

SPECIFICATIONS PS1-B

PULSED NUCLEAR MAGNETIC RESONANCE SPECTROMETER

MAGNET - FIELD STRENGTH IN GAP 3500 GAUSS (NOMINAL)
GAP 1.1 inches
UNIFORMITY .01% over 1cm³ volume
CARRIAGE Horizontal - Vertical Motion ± 2 cm
TEMPERATURE COEFFICIENT 4 Gauss/ $^{\circ}$ c
WEIGHT 42 LBS.
LUBRICATE BEARINGS WITH WD-40

CASE WITH POWER SUPPLY

POWER SUPPLY - TRIPLE OUTPUT
+5 volts @ 6A
+15 volts @ 1A
-15 volts @ 1A
Line regulation $\pm .05\%$ for 10% line change
Ripple 2 mv rms maximum
Load regulation $\pm .05\%$ for 50% load change
Two empty slots for additional modules
WEIGHT 15 LBS.

PULSE PROGRAMMER PP-101

A-PULSE 1-30 ms 4 volt positive
B-PULSE 1-30 ms 4 volt positive
Delay Time 10 ms (0.01×10^0) - 9.99 s (9.99×10^3)
MODE: Internal, External Pulse, Manual
REPETITION TIME: 1 ms to 10 s
Meiboom - Gill Phase shift pulse
Scope Synchronizing Pulse either at A or B
NUMBER OF B PULSES: 0-99

OSCILLATOR / AMPLIFIER / MIXER PT-1501
15 MHz DIGITALLY SYNTHESIZED OSCILLATOR
FREQUENCY RESOLUTION 10 Hz
FREQUENCY ACCURACY: .005%
CW-RF OUTPUT LEVEL - 13 db
PEAK OUTPUT POWER 150 watts (nominal)
MIXER INPUT LEVEL: 50 mv rms (max)
MIXER OUTPUT LEVEL: 2 v rms (max)
MIXER BANDWIDTH: 500 KHz

RECEIVER PR 1501

CENTER FREQUENCY: 15 MHz (nominal) TUNABLE

BANDWIDTH 200 KHz (3db)

SENSITIVITY $8\mu V$ for full scale output

OUTPUT VOLTAGE / RANGE: 0-10 volts

GAIN RANGE: 60db (typical)

EQUIVALENT NOISE VOLTAGE: 1.5 mV rms

RF OUTPUT LEVEL: 50 mV for full scale signal

TIME CONSTANTS: .01, .03, .1, .3 ms

SAMPLE PROBE

TRANSMITTER COILS IN HELMHOLTZ CONFIGURATION

12 GAUSS ROTATING FIELD AT SAMPLE

RECEIVER COIL

SPECIAL CABLES FOR TRANSMITTER AND RECEIVER

SAMPLE STORAGE CASE

WITH 25 VIALS AND 5 O-RINGS

DUMMY SIGNAL AND TRANSMITTER PROBES.

TeachSpin, Inc.

WARRANTY

****Do not attempt to repair this instrument while under warranty****

TeachSpin, Inc. is proud of the quality and workmanship of its teaching apparatus. We offer a warranty, which is unique in the industry because we are confident of the reliability of our instruments.

This instrument is warranted for a period of **two (2) years** from the date of purchase. We will pay for all labor and parts to repair the instrument to new working specification due to defects in components, workmanship or ordinary use.

Should an electronic module malfunction, TeachSpin, Inc. will ship to you within one work week a replacement module at no charge. TeachSpin, Inc. will accept phone or fax requests for such replacement. You are responsible to ship to TeachSpin, Inc. the malfunctioning module, fully insured, within a period of three (3) weeks. Failure to do so will result in charging you full retail price for the replacement module. Your defective module will be repaired and returned to you at no charge. You are obligated to return, fully insured, the replacement module originally sent by TeachSpin, Inc. This one week replacement program assures your students that they can finish the experiments assigned without significant interruption. This warranty is void under the following circumstances:

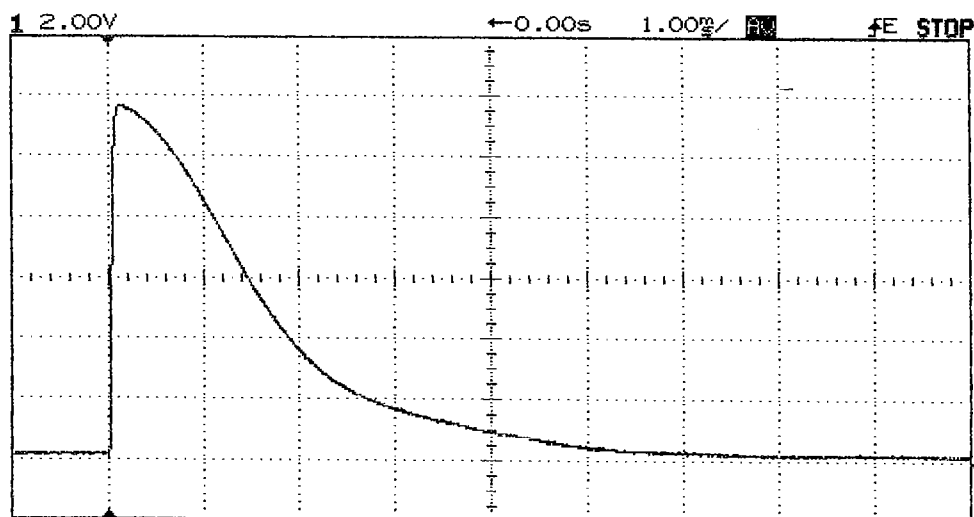
- a) The instrument has been dropped, damaged, or mutilated.
- b) Repairs or attempted repairs not authorized by TeachSpin, Inc. have been done to the module.
- c) Instrument has been subjected to high voltages, plugged into 210 volts AC or otherwise electrically abused.
- d) Instrument has been dropped or damaged by impact or extreme heat.

TeachSpin, Inc. makes no expressed warranty other than the warranty set forth herein, and all implied warranties are excluded. TeachSpin, Inc.'s liability for any defective product is limited to the repair or replacement of the product at our option. TeachSpin, Inc. shall not be liable for:

- 1) Damage to other properties caused by any defects, for damages caused by inconvenience, loss of use of the product, commercial loss, or loss of teaching time.
- 2) Any other damages, whether incidental, consequential or otherwise.

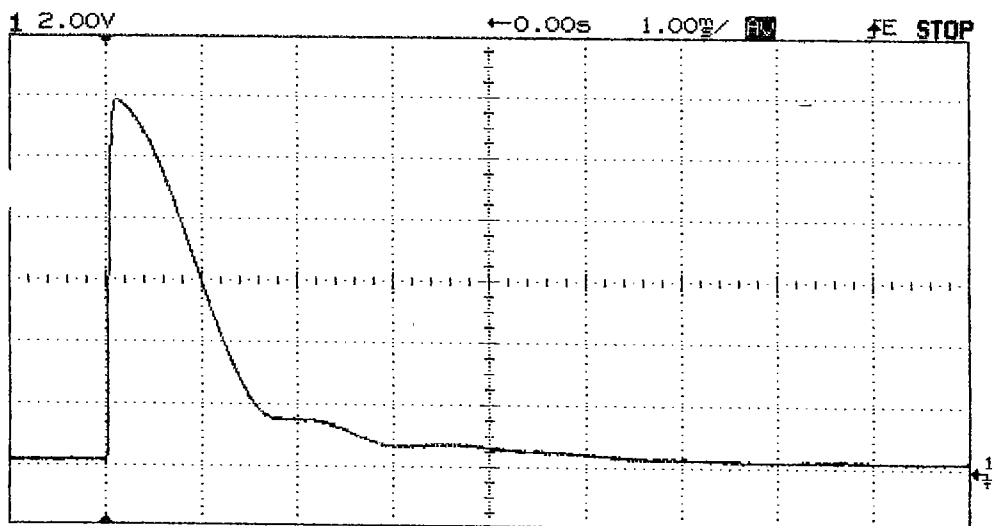
**45 Penhurst Park
Buffalo, New York 14222
716-885-4701 or 1-800-819-3056**

E

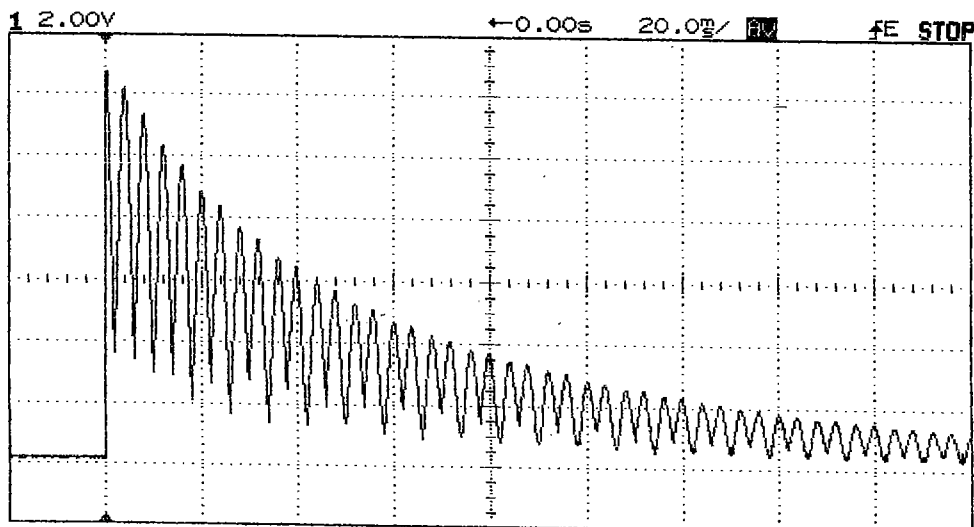


PS 1-B # 202
 SWEET SPOT
 FID MINERAL OIL
 FREQ 15.47 MHz
 $\chi = -1.0 \text{ cm}$
 $\rho t = 10$
 J.F. Reichert

E



PS-1B # 202
 FID MINERAL OIL
 CENTER FIELD
 FREQ 15.473 MHz
 JAN 24, 2003
 J.F. Reichert



PS 1-B # 202
 T_2 G/M Pulse Seq
 DELAY 2.0 msec
 Mineral oil
 45 B PULSES
 FREQ 15.47 MHz
 J.F. Reichert