

MODEL SSI-104VC-1:

SINGLE CHANNEL DUAL SYNCHRONOUS OUTPUT STROBE POWER SUPPLY

Electrical Specifications:

Output Current:	16.5 Amps total output
Output Voltage:	Adjustable 8-23.5V
Voltage Control (for intensity adjustment):	Two ranges 0-5V and 0-10V (user selectable)
Voltage control input impedance:	20 kohm
Maximum input voltage:	+20V, -10V
Voltage control input cutoff frequency:	7 Hz
Pulsewidth:	Adjustable 10-350 usec (shorter or longer pulsewidths available, consult Metaphase for details)
Pulsewidth Repetition Rate:	0-60 Hz (external trigger)
Internal Test PRF:	30Hz
Input Voltage:	120/240 VAC +/-10%; 50/60 Hz
Power Consumption:	Less than 30 Watts
Operating Temp. Range:	0 to 40 deg. C
Storage Temp. Range:	-20 to 85 deg. C
External Trigger:	TTL Compatible; Rising or Falling Edge, Open Collector
Synchronization Output:	TTL Positive-going; pulsewidth same as optical pulse
Output Protection:	Resettable fuse for short across output terminals or from either terminal to ground

Front Panel:

Intensity Knob:	Ten-turn potentiometer for intensity adjustment
Pulsewidth Knob:	Ten-turn potentiometer for pulsewidth adjustment
Rise/Fall Select Switch:	Allows triggering on the rising or falling edge of trigger waveform
Run/Test Select Switch:	Selects between a free-running 'TEST' mode (which pulses the output at 30pps) and the 'RUN' mode (where the output pulses via external trigger)

Rear Panel:

Control Voltage Internal/External Switch:	Allows the intensity to be controlled from the front panel knob or from a voltage supplied to the I/O connector on the rear panel.
Control Voltage Range Select Switch:	Allows the external control voltage range to be set to 0-5V or 0-10V



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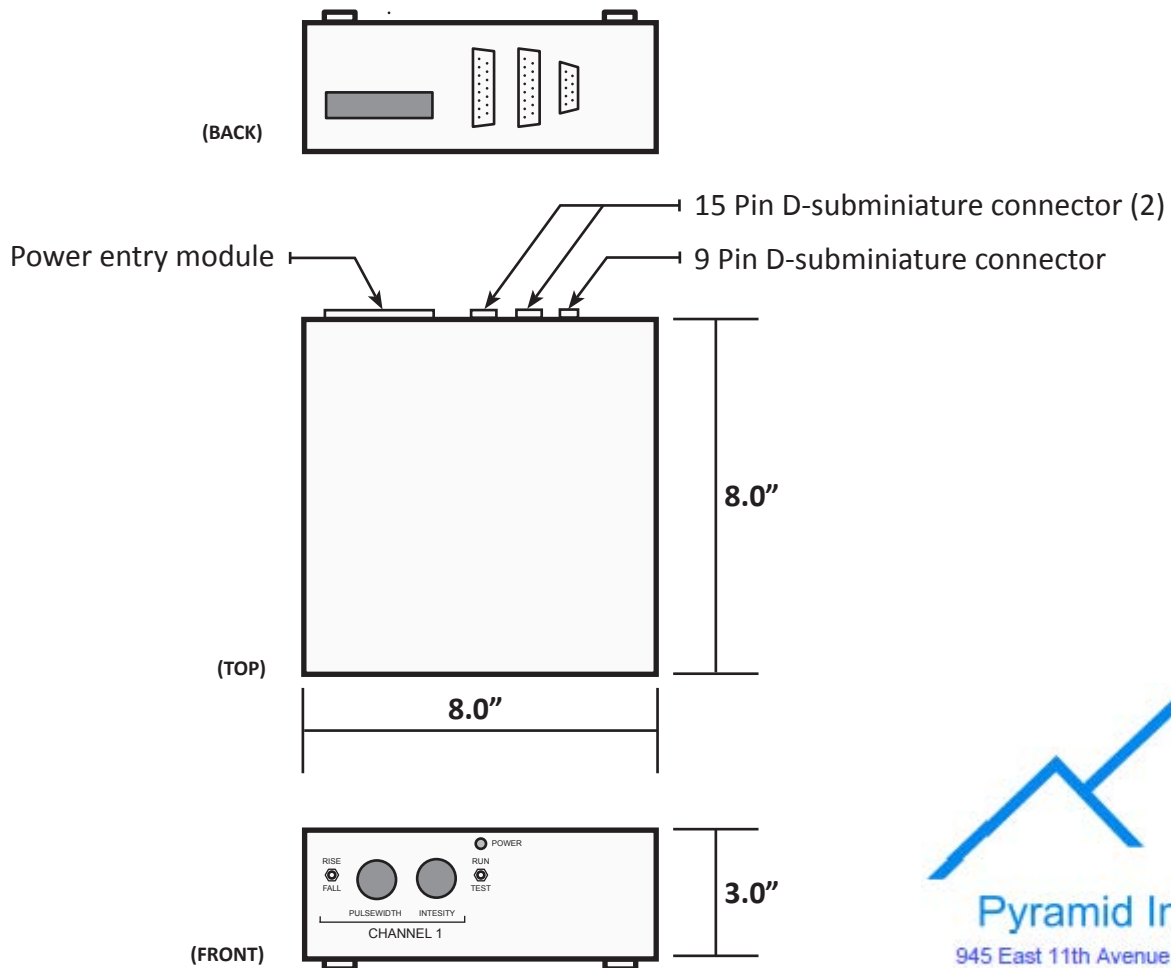
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I/O Connector:	9 Pin D-subminiature used for trigger input, synchronous output, and control voltage input.
Output Connectors:	(2) 15 Pin D-subminiature, OUTPUTS ARE SYNCHRONOUS
Power Entry Module:	UL/CSA/VDE rated DPST power switch with double 5x20 mm fuse-holder, 0.5A, 250V, SLO-BLO

Dimensions: L (8.0") x W (8.0") x H (3.0")



Data and specifications are subject to change without notice.

To request additional information, please contact **Metaphase Technologies, Inc.** at **215-639-8699**.

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OPERATING INSTRUCTIONS:

1) IMPORTANT!!! *VERIFY THAT THE LINE VOLTAGE SELECTOR ON THE POWER ENTRY MODULE IS SET TO THE PROPER VOLTAGE RANGE FOR THE AC MAINS.***** IF IT IS NOT SET CORRECTLY, SET THE LINE VOLTAGE SELECTOR TO THE PROPER VOLTAGE RANGE BY PERFORMING THE FOLLOWING STEPS:

- REMOVE THE FUSEHOLDER BY INSERTING A SMALL SCREWDRIVER INTO THE SLOT AND PRYING OUTWARD.
- SLIDE THE VOLTAGE SELECTOR OUT OF THE TRACK, FLIP IT, AND REPLACE (THE CORRECT VOLTAGE RANGE "100V-120V" OR "200V-240V" SHOULD BE VISIBLE IN THE FUSEHOLDER WINDOW).
- REPLACE THE FUSEHOLDER.

Plug the IEC-320 end of the AC cord into the power entry module on the rear of the unit, and the plug into the mains.

2) Attach the output cable(s) to the LED head(s), and to the 15 pin D-sub. output connector(s). For operation of a single LED head, either output can be used.

3) If the unit is to be controlled remotely (intensity), connect the remote control voltage source to the "CONTROL VOLT 1" input on the 9 pin I/O connector on the rear panel (see 9 pin I/O connection diagram for pin assignments). Place the INTENSITY CONTROL toggle switch located on the rear panel to the EXT position. Place the RANGE SELECT toggle switch located on the rear panel to the desired control voltage range (0-5V or 0-10V). A zero volt input will completely extinguish the LED intensity, and a five or ten volt input (on the 0-5V or the 0-10V range respectively) will command maximum intensity.

If the unit is to be controlled via the front panel knob, place the INTENSITY CONTROL toggle switch (rear panel) to the INT position. The LED intensity is now controlled solely by the front panel knob (INTENSITY). The RANGE SELECT switch is disabled when the INTENSITY CONTROL switch is in the INT position.

4) The unit can be triggered internally (TEST mode), or it can be triggered from an external source. To operate the unit in TEST mode, place the RUN/TEST toggle switch located on the front panel to the TEST position. The unit will strobe at approximately 30 pulses per second in this mode.

To trigger the unit from an external source, place the RUN/TEST toggle switch to the RUN position. The unit will now trigger from a TTL level signal supplied to the "TRIG. 1" input on the 9 pin I/O connector located on the rear panel (see 9 pin I/O connection diagram for pin assignments). The unit can trigger on either the rising or falling edge of the trigger signal. Set the RISE/FALL toggle switch (located on the front panel) to the desired edge for triggering.

5) Turn the unit on via the rocker switch located on the power entry module on the rear panel. The green pilot LED located on the front panel will illuminate indicating a "power on" condition.

6) The pulsewidth is controlled strictly by the front panel knob, and can be adjusted continuously between minimum and maximum. It is independent of all other controls. The output pulsewidth can be monitored using the "SYNC 1" output on the 9 pin I/O connector (see 9 pin I/O connection diagram for pin assignments). The "SYNC 1" output is a positive-going TTL level pulse which has a width identical to that of the output pulse, and which occurs simultaneously upon triggering.



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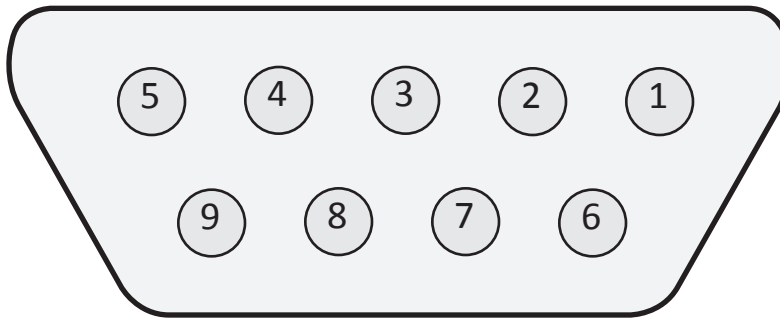
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STANDARD I/O CONNECTION

MALE 9 PIN D-SUBMINIATURE CONTROL CONNECTOR



PIN OUTPUT TABLE:

PIN #	FUNCTION
1	TRIG. 1 IN
2	
3	SYNC 1 OUT
4	
5	CONTROL VOLT 1 IN
6	GND
7	GND
8	GND
9	



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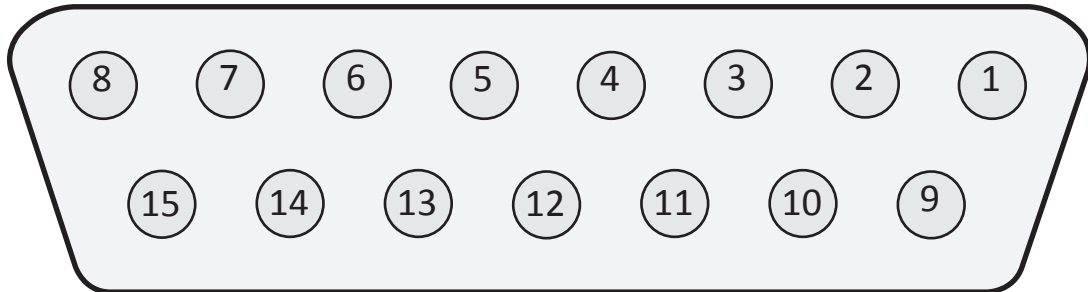
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OUTPUT PINOUT

FRONT VIEW OF FEMALE 15-PIN D-SUN CONNECTOR



PIN OUTPUT TABLE:

PIN #	FUNCTION
1	(+) OUTPUT
2	(+) OUTPUT
3	(+) OUTPUT
4	(+) OUTPUT
5	(+) OUTPUT
6	
7	
8	
9	(-) OUTPUT
10	(-) OUTPUT
11	(-) OUTPUT
12	(-) OUTPUT
13	(-) OUTPUT
14	
15	SHIELD GROUND



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