READ THIS MANUAL BEFORE PROCEEDING WITH THE INSTALLATION.
FAILURE TO FOLLOW THE INSTALLATION INSTRUCTIONS
MAY VOID YOUR WARRANTY!

DO NOT USE
WIRENUT CONNECTORS

FOR SECONDARY LOW VOLTAGE
WIRING USE 12AWG WIRE ONLY

LUMIficient TECHNOLOGIES LLC.

HYPERION R-LITE™ SYSTEM INSTALLATION MANUAL

A./ SURFACE PREPARATION

Surface must be free of dust, dirt and grease. Use non-oil based solvent (409, alcohol or heptan) to clean the surface. Area must be dry before application. HYPERION R-Lite™ strip bonds to all non-porous surfaces. (⇨Pic 1)

Note: *Application temperature range:32 °F to 100 °F (0 °C to 38 °C).*

B./ SYSTEM INSTALLATION

1./ Determine the linear footage for each letter needed for illumination

Note*: In most cases needed linear footage of HYPERION strip is equal to neon.*

2./ Group letters in equal load groups not to exceed 35 linear feet per group if you will plan to use HRL-06-PFC-96 Power unit or 25 linear feet per group if you will plan to use HRL-06-PFC-24 Power unit.

3./ Unroll necessary amount of the HYPERION R-Lite™ strip and visually inspect the contents for shipping damage. Expose approximately 6 inches of the adhesive backing for installation by placing the strip between left and right thumb and forefingers and using a fingernail to begin peeling the paper backing off the back of the strip. (⇨Pic 2)

Note: *Do not touch adhesive tape with greasy or wet hands!*

4./ Adhere the HYPERION R-Lite ™ strip inch by inch to the back surface of the channel letter .(⇨Pic 3)

Note: *In case of poor adhesion of the HYPERION strip to backing material (porous, greasy materials etc.) you may use HRL-SC plastic clamp to mechanically secure HYPERION strip to channel letter* .(⇨Pic 14, ⇨Att. 3)

5./ To make a curve, bend the HYPERION R-Lite ™ flexible conductor strip between the sockets. Pinch excess strip between thumb and forefinger together. (⇨Pic 4) After "pinching" adhere corner of the turn by firmly pushing with your forefinger. (⇨Pic 5)

6./ To trim HYPERION R-Lite ™ strip to desired length, cut strip with scissors directly between sockets. (⇨Pic 6)

Note: *Do not make a cut near any socket. Do not use wire cutters to trim the strip.*

Note: *Remember to place HYPERION R-Lite ™ strip to the center of the channel letter.*

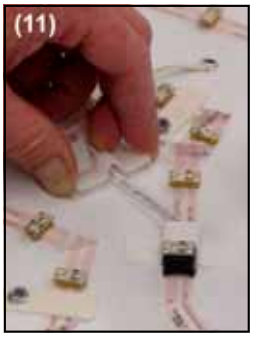
7./ INSTALLING POWER CONNECTOR

a) Unplug the light source from the socket designated for power connector. When removing an LED board, place thumb and forefinger on side edges of LED board and pull directly upwards until LED board is released from the socket. (⇨Pic 7)

b) With thumb and forefinger at base of the connector and aligned parallel with the strip, place connector pins into socket and lightly push down on top of connector with forefinger until the connection is secure. (⇨Pic 8)

c) Plug in previously unplugged light source to the top of the power connector. (⇨Pic 9)

d) Secure the connector with the power connector holder. Secure connector cable with 1/4" wire clamp. (⇨Pic 10, 11)



8./ Drill connector wire hole into letter or raceway. Hole for connector wire should be off center and to the middle of the can. Place protective rubber grommet on hole. (⇨Pic 12)

9./ Insert wire through the grommet to go through wall or into raceway. (⇨Pic 13)

10./ INSTALLING JUMPER CONNECTOR

Some letters such as E or A require multiple strips of HYPERION R-Lite System ™. In cases like this use the jumper connector to connect two separate runs as shown on picture. (⇨Pic 14 ⇨Att.4)

a) In specified letter attach (1) jumper end anywhere on HYPERION strip and secure with connector holder. Plug in removed LED board.

b) Attach other jumper end to separate HYPERION strip contained inside the same channel letter and secure with connector holder. Plug in removed LED board.

c) For runs exceeding 12ft you must use a separate power connector for each run.

d) Attach power connector to longer strip and secure with connector holder.

e) You must connect jumper in the best possible area trying to avoid tight areas or severe bending or stretching of jumper. Please plan ahead when using jumper connector during installation of multiple strips in the same letter.

11./ Secure all wires with self adhesive wire clamp. (⇨Pic 11 ⇨Att.4)

C./ LOW VOLTAGE WIRING USING HRL-06-PFC-96 POWER UNIT

1./ Place the power unit between two (2) selected load groups as shown in the schematic drawing in the attachment. (⇨Att. 1). Run a pair of 10 or 12 AWG Class 2 rated power wires from the power unit to the ends of the selected groups. (⇨Att. 1). 12 AWG Class 2 wires can be purchased from Lumificient Technologies in 50 feet spools.

Note: *Using higher than 12AWG wire will result in increased voltage drop.*

Note: *All secondary wiring must comply with Article 725 of the 2002 National Electrical Code (NEC). Class 3 or PLTC wire can be used as a substitution of Class 2 wire. Please refer to NEC 725.61 "Cable Substitution Hierarchy".*

2./ Connect power connector leads to power wires (parallel electrical connection) by using "tap and run" IDC connectors. (⇨Pic 15, 16 ⇨Att. 1)

Note*: Do not use wire nuts for connecting power connectors to power wires!*

3./ Use wire nuts ONLY to insulate end of the power wires. (⇨Pic 17)

4./ Secure power wires inside the wireway or on the wall with wire clamps.

Note*: All free hanging wires must closely follow the building structure and must be supported by wire clamps every 4.5ft and at least 1ft from the power unit.*

5./ Connect power wires to power unit terminal 1 and 2. (⇨Pic 18)

Note*: For better power distribution divide load equally between terminal 1 and terminal 2.*

Important: *Minimum load per terminal is 10 linear ft and maximum load 35 linear ft.*

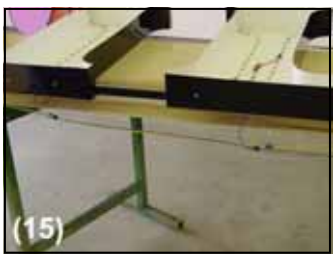
6./ Secure power unit inside of the raceway or on the wall with four screws.

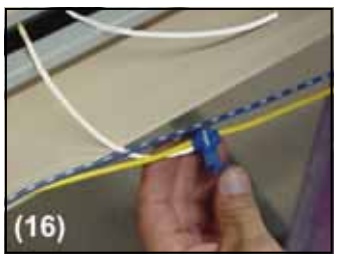
7./ Connect the power unit to 120VAC junction box..

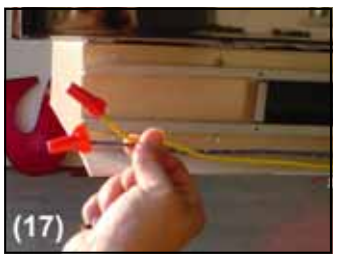
Note*: HRL-06-PFC-96 power unit is equipped with 1/2" ENT conduit fitting. It is required to use 1/2" nonmetallic conduit between the junction box and the power unit.*

8./ Repeat steps 1 - 7 for all load groups.

9./ Verify if disconnect switch is present. National Electrical Code (NEC) requires disconnect switch with all electrical signs. If disconnect switch is not present, it must be installed between main breaker and first power unit.







10./ Test the sign by turning main power on.

Note: *Do not touch any metal parts while testing the sign.*

D./ LOW VOLTAGE WIRING USING HRL-06-PFC-24 POWER UNIT

1./ Place the power unit in the middle of the selected load group as shown in the schematic drawing in the attachment. (⇨Att. 2). Run a pair of 10 or 12 AWG Class 2 rated power wires from one side to another side of the load group. (⇨Att.2). 12AWG Class 2 wires can be purchased from Lumificient Technologies in 50 foot spools.

Note: *Using higher than 12AWG wire will result in increased voltage drop.*

Note: *All secondary wiring must comply with Article 725 of the 2002 National Electrical Code (NEC). Class 3 or PLTC wire can be used as a substitution of Class 2 wire. Please refer to NEC 725.61 "Cable Substitution Hierarchy".*

Note: *For wet locations, HRL-06-PFC-24 power unit must be installed in NEMA 3R enclosure or inside of the electric Sign* (⇨Pic 19). *Exit point of low voltage wiring must be secured against water entry into the box (rain tight bushing, cord grip etc.).*

For dry or damp locations, HRL-06-PFC-24 power unit must be installed in NEMA 1 rated enclosure or inside of all metallic enclosure or raceway (⇨Pic 20).

2./ Connect power connector leads to power wires (parallel electrical connection) by using "tap and run" IDC connectors. (⇨Pic 15, 16) .(⇨Att. 2).

Note*: Do not use wire nuts for connecting power connectors to power wires!*.

3./ Use wire nuts ONLY to insulate end of the power wires. (⇨Pic 17)

4./ Secure power wires inside the wireway or on the wall with wire clamps.

Note*: All free hanging wires must closely follow the building structure and must be supported by wire clamps every 4.5ft and at least 1ft from the power unit.*

5./ Connect blue and brown wires from the HRL-06-PFC-24 power unit to power wires by using "tap and run" IDC connectors. (⇨Att.2)

Note: Important: *Maximum load is 25 linear feet per power unit.*

Note: *Do not connect outputs in series or parallel*

6./ Secure power unit inside of electrical enclosure, channel letter or raceway.

7./ Connect the power unit to 120VAC junction box..

Note*: It is required to use UL rated metallic or nonmetallic conduit between the junction box and the power unit enclosure.*

8./ Repeat steps 1 - 7 for all load groups.

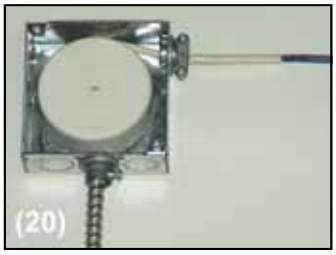
9./ Verify if disconnect switch is present. National Electrical Code (NEC) requires disconnect switch with all electrical signs. If disconnect switch is not present, it must be installed between main breaker and first power unit.

10./ Test the sign by turning main power on.

Note: *Do not touch any metal parts while testing the sign.*

FOR TECHNICAL ASSISTANCE OR CUSTOMER SUPPORT CALL (877) 383 4032

LUMIFICIENT TECHNOLOGIES LLC.
8752 Monticello Lane N, Maple Grove, MN 55369, U.S.A.
Phone: (763) 424-3702 Fax: (763) 390-3135 E-mail: technical@lumificient.com



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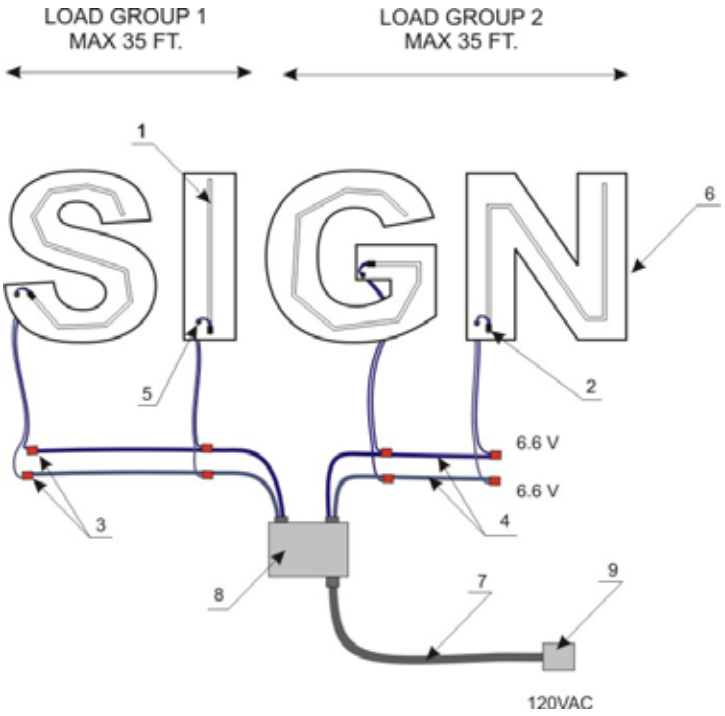
LED KIT FOR NEW FACTORY BUILT SIGNS
E230262

ATTACHMENT 1.

Electrical Schematic Diagram using HRL-06-PFC-96 Power Unit:

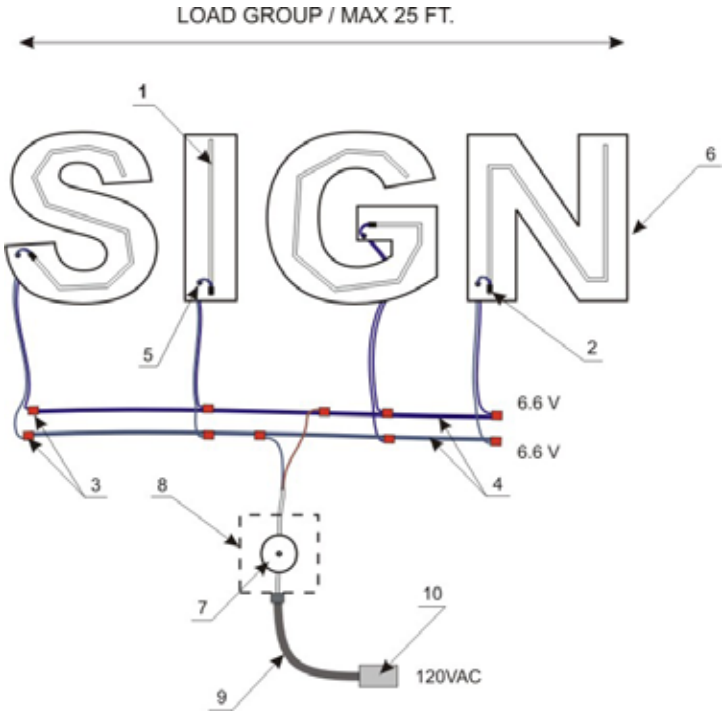


LEGEND

1 ..... HYPERION R-Lite System
2 ..... HRL-PC power connector
3 ..... HRL-IDC-R Power IDC connector
4 ..... Low Voltage Class 2 power wires (10-12AWG)
5 ..... Rubber grommet
6 ..... Channel Letter Can
7 ..... AC input wires in 1/2" nonmetallic conduit
8 ..... HRL-06-PFC-96 Power unit
9. …. Junction box or disconnect switch

ATTACHMENT 2.

Electrical Schematic Diagram using HRL-06-PFC-24 Power Unit:



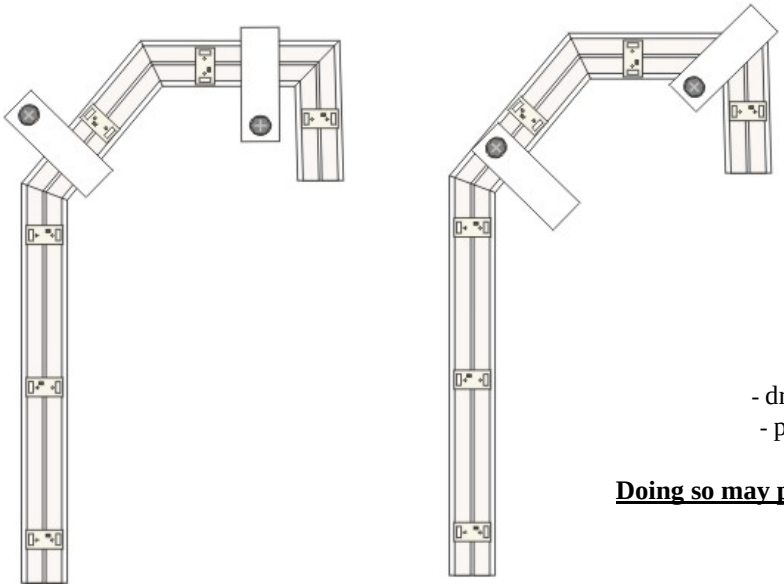
LEGEND

1 ..... HYPERION R-Lite System
2 ..... HRL-PC power connector
3 ..... HRL-IDC-R Power IDC connector
4 ..... Low Voltage Class 2 power wires (10-12AWG)
5 ..... Rubber grommet
6 ..... Channel Letter Can
7 ..... HRL-06-PFC-24 Power
8 ..... Electrical Enclosure
9 …. AC input wires in 1/2" nonmetallic conduit
10 … Junction box or disconnect switch

ATTACHMENT 3.

Installation of HRL-SC Support Clamp:

CORRECT **INCORRECT**



DO NOT …

- drive the screw through the strip
- put the clamp over strip bends

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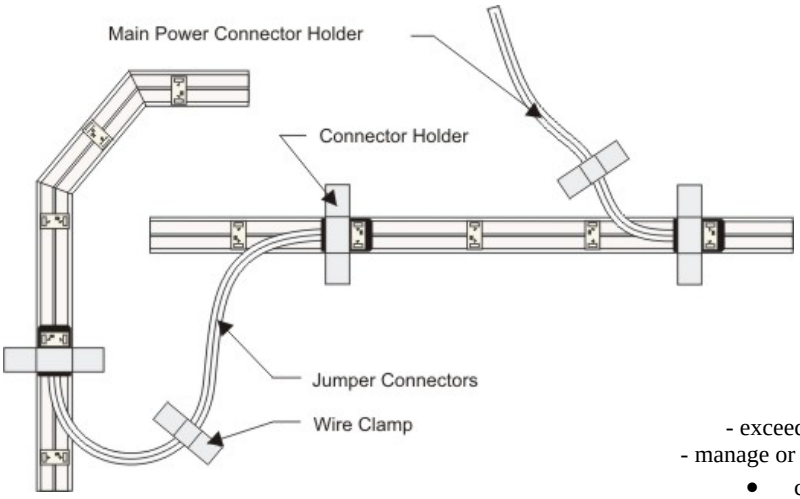
Doing so may permanently damage system and cause a short circuit!

ATTACHMENT 4.

Installation of HRL-JC Jumper Connector:



DO NOT …

- exceed 12ft - total footage of both strips together
- manage or move wires without connector holder installed
- connect power connector to shorter strip

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Doing so may cause permanent damage or malfunction of the system!