



AVTECH ELECTROSYSTEMS LTD.

NANOSECOND WAVEFORM ELECTRONICS
SINCE 1975

P.O. BOX 265
OGDENSBURG, NY
U.S.A. 13669-0265
TEL: (315) 472-5270
FAX: (613) 226-2802

TEL: 1-800-265-6681
FAX: 1-800-561-1970
U.S.A. & CANADA

e-mail: info@avtechpulse.com

BOX 5120 STN. F
OTTAWA, ONTARIO
CANADA K2C 3H4
TEL: (613) 226-5772
FAX: (613) 226-2802

INSTRUCTIONS

MODEL AV-1002-C-PKDC PULSE GENERATOR

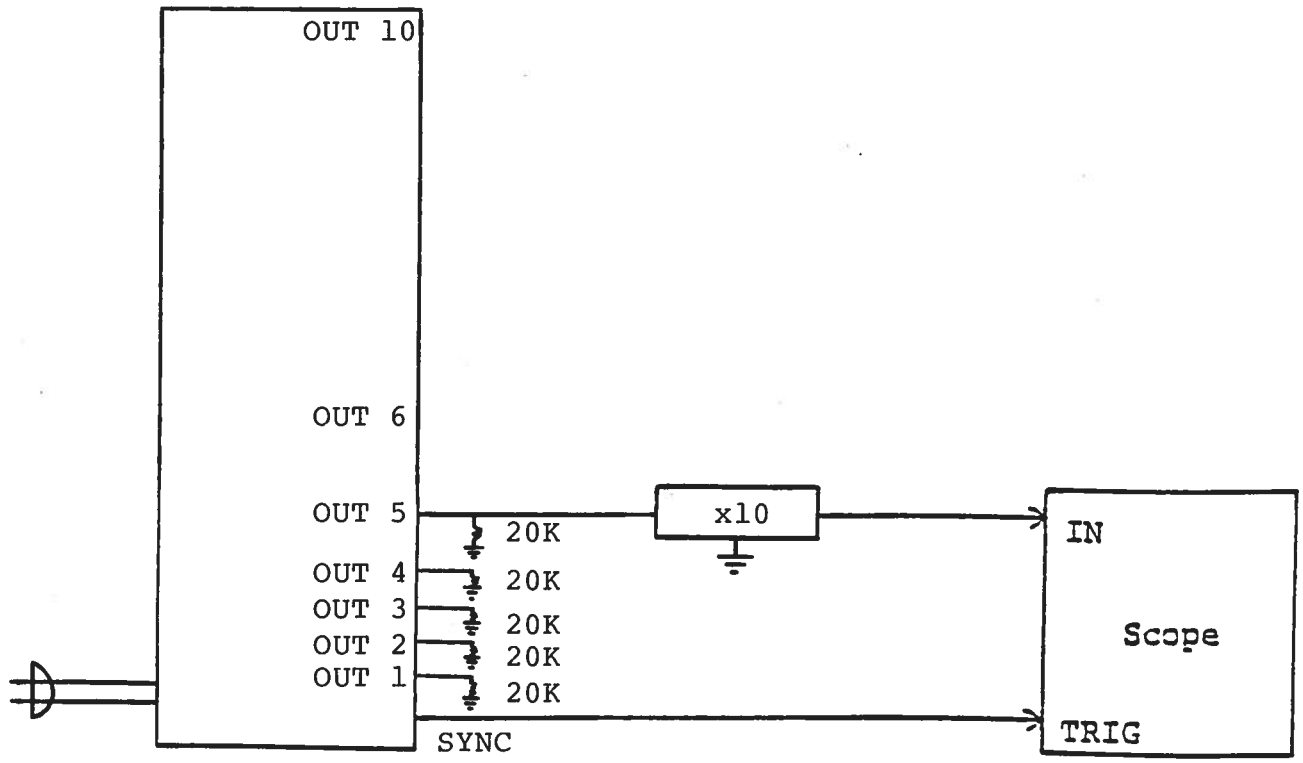
S.N. :

WARRANTY

Avtech Electrosystems Ltd. warrants products of its manufacture to be free from defects in material and workmanship under conditions of normal use. If, within one year after delivery to the original owner, and after prepaid return by the original owner, this Avtech product is found to be defective, Avtech shall at its option repair or replace said defective item. This warranty does not apply to units which have been disassembled, modified or subjected to conditions exceeding the applicable specifications or ratings. This warranty is the extent of the obligation or liability assumed by Avtech with respect to this product and no other warranty or guarantee is either expressed or implied.

Fig. 1

PULSE GENERATOR TEST ARRANGEMENT



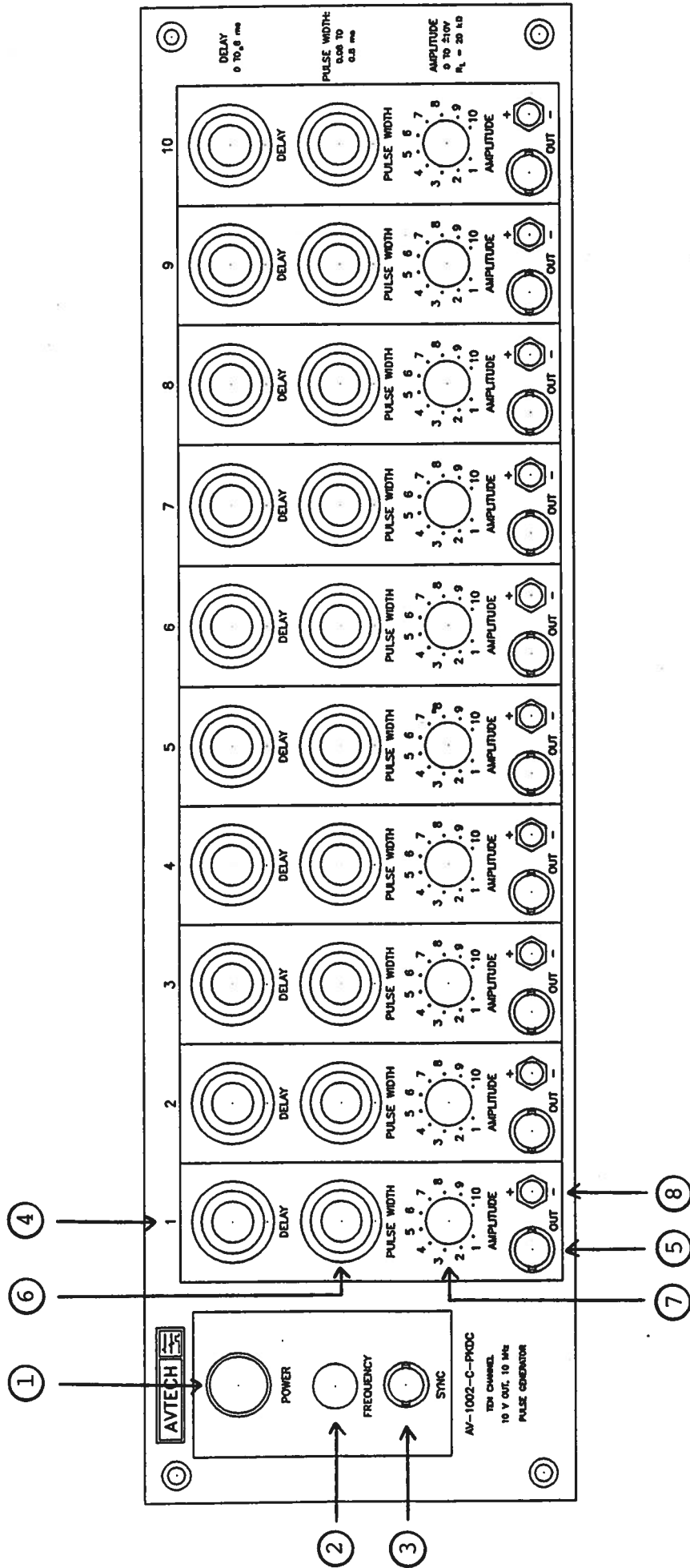
110V/220V
50-60 Hz

Notes:

- 1) The bandwidth capability of components and instruments used to display the pulse generator output signal (attenuators, cables, connectors, etc.) should exceed 200 MHz.
- 2) The SYNC output channel provides TTL level signals (to $R > 50$ Ohms).
- 3) The ten output ports are designed to drive a load impedance of 20 K (or higher). Note that the rise, fall time will exceed 50 ns if the 50 Ohm output cable exceeds 4 feet in length.
- 4) To obtain a stable output display the single PRF control on the front panel should initially be set fully counterclockwise. A scope may then be used to set the desired PRF by rotating the PRF control switch.
- 5) The output pulse width and delay for each channel are controlled by means of the front panel ten turn PW and delay controls. The controls should initially be set maximum counterclockwise and the pulse width and delay adjusted using an oscilloscope.
- 6) The output pulse amplitude for each channel is controlled by means of the front panel one turn AMP control.
- 7) The output polarity for each channel is controlled by the two-position polarity switch.
- 8) The unit can be converted from 110 to 220V 50-60 Hz operation by adjusting the voltage selector card in the rear panel fused voltage selector-cable connector assembly.
- 9) For additional assistance:

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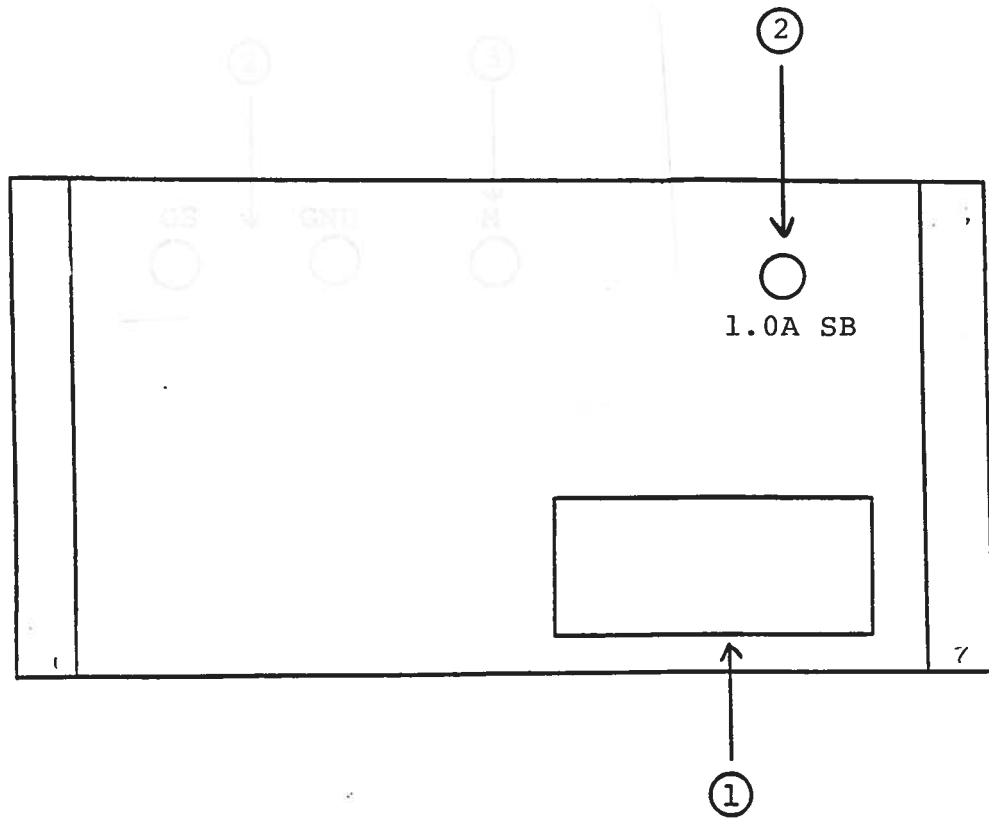
FRONT PANEL CONTROLS

Fig. 2

- (1) ON-OFF Switch. Applies basic prime power to all stages.
- (2) PRF Control. Varies the output PRF from 1 kHz to 10 kHz.
- (3) SYNC Output. This output precedes the main output (5) and is used to trigger the scope time base. The output is a TTL level 100 ns (approx) pulse capable of driving a fifty Ohm load.
- (4) DELAY Controls. Controls the relative delay between the reference output pulse provided at the SYNC output (3) and the main output (5). This delay is variable over the range of 0 to 0.8 ms.
- (5) OUT. BNC connector provides output to 20 K load.
- (6) PW Control. A ten turn control which varies the output pulse width from 0.08 to 0.8 ms.
- (7) AMP Control. A one turn control which varies the output pulse amplitude from 0 to ± 10 Volts.
- (8) POLARITY. A two-position switch which controls the polarity of the output pulse.

Fig. 3

BACK PANEL CONTROLS



- (1) FUSED CONNECTOR, VOLTAGE SELECTOR. The detachable power cord is connected at this point. In addition, the removable cord is adjusted to select the desired input operating voltage. The unit also contains the main power fuse (0.50 Amp).
- (2) 1.0 A SB. A slow blow fuse which limits the DC current supplied to the output stages.

TOP COVER REMOVAL AND RACK MOUNTING

- 1) The interior of the instrument may be accessed by removing the four Phillips screws on the top panel. With the four screws removed, the top cover may be slid back (and off).
- 2) The -R5 rack mount kit may be installed after first removing the one Phillips screw on the side panel adjacent to the front handle.



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September 10, 1996.

Jim Wright
Parker Kinetic Designs Inc.
5806 Mesa Drive, Ste. 335
Austin, TX 78731

Tel: 512-302-4500
Fax: 512-302-4855

Dear Jim:

Following our telephone conversation of September 10th, I am pleased to provide the following revised price and delivery information:

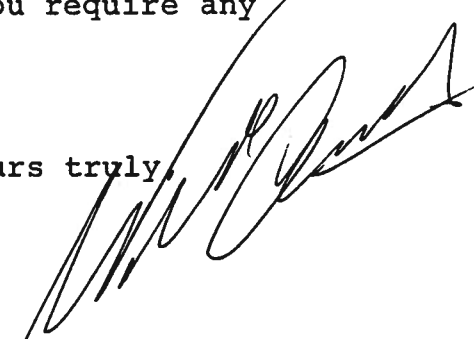
Designation:	AV-1002-C-PKDC.
Number of channels:	Ten.
Frequency:	1 kHz to 10 kHz. One common single turn PRF control.
Pulse width:	0.08 ms to 0.8 ms. Ten independent ten turn locking dials provided.
Delay: (with respect to SYNC OUT)	0 to 0.8 ms. Ten independent ten turn locking dial controls.
Amplitude: (to $R_L = 20K$)	0 to ± 10 Volts. Ten independent one turn controls plus ten polarity switches included.
Max duty cycle:	80%.
Rise, fall time:	≤ 50 ns.
Source impedance:	50 Ohms.

.../2

SYNC OUT: +2 Volts, 1 us (to 50 Ohms).
Chassis size: 7.8" x 14.8" x 17.8". Similar to AV-1010-C chassis (see page 50) but height increased to 5.25" from 3.9". Includes 19" rack mount kit.
Prime power: 120/240V, 50-60 Hz.
Price: \$9,998.00 US each, FOB destination.
Delivery: 60-90 days ARO.

Thank you for your continuing interest in our products. Please call me again (1-800-265-6681) if you require any additional information.

Yours truly,



Dr. Walter Chudobiak
Chief Engineer

WC:pr
Encl. Diagram



10				
9				
8				
7				
6				
5				
4				
3				
2				
1				

AVTECH

POWER	FREQUENCY	SYNC

AV-1002-C-PK06
 10K Ohm-EL
 10 V OUT, 10 MHz
 PULSE GENERATOR



Oct. 29/96

- R5

Disk: AV-1002

Name: ZCPKDC.INS