Limited Warranty

LEVITON LIGHTING CONTROL DIVISION of Leviton Manufacturing Co Inc. warrants its Dimmer Systems and Controls to be free of material and workmanship defects for a period of two years after system acceptance or 26 months after shipment, whichever comes first. This Warranty is limited to repair or replacement of defective equipment returned Freight Pre-Paid to Leviton Lighting Control Division at 20497 SW Teton Ave., Tualatin, Oregon 97062, USA. User shall call 1-800-959-6004 and request a return authorization number to mark on the outside of the returning carton, to assure that the returned material will be properly received at Leviton. All equipment shipped back to Leviton must be carefully and properly packed to avoid shipping damage. Replacements or repaired equipment will be returned to sender freight prepaid, F.O.B. factory. Leviton is not responsible for removing or replacing equipment on the job site, and will not honor charges for such work. Leviton will not be responsible for any loss of use time or subsequent damages should any of the equipment fail during the warranty period, but agrees only to repair or replace defective equipment returned to its plant in Tualatin, Oregon. This Warranty is void on any product that has been improperly installed, overloaded, short circuited, abused, or altered in any manner. Neither the seller nor Leviton shall be liable for any injury, loss or damage, direct or consequential arising out of the use of or inability to use the equipment. This Warranty does not cover lamps, ballasts, and other equipment which is supplied or warrantied directly to the user by their manufacturer. Leviton makes no warranty as to the Fitness for Purpose or other implied Warranties.

For Technical Assistance Call:
1-800-959-6004
www.nsicorp.com
www.leviton.com

LEVITON
LIGHTING CONTROL DIVISION
Building A Connected World

D4200 Single Gang Combine Stations



LIT-D42CS-000

Warnings

1. To be installed and/or used in accordance with appropriate electrical codes and regulations.

2. To be installed by a qualified Electrician.

3. DO NOT CONNECT line voltage wires to low voltage terminals.

4. For the best lamp life, lamp manufacturers recommend their fluorescent lamps should be operated at full brightness for a minimum of 100 hours before dimming is permitted. For best results, lamp brands and types should not be intermixed on a circuit.

5. Disconnect power when servicing the dimmer, fixture or when changing lamps.

6. Indoor use only.

7. ***TO AVOID FIRE, SHOCK OR DEATH: TURN OFF POWER AT MAIN CIRCUIT BREAKER OR FUSE AND TEST THAT THE POWER IS OFF BEFORE WIRING!***

Introduction

For best results using the Dimensions 4200 Architectural Lighting Controller, Follow these recommendations:

1. Plan the system before beginning the installation

2. Terminate the wiring

3. Test the wiring

4. Connect dimmer cabinets

5. Power up the Stations

6. Program each Station
   Assign unique network ID numbers to stations.
   Connect one master station, and then one remote control station at a time.
   Verify that the first D4200 can properly control the dimmers assigned to it.
   Check the proper operation of each station as it is installed when multiple stations are involved.

7. Install all Stations

Note: If the lighting control fails or becomes sporadic, first check the wiring or network ID.

Terminating the Wiring

Luma-Net® III

Control Stations can be located up to 2000 ft. from the dimming cabinet. **Luma-Net®** is wired Daisy Chained, station to station. For applications where runs become too long a Hub can be used.

The cable should not pass near any source of electrical noise such as fluorescent circuits or motor wiring. Avoid close proximity to any AC wiring
All control/power wiring must be in conduit.

Luma-Net® Wire Recommendations

1. Use RS485 compatible cable for communications. It is recommended that a cable with 2 Twisted Pair, 24 AWG (min.), stranded conductors be used. The spare pair is for future uses.

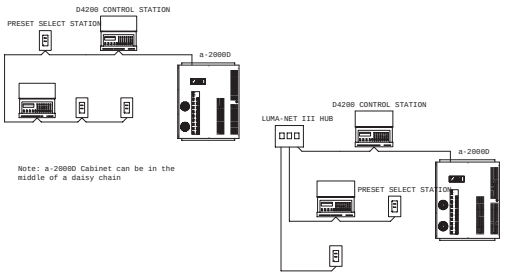
2. Capacitance of wire shall be 15pF/ft. or less.

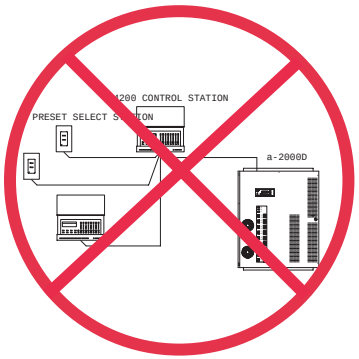
3. Normal Impedance of wire shall be between 100-120 ohms.

4. A second pair of stranded wire is required for the power.

5. Drain/Shields to be tied together, insulated and grounded at one point only.

We strongly recommend the use of either Belden 9829 or Belden 9729 for the Luma-Net® wire runs.





If a remote DC power supply is used and you have multiple **Luma-Net®** runs, all DC common wires must be joined at the power supply.

At the last control station or dimmer cabinet on both ends of run, a small jumper wire must be run from the terminal labeled “Rem-” to the terminal marked “Term” on that last station. This jumper wire properly terminates the digital communications lines at both ends of the line.

Wire the Phoenix Connector

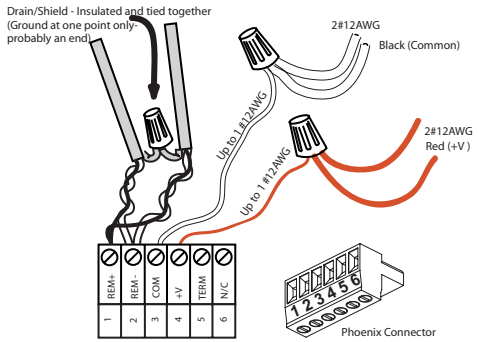
1. Connect leads per wiring diagram as illustrated on page 6.

2. Twist strands of each lead tightly (making sure that there are no stray strands) and push firmly into appropriate plug connector location.

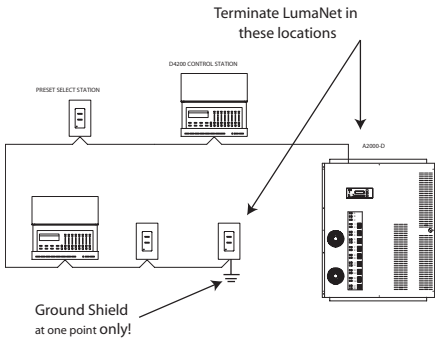
3. Tighten the screws on the plug connector-making sure that no bare conductor is showing.

4. Tie the Drain/Shield wires together and insulate using a small piece of heat shrink tubing.

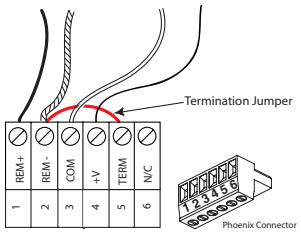
5. Install termination jumpers as required. Remember a termination jumper is required at the two ends of the **Luma-Net®** run.



Luma-Net® Wire Connections



Luma-Net® Termination Jumper Locations



Testing the Wiring

To assure problem-free start-up, it is important to check the system wiring for proper connections, shorts and opens prior to hooking up any control stations.

The following procedure is recommended:

Step 1: Test the following wire pairs for shorts at each station location, using an ohmmeter or other continuity tester.

1-2 Open
2-3 Open
3-4 Open

Step 2: Repair any short circuits before continuing.

Step 3: Install wire jumpers (not supplied) to the Phoenix Connector on either end of the cable run between pins 3-4.

Step4: Retest each of the following wire pairs at each connector:

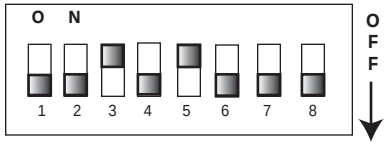
1-2 Open
2-3 Open
3-4 Short

Step 5: Make any necessary repairs and remove wire jumpers before continuing.

Station Addressing

The station's address is preset for 100. Follow the steps below if you need to set it to anything else. If a station address is set to ***Zero*** it will not participate on the network.

The switch is set to the binary representation of the ID number. The binary 1's column is left-most (lever labeled "1").



1 + 2 + 4 + 8 + 16 + 32 +64 + 128

(Line indicates the silkscreen below the dipswitch)

Net ID

The switch levers are numbered 1-8, these represent the following:

Lever=Value	
1=1	**2=2**
3=4	**4=8**
5=16	**6=32**
7=64	**8= N/A**

Add the value of each lever in the "ON" position to determine the ID number (decimal form).

For example:
To set the address to 39, the following switches need to be in the ***"ON"*** position:

1, 2,3,6 = 1+2+4+32=39

Installation

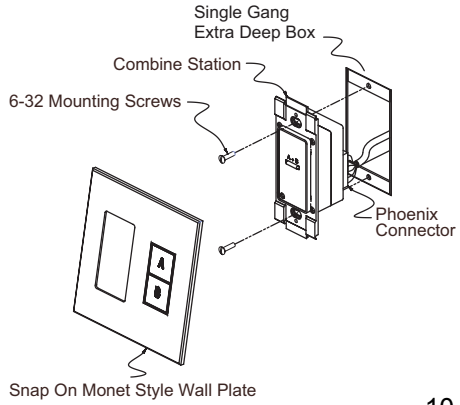
Step 1: Plug the phoenix connector into the station.

NOTE Only one Room Combine Station may be used on a Luma-Net sub-network at this time.

Step 2: Securely mount the entry station using the screws provided.

Step 3: Snap the wallplate in place.

Step 4: Proceed to Overview and Programming of the LCD Master Stations



Overview

The Room Combine Station can coordinate lighting for up to four movable walls (four rooms). You set up each toggle button to operate the LCD Stations associated with a movable wall. When the wall is open to make one large space, the user presses the wall's toggle button to make the LED light up. The D4200 LCD Stations assigned to the buttons now work "in combination." Scene changes at one LCD Station track on all the associated LCD Stations. When the wall is closed to make several smaller spaces, the user presses the wall's toggle button to turn off the LED. Now the LCD Stations work independently. The figure on page 12 and 13 shows how to use the Room Combine Station for a space with one movable wall.

Because the Room Combine Station groups like channels between LCD Stations, it is important to be careful in how you lay out the circuits in the multiple rooms or you will need to patch the Luma-Net channels to the corresponding circuits for the various rooms. See Figure on page 13

No programming is required on the Room Combine stations if you follow the steps below. Consult the factory for custom programming if required

Programming of LCD Stations

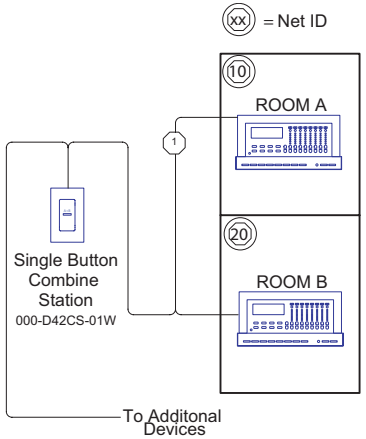
Each room must have it's own LCD Master Station which, must be set up in the following manner for the system to operate properly.

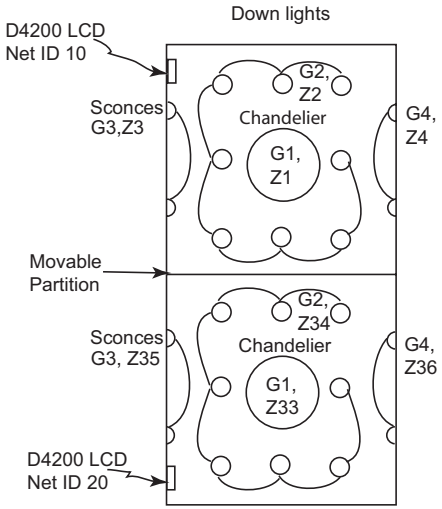
Default Settings for LCD Stations

Room	LCD - Network Address	Zone Addresses	Dimmer Readback
A	10	1-32	On
B	20	33-64	On
C	30	65-96	On
D	40	97-128	On

* - See D4200 LCD User Guide for programming instructions

Network Layout for 2 room configuration





As you can now see, you need to match similar fixtures by the corresponding zone number. See the chart on page 14:

As the chart shows, Zone 1 in the first room will match up with Zone 33 in the second room and Zone 66 in the third room and Zone 97 in the fourth room This way, when you raise an individual zone on any joined station, the like zones/fixtures in the various rooms will all respond correctly.

Room	A	B	C	D
Group	Corresponding Zones			
1	1	33	65	97
2	2	34	66	98
3	3	35	67	99
4	4	36	68	100
5	5	37	69	101
6	6	38	70	102
7	7	39	71	103
8	8	40	72	104
9	9	41	73	105
10	10	42	74	106
11	11	43	75	107
12	12	44	76	108
13	13	45	77	109
14	14	46	78	110
15	15	47	79	111
16	16	48	80	112
17	17	49	81	113
18	18	50	82	114
19	19	51	83	115
20	20	52	84	116
21	21	53	85	117
22	22	54	86	118
23	23	55	87	119
24	24	56	88	120
25	25	57	89	121
26	26	58	90	122
27	27	59	91	123
28	28	60	92	124
29	29	61	93	125
30	30	62	94	126
31	31	63	95	127
32	32	64	96	128