



**HYPERION R-LITE™ SYSTEM
INSTALLATION MANUAL FOR RETROFITTING**

READ THIS INSTRUCTION BEFORE PROCEEDING WITH RETROFITING

**** Main power to the existing system must be disconnected prior to proceeding.**

**** The HYPERION R-Lite System is intended for retrofitting of existing UL listed neon, fluorescent and other types of sign illumination systems.**

All existing electrical components within a sign must be removed and replaced. For neon signs these components include neon tubes, tube supports, neon power supplies and all secondary wiring.

For fluorescent signs these components include fluorescent tubes, lamp sockets, ballast, and ballast secondary wiring.



A./ REMOVAL OF EXISTING SYSTEM

- 1./ Disconnect main power to the sign by turning off disconnect switch and main circuit breaker for the sign.

Note: Use voltmeter to verify that main power is off.

- 2./ Remove all existing transformers (or ballasts) and all wiring from transformer to a junction box or disconnect switch.

- 3./ Carefully remove all glass tubes, tube supports, sockets and secondary wiring.

Note: All removed material must be properly disposed to meet your local regulations

- 4./ Determine if existing transformer boxes, conduits or wire openings are suitable for new secondary wiring. If new openings are necessary, drill 3/8" diameter holes. Hole for connector wire should be off center and to the middle of the can. Place protective grommet in hole.

Note: All openings must be at least 3/8 inches in diameter. HYPERION™ system power connector leads use Class 2 wires and do not need to be enclosed in electrical conduit. For more information see NEC 725 regulation for Class 2 wiring.

Note: After retrofitting is completed, all unused holes and opening must be sealed. Opening greater than 1/2 inch in diameter require a metal patch secured by screw and caulked with non-hardening caulk. Smaller openings may be sealed with non-hardening caulk.

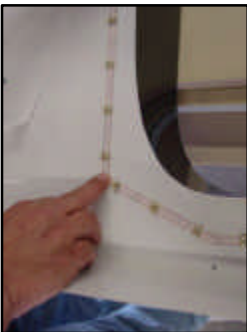
B./ SURFACE PREPARATION

- 1./ Surface must be free of dust, dirt, grease, sharp objects, openings or corroded surfaces. 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)

Note: Application temperature range: 40 °F to 100 °F (10 °C to 38 °C).

Note: For best illumination results we recommend a white interior. If painting is necessary the paint must be dry before installation of strip.

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C./ INSTALLATION OF HYPERION R-LITE SYSTEM™

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

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

- 2./ Group letters in equal load groups not to exceeding 35' linear feet per group.

- 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)

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

- 4./ Adhere the strip inch by inch to the back surface of the channel letter. (↴ Pic)

Note: Do not place the strip over sharp or non-flat objects or over patched holes.

- 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) After “pinching” adhere corner of the turn by firmly pushing with your forefinger. (↴ Pic)

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

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.

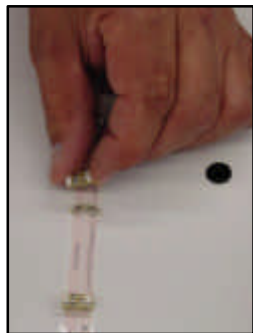
5./ Installing power connector:

- Unplug the light source from the socket designated for power connector. When removing an LED place thumb and forefinger on side edges of LED and pull directly upwards until LED is released from the socket. (↴ Pic)
- 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.
- Plug in previously unplugged light source to the top of the power connector. (↴ Pic)
- Secure the connector wire by using wire tie pad and wire tie. Place wire tie pad parallel with power connector and secure the wire with wire tie. (↴ Pic)

- 6./ Slide connector lead into designated opening and secure all remaining wire.

Note: It is strongly recommended to seal opening with non-hardening caulk.

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D./ SECONDARY WIRING

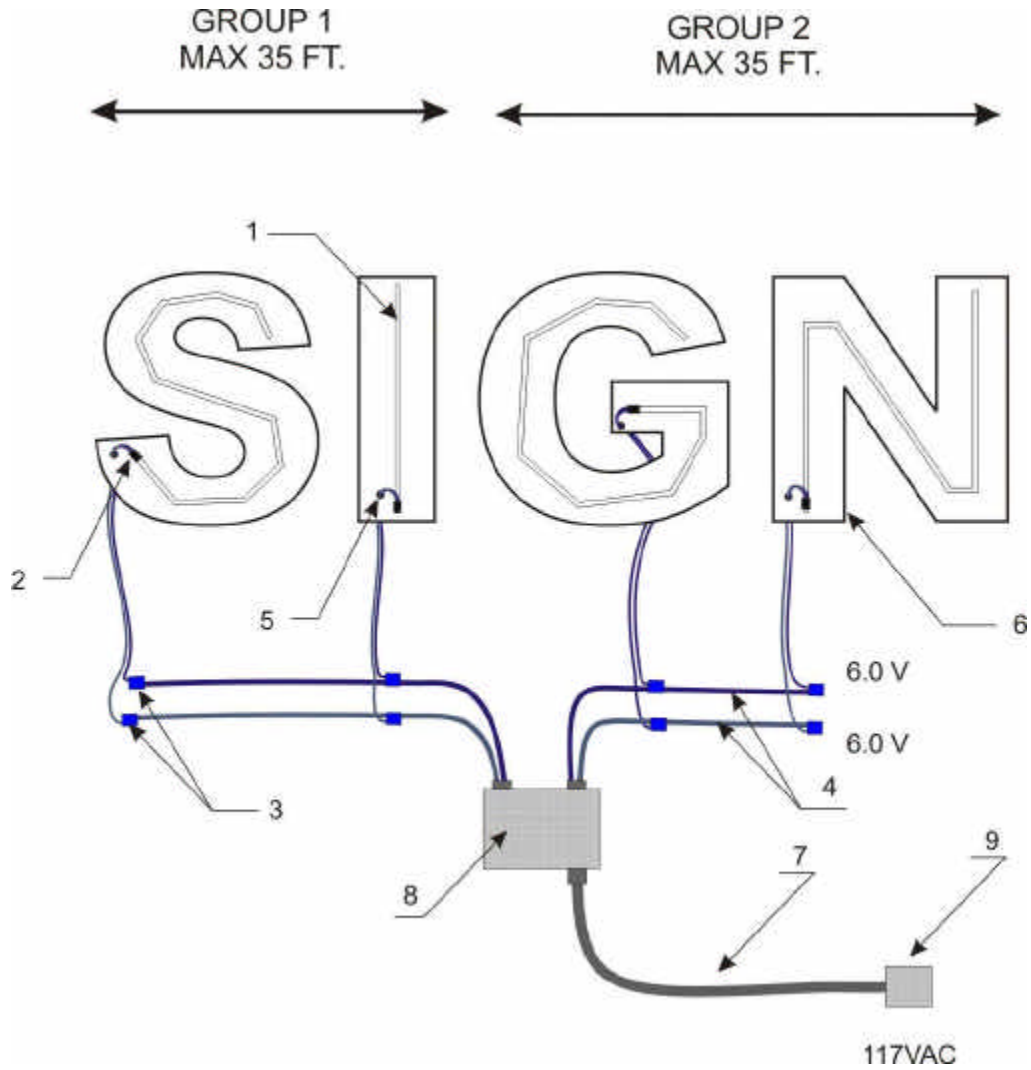
- 1./ Place power unit between two selected load groups. Secure power unit within raceway or wall with (4) screws.
Note: Power unit should be secured at least 2" above bottom of the raceway and facing wall.
- 2./ Run a pair of 10 or 12 AWG Class 2 rated power wires from the power unit to the ends of the selected groups.
Note: If main power wires are not Class 2 rated, all wiring needs to be inside an electrical enclosure, raceway or watertight electrical conduit.
Note: NEC 725 regulations allows to use construction wire (UL1015) if total length of the power wires (from terminal to the end of run) is no more than 10ft.
- 3./ Connect power connector leads to power wires (parallel electrical connection) by using "tap and run" IDC connectors.
Note: Do not use wire nuts for connecting power connectors to power wires!
Note: Use wire nuts to insulate end of the power wires.
- 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.
Note: Load must be divided equally between terminal 1 and terminal 2.
*Note: **Important:** Minimum load per terminal is 10 linear ft and maximum load 35 linear ft.*
- 6./ Connect primary input wires to existing disconnect switch or 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 flexible conduit between the junction box and the power unit.
- 7./ Repeat steps 1 - 6 for all load groups.
- 8./ 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.
- 9./ Test the sign by turning main power on.
Note: Do not touch any metal parts while testing the sign.
Note: If sign is not working, see Troubleshooting Guide.



FOR TECHNICAL SUPPORT CALL (800) 245 5874

ATTACHMENT 1.

Electrical Schematic Diagram:



LEGEND

- 1 HYPERION R-Lite System
- 2 HRL-PC power connector
- 3 HRL-IDC-B 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-XX Power unit
- 9. Junction box or disconnect switch