AVTECH ELECTROSYSTEMS LTD.
NANOSECOND WAVEFORM ELECTRONICS
SINCE 1975

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INSTRUCTIONS

MODEL AVX-D-PS-ED-IBM2 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 dissembled, 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.

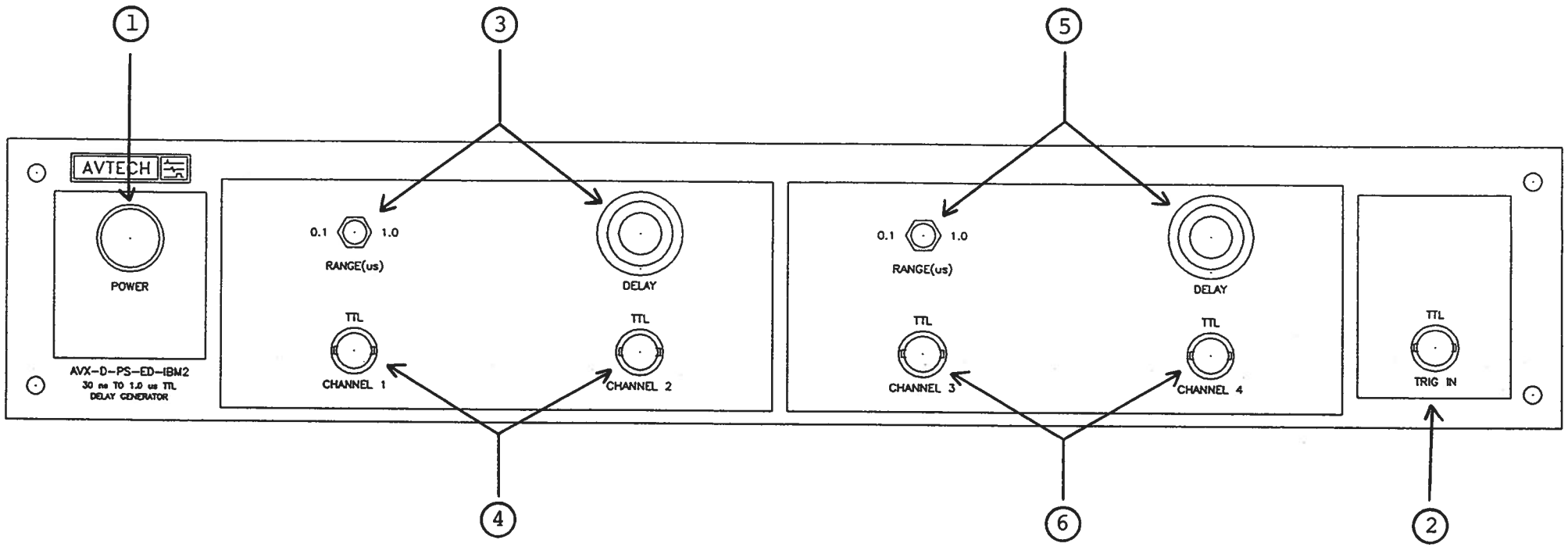


Fig. 1

FRONT PANEL CONTROLS

FRONT PANEL CONTROLS

(1) ON-OFF Switch. Applies basic prime power to all stages.

(2) IN. Apply TTL input at this terminal (PW > 50 ns).

(3) DELAY Control. Controls the relative delay between the output pulses provided at Channel 1 and Channel 2 OUT and TRIG IN (2). This delay is variable over the range of 30 to 100 ns and 100 ns to 1.0 us.

(4) CHANNELS 1 AND 2 OUT. +3 to +5 Volt output to $R_L \geq 50$ Ohms. This output is delayed 30 ns to 1.0 us with respect to the TRIG IN pulse (2). Output pulse width is 250 ns. Channels 1 and 2 are in sync.

(5) DELAY Control. Controls the relative delay between the output pulses provided at Channel 3 and Channel 4 OUT and TRIG IN (2). This delay is variable over the range of 30 to 100 ns and 100 ns to 1.0 us.

(6) CHANNELS 3 AND 4 OUT. +3 to +5 Volt output to $R_L \geq 50$ Ohms. This output is delayed 30 ns to 1.0 us with respect to the TRIG IN pulse (2). Output pulse width is 250 ns. Channels 3 and 4 are in sync.

GENERAL

1) To voltage control the delay, set the corresponding rear panel switch in the EXT position and apply 0 to +10V to connector A ($R_{IN} \geq 10K$). (EA option).

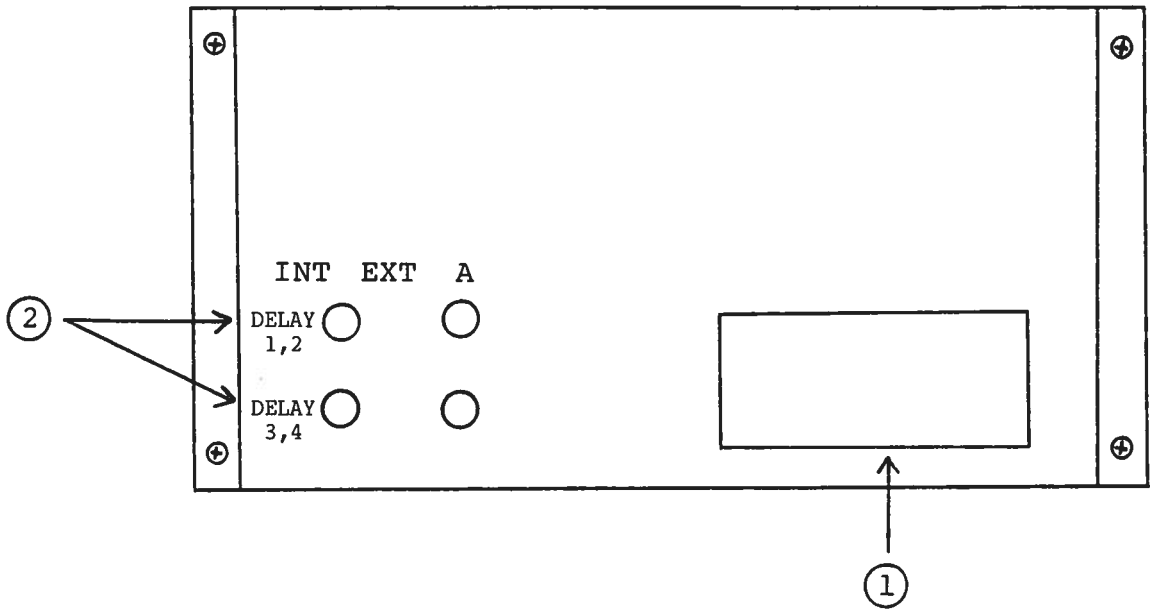
2) The unit can be converted from 120 to 240V 50-60 Hz operation by adjusting the voltage selector card in the rear panel fused voltage selector-cable connector assembly.

3) The top cover may be removed by removing the 4 Phillips screws on the top of the instrument. The top cover may then be slid back and off.

4) For additional assistance:

Tel: (613) 226-5772
Fax: (613) 226-2802

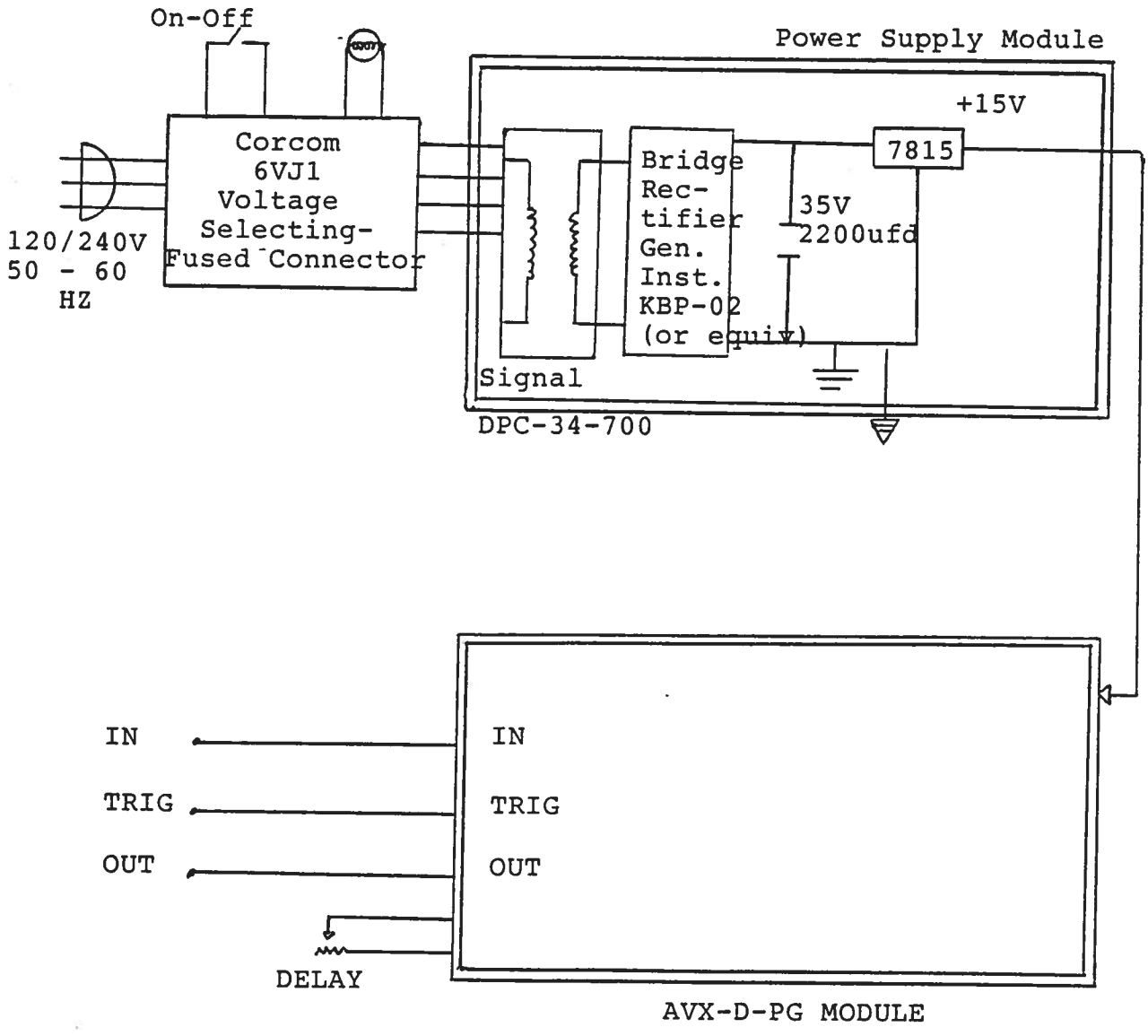
Fig. 2 BACK PANEL CONTROLS



(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 (0.25 A SB).

(2) DELAY. To voltage control the delay, set the switch in the EXT position and apply 0 to +10V to the "A" BNC connector ($R_{IN} \geq 10K$). (option).

SYSTEM BLOCK DIAGRAM AND REPAIR PROCEDURE



SYSTEM DESCRIPTION AND REPAIR PROCEDURE

The AVX-D-PS consists of a delay generator module (AVX-D-PG) and a power supply board which supplies +15 Volts (600 mA max) to the delay generator module. In the event that the AVX-D unit malfunctions, remove the instrument cover by removing the four Phillips screws on the back panel. The top cover may then be slid off. Measure the voltage at the +15V pin of the PG module. If this voltage is substantially less than +15 Volts, unsolder the line connecting the power supply and PG modules and connect 50 Ohm 10 W load to the PS output. The voltage across this load should be about +15V DC. If this voltage is substantially less than 15 Volts the PS module is defective and should be repaired or replaced. If the voltage across the resistor is near 15 Volts, then the PG module should be replaced or repaired. The sealed PG module must be returned to Avtech for repair (or replacement).

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Fax Ref No: 1158 From: Avtech Electrosystems Ltd.

To: IBM Corporation Our Fax No: (613) 226-2802

Date: January 15, 1997

Attn: Chris Back, N17/14-2
Tel: 408-256-3767
Receivers Fax No: 408-256-2700

Subject: Quotation No. of pages: 3

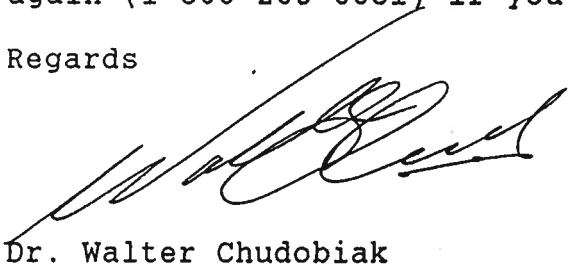
Following our recent telephone conversation, I am pleased to provide the following price and delivery quotations:

A)	Model designation:	AVMP-2-P-C-IBM1.
	Output amplitude:	0 to +15 Volts.
	Rise time:	≤ 140 ps.
	Fall time:	≤ 150 ps.
	Other:	As standard AVMP-2-C.
	Price:	$3,898.00 US each, FOB destination.
	Delivery:	45 days ARO.
B)	Model designation:	AVX-D-PS-ED-IBM2.
	Basic function:	Four channel delay generator. Channels 1 and 2 are in sync and are both controlled by one set of controls. Channels 3 and 4 are in sync and are controlled by a second set of delay controls (see enclosed sketch).

Delay:	Range A: 30 ns to 150 ns. Range B: 100 ns to 1.0 us. Delays are controlled by a two-position range switch and a ten turn locking dial control. Within each range, delay may also be controlled by an externally applied 0 to +10 VDC potential.
Jitter:	Range A: ±10 ps. Range B: ±30 ps.
Connectors:	BNC.
Chassis size:	3.9" x 17" x 14.8".
Prime power:	120/240V, 50-60 Hz.
Other:	See standard AVX-D-PS.
Price:	$3,798.00 US each, FOB destination.
Delivery:	45-60 days ARO.

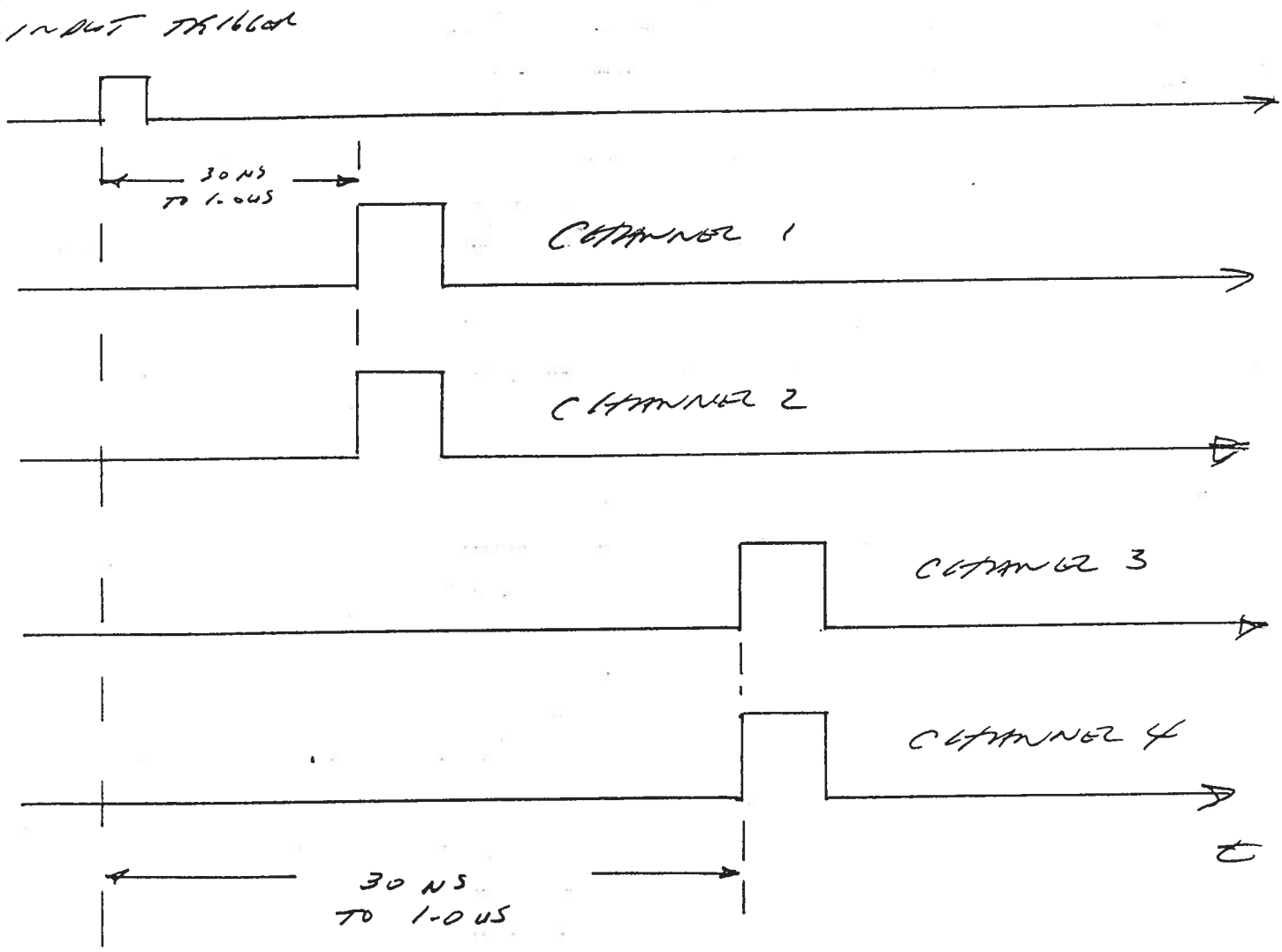
Thank you for your interest in our products. Please call me again (1-800-265-6681) if you require any additional information.

Regards



Dr. Walter Chudobiak
Chief Engineer

WC:pr



MODEL RX-D-PS-(4)-IBM2 MANUAL

April 29/97

Disk: AVX-D, AVX-F

Name: PSEDIBM2.INS