APPLIED CONCEPTS INC.
397 Route 281 - P.O. BOX 1175
Tully, New York 13159-1175
Phone: (315) 696-6676 Fax: (315) 696-9923
www.acipower.com

ACJ-B1-1522

CCFL INVERTER

02/28/05

(For Dual Tube Applications)

GENERAL DESCRIPTION

The ACJ-B1-1522 is designed to power 2 CCFL's at a nominal power level of 5 watts from an input voltage of 12V

Intensity control (0-100%) is accomplished by the user providing an active low signal to the up or down buttons controls lines on CON1, Pins 6+7

Voltage(+5V) is available @ pin 8 of CON1 for external use.
Enable control is accomplished @ pin 5 of CON1.
This unit will remember the last brightness setting upon power up

All outputs are open and short circuit protected.

MECHANICAL / ENVIRONMENTAL

Weight = 21.5 grams

Altitude = 10,000 Ft maximum

Humidity < 85% non-condensing

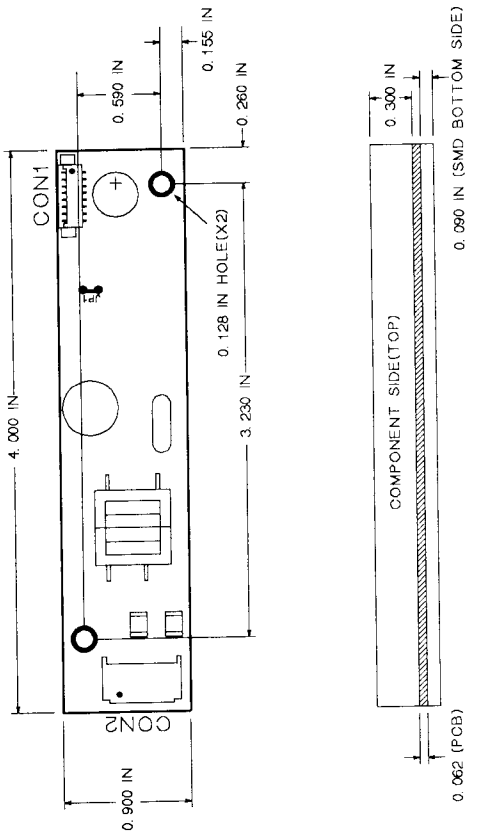
Size (L x W x H) = 4.0 IN x 0.9 IN x 0.452 IN

PCB thickness = 0.062 IN

Mounting Holes = 0.128 IN diameter (X2)

Input Power & Control Connecter = CON1

CCFL Output Connecter = CON2



INPUT CONNECTOR
CON1
MOLEX 53261-0890

PIN #	FUNCTION
1	+12V(PWR)
2	+12V(PWR)
3	GND(PWR)
4	GND(PWR)
5	ENABLE
6	DOWN-BUTTON
7	UP-BUTTON
8	+5V OUT

OUTPUT CONNECTOR
CON2
JST SM03(4.0)B-BHS-1-TB

PIN #	FUNCTION
1	CCFL COMMON
2	CCFL 1
3	CCFL 2

APPLIED CONCEPTS INC.
397 Route 281 - P.O. BOX 1175
Tully, New York 13159-1175
Phone: (315) 696-6676 Fax: (315) 696-9923
www.acipower.com

ACJ-B1-1522

MAXIMUM RATINGS*

2/28/05

Symbol	Parameter	Value	Unit
Vin	Supply Voltage (Referenced to Ground)	-0.7 to 13.5	Vdc
Vip	Voltage applied to any Input Pin (Referenced to Ground)	-0.7 to 5.7	Vdc
Iop	Current sourced or sinked from any Output Pin	+/- 10	mAdc
Pin	Input Power (DC Input Voltage x DC Input Current)	7	W
Top	Operating Temperature (Still air ambient around Inverter)	-20 to +70	DegC
Tstg	Storage Temperature	-40 to +105	DegC

* Maximum Ratings are those values beyond which damage to the inverter may occur

RECOMMENDED OPERATING CONDITIONS

Symbol	Parameter	Min	Max	Unit
Vin	Supply Voltage (Referenced to Ground)	10.8	13.2	Vdc
Lsv	Cold Cathode Flourescent Lamp Sustaining Voltage	385	635	Vrms
Bstep	Brightness Control steps (Duty cycle%= Bstep/255*100)	0	255	Steps

ELECTRICAL CHARACTERISTICS

Vin = +12V, Lsv = 510Vrms, Enable =+5V , unless otherwise specified

Symbol	Parameter	Test Conditions	Min	Max	Unit
Lstart	Lamp Starting Voltage		1300		Vrms
Lout	Lamp Output Current		4.5	5.5	mArms
Lfreq	Lamp-Current Frequency		34	43	Khz
Pdc	PWM Duty Cycle Range		0	100	%
ENoff	Enable Control, unit OFF (Pin 5)			0.8	Vdc
ENon	Enable Control, unit ON (Pin 5)		2.0		Vdc
UP	Up button brightness control @ Pin7	Active		0.8	Vdc
		Inactive	2.0		Vdc
Down	Down button brightness control @ Pin6	Active		0.8	Vdc
		Inactive	2.0		Vdc
+5Vout	+5Vout reference @ (Pin 8)	10k load to gnd	4.6	5.3	Vdc
Iin	Input Current Draw			0.53	Adc
Eff	Electrical Efficiency		90		%