

Vx Aviation

IL-6A

6-Channel Annunciator Lamp Controller

Installation Guide

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IL-6A

Annunciator Lamp Controller

Description

The IL-6A device is an annunciator lamp controller for aircraft applications. It simplifies the wiring of annunciator lamps by providing a convenient way of providing the lamp test function and dimming for night operations. It drives up to six incandescent or LED lamps while sensing either active high or active low inputs.

Five of the lamp channels (AL, BL, CL, DL, EL) support both active high (A through E, respectively) or active low (A/ through E/, respectively). One channel (FL/) supports two active high inputs (F1 and F2) and two active low inputs (F1/ and F2/, which is useful when monitoring motor circuits that can reverse polarity).

An external lamp test switch (the ALL/ input) facilitates lamp testing and setting of dimmer voltages.

Dimming is supported via an automatic power switching circuit. Switched primary power is connected to the P1 input and unswitched dimmer power is connected to the P2 input. The lamp bus power is taken from the PL output.

All of the electronics are contained in a 25-pin D-subminiature connector backshell, making the device compact, light and easy to install.

Technical Summary

- ❑ Sense inputs:
 - ❑ Seven active low
 - ❑ Seven active high
- ❑ Lamp outputs:
 - ❑ Six active low (switched to ground), capable of up to 100 mA drive current each
 - ❑ Drives incandescent or LED lamp modules. LED lamps with internal ballast resistors are recommended
- ❑ Lamp test function
- ❑ Supports external lamp dimmer

**Devices and all associated documents supplied by MakerPlane on behalf of Vx Aviation.
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www.tapr.org/OHL**

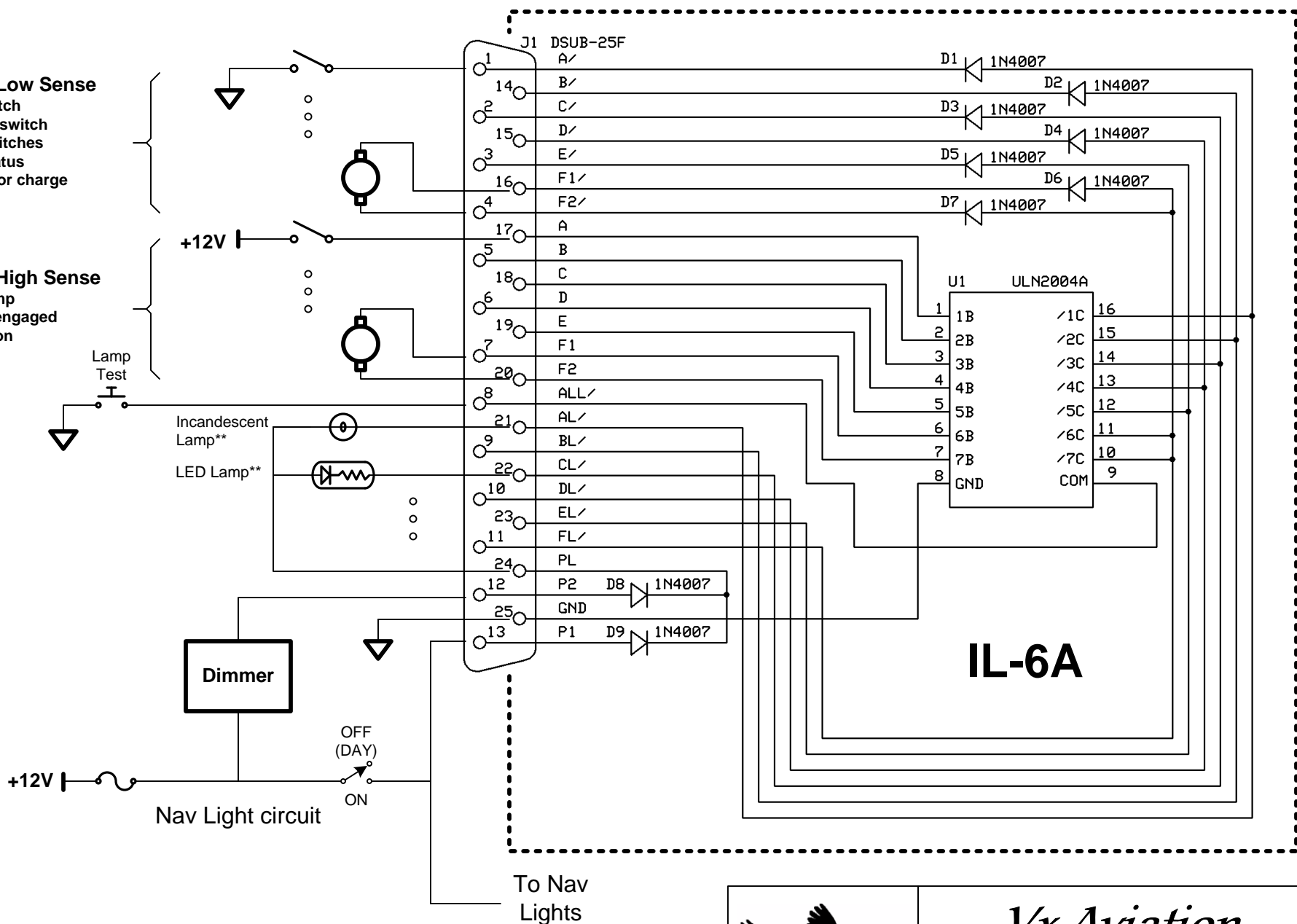
NOT FOR USE IN CERTIFIED AIRCRAFT

Active Low Sense

- flap switch
- canopy switch
- gear switches
- pitot status
- alternator charge
- motors*
- ...

Active High Sense

- fuel pump
- starter engaged
- smoke on
- motors*
- ...




Notes:

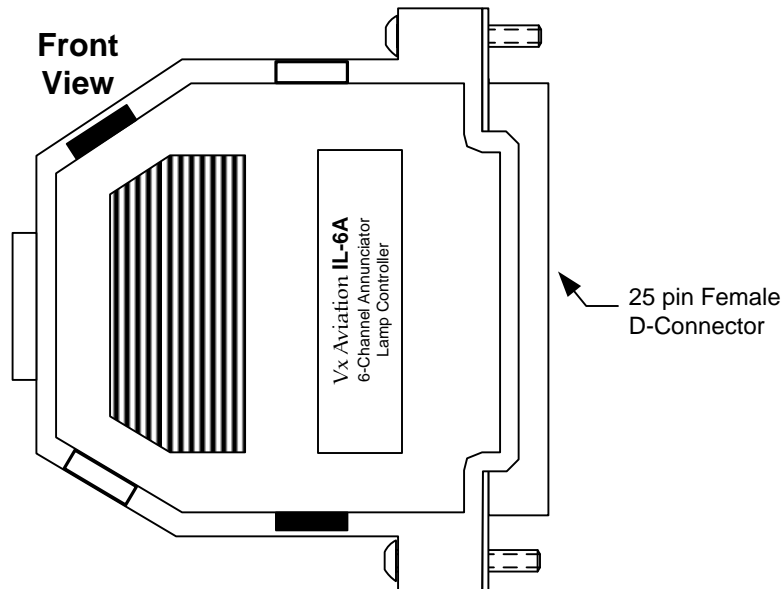
* Motor driver circuits may disconnect motor terminals when idle, or connect both of them to +12V or both of them to ground for active braking. Choose the appropriate circuit connection as required using (F1, F2) or (F1/, F2/).


**Incandescent Lamp example: Aircraft Spruce # 17-410

**LED lamp module example : Aircraft Spruce 11-06000 or IDEC AL6H-P3-R. IDEC also makes combined switches and lamps, such as the AL6H-M13-R which is useful as a lamp test switch.

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Drawn	V. Little	DWG NO	REV
Date	2013.03.25	VXD-1303001	A1
SCALE	None	SHEET	3 OF 4

Electrical Specifications Over Ambient Temperature Range						
Parameter	Function	Min	Typ	Max	Units	Notes
T_A	Ambient Operating Temperature	-40	25	50	Degrees Celcius	Non-condensing
V_{CC}	Operating Voltage on P1 or P2 inputs		14.2		Volts DC	Practical limit set by lamp requirements
V_{in}	Input voltage	-1		18	Volts DC	
I_{CC}	Current Drain, P1 or P2 inputs			600	mA DC	Total of all lamp current
I_{inl}	Input Current, Active low		-100		mA	Input current determined by lamp load
I_{inh}	Input Current, Active high		2.0		mA	@ 14.2 Volts
I_{all}	ALL/ input current			600	mA	With incandescent lamp load



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