AVTECH ELECTROSYSTEMS LTD.
NANOSECOND WAVEFORM ELECTRONICS
SINCE 1975

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INSTRUCTIONS

MODEL AVX-D-PS-ED-ETHB DELAY 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 assumed by Avtech with respect to this product and no other warranty or guarantee is either expressed or implied.

TECHNICAL SUPPORT

Phone: 613-226-5772 or 1-800-265-6681
Fax: 613-226-2802 or 1-800-561-1970

E-mail: info@avtechpulse.com
World Wide Web: http://www.avtechpulse.com

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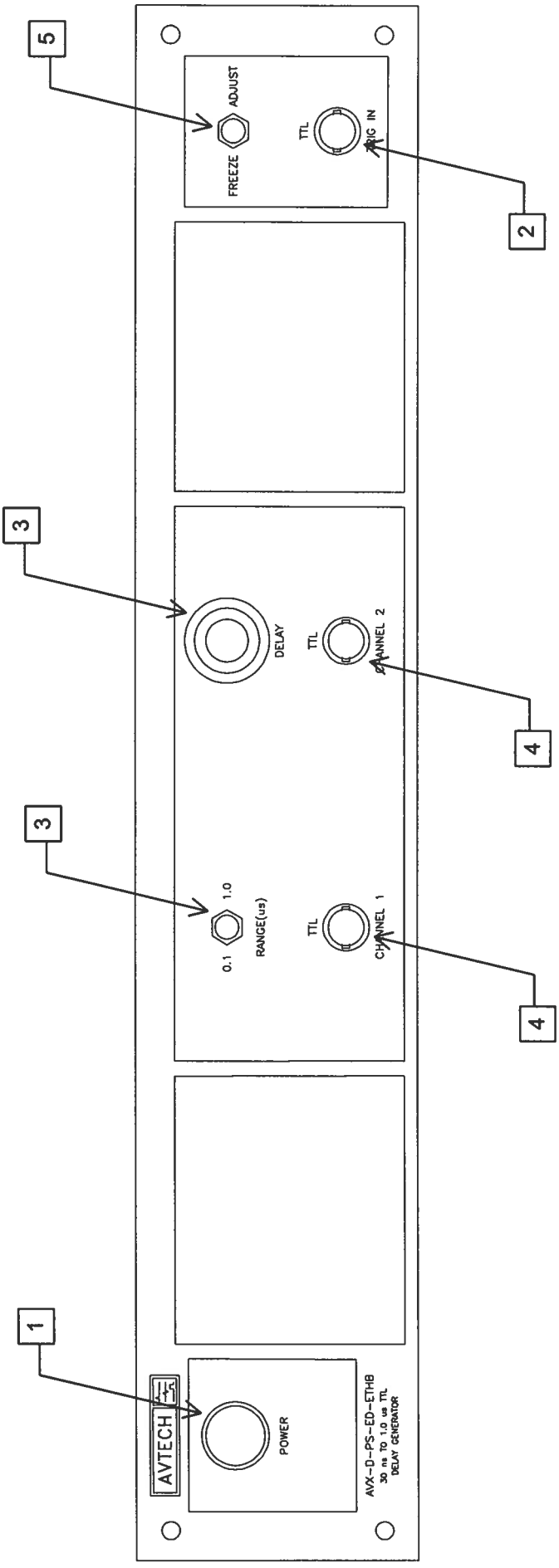


FIG. 1 - FRONT PANEL CONTROLS

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. The FREEZE/ADJUST switch (7) must be in the "ADJUST" position to use these controls.

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) FREEZE/ADJUST Switch. The DELAY controls (3 and 5) are active when this switch is in the "ADJUST" position. The "FREEZE" position locks-in the delay settings, and provides much lower jitter.

GENERAL

1) To voltage control the delay, set the rear panel INT/EXT switch in the EXT position and apply 0 to +10V to the "A" connectors ($R_{IN} \geq 10K$). The voltage control changes the delay when the LATCH connector is unconnected or at +5V (TTL high). The voltage-controlled delay is locked-in when the LATCH line is at 0 V (TTL low). The locked-in delay has lower jitter.

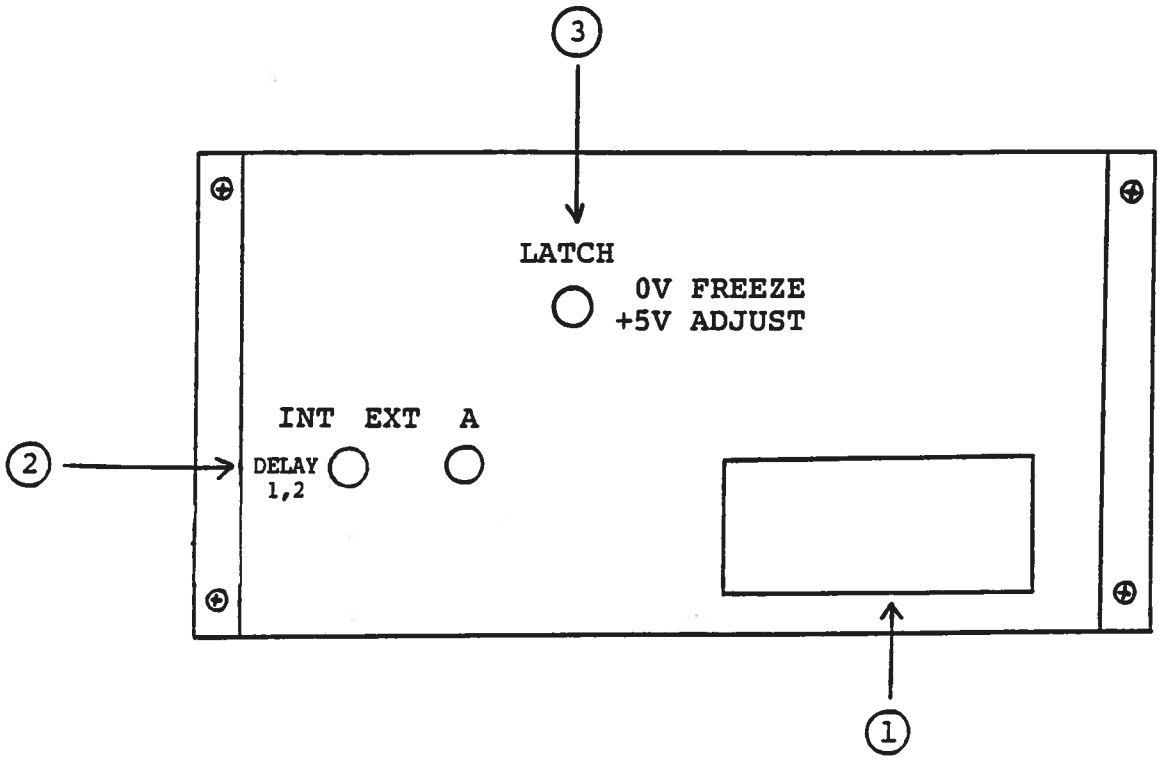
2) The unit can be converted from 120 to 240V 50-60 Hz operation by adjusting the voltage selector card in the rear panel fused voltage selector-cable connector assembly.

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



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).

3) LATCH. The LATCH input functions like the FREEZE/ADJUST switch, for the voltage-controlled delay. The voltage control changes the delay when the LATCH connector is unconnected or at +5V (TTL high). The voltage-controlled delay is locked in when the LATCH line is at 0 V (TTL low). The locked-in delay has lower jitter.

8903

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Fax Ref. No:	3969	From:	Avtech Electrosystems Ltd.
To:	E.T.H.	Our Fax No:	(613) 226-2802
	Zurich, Switzerland	Date:	September 15, 1998
Attn:	Dr. C.H. Back	Receivers Fax No:	011 41 1 633 10 96
Phone:	011 41 1 633 23 28	No. of pages:	4
Subject:	Quotation	C.C.	

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

Quote No.:	8903
Model designation:	AVX-D-PS-ED-ETHB
Basic function:	2 channel delay generator employing 12 BIT switched resistor technology. Channels 1 and 2 are in sync and are both controlled by one set of controls.
PRF:	0 to 1.0 MHz (main application is at 1.0 MHz).
Delay:	Range A: 30 ns to 100 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. Delay may be as high as 90% of the period (e.g. 900 ns at 1.0 MHz).
Jitter:	Range A: ± 10 ps Range B: ± 30 ps

Latching:	A latching feature is employed to negate the effects of LSB flipping (caused by A-D convertors). This provides on the back panel an additional BNC connector to which the user applies 0 V to stop the LSB flipping and +5 Volts to change the delay setting. Latching time is less than 10 ms. A two-position switch (for "freeze" and "adjust" positions) is provided on the front panel.
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:	$3,598.00 US each, Exworks, Ottawa, Canada
Shipping via Federal Express:	$160.00 US
Delivery:	60-90 days ARO

Thank you for your continuing interest in our products. Please contact me again if you require any additional information.

Regards,

Dr. Walter Chudobiak
Chief Engineer

WC:hw

Jan 14/99

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