

LOW VOLTAGE CONTROLLER

for Multi-Function Luminaires

LVC/LVCS SERIES

PRODUCT FEATURES:

- » Allows for low-voltage control of Kenall luminaires via patient hand-held device, bed side rail controls, or wall control such as Kenall MPWS series.
- » Specifiable input/output configurations with individual- or sequential-control programs available
- » Four-function control: designed to operate up to three separate LED loads plus LED night light
- » Solid-state design for improved reliability and response time over typical relay-based low-voltage controllers

SPECIFICATIONS

ELECTRICAL: Low-voltage 12VDC input, powered by an isolated auxiliary supply from luminaire's integral constant-current LED driver. 1.2W maximum. Controller does not provide line voltage switching. When ordered in conjunction with an LED night light (option codes NLW, NLA), this controller also provides power to the night light LED module via on-board DC-DC driver circuit.

OPERATION: Works in conjunction with luminaire's dim-to-dark 0-10V drivers to provide 100%/0% output control of up to three (3) LED lamp functions based on momentary close input signals from external control devices. Dimming of LED light sources in between 100% and 0% output is not available (see LVCD option if required). When ordered in conjunction with an LED night light option, subsequent short presses from the corresponding signal input will cycle the night light output level between 12%, 50%, 100% and 0%.

CONTROL MODE CONFIGURATION: Kenall's LVC is factory programmed to operate in either Individual or Sequential Control Modes. Please use the included Configuration guides for further description of these Modes as well as for specification of the desired input/output assignment.

INSTALLATION: The LVC will arrive installed within the Kenall luminaire as specified per the selected Configuration. The contractor will be responsible for connecting the low voltage wiring (Class 2) to the LVC in accordance with the applicable electrical code(s). A low voltage wiring diagram will be supplied with the fixture and will match the specified Configuration.

PATENT: U.S. Patent Nos. 9,320,117, 9,951,723, 9,814,118 and 10,149,368.

LISTINGS: UL/cUL Recognized Component per UL8750.

PROJECT INFORMATION

Job Name _____

Fixture Type _____

Catalog Number _____

Approved by _____



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LVC-052523

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Individual Mode

Individual Mode allows for the control of up to three (3) LED lighting functions plus an integral LED night light (if ordered) via independent low-voltage, momentary-close switches. See Table 1 for input and output mapping. See Figures 1 and 2 for graphical representation of input and output mapping examples.

Lighting Output Level and Switching Sequence				
Switch Input	First Toggle	Second Toggle	Third Toggle	Fourth Toggle
1	Load A 100%	Load A 0%	-	-
2	Load B 100%	Load B 0%	-	-
3	Load C 100%	Load C 0%	-	-
4	Night Light 12%	Night Light 50%	Night Light 100%	Night Light 0%

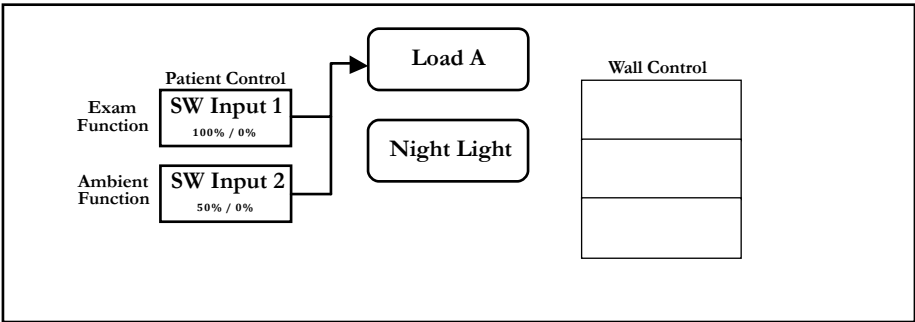


Figure 1: Individual Load, Single Button Patient Control and No Wall Control

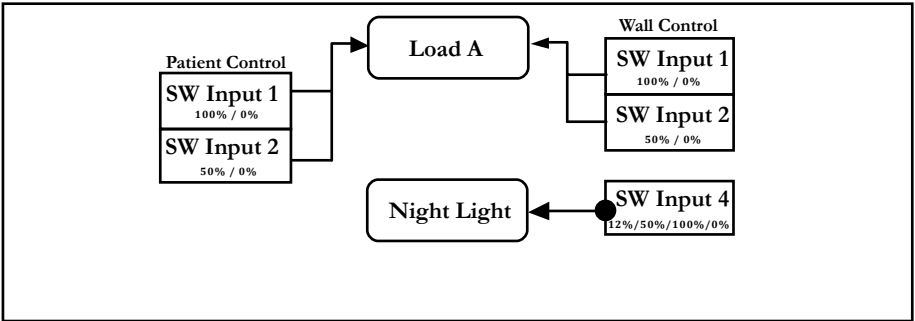


Figure 2: Individual Load, Two-Button Patient Control and Four Button Wall Control



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Configuration Guide - Individual Mode

This LVC Configuration Guide should be used to properly configure the operating mode and wiring of the LVC with respect to the luminaire's operational functions. See the table below for luminaire description codes.

	[Load A]		[Load B]		[Load C]		[Night Light]		Configuration Number
Individual	A	/	R	/	—	/	—		F-8063

Control Specification

Select Loads and Control Mode [Input luminaire codes]

☐ Load A Luminaire (required)

☐ Load B Luminaire

☐ Load C Luminaire

☐ Night Light*
*if ordered with NLANLW options

A	Ambient Light
CL	Chart Light
E	Exam Light

NL	Night Light
R	Reading Light

Standard LVC Configurations - Individual Mode

Please match up the following Configuration Number (F-xxxx) associated with the desired Control Specification from above. Then, please add this Configuration Number to the end of the luminaire catalog description.

Description: [SW1] / [SW2] / [SW3] / [SW4]

INPUT / OUTPUT CONFIGURATION				CONFIGURATION NUMBER
[SW1]	[SW2]	[SW3]	[SW4]	
A	-	-	-	F-8060
A	R	-	-	F-8063
A	R	E	-	F-8066
A	R	E	NL	F-8075
A	R	-	NL	F-8072
A	E	-	-	F-8062
A	E	R	-	F-8068
A	E	R	NL	F-8077
A	E	-	NL	F-8071
A	-	-	NL	F-8069
NOTE: For custom configurations, consult factory.				

INPUT / OUTPUT CONFIGURATION				CONFIGURATION NUMBER
[SW1]	[SW2]	[SW3]	[SW4]	
R	-	-	-	F-8061
R	A	-	-	F-8064
R	A	E	-	F-8067
R	A	E	NL	F-8076
R	A	-	NL	F-8073
R	E	A	-	F-8065
R	E	A	NL	F-8074
R	-	-	NL	F-8070
NOTE: For custom configurations, consult factory.				

Signature: _____

Name: _____ Date: _____

PO#: _____ Fixture Type: _____

Configuration Number: _____

****By signing this, the signee gives approval of the above configuration for the LVC driver. The order will not be processed unless signed.**



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Sequential Mode

Sequential Mode allows for the control of two (2) LED lamping functions via single low-voltage switch, one (1) individually-controlled LED lamp function via 2nd switch and an integral LED night light (if ordered) via 3rd switch. Trigger of operation is via low-voltage, momentary-close switches. See Table 2 for input and output mapping. See Figures 3 and 4 for graphical representation of input and output mapping examples.

Lighting Output Level and Switching Sequence				
Switch Input	First Toggle	Second Toggle	Third Toggle	Fourth Toggle
1	Load A 100% / Load B 0%	Load A 0% / Load B 100%	Load A 100% / Load B 100%	Load A 0% / Load B 0%
2	(Not Connected)			
3	Load C 100%	Load C 0%	-	-
4	Night Light 12%	Night Light 50%	Night Light 100%	Night Light 0%

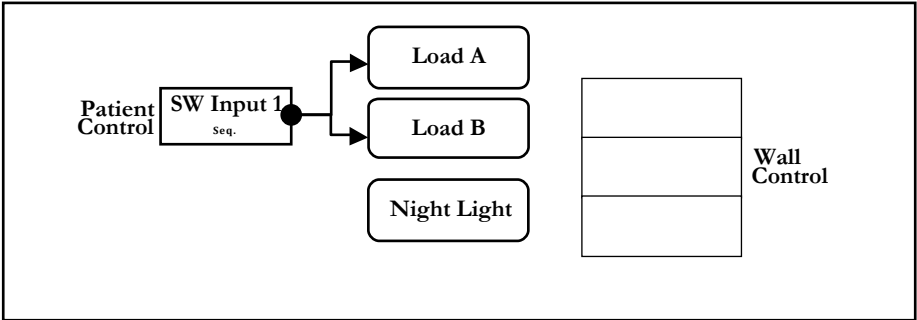


Figure 3: Sequential Load, Three-Button Patient Control and No Wall Control

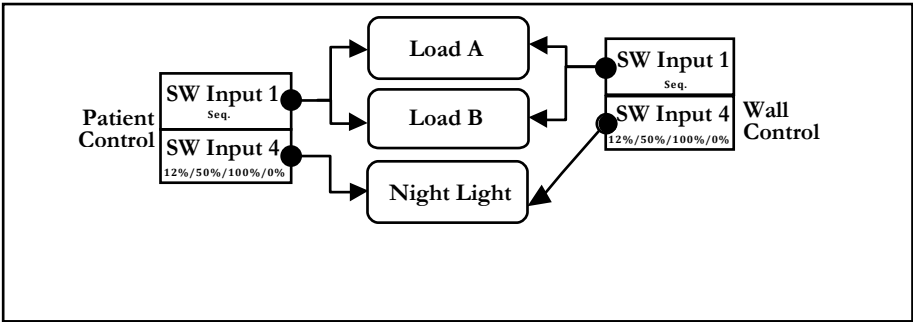


Figure 4: Sequential Load, Two-Button Patient Control and Three-Button Wall Control



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Configuration Guide - Sequential Mode

This LVC Configuration Guide should be used to properly configure the operating mode and wiring of the LVC with respect to the luminaire's operational functions. Please see the table below for luminaire function description codes.

	[Load A + Load B]	[Load A]	[Load C]	[Night Light]	Configuration Number
Sequential	A + R	—	—	—	F-8030

Specification

Select Loads and Control Mode [Input luminaire codes]

	Load A Luminaire (required)	<table><tr><td>A</td><td>Ambient Light</td></tr><tr><td>CL</td><td>Chart Light</td></tr><tr><td>E</td><td>Exam Light</td></tr></table>	A	Ambient Light	CL	Chart Light	E	Exam Light	<table><tr><td>NL</td><td>Night Light</td></tr><tr><td>R</td><td>Reading Light</td></tr></table>	NL	Night Light	R	Reading Light
A	Ambient Light												
CL	Chart Light												
E	Exam Light												
NL	Night Light												
R	Reading Light												
	Load B Luminaire (required)												
	Load C Luminaire												
	Night Light* *if ordered with NLANLW options												

Standard LVC Configurations - Sequential Mode

Please match up the following Configuration Number (F-xxxx) associated with the desired Control Specification from above. Then, please add this Configuration Number to the end of the luminaire catalog description.

Description: [SW1] / [SW2] / [SW3] / [SW4]

CONFIGURATION NUMBER	INPUT / OUTPUT CONFIGURATION			
	[SW1]	[SW2]	[SW3]	[SW4]
F-8030	A + R	-	-	-
F-8031	R + A	-	-	-
F-8032	A + E	-	-	-
F-8033	A + R	A	E	-
F-8034	A + R	-	E	-
F-8054	A + R	-	-	NL
F-8055	R + A	-	-	NL
F-8056	A + E	-	-	NL
F-8057	A + R	A	E	NL
F-8058	A + R	-	E	NL
NOTE: For custom configurations, consult factory.				

Signature: _____

Name: _____ Date: _____

PO#: _____ Fixture Type: _____

Configuration Number: _____

****By signing this, the signee gives approval of the above configuration for the LVC driver. The order will not be processed unless signed.**



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