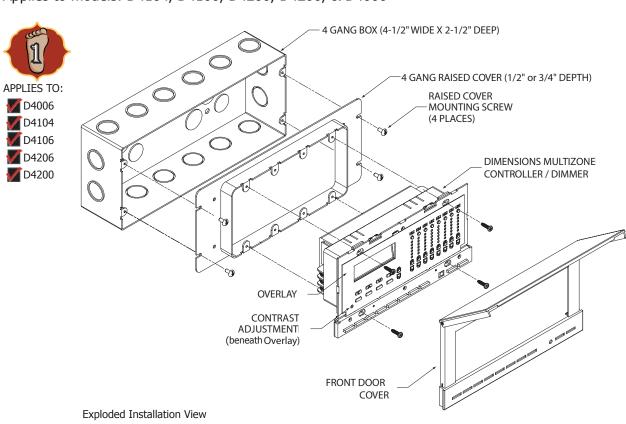
# **Installation Instructions**

# Dimensions 4000 series architectural controller Applies to models: D4104, D4106, D4200, D4206, & D4006



### Items required for installation

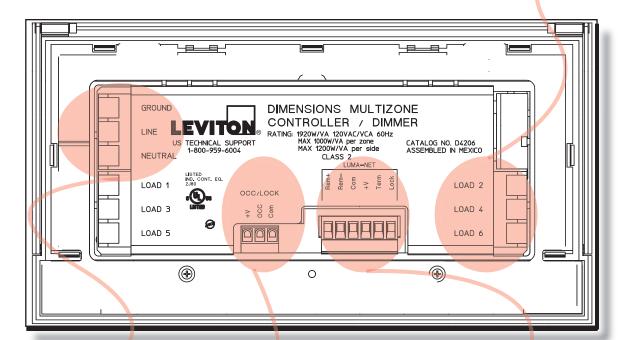
- 1. Suitable Backbox
  - Preferred 4 gang 'Gang Box', Raco #943 Leviton P/N BBG04-000
  - 5 gang device backbox
- 2. Appropriate backbox device plate
  - Raised cover for 4 gang gang box Leviton P/N WPG04-00R
  - 4 gang reducer "mud ring" for 5 gang device backbox

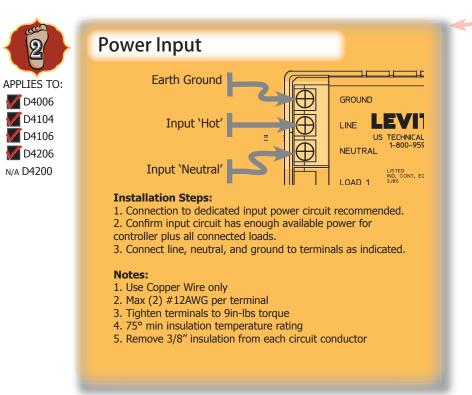
D4006, D4104, D4106, D4206	D4200
<ul><li>Input power (see specs)</li><li>Output to loads</li><li>Optional Luma-Net network connection</li></ul>	Luma-Net network connection

# **General Installation Steps**

- 1. Read all installation instructions and plan entire system

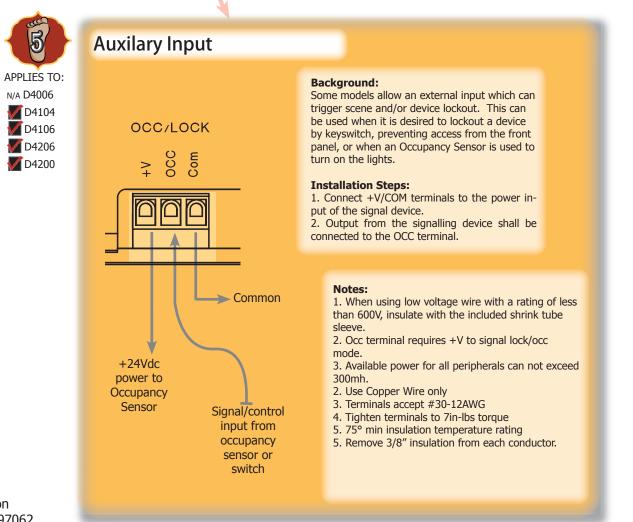
2. Determine location for device and install the appropriate backbox		
D4006, D4104, D4106, D4206	D4200	
<ol> <li>Connect input power.</li> <li>Connect power to loads.</li> <li>Make connections to network (if applicable.)</li> <li>Inspect wiring.</li> <li>Install device in wall.</li> <li>Power up and test system.</li> <li>Configure.</li> </ol>	<ol> <li>Make network connections.</li> <li>Inspect wiring.</li> <li>Install device in wall.</li> <li>Power up &amp; test system.</li> <li>Configure.</li> </ol>	







Leviton Manufacturing, Inc. Lighting Managment Systems Division 20497 SW Teton, Tualatin, Oregon, 97062 800.736.6682 - Customer Service 800.959.6004 - Technical Support



### **WARNINGS**

- To be installed only by a qualified Electrician
- · Rated for indoor use only
- To be installed and/or used in accorance with appropriate electrical codes and regulations.
- If you are not sure about any part of these instructions, consult a qualified electrician and Leviton Tech Support at (800)959-6004.
- DO NOT connect line voltage wires to low voltage terminals. Product destruction in this manner
- To reduce the risk of over-heating and possible damage to this device and other connected equipment, do not allow the connection of any portable device or for connections to a wall recep-
- Do not connect to any unsupported load type (see device specifications).
- ALWAYS disconnect power when servicing this or any electrical device.

#### CAUTIONS

- All magnetic low voltage transformers should incoprorate a thermal cut-out or fuse on the pri-
- mary windings in case of over-heating or failure. • All fluorescent lighting fixtures must be grounded
- For use with copper wire only
- DO NOT mix load types on a single zone (ie: Tungsten, Fluorescent, Magnetic low voltage, etc.)
- Observe all lamp and fixture manufacturer recommendations, warnings, and instructions.

# **Line Voltage Load Termination**

### APPLIES TO: **D4006 D4104 D4106 D4206** LOAD 4 N/A D4200

- 1. Use Copper Wire only. 2. Max (2) #12AWG per terminal.
- 3. Torque terminals to 9in-lbs.
- 4. 75° min insulation temperature rating.
- 5. Remove 3/8" insulation from each circuit

When using low voltage wire with a rating

shrink tube sleeve.

of less than 600V, insulate with the included

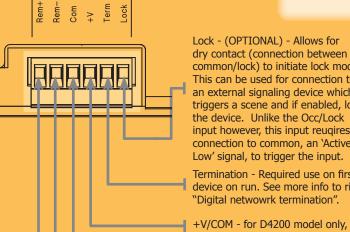
- conductor. 6. The number of outputs on a specific
- model may differ from that shown.

#### Install Steps:

- 1. Confirm that the load (watts) is within the specifications for your model as shown in the specification chart.
- 2. Confirm that the load type is supported. Load types can be found in the specification chart.
- 3. Identify the terminal to which you need to connect the load, strip the wire as appropriate, and install to the appropriate load terminal.

# Luma-Net Network

APPLIES TO: **D4006 D4104 D4106 D4206** 



common/lock) to initiate lock mode. This can be used for connection to an external signaling device which triggers a scene and if enabled, locks the device. Unlike the Occ/Lock input however, this input reugires a connection to common, an 'Active Low' signal, to trigger the input.

Termination - Required use on first & last device on run. See more info to right under "Digital netwowrk termination" +V/COM - for D4200 model only,

this device is the power input. On all other models, these connections are a power supply output to other Com = Black

Belden 1	502	Belden 9	820	Belden 9	720
Rem +	= Blue	Rem +	= Blue/White	Rem +	= Red
Rem -	= White	Rem -	= White/Blue	Rem -	= Black

The Luma-Net network is used for entry stations, partition control/room combine stations, dimmer cabinets, relay cabinets, and other devices which may be required.

## 1. Connect all wires as shown. Observe all notes, instructions, and low voltage digital network data cable installation best practices.

2. If necessary, install termination jumper. Termination is required only at both ends of the run. DO NOT terminate mid-point

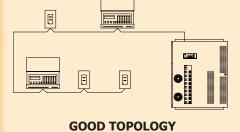
- 1. Luma-Net networks require a daisy chain topology
- 2. Use Belden #1502R or #1502P for inter-connection of devices. Belden #9829, #9729, & #88102 are also supported wire types, however, an addition pair of (2) #18AWG wires is required.
- 3. A maximum run length of 2000 feet is supported on the data pair.
- 4. Torque terminals to 7in-lbs.
- 5. 75° min insulation temperature rating.
- 6. Remove 3/8" insulation from each circuit conductor.
- 7. Only  $\underline{1}$  power supply is allowed on any network segment. If other power supplies are already supplying power to the network segment, do not connect +V between sources. Consult factory if unsure as to the proper power routing or connections for the
- 8. Terminals support 30-12AWG stranded wire.

# **SPECIFICATIONS**

1200 Watts max per side     1920 Watts max per device      1200 Watts max per side     1200 Watts max per side     2400 Watts max per device      1200 Watts max per side     2400 Watts max per side     1200 Watts max per side				
minimum load 15W per zone 1200 Watts max per side 1200 Watts max per side 1200 Watts max per device  Supported load Types (D4200 N/A)  Incandescent Tungsten Magnetic Low Voltage 2-Wire Fluorescent (Advance Mark 10, Lutron Tu-Wire) Electronic Low Voltage when rated for use with forward phase dimmers Neon / Cold Cathode Non-dim loads  Listings & Certifications  UL/cUL California Title 24 FCC Part 15, Class A  Environmental  O°-40°C <= 90% non-condensing humidity  Clock Accuracy to +/- 15 seconds per week Astro Clock accurate to with 15 minutes  Memory  Minimum load 15W per zone 1200 Watts max per side 1200 Watts max per device		•	, , ,	
Types (D4200 N/A)  • Tungsten • Magnetic Low Voltage • 2-Wire Fluorescent (Advance Mark 10, Lutron Tu-Wire) • Electronic Low Voltage when rated for use with forward phase dimmers • Neon / Cold Cathode • Non-dim loads  Listings & Certifications  • UL/cUL • California Title 24 • FCC Part 15, Class A  Environmental  0°-40°C <= 90% non-condensing humidity  Clock  Accuracy to +/- 15 seconds per week Astro Clock accurate to with 15 minutes  Memory  Lifetime memory of configuration and recorded memories. Clock maintained for up to 10 days in the event of power		minimum load 15W per zone • 1200 Watts max per side	minimum load 15W per zone	
Certifications  • California Title 24 • FCC Part 15, Class A  Environmental  0°-40°C <= 90% non-condensing humidity  Clock  Accuracy to +/- 15 seconds per week Astro Clock accurate to with 15 minutes  Memory  Lifetime memory of configuration and recorded memories. Clock maintained for up to 10 days in the event of power	Types	<ul> <li>Tungsten</li> <li>Magnetic Low Voltage</li> <li>2-Wire Fluorescent (Advance</li> <li>Electronic Low Voltage when phase dimmers</li> <li>Neon / Cold Cathode</li> </ul>		
<= 90% non-condensing humidity Clock Accuracy to +/- 15 seconds per week Astro Clock accurate to with 15 minutes Memory Lifetime memory of configuration and recorded memories. Clock maintained for up to 10 days in the event of power		California Title 24	Not for use in North America	
Astro Clock accurate to with 15 minutes  Memory  Lifetime memory of configuration and recorded memories.  Clock maintained for up to 10 days in the event of power	Environmental		dity	
Clock maintained for up to 10 days in the event of power	Clock			
	Memory	Clock maintained for up to 10 days in the event of power		

#### **Daisy Chain Toplogy:**

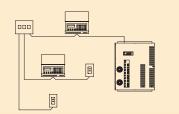
Daisy-chain topology is required for each Luma-Net segment. Star or other similar topologies are not allowed. If multiple home-runs are required, this topology can be supported when a Luma-Net Hub, P/N LHUB8-000, is used.:







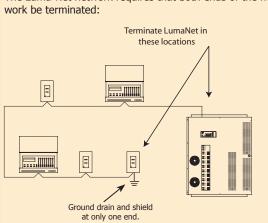
**BAD TOPOLOGY** 



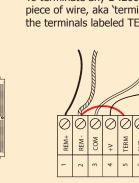
**GOOD TOPOLOGY** (HOME-RUN w/LUMA-NET HUB)

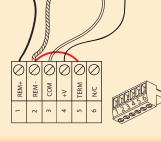
## **Digital network termination:**

The Luma-Net network requires that both ends of the net-



To terminate any D4200 device, install a short piece of wire, aka 'termination jumper' between the terminals labeled TERM & REM-





Power Calculation:

When using the D4006, D4104, D4206, or D4206 as a supply to the Luma-Net network, ensure that there is enough supply

## AVAILABLE SUPPLY CURRENT:

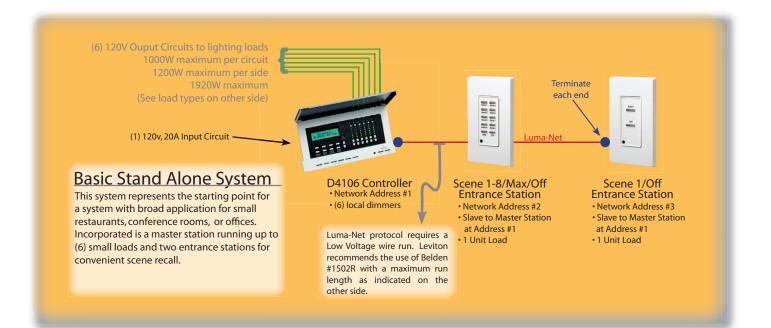
+24Vdc, 300ma (12 Unit loads)

D4200 single gange devices each require 1 Unit Load D4200 LCD stations each require 2 Unit Loads Luma-Net hubs require 3 Unit Loads

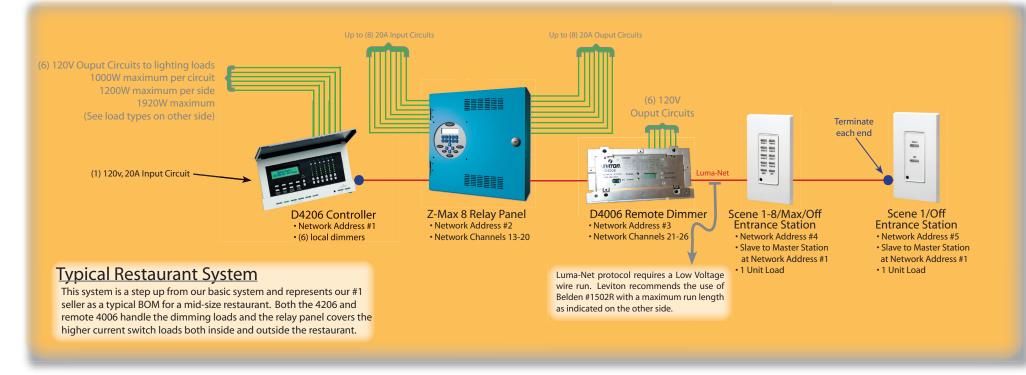
When using **Belden 1502R (or 1502P**,) the following maximum run lengths apply:

Unit Loads	Max run length (ft)	
10	3,528	
20	1,764	
30	1,176	
40	882	

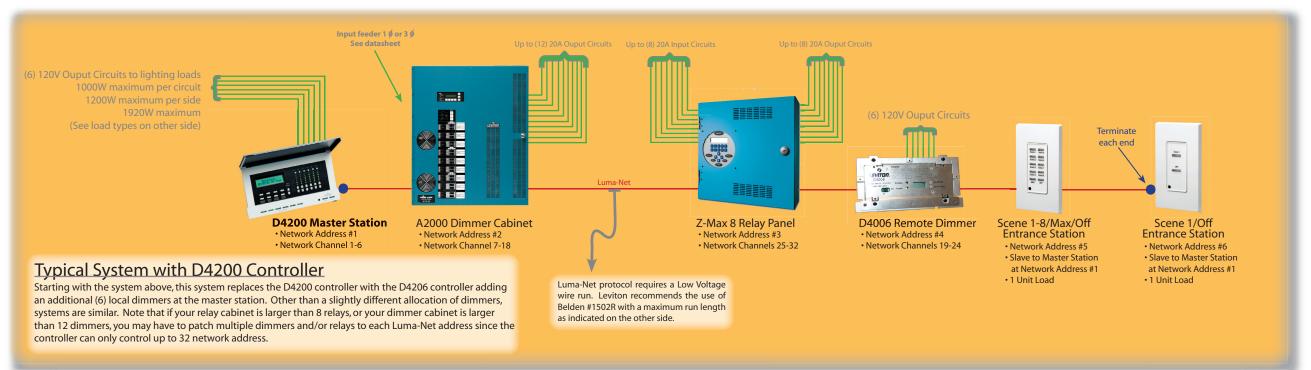
For applications which do not fit these conditions please contact the factory for assistance.

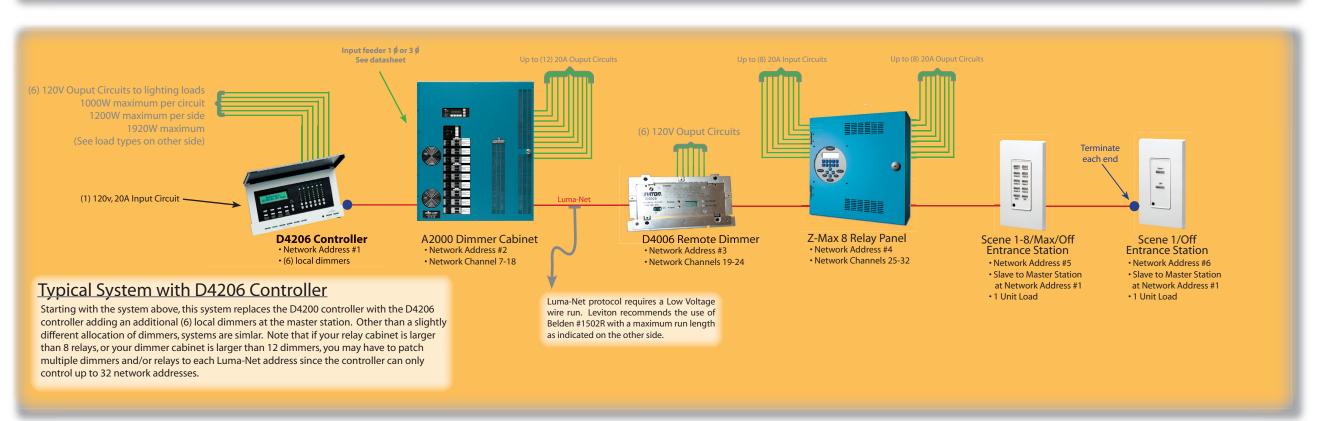












# **Typical Systems**

These diagrams represent typical systems which are included as reference designs. Systems may deviate from what is shown herein, however, the principals remain sound. Select a system which closely represents system to be installed, then extend it as necessary. For questions or specific application help, please contact a Leviton sales representative or Leviton Technical Support directly at (800) 959-6004. When inquiring about a specific system it is helpful to have the Leviton bill of materials or equipment list for your particular project.



