



**RETROFIT SIGN CONVERSION LED KIT
FOR USE ONLY IN ACCORDANCE WITH
KIT INSTRUCTIONS
43KR**



SYSTEM 100 INSTALLATION MANUAL

NOTICE TO DISTRIBUTORS: When provisioning an LED Kit for a customer, include a copy of this installation sheet and only provide items specified in this manual. No substitutions allowed. Customer need only follow instructions in this installation sheet to assure that converted sign meets UL requirements for retrofit sign conversion.

KIT INSTRUCTIONS: HOW TO RETROFIT AN EXISTING SIGN:

CAUTION: Disconnect all power to the sign before beginning conversion to the Venbrite Led System.

1. Remove channel letter face.
2. Install a disconnect switch if missing.
3. **For Neon Signs** (including raceway & remote mounted transformer applications): Carefully remove neon tubing, tube supports, GTO wire**, bushings, PK housings (if used) and transformers. Leave transformer box & conduit in remote transformer applications.
For Fluorescent Signs: Carefully remove fluorescent tubes, tube supports, wire covers, output wiring and Ballasts.
For LED Signs: Carefully remove power supplies, LED drivers, LED modules, arrays and output wiring.
NOTE: Comply with all applicable federal and local regulations when disposing of channel letter neon, Fluorescent or LED lighting system components.
4. Remove all debris from the sign. Clean the application surface of the sign interior with an oil-free, non-residue solvent or cleaner, following manufacturer's directions. Any residue can interfere with proper adhesion of the VHB tape affixed to the LED module back.
5. Inspect the sign interior for holes. Fill openings 1/2 inch or smaller with rated caulk or silicone, following manufacturer's directions. Use a metal patch secured with screws or rivets on larger openings or holes. Do NOT fill drain holes.
6. Install Venbrite LED System as instructed in this Installation Manual.

**** ALTERNATE CONSTRUCTION FOR RETROFIT SIGN CONVERSION LED KIT**

Neon Sign conversion to the Venbrite® LED system may also use the following retrofit option where existing GTO wire, either in a raceway or remote neon transformer application, may be used to provide the electrical connection between LED strings or LED Driver output.

1. If the existing GTO wire in the sign has an outside diameter, over insulation, less than or equal to 5/16 in (0.312 in) then it can be used in retrofit.
2. Follow instructions 1-5 above for converting a Neon sign, except that GTO wire is not removed. For remote application, use the existing transformer box, conduit & GTO wire. Mark both ends of GTO wire(s) to provide polarity identification. This will save time when installing the Venbrite® system. Polarity must be observed. Note that the Venbrite® LED system is protected for reverse polarity, so installing with incorrect polarity can easily be remedied.
3. Install the Venbrite® LED System as instructed in this Installation Manual. For remote application, install Venbrite® driver in the transformer box. Prepare the GTO & Venbrite® L.V. LED wire ends for connection as shown below. Note that the L.V. LED wire is stripped longer than GTO wire, brought over & twisted around the stripped GTO wire before inserting into wire nut
4. Observing polarity, connect output leads of the Venbrite® driver to the GTO wire. Connect the LED string wires to the GTO wire using Ventex Wire Nut P/N: VA-WN02 or Ideal Industries Inc (E163183) wire connector cat no. #30-x62 (where 'x' = package style). Confirm Polarity is correct.

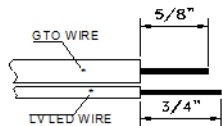


Fig. 5

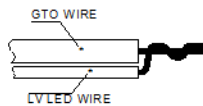


Fig. 6

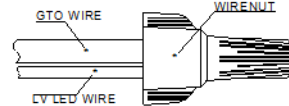


Fig. 7

Thank you for purchasing the Venbrite® LED SYSTEM. For proper installation and operation please read the following directions and tips carefully. It is the user's responsibility to ensure installation complies with national and local electrical codes.

Drivers: VLP100-120 // VLP100-277
VLP100D-U
Strings: VL-x100 // x100N // x100NS
Series-driven, constant current led system for signage
x = LED Color
W=White // CW=Cool White // WW=Warm White
G=Green // B=Blue // R=Red // A=Amber

SPECIFICATIONS

LED DRIVER:	VLP100-120	VLP100-277	VLP100D-U
Input Voltage, (50/60Hz)	120V _{AC} (+/- 10%)	277V _{AC} (+/-10%)	100V _{AC} – 277V _{AC} (+/-10%)
Input Current @ Max Load	0.5A _{RMS}	0.25A _{RMS}	0.5A _{RMS} @ 120V _{AC}
Power Factor	0.95 min	0.90 min	0.95 min
Input Conduit Connection	1/2in Conduit Thread (12.7mm)		
Input Leads - L(Blk), N(Wht), E(Grn)	18 AWG 18" (0.46M) - UL1015		
Input Surge Protection	Varistor Type		
Output Voltage	0-400 V _{DC} (+/- 200V _{DC} max to Gnd)		
Output Current (Line & Load Regulated)	125mA _{DC} (Factory Set)		
Dimming Output	N/A		50% (see #16)
Output Leads (+ pos & - neg)	18 AWG 18" (0.46M) - VA-W02 (+Red) VA-W00 (-Blk)		
Maximum LED Modules (ft) per Driver: For x: W=white, CW=cool white, G=green, B=blue, A=Amber	VL-R100	150 modules (75ft)	
	VL-x100	120 modules (60ft)	
	VL-R100N	150 modules (50ft)	
	VL-x100N	120 modules (40ft)	
	VL-R100NS	135 modules (45ft)	
VL-x100NS	105 modules (35ft)		
Minimum LED Modules per Driver:	1 LED Module (all colors)		
Accessory: LED Wire	P/N= VA-W09 (18 AWG, 600V, WHT, VW-1)		
Accessory: Wire Nut	P/N= VA-WN01 or VA-WN02		
Built-In Protection:	GFI, Open & Short Circuit, Overload, Reverse Polarity		
Driver Size: LxWxH (cm) / Wt	4.85" x 2.0" x 1.45" (12.4cm x 5.0cm x 3.7cm) / 12.5oz (350g)		
Agency Approvals & Compliance:	E324241	E329929 43KR	RoHS Compliant
	Operating Temperature -30°F to 122°F (-34°C to 50°C) When Operating at Ambient Temperatures Higher than Above Limit, Reduce Load by 10% for each 9°F (5°C) Ambient Rise		

