



# System Comparison

Caséta, RA2 Select, RadioRA 2, & HomeWorks QS





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# System Comparison — Caséta, RA2 Select, RadioRA 2, & HomeWorks QS

## Overview

Lutron offers four residential home control solutions: Caséta Wireless, RA2 Select, RadioRA 2, and HomeWorks QS. While the systems share communication protocols and have some similar pieces of hardware, they also have differing hardware, software, and overall functionality.

Here's a look at all residential systems, in order to help you specify the one that's best for your application.

	Caséta Wireless	RA2 Select	RadioRA 2	HomeWorks QS
<b>System size</b>	50 devices	100 devices	200 devices	10,000 zones
<b>System design</b>	Local (RF)	Local (RF)	Local (RF)	Local (RF) /Wired
				Centralized
				Hybrid
<b>Designer style controls</b>	Pico zone controls	Pico zone controls	Pico zone controls	Pico zone controls
	Pico keypads	Pico keypads	Pico keypads	Pico keypads
			RF seeTouch keypads	RF /Wired seeTouch keypads
		RF Maestro dimmers and switches	RF seeTouch hybrid keypads	RF seeTouch hybrid keypads
<b>Architectural style controls</b>			GRAFIK T dimmer and switch	GRAFIK T dimmer and switch
			GRAFIK T Hybrid keypad	GRAFIK T hybrid keypad
				Wired seeTouch keypads
				RF /Wired seeTouch keypads
				RF seeTouch hybrid keypads
				RF /Wired Maestro dimmers and switches
				Specification keypads
				Palladiom keypad
				Signature Series keypad
<b>GRAFIK Eye</b>			GRAFIK Eye QS Wireless	GRAFIK Eye QS
<b>Shades</b>	Sivoia QS Wireless*	Sivoia QS Wireless†	Sivoia QS Wireless	Sivoia QS Wireless
	Sivoia QS Triathlon*†	Sivoia QS Triathlon	Sivoia QS Triathlon	Sivoia QS wired
	Serena			Sivoia QS Triathlon
<b>Temperature control</b>	Third-party integration	Third-party integration	Lutron HVAC controller	Lutron HVAC controller
	Lutron Wireless thermostat	Lutron Wireless thermostat	Lutron Wireless thermostat	Lutron Wireless thermostat
			TouchPRO Wireless thermostat	Lutron Touch Pro
			Third-party integration	Palladiom Thermostat
<b>Sensors</b>		RF occupancy/vacancy	RF occupancy/vacancy	RF/Wired occupancy/vacancy
			RF temperature	RF temperature
				RF window sensors
<b>Dimming panels</b>			WPM	RPM and WPM
				Spec grade
<b>Software</b>	Lutron App	Lutron App	Connect App	Connect App
			Essentials (Basic) / Inclusive (Advanced)	HomeWorks QS (Advanced)
<b>Fan Control</b>		Maestro RF fan control	Maestro RF fan control	Maestro RF fan control
				Maestro wired fan control
				RPM fan control

\* Compatible with Smart Bridge Pro version only

† No tilt functionality

### Caséta Wireless

Caséta Wireless is a wireless mini-system that's ideal when you want individual control in a single room/main areas or a smaller home or condominium.

**Target Market:** Mass-market residential application not using RA2 Select, RadioRA 2, or HomeWorks QS

**Coverage:** RF coverage up to 2,500 sq. ft. of space, with a 50 device system limit. An additional 1,250 sq. ft. is possible by adding a plug-in dimmer which also acts as a range extender (one range extender per system).

**System Topology:** Local control (local control is where the actual load control devices are in the living space and are part of the user interface experience).

#### Caséta System Capacities

- 1 Caséta Bridge or Caséta Bridge PRO
- 1 Range Extender

#### Caséta Wireless Specifications

- 50 devices<sup>1</sup> (including bridge)
- 2,500 sq. ft. of coverage on bridge
- 30 ft. from bridge to devices
- 30 ft. from range extender to devices

<sup>1</sup> Device - any system component that requires a single address (ex. dimmer, switch, Pico, shade).  
One address is reserved for the Bridge. Third-party integration products do not count as a system device.

### RA2 Select

RA2 Select is a wireless (RF) — system ideal for retrofit applications and new construction. You can use existing wiring to install every RA2 Select device.

**Target market:** mid-market residential applications

**Coverage:** RF coverage for up to 5,000 sq. ft. of space, with a 100 device system limit.

**System topology:** Local control. (A local topology is where the actual load control devices are in the living space and are part of the user interface experience. Local topology is ideal for retrofit applications where it's not easy and cost effective to run wire or cut into the walls.)

#### RA2 Select System Capacities

- 1 main repeater
- 4 wireless repeaters (max)

#### RA2 Select Wireless Link Specifications

- 100 devices<sup>1</sup> (includes repeaters)
- 2,500 sq. ft. of coverage per repeater
- 30 ft. from any non-repeater device to a repeater
- 60 ft. from repeater to repeater

<sup>1</sup> Device — Any system component that requires a single address. Each repeater consumes a single address.

### RadioRA 2

RadioRA 2 is a wireless (RF)-only system ideal for new construction and retrofit applications. You can use the existing wiring to install the majority of RadioRA 2 devices.

**Target market:** mid-market residential applications (although you can also use it in light commercial applications)

**Coverage:** RF coverage for up to 7,500 sq. ft. of space, with a 200 device system limit. One main repeater is necessary for every 100 devices; each main repeater essentially acts as one RF link.

**System topology:** Primarily local. You can remote mount dimmers or wallbox power modules to provide centralized control. (A local topology is where the actual load control devices are in the living space and are part of the user interface experience. Local topology is ideal for retrofit applications where it's not easy and cost effective to run wire or cut into the walls.)

#### RadioRA 2 System Capacities

- 2 main repeaters/2 wireless links (max)
- 8 auxiliary repeaters (max)

#### RadioRA 2 Wireless Link Specifications

- 100 devices<sup>1</sup> per link (includes repeaters)
- 5 wireless temperature sensors per link (max)
- 2,500 sq. ft. of coverage per repeater
- 30 ft. from any non-repeater device to a repeater
- 60 ft. from repeater to repeater

<sup>1</sup> Device — Any system component that requires a single address. The main repeater reserves a single address on each RF link. Four addresses are reserved for auxiliary repeaters on the wireless link. The other 95 addresses are for non-repeater devices.

## HomeWorks QS

HomeWorks QS is a system that is capable of RF as well as wired system communication for new construction and retrofit applications.

**Target market:** large, high-end residential applications, although you can use this system in any size application if the product family best meets the needs of that application.

**Coverage:** RF coverage for up to 50,000 sq. ft. of space with control of up to 10,000 zones.

**System topology:** can be local, centralized, or hybrid thanks to both RF and wired communication/product support. A centralized system has all load control devices in a consolidated location, most often in panels and in the basement or an equipment room, while using keypads for local control. Centralized systems are commonly used for new construction where the walls are open and it's easy to pre-wire the house for both high voltage power and low voltage communication/power.

Hybrid systems are systems with both local and centralized topologies, such as houses that are pre-wired with a centralized system but then undergo a remodel, including an addition. Home-running wire back to the load panels from the addition is difficult and not cost-effective, so local RF controls are often installed, making the system a hybrid topology. Hybrid systems are also useful when a client wants to incorporate products such as Pico wireless controls, Radio Powr Savr sensors, tabletop keypads, or Lutron thermostat controls.

### HomeWorks QS System Capacities

- 16 processors (max)
- 32 configurable links<sup>1</sup> (max)
  - 32 QS wired links (max)
  - 15 wireless links (max)
  - 32 panel links (max)
  - 32 H48 links (max)
- 10,000 zones<sup>2</sup> (max)

### HomeWorks QS Wireless Link Specifications

- 100 devices<sup>3</sup> per link (includes repeaters)
- 100 zones per link (max)
- 5 wireless temperature sensors per link (max)
- 2,500 sq. ft. of coverage per repeater
- 30 ft. from any non-repeater device to a repeater
- 60 ft. from repeater to repeater

### HomeWorks QS Wired Link Specifications

- 100 devices per link
- 512 zones per link
- 2,000 ft. max wire length (consult technical specs for other applicable rules)
- Free-wire topology (star, daisy chain, home run, etc.)
- Standard Lutron 4-conductor cable

### HomeWorks QS Panel Link Specifications

- 16 MIs per link
- 256 zones per link

### HomeWorks QS H48 Link Specifications

- 4 HWI-H48 interfaces per link
- 48 Maestro devices per HWI-H48 Interface, 8 per bus
- One pair twisted, shielded 22-18AWG
- Free-wire topology
- 1,000 ft. maximum wire length per bus (500 ft. maximum per home run)

<sup>1</sup> Any combination of the below link types.

<sup>2</sup> Zone — An output. An individual shade or dimmer/switch/RPM/QSG/contact closure output/EcoSystem driver or ballast.

<sup>3</sup> Device — Any system component that requires a single address. The processor reserves a single address on each RF link. Four addresses are reserved for hybrid repeaters on the wireless link. The other 95 addresses are for non-repeater devices.

## Hardware Differences

### Equipment

Before reviewing the software differences of Caséta, RA2 Select, RadioRA 2, and HomeWorks QS it's important to understand the hardware differences and limitations of each. The available hardware has an unmistakable impact on system design and how each system is programmed.

Caséta utilizes a local control strategy, meaning that while functionality is often driven through the Pico zone controls or the Lutron app, every load/fixture in the system has a local, accessible load control device tied to the circuit (such as dimmers and switches). Caséta utilizes Lutron Clear Connect RF technology and does not use wired communication.

Like Caséta, RA2 Select also utilizes a local control strategy (driven through Pico scene keypads or the Lutron App), utilizes Clear Connect, and does not use wired communication.

RadioRA 2 utilizes a local control strategy too. While functionality is often driven through keypads and scene control, every load/fixture in the system has a local, accessible load control device tied to the circuit (such as wall-mounted dimmers, switches, lamp dimmers, and GRAFIK Eye). RadioRA 2 communication uses Clear Connect and does not use wired communication, other than for system range extension to outbuildings, such as a pool house.

HomeWorks QS offers a much more extensive hardware selection than RadioRA 2, which provides for more complex design. While you can set up HomeWorks QS systems in a local strategy, you can also centralize them. In a centralized system design, loads/fixtures are home run back to panels in an equipment room. These panels contain load control modules with multiple load control circuits.

You can also create hybrid systems, combining centralized and local hardware. This chart details local and centralized hardware and which systems incorporate the hardware.

Hardware		Caséta	RA2 Select	RadioRA 2	HomeWorks QS
Designer RF Wall Dimmers	6CL	✓	✓	✓	✓
	10D		✓	✓	✓
	6ND		✓	✓	✓
	10ND	✓	✓	✓	✓
	6NA		✓	✓	✓
	5NE	✓			
	F6AN		✓	✓	✓
Designer Wired Wall Dimmers	5NE				✓
	6D				✓
	10D				✓
	6ND				✓
	10ND				✓



# System Comparison — Caséta, RA2 Select, RadioRA 2, & HomeWorks QS

Hardware		Caséta	RA2 Select	RadioRA 2	HomeWorks QS
Designer RF Fan Control	2ANF		✓	✓	✓
Designer Wired Fan Control	2ANF				✓
Designer RF Wall Switches	8ANS		✓	✓	✓
	8S-DV		✓	✓	✓
	5WS	✓			
	6ANS	✓			
Designer Wired Wall Switches	8ANS				✓
Architectural RF Wall Dimmers	6CL				✓
	10D				✓
	6ND				✓
	10ND				✓
	6NA				✓
	F6AN				✓
Architectural Wired Wall Dimmers	5NE				✓
	6D				✓
	10D				✓
	6ND				✓
	10ND				✓
Architectural RF Fan Control	2ANF				✓
Architectural Wired Fan Control	2ANF				✓
Architectural RF Wall Switches	8ANS				✓
	8S-DV				✓
Architectural Wired Wall Switches	8ANS				✓
GRAFIK T Dimmer	G25LW			✓*	✓
GRAFIK T Switch	G5ANSW			✓*	✓
RF Plug-in Controls	3LD		✓	✓	✓
	3PD		✓	✓	✓
	3PCL	✓			
	15APS		✓	✓	✓
RF Modules	16R-DV-B			✓*	✓
	CCO1-24-B			✓*	✓
	5T-DV-B			✓*	✓
GRAFIK Eye QS	RF / Wired			✓	✓
	Wired Only				✓
Pico Scene Keypad	4 Button Pre Engraved	✓	✓	✓	✓
Pico Zone Control	PJ2-x Versions	✓	✓	✓	✓

\* Available only in the Inclusive version of the RadioRA 2 programming software

# System Comparison — Caséta, RA2 Select, RadioRA 2, & HomeWorks QS

Hardware		Caséta	RA2 Select	RadioRA 2	HomeWorks QS
Designer RF Wall Keypads	1B				✓
	2BS				✓
	3BS				✓
	3BRL			✓	
	3BSRL			✓	✓
	3S			✓	✓
	4BS				✓
	4S			✓	✓
	5B				✓
	5BRL			✓	✓
	5BRLIR			✓	
	6B				✓
	6BRL			✓	✓
	7B			✓	✓
	1RLD			✓	✓
	2RLD			✓	✓
	3BD			✓	✓
Designer Wired Wall Keypads	1B				✓
	2BS				✓
	3BS				✓
	3BSRL				✓
	4BS				✓
	3S				✓
	4S				✓
	5B				✓
	5BRL				✓
	5BIR				✓
	6B				✓
	6BRL				✓
	7B				✓
	NB-NONE				✓
	NBIR-NONE				✓
	1RLD				✓
	2RLD				✓
	3BD				✓
Wired Architrave Keypads	KP5-DN/DW				✓
	KP7-DN/DW				✓

# System Comparison — Caséta, RA2 Select, RadioRA 2, & HomeWorks QS

Hardware		Caséta	RA2 Select	RadioRA 2	HomeWorks QS
GRAFIK T Hybrid RF Keypad	2B			✓	
	4B			✓	
	5B			✓	
	6B			✓	
Wired Signature Series (Blue or Green LED)	1B				✓
	2BS				✓
	3BS				✓
	3BSRL				✓
	3S				✓
	4BS				✓
	4S				✓
	5B				✓
	5BRL				✓
	6B				✓
	6BRL				✓
	7B				✓
	1RLD				✓
	2RLD				✓
	3BD				✓
Architectural Non-Insert Wired Wall Keypads	1B				✓
	2BS				✓
	3BS				✓
	3BSRL				✓
	3S				✓
	4BS				✓
	4S				✓
	5B				✓
	5BRL				✓
	5BIR				✓
	6B				✓
	6BRL				✓
	7B				✓
	NB-NONE				✓
	NBIR-NONE				✓
	1RLD				✓
	2RLD				✓
	3BD				✓

# System Comparison — Caséta, RA2 Select, RadioRA 2, & HomeWorks QS

Hardware		Caséta	RA2 Select	RadioRA 2	HomeWorks QS
Architectural Insert Wired Wall Keypads	1B				✓
	2BS				✓
	3BS				✓
	3BSRL				✓
	3S				✓
	4BS				✓
	4S				✓
	5B				✓
	5BRL				✓
	5BIR				✓
	6B				✓
	6BRL				✓
	7B				✓
	NB-NONE				✓
	NBIR-NONE				✓
	1RLD				✓
	2RLD				✓
	3BD				✓
International Non-Insert Wired Wall Keypads	2B				✓
	3B				✓
	4B				✓
	5BRL				✓
	5BRLIR				✓
	6BRL				✓
	7BRL				✓
	8BRL				✓
	8BRLIR				✓
	10BRL				✓
International Insert Wired Wall Keypads	2B				✓
	3B				✓
	4B				✓
	5BRL				✓
	5BRLIR				✓
	6BRL				✓
	7BRL				✓
	8BRL				✓
	8BRLIR				✓
	10BRL				✓



# System Comparison — Caséta, RA2 Select, RadioRA 2, & HomeWorks QS

Hardware		Caséta	RA2 Select	RadioRA 2	HomeWorks QS
Palladiom Architectural Keypad	2B				✓
	3B				✓
	4B				✓
	3R/L				✓
RF Tabletop Keypad	ALL (T5, T10, T15)			✓	✓
Designer RF Hybrid Keypad	3BSRL			✓	✓
	3S			✓	✓
	4S			✓	✓
	5BRL			✓	✓
	6BRL			✓	✓
	1RLD			✓	✓
	2RLD			✓	✓
Architectural RF Hybrid Keypad	3BSRL				✓
	3S				✓
	4S				✓
	5BRL				✓
	6BRL				✓
	1RLD				✓
	2RLD				✓
Dynamic Keypad	RF / Wired				✓
Power Modules	WPM			✓*	✓
	RPM (4U, 4A, 4M, 4R, 4FSQ)				✓
Dimming Panels	Specification Grade				✓
Din Rail Modules	LQSE (4T5, 4A, 4S8, 2ECO, 4A1, 4S1)				✓
Temperature Control	HVAC Controller			✓	✓
	seeTemp			✓	✓
	RF Temperature Sensor			✓	✓
	TouchPRO Wireless			✓	✓
	CoolAutomation				✓
	Palladiom Thermostat				✓

\* Available only in the Inclusive version of the RadioRA 2 programming software

# System Comparison — Caséta, RA2 Select, RadioRA 2, & HomeWorks QS

Hardware		Caséta	RA2 Select	RadioRA 2	HomeWorks QS
Occupancy/Vacancy Sensors	Radio Powr Savr Ceiling		✓	✓	✓
	Radio Powr Savr Wall		✓	✓	✓
	Wired (LOS series)			✓*	✓
Shades	Sivoia QS Wired				✓
	Sivoia QS Wireless	✓**†	✓**	✓	✓
	Triathlon	✓	✓	✓	✓
Light Sensors	Window Mount				✓
	Mullion Mount				✓
Wallbox Closure Interface	QSE-CI-WCI				✓
QS Sensor Module	QSMx-yW-C				✓
Backroom Equipment	Auxiliary Repeater (RR-AUX)			✓	
	Wireless Repeater (L-REPPRO)		✓	✓	
	RadioRA 2 Repeater (RR-MAIN)			✓	
	Hybrid Repeater (HQR-REP)				✓
	RA2 Select Repeater (RR-SEL)		✓		
	Visor Receiver (VCRX)			✓	✓
	Visor Transmitter (LR-3B)			✓	✓
	QSE-IO				✓
	QSE-CI-DMX				✓
	H48 (Wired Dimmer Card)				✓
	QS Smart Power Panel			✓	✓
	Smart Bridge	✓			
	Smart Bridge Pro	✓			
	Connect Bridge			✓	✓

\* RadioRA 2 only supports LOS-R sensors

\*\* No tilt functionality

† Available with Smart Bridge PRO only

# System Comparison — Caséta, RA2 Select, RadioRA 2, & HomeWorks QS

## Load Type Control

All systems allow for a wide variety of load type control, including incandescents and LEDs, as well as motor loads such as ceiling fans. The chart below details the various load types and the products you can use to control them.

Load Types	Caséta		RA2 Select		RadioRA 2		HomeWorks QS	
	Dimmed	Switched	Dimmed	Switched	Dimmed	Switched	Dimmed	Switched
<b>Incandescent, Halogen</b>	6WCL, 10NXD, 3PCL, 5NE, PHPM-PA	5WS, 6ANS, PHPM-SW	3LD, 3PD, 10D, 10ND, 6NA, PHPM-PA, 6CL, 6ND	8ANS, 8S-DV, 15APS, PHPM-SW	3LD, 3PD, 10D, 10ND, 6NA, GRAFIK Eye QS, PHPM-PA, 6CL, WPM, 6ND	8ANS, 8S-DV, 15APS, PHPM-SW, 16R-DV-B	3LD, 3PD, 6D, 10D, 6ND, 10ND, 6NA, GRAFIK Eye QS, LQSE-4A, LQSE-4A1, PHPM-PA, WPM, RPM-4U, RPM-4A, 6CL	8ANS, 8S-DV, 15APS, LQSE-4S8, LQSE-4S1, PHPM-SW, RPM-4R, 16R-DV-B
<b>Magnetic Low Voltage</b>	10NXD, 5NE, PHPM-PA	5WS, 6ANS, PHPM-SW	3LD, 3PD, 10D, 10ND, 6NA, PHPM-PA, 6CL, 6ND	8ANS, 8S-DV, 15APS, PHPM-SW	3LD, 3PD, 10D, 10ND, 6NA, GRAFIK Eye QS, PHPM-PA, 6CL, WPM, 6ND	8ANS, 8S-DV, 15APS, PHPM-SW, 16R-DV-B	3LD, 3PD, 6D, 10D, 6ND, 10ND, 6NA, GRAFIK Eye QS, LQSE-4A, LQSE-4A1, PHPM-PA, WPM, RPM-4U, RPM-4A, 6CL	8ANS, 8S-DV, 15APS, LQSE-4S8, LQSE-4S1, PHPM-SW, RPM-4R, 16R-DV-B
<b>Electronic Low Voltage</b>	5NE, PHPM-PA	5WS, 6ANS, PHPM-SW	6NA, PHPM-PA	8ANS, 8S-DV, 15APS, PHPM-SW	6NA, PHPM-PA	8ANS, 8S-DV, 15APS, PHPM-SW, 16R-DV-B	6NA, LQSE-4A, LQSE-4A1, PHPM-PA, RPM-4A	8ANS, 8S-DV, 15APS, LQSE-4S8, LQSE-4S1, PHPM-SW, RPM-4R, 16R-DV-B
<b>Approved LED/CFL</b>	6WCL, 10NXD, 3PCL, 5NE, PHPM-PA	5WS, 6ANS, PHPM-SW	10ND, 6NA, PHPM-PA, F6AN w/ Lutron LED Driver, 6CL, 6ND	8ANS, 8S-DV, 15APS, PHPM-SW	10ND, 6NA, GRAFIK Eye QS, PHPM-PA, F6AN w/ Lutron LED Driver, 6CL, WPM, 6ND	8ANS, 8S-DV, 15APS, PHPM-SW, 16R-DV-B	6ND, 10ND, 6NA, GRAFIK Eye QS, LQSE-4A, LQSE-4A1, PHPM-PA, F6AN w/ Lutron LED Driver, RPM-4U, RPM-4A	8ANS, 8S-DV, 15APS, LQSE-4S8, LQSE-4S1, PHPM-SW, RPM-4R, 16R-DV-B
<b>2-Wire Fluorescent Ballasts</b>	10NXD	5WS, 6ANS, PHPM-SW	10ND, PHPM-PAL, 6ND	8ANS, 8S-DV, 15APS, PHPM-SW	10ND, PHPM-PAL, 6ND	8ANS, 8S-DV, 15APS, PHPM-SW, 16R-DV-B	6ND, 10ND, PHPM-PA	8ANS, 8S-DV, 15APS, LQSE-4S8, LQSE-4S1, PHPM-SW, RPM-4R, 16R-DV-B
<b>3-Wire Fluorescent Ballasts</b>	PHPM-3F	N/A	F6AN, PHPM-3F	N/A	F6AN, PHPM-3F	N/A	F6AN, PHPM-3F	N/A

# System Comparison — Caséta, RA2 Select, RadioRA 2, & HomeWorks QS

## Load Type Control

Load Types	Caséta		RA2 Select		RadioRA 2		HomeWorks QS	
	Dimmed	Switched	Dimmed	Switched	Dimmed	Switched	Dimmed	Switched
Neon/Cold Cathode	None	5WS, 6ANS	None	8ANS, 8S-DV, 15APS, PHPM-SW	GRAFIK Eye QS	8ANS, 8S-DV, 15APS, PHPM-SW, 16R-DV-B	GRAFIK Eye QS, LQSE-4A, LQSE-4A1, WPM, RPM-4U, RPM-4A	8ANS, 8S-DV, 15APS, LQSE-4S8, LQSE-4S1, PHPM-SW, RPM-4R, 16R-DV-B
Fan Switched	N/A	5WS, 6ANS	N/A	8ANS, 8S-DV, 15APS, PHPM-SW	N/A	8ANS, 8S-DV, 15APS, PHPM-SW, 16R-DV-B	N/A	8ANS, 8S-DV, 15APS, LQSE-4S8, LQSE-4S1, PHPM-SW, RPM-4R, 16R-DV-B
Fan Multi-Speed	None	None	2ANF		2ANF		RPM-4FSQ, 2ANF	
Motor One Way	N/A	None	N/A	8ANS, 8S-DV, 15APS, PHPM-SW	N/A	8ANS, 8S-DV, 15APS, PHPM-SW, 16R-DV-B	N/A	8ANS, 8S-DV, 15APS, LQSE-4S8, LQSE-4S1, PHPM-SW, RPM-4R, 16R-DV-B
Motor Bi-Directional	N/A	None	N/A	None	N/A	None	N/A	RPM-4M
0-10V LED & Fluorescent	GRX-TVI	5WS, 6ANS	GRX-TVI	N/A	GRX-TVI, 5T-DV-B	N/A	GRX-TVI, GRX-TVM2, LQSE-4T5 5T-DV-B	N/A
DMX (1 & 3 Channel)	None	None	None	None	None	None	QSE-CI-DMX	
CCO	None	None	N/A	N/A	N/A	VCRX, CCO1-24-B	N/A	VCRX, QSE-IO, CCO1-24-B
PWM Fluorescent	None	None	GRX-PWM	N/A	GRX-PWM	N/A	GRX-PWM	N/A
2-Wire LTE LED Driver	PHPM-PA, 10NXD, 5NE	5WS	PHPM-PA, 10ND, 6NA, 6ND	PHPM-SW, 8ANS	PHPM-PA, 10ND, 6NA, G25LW, GRAFIK Eye QS, WPM, 6ND	PHPM-SW, 8ANS, G5ANS, 16R-DV-B	GRAFIK Eye QS, WPM, RPM-4U, RPM-4A, 10ND, 6NA, 6ND, G25LW	8ANS, 8SDV, LQSE-4S8, LQSE-4S1, PHPM-SW, RPM-4R, 16R-DV-B, G5ANS
3-Wire L3D LED Driver	PHPM-3F	5WS, 6ANS	PHPM-3F, F6AN-DV	8ANS, PHPM-SW	PHPM-3F, F6AN-DV	8ANS, PHPM-SW, 16R-DV-B, G5ANS	PHPM-3F, F6AN-DV	8ANS, LQSE-4S8, LQSE-4S1, PHPM-SW, 16R-DV-B, G5ANS, RPM-4R
Eco System	N/A	N/A	N/A	N/A	N/A	N/A	GRAFIK Eye QS, LQSE-2ECO	



### Software Programming Differences

#### Keypad Button Programming (non Pico)

To understand button programming in RadioRA 2 and HomeWorks QS, is to understand the associated LED logic. There are three basic types of LED logic:

1. Room LED Logic — The status LED will be ON when at least one of the loads, programmed to the button, is ON at any level.
2. Scene LED Logic — The status LED will be ON when all assigned loads, programmed to the button, are at their exact programmed levels.
3. Pathway LED Logic — The status LED will be ON when all assigned loads, programmed to the button, are ON at any level.

RadioRA 2 employs only Room and Scene LED logic for all of its common button types. Caséta and RA2 Select use scene logic and single action buttons. While it has a Pathway button type, it is not true Pathway LED logic. The Pathway button type in RadioRA 2 is a toggle button with Scene LED logic. True Pathway logic is a combination of Scene and Room logic.

HomeWorks QS button programming is much more customizable than RadioRA 2. RadioRA 2 is structured around eight button types which are defined by specific button and LED logic. In HomeWorks QS, the button type is only an indicator of the button logic employed for the button. LED logic is a separate field, enabling many more combinations of button and LED logic. The following chart details the LED logic that can be associated with specific button logics for each system.

## System Comparison — Caséta, RA2 Select, RadioRA 2, & HomeWorks QS

Button Programming		Caséta	RA2 Select	RadioRA 2	HomeWorks QS
<b>Toggle Button (Press On/Press Off)</b>	Room LED logic			✓	✓
	Scene LED logic			✓	✓
	Pathway LED logic				✓
	LED logic via integration			✓	✓
	LED logic defined by sequence				✓
	Reverse LED logic				✓
<b>Single Action Button (Press On)</b>	Room LED logic				✓
	Scene LED logic			✓	✓
	Pathway LED logic				✓
	LED logic via integration			✓	✓
	LED logic defined by sequence				✓
	Reverse LED logic				✓
<b>Dual Action Button (Press/Release)</b>	Room LED logic				✓
	Scene LED logic				✓
	Pathway LED logic				✓
	LED logic via Integration				✓
	LED logic defined by sequence				✓
	Reverse LED logic				✓
<b>Advanced Button Actions</b>	Hold				✓
	Master raise/lower (Single Action)			✓	✓
	Master raise/lower (Double Tap)			✓	✓
	Single Scene raise/lower				✓
	Phantom buttons/virtual keypads			✓	✓

## Timeclock Programming

The Caséta and RA2 Select timeclock feature uses astronomic time as well as time of day to trigger events. The user can create and override timeclocks at any time through the Lutron App.

The RadioRA 2 astronomic timeclock is driven through the implementation of events which live within a mode or multiple modes. For example, in a regular day the timeclock mode would most likely be Normal mode, a mode typically with few events (mostly involving landscape lighting). When the homeowner leaves for vacation he'd set the system into Away mode. Away mode is a series of many events that are strung together to give the residence a lived-in look.

You can create other modes, including Alternate, which is often used for special occasions such as holidays. To toggle between modes, the system must receive a button press trigger. Only one mode can be active at a time.

HomeWorks QS differs from RadioRA 2 in that it operates groups of events called Timeclocks, which can run simultaneously. HomeWorks QS has Project Timeclocks as well as a dedicated Vacation mode. Timeclocks are typically designed with one for interior loads, one for exterior loads, and one for state variables. You can use the Override Calendar to disable a Timeclock or Timeclocks on specific days of the year or use a button press to disable them until the end of the day — or indefinitely.

Timeclock Programming		Caséta	RA2 Select	RadioRA 2	HomeWorks QS
Modes or Timeclocks	Enable/Disable (Button or System Trigger)			✓	✓
	Create Custom Modes or Timeclocks			✓	✓
	Vacation or Away Mode	✓	✓	✓	✓
	Disable to End of Day				✓
	Override Calendar				✓
	Simultaneous Timeclocks				✓
Event Programming	Affect Lighting, Shading, and Temperature Set Points	✓*	✓*	✓	✓
	Enable/Disable Occupancy/Vacancy Sensor Functions			✓	✓
	Initiate Green Modes			✓	✓

## Thermostat Programming

RadioRA 2 and HomeWorks QS both have the capability to control system thermostats via a variety of methods. Both systems are able to utilize up to seven daily schedules to allow for automatic set point control every day of the week. System keypads, timeclock events, and the Lutron Connect app are just a few ways that you can change the zone set points aside from the use of schedules.

HomeWorks QS differs from RadioRA 2 in that you can use a system event (such as a keypad button press) to set a zone so that it's unaffected by a schedule, hold, or run as well as change the operating mode of the zone's thermostat (i.e. Heat or Cool mode). See the table below for a complete list of features for each system.

Thermostat Programming		Caséta	RA2 Select	RadioRA 2	HomeWorks QS
<b>Automatic Scheduling</b>	7 Day Scheduling (Programmed via Software)			✓	✓
<b>Schedule Modes (Button or System Trigger)</b>	Zone Unaffected				✓
	Zone Run				✓
	Zone Hold				✓
<b>Set Point Control</b>	Local (seeTemp, TouchPRO Wireless)			✓	✓
	Keypad			✓	✓
	Timeclock			✓	✓
	7 Day Schedule			✓	✓
	Home Control+			✓	✓
	Third-party Integration	✓	✓	✓	✓
<b>Operating Mode Control (Button, System Trigger, or app)</b>	Heat, Cool, Auto, Off, Unaffected, Emergency Heat	✓*	✓*	✓*	✓*



## Occupancy/Vacancy Sensor Programming

Radio Powr Savr sensors are available for RA2 Select, RadioRA 2, and HomeWorks QS. You can also use the LOS series of wired sensors with both RadioRA 2 and HomeWorks QS, although these sensors are programmed differently than Radio Powr Savr sensors.

In RadioRA 2, the LOS sensor is wired to a CCI on the Visor Control Receiver (VCRX). Subsequently, the CCI is programmed in the RadioRA 2 software and it is that programming which is executed when the sensor is triggered. For HomeWorks QS, the LOS sensors are connected to the QSE-IO and are added to the system design and programmed similarly to the Radio Powr Savr sensors.

Occupancy/Vacancy Sensor Programming		Caséta	RA2 Select	RadioRA 2	HomeWorks QS
Timeout	1, 5, 15, and 30 minute (LOS 8 minute minimum timeout)		✓	✓	✓
	Additional sensor timeout via software (up to 300 minutes)				✓
Timeclock	Enable/disable sensor functions			✓	✓
Daylight	Ambient light detection			✓	✓

## Green Mode Programming

Green mode is a programming concept that is implemented similarly in both systems. In green mode, affected dimmers have their high end trimmed by a programmed percentage and eco mode is initiated for all affected HVAC zones. You can also create multiple green modes in either system to allow for multiple levels of energy savings. The only difference in green mode programming occurs in how the modes are activated. HomeWorks QS has a dual action button while RadioRA 2 does not have dual action capability.

Green Button Programming		Caséta	RA2 Select	RadioRA 2	HomeWorks QS
Button Type	Toggle			✓	✓
	Single action			✓*	✓
	Dual action				✓
Enable/Disable Modes	via keypad button press			✓	✓
	via timeclock			✓	✓
	via integration			✓	✓

\* Single action only applies to a button being used to turn green modes off

## Shared Scene Programming

Shared scenes are a concept that helps to save the programmer time when creating scenes. Scenes that are common to many locations through a residence or commercial building, such as All On, All Off, Welcome, and Away are shared scenes. If a scene is shared, you only need to create it once, you can easily apply it to multiple buttons, and you can edit it globally.

The chart below details the various button types that can be associated with a shared scene in both systems and LED logic (which can be applied to the button type).

Shared Scene Programming		Caséta	RA2 Select	RadioRA 2	HomeWorks QS
<b>Toggle Button (Press On/Press Off)</b>	Room LED logic			✓	✓
	Scene LED logic				✓
	Pathway LED logic				✓
	LED logic via Integration			✓	✓
	LED logic defined by sequence				✓
	Reverse LED logic				✓
<b>Single Action Button (Press On)</b>	Room LED logic				✓
	Scene LED logic			✓	✓
	Pathway LED logic				✓
	LED logic via integration			✓	✓
	LED logic defined by sequence				✓
	Reverse LED logic				✓
<b>Dual Action Button (Press/Release)</b>	Room LED logic				✓
	Scene LED logic				✓
	Pathway LED logic				✓
	LED logic via integration				✓
	LED logic defined by sequence				✓
	Reverse LED logic				✓

# System Comparison — Caséta, RA2 Select, RadioRA 2, & HomeWorks QS

## Advanced Programming

Caséta, RA2 Select, RadioRA 2, and HomeWorks QS also have advanced software features. Some of the advanced features include:

- Manipulating the high and low end dimmer output (often necessary when controlling approved LED sources)
- Setting shade limits remotely through a PC or Lutron App programming utilities
- Implementing conditional logic in HomeWorks QS when programming the system

The chart below details specific advanced features and shows which features are supported by which system.

Advanced Programming Features	Caséta	RA2 Select	RadioRA 2	HomeWorks QS
Keypad LED Backlighting Adjustment			✓	✓
Locked Dimmer Preset			✓	✓
Dimmer Low and High End Trim Adjustment	✓	✓	✓	✓
Remote Shade Limit Setting	✓	✓	✓	✓
Intelligent Hembar/Tilt Alignment			✓	✓
Level Editor			✓	✓
Load and Fixture Schedules				✓
Auto-Activation (manual serial number entry)	✓	✓	✓	✓
Auto-Activation (barcode scanning)			✓	✓
Real Time Editing				✓
Engraving Management			✓	✓
RF Diagnostics			✓	✓
Conditional Logic (single and multi-variable)				✓
Database Extraction			✓	✓
Cycle Dim				✓
Sequences (Manual)				✓
Sequences (Auto)				✓
Third-party Control (Lutron out to third-party gear)				✓
Area Scenes				✓
Dimmer Button Preset Programming				✓
Zone Flashing				✓
Remote (Wiggle) Shade Activation			✓	✓
Project Settings (User Preferences)				✓
Grace Period for Occupancy/Vacancy Sensors				✓
Assignment of Remote Dimmers/Switches			✓	✓
Light Sensor Programming				✓
Temperature Sensor Programming				✓
Rollback			✓	✓
Battery Status in App			✓	✓

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