



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

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

INSTRUCTIONS

MODEL AV-155-PS-HW1 PULSE GENERATOR

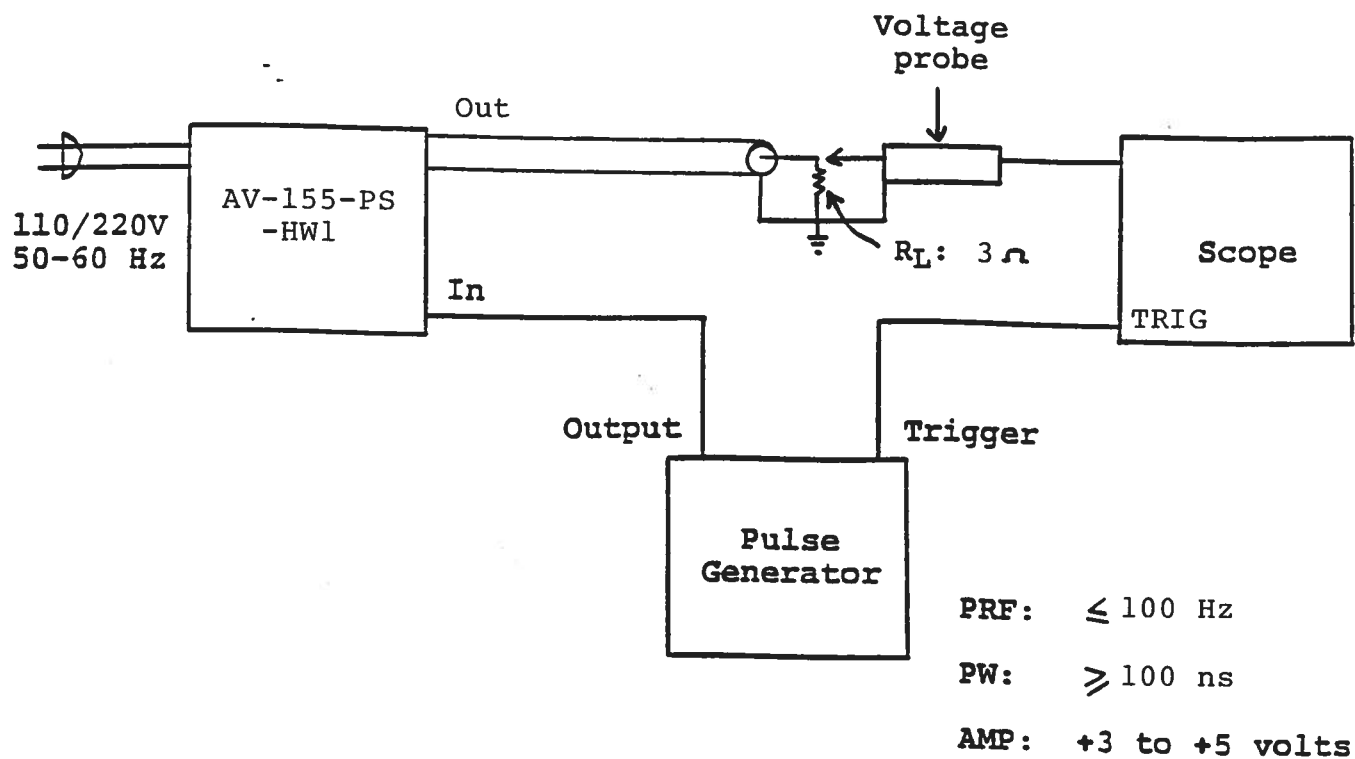
S.N.: 7133 (MOD1)

### 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

MODEL AV-155-PS-HW1 PULSE GENERATOR TEST ARRANGEMENT



Notes:

- 1) The input and output waveforms for the unit are shown in Fig. 2. Note that the unit operates as a pulsed constant current source and for that reason the load resistance should be less than 4 Ohms (to avoid saturating the output stage) and the load inductance must be exceedingly low (to avoid inductive spikes on the transitions).
- 2) The unit was designed to operate at a maximum PRF of 100 Hz but will, in fact, safely withstand a PRF as high as 1 kHz. The input trigger pulse width may be as low as 100 ns and the input trigger duty cycle may be as high as 50%.
- 3) The output amplitude is controlled by the front panel ten turn Amp control. A one turn locking pot is provided (on the rear panel) for making minor adjustments to the amplitude of the positive pulse (or to make the positive and negative amplitude equal).
- 4) The output pulse width is controlled by the front panel ten turn pulse width control.
- 5) AV-155-PS units with a serial number higher than 5600 are protected by an automatic overload protective circuit which controls the front panel overload light. If the unit is overloaded (by operating at an exceedingly high duty cycle or by operating into a high load voltage), the protective circuit will turn the output of the instrument OFF and turn the indicator light ON. The light will stay ON (i.e. output OFF) for about 5 seconds after which the instrument will attempt to turn ON (i.e. light OFF) for about 1 second. If the overload condition persists, the instrument will turn OFF again (i.e. light ON) for another 5 seconds. If the overload condition has been removed, the instrument will turn on and resume normal operation. Overload conditions may be removed by:
  - 1) Reducing PRF (i.e. switch to a lower range)
  - 2) Reducing the load voltage
- 6) 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.
- 7) For additional information:

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

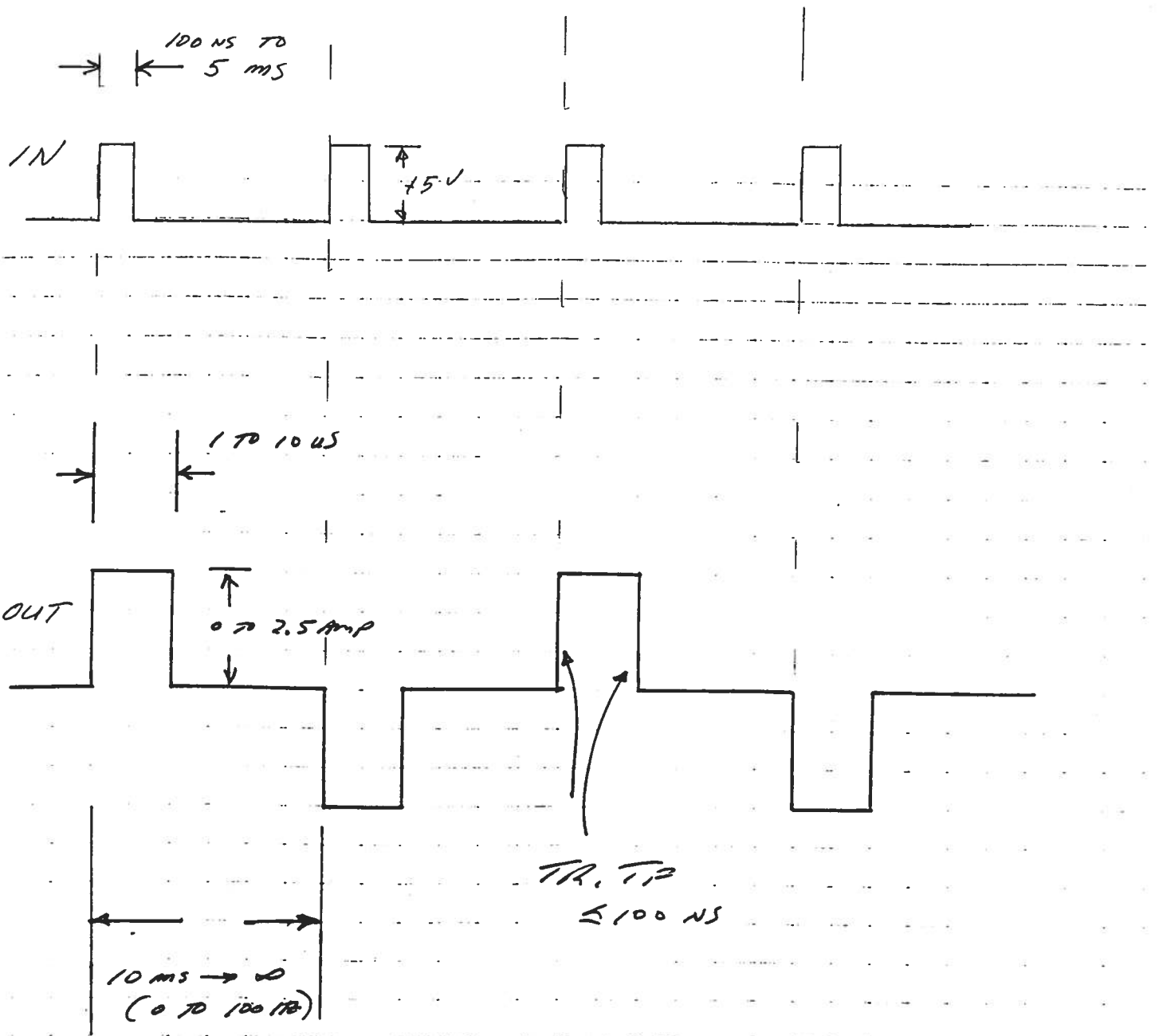


Fig 2: AN-155 - PS - HULL INPUT + OUTPUT  
WAVEFORM

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U.S.A. & CANADABOX 5120 STN. F  
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CANADA K2C 3H4  
TEL: (613) 226-5772  
FAX: (613) 226-2802

April 04, 1994.

Tel 613-954-2626  
Fax 613-954-2504Graham Cameron  
Honeywell  
MN 14-4B80  
12001 State Hwy 55  
Plymouth, MN 55441

Dear Graham:

Following our phone conversation of March 18, 1994, I am pleased to provide a price and delivery quotation for a special purpose bipolar pulsed constant current source meeting the following specifications:

Model designation: AV-155-PS-HW1.

Output waveform: See enclosed sketch.

Output amplitude: 0 to  $\pm$  2.5 Amperes.  
One ten turn control.

Compliance voltage:  $\pm$  10 Volts.

Output pulse width: 1 us to 10 us.  
(Ten turn control).

Output regulation: Output current changes by less than 5% when load voltage changed from 10 to 0 Volts.

Rise time, fall time:  $\leq$  100 ns.

Pulse repetition frequency: 0 to 100 Hz.  
PRF controlled by the input trigger  
PRF.

Input trigger: TTL, 50% duty cycle.

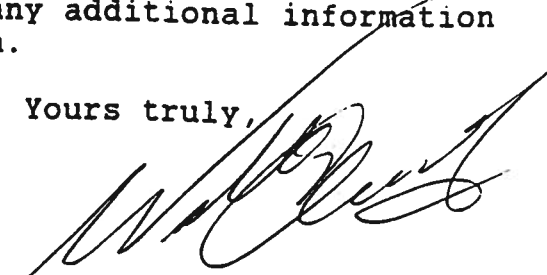
Connectors: BNC.

Chassis size: 4" x 16" x 12".  
Other: See AV-155-PS series.  
(pages 2 and 3, Cat. No. 8S2).  
Price: \$3990.00 US each, FOB destination  
(ie on your doorstep).  
Delivery: 45-60 days ARO.

I enclose a copy of our general catalog (Cat. No. 8) and  
update catalog No. 8S2.

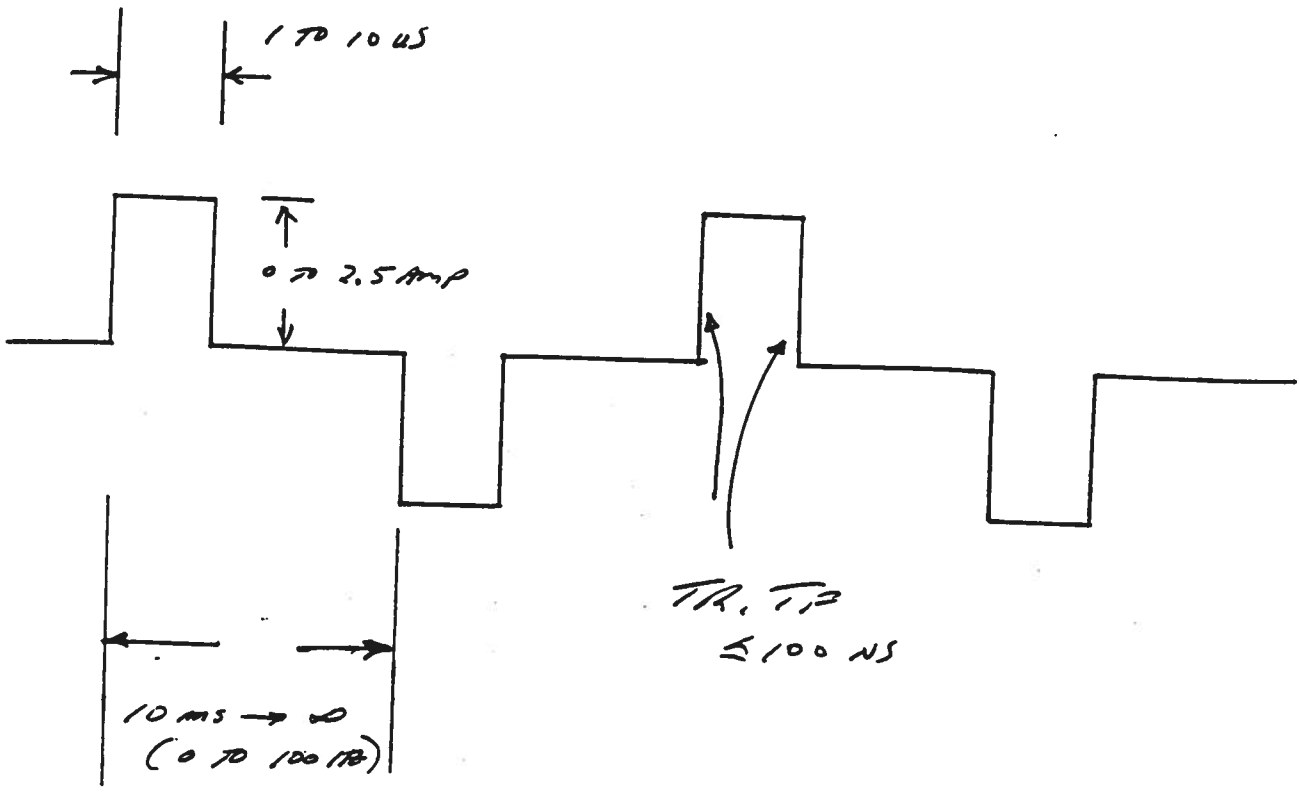
Thank you for your interest in our products. Please call me  
again (1-800-265-6681) if you require any additional information  
or modifications to the above quotation.

Yours truly,



Dr. Walter Chudobiak  
Chief Engineer

WC:dh  
Encl.



PN-155-PS-H2N1      OUTPUT  
WAVEFORM

APRIL 4 95



March 13/95

Disk: AV-

Name: 155PSHW1.MOD