

## LED NEON BORDER INSTALLATION GUIDELINES



FOR INSTALLATION AND TECHNICAL QUESTIONS PLEASE CALL (904 687 0660)

### REQUIRED TOOLS FOR A SUCCESSFUL INSTALLATION

SCREW GUN



1/2 " SELF TAPPING SCREWS



TIN SNIPS



HEAT GUN



CHALK LINE



SILICONE SEALANT



50 FT TAPE



WIRE STRIPPER/CRIMPER



LEVEL





The LED Neon is a piece of ELECTRONICS and must be treated with care. Do not treat it vigorously, bend in all directions or hammer on it to make it fit. If you do so you will break the circuit board inside. Breaking the circuit board during installation is NOT covered under warranty. Who ever touches the LED NEON product must handle it with care.

Thank you,  
Morgan Hope USA

**⚠ CAUTION**

**A NOTE TO INSTALLERS**

**⚠ CAUTION**

**ALL LED DRIVERS MUST BE MOUNTED INDOORS, OR IN A WET RATED ENCLOSURE. FAILURE TO DO SO WILL VOID THE WARRANTY ON THE LED DRIVERS.**

## **THERMAL CONTRACTION AND EXPANSION**

Morgan Hope LED Neon is manufactured using high grade PVC plastic.

Due to the Law of Thermal Expansion and Contraction, Morgan Hope LED Neon could contract and expand based directly on the environment in which the product is installed. It is important to understand that changes in the visual appearance of the product could occur.

## MOUNTING AND CONNECTING THE LED NEON



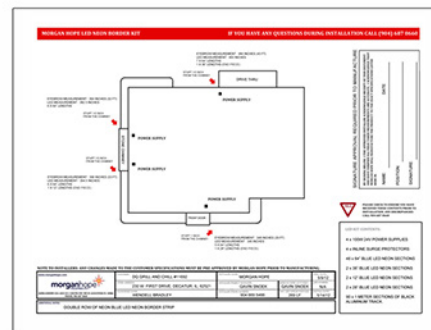
**THE MOST IMPORTANT ASPECT TO INSTALLING MORGAN HOPE LED NEON IS TO ENSURE A WATER TIGHT CONNECTION. IF YOU DO NOT USE A HEAT GUN TO SEAL EVERY CONNECTION THE PRODUCT WILL FAIL. IF THE PRODUCT FAILS DUE TO THE INSTALLERS FAILURE TO SEAL THE CONNECTIONS, THE PRODUCT IS NOT COVERED UNDER WARRANTY.**



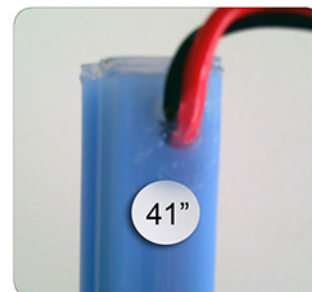
Morgan Hope LED Neon has two Class 2 LED power supply options, a 60W power supply and a 100W power supply. One 100W power supply can run up to 40 LF of LED Neon. One 60W power supply can run up to 25 ft of LED Neon. Be sure you have the appropriate power supply feeding your installation length. DRIVERS MUST BE MOUNTED INDOORS OR IN A WEATHER PROOF BOX.



Morgan Hope LED neon is sold in standard sections of 6 LF. To complete the installation you will also have custom lengths of LED product. These custom length LED sections have been manufactured specifically for your installation from the submittal sheet provided prior to manufacture. If you have not received an LED submittal sheet please contact us right away at (904) 687 0660.



These custom length pieces are to be used anywhere along the installation, but should be saved and used to avoid a join on or near an outside corner. Always begin using the 6 ft LED sections. The custom length sections will be clearly marked in inches on the under side of the LED NEON product. These sections will match up with installation LAYOUT provided for your specific installation. IF YOU HAVE NOT RECEIVED AN INSTALLATION LAYOUT PLEASE CALL (904) 687 0660





**INSTALLING THE NEON TRACK**

The LED Neon "C" track is designed to tightly hold the neon in place in most all weather conditions. It is mounted by simply using 1/2 inch sheet metal screws (NOT INCLUDED) to fasten it to metal structures. The appropriate fasteners must be used when mounting on concrete, dry wall or wooden surfaces.

To ensure a perfectly straight installation, use a chalk line.

To cut the track to length be sure to use a sharp pair of tin snips.

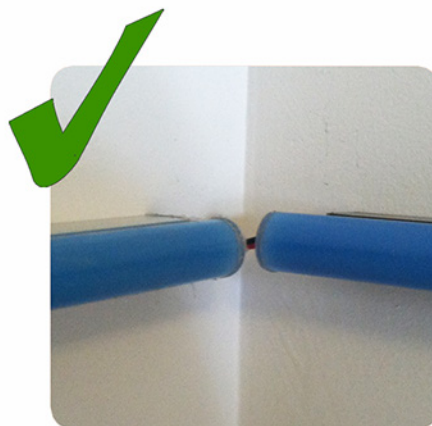
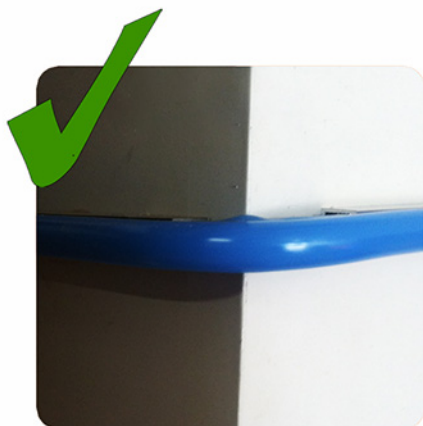
**MOUNTING THE TRACK FOR OUTSIDE CORNERS**

Morgan Hope LED Border lighting has been designed to mold around OUTSIDE CORNERS ONLY. This makes for a very nice even flow of neon even around 90 degree bends. If you are mounting the track around a 90 degree bend be sure to finish and start the track about a 1/2 inch from the actual corner. This will allow for the LED be molded around the corner with ease.

**LED NEON CAN ONLY BEND IN ONE DIRECTION.**

It is designed to bend around corners and NOT inside corners.

If you bend the Neon on an inside corner you will damage the LED circuit board inside.



## LED NEON BORDER INSTALLATION GUIDELINES



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### INSTALLING THE LED NEON INTO THE TRACK AND MOLDING AROUND 90 DEGREE BENDS

**IMPORTANT: YOU MUST HAVE AT LEAST 20 INCHES OF PRODUCT BEFORE A JOIN ON EITHER SIDE OF THE 90 DEGREE BEND.**



The LED Neon is designed to fit very tightly into the "C" track. Once you have the first small section in tightly, begin moving along the track pushing the LED in using the palm of your hand.



The LED Neon is designed to mold around OUTSIDE corners ONLY. Once you have your mounting track in place, use a heat gun to slowly soften the plastic to point where it is will easily bend around the corner.



Slowly mold the LED around the corner and hold in place until it cools slightly. This process might need to be repeated a few times until a sufficient bend is made for the LED to slip into the track on the other side.



WHEN USING A HEAT GUN TO MOLD THE LED, BE SURE TO TAKE YOUR TIME. MORGAN HOPE WILL NOT TAKE RESPONSIBILITY FOR SCORCHED OR BURNED MATERIAL. DO NOT TWIST, STRETCH OR HAMMER ON THE PVC EXTERIOR AS THIS WILL CAUSE DAMAGE TO THE INTERIOR COMPONENTS. DAMAGE CAUSED TO THE PRODUCT BY MISHANDLING IS NOT COVERED UNDER WARRANTY!



### CONNECTING THE LED NEON TO THE POWER SOURCE



The LED should always begin at the power source. Begin using the side of the LED with the water tight connections already crimped onto the RED and BLACK low voltage wires.

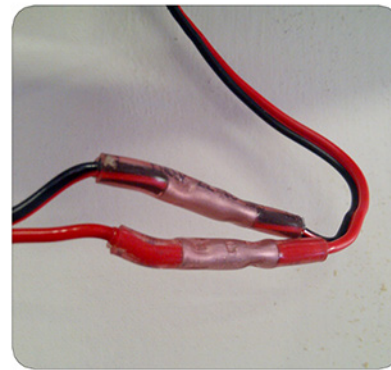
Be sure that the feeding wire to the LED neon from the power supply is 16 AWG. The power supply should be mounted within 10 feet of the LED Neon.

Check that you are getting 24VDC from the power supply before connecting to the LED neon.

Check your continuity and connect RED to RED and BLACK to BLACK. Use a crimping tool to ensure a solid connection.



Use a heat gun to seal the connection.



MORGAN HOPE USA, 4425 US 1 SOUTH STE 709, ST AUGUSTINE, FL , 32086  
PHONE: 904 687 0660 FAX 904 342 6308  
EMAIL: USA@MORGANHOPE.COM  
WWW.MORGANHOPE.COM





**MOUNTING AND CONNECTING THE LED NEON**

WIRE STRIPPER/CRIMPER



HEAT GUN



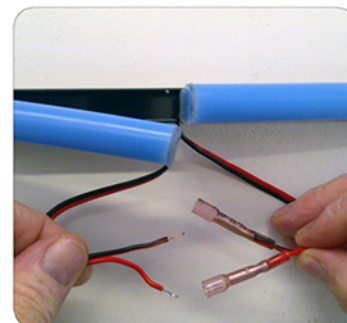
SILICONE SEALANT



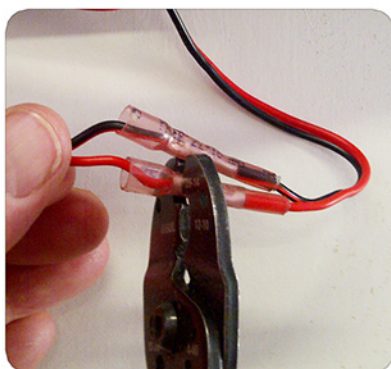
**Morgan Hope LED Neon Border tubing is designed and manufactured to be completely waterproof. In order to maintain the integrity of the product, under no circumstances may it be cut on site in order to make it fit. Any cutting or altering of the product by an unapproved technician will void the warranty immediately.**



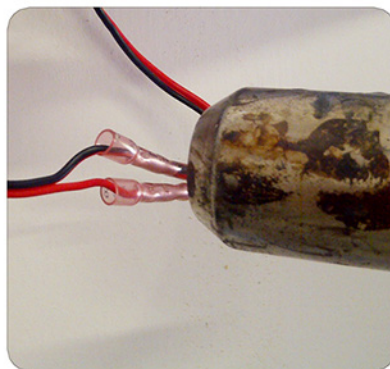
In order to maintain an even effect once illuminated it is important that each LED segment butt tightly up against each other. In order to ensure a nice tight join, place the first section of LED in the track. Be sure to leave the last 10 inches of LED out of the track so that you can easily connect the wires. Hold the 10 inches out straight to see where to begin the next LED segment. Mark that point and push the next segment of LED into the track. Be sure to leave the first 10 inches out of the track so that you can crimp and seal the connectors with ease. Continue this all the way down the length of the installation.



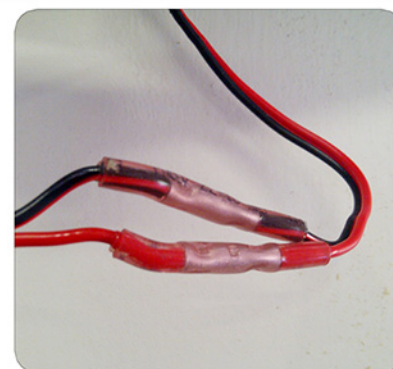
**THE MOST IMPORTANT ASPECT TO INSTALLING MORGAN HOPE LED NEON IS TO ENSURE A WATER TIGHT CONNECTION. IF YOU DO NOT USE A HEAT GUN TO SEAL EVERY CONNECTION THE PRODUCT WILL FAIL. IF THE PRODUCT FAILS DUE TO THE INSTALLERS FAILURE TO SEAL THE CONNECTIONS, THE PRODUCT IS NOT COVERED UNDER WARRANTY.**



Check that you have RED to RED and BLACK to BLACK and use a crimping tool to firmly connect the positive and negative wires.



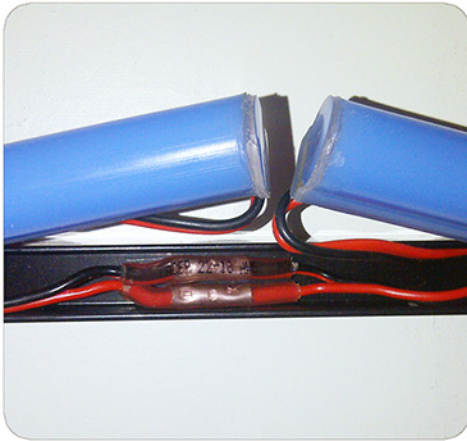
Use a heat gun to shrink the connector down on the wires. When you have achieved a water tight seal you will see adhesive oozing out from under the connector.



This is what a perfectly sealed connection must look like.

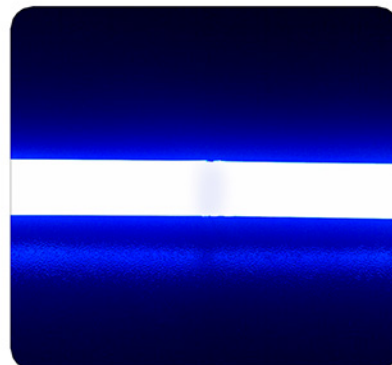
### HIDING THE CONNECTIONS AND FINISHING UP THE INSTALLATION

Morgan Hope LED NEON BORDER is designed so that all the wiring and connections are neatly tucked in and hidden from view. There is approximately 1/8 inch of space between the LED Neon and bottom of the track.



Neatly tuck the connectors side by side, right behind the join. Fold the wires back along the neon tube so they neatly and easily slip in behind the LED tube. Then push the LED NEON in with the palm of your hand.

### EXAMPLE OF A CORRECTLY INSTALLED JOIN



**Morgan Hope LED Neon is manufactured using high grade PVC plastic.**

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**TERMINATING THE LED**

WIRE STRIPPER/CRAMPER



SILICONE SEALANT



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When you have completed the run, the last section of LED will still have its wires protruding from the neon. It is very important that these wires be cut back as close to the tubing as possible and sealed with an exterior grade silicone sealant. We recommend PERMATEX RTV CLEAR as it will bond to the PVC extrusion. IF YOU FAIL TO TERMINATE THE LED CORRECTLY THIS WILL VOID THE WARRANTY



## CUTTING THE LED

KNIFE



SEALANT



HEAT GUN



**THE MOST IMPORTANT ASPECT TO INSTALLING MORGAN HOPE LED NEON IS TO ENSURE A WATER TIGHT CONNECTION. WHEN THE LED IS CUT IN THE FIELD IT EXPOSES THE INTEGRAL CIRCUIT BOARD TO THE ENVIRONMENT. IF YOU DO NOT USE THE SUPPLIED SEALANT, AND FAIL TO USE THE SUPPLIED END CAPS THE PRODUCT IS NOT COVERED UNDER WARRANTY.**



When you have completed the run, the last section of LED will need to be cut to fit the mounting surface. Morgan Hope moldable LED Neon Border can be cut every 3 inches. It is VITAL that you soften the plastic by heating it up with a heat gun and use a sharp knife to cut the LED. BE SURE TO HEAT THE PLASTIC UP SLOWLY AS YOU DO NOT WANT TO SCORCH OR BURN THE EXTERIOR OF THE NEON.



Locate the supplied end caps and sealant. This is a silicone/ polyurethane based sealant designed to adhere to PVC. It CAN NOT BE SUBSTITUTED.



On the under side of the LED neon you will see the black lines that indicate where you may cut the LED. You must cut EXACTLY on these lines. If you do not, you will damage the LED circuit board.



Heat the plastic up SLOWLY until you feel it is soft enough to cut with a utility knife. HAVE PATIENCE WHILE HEATING UP THE PLASTIC, AS TO AVOID SCORCHING OR BURNING THE PLASTIC EXTERIOR.



**DO NOT USE SNIPS YOU MUST USE A KNIFE.**



Use a SHARP knife and press down firmly. Be sure that you are cutting straight down and not at an angle.



ALLOW THE PLASTIC TO COOL BEFORE APPLYING THE SEALANT AND THE END CAPS. Generously apply the clear sealant to the end of the cut section of LED neon.



Place the end cap on the end of the LED section. Be sure that the sealant oozes out, inspect to ensure a water tight seal



CLASS 2 POWER SUPPLY

LPS CERTIFIED



CERTIFICATION FILE NUMBER : E333976

## MANUFACTURERS RECOMMENDED INSTALLATION INSTRUCTIONS (MODEL NUMBERS HMA-60NU-RX AND HMA-100NU-RX)

All models are recognized under UL Standards for Safety, UL 879, UL 1310, UL60950.

These power supplies have a single output that complies and has been LPS certified to Class 2 output requirements.

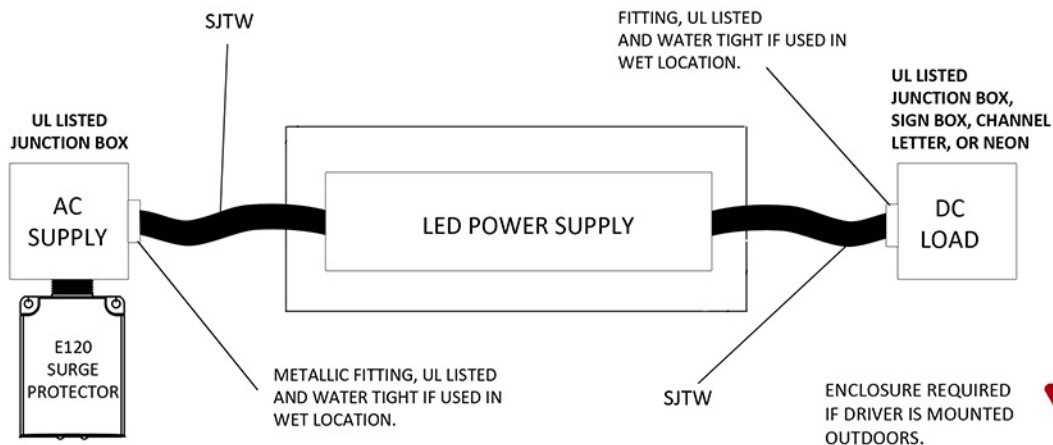
Maximum rated output 60W(HMA-60NU-RX) AND 100W(HMA-100NU-RX)

Power Supply spacing to other heat producing components shall be a minimum of 4 inches when the minimum spacing to sidewalls and top of enclosure is kept at minimum 2 inches.

Drivers must be mounted in a protected environment. Drivers may be mounted out side, but MUST NOT be completely exposed to the elements.

### Disclaimer:

*All of the above installation shall follow and comply with all local NEC regulations.*



**IMPORTANT:** READ CAREFULLY BEFORE INSTALLING FIXTURE. RETAIN FOR FUTURE REFERENCE.



**GENERAL:** Upon receipt of fixture thoroughly inspect for any freight damage, which should be brought to the attention of the delivery carrier. Compare the catalog description listed on the packing slip with the fixture label on the housing to be sure the correct merchandise has been received.

**SAFETY:** This fixture must be wired in accordance with the National Electrical Code, National Electrical Safety Code and applicable local codes and ordinances. Proper grounding is required to insure personal safety. Carefully observe grounding procedure under installation section. This fixture is not suitable for Hazardous or Classified Locations. This product must be installed in accordance with the applicable installation code by a person familiar with the construction and operation of the product and hazards involved.

Consult a qualified electrician to ensure correct branch circuit conductor.

**WARNING:** Risk of Fire/Electric Shock. If not qualified, consult an electrician.

**WARNING:** Risk of Electric Shock. Disconnect power at fuse or circuit breaker before installing or servicing.

**WARNING:** Risk of Burn. Disconnect power and allow fixture to cool before servicing.

**WARNING:** Risk of Personal injury—Fixture may become damaged and/or unstable if not installed properly. Tighten all fixture components to their recommended torque values.