

LEVITON

Applications Cookbook

Omnistat3 (RC500) Hospitality Thermostat & Guestroom Control

Version 4.0

FOR REFERENCE ONLY

TABLE OF CONTENTS

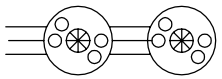
OMNISTAT3 (RC500) HOSPITALITY THERMOSTAT & GUESTROOM CONTROL COOKBOOK NOTES

1. Refer to installation instructions for device-specific terminations
2. Refer to RC500 installation manual for HVAC connection instructions
3. Line feed 120/230/277VAC, 60Hz
4. Line feed shall not be connected to the RC500 Thermostat
5. All wiring on terminals 1-8 for the RC500 is 24VAC. Wiring to pin header is dry contact only.
6. Ground not shown. Ground devices per applicable national and local codes and best practices.
7. For emergency power situations, illustrations assume transfer switch by others upstream of shown devices
8. Line voltage load not to exceed contact rating per device specifications
9. Power packs receiving separate feeds for switched loads and self power must have both feeds on the same phase
10. All low-voltage loads not to exceed contact rating per device specifications
11. Maximum run length for analog wiring is 1,000' @ #18 AWG
12. Sensors wired in parallel will cause line voltage relay closure when occupancy is detected by any unit
    Devices in series requiring contact closure from a single device, (clock input, demand response, emergency, etc.) must follow these wiring conventions: first device in sequence provides the +V to the triggering relay; signal from closure attached to all devices in sequence input; com from first device in sequence attached to com on all devices in sequence
13. Ultrasonic ceiling mount sensors should be located a minimum of six (6) feet from HVAC supply/return vents
14. Trough-mounted, pendant mounted and pendant-mounted indirect lighting sources affect the operation of locally mounted sensors. Contractor is responsible for adjusting sensor locations to allow for proper operation.
15. Contractor is responsible for proper sensitivity and time delay settings for non-adaptive products, following the manufacturer's recommended placement, and field verification of circuits with respect to power pack placement
16. Contractor is responsible for coordinating the operational options of sensors and power packs with the specific work requirements:
    - Work relevant energy code requirements affect circuits to be controlled and their control characteristics
    - One power pack is required for each controlled circuit
17. - Refer to power pack data sheet for output and installation guide for maximum number of sensors connected to a power pack
    - If multiple circuits are to be controlled by a sensor, auxiliary relays may be used in conjunction with a power pack
18. Ceiling sensors mounted over doorways should be placed one (1) foot inside the threshold
19. Up to 100 Mark VII style ballasts may be controlled per daylighting zone by miniZ™
20. All relays shown in de-energized state
21. Individually cap off unused leads
22. One-line parenthesis use:
    (x) - Function
    (#) - Terminal
23. Plug load control—commercial receptacle P/Ns:
    Standard duplex:
    - Split control (1 outlet) CR015-1PX, CR020-1PX
    - Full control (2 outlets) CR015-2PX, CR020-2PX
    Decora:
    - Split control (1 outlet) 16252-1PX, 16352-1PX
    - Full control (2 outlets) 16252-2PX, 16352-2PX

DRAWING SYMBOLS

No connection

Connection

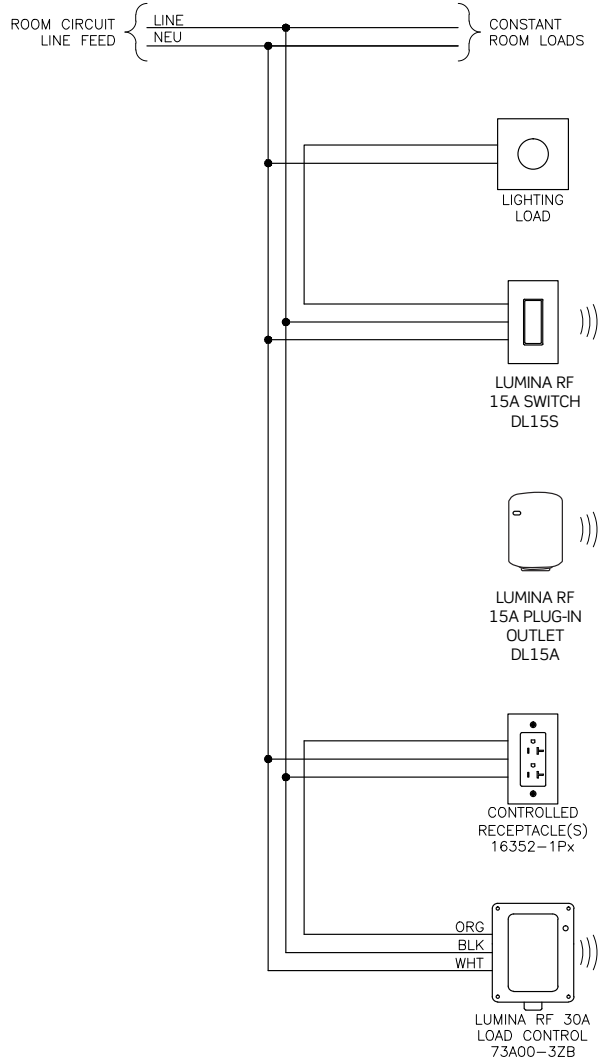


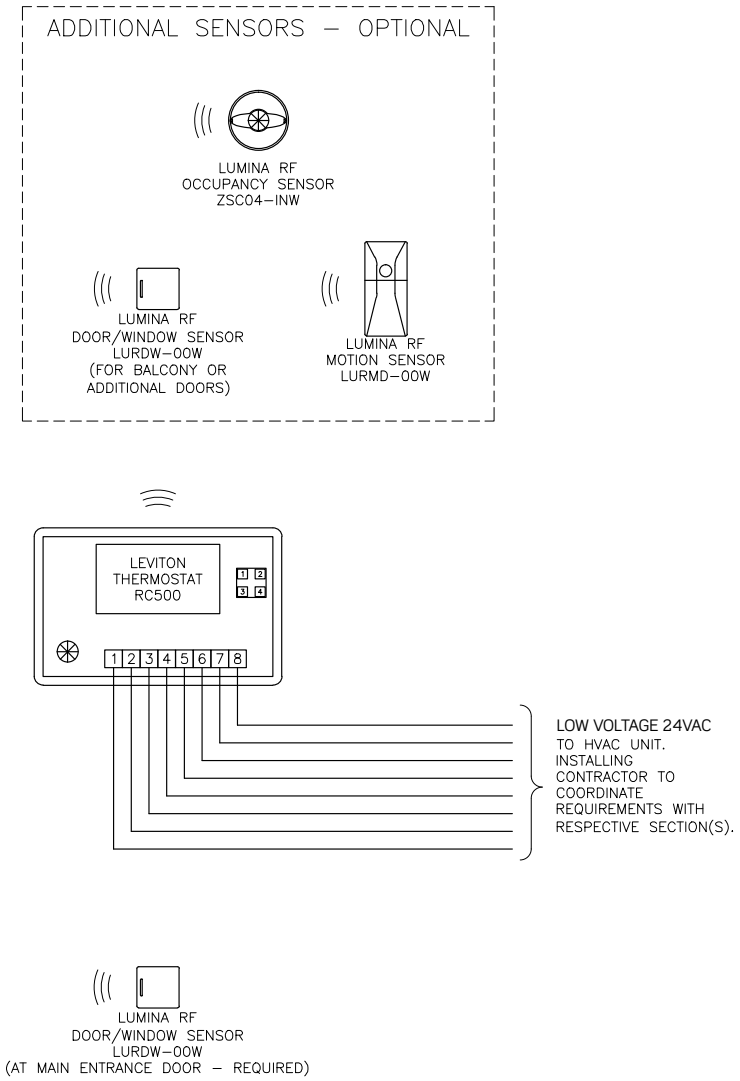
Devices wired in parallel

DRAWING ABBREVIATIONS

LC	LumaCan
LV	Low voltage
HV	High voltage switch (maintained)
LVM	Low voltage switch (momentary)- equal to Leviton 1081 (toggle) or Leviton 56081 (Decora)
LVT	Low voltage switch (maintained)-equal to Leviton 12021-2 (toggle) or Leviton 56021-2 (Decora)
LV2	IRC low voltage switch
UON	Unless otherwise noted
BLK	Black
WHT	White
BLU	Blue
YEL	Yellow
ORG	Orange
VIO	Violet
BRN	Brown

RC500 HOSPITALITY THERMOSTAT & GUESTROOM MASTER CONTROLLER—NO NEW WIRES





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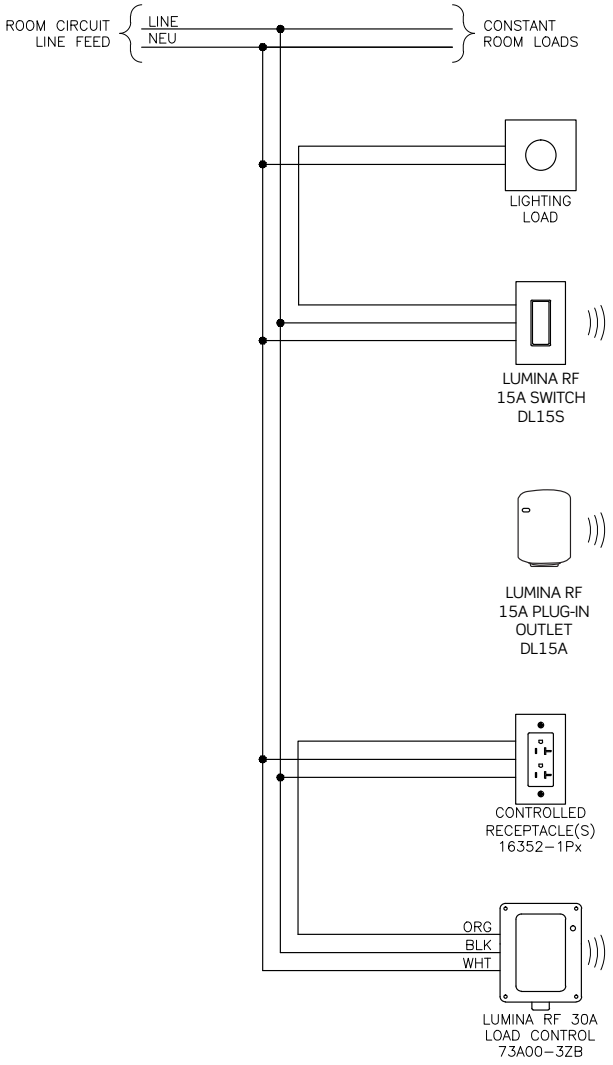
RC500 HOSPITALITY THERMOSTAT & GUESTROOM MASTER CONTROLLER— LUMINA RF AND KEY CARD SWITCH (OPTION 1)



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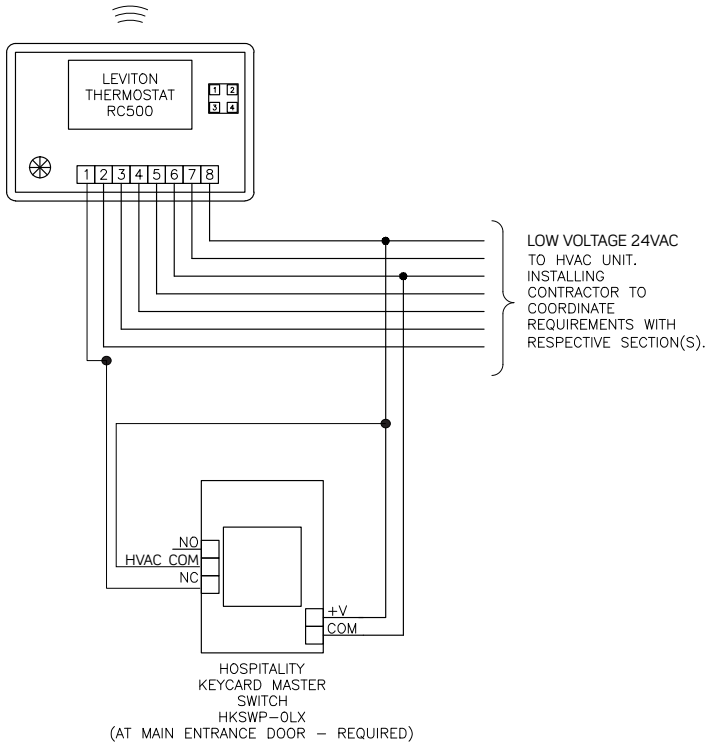

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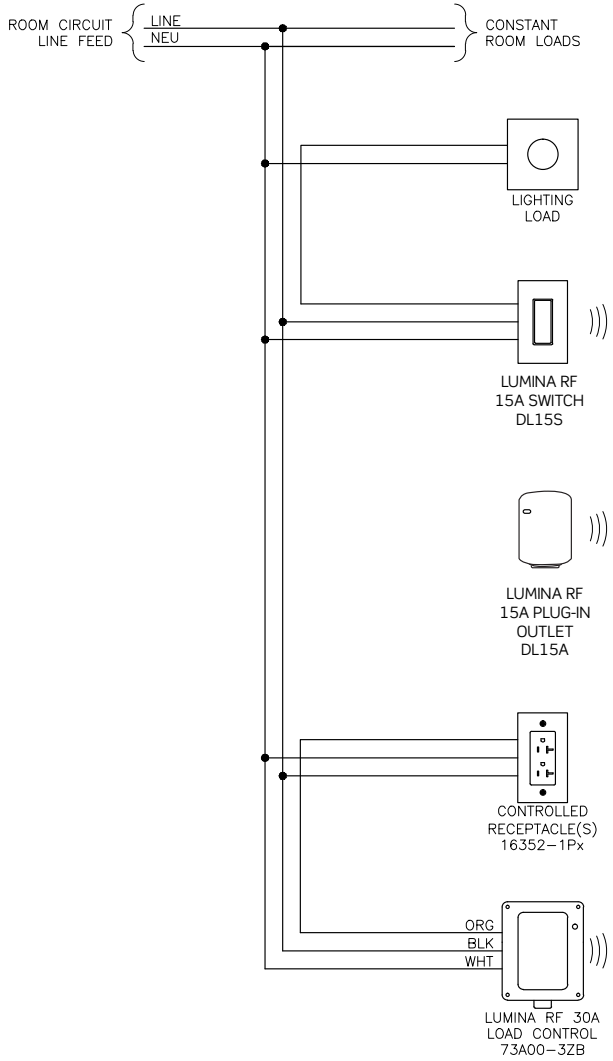

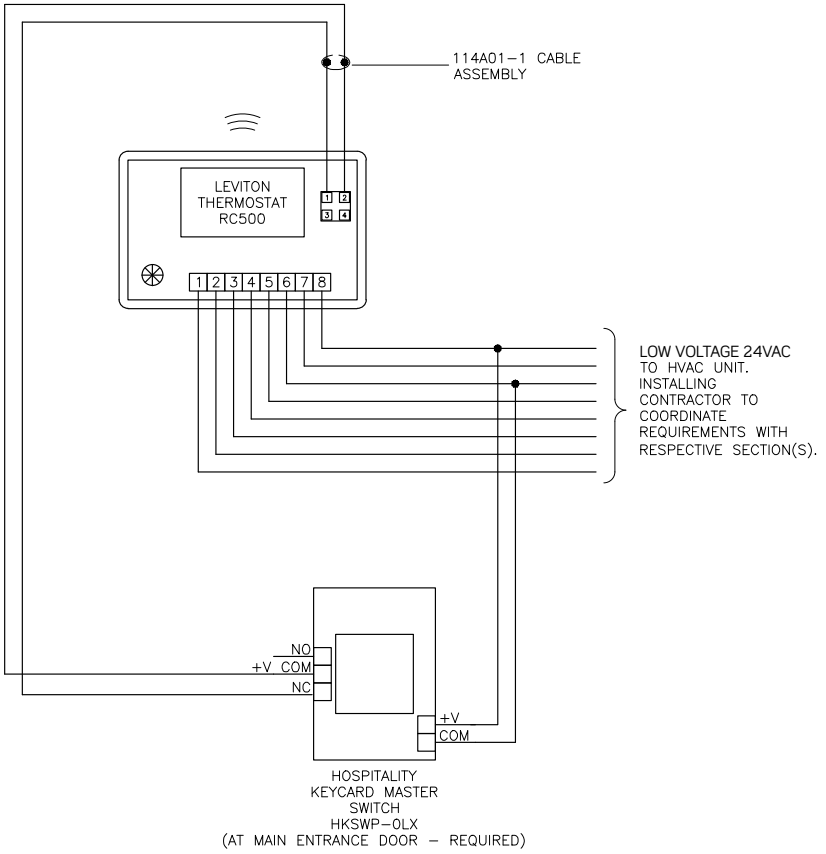

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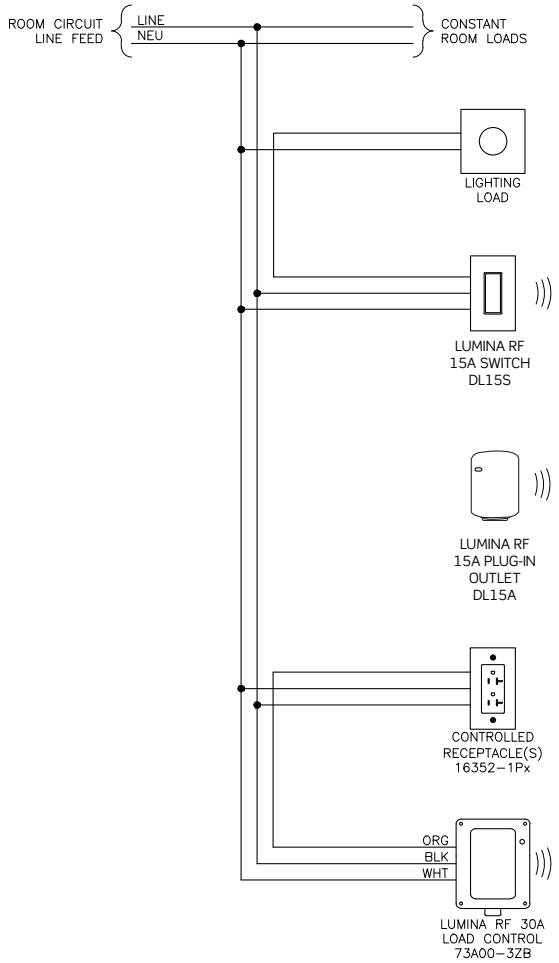

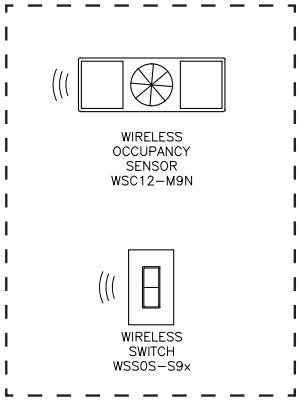

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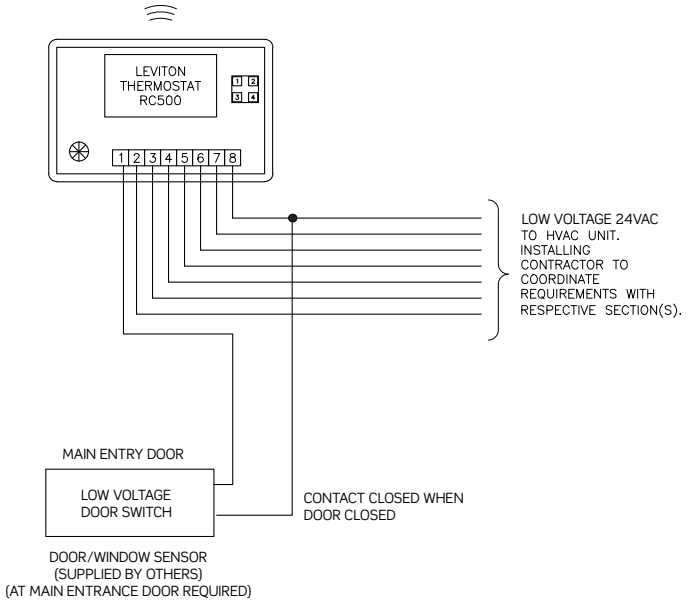

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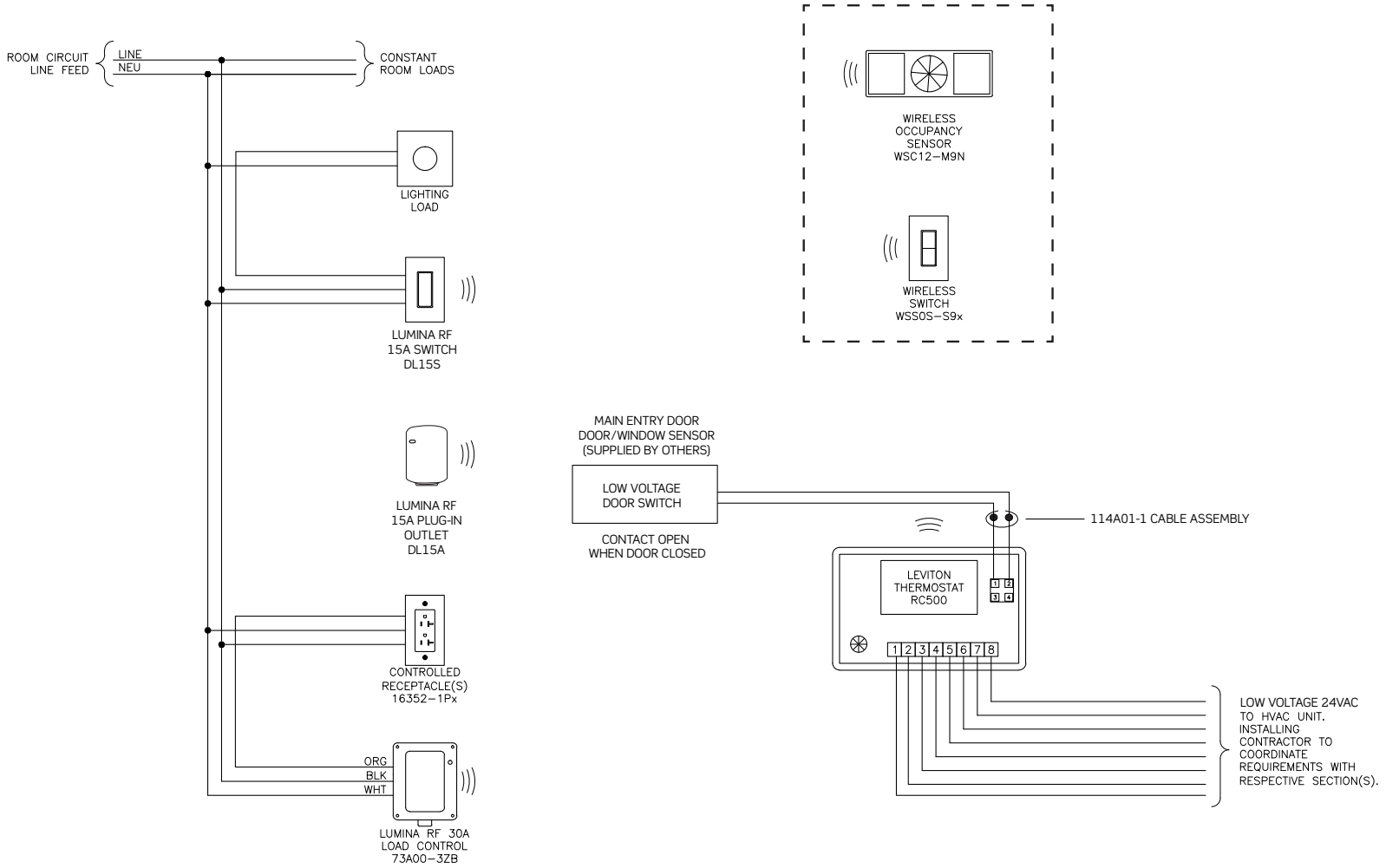

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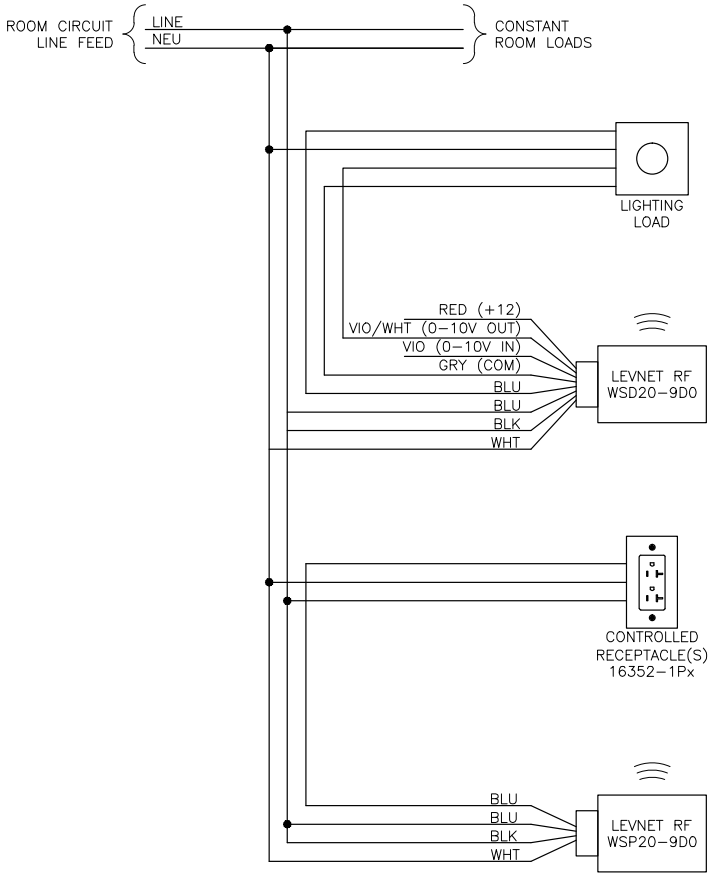

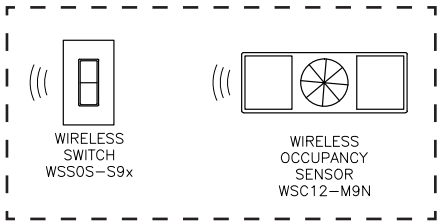

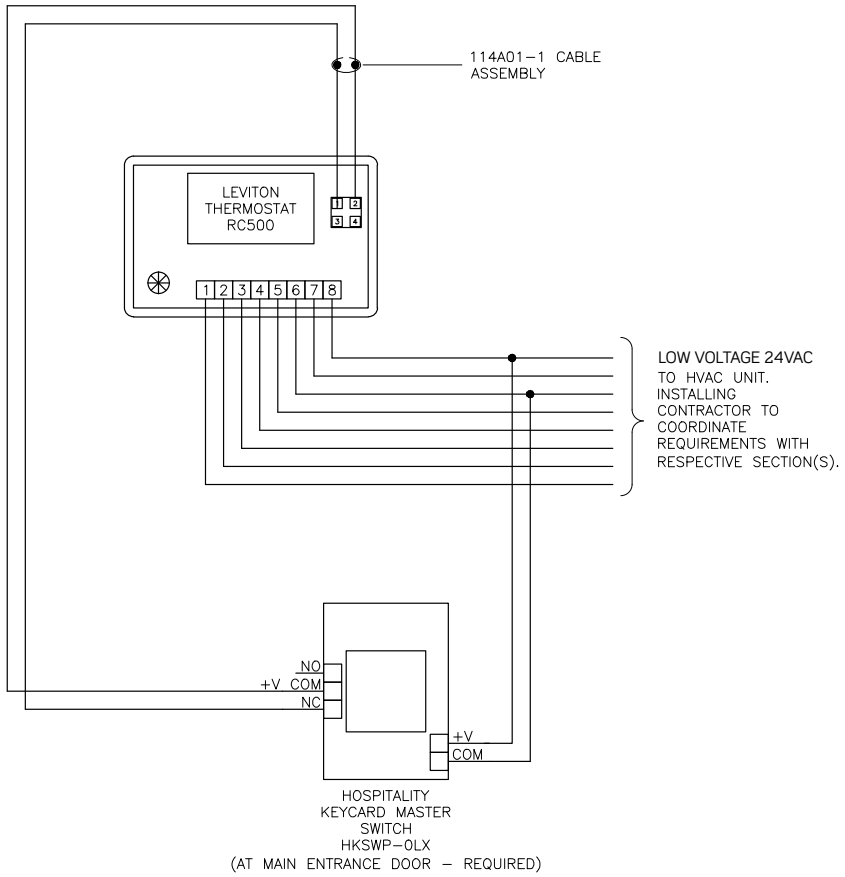

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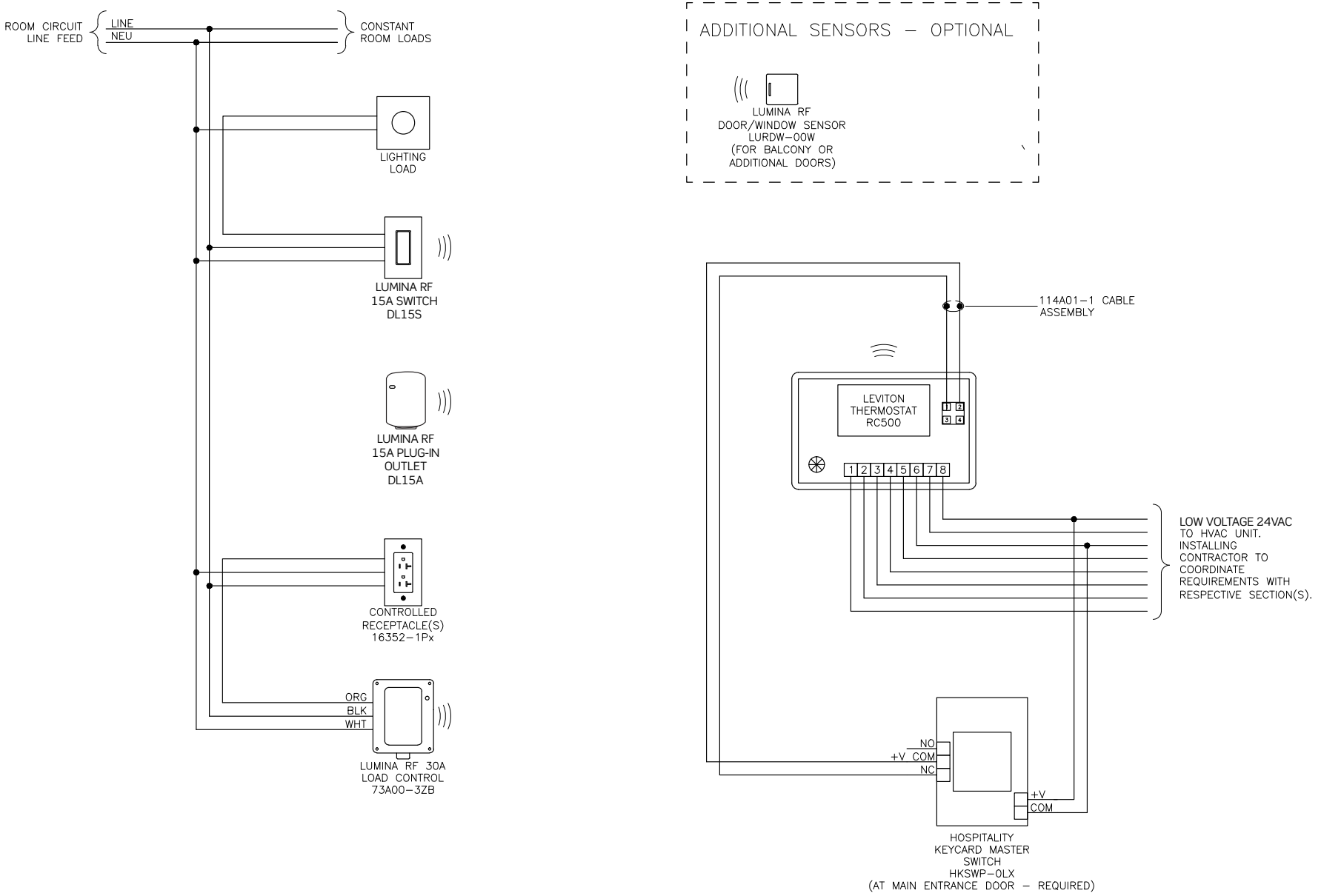

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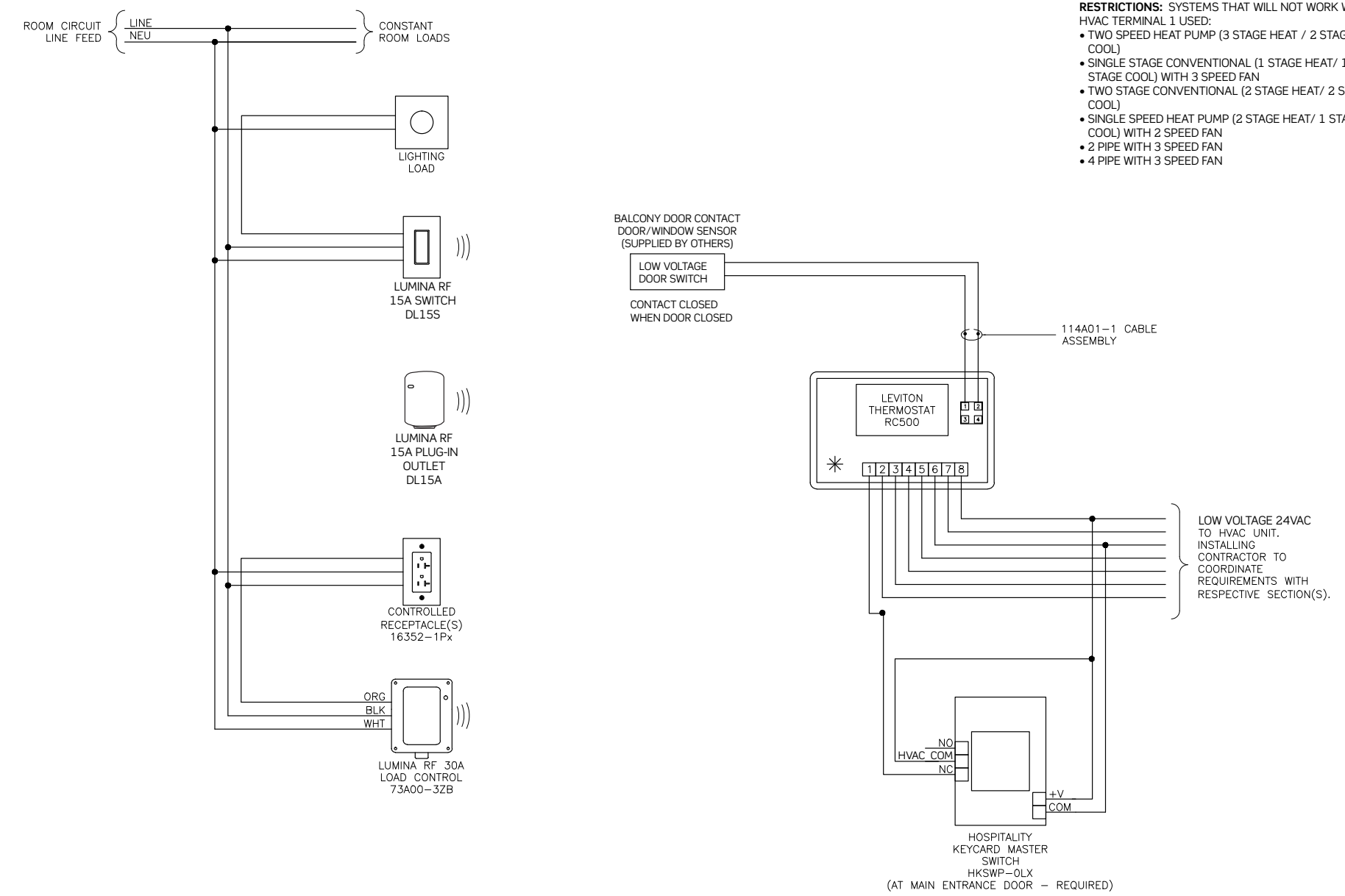

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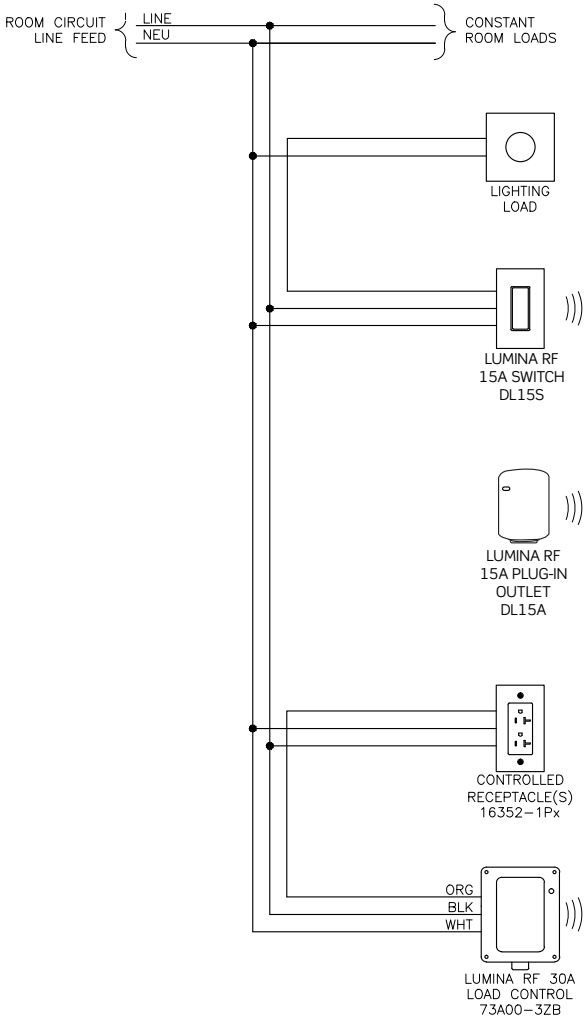

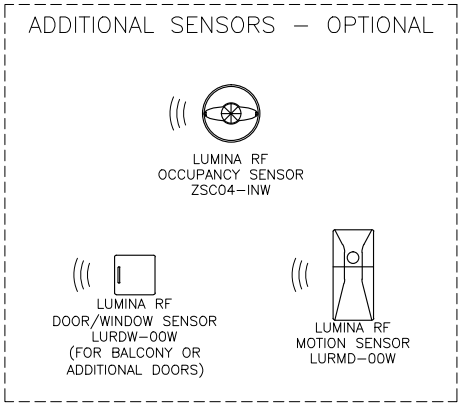

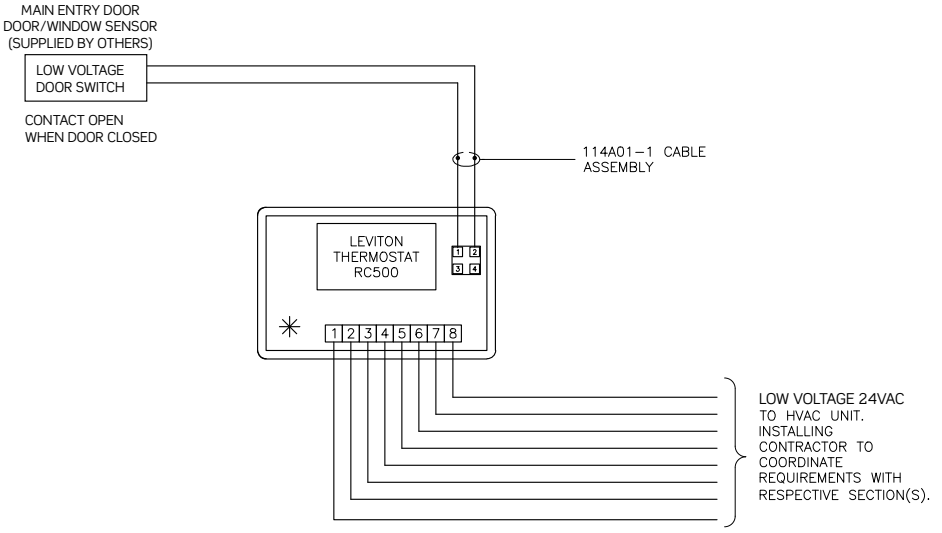

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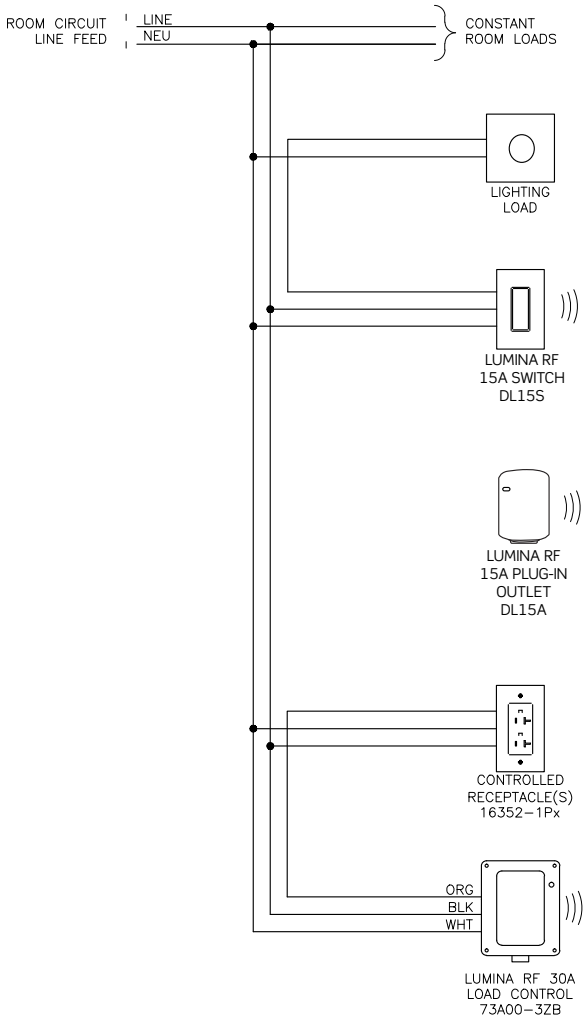

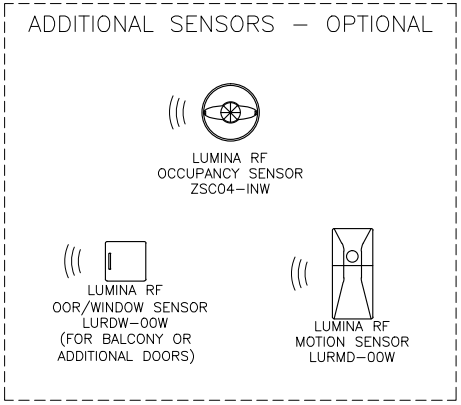

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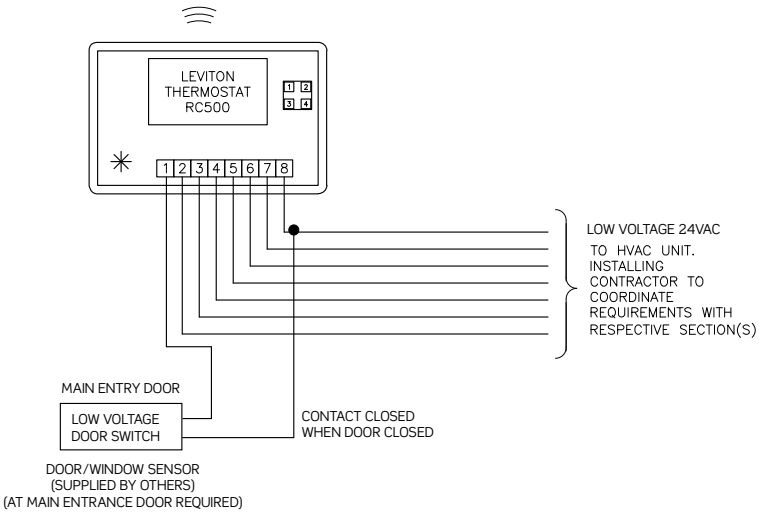

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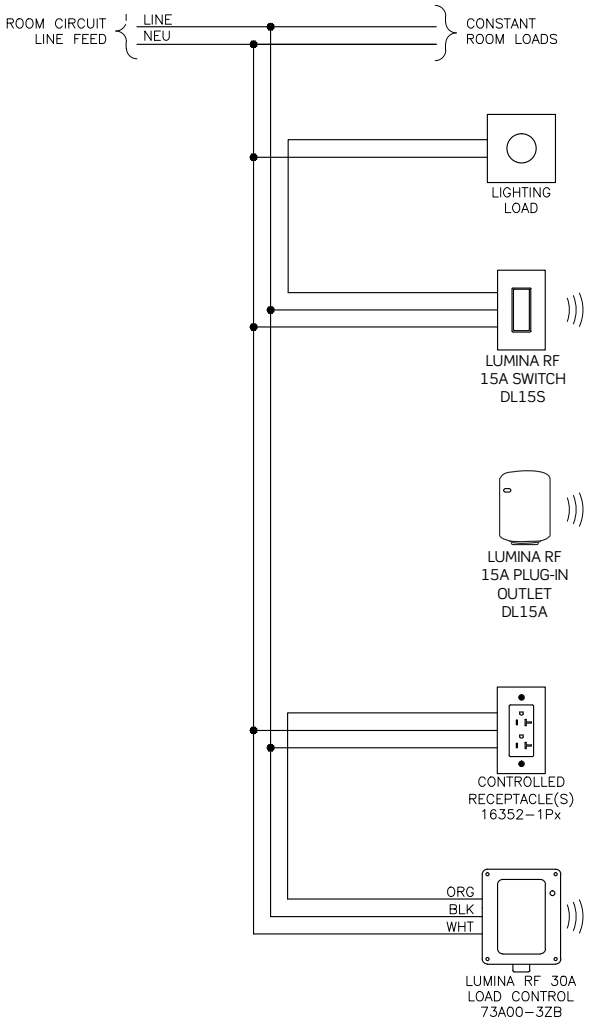

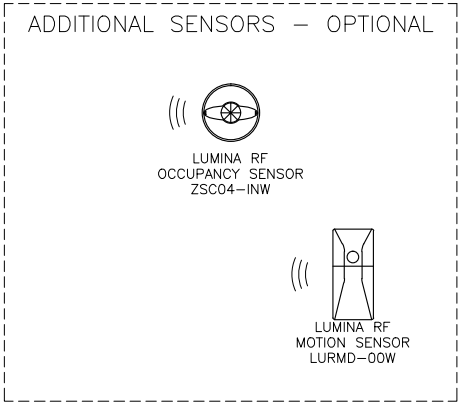

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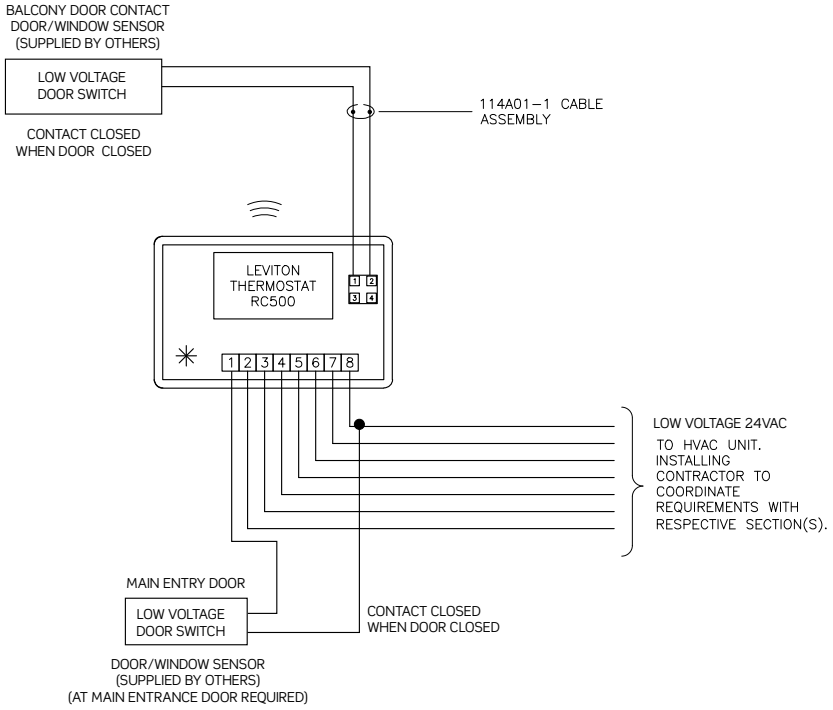

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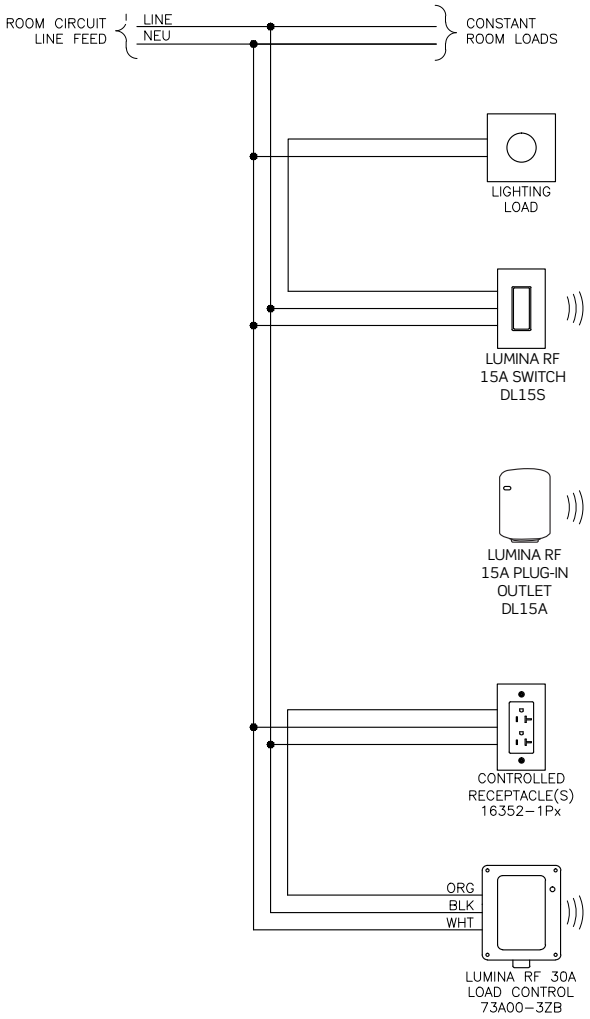

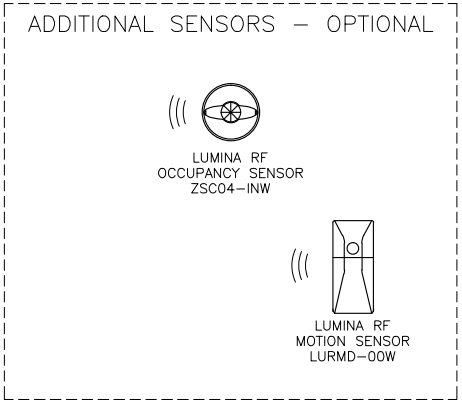

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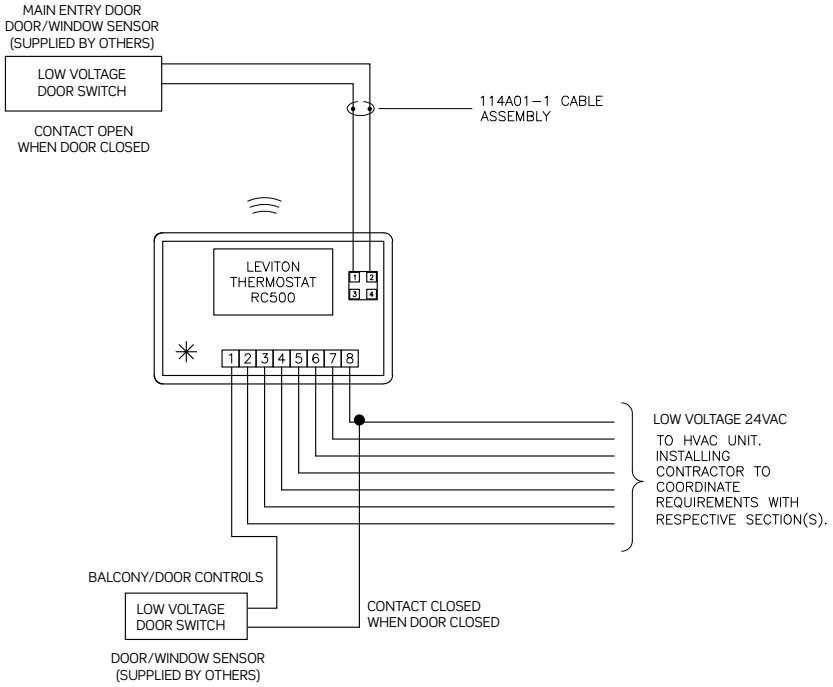

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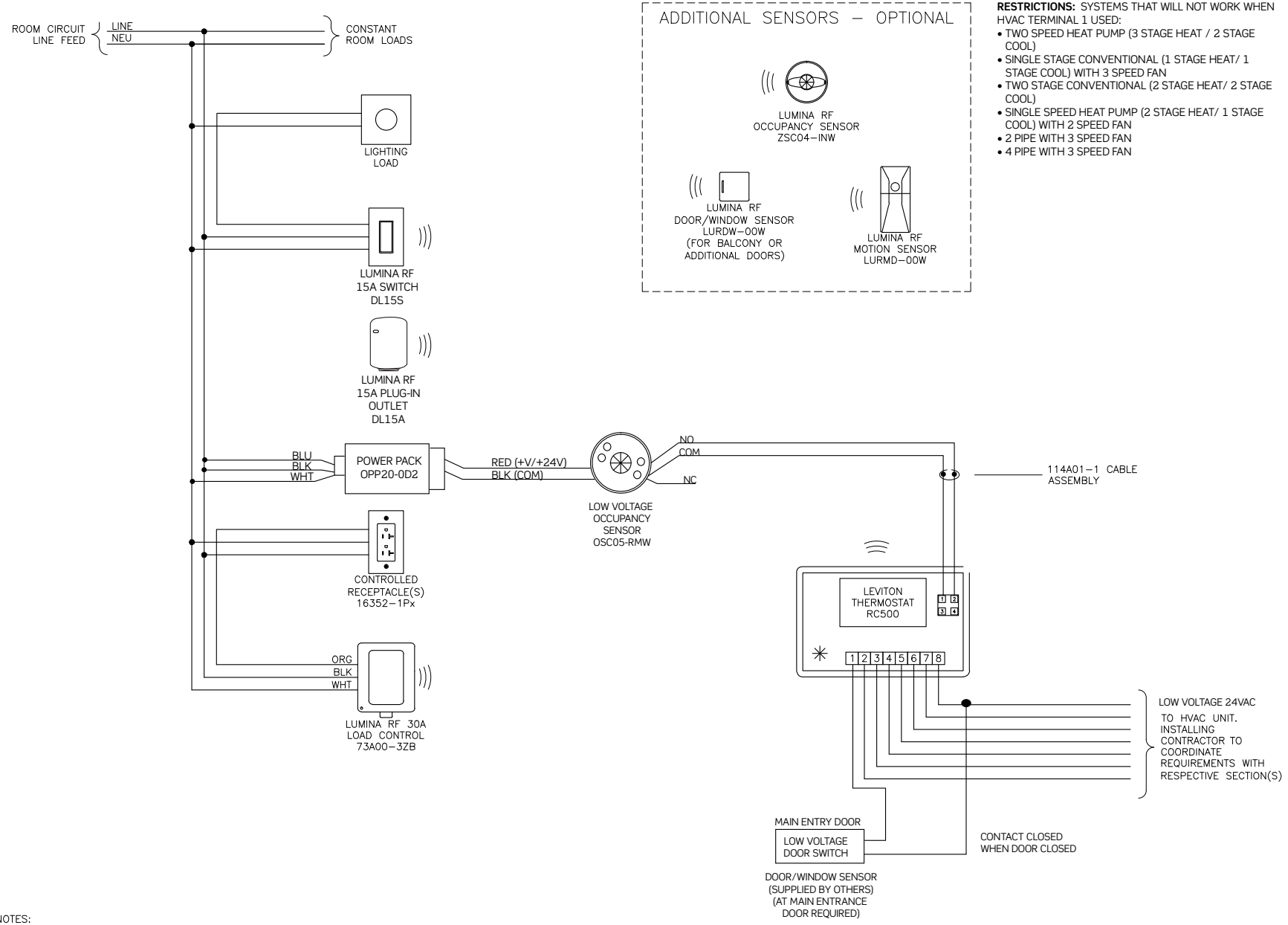

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Leviton Manufacturing Co., Inc. Global Headquarters
201 North Service Road, Melville, NY 11747-3138 **tel** 800-323-8920 **fax** 800-832-9538 **tech line** (8:30AM-7:00PM ET Mon-Fri) 800-824-3005

Leviton Manufacturing Co., Inc. Energy Management, Controls and Automation
4330 Michoud Blvd., New Orleans, LA, 70129 **tel** 504-736-9810 **fax** 504-253-2954 **tech line** (8:30AM-7:00PM ET Mon-Fri) 800-824-3005

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