NETWORK CONTROLLER

LMJA-8125/LMJA-8300
LMJA-8125-AX/LMJA-8300-AX

- Provides global control of DLM segment networks and access to advanced features
- Support for both Wired and Wireless DLM network Bridges
- Runs either Niagara N4 or AX 3.8 (Segman 2.4) Station
- Can support custom floor plans UI through 3rd party
- Create, view and edit building schedules and scenes
- Setup, enable and disable demand response
- Designed for and supports third party integration with BAS through BACnet/IP

Description

The LMJA-8xxx is a network controller designed to communicate with wired and wireless DLM network Bridges, for local in-room wired networks and/or LMCP panels. It provides control, monitoring, adjustment, and standard or Human Centric Lighting (HCL) scheduling functionality for networked DLM systems. The Network Supervisor is a PC server running similar software designed to coordinate control of multiple LMJA-8xxx's and store historical data.

Operation

The LMJA communicates with DLM local in-room wired networks and panels over a BACnet MS/TP or BACnet IP segment network. The LMJA-8xxx can support four direct-connected MS/TP segment networks, or BACnet IP to LMBR/LMBC-650's as well as NB-ROUTERs to connect to up to 300 rooms / 15000 point. The LMJA communicates over a TCP/IP connection. When using an LMJA-8xxx-AX with AX 3.8 Station (Segman 2.4), you can connect to any device running a compatible web browser, and is required for initial set up and configuration. Following set up, Supervisor software may be used for centralized control of multiple segments. A BACnet BAS may communicate with an LMJA via BACnet/IP, accessing an Export Table that exposes a selection of application-specific BACnet objects. LMJA-8125 supports up to 125 rooms and 6250 points. The LMJA-8300 supports up to 300 rooms and 15000 points.

Scheduling, Monitoring and Adjustment

Using the optional AX 3.8 Station running Segman 2.4, users can easily monitor lighting in rooms and floors via a dashboard or building tree view that displays lighting status. Configuration enables basic adjustment of DLM device parameters including occupancy sensor settings, load parameters, digital switch button configuration, and dimming parameters. Normal hours and after hours parameters can be set or adjusted and users can create, view, and edit daily and weekly repeating event-based schedules as well as create and edit scenes for a room, floor, or building.

Applications

The optional LMJA-8xxx-AX Segment Manager 2.4 (Niagara AX 3.8) and Supervisor are ideal solutions for managing lighting and plug load energy use, and providing remote access to DLM local networks. Also projects that require automatic reconfiguration of device settings based on a schedule.

The N4 version of the new network control (LMJA-8xxx) includes the latest operating system which can be provided by Tridium when required by specification. The N4 version will provide additional performance without the overhead of having Segment Manager Software loaded.

Segment Manager software is not compatible with the N4 version of the network controller. Instead, Tridium offers their WorkBench software to configure the system. WorkBench is not optimized for Wattstopper Digital Lighting Management so it will require additional time to program and start up a project. These options are suitable for schools, office buildings, and all applications that benefit from the ability to adjust settings and calibrations from a central location. Both solutions can enable demand response.

PROJECT		LOCATION/ TYPE	

Features

- Communicates all DLM local network data and device information via the segment network dataline
- Browser-based UI uses SSL industry standard communications and can be accessed via direct TCP/IP connection, local LAN or via the Internet
- Integration with BAS standard BACnet objects to represent DLM

Through Segman 2.4 only:

- Allows remote changes to occupancy sensor and daylighting sensor settings in real time
- Adjusts scheduling of normal and after hours
- Create standard and HCL lighting schedules. Schedules may be repeating seven day, calendar event based or astronomic control
- Allows real time current monitoring of rooms and groups when using load controllers with current monitoring circuitry (e.g. LMRC-2xx or LMPL-201)

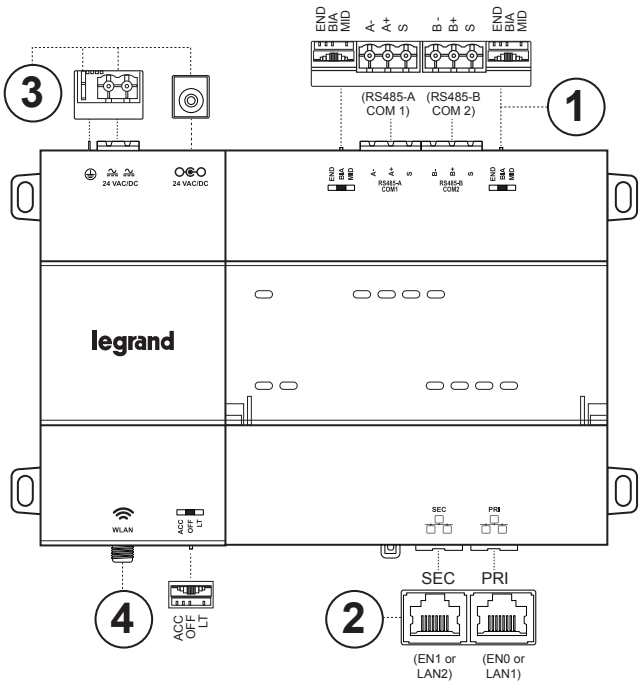
Specifications

Model	LMJA-8125, LMJA-8300 (N4) / LMJA-8125-AX, LMJA-8300-AX (Segman 2.4) (AX 3.8)
Dimensions, WxHxD	4.6" x 10.3" x 2.4"
Weight	1.1 lb (499g)
Din Rail Mount	35mm x 7.5mm with end clips
Ports / Wiring Connections	2 each Ethernet ports, 10/100-Mbit, RJ-45, 2ea. RS485 ports, Earth ground and 24V power input
Processor/RAM	TI AM3352: 1000MHz ARM® Cortex™-A8 / 1GB DDR3 SDRAM / Removable micro-SD card with 4GB flash total storage/2GB user storage
Operating Voltage	24VAC (24Va dedicated transformer) required, with neither side of the transformer secondary tied to ground -OR- 24VDC capable of supplying at least 1A (50/60 Hz)
Power	UL Listed Class 2, 24 VAC transform, rated @ minimum 24VA or 24VDC , 1A (24W) wall-mount AC power adapter with barrel connector plug (9.5mm L x 5.5mm OD x 2.1mm ID)
Ambient operating temperature	-4°F - 140°F (-20°C - 60°C)
Storage temperature	-40°F - 185°F (-40°C - 85°C)
Altitude limitations	Indoor use only, altitude to 6,562 ft. (2,000m)
Certification	UL916, C-UL, CE, FCC, and RoHS
Warranty	1 Year

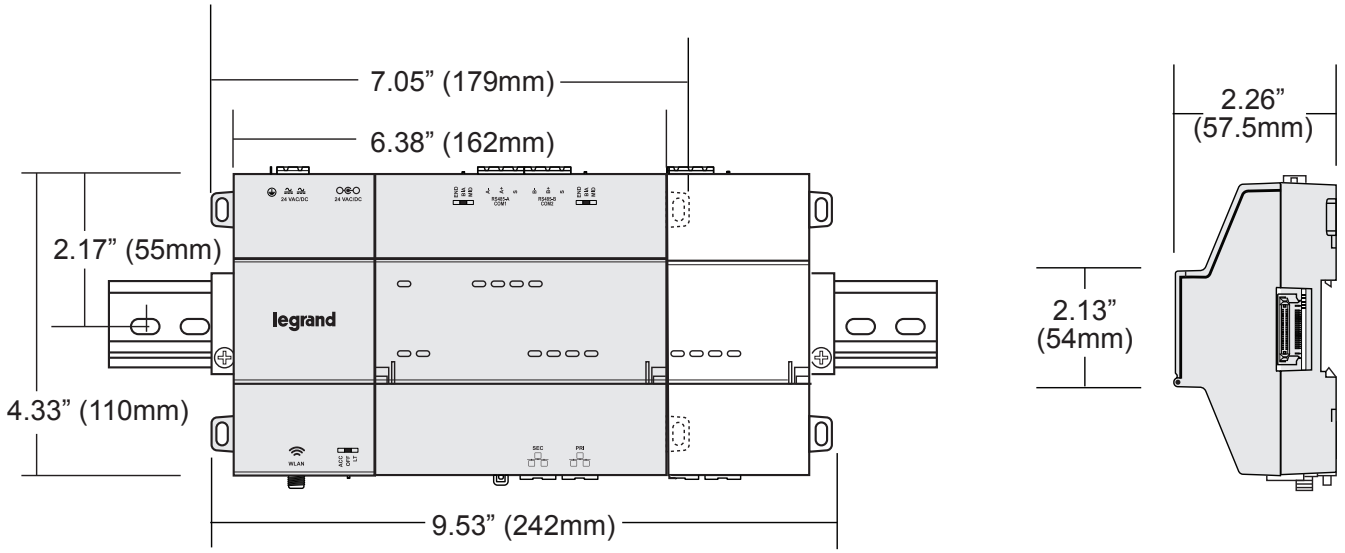
LMJA-8xxx Communication Connections

Ports for field communications are shown on controller.

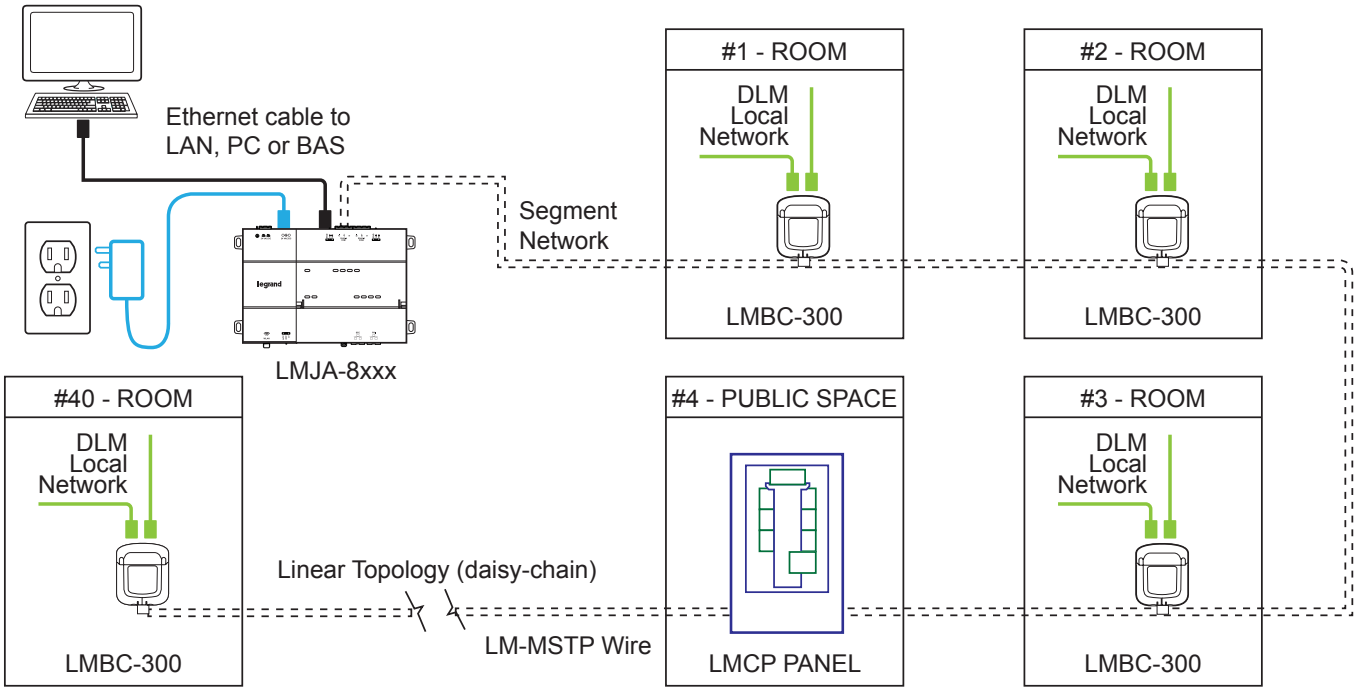
1. RS485 ports and bias switches
2. Ethernet ports, 10/100-Mbit, RJ-45
3. Earth ground and 24V power input
4. WLAN **is NOT** enabled



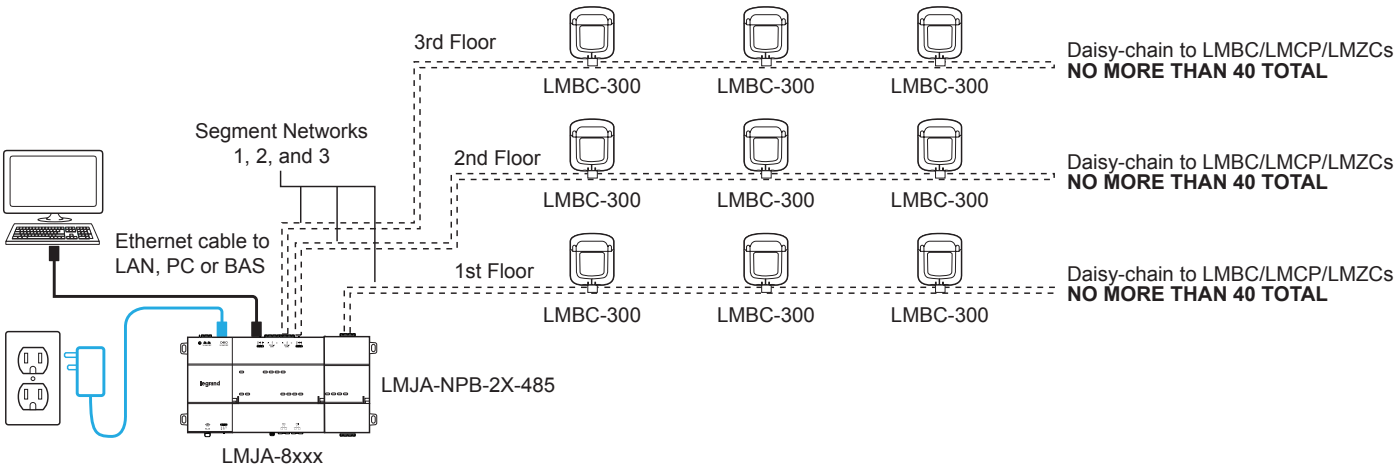
DIN Rail Mounting Dimensions



Connection Example: Single network segment with 40 or fewer rooms /common spaces

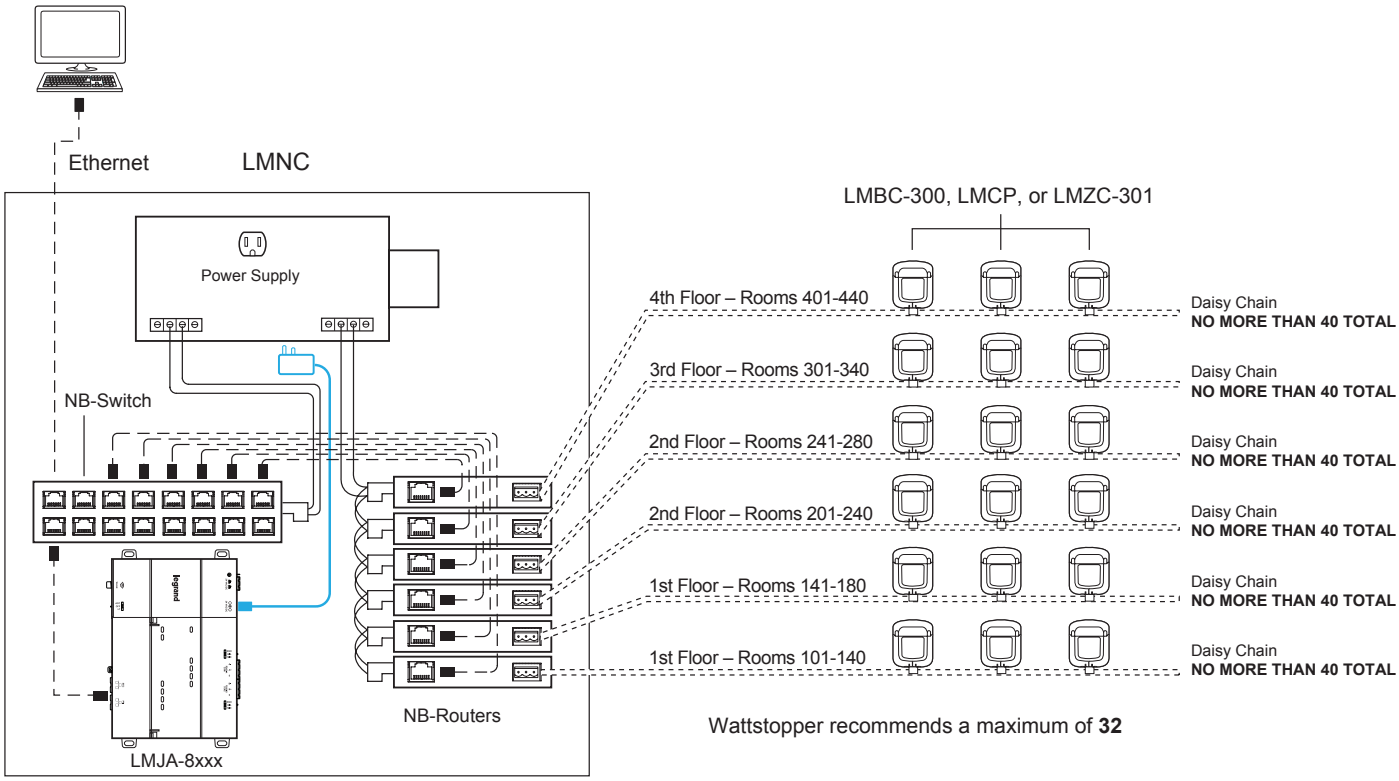


Connection Example: Three story building with no more than 40 rooms/common spaces per floor



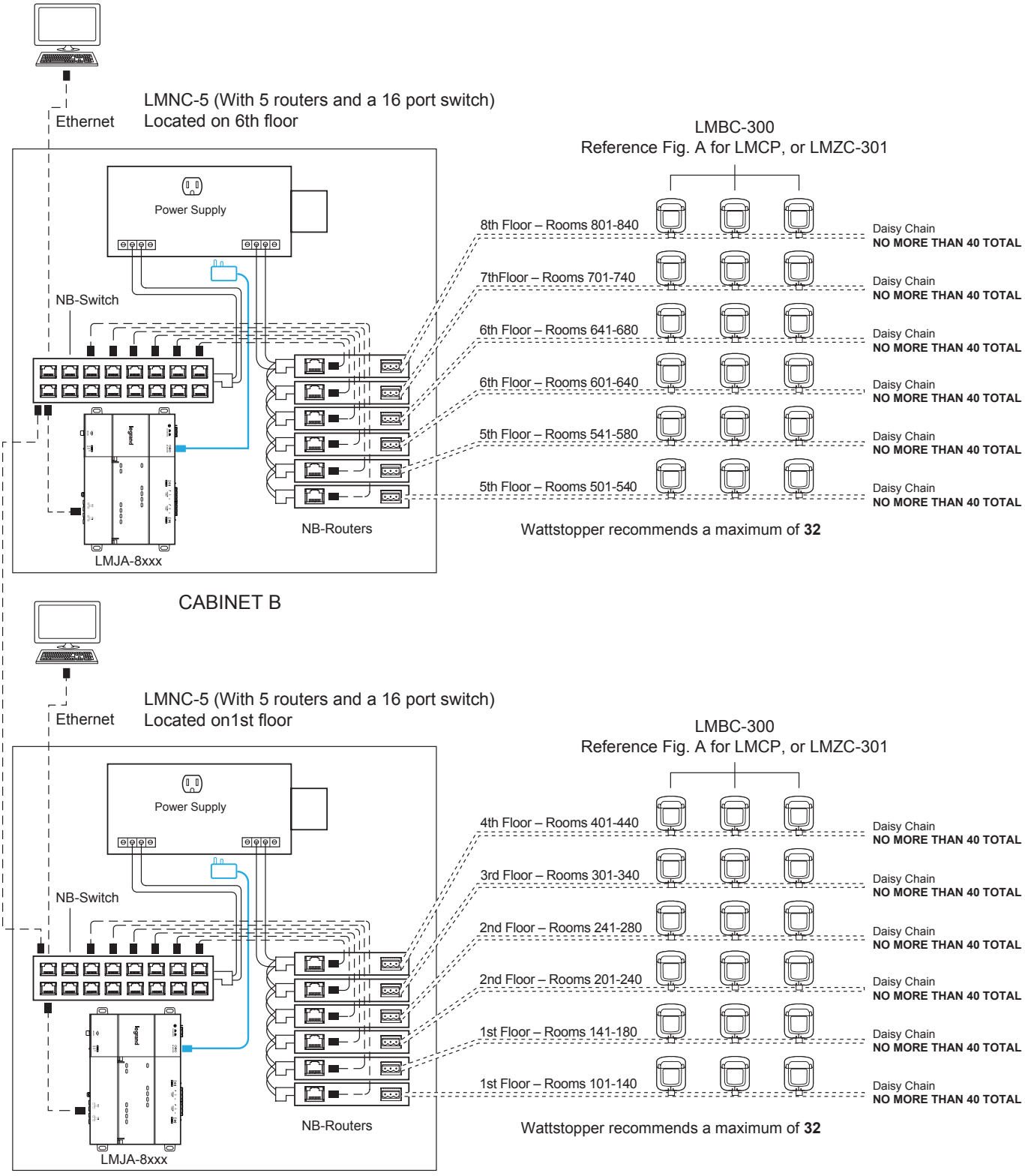
The LMJA-8xxx can be used in conjunction with multiple NB-Routers and an NB-Switch. These components are usually housed inside an LMNC DLM Network Component Enclosure. Each router communicates with one segment. There is a maximum of 300 rooms or common spaces controlled by a single Segment Manager, and the maximum of 40 per segment still applies. Therefore a typical application with close to 300 rooms/spaces (and up to 2000 DLM devices) might use between seven and nine routers, depending on how many devices are connected in each segment. (As mentioned previously, Wattstopper recommends not fully loading a controller to maximum capacity, to allow for future changes or additions to the segment).

Connection Example: Four story building with some floors having more than 40 rooms /common spaces



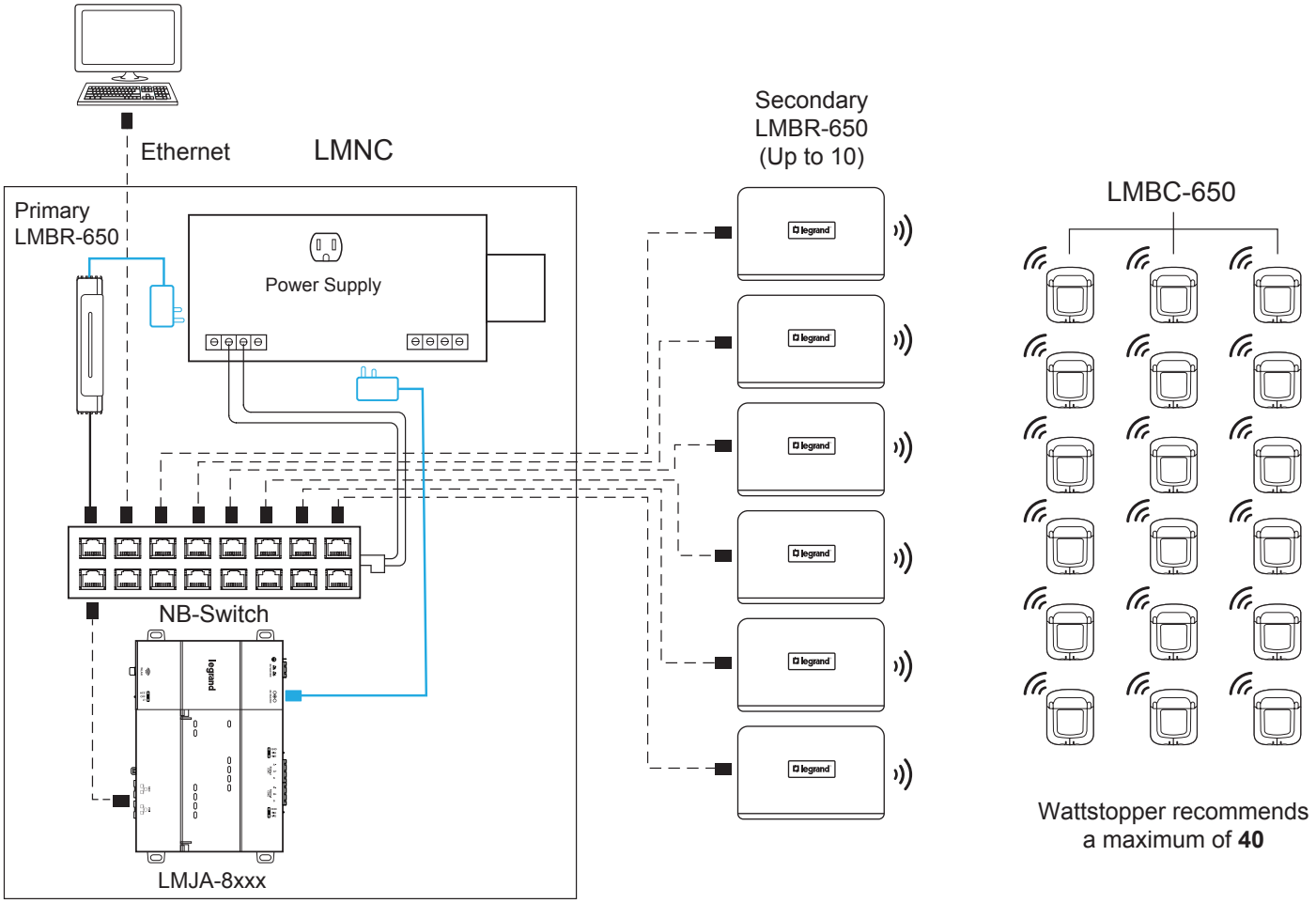
Connection Example: Two LMJA-8000s - 10 story building with no more than 40 rooms /common spaces per floor

In larger buildings with more floors and/or more than 300 rooms/spaces, multiple segment managers are used and connected via Ethernet.



Connection Example: Wireless 4 story building with no more than 40 rooms /common spaces per floor

In larger buildings with more floors and/or more than 300 rooms/spaces, multiple segment managers are used and connected via Ethernet.

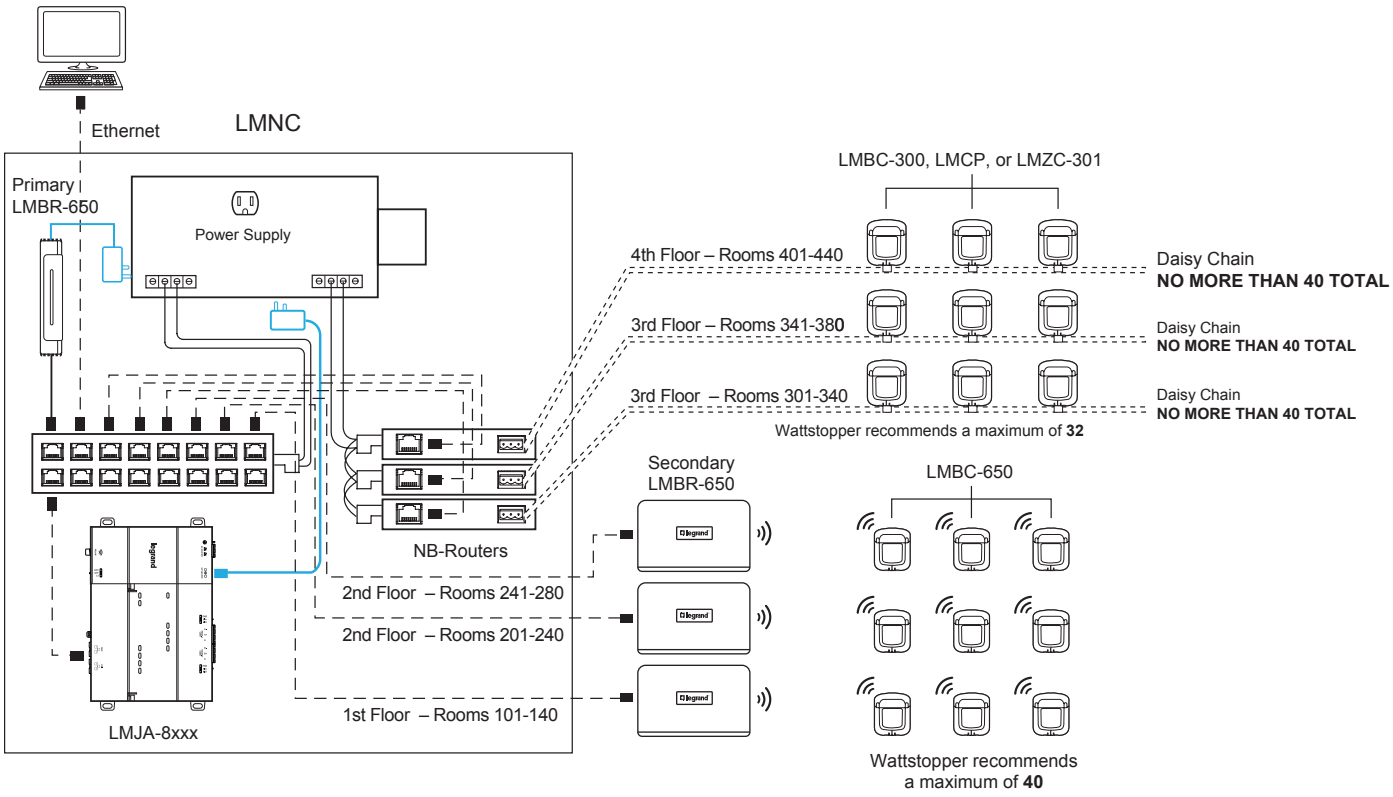


EULA

"In order to enhance the security of our products, Legrand ships its products with all insecure ports closed and insecure protocols disabled. You are free to configure your device as needed, but in doing so note that you may be decreasing the security of your device and any information contained in the device. As you modify the device's default settings, keep in mind how this may impact the security of the device and your network. In addition, you should use caution in connecting your device to the Internet, especially if you have altered the default security settings. If you have any questions or concerns about how your modifications of the device may affect its security, please contact the Legrand customer service team at 1-800-879-8585 / https://www.legrand.us/support/wattstopper.aspx"

Connection Example: Hybrid 4 story building with no more than 40 rooms /common spaces per floor

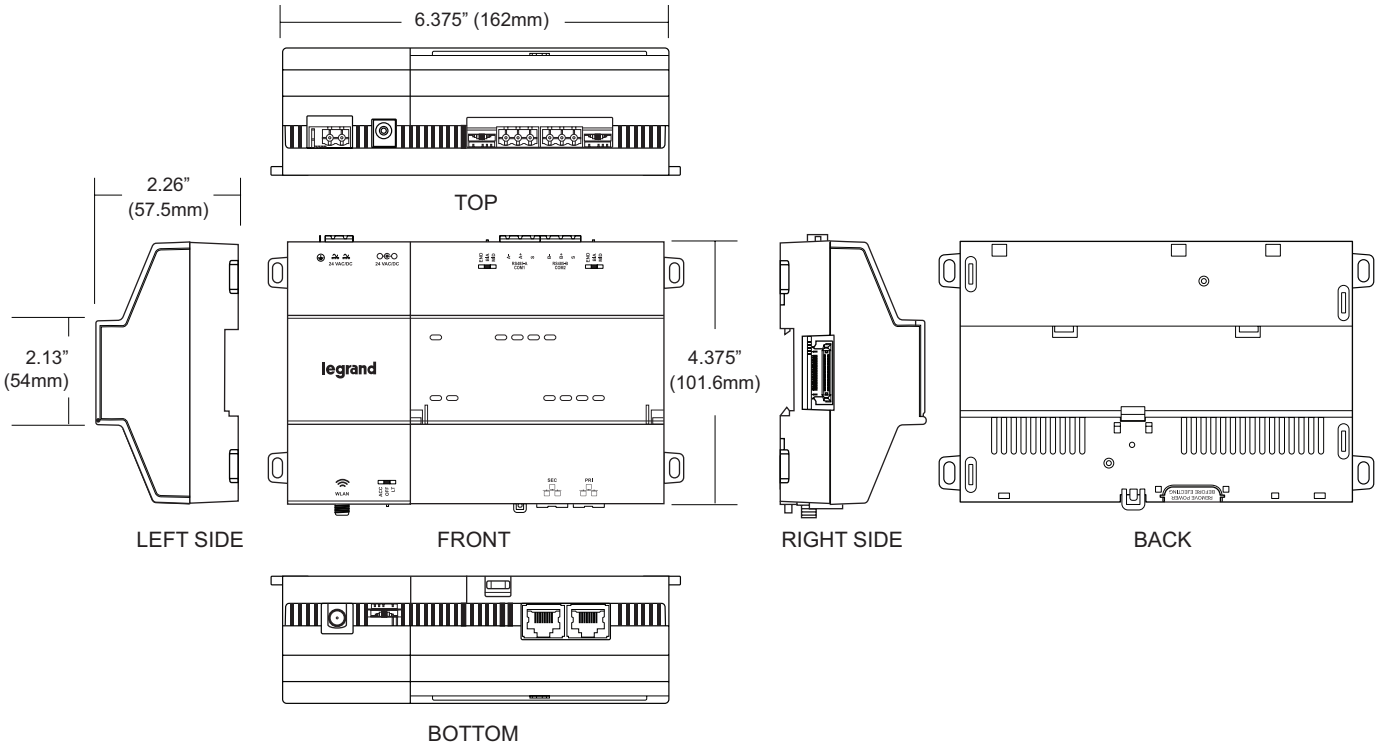
In larger buildings with more floors and/or more than 300 rooms/spaces, multiple segment managers are used and connected via Ethernet.



Device Points and Limits

DEVICE POINTS and LIMITS	LMJA-8125 / LMJA-8125-AX	LMJA-8300 / LMJA-8300-AX
Maximum # of Room/Bridges	125	300
Maximum Total # of Devices per LMJA-8xxx	2000	2000
Maximum # of Wired MS/TP Segments	2	2
With LMJA-NPB-2X-485, the wired MS/TP Segments are expandable to:	4	4
Maximum # of LMBC-300 per Segment	40	40
Recommended # of IP Segments Using NB-ROUTER	6	6
Maximum # of Wireless IP LMBR's Segments	10	10
Maximum # of Devices per Segment	340	340
Maximum # of BACnet Points	6250	15000
Average # of BACnet Points per Room	50	50

Multi-View Dimensions



Ordering Information

Catalog #		Description
☐	LMJA-8125	DLM N4 JACE8000, MAX 125 ROOMS, 1YR SW MAINT INCL
☐	LMJA-8300	DLM N4 JACE8000, MAX 300 ROOMS, 1YR SW MAINT INCL
☐	LMJA-8125-AX	DLM AX 3.8 JACE8000, MAX 125 ROOMS, 1YR SW MAINT INCL
☐	LMJA-8300-AX	DLM AX 3.8 JACE8000, MAX 300 ROOMS, 1YR SW MAINT INCL
☐	LMJA-NPB-2X-485	LMJA-8xxx RS-485 ADD-ON MODULE, DUAL PORT
☐	NB-PS1	WALL ADAPTER POWER SUPPLY FOR LMJA-8xxx
☐	LMJA-IO-R-34	LMJA-8xxx 34-POINT IO MODULE, 16UI, 10DO, 8AO
☐	LMJA-SUP1-SMA-18	DLM N4 SUPERVISOR SOFTWARE, 1 NETWORK CONNECTION + 18 Mo. SMA
☐	LMJA-SUP2-SMA-18	DLM N4 SUPERVISOR SOFTWARE, 2 NETWORK CONNECTIONS + 18 Mo. SMA
☐	LMJA-SUP3-SMA-18	DLM N4 SUPERVISOR SOFTWARE, 3 NETWORK CONNECTIONS + 18 Mo. SMA
☐	LMJA-SUP10-SMA-18	DLM N4 SUPERVISOR SOFTWARE, 10 NETWORK CONNECTIONS + 18 Mo. SMA
☐	LMJA-SUP100-SMA-18	DLM N4 SUPERVISOR SOFTWARE, 100 NETWORK CONNECTIONS + 18 Mo. SMA
☐	LMJA-SUPUNL-SMA-18	DLM N4 SUPERVISOR SOFTWARE, UNLIMITED NETWORK CONNECTIONS + 18 Mo. SMA