# Quick Reference Guide

<table>
<thead>
<tr>
<th>Lutron Control System</th>
<th>Power Pack Required?</th>
<th>Number of sensors powered by system</th>
<th>System expandable with power pack?</th>
<th>Notes:</th>
</tr>
</thead>
<tbody>
<tr>
<td>EcoSystem™</td>
<td>N</td>
<td>1</td>
<td>Y</td>
<td>Use Ecosystem Ballast/C5-BMF</td>
</tr>
<tr>
<td>Digital microWATT™</td>
<td>N</td>
<td>1-3</td>
<td>Y</td>
<td>Use lighting zone controller; at least one must be connected before expansion</td>
</tr>
<tr>
<td>MicroWATT®</td>
<td>N</td>
<td>1-3</td>
<td>Y</td>
<td>Use lighting zone controller; at least one must be connected before expansion</td>
</tr>
<tr>
<td>RadioTouch™</td>
<td>N</td>
<td>1</td>
<td>Y</td>
<td>Use with RTA-RX controller/RTA-SCI</td>
</tr>
<tr>
<td>Softswitch™</td>
<td>N*</td>
<td>1</td>
<td>Y</td>
<td>Use with seeTouch™ wallstation/OMX-AV/Panel CCI</td>
</tr>
<tr>
<td>LCP128™</td>
<td>N*</td>
<td>1</td>
<td>Y</td>
<td>Use with seeTouch™ wallstation/OMX-AV/Panel CCI</td>
</tr>
<tr>
<td>GRAFIK 5000/6000/7000™</td>
<td>N*</td>
<td>1</td>
<td>Y</td>
<td>Use with seeTouch™ wallstation/OMX-AV</td>
</tr>
<tr>
<td>GRAFIK Eye® 3000/4000</td>
<td>Y</td>
<td>0</td>
<td>Y</td>
<td>Use with GRX-AV</td>
</tr>
<tr>
<td>HomeWorks®</td>
<td>Y</td>
<td>0</td>
<td>Y</td>
<td>Use with CCI</td>
</tr>
<tr>
<td>RadioRA®</td>
<td>Y</td>
<td>0</td>
<td>Y</td>
<td>Use with RA-SCI</td>
</tr>
</tbody>
</table>

*Power Pack required for OMX-AV and Panel CCI controls

**Power Packs are able to support a MAX of three occupant sensors each

## Supporting Hardware

<table>
<thead>
<tr>
<th>Hardware</th>
<th>Power Pack Required?</th>
<th>Number of sensors powered by system</th>
<th>Notes:</th>
</tr>
</thead>
<tbody>
<tr>
<td>OMX-AV</td>
<td>Y</td>
<td>0</td>
<td>Y</td>
</tr>
<tr>
<td>GRX-AV</td>
<td>Y</td>
<td>0</td>
<td>Y</td>
</tr>
<tr>
<td>Panel Contact Closure Interface</td>
<td>Y</td>
<td>0</td>
<td>Y</td>
</tr>
<tr>
<td>seeTouch™ wallstation</td>
<td>N</td>
<td>1</td>
<td>Y</td>
</tr>
<tr>
<td>Contact Closure Interface</td>
<td>Y</td>
<td>0</td>
<td>Y</td>
</tr>
</tbody>
</table>

## Wire Size Note:

Use a minimum wire size of #18 AWG (1.0 mm²) for long wire runs (>2000 ft/610 m), #24 AWG (0.5 mm²) for medium wire runs (500 ft/152 m to 2000 ft/610 m), and #28 AWG (0.5 mm²) for short wire runs only (<500 ft/152 m).

• See individual product specifications for a complete wiring guide of Lutron occupant sensors to other Lutron Lighting Control Systems

1 Need additional assistance? Call the Lutron Technical Support Center 1-800-523-9466. Please provide exact model number when calling.
Note: All occupant sensors tied to individual inputs will work to control 1 scene only, not 3.

Note: Cap off BLUE signal and RED power wires to power pack if switching is not being used.

Note: For -R model sensors use gray wire instead of blue as seen in installation manual.

Note: All of the signal (blue) wires are connected to “C”, with the +24 V wire of each zone connected to a contact closure input of the AV unit. All three occupant sensors per power pack are seen as one signal by the AV input in this drawing.
Creating Toggle Function with GRX-AV/OMX-AV (for use with -R model sensors only)

Enables the ability to toggle between two scenes instead of standard occupant sensor ON/OFF operation.

**Note:** BLUE knob on occupant sensor must be turned fully clockwise for unit to function properly.

Creating Toggle Function with RadioTouch™ (for use with -R model sensors only)

**Note:** Maximum of 3 sensors can be powered by the unit.
Combined Emergency and Occupant Sensor Function with RadioTouch™
(for use with -R model sensors only)

**Note:** Set Radio Touch “Receiver Switch Settings” DIP switch 2 to OFF for emergency mode.

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**RTA-RX-F-SC**

- **RadioTouch**
- **RTA-RX-F-SC**

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**LUT-ELI-3PH**

- **Emergency Lighting Interface**
- **3 Phase Detector**

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**CAUTION!**

This equipment has more than one power connection point. To reduce the risk of electrical shock disconnect both the branch circuit breakers or fuses before servicing.

**CAUTION!**

Read instruction manual for installation, operation, and maintenance instructions.

For use with Lutron GRAFIK Eye® GP-, XP-, LP- Series panels and RadioTouch™ Controllers

5-Phase 100V~ to 347V~, 50/60 Hz sense lines

24VDC or 24VFW input

MUX

8765

12 11 10 9
4321

Drain

Sense on Circuit Selector(s)

Circuit Common +V Input

(24VDC or 24VFW)

Signal on RadioTouch™ Controller(s)

Not Used

Normally Open Contacts

Fire Alarm Control Panel

Status Indicators

1
5
11
12
13

S1

Press and hold to test

Test

Fire Alarm

ON= Phase(s) OK

OFF= Phase(s) failure

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**LOS-CDT-x000R-WH**

- **Yellow/White (NO)**
- **Black/White (NC)**
- **Blue/White (common)**
- **Gray Blue**

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**PWR STAT PROG 100 Hr/100%**

**PS Sig**

**P/N 500-10**

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Lighting Zone Controller Interface (microWATT® and Digital microWATT™): Single-Zone Example

Notes:
- At least 1 occupant sensor must be connected to the microWATT interface to ensure proper operation.
- A maximum of 3 occupant sensors are able to be powered by the microWATT unit alone.
- A maximum of 10 occupant sensor signal lines are permitted to be connected to one microWATT unit.

Note: Maximum 3 occupant sensors.

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Note: Maximum 3 occupant sensors.

Note: For -R model sensors use gray wire instead of blue as seen in installation manual.

Note: Cap off BLUE signal and RED power wires to power pack if switching is not being used.

Note: Maximum 3 occupant sensors.
Multi Lighting Zone Controller System: Interfacing Peripheral Connections between Lighting Zone Controllers

Lighting Zone Controller

Sensor signal and COM must be referenced between units
Circuit COM tied together

Note: Maximum 3 occupant sensors.
Controlling Zone with Dual Feeds: Power Booster Example

Panel Feed 1
120-127 V ~  60 Hz
220-240 V ~  50/60 Hz

Panel Feed 2
120-127 V ~  60 Hz
220-240 V ~  50/60 Hz

Zone 1 and Zone 2 controlled by same occupant sensors
Zone 1 and Zone 2 powered by different feed lines

GRX-3103
Control Unit

Auxiliary Power Pack
NGRX-PB

Zone 1 and Zone 2
controlled by same occupant sensors
powered by different feed lines

Need additional assistance? Call the Lutron Technical Support Center 1-800-523-9466.
Please provide exact model number when calling.
Fluorescent Dimming Ballast (FDB) with Occupant Sensors: Single-Zone Example

Note: Power Packs can switch 20 A ballast current for 120/277 V~ versions.

Dual Circuit Switching of FDBs (<20 A/Zone): Single-Zone Example

Note: Power Packs can switch 20 A ballast current for 120/277 V~ versions.

Note: Maximum of three devices total (occupant sensors and auxiliary power packs) can be connected to a power pack.

Need additional assistance? Call the Lutron Technical Support Center 1-800-523-9466. Please provide exact model number when calling.
Switching Dimmed Hot to FDB: Single-Zone Example, Wallstation®

Note:
For -R model sensors use gray wire instead of blue as seen in installation manual.
Switching Dimmed Hot to FDB: Dual-Zone Example

**Note:**
For -R model sensors use gray wire instead of blue as seen in installation manual.
Ecosystem™ Ballast Interface: Single-Zone Example

Note: All occupant sensors tied to ballasts will control a single zone, not 4.

Note: Maximum 3 occupant sensors.

Note: Cap off BLUE signal and RED power wires to power pack if switching is not being used.

For -R model sensors use gray wire instead of blue as seen in installation manual.
Wiring to a seeTouch™ allstation: Single-Zone Example

Note:
- All occupant sensors tied to controller will work to control 1 zone only, not 4.

Note: Maximum 3 occupant sensors.

Notes:
- A MAXIMUM of 1 occupant sensor can be powered by the seeTouch wallstation to ensure proper operation.
- A MAXIMUM of 10 occupant sensor signal lines are permitted to be connected to one seeTouch wallstation.
- Occupant sensors do NOT work with standard seeTouch controls.

Wiring to a Contact Closure Input: LCP Controller Example

Note: Cap off BLUE signal wire. Cap off RED power wires to power pack if switching is not being used.

Note: Cap off BLUE signal wire. Cap off RED power wires to power pack if switching is not being used.
Interfacing Wallbox Occupant Sensors with Wallbox Dimming Products: Maestro® Wallstation Example

Notes:
- LOS-SIR is a wallbox-mounted occupant sensor that is used to switch power to a load.
- Dimmer will retain previous settings when power is returned (based off assumed normal operation of a Maestro wallstation control).
- This is a simple solution to this type of situation.
- Do NOT use LOS-SUS units to switch a dimming load.
- Unit must be wired on live side of dimmer.

Interfacing Low-Voltage Occupant Sensors with Wallbox Dimming Products

Notes:
- The dimmed hot signal is switched in this circuit versus the hot signal in the previous drawing.
- This is a more complex method that allows for the use of versatile low-voltage occupant sensors in place of a wallbox unit.
Title 24 Circuits: LOS-SIR-M Manual ON/Auto OFF

- Black
- Red
- Green
- 120/277 V~
- Neutral
- Lutron Lighting Control (if not Title 24 Complaint)
- Los-Sir-M
- Wall Sensor
- Power Pack
- Red (+20-24 V)
- Blue (signal)
- Black (common)
- Neutral
- Dimmed Hot
- Hot
- Neutral
- Neutral
- Dimmed Hot
- 120/277/347 V~ 60 Hz
- 230 V~ 50 Hz

Title 24 Circuits: Sentry Switch Manual ON/Auto OFF

- Hot
- Neutral
- Dimmed Hot
- Lutron Lighting Control (if not Title 24 Complaint)
- Sentry Switch
- Power Pack
Chicago Code Violation Solution: No 277 V~ in the Wall

Wallstation “ON” - sensor powered; automatic sense of occupancy
Wallstation “OFF” - sensor not powered; lights off

Do NOT exceed 1000 ft (305 m) of low voltage cable with three occupant sensors attached.

Note: Maximum 3 occupant sensors.

Note: Low voltage switched in the wall because code does not allow 277 V~ power in the wall; mainly concerning ballast applications.
Worldwide Technical and Sales Assistance

If you need assistance, call the toll-free 
Lutron Technical Support Center. 
Please provide exact model number when calling.
24 hours/day + 7 days/week

North and South America
U.S.A., Canada, Caribbean: 1.800.523.9466
Mexico: +1.888.235.2910
Central/South America: +1.610.282.6701

Europe
Technical support: +44.(0)20.7680.4481

Asia
Northern China: 10.800.712.1536
Southern China: 10.800.120.1536
Hong Kong: 800.901.849
Japan: +81.3.5575.8411
Singapore: 800.120.4491
Taiwan: 00.801.137.737
Thailand: 001.800.120.665853
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