



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 AVX-FD2-PS-IP FREQUENCY DIVIDER

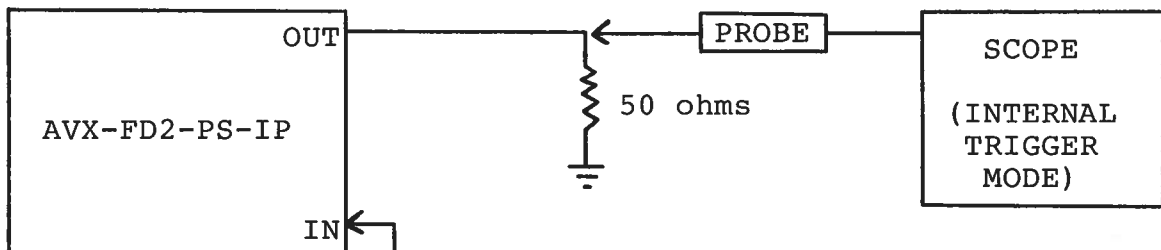
S.N. :

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

GENERAL TEST ARRANGEMENT



PRF: 100 Hz to 100 MHz

AMP: $R_{IN} = 1K:$ TTL (+2.8 to +5.0 volts)

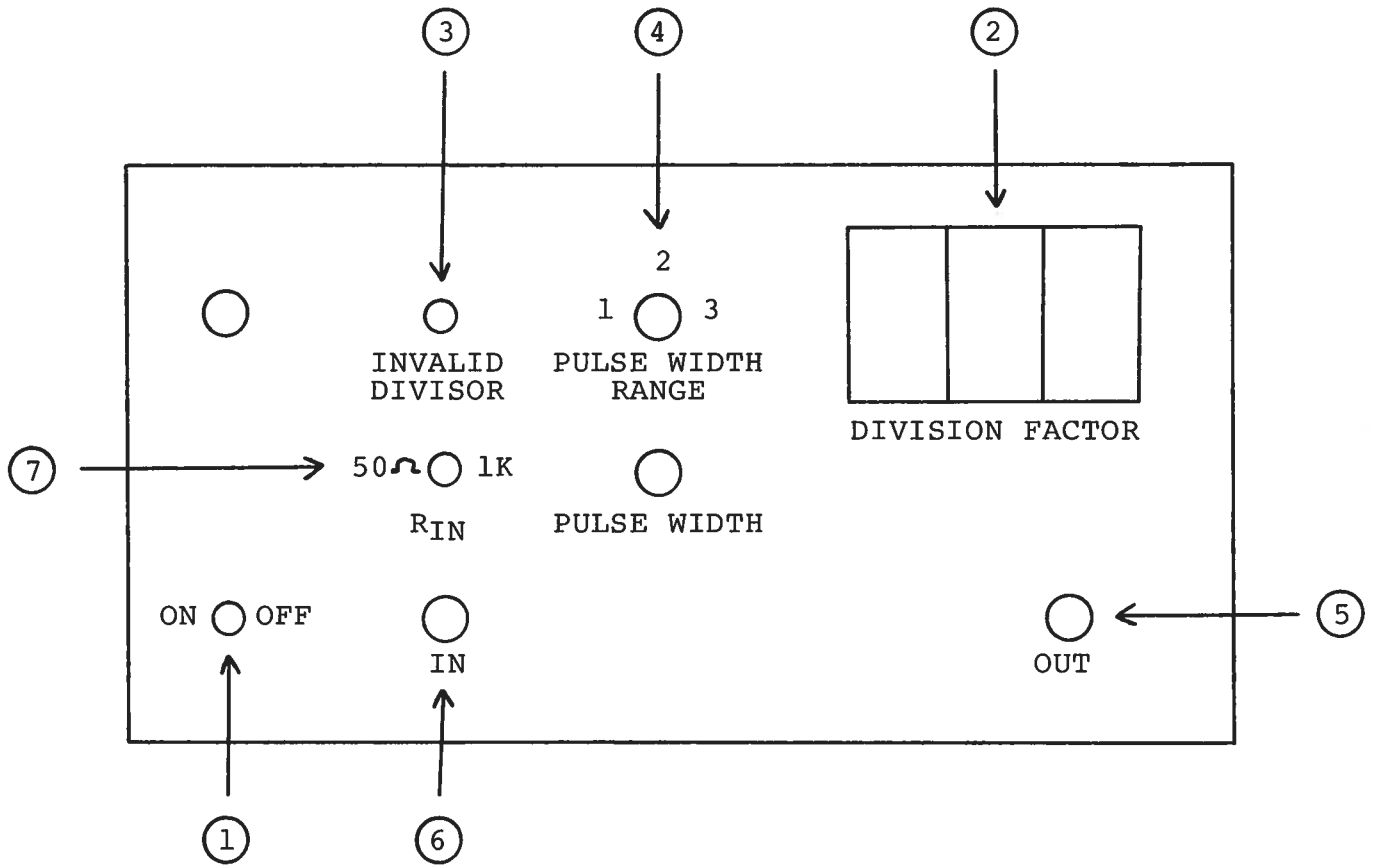
$R_{IN} = 50 \text{ ohm}:$ 0.1 to 5.0 volts

Notes:

- 1) With the R_{IN} switch in the 1 K position, the input signal must be TTL (+2.8 to 5.0 volts). With the R_{IN} switch in the 50 ohm position, the -IP option is functional and so the input signal may have a peak to peak amplitude in the range of 0 to 5.0 volts (pulse or sine wave).
- 2) Take care to insure that the output pulse width is less than 0.5 of the period of the output pulse train.
- 3) The division factor is controlled by the front panel thumbwheel switch (and may be varied from 2 to 255). The INVALID DIVISOR light will indicate if the thumbwheel is set at division factor higher than 255.
- 4) The output amplitude is fixed at TTL levels and will drive an impedance as low as 50 ohms.

Fig. 2

FRONT PANEL CONTROLS



- (1) ON-OFF Switch. Applies prime power to all stages.
- (2) DIVISION FACTOR. Thumbwheel switch sets the division factor (2 to 255).
- (3) INVALID DIVISOR. This light will indicate if the division factor is set higher than 255.
- (4) PULSE WIDTH. Three position switch and one turn control controls output pulse width as follows:

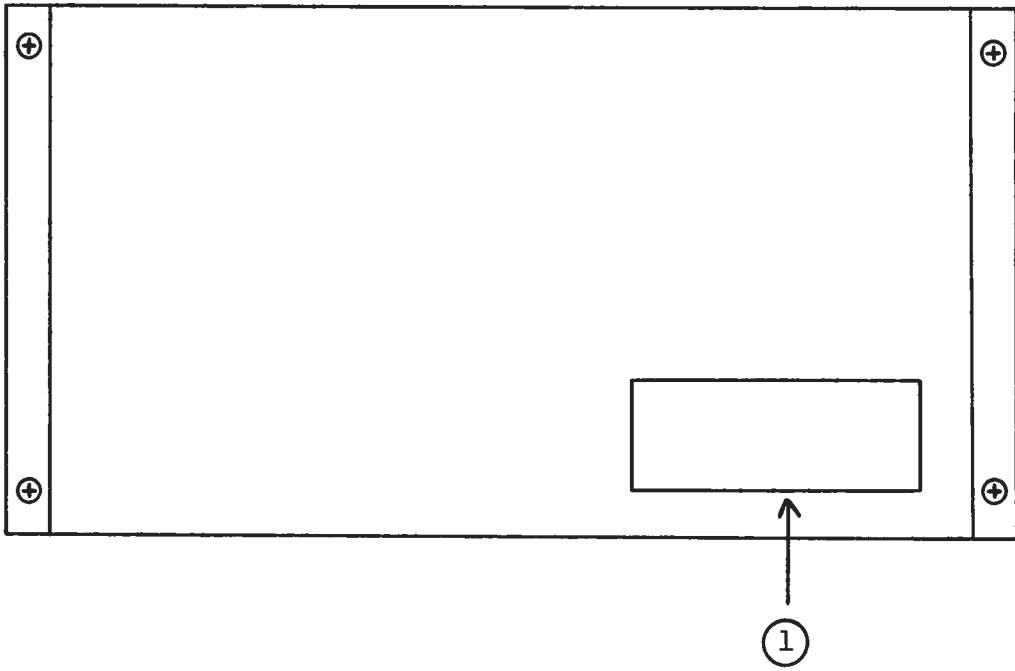
RANGE 1	10 ns to 100 ns
RANGE 2	70 ns to 1 us
RANGE 3	0.8 us to 12 us

The output pulse width must be less than one half of the period of the output PRF at (5).

- (5) OUT. BNC output connector provides +5 volt pulses to 50 ohms (or higher).
- (6) IN, R_{IN}. With the R_{IN} switch in the 1 K position, the input signal at (6) must be TTL (+2.8 to 5.0 volts).
- (7) With the R_{IN} switch in the 50 ohm position, the -IP option is functional and so the input signal may have a peak to peak amplitude in the range of 0.1 to 5.0 volts (pulse or sine wave).

Fig. 3

REAR 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.

Schroff 10.11.91

Edition A