Code-Smart Guestroom System

Save energy with a smart, simple, lighting control system

- **Supports energy code compliance** in hotel guest rooms
- **Simple to design, to install, and setup** - no programming needed
- **Budget-friendly** and ideal for mid-scale guestrooms, senior living, dormitories, and more

☼LUTRON

Code-Smart Guestroom System

Save Energy. Support Code Compliance. Meet budget. Simplify Design.

Save Energy

Energy Efficient

- Smart, simple, lighting control system
- Guest presence detection intelligently identifies when the room is unoccupied

Simple Sequence of Operations

- Optimize energy savings without compromising guest experience

Avoid common guest experience pain points

- Master switch confusion
- Lights turning on in the middle of the night
- Lights turning off unexpectedly
- Fumbling for keycard to turn lights on in the dark

JW Marriott Hotel Shanghai at Tomorrow Square, Shanghai, China

Meet Budget

Budget-friendly

- Save energy and preserve guest comfort with the right system at the right price

Easy to project cost

- One consistent model number for every room

Save on devices and materials

- Circuit-level control eliminates a "Frankenstein system" of mismatched parts and pieces otherwise necessary to meet code requirements

Simple and Flexible

Easy to design, install, and setup

- Simple button presses associate sensors to the system

No factory startup

- Install, assign sensors, and move on to the next room
- No hidden fees

Support meeting code

- Supports meeting lighting requirements in common energy codes, including ASHRAE 90.1, IECC and CA Title 24 Part 6
- Codes vary state-by-state, and even city-by-city, and with two package options, we support meeting code in most project locations

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Code-Smart Guestroom System

Individual room automation for lights, with options for temperature and receptacle control
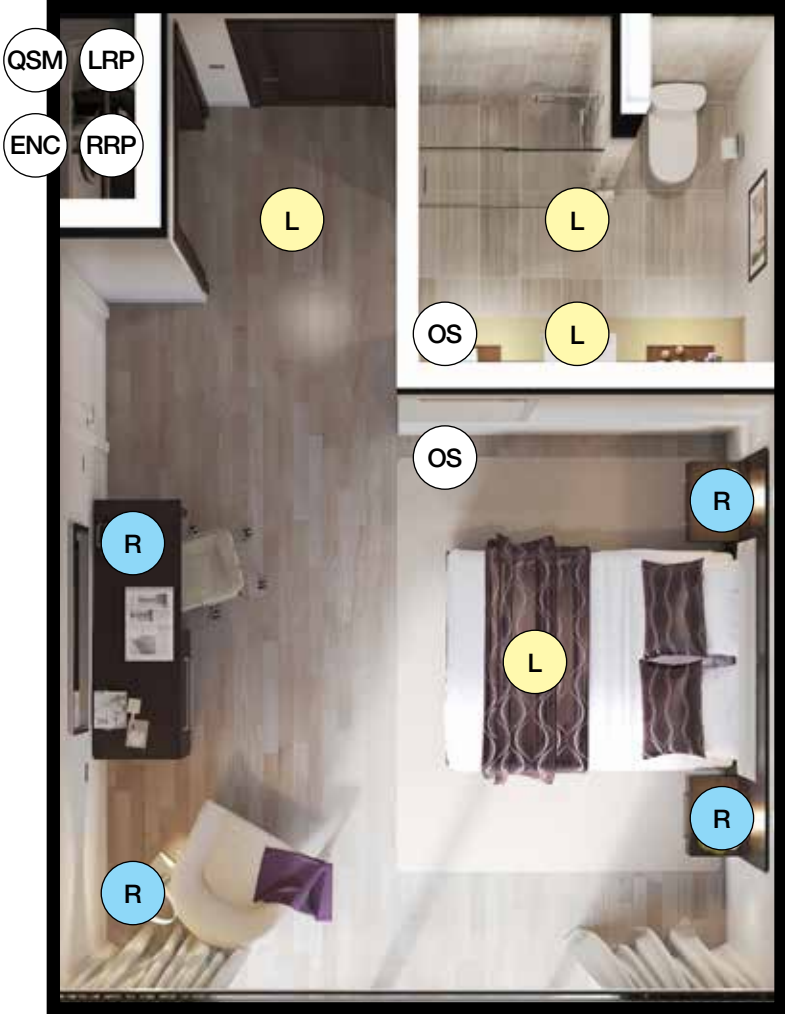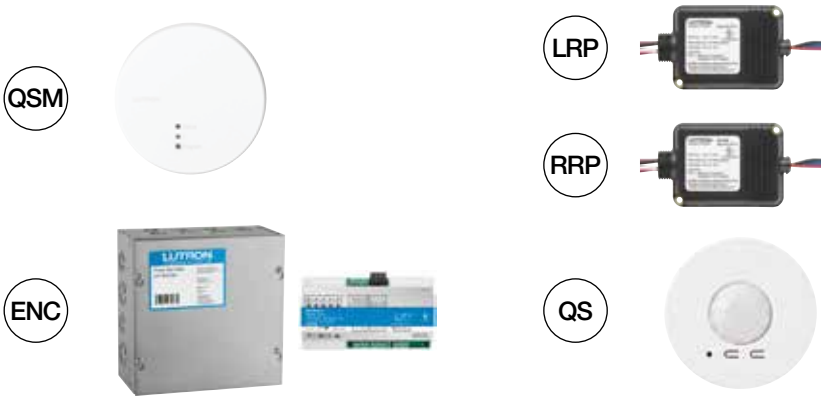
Package includes:

- Lutron-provided enclosure
- Switching load controller for Guest Presence Detection
- (1) relay power pack for controlled lighting circuit
- (1) relay power pack for controlled receptacle circuit*
- (2) occupancy sensors
- QS sensor module

- *Connection to door contact (provided by installing contractor)*
- *Dry contact integration to thermostat (provided by mechanical contractor)*

Sequence of Operations (SOO):

	Occupied	Unoccupied
Lights	Energized	De-energized
Receptacles*	Energized	De-energized
Temperature**	Comfort mode	Setback

 *As required by code, and included in 2-circuit package
**If integrated with 3rd-party thermostat via dry contact

QSM
LRP
ENC
RRP
QS

L Master controlled lighting

R Master controlled receptacles

120V — Receptacle controller — Receptacles downstream

Lighting controller — Switches downstream — Lighting

2-Wire contact closure

120V

Thermostat by others

QS link — Enclosure with control module — Door contact

Wireless receiver — Bedroom occupancy sensor — Bathroom occupancy sensor
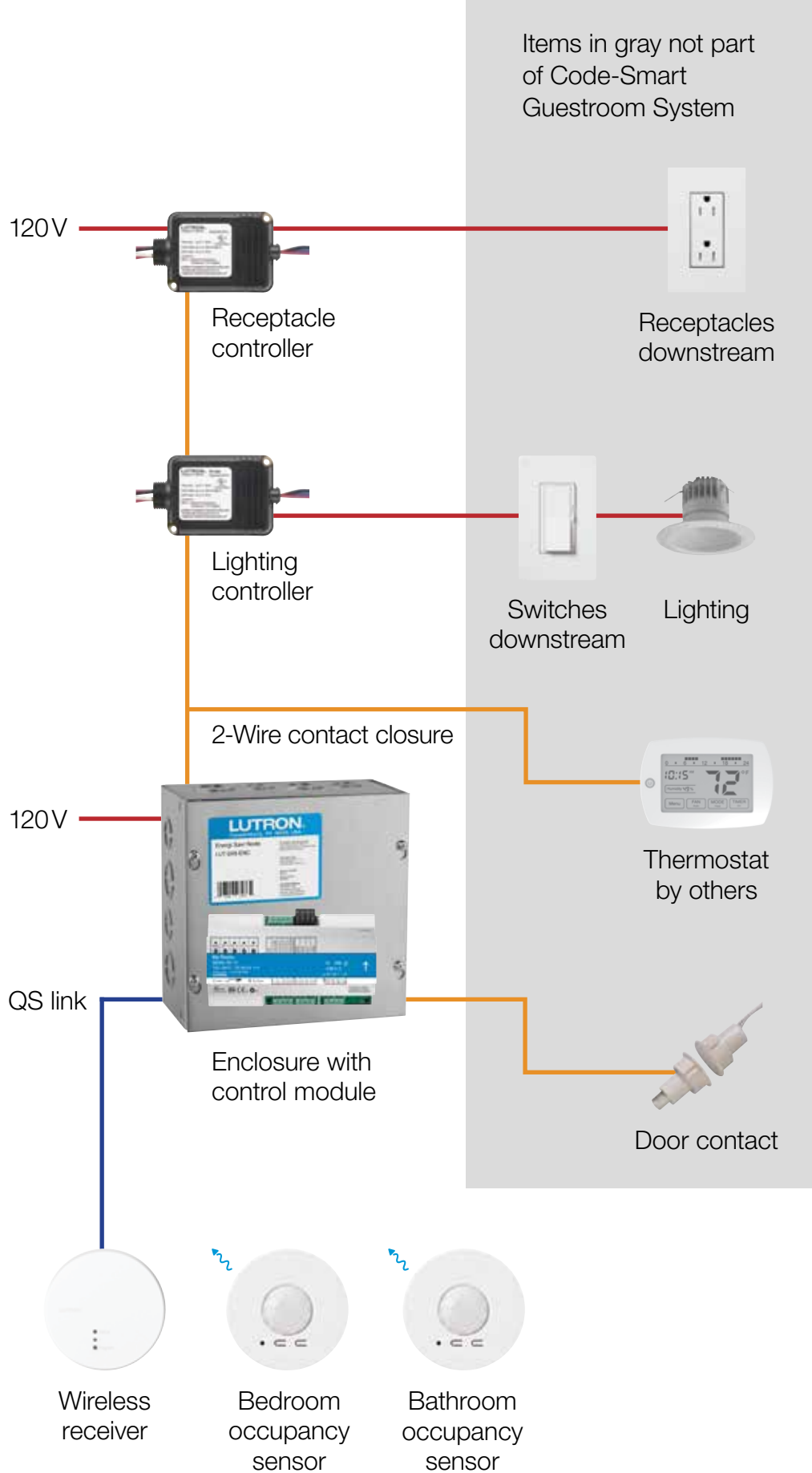
CCGS-NA-1

SEQUENCE OF OPERATIONS:

- WHEN THE DOOR IS OPENED/CLOSED, THE MOTION SENSORS LOOK FOR GUEST MOTION IN THE ROOM.

- WHEN MOTION IS DETECTED, THE ROOM IS LATCHED INTO THE OCCUPIED/ENERGIZED STATE.

- ROOM OCCUPANCY IS RE-EVALUATED ONLY WHEN THE DOOR IS OPENED/CLOSED. IF NO MOTION IS DETECTED FOR 15 MINUTES, THE CONTROLLER WILL DE-ENERGIZE THE LIGHTING CIRCUITS

- WHEN THE GUEST RETURNS TO A VACANT ROOM, THE LIGHTING CIRCUIT IS RE-ENERGIZED IMMEDIATELY WHEN THE DOOR IS OPENED.

- ALL LIGHTING IN THE ROOM IS CONTROLLED BY WALL SWITCHES/DIMMERS OR SWITCHES/DIMMERS ON FF&E LAMPS.

Line/Hot
Neutral

WARNING: Do not interconnect thermostat CCO N.C. signal and PP-DV red wire. Only connect thermostat common and PP-DV blue wire to the MQSE CCO Common as shown in this diagram.

Equipment not provided by Lutron

Third-party FCU thermostat with setback input (not provided by Lutron)

CCO N.C.
Common

CCO N.O.

Red
Black
Blue

White
Black
Red
Red

Neutral

Switched Hot

Switched circuit to master controlled lighting

Relay pack rated to switch lighting loads (PP-DV)

Low-voltage Occ./Vac. control signal (CCO N.O., CCO N.C., and Common)

Lutron Clear Connect Type A RF Signal

Lutron Clear Connect Type A RF Signal

Common
CCI

Normally Open (N.O.) Magnetic door contact (not provided by Lutron)

Low-voltage Contact Closure Input signal

MUX
MUX
24V ⎓
COM

Lutron QS Link (low-voltage)

Wireless occupancy/ vacancy sensor* Location: Bathroom (LRF2-OCR2B-P-WH)

Wireless occupancy/ vacancy sensor* Location: Bedroom (LRF2-OCR2B-P-WH)

QS Sensor Module (QSM) Wireless receiver can be hidden in the ceiling (QSM2-XW-C)

*Ceiling mounted (max of 10 per QSM) Battery-powered with 10 year battery life

MQSE-2S1-D

Circuit from distribution panel (120V~)

Line/Hot
Neutral

Junction Box (not provided by Lutron)

Line/Hot
Neutral

Lutron Control Module (MQSE-2S1-D) Mounted in 8 in x 8 in enclosure (LUT-8X8-ENC)

LUTRON CODE-SMART GUESTROOM SYSTEM SINGLE CIRCUIT OPTION (CCGS-NA-1)

CONCEPT DRAWING NOT FOR CONSTRUCTION

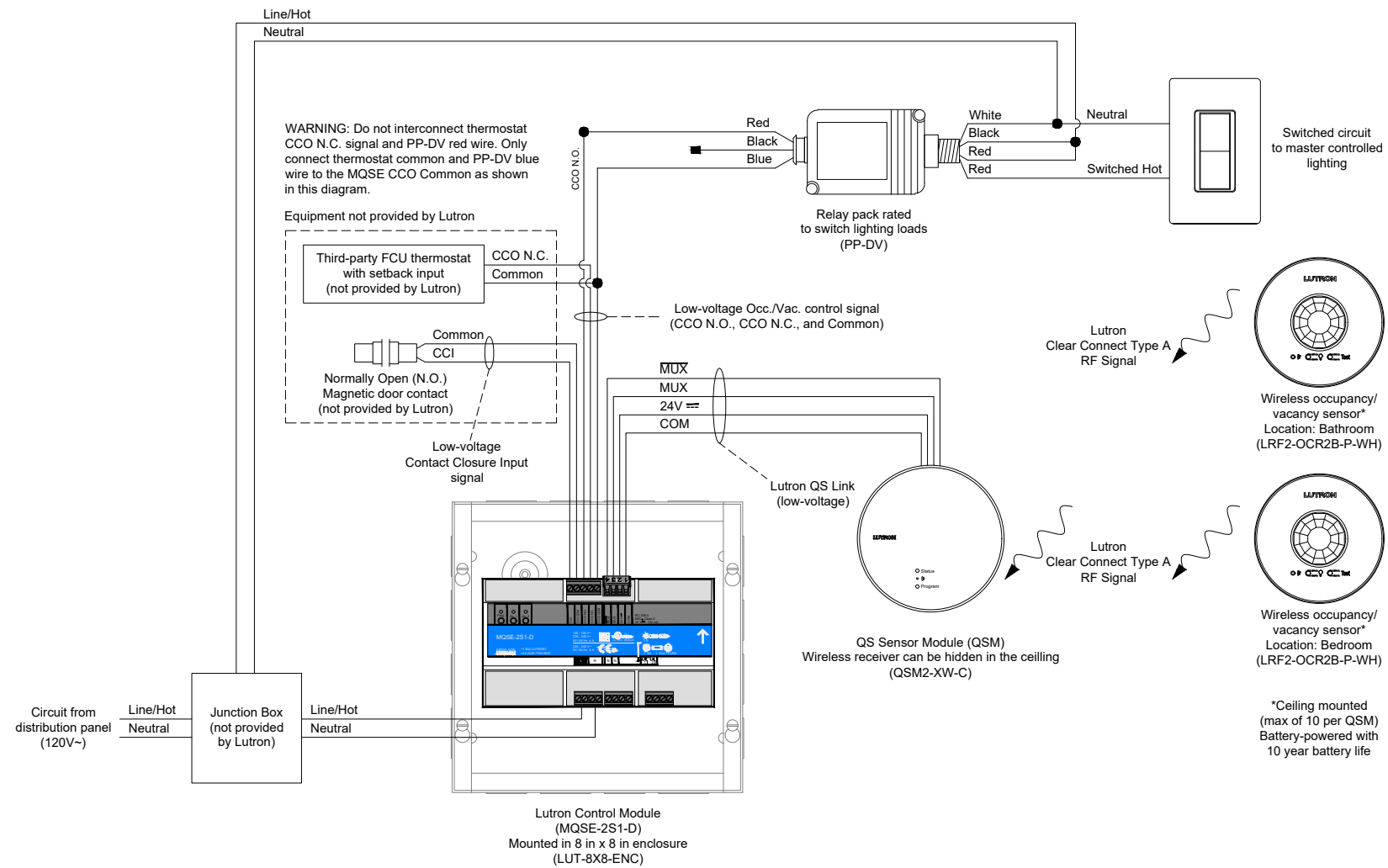|	
Project Number:	N/A
Drawn By:	CMT/BN
Drawing Revision:	2
Drawing Date:	Q2 2021
Sheet:	1 OF 1

CCGS-NA-2

SEQUENCE OF OPERATIONS:

- WHEN THE DOOR IS OPENED/CLOSED, THE MOTION SENSORS LOOK FOR GUEST MOTION IN THE ROOM.

- WHEN MOTION IS DETECTED, THE ROOM IS LATCHED INTO THE OCCUPIED/ENERGIZED STATE.

- ROOM OCCUPANCY IS RE-EVALUATED ONLY WHEN THE DOOR IS OPENED/CLOSED. IF NO MOTION IS DETECTED FOR 15 MINUTES, THE CONTROLLER WILL DE-ENERGIZE THE LIGHTING AND RECEPTACLE CIRCUITS (CCGS-NA-2 ONLY).

- WHEN THE GUEST RETURNS TO A VACANT ROOM, THE LIGHTING AND RECEPTACLE CIRCUITS ARE RE-ENERGIZED IMMEDIATELY WHEN THE DOOR IS OPENED.

- ALL LIGHTING IN THE ROOM IS CONTROLLED BY WALL SWITCHES/DIMMERS OR SWITCHES/DIMMERS ON FF&E LAMPS.

Line/Hot
Neutral

Yellow
(Do NOT Cut)
Red
Black
Blue
Orange

White — Neutral
Black
Red — Switched Hot

Switched circuit
to master controlled
receptacles

Relay pack rated
to switch receptacles (20 A max)
(CU300HD-CPN6814)

WARNING: Do not interconnect thermostat CCO N.C. signal, PP-DV red wire, and CU300HD-CPN6814 red wire. Only connect thermostat common, PP-DV blue wire, and CU300HD-CPN6814 blue wire to the MQSE CCO Common as shown in this diagram.

Red
Black
Blue

White — Neutral
Black
Red
Red — Switched Hot

Switched circuit
to master controlled
lighting

Relay pack rated
to switch lighting loads
(PP-DV)

Equipment not provided by Lutron

Third-party FCU thermostat
with setback input
(not provided by Lutron)

CCO N.C.
Common

CCO N.O.

Low-voltage Occ./Vac. control signal
(CCO N.O., CCO N.C., and Common)

Lutron
Clear Connect Type A
RF Signal

Common
CCI

Normally Open (N.O.)
Magnetic door contact
(not provided by Lutron)

Low-voltage
Contact Closure Input
signal

Wireless occupancy/
vacancy sensor*
Location: Bathroom
(LRF2-OCR2B-P-WH)

MUX
MUX
24V ⎓
COM

Lutron QS Link
(low-voltage)

QS Sensor Module (QSM)
Wireless receiver can be hidden in the ceiling
(QSM2-XW-C)

Lutron
Clear Connect Type A
RF Signal

Wireless occupancy/
vacancy sensor*
Location: Bedroom
(LRF2-OCR2B-P-WH)

MQSE-2S1-D

Circuit from
distribution panel
(120V~)

Line/Hot
Neutral

Junction Box
(not provided
by Lutron)

Line/Hot
Neutral

Lutron Control Module
(MQSE-2S1-D)
Mounted in 8 in x 8 in enclosure
(LUT-8X8-ENC)

*Ceiling mounted
(max of 10 per QSM)
Battery-powered with
10 year battery life

LUTRON CODE-SMART GUESTROOM SYSTEM TWO CIRCUIT OPTION (CCGS-NA-2)

CONCEPT DRAWING NOT FOR CONSTRUCTION

Project Number:	N/A
Drawn By:	CMT/BN
Drawing Revision:	2
Drawing Date:	Q2 2021
Sheet:	1 OF 1