



# 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

e-mail: [info@avtechpulse.com](mailto:info@avtechpulse.com)  
<http://www.avtechpulse.com>

P.O. 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 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

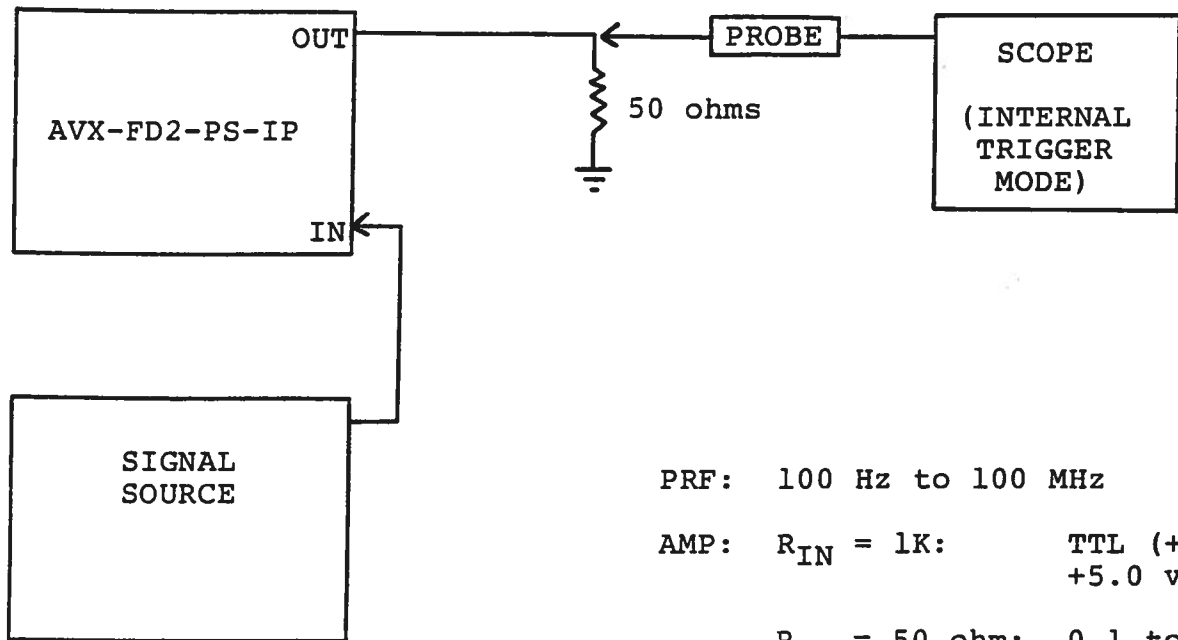
Fax: 613-226-2802 or 1-800-561-1970

E-mail: [info@avtechpulse.com](mailto:info@avtechpulse.com)

World Wide Web: <http://www.avtechpulse.com>

## TABLE OF CONTENTS

WARRANTY.....	2
TABLE OF CONTENTS .....	3
FIG. 1: GENERAL TEST ARRANGEMENT .....	4
GENERAL OPERATING INSTRUCTIONS .....	5
FIG. 2: FRONT PANEL CONTROLS .....	6
FRONT PANEL CONTROLS .....	7
FIG. 3: BACK PANEL CONTROLS .....	8
BACK PANEL CONTROLS .....	9
PERFORMANCE CHECK SHEET .....	10

FIG. 1: GENERAL TEST ARRANGEMENT

PRF: 100 Hz to 100 MHz

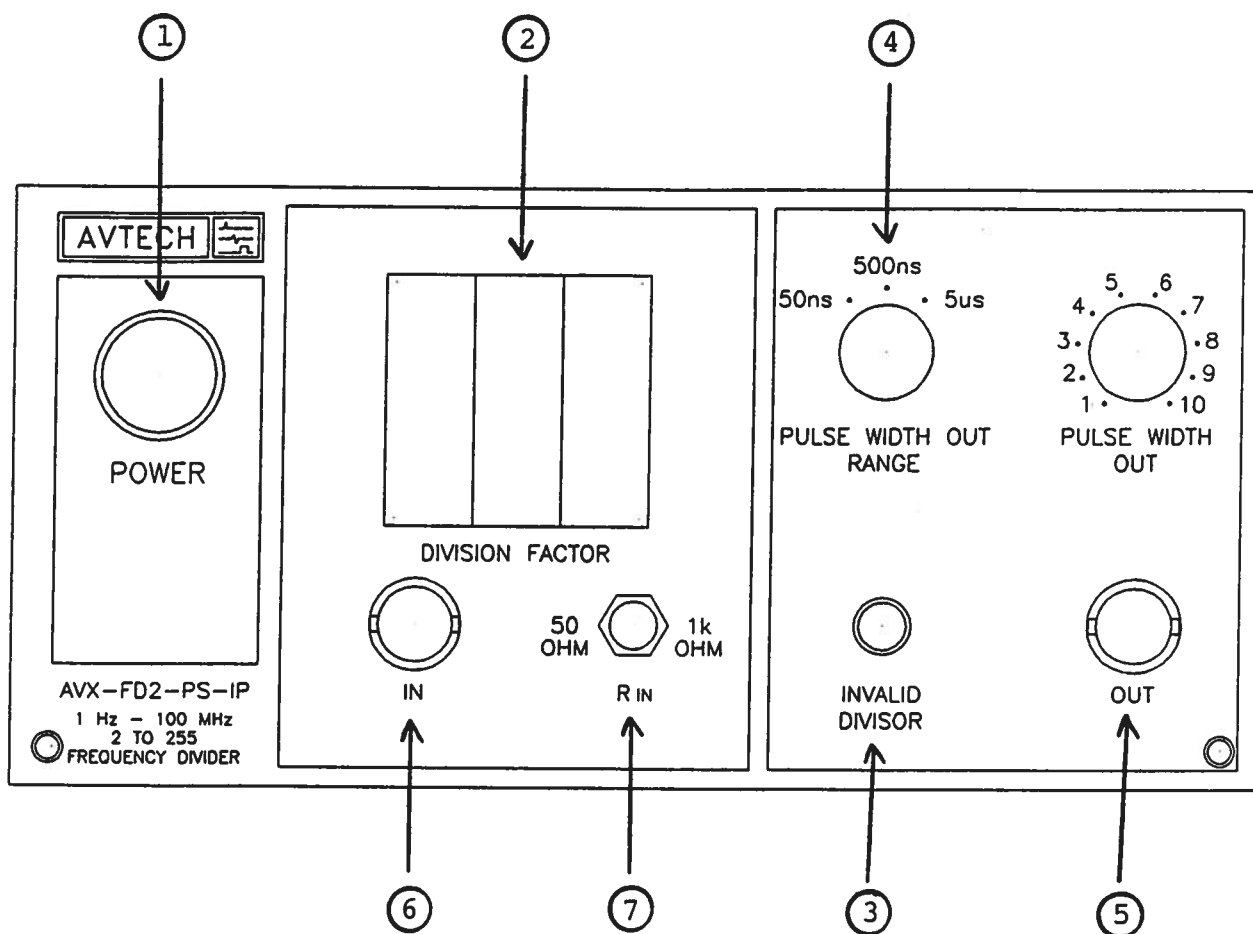
AMP:  $R_{IN} = 1K$ : TTL (+2.8 to +5.0 volts)

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

### GENERAL OPERATING INSTRUCTIONS

- 3) 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).
- 4) Take care to insure that the output pulse width is less than 0.5 of the period of the output pulse train.
- 5) 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.
- 6) The output amplitude is fixed at TTL levels and will drive an impedance as low as 50 Ohms.

**FIG. 2: FRONT PANEL CONTROLS**



## FRONT PANEL CONTROLS

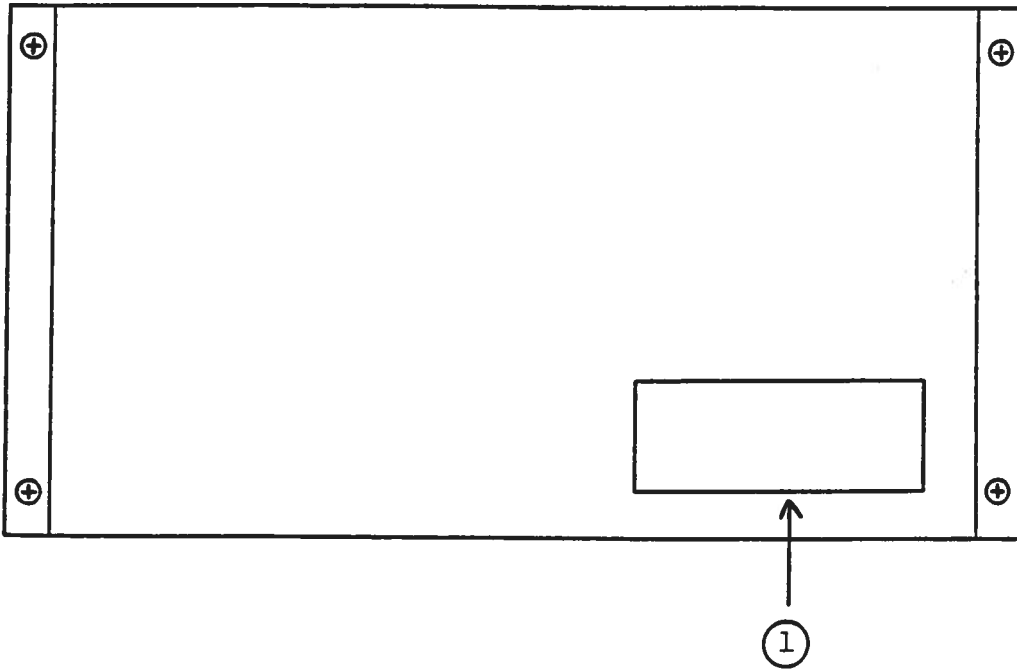
- (1) ON-OFF Switch. Applies prime power to all stages.
- (2) DIVISION FACTOR. Thumbwheel switch sets the division factor (2 to 255).
- (3) INVALID DIVISOR. This light will indicate if the division factor is set higher than 255.
- (4) PULSE WIDTH. Three position switch and one turn control controls output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

RANGE 1	10 ns to 50 ns
RANGE 2	50 ns to 500 ns
RANGE 3	0.5 us to 5 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<sub>IN</sub>. With the R<sub>IN</sub> switch in the 1 K position, the
- (7) input signal at (6) must be TTL (+2.8 to 5.0 Volts). With the R<sub>IN</sub> 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: 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.

Sept 20/96

Edition B

In Word

Nov 11/98

instructword\avxf\avx-fd2-ps-ip-edb.doc