



Installation Guide for Channel Letters and Box Signs

ILT-1X3-W65-160

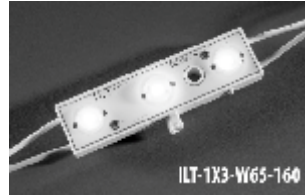
ILT INNOVATIONS

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ILT-1X3-W65-160 Mounted to K2 Rail



ILT-1X3-W65-160

Channel Letter Layout Density Guidelines

Module Type	Letter Height	LED Color	Stroke Width	Can Depth	Lineal Density	Standard Face	Translucent Vinyl	Perforated Vinyl	Max Coverage Per Row
	inches		inches	inches	modules / ft	inches on center	inches on center	inches on center	inches
ILT-1X3-W65-160-W	10" & up	White	0-10	5	2	6	6	6	10
ILT-1X3-W65-160-W	10" & up	White	0-5	2	2.5	4.5	4.5	4.5	5

Box Sign Layout Density Guidelines

Module	Distance from Back of Sign Face to Face of Module.	Spacing on ILT-RAIL-K2-96 Rail on center	Spacing of rows on Center
ILT-1X3-W65-160	3"	5.5"	4.5"
ILT-1X3-W65-160	4"	5.5"	5.5"
ILT-1X3-W65-160	5"	6"	6"
ILT-1X3-W65-160	6"	6"	7"
ILT-1X3-W65-160	7"	6"	8.25"
ILT-1X3-W65-160	8"	6"	10"
ILT-1X3-W65-160	9"	6"	10"
ILT-1X3-W65-160	10"	6"	10-12"

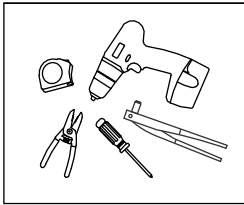


Suitable for Wet, Damp and Dry locations

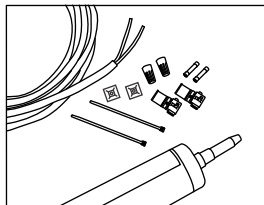
Power Supply Guidelines

K2 "Summit" Series	Operating Voltage (v)	Power Dissipation (W)	Peak wavelength (nm)	Viewing angle	Luminous flux/ ft (lm/ft)		Modules/ foot	LED quantity (pc/module)	Qty on 60W power supply	Measure (LxWxH)
					min	max				
ILT-1X3-W65-160	12	1	6500k	164.7	190	210	2	3	60 or 30ft	2.7"x.7"x.4"

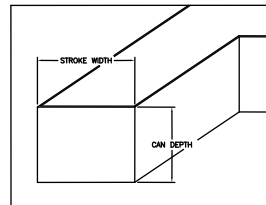
Channel Letters Install



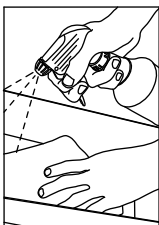
1. Tools Required:
Measuring tape, wire strippers, drill, screwdriver & pop-rivet gun



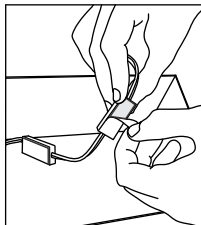
2. Supplies Required:
UL approved 18 AWG supply wire nuts, IDC connectors, (optional) butt connectors, strain relief & zip-tie and silicone



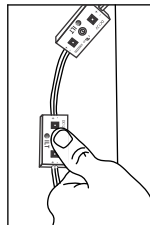
3. Layout:
Noting Can depth, stroke width and face material, use layout guidelines and power supply guidelines to determine spacing and amount of LEDs required. (guidelines are only an approximation of ILT's sign modules required)



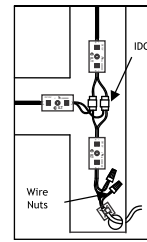
4. Clean Channel Letter: Clean inside the letter with rubbing alcohol and allow to dry.



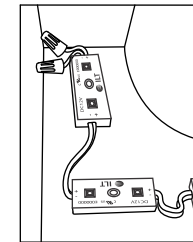
5. Peel and Stick: Using predetermined layout and LED placement from step 3, remove tape backing and stick modules into place. Ensure modules are firmly attached.



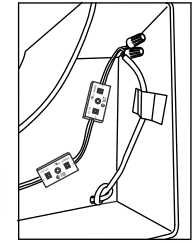
6. Fasteners: If desired, modules can be secured with #4 counter sink sheet metal screws and 3/16" aluminum rivets. **Note:** If fasteners are used, insert from the top of the module ONLY.



Warning! Check Polarity:
All connections must be positive to positive, negative to negative. Reverse polarity connections may damage the LEDs and will void the product warranty.



8. Cap all Unused Wires:
The strand of modules should not be looped to create a closed circuit.



9. Connect Power Supply to First Module on String: See Power Supply Installation Guide for more information regarding power supply installation. **Note:** for use only with Class 2 or LPS power source

7. Connections: Modules may be connected in series or parallel with wire nuts, IDC connectors or butt splice connectors.

Box Sign: Installing the K2 Module onto the K2 Aluminum Rail



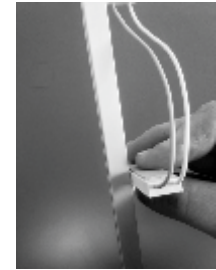
TurnLoc Pin on Module



Align Turnloc Pin & insert into K2 Rail



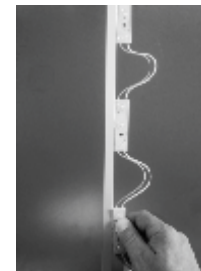
Push Turnloc Pin completely into K2 Rail



Start to turn K2 Module



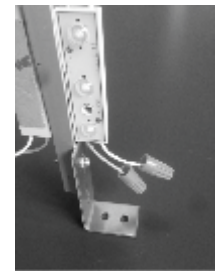
Continue to turn K2 Module



K2 Module Locks into place. Continue that process for the rest of the modules



K2 Rail connector increases 8ft length of rails to desired lengths (lengths over 12ft must be mounted vertically)



Aluminum clip mounts rail to sign cabinet base

Troubleshooting:

Entire sign or leg does not light after complete installation.	Check connection from power supply lead to first module. Make sure polarity of connections made at the power supply lead and any jumper wire is correct. Power supply outputs should be connected positive to positive, negative to negative
Still does not light.	Check output voltage of power supply using a voltmeter. The output voltage should be 12.0VDC ± 0.5VDC. If there is no output voltage, have a licensed electrician check input voltage. Make sure power supply is connected correctly and getting primary power. If power supply is connected properly and getting primary power and there is still no output voltage, try a different power supply.
Still does not light.	If power supply is getting primary power and the modules don't light, there may be a short in the secondary wiring. Check all connections and cap all loose wires.
The beginning of a leg lights, but the entire leg does not light or lights intermittently.	The primary cause of a portion of a modules leg not lighting or lighting intermittently is a bad connection or reverse polarity connection between the modules that light and the modules that don't light. Check this connection.
Modules are dim.	Ensure maximum number of feet has not been exceeded (see Power Supply Capacity Chart). Check secondary voltage. If voltage is below 11.5VDC, power supply leg may be overloaded.
One module does not light, but all others in the leg light.	Module are designed so if one module fails, it will not cause the entire sign or leg to go out. If one module does not light, but all others in the leg do, replace this module with a new one.

⚠ Warning Risk of electrical shock. Turn power OFF before inspection, installation or removal.