


INSTALL AT THE SPEED OF LIGHT WITH THE CONCORDE CABINET SYSTEM

by HanleyLED

- * Easy, labor-saving solution in 4 simple steps
- * Fluorescent lamp replacement using existing sockets
- * New construction using Speed Spring Brackets
- * Innovative, compact, space-saving package
- * Bright, robust, affordable, quality
- * UL Retrofit Kit Classified

 CERTIFIED <small>SAFETY US-CA</small> e487794	GENERAL PURPOSE RETROFIT SIGN CONVERSION
	FOR USE ONLY IN ACCORDANCE WITH KIT INSTRUCTIONS
	KIT IS COMPLETE ONLY WHEN ALL PARTS REQUIRED BY THE INSTRUCTIONS ARE PRESENT



HanleyLED

FIVE BRANDS. ONE MISSION. *"We exist to simplify the lives of our customers"*



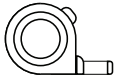


BEFORE YOU BEGIN

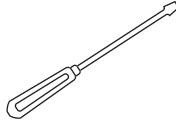
Determine your light bar mounting method. Are you using pre-existing sockets to mount? If so, Retrofit Connectors are included. If not, be sure to purchase our Speed Spring Brackets for fast and secure mounting.

READ THESE INSTRUCTIONS COMPLETELY AND CAREFULLY

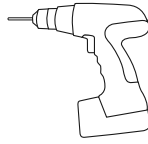
Tools required:



Tape Measure



Screwdriver

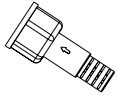


Electric Drill

Components:



Concorde Cabinet Bars



Watertight End Cap



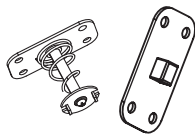
Concorde Joint



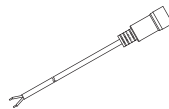
Retrofit (RF) Connector



24v Power Supply



Speed Spring Bracket Set
(Spring and stationary)
Optional



Concorde Cable Connectors
Optional

NOTE:

All materials removed must be disposed of in accordance with applicable local, state, and federal laws.

WARNING check polarity: All connections must be WHITE-TO-RED (+) and BLACK-TO-BLACK (-). Reverse polarity connections may damage the LEDs and will void product warranty.

Caution: Turn off power to sign before inspecting or removing existing light source. Power must remain off while installing the Concorde Cabinet System.

RETROFIT INSTALLATION GUIDE

Concorde Cabinet System

This guide is designed to aid in the installation of HanleyLED's Concorde Cabinet System. Skilled trades people that are familiar with general construction, electrical, and sign installation techniques should do the installation. Licensed electricians should provide all installation and hook-up of both the primary and secondary input/outputs of the HanleyLED power supply. All installation and hook-up should be done in accordance with all National and Local codes and permits. In no way is this document intended to construe warranty or fitness of use of the products described, nor is it intended to provide safety instruction for those installing the product.

THE FIELD INSTALLATION OF THIS RETROFIT SYSTEM INTO A SIGN IS SUBJECT TO THE
ACCEPCANCE OF LOCAL INSPECTION AUTHORITY.

CAUTION: TURN OFF POWER TO THE SIGN BEFORE INSPECTING OR REMOVING EXISTING LIGHT
SOURCE. THE POWER MUST REMAIN OFF WHILE INSTALLING THE LED RETROFIT KIT.

Tools Required:

- Wire cutter & strippers
- Measuring tape
- Marking pens
- Drill
- Standard hardware and supplies in addition to the HanleyLED modules
installation guides (UL listing may be required on certain items)

Prepping the Channel Letter or Cabinet

Step 1

Remove existing neon or fluorescent bulbs by having a licensed electrician disconnect and remove the neon transformers or fluorescent ballasts. Remove existing neon and standoffs or fluorescent lamps. Leave fluorescent sockets in cabinets with leads disconnected. This should leave an empty channel letter or cabinet.

NOTE: ALL MATERIALS REMOVED MUST BE DISPOSED OF IN ACCORDANCE WITH
APPLICABLE LOCAL, STATE AND FEDERAL LAWS.

Step 2

Using a non- oil based cleaner, clean the back surfaces of the channel letter or cabinet where the LED modules will be mounted. This is an important step for good adhesion of HanleyLED modules mounting tape.

Step 3

Installer should examine all parts that are not intended to be replaced by the retrofit kit for damage and replace any damaged parts prior to installation of the retrofit kit. Do not make or alter any open holes in an enclosure of wiring or electrical components during kit installation. Any existing holes in the letters or cabinet that will not be used in the installation of HanleyLED modules should be patched to avoid water damage. Openings smaller than 1/2" diameter may be sealed with the appropriate amount of rated caulk or sealant. Openings larger than 1/2" should be patched using an aluminum or zinc coated steel patch with rivets and sealant.

Step 4

Proceed with the appropriate HanleyLED module installation guide for your specific product.



Concorde Cabinet System Quick Assembly

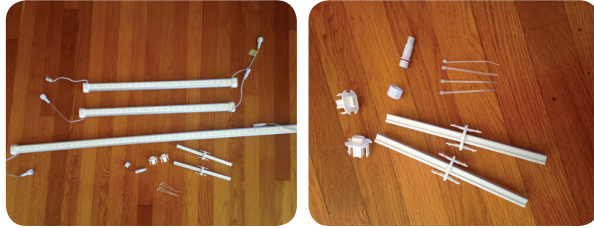
Step 1

Order the size light bar just as you would order your replacement florescent lamps. Pick the size you want. Everything you'll need to assemble the bar will be in the box. This guide shows how to assemble a 96" Concorde LED Bar System.



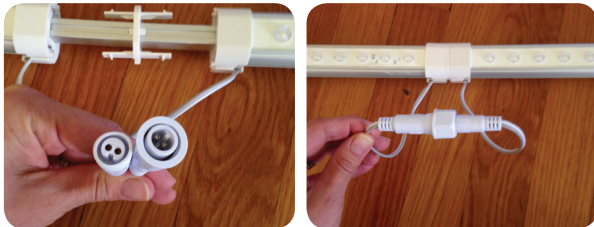
Step 2

Make sure you have all your pieces for assembly. Take all the Concorde components out of the box.



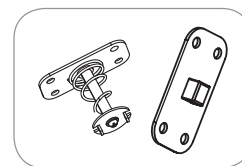
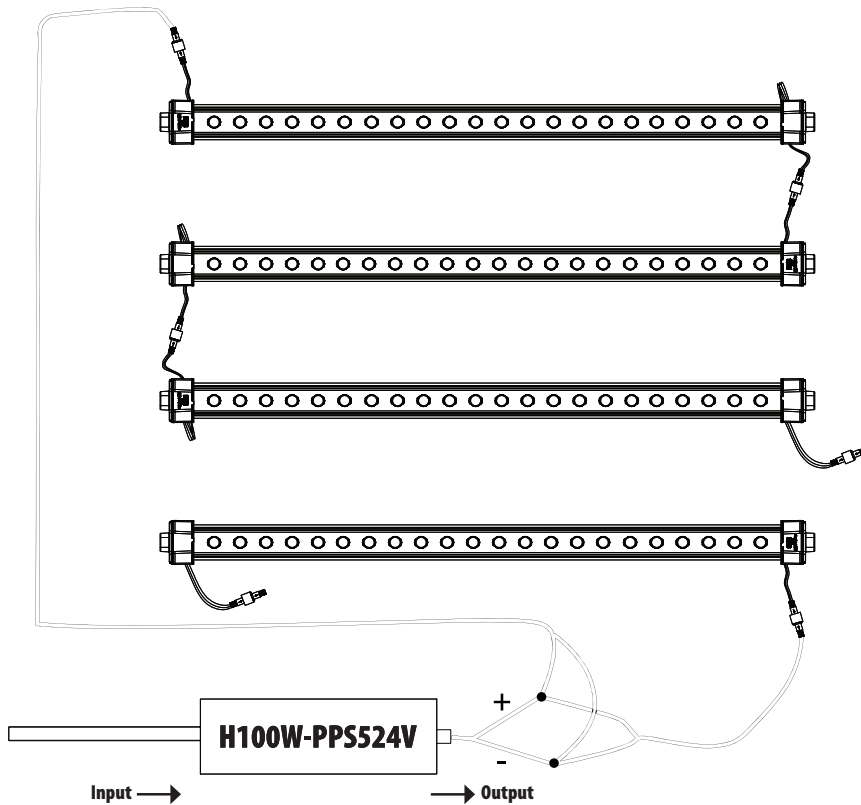
Step 3

Connect all your Concorde pieces by using the Concorde Connector Joints. Tighten the watertight wire ports. **** Pay attention to the male and female ends when assembling.**



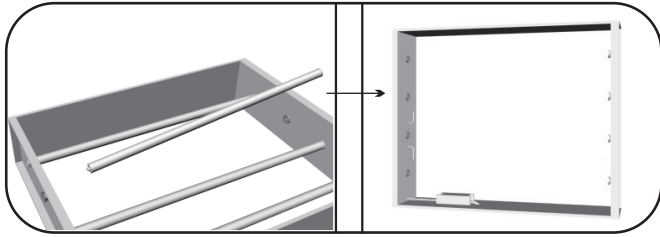
Step 4

Place your Concorde Retrofit (RF) Connectors on each side of the bar. The RF Connectors mount straight into the HO sockets of your existing cabinet making this an easy retrofit install. Screw in Watertight End Cap to the unused wire port.



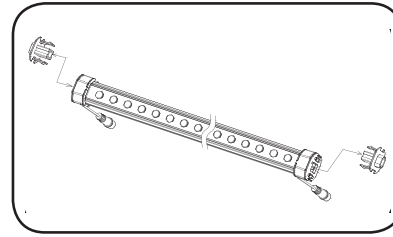
For new construction, the Concorde Speed Spring brackets are available for purchase

Retrofit Installation For Use With Existing Fluorescent Box Signs



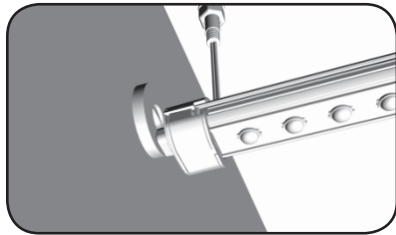
1. Remove Existing Fluorescent Tubes

- Make sure power is off. Have a licensed electrician disconnect and remove all ballasts.
- Remove existing fluorescent tubes, leaving fluorescent lamp holders in place.
- Installers should disconnect lamp holder leads and make new connections from the LED driver directly to the LED lamps. Lamp holders are to be used only for the purpose of holding the LED lamps in place.
- (Existing Signs Only) If removal of the existing lighting equipment eliminates the disconnect switch, as required by applicable local, state, or country electrical codes; a new disconnect switch must be installed.
- (Existing Signs Only) Make sure the removal of lighting equipment does not compromise the integrity of the sign body (i.e. water intrusion). Fill in all holes 0.5 in. (13 mm) or smaller with the appropriate amount of rated caulk or sealant. For holes greater than 0.5 in. (13 mm), use an aluminum or zinc coated steel patch with rivets and sealant.

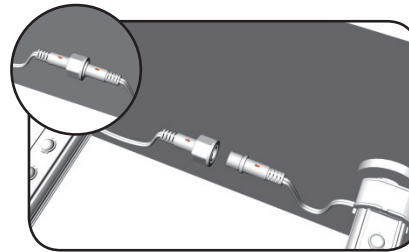
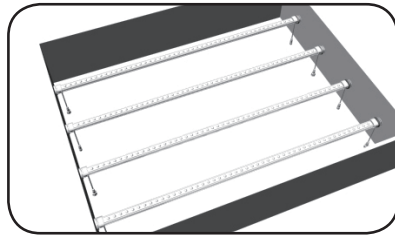


2. Connect all light bar pieces, if necessary.

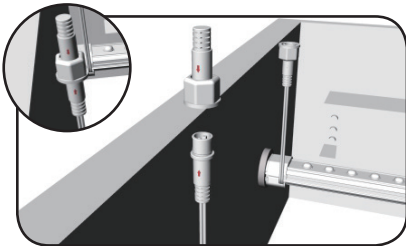
Install Retrofit Connectors on each side of light bar.



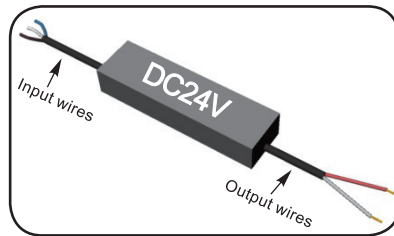
3. Insert Light bars into lamp-sockets



4. Connections: Wire the Concorde bars with male and female connectors to make longer cascade. (see Cascading Information Guidelines on page 7 to see how many bars can be run in a series)

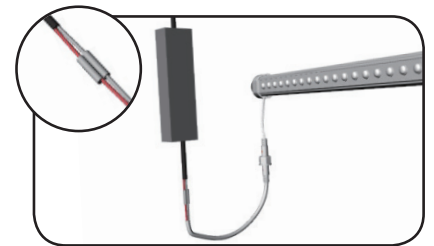


5. Unused wire ports should be capped with Watertight End Cap provided in box, or use another extension cable to tie the port back to the power supply.



6. Mount power supply

- Identify input and output secondary wires. Connect the power unit to the supply in accordance with the applicable local, state, and country electrical codes, and the instructions found in the power supply installation guide. All power supplies must be installed in a raceway or suitable electrical enclosure.
- If required, the disconnect switch shall be installed by qualified personnel, in accordance with applicable local, state, and country electrical codes.
- Spacing between LED power supplies shall be at least 25.4 mm (1 in) from end to end and 101.6 mm (4 in) from side to side, in accordance with UL 48 Par. 4.2.3.2.3.1

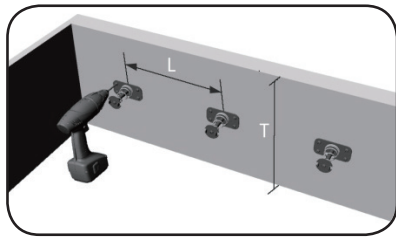


7. Connect to power supply: Connect the white output wire to the red Concorde cable wire and the black output wire to the black cable wire. Connect female cable end to male end coming off of Concorde bar and tighten collar.

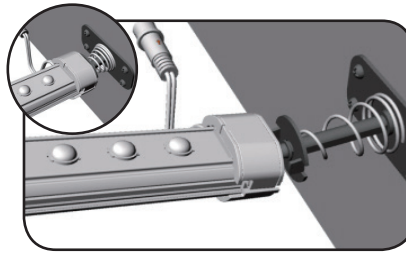
This sign has been modified to operate LED lamps. Do not attempt to install or operate fluorescent lamps in this sign.

8. This sign has been modified to operate LED lamps. Do not attempt to install or operate fluorescent lamps in this sign. The marking for item shall have a minimum letter height of 2.4 mm (3/32 in) and shall be in Universal Bold, Arial Bold, Helvetica Bold, or Zurich BT Bold or equivalent font. Markings in this image shall be provided verbatim.

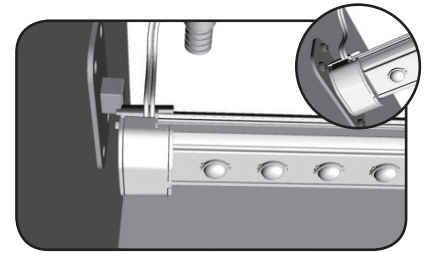
New Construction Installation



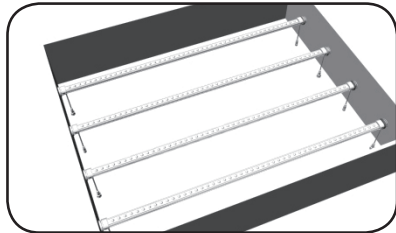
1. Mount Speed Spring Brackets and Stationary Brackets to each side of sign box. (Mount bracket base parallel to the direction of your raceway)



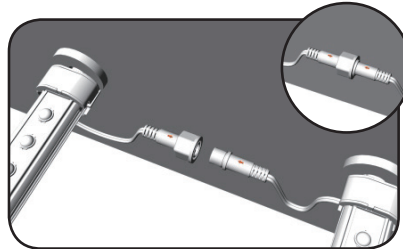
2. Insert Light bars onto Speed Spring Brackets first.



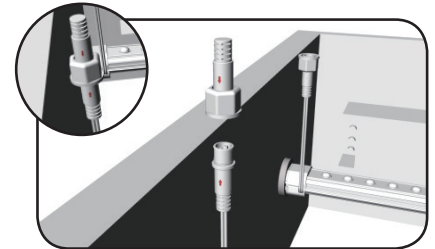
3. Push the Concorde Bars down onto the Speed Spring Bracket, then insert other end onto stationary bracket.



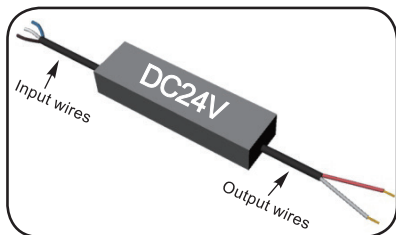
4. Verify all LEDs of light bars point to sign face.



5. Connections: Wire the Concorde bars with male and female connectors to make longer cascade. (see Cascading Information Guidelines on page 7 to see how many bars can be run in a series)

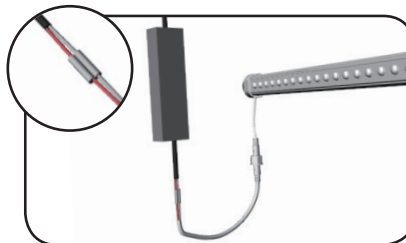


6. Unused wire ports should be capped with Watertight End Cap provided in box, or use another extension cable to tie the port back to the power supply.



7. Mount power supply

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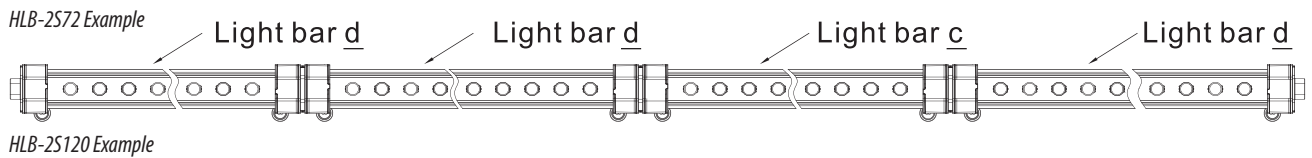
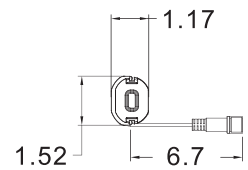
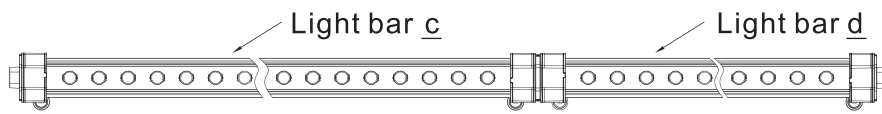


8. Connect to power supply: Connect the white output wire to the red Concorde cable wire and the black output wire to the black cable wire. Connect female cable end to male end coming off of Concorde lamp and tighten collar.

9. Make sure all wire connections are ready and correct.

Light Bar Dimensions

Unit: Inch



All components needed to assemble your fluorescent replacement length are included in the box. Pick the size you want and you'll receive everything you need to assemble the bar.

Item	LED Lamp Cross Reference	Components	Watts (w)	Lumens (lm)	Actual assembled size (in)
HLB-2S24	F24HO	a	8.2	800	21"
HLB-2S30	F30HO	f	11.6	1300	27"
HLB-2S36	F36HO	b	13.5	1350	33.1"
HLB-2S42	F42HO	g	15.2	1800	39.1"
HLB-2S48	F48HO	c	18.8	1900	45"
HLB-2S60	F60HO	b + d	24	2300	57"
HLB-2S64	F64HO	f + h	24.5	2650	61.1"
HLB-2S72	F72HO	c + d	29.5	2850	69"
HLB-2S84	F84HO	b + d + d	34.5	3250	81"
HLB-2S96	F96HO	c + d + d	40	3800	93"
HLB-2S108	F108HO	b + d + d + d	45	4150	105"
HLB-2S117	F117HO	i + i + i	44	4650	114"
HLB-2S120	F120HO	c + d + d + d	50.5	4750	117"
HLB-EQUALIZER		d	10.8	900	23.9"

NOTE: a = 21.0625 inch; b = 33.0625 inch; c = 45.125 inch; d = 23.8125 inch; f = 27 inch; g = 39.1 inch; h = 34.1 inch; i = 37.9 inch

Layout Guidelines

Double-sided light box depth (inch)	Item	Maximum space between bars (inch)	Illuminance (lux) - based on max spacing	Comments
9	Concorde Cabinet System by HanleyLED	8 - 9	1600-2700	Lightbox size: 47" x 67" Tested with 3/16" 7328 white acrylic
12		10-12	1000-2050	
18		12-15	640-1150	
24		12-19	500-950	

Power Supply Load Chart & Cascading (bars in a series) Information Guidelines

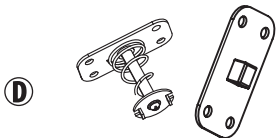
Item	Watts/Bar	Power Supplies (24v)			Cascading/Run Information
		60w H60W-PPS524V	100w H100W-PPS524V	150w H150W-PPS524V	Max Series Wired
Max Number of Concorde Bars Per Power Supply					
HLB-2S24 (F24H0)	8.2w	7	12	18	5
HLB-2S30 (F30H0)	11.6w	5	8	12	4
HLB-2S36 (F36H0)	13.5w	4	7	11	4
HLB-2S42 (F42H0)	15.2	3	6	9	4
HLB-2S48 (F48H0)	18.8w	3	5	7	3
HLB-2S60 (F60H0)	24w	2	4	6	2
HLB-2S64 (F64H0)	24.5w	2	4	6	2
HLB-2S72 (F72H0)	29.5w	2	3	5	2
HLB-2S84 (F84H0)	34.5w	1	2	4	1
HLB-2S96 (F96H0)	40w	1	2	3	1
HLB-2S108 (F108H0)	45w	1	2	3	1
HLB-2S117 (F117H0)	44w	1	2	3	1
HLB-2S120 (F120H0)	50.5w	1	1	2	1

Power Supply Wire Gauge Chart

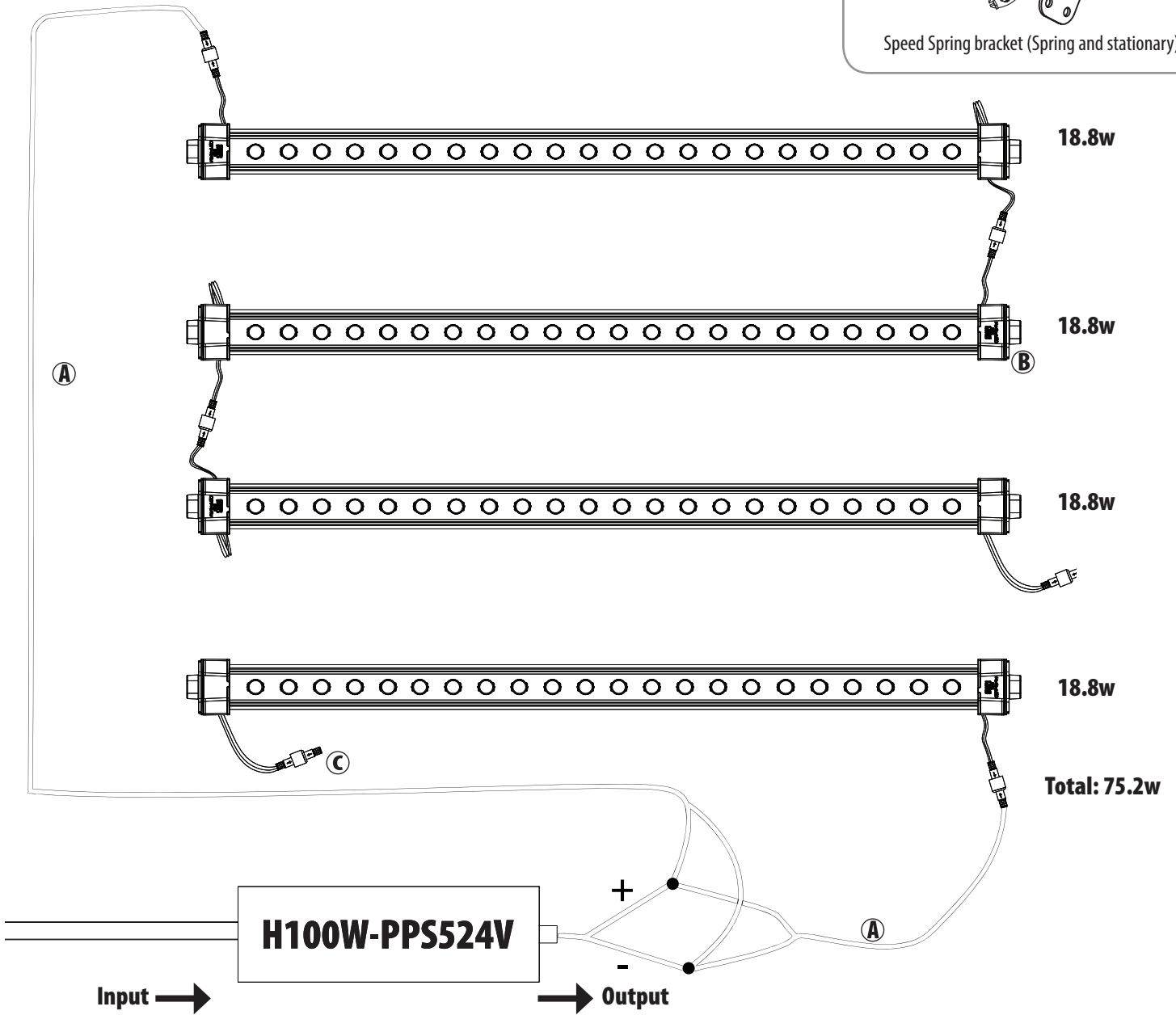
Wire Size	Maximum Distance	
	60W Power	100W Power
Gauge (AWG)	Feet	Feet
18	6.4	/
16	10.2	1.6
14	16.3	2.6
12	26.0	4
10	41.0	6.5
NOTE: Distance from power supply to load at full capacity.		

48" Concorde Cabinet Example (HLB-2S48)

Optional mounting method



Speed Spring bracket (Spring and stationary)



- Ⓐ Concorde Cable Connector
- Ⓑ Retrofit (RF) Connector to mount in HO sockets
- Ⓒ Watertight End Cap
- Ⓓ Speed Spring Bracket Set for alternative mounting method (sold separately)

Warranty

Model No.	Warranty Period
HLB-2S24 · HLB-2S30 · HLB-2S36 · HLB-2S42 · HLB-2S48 · HLB-2S60 · HLB-2S64 HLB-2S72 · HLB-2S84 · HLB-2S96 · HLB-2S108 · HLB-2S117 · HLB-2S120	5 year (product), 5 year (labor)

Note: Above warranty period is only for products which are used inside of waterproof light box, and valid only when used as a system with HanleyLED Premium Power Supplies.

Cautions

Cautions for installation and use:

- Make sure the installing surface is clean and suitable for sticking prior to installation
- Inadequately connecting the '+' and '-' of module to those of power supply output might ruin your product
- Full attention should be paid to wire polarity when connecting two or more strings of the product during installation
- The maximum cascade length is 142inch[3600mm]; not recommended to exceed this cascading length
- Standard operating temperature: -40° to 60°C

Cautions for selection of other parts:

- Please ensure that the output voltage of using power supply is DC (24±5%)V, and the rated power supply is recommended to underload by 20%. (HanleyLED "PPSS" Power Supplies can be loaded to 100% if absolutely needed with no effect to warranty)
- During installation, please ask qualified person to count and select the suitable cable according to the diameter and length of wire when the connecting cable needs to be extended, otherwise, low input voltage to product may occur, or fire hazard due to overheated cable
- Prohibited to use any acid or alkaline glue to fix this product

Troubleshooting

Malfunction & Solutions		
Malfunctions	Possible Causes	Solutions
All LEDs do not work	The power supply did not connect to power grid	Power on
	No electricity due to short-circuit of external power supply.	Remove the malfunction caused by short-circuit, power on again
	The wires of the bar connect to power supply output reversely	Check the connection and ensure the wires are connected correctly
Part of LEDs do not work	Part of power supplies do not have output	Check the power supply system
	Part of the bar wires have malfunction	
Brightness of LEDs is weak or uneven	Overloaded power supply	Replace it with higher power supply
	The power loss of power circuit is huge or the power loss to each existing circuit	Ensure working voltage of bars is within ±5%V of rated voltage. (1.Shorten the length of wires between the first bar and power supply or replace with wires with bigger diameter; 2. Ensure the cascading qty of string is less than or equal to the allowed maximum cascading qty, and each bar cascading qty is well-balanced.)
	Too many bars in series/cascade	Lessen the cascading qty for bar and ensure the qty for each electrical circuit is within the maximum cascading qty
LEDs are blinking	Poor wiring connections	Check all wiring connections immediatly
	Failures in power supply	Replace power supply

WARNING – Risk of fire or electric shock. LED Retrofit Kit installation requires knowledge of sign electrical systems. If not qualified, do not attempt installation. Contact a qualified electrician.

WARNING – Risk of fire or electric shock. Install this kit only in host signs that have been identified in the installation instructions and where the input rating of the retrofit kit does not exceed the input rating of the sign

WARNING – Risk of fire or electric shock. Installation of this LED retrofit kit may involve drilling or punching of holes into the structure of the sign. Check for enclosed wiring and components to avoid damage to wiring and electrical parts.

WARNING – To prevent wiring damage or abrasion, do not expose wiring to edges of sheet metal or other sharp objects.

Do not make or alter any open holes in an enclosure of wiring or electrical components during kit installation.

Only those open holes indicated in the photographs and/or drawings may be made or altered as a result of kit installation.

Repair and seal any unused openings in the electrical enclosure. Openings greater than 12.7 mm (1/2 in.) diameter require a metal patch secured by screws or rivets and caulked with non-hardening caulk. Smaller openings may be sealed with non-hardening caulk.

Customer service and technical support

🌐 principalsloan.com

📞 325.227.4577

📍 3490 Venture Dr., San Angelo, TX 76905

