



AVTECH ELECTROSYSTEMS LTD.

NANOSECOND WAVEFORM ELECTRONICS
SINCE 1975

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INSTRUCTIONS

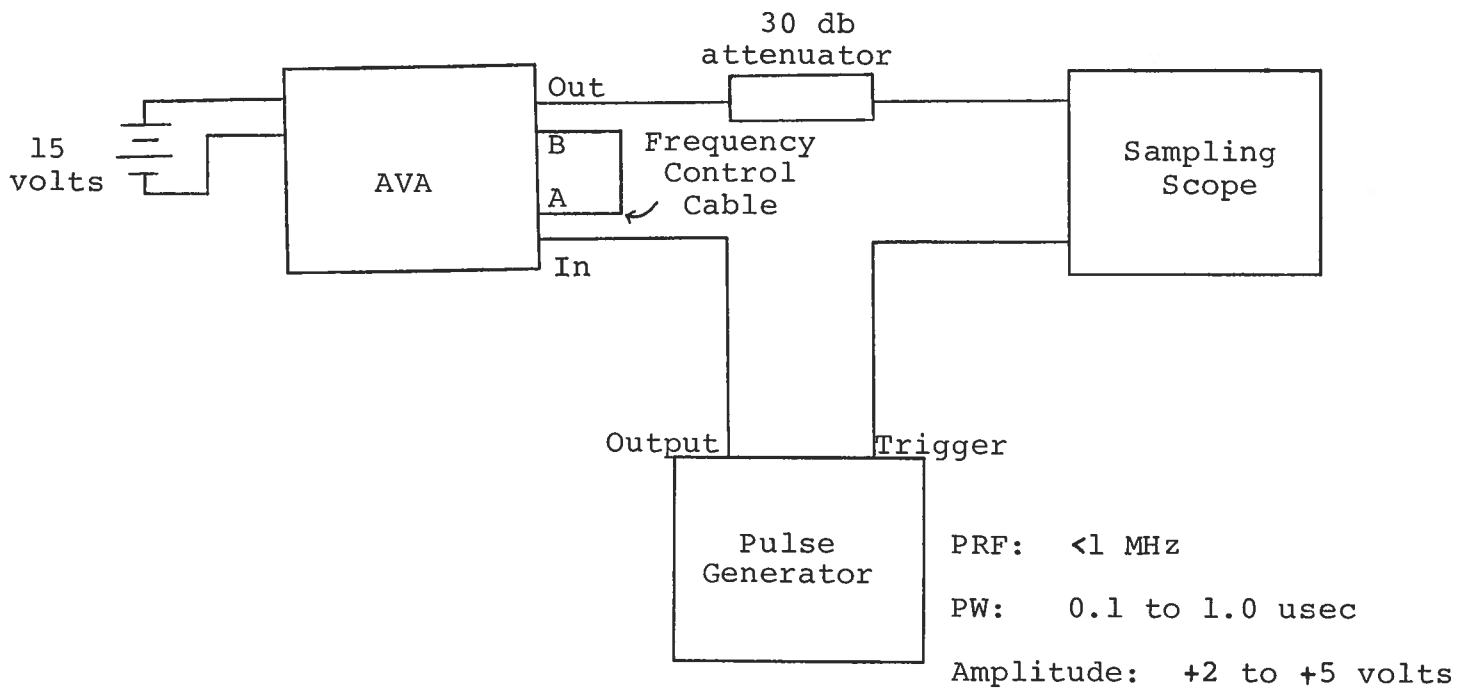
MODEL AVA MONOCYCLE GENERATOR

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.

MONOCYCLE GENERATOR TEST ARRANGEMENT



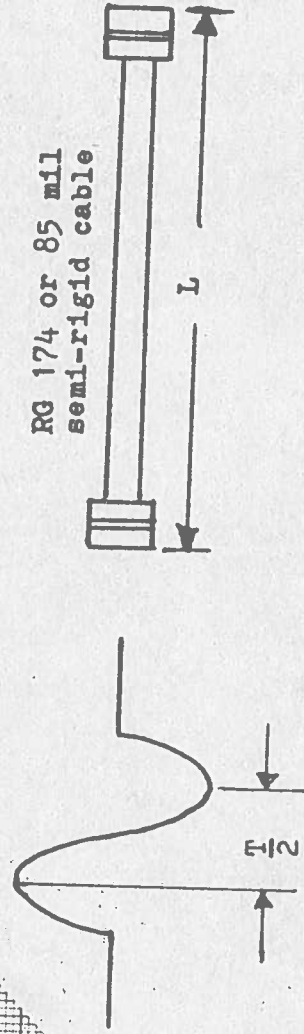
Notes:

- 1) The bandwidth capability of components and instruments used to display the monocycle generator output signal (attenuators, cables, connectors, etc.) should exceed several gigahertz.
- 2) The use of a 30 db attenuator will insure a peak input signal to the sampling scope of less than one volt.
- 3) In general, the pulse generator trigger delay control should be set in the <100 nsec range. Other settings should be as shown in the above diagram. The monocycle generator output is delayed with respect to the trigger input signal by about 70 nsec (typically).
- 4) The frequency control cable (see attached graph) may be fabricated from RG 174 miniature coax with American 2001 - 7188 connectors (or the equivalent) or from 85 mil semi-rigid cable with American 2001 - 5032 connectors (or the equivalent). The output signal half-period ($T/2$) and cable length (L) are related linearly as shown in the attached graph.
- 5) The monocycle generator can withstand an infinite VSWR on the output port.
- 6) Either the input trigger signal or the +15 volt supply should be disconnected when changing or removing the frequency control cable.
- 7) If the monocycle generator is inadvertently triggered at a PRF 1 MHz, internal control circuitry will insure that the output PRF does not exceed 1 MHz.

FREQUENCY CONTROL CURVE

AVTECH ELECTROSYSTEMS LTD MODEL AVA
MONOCYCLE GENERATOR, SERIAL No. //9

Cable of length L (measured between extreme
tips of connectors) connected between ports A
and B.



RG 174 or 85 mil
semi-rigid cable

L

$E-1/2$

L (cm)

20

10

0

1

2

3

4

5

6

7

8

9

10

20

30

40

FREQUENCY CONTROL CURVE

AVTECH ELECTROSYSTEMS LTD MODEL AVA
MONOCYCLE GENERATOR, SERIAL No.

Cable of length L (measured between extreme
tips of connectors (connected between ports
A and B.

RG 174 or 85 mil
semi-rigid cable

L

FREQUENCY CONTROL CURVE

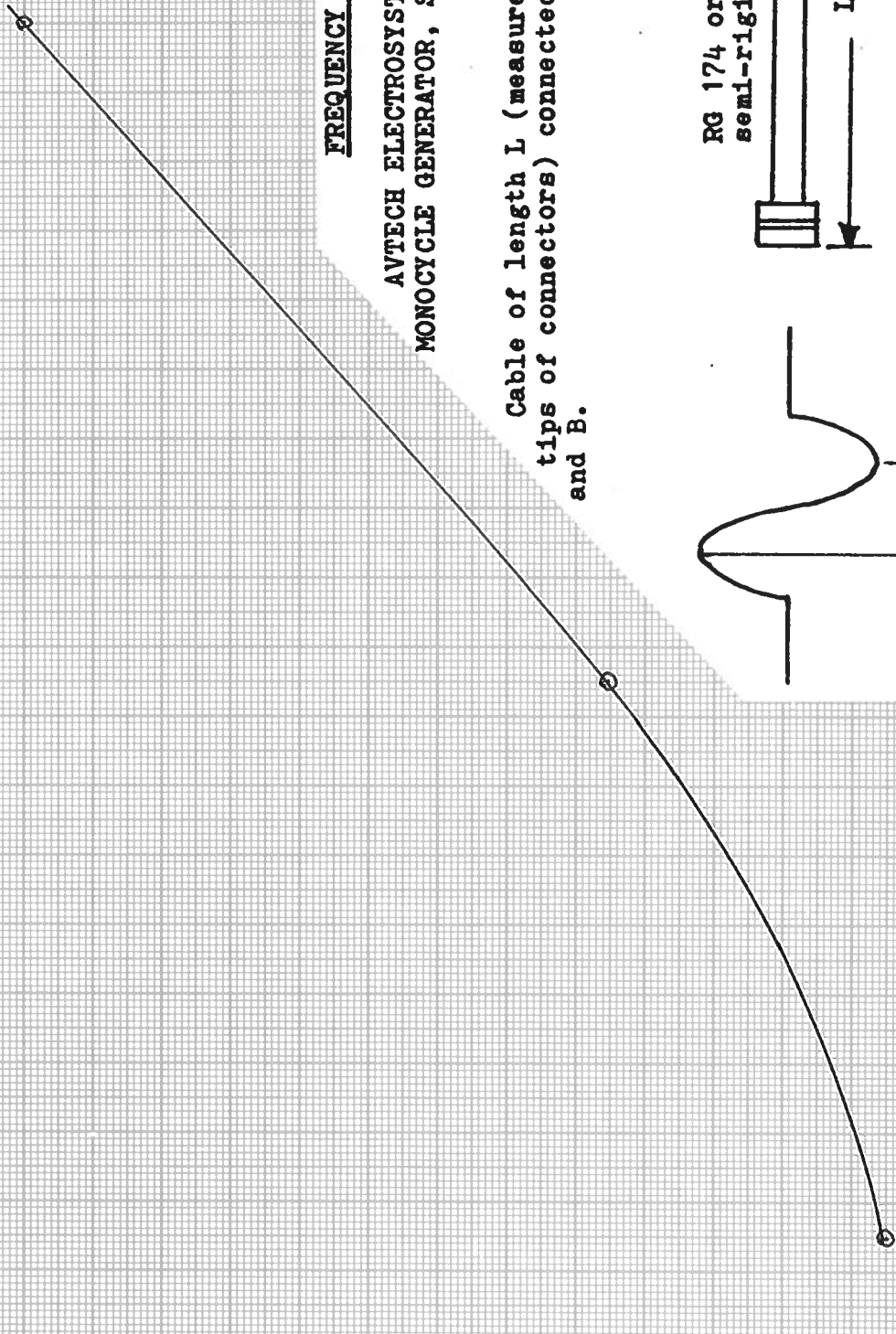
AVTECH ELECTROSYSTEMS LTD MODEL AVA
MONOCYCLE GENERATOR, SERIAL No.

Cable of length L (measured between extreme
tips of connectors (connected between ports
A and B.

RG 174 or 85 mil
semi-rigid cable

L

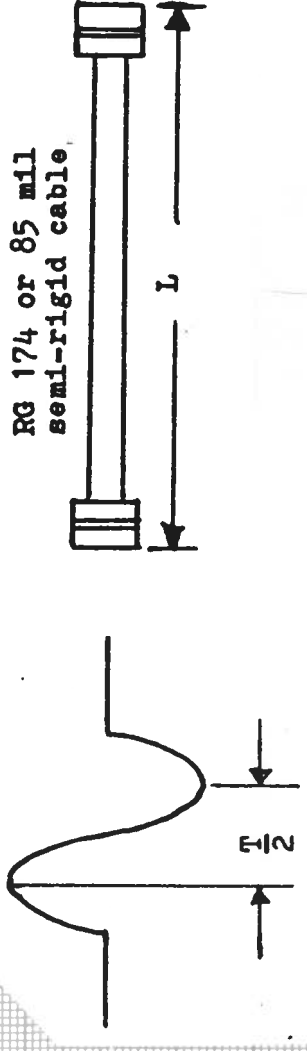
$\frac{I}{2}$ (NS)
 2.5
 2.4
 2.3
 2.2
 2.1
 2.0
 1.9
 1.8
 1.7
 1.6
 1.5
 1.4
 1.3
 1.2



FREQUENCY CONTROL CURVE

AVTECH ELECTROSYSTEMS LTD MODEL AVA
 MONOCYCLE GENERATOR, SERIAL No. 7240

Cable of length L (measured between extreme tips of connectors) connected between ports A and B.



30 40 50 60 L (cm)

Edition A

19

1919

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