engage the delayed long fade to Off (dimmer only)
- Toggle button is white when On, orange when Off



FASS

Front Accessible Service Switch

Note: The FASS is not available on companion devices.

IMPORTANT NOTICE:

FASS - Front Accessible Service Switch

To replace bulb(s), remove power by pulling the FASS down fully on all main controlling devices. After replacing bulb(s), push the FASS back up fully to restore power to the control(s).

RadioRA 2 Architectural RF GRAFIK T Local Controls

Advanced Programming Mode

NOTE: All advanced programming from a local device is disabled once it is addressed in a RadioRA 2 or HomeWorks QS system. All advanced features are available from the GUI.

All Dimmers, Switches, and Accessories

GRAFIK T dimmers and switches contain an Advanced Programming Mode (APM) that allows users to customize the control to meet their specific needs. For a detailed description of APM features and uses please refer to Lutron Application Note #534.

Available advanced features include:

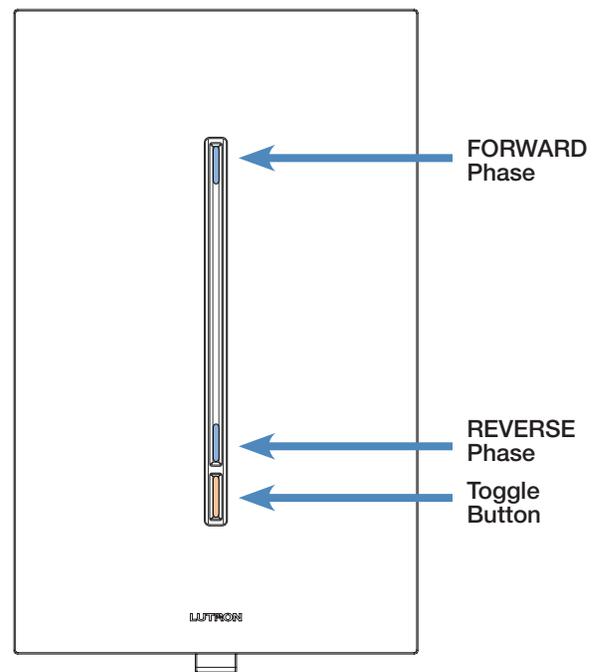
- **High-end Trim:** Adjust the maximum light level of the load.
- **Low-end Trim:** Adjust the minimum light level of the load.
- **LED Brightness:** Select between high and low brightness of the control LED.
- **Sound On/Off:** Enable or disable audible clicking feedback.
- **Delayed Fade-to-Off:** Adjust the waiting period upon fade-to-off.
- **Toggle Fade Rate Adjust:** Adjust the fade rate upon toggling.
- **Protected Preset Adjust:** Select between locked and unlocked presets.

Phase Selectable Dimmers Only

GRAFIK T Phase Selectable dimmers contain an extra menu to allow for the selection of FORWARD and REVERSE dimming phase. The Phase Selectable dimmer default powers up in reverse dimming phase.

Instructions for selecting phase:

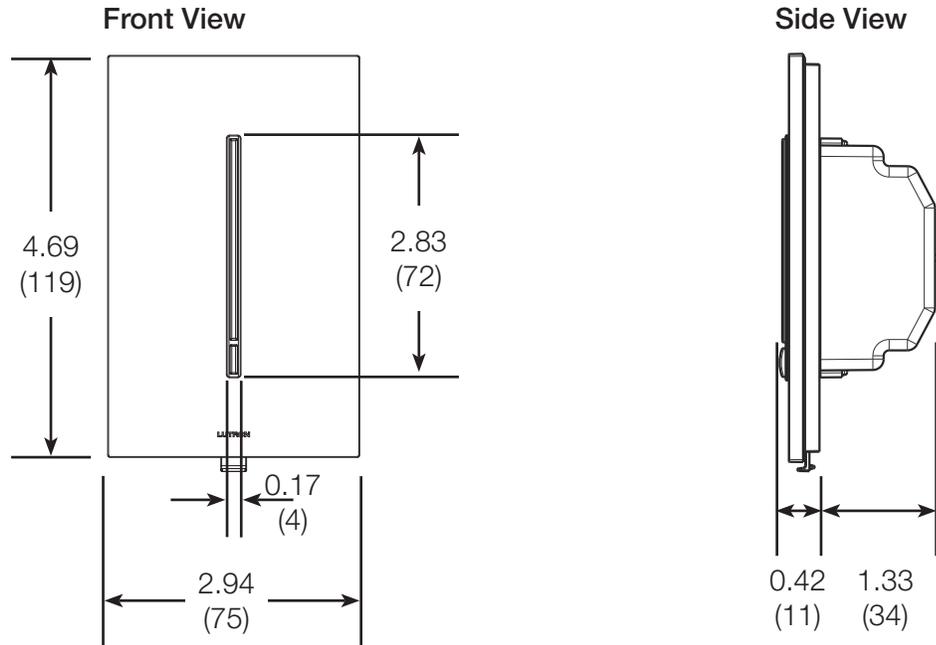
1. Pull the FASS down to remove power from the dimmer.
2. Press and hold the top (high-end) of the light bar.
3. Push the FASS back up fully to reapply power.
4. Hold the top (high-end) of the light bar for 6 seconds until the device beeps, then release.
5. Once in "Phase Selection Mode", two lit LEDs show current setting:
 - a. Top LED flashing indicates FORWARD-PHASE had been selected.
 - b. Bottom LED flashing indicates REVERSE-PHASE has been selected.
6. Press the top or bottom LED to change the dimming phase.
7. Press and hold the toggle button for 6 seconds to exit "Phase Selection Mode".



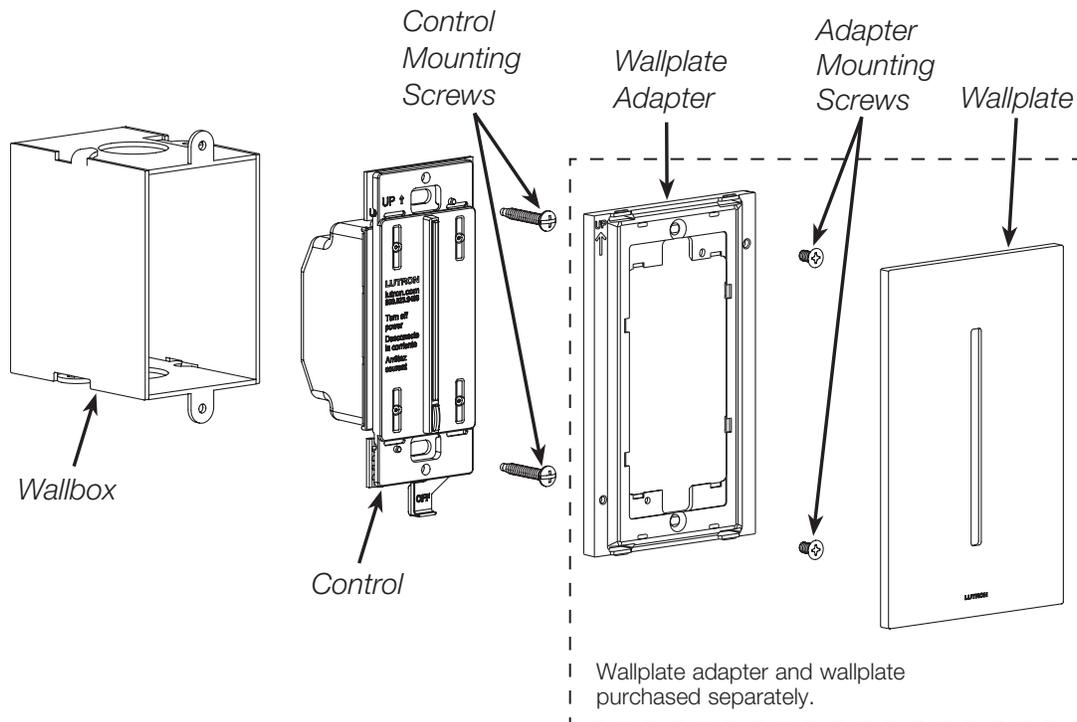
RadioRA 2 Architectural RF GRAFIK T Local Controls

Dimensions

All dimensions are shown as $\frac{\text{in}}{\text{(mm)}}$



Mounting and Parts Identification



RadioRA 2 Architectural RF GRAFIK T Local Controls

Ganging and Derating

When combining controls in the same wallbox, derating is required. See **Load Type and Capacity**. No derating is required for companion devices.

Load Type and Capacity

Control	Load Type	Not Ganged	End of Gang	Middle of Gang	Neutral Connection
RRT-G25LW ^{1,2}	LED	250 W	250 W	250 W	Optional
	MLV Halogen ^{3,4,5}	400 VA (300 W)	400 VA (300 W)	400 VA (300 W)	
	Incandescent/Halogen	600 W	500 W	400 W	
	Lutron Hi-lume 1% 2-wire LED driver ⁸	3.3 A (400 W), 10 drivers max	3.3 A (400 W), 10 drivers max	3.3 A (400 W), 10 drivers max	
	Dimmable Fluorescent ⁶	3.3 A (400 VA)	3.3 A (400 VA)	3.3 A (400 VA)	Required
RRT-G5NEW ^{1,2}	LED	250 W	250 W	250 W	Required
	MLV Halogen ^{3,4,5}	400 VA (300 W)	400 VA (300 W)	400 VA (300 W)	
	Incandescent/Halogen/ELV ⁴	500 W	400 W	300 W	
	Lutron Hi-lume 1% 2-wire LED driver ⁸	3.3 A (400 W), 10 drivers max	3.3 A (400 W), 10 drivers max	3.3 A (400 W), 10 drivers max	
	Dimmable Fluorescent ⁶	3.3 A (400 VA)	3.3 A (400 VA)	3.3 A (400 VA)	
RRT-G5ANSW ^{2,7}	Lighting	5 A (600 W)	4.1 A (500 W)	3.3 A (400 W)	Required
	Fan	3 A (360 W)	3 A (360 W)	3 A (360 W)	
	Motor	1/10 HP	1/10 HP	1/10 HP	
	Mixed	3 A (360 W)	3 A (360 W)	3 A (360 W)	

¹ Designed for use with permanently installed LED, incandescent, tungsten halogen, or magnetic low voltage transformers with halogen based lamps.

² Power Boosters/Load Interfaces: can be used to control power boosters/load interfaces. For a list of compatible power boosters/load interfaces see **Compatible Power Boosters and Load Interfaces**. When using with power boosters/load interfaces, the neutral must be connected.

³ Low-Voltage Applications: Use only with magnetic (core and coil) low-voltage transformers with halogen based lamps. Not recommended for use with electronic (solid-state) low-voltage transformers but UL listed for dimmable ELV transformers.

⁴ Operation of a low-voltage circuit with lamps inoperative or removed may result in transformer overheating and premature failure. Lutron strongly recommends the following:

- Do not operate low-voltage circuits without operative lamps in place.
- Replace burned-out lamps as soon as possible.
- Use transformers that incorporate thermal protection or fused transformer primary windings to prevent transformer failure due to overcurrent.

⁵ When using the dimmer/switch to control MLV halogen fixtures, the maximum lamp wattage is determined by the efficiency of the transformer, with 70%–85% as typical. For actual transformer efficiency, contact either the fixture or transformer manufacturer. The total VA rating of the transformer(s) shall not exceed the VA rating of the dimmer/switch.

⁶ Includes Mark X, Tu-Wire, and POWERSENSE.

⁷ Not for use with receptacles or appliances (e.g., garbage disposals). See Application Note #109 for compatibility with dimmed receptacles.

⁸ Neutral required for Lutron Hi-lume 1% 2-wire LED driver and fixture.

RadioRA 2 Architectural RF GRAFIK T Local Controls

Minimum Load

Dimmer

Dimmer		LED ¹		Incandescent/ Halogen		MLV Halogen		ELV ^{2,3}
		With Neutral Connected	With Neutral Disconnected	With Neutral Connected	With Neutral Disconnected	With Neutral Connected	With Neutral Disconnected	With Neutral Connected
Application	Number of Companion Devices							
Single Pole	0	1 LED lamp ⁴	2 LED lamps ⁴	5 W	40 W	40 W	40 W	40 W
Multi-location	1	1 LED lamp ⁴	3 LED lamps ⁴	5 W	80 W	40 W	80 W	40 W
Multi-location	2	1 LED lamp ⁴	4 LED lamps ⁴	5 W	120 W	40 W	120 W	40 W
Multi-location	3	1 LED lamp ⁴	5 LED lamps ⁴	5 W	160 W	40 W	160 W	40 W
Multi-location	4	1 LED lamp ⁴	6 LED lamps ⁴	5 W	200 W	40 W	200 W	40 W

¹ Includes Lutron compatible LED replacement lamps and Hi-lume 1% 2-wire LED drivers.

² Must meet transformer minimum load requirements.

³ ELV loads are only compatible with -G5NEW model

⁴ If using LED bulbs, they must be Lutron compatible! For compatibility and performance information, visit our website at www.lutron.com/led, which is constantly being updated.

Switch

Minimum load for the switch is 5 W, one Lutron compatible LED replacement lamp, or one Hi-lume 1% 2-wire LED driver.

Compatible Power Boosters and Load Interfaces

Some local controls can be used to control power boosters or load interfaces. Up to three power boosters or load interfaces can be used with one control. See table below for a list of controls and compatible power boosters and load interfaces. When controlling power boosters/load interfaces, the neutral must be connected.

Control	Phase Adaptive Power Modules (PHPM-PA-120-WH & PHPM-PA-DV-WH) ¹	3-wire Fluorescent Power Modules (PHPM-3F-120-WH & PHPM-3F-DV-WH) ²	Switched Power Module (PHPM-SW-DV-WH) ³	0-10 V Interface and Switching Module (GRX-TVI) ⁴
RRT-G25LW	✓	✓		✓
RRT-G5NEW	✓ ⁵	✓ ⁵		✓ ⁵
RRT-G5ANSW			✓	

¹ See Lutron P/N 369356 for wiring diagrams.

² See Lutron P/N 369355 for wiring diagrams.

³ See Lutron P/N 369357 for wiring diagrams.

⁴ See Lutron P/N 369247 for wiring diagrams.

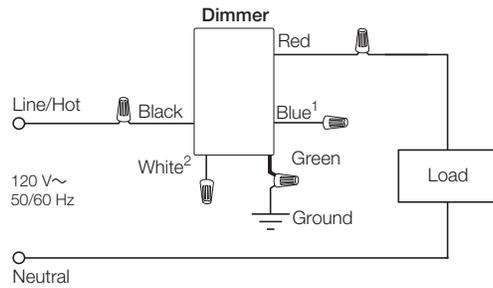
⁵ When using -G5NEW, dimming phase must be set to forward phase. See **Advanced Programming Mode** for details.

RadioRA 2 Architectural RF GRAFIK T Local Controls

Wiring Diagrams

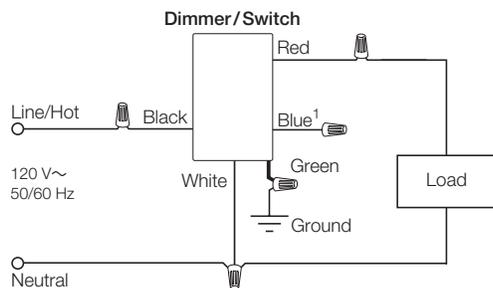
Wiring Diagram 1

Single Location Installation without Neutral^{1,2}
RRT-G25LW



Wiring Diagram 2

Single Location Installation with Neutral¹
RRT-G25LW, RRT-G5NEW, or RRT-G5ANSW



¹ When using controls in single location installations, cap the blue wire. **Do not** connect the blue wire to any other wiring or to ground.

² When neutral wire connection is unavailable, cap the white wire. **Do not** connect the white wire to any other wiring or to ground.

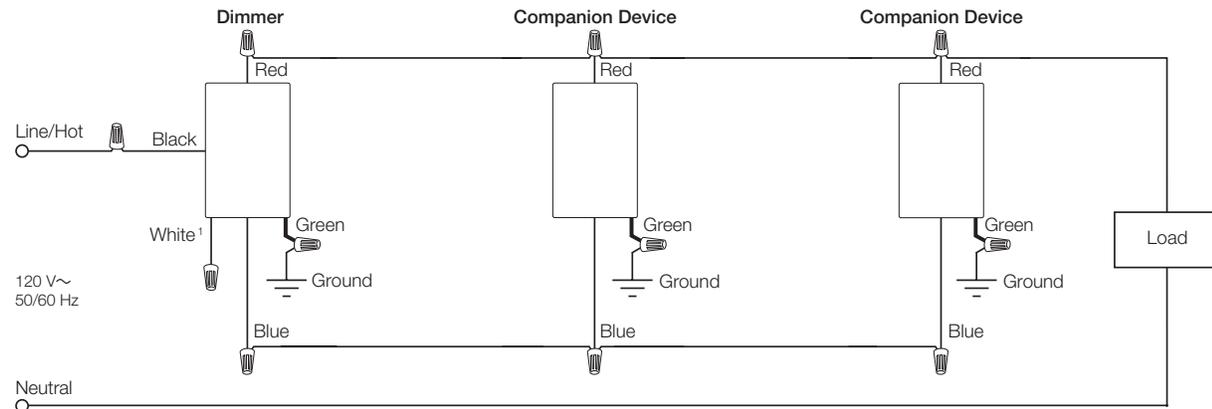
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RadioRA 2 Architectural RF GRAFIK T Local Controls

Wiring Diagrams *(continued)*

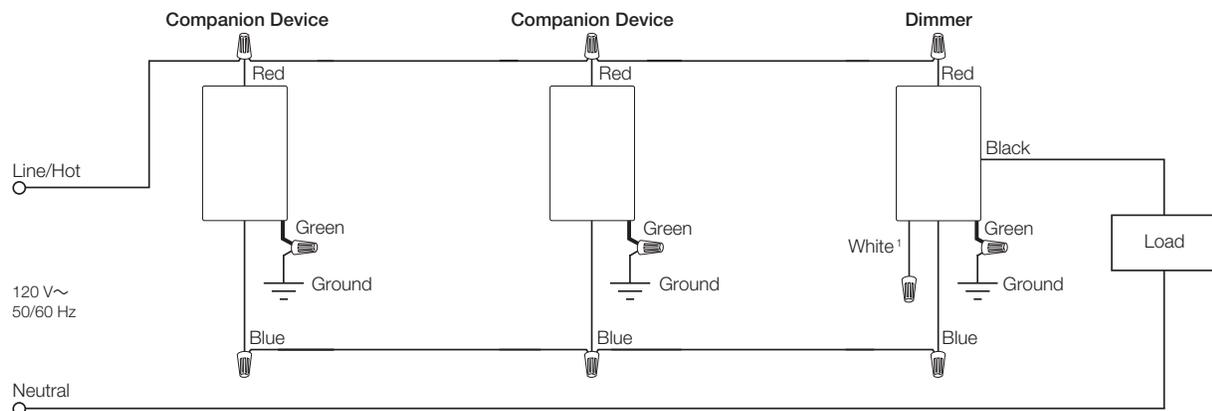
Wiring Diagram 3

Multi-Location Installation without Neutral^{1,2,3} - Dimmer Line Side
 RRT-G25LW with RT-GRDW



Wiring Diagram 4

Multi-Location Installation without Neutral^{1,2,3} - Dimmer Load Side
 RRT-G25LW with RT-GRDW



- ¹ When neutral wire connection is unavailable, cap the white wire. **Do not** connect the white wire to any other wiring or to ground.
- ² Up to 4 companion devices may be connected to the dimmer. Total blue traveler wire length may be up to 150 ft (45 m).
- ³ Dimmers may be connected on the Line side or Load side of a multi-location installation if neutral is not connected. The dimmer cannot be installed in the middle location of a 4-way installation.

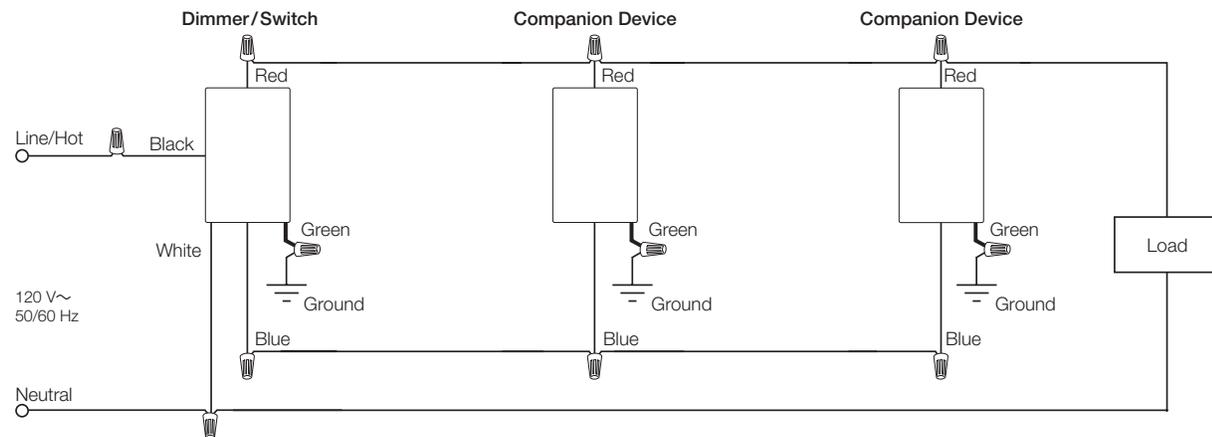
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RadioRA 2 Architectural RF GRAFIK T Local Controls

Wiring Diagrams (continued)

Wiring Diagram 5

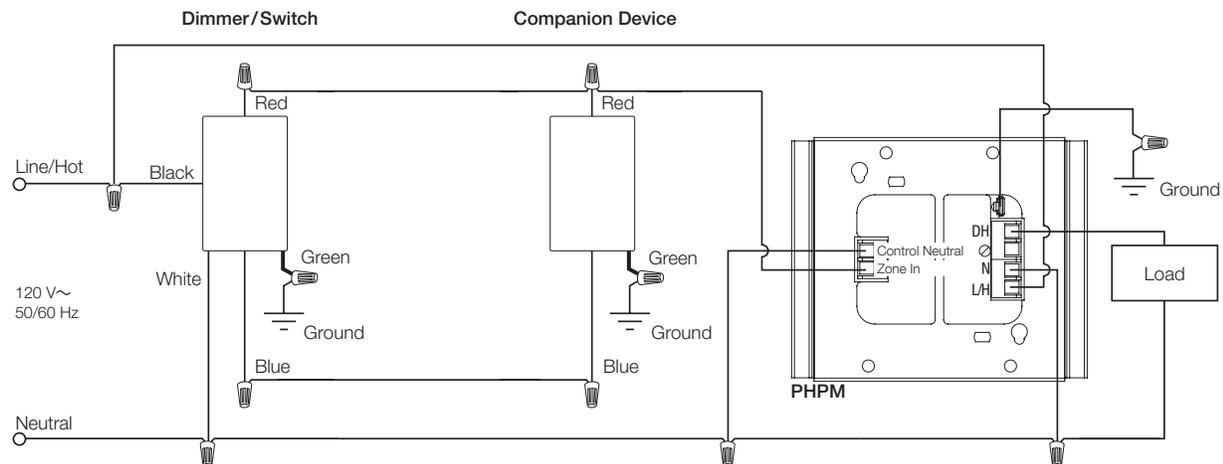
Multi-Location Installation with Neutral^{1,2} - Control Line Side
 RRT-G25LW, RRT-G5NEW, or RRT-G5ANSW with RT-GRDW



- ¹ Up to 4 companion devices may be connected to each dimmer or switch. Total blue traveler wire length may be up to 150 ft (45 m).
- ² Control must be installed on line side of circuit if using neutral wire.

Wiring Diagram 6

Multi-Location Installation with PHPM - Neutral Required
 RRT-G25LW, RRT-G5NEW¹, or RRT-G5ANSW with RT-GRDW



- ¹ When using -G5NEW, dimming phase must be set to forward phase. See **Advanced Programming Mode** for details.

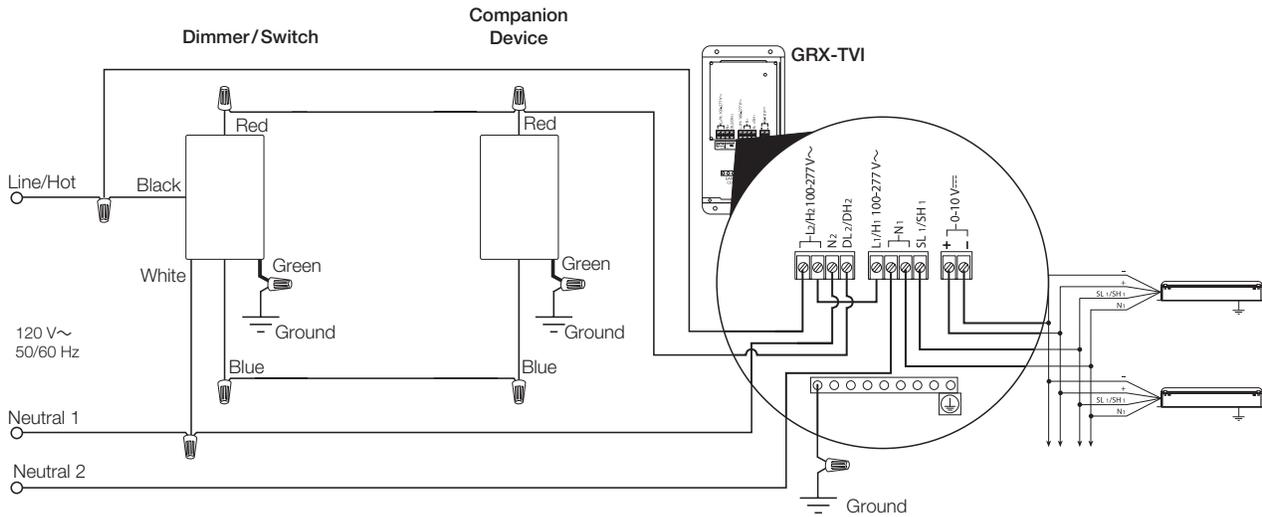
RadioRA 2 Architectural RF GRAFIK T Local Controls

Wiring Diagrams (continued)

Wiring Diagram 7

Multi-Location Installation with GRX-TVI - Neutral Required

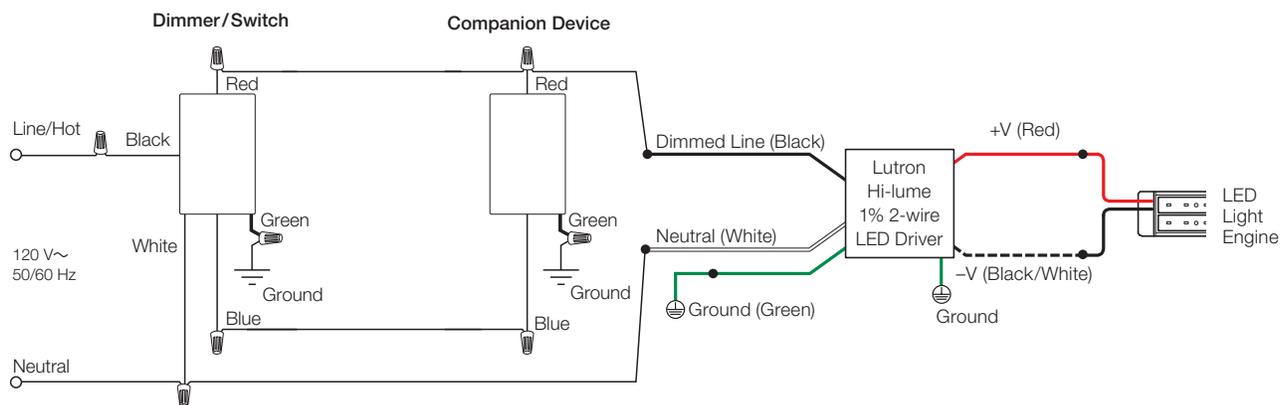
RRT-G25LW, RRT-G5NEW, or RRT-G5ANSW with RT-GRDW



Wiring Diagram 8

Multi-Location Installation with Hi-lume 1% 2-wire LED Driver with Neutral

RRT-G25LW, RRT-G5NEW¹, or RRT-G5ANSW with RT-GRDW



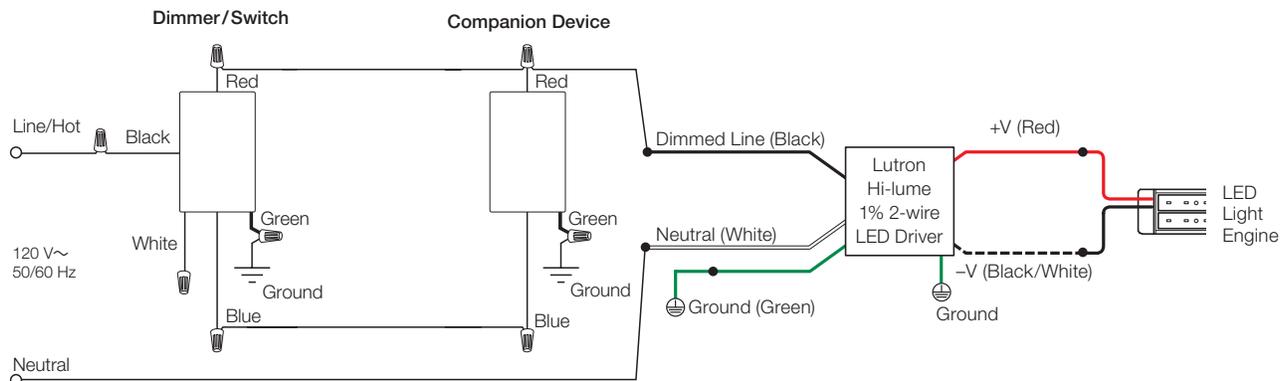
¹ When using -G5NEW, dimming phase must be set to forward phase. See **Advanced Programming Mode** for details.

RadioRA 2 Architectural RF GRAFIK T Local Controls

Wiring Diagrams *(continued)*

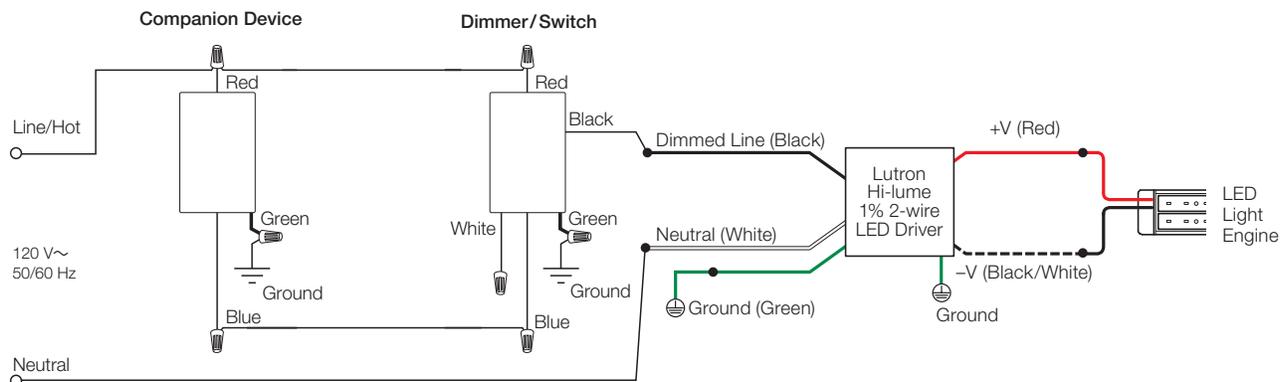
Wiring Diagram 9

Multi-Location Installation with Hi-lume 1% 2-wire LED Driver without Neutral - Dimmer Line Side
RRT-G25LW with RT-GRDW



Wiring Diagram 10

Multi-Location Installation with Hi-lume 1% 2-wire LED Driver without Neutral - Dimmer Load Side
RRT-G25LW with RT-GRDW



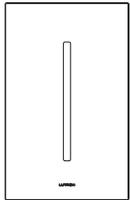
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Mark X is a registered trademark of Philips Electronics North America Corporation.

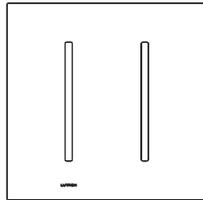
POWERSENSE is a registered trademark of OSRAM SYLVANIA Inc.

RadioRA 2 Architectural RF GRAFIK T Local Controls

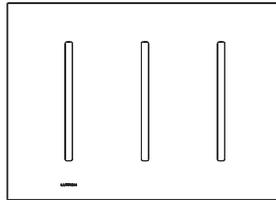
GRAFIK T Wallplates



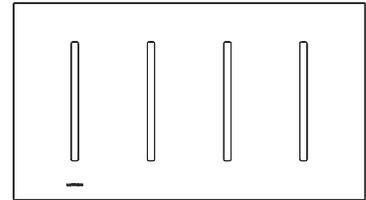
LWT-G-XXX¹
(1 Gang)



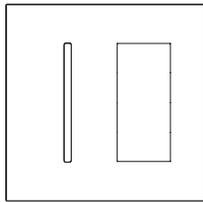
LWT-GG-XXX¹
(2 Gang)



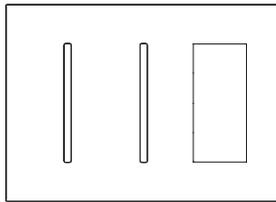
LWT-GGG-XXX¹
(3 Gang)



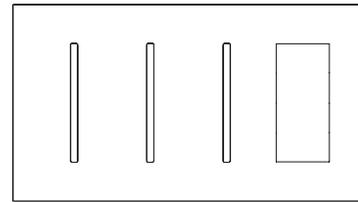
LWT-GGGG-XXX¹
(4 Gang)



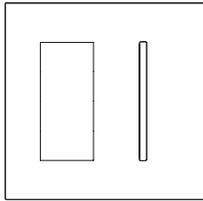
LWT-GT-XXX¹
(2 Gang)



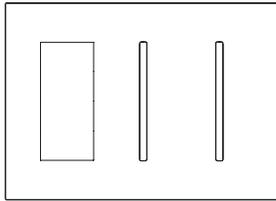
LWT-GGT-XXX¹
(3 Gang)



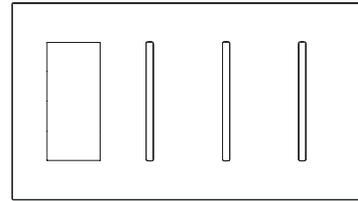
LWT-GGGT-XXX¹
(4 Gang)



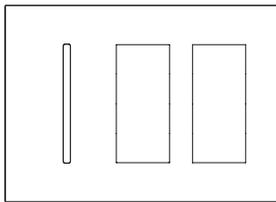
LWT-TG-XXX¹
(2 Gang)



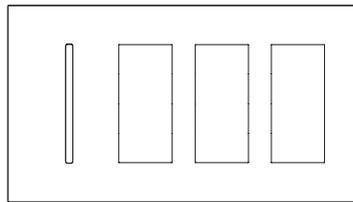
LWT-TGG-XXX¹
(3 Gang)



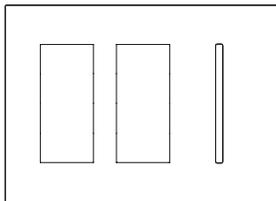
LWT-TGGG-XXX¹
(4 Gang)



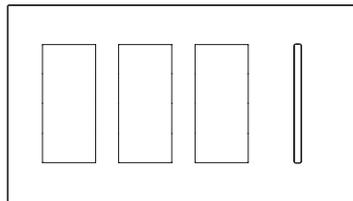
LWT-GTT-XXX¹
(3 Gang)



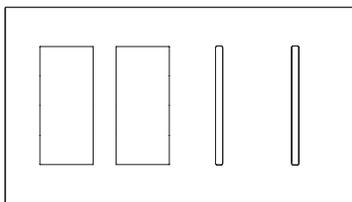
LWT-GTTT-XXX¹
(4 Gang)



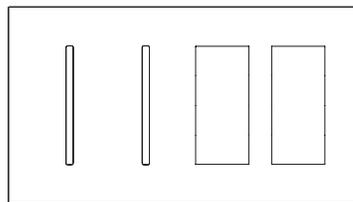
LWT-TTG-XXX¹
(3 Gang)



LWT-TTTG-XXX¹
(4 Gang)



LWT-TTGG-XXX¹
(4 Gang)



LWT-GGTT-XXX¹
(4 Gang)

¹ "XXX" in the model number represents color/finish code. See the **Colors and Finishes** on page 3 for details.