



RESEARCH

225 CURRENT SOURCE



Surplus K270-35

1

AGE
IANCE

OUTPUT
ELECTO

D

STANDBY

C

00

LIMIT



ON



FILTER



OFF

LOW

OUT



KEITHLEY INSTRUMENTS

271417

KEITHLEY MADE IN U.S.A.

3AG SLOW BLOW FUSE		
VOLTS		AMPS
117	—	1/4
234	—	1/8
50—60 Hz		

MODULATE

OUT

LOW

GROUND

LINE
VOLTAGE

FUSE

WAVETEK Arbitrary Waveform Generator model 75



| F1 | F2 | F3 |



Menu

Parameter

Store

Edit

Setup



F1

F2

F3

Counter

Trigger

Hold

Return

Power

On

Off

Tr In (L)

Burst Done Out (L)

Sync In

Sync Out (L)

Sum In (50)

ARB Out (50)

42V pk
x Float

S/N B7270730



WAVETEK
San Diego, CA USA

MODEL	OPTION
75	001
48 - 66 Hz 25 VA MAX	
MADE IN USA	FUSE 3AG 250V
LINE VOLTAGE RANGE	
115V	230V
90V TO 128V	180V TO 256V
3/8 A	3/16 A

WARNING
BEFORE OPENING, UNPLUG POWER CORD. DANGEROUS VOLTAGES INSIDE. SEE MANUAL FOR SAFETY INSTRUCTION.



IEEE-488

Ref In (TTL)

Ref Out (TTL)

Hold In (TTL)

Z-Axis Out (600Ω)

Return In (TTL)





UniBlitz®

**MODEL 100-2B
SHUTTER DRIVE CONTROL**

VINCENT ASSOCIATES
ROCHESTER, NEW YORK 14607

REMOTE

DC INPUT

OPEN

CLOSE

SHUT

POWER

OFF

115 VAC 50/60 HZ



VA

UNIBLITZ®

MODEL

100-23

87084

S

VINCENT ASSOCIATES

ROCHESTER, N.Y. 14607

PAT. NO'S. 3595553, 3427576

DISPLAY SIGNAL PROCESSOR
PHI MODEL 32-050



PHYSICAL ELECTRONICS INDUSTRIES INC.

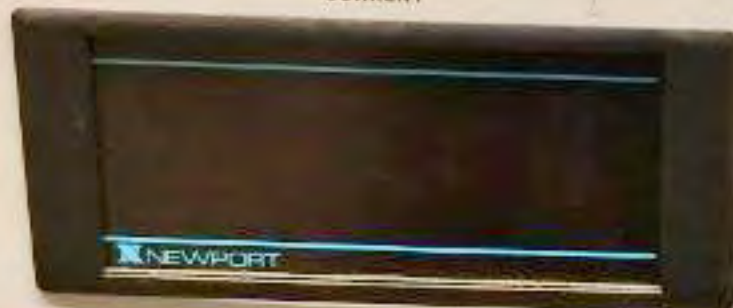
POWER



ON



CURRENT



BEAM
CURRENT



ZERO



MODE

METER

ABS
BEAM

10N
(nA)

DISPLAY

ABS
SED

OD

CURRENT RANGE

10^{-9} 10^{-8} 10^{-7} 10^{-6}

IMAGE

NORM

INV

TV CONTRAST



SPECIMEN
BIAS

ON

OFF

VOLTS



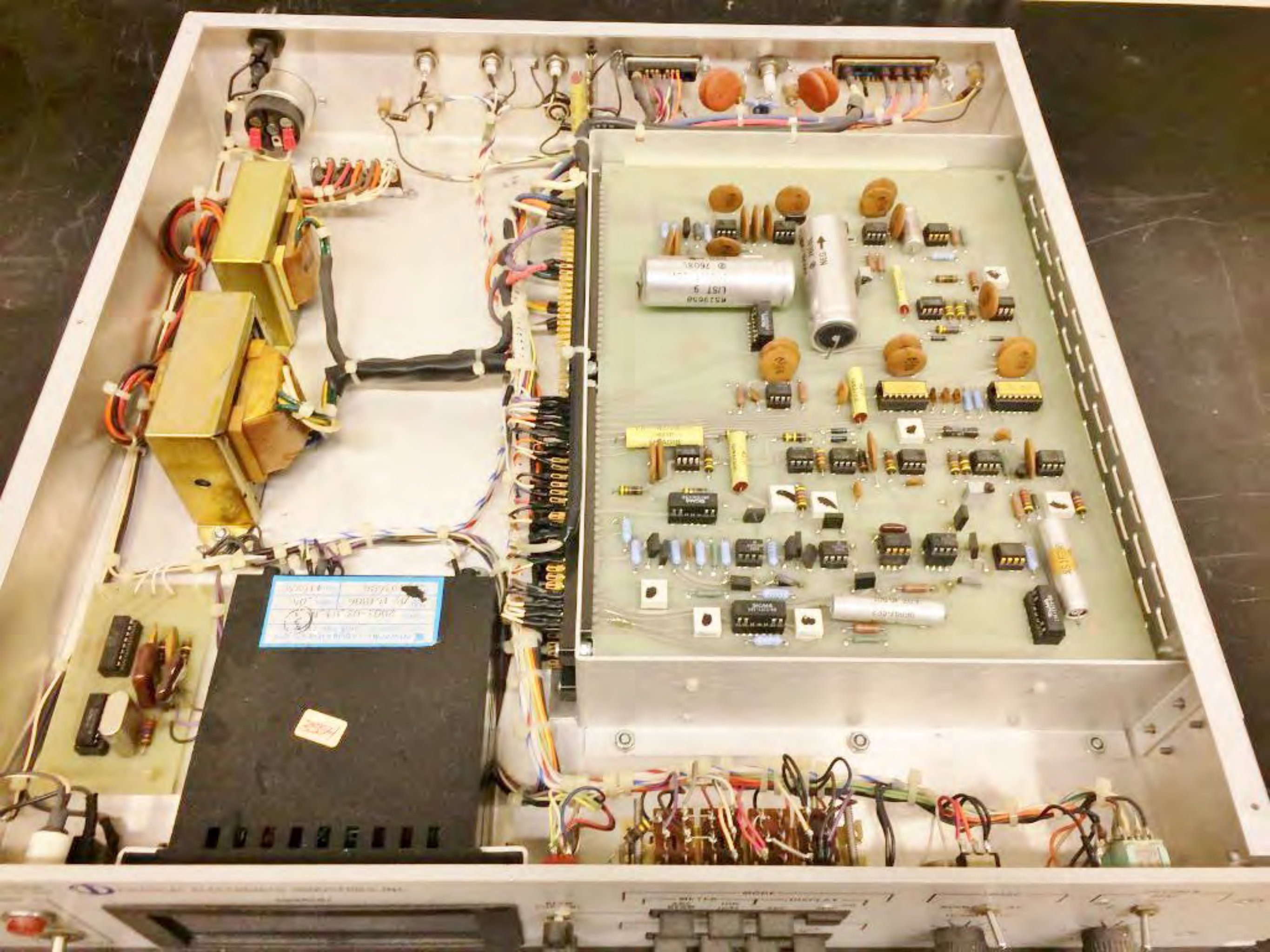
DISPLAY SIGNAL PROCESSOR
PHI MODEL 32-050



POWER



ON





THE OHIO STATE UNIVERSITY



01108887

O.S.U. PROPERTY



 OFF	 -4	 -3	 -2	 -1	 MAX
					

 Lake Shore Cryotronics
DRC 82C TEMPERATURE CONTROLLER



Lake Shore Cryotronics, Inc.
Westernville, Ohio U.S.A.
13019

FUSE DATA
50-60 HZ AC
90-125V
2.0A
3AG-SB
210-250V
1.0A
3AG-SB

OSU
8305-91

INPUT A INPUT B
SAMPLE
A B
CONTROL
A B

SENSOR ID SENSOR ID

MONITOR
REMOTE SENSOR ID

IEEE STANDARD 488 INTERFACE
SH1 AH1 T7 L5 SR2 RL1 PW0 DC1 DT0 C0 E1

DU1
SL788421

HEATER POWER
HEATER RESISTANCE
10-250 25-300 30-500





ITHACO

DYNATRAC

A
A SIN



FUSE DATA

MOD

S/H

OUTPUT ROLLOFF

6dB/OCT

12dB/OCT

OUTPUTS

A out B

A

A in B

PREAMP

MOD

393

s/N

591107



FOCUS

604 MONITOR

TEKTRONIX, INC.,

**POWER PULL
ON**





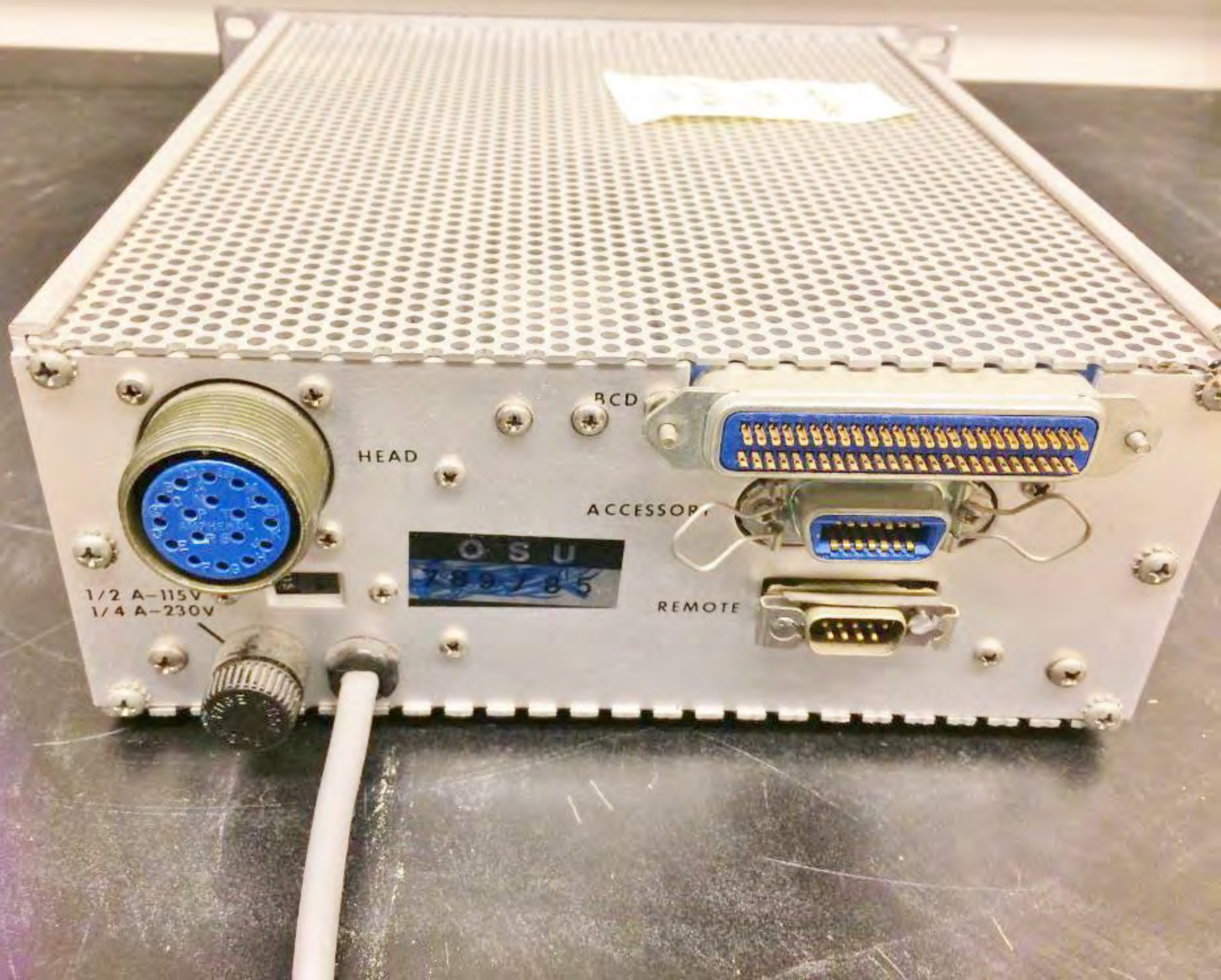
TYPE 270



X10⁻³

10K

SP





SCANNING SYSTEM CONTROL
PHI MODEL 20-065

Φ *PHYSICAL*

POWER



START





CHAN A

A+B

CHAN B

DISPLAY
HORIZ. OUT

TV
HORIZ. IN

LOCK-IN RECORDER
OUTPUT

HIGH VOLTAGE
INTERLOCK

1A-5B

SPECIMEN
CURRENT OUT

VERT. OUT

VER.

VIDEO OUT

VIDEO IN

DEFLECTION

20-065

Scanning System
Control

SERIAL NO.

225 CURRENT SOURCE



VOLTAGE COMPLIANCE

OUTPUT SELECTOR

LIMIT

ON

STANDBY

FILTER

OFF

2

OUT

1

LOW



RY INS

ENTER

K. 124196
KEITHLEY INSTRUMENTS
INC.
CLEVELAND OHIO MADE IN U.S.A.

3AG SLOW BLOW FUSE		
VOLTS		AMPS
117	—	1/4
234	—	1/8
50-60 Hz		

MODULATE

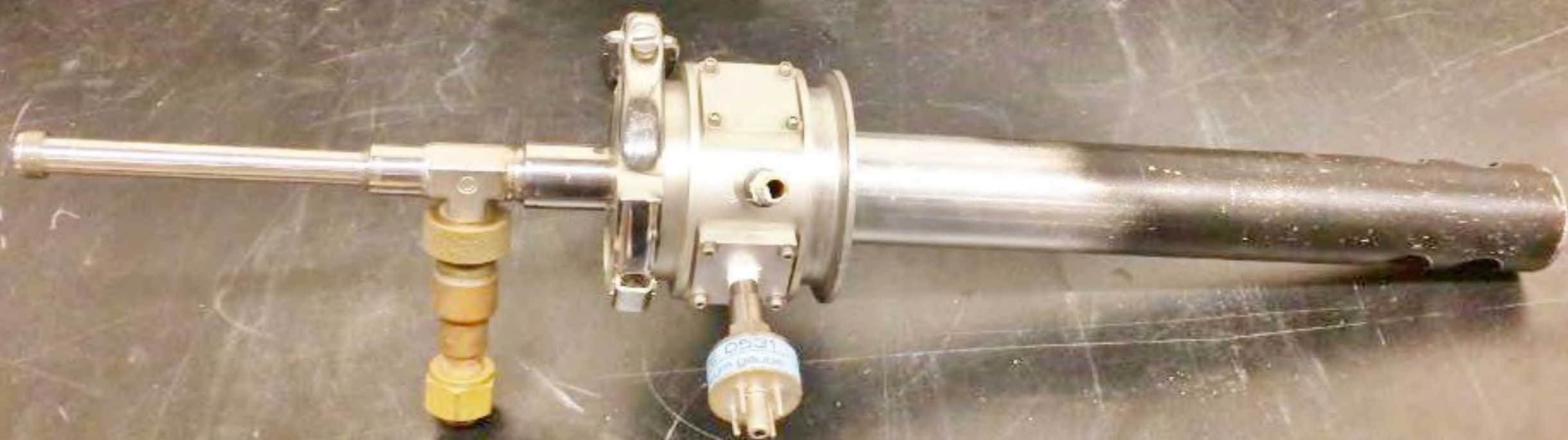
OUT

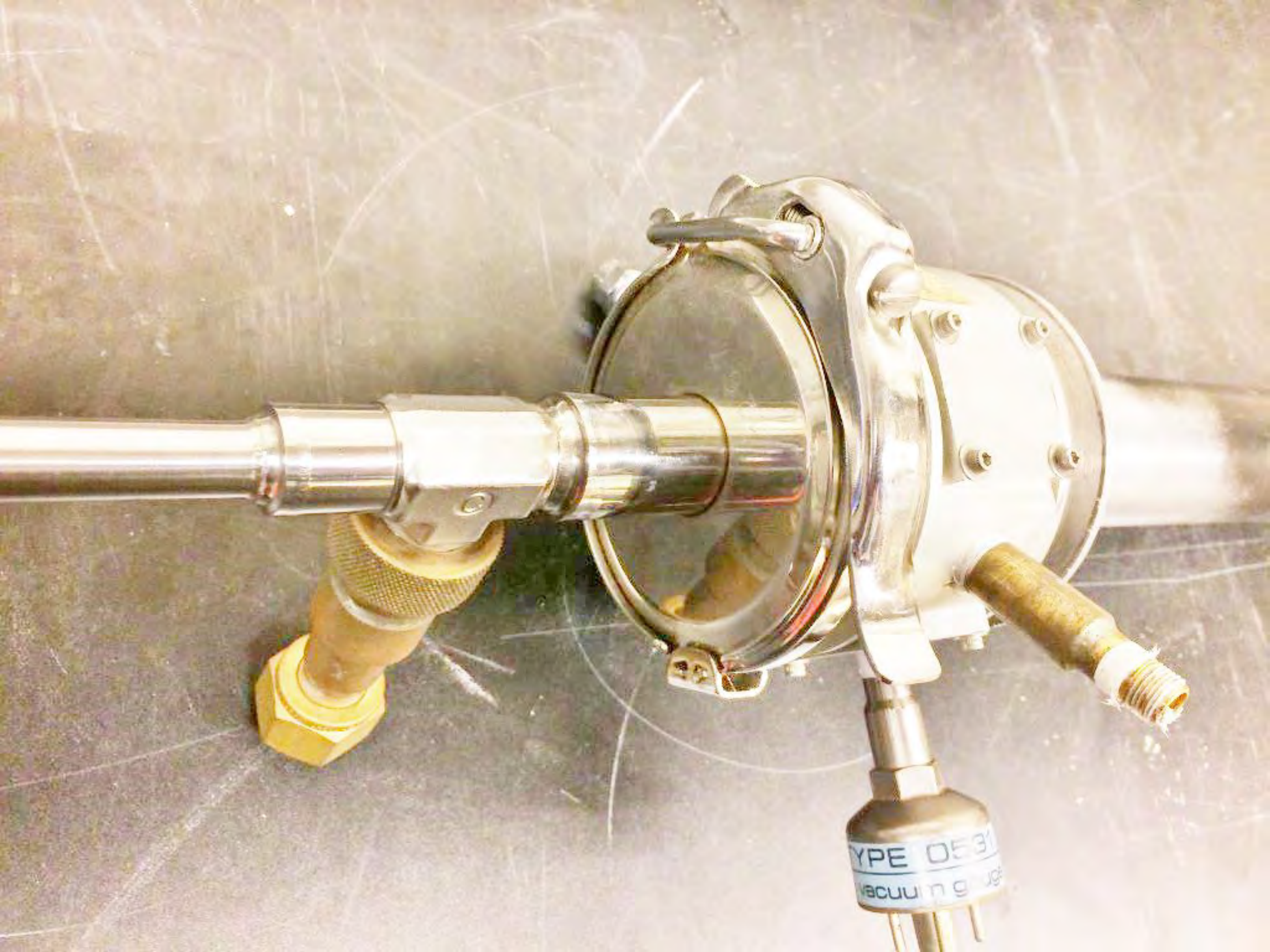
LOW

GROUND

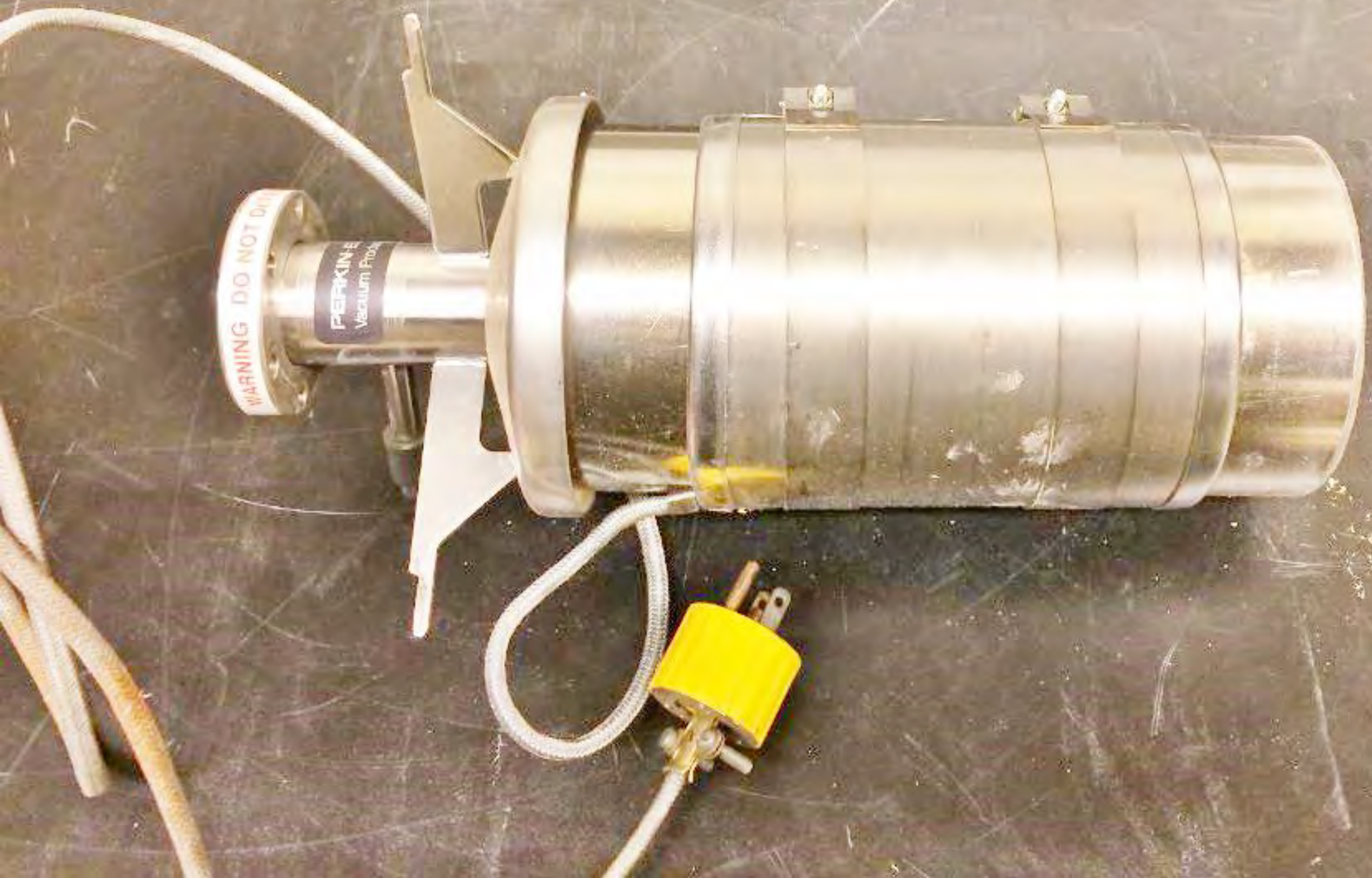
LINE
VOLTAGE

FUSE





TYPE 0531
vacuum gauge



DO NOT DEFEAT RELIEF

PERKIN-ELMER
Vacuum Products

WATLOW - ST. LOUIS

COD. NO. 2435BX 7251

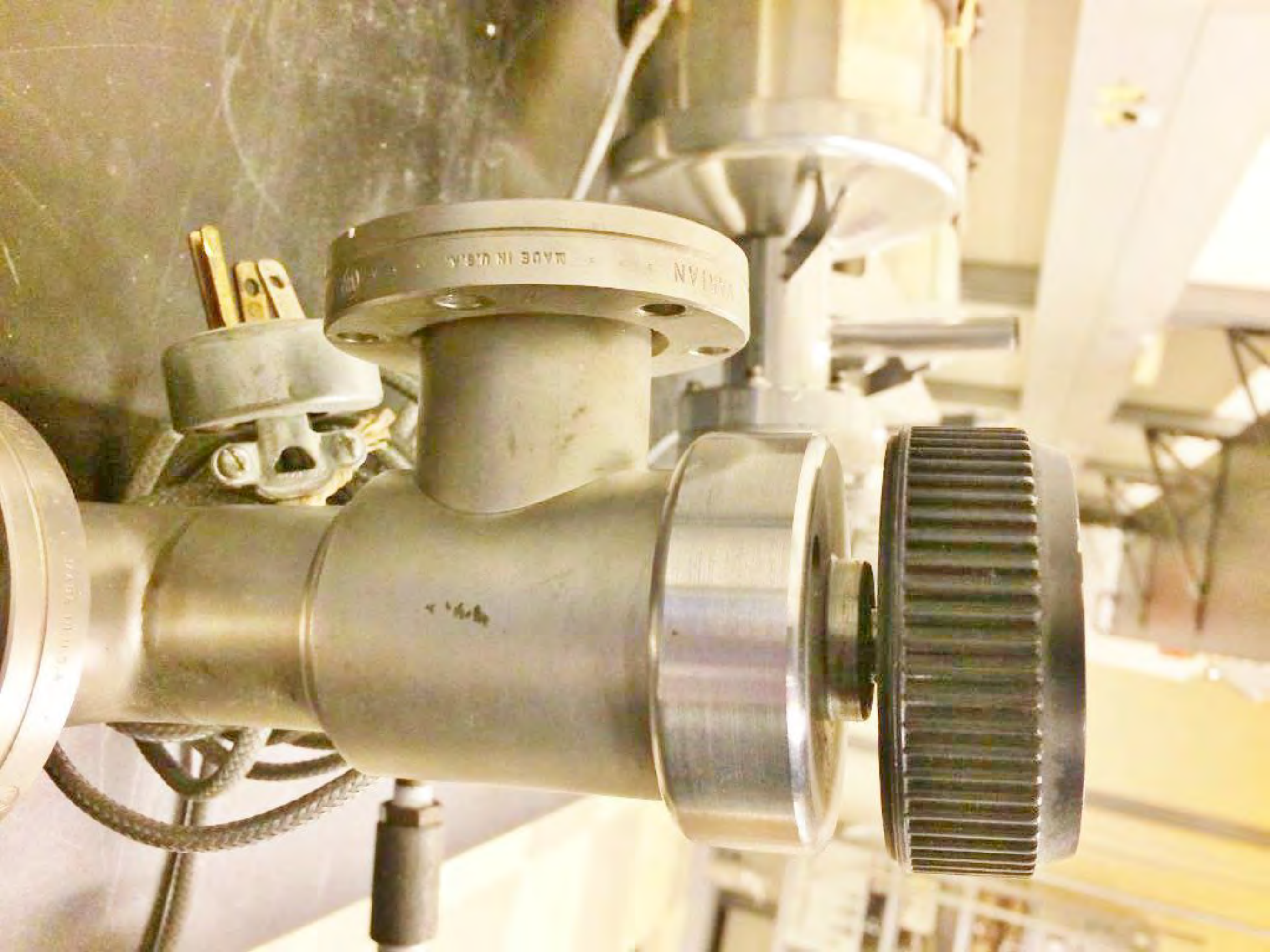
VOLTS 220 WATTS 350

WATLOW - ST. LOUIS

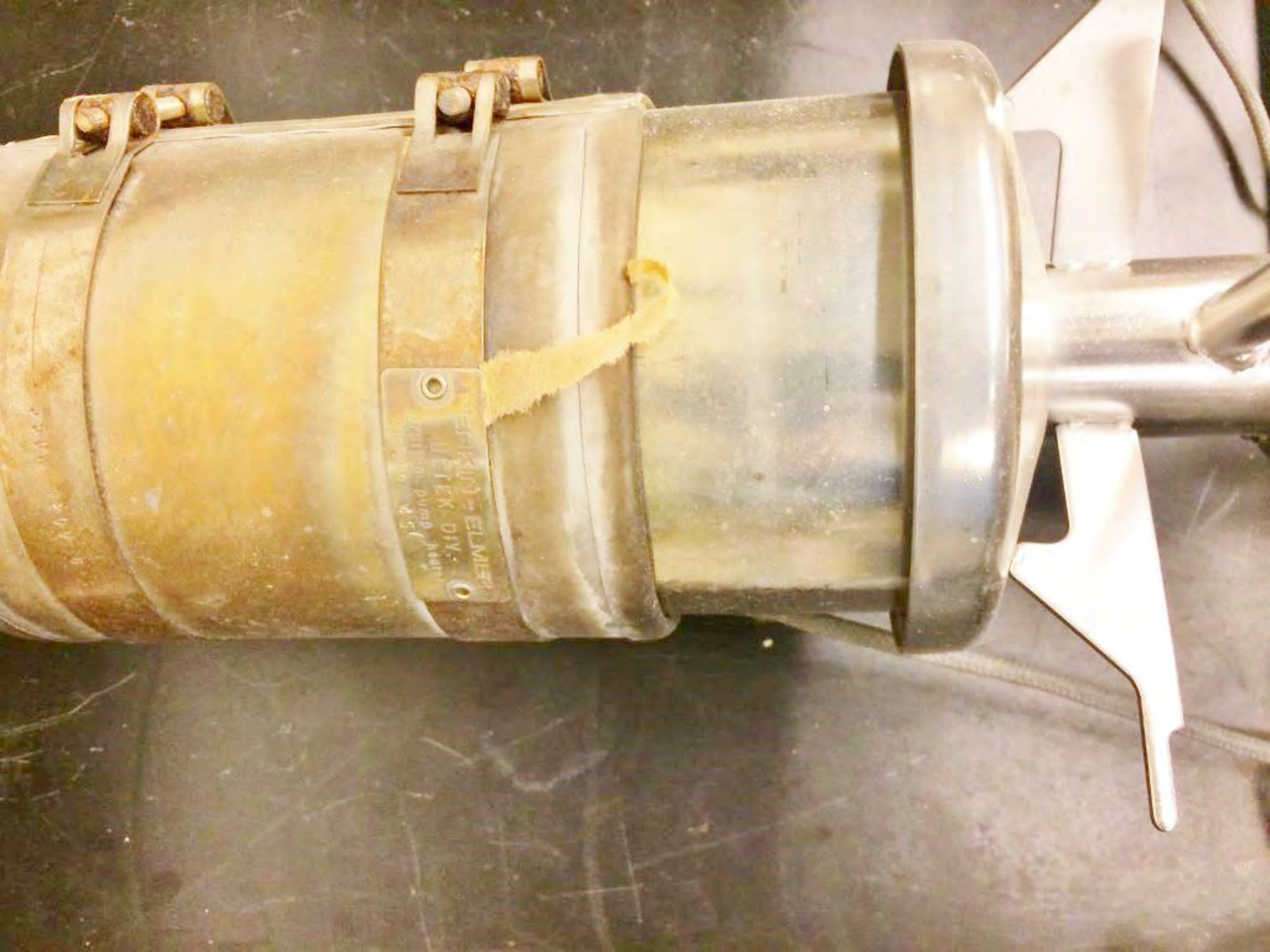
CODE NO. 124-5BX 7251

VOLTS 220 WATTS 350

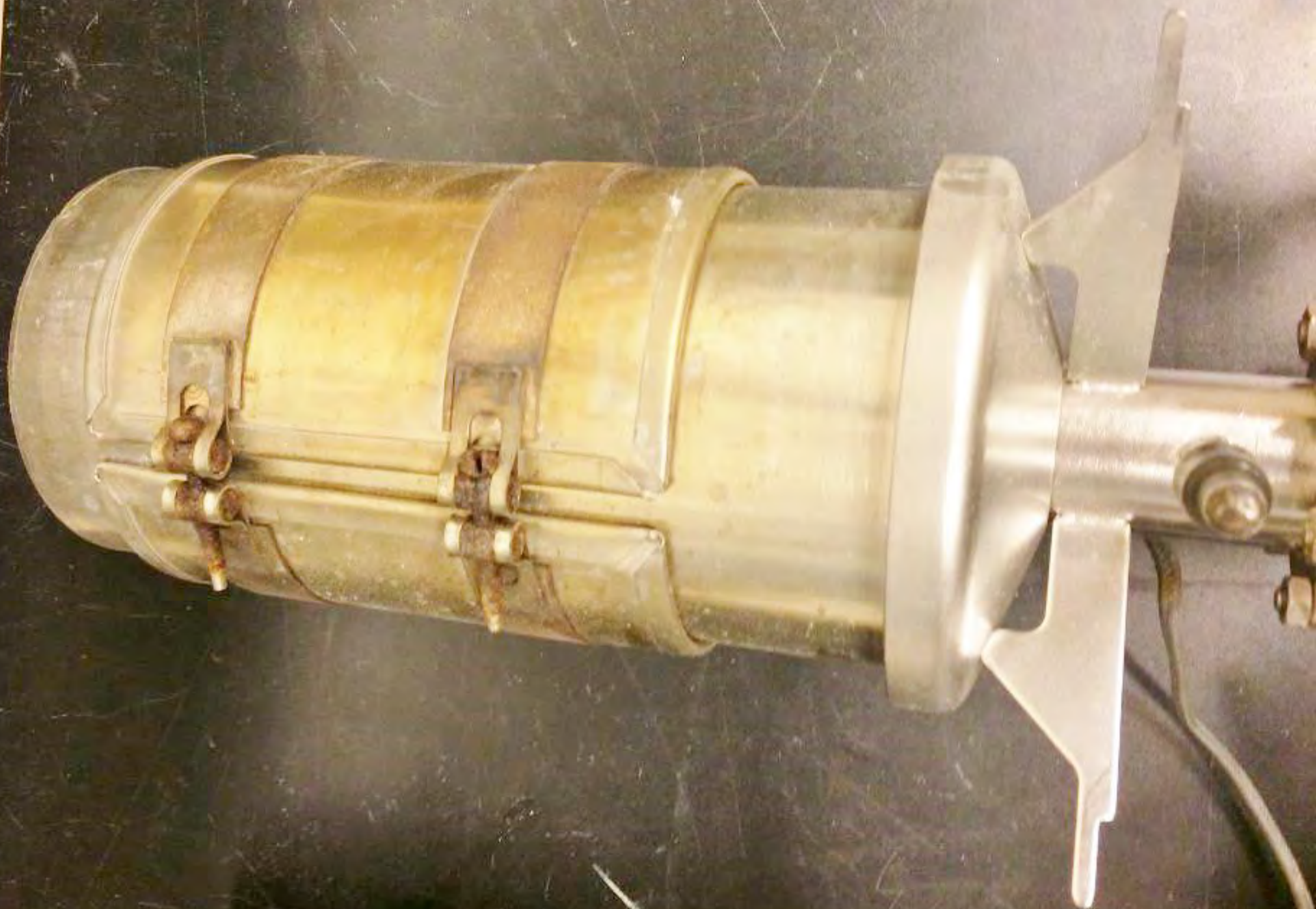




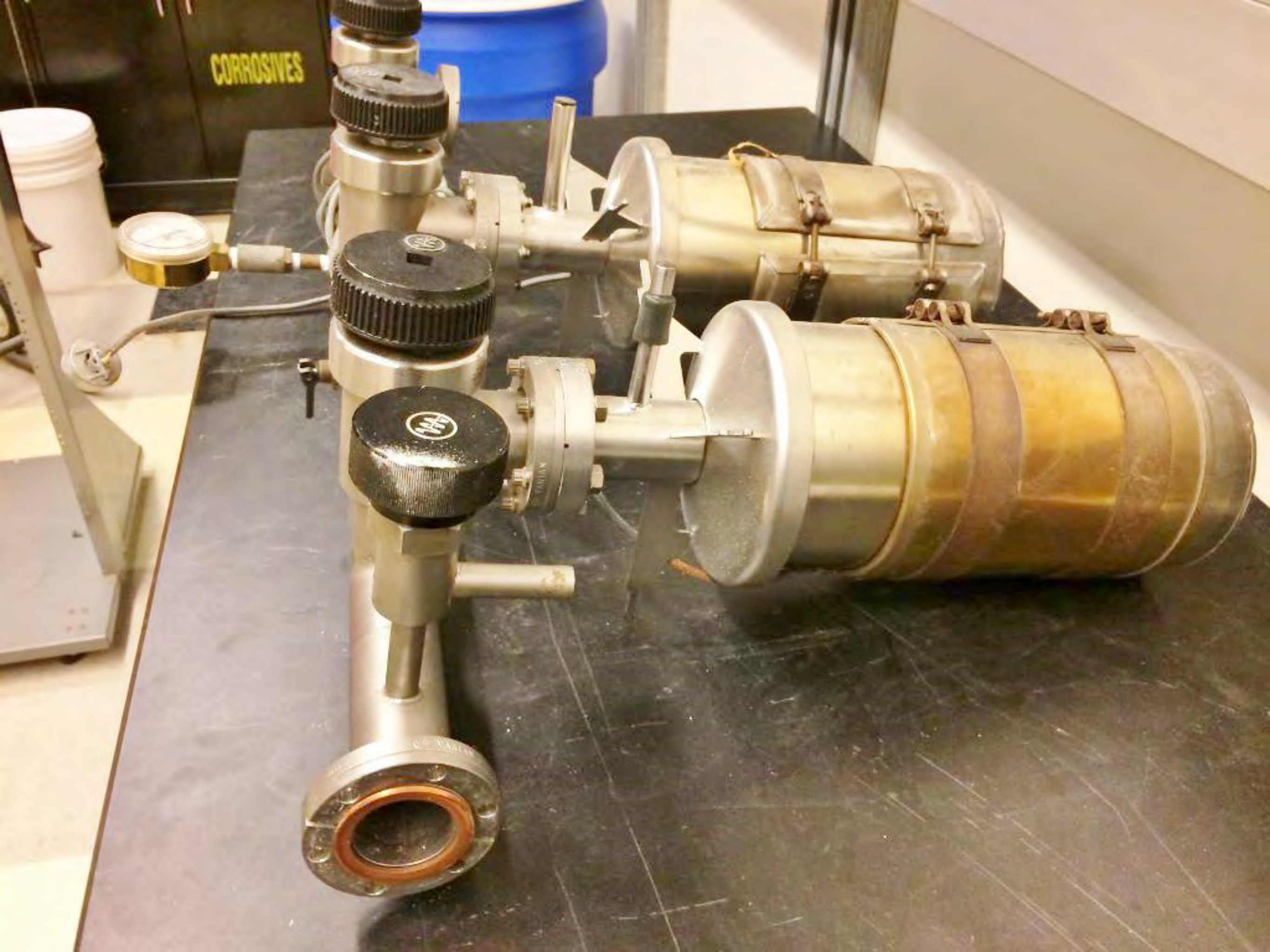




ELMER
VEIK DIV.
pump, high
no. 451



CORROSIVES





POWER INTERLOCK
PHI MODEL 18-030



PHYSICAL ELECTRONICS INDU





CONSTANT CURRENT SOURCE



PWR



FWD



MODEL CS 100



PICOWATT AC RESISTANCE BRIDGE / MODEL 120

BRIDGE EXCITATION

COARSE

0.1 0.3 1 3 10 30 100

MILLIVOLTS RMS

FINE

10 20 30 40 50 60 70 80 90 100%

SECONDS

0.1 0.3 1 3 10

FILTER

TIME CONSTANT

1 10 100 1K

AMPLIFIER SENSITIVITY



S.H.E. Mfg.
SAN E

RESISTANCE

12W 120W 1.2M

12W 120W 1.2M



Amphenol wiring scheme for two labs:

Paul's lab	George's lab
A - Brown (+)	A - Brown (V+)
B - Black (+)	B - Orange (V-)
C - Orange (-)	C - Black (I+)
D - N/C (-)	D - N/C (I-)
E - Yellow GND	E - N/C
F - N/C N/C	F - Yellow

OSU
757665

SERIAL NO. 7048

MADE IN USA

STD.



A

B

MODE



UniBlitz®
MODEL D122
SHUTTER DRIVER

N.O.



DISABLED



N.C. SHUTTER



SYNC

ON



OFF



POWER



RESET



RESET

PULSE IN

SYNC.

UNIBLITZ®
MODEL
0122
A390329
VINCENT ASSOCIATES
ROCHESTER, N.Y. 14607
PAT. NO'S. 3595553, 3427576

PULSE O/C

PULSE OUT

RS-232C

62MM

SHUTTER

STD

VINCENT ASSOC.
ROCH., N.Y. 14607

SHUTTER
FUSE

LINE
FUSE

110 VAC 60 HZ.
220 VAC 50 HZ.





Miller

RADIO PRODUCTS

MADE IN U.S.A.



692

30 MH 100 MA

R. F. CHOKE



Miller





MULTIPLEX CONTROL
PHI MODEL 20-055



PHYSICAL ELECTRONICS INDUSTRIES INC.

POWER



EN

ON

SET/RUN



CHANNEL



TIME BASE MIN/DIV



PEAK TO PEAK
DETECTOR



CH 1

CH 2

CH 3

CH 4

CH 5

CH 6



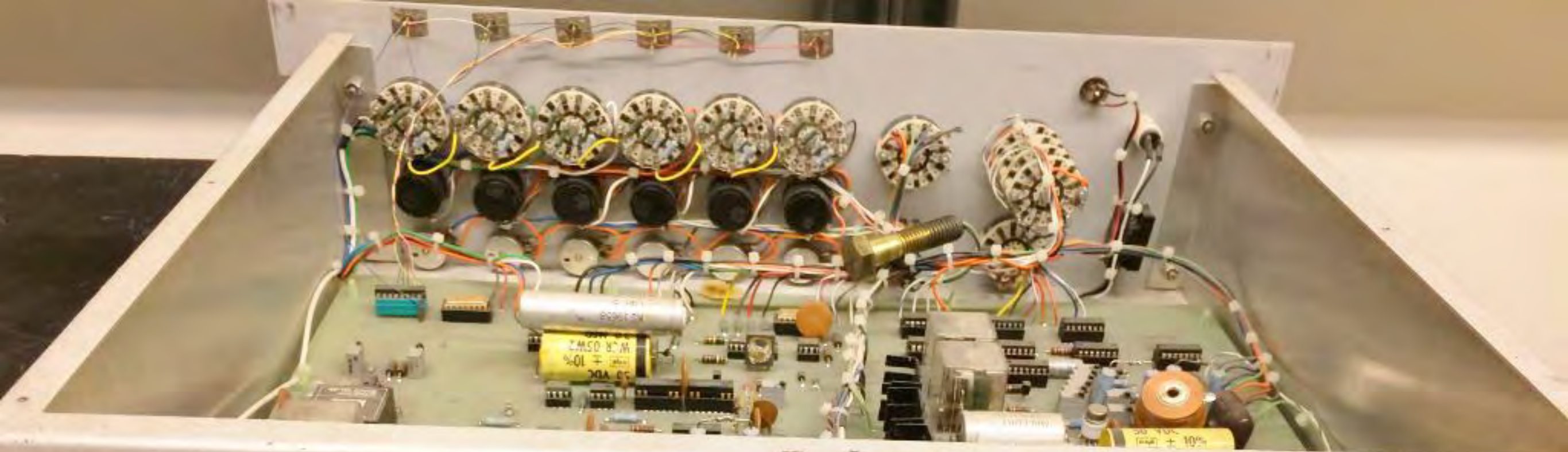
POWER LIMIT



EEP WIDTH







LOCK-IN
INPUT



SYSTEM
CONTROL
LOCK-IN
CONNECTOR



RECORDER



LOCK-IN
OUTPUT



SYSTEM
CONTROL



20-055
Multiplex
Control

1A-SB

SPUTTER GUN
CONTROL



OPTION NO. A

SERIAL NO.



DANGER
HIGH VOLTAGE

POWER SUPPLY
PHI MODEL 20-085



PHYSICAL ELECTRONICS INDUSTRIES INC.

POWER



ON



BEAM
ON



MODE

CAL. (2KV)

VARIABLE



BEAM VOLTAGE
(VARIABLE 0-10KV)



BEAM VOLTAGE



POWER SUPPLY
PHI MODEL 20-085

 **PHYSICAL ELECT**

POWER



BEAM
ON

DANGER

Power Supply

20-085

HIGH VOLTAGE OUTPUT



ALWAYS OPERATE WITH
GOOD EXTERNAL GROUND

	MODEL RHR10M30X446
	SERIAL SP7917-12
	OUTPUT 0-10KVDC, 3mA
	INPUT 115V, 60Hz
FUSE 2 AMP	
SPELLMAN HIGH VOLTAGE ELECTRONICS CORPORATION BRIDGE, NEW YORK	

**CAUTION
HIGH
VOLTAGE**

PHYSICAL ELECTRONICS
EDEN PRAIRIE, MINNESOTA

SERIAL NO
MODEL RHR10M30X446



ELECTRON GUN CONTROL
PHI MODEL 11-045



PHYSICAL ELECTRONICS INDUSTRIES INC.

POWER



ON



CONDENSER
LENS
COARSE



FINE



OBJECTIVE
LENS
COARSE



FINE



EMISSION CURRENT



EMISSION



FILAMENT



6.25 TURNS

Electron gun
control 11-045

**CAUTION
HIGH
VOLTAGE**
PHYSICAL ELECTRONICS
EDEN PRAIRIE, MINNESOTA



Panel with connectors and controls:

- Two columns of three blue BNC connectors each, labeled **F2** and **V1** above them.
- A black rotary switch labeled **1A-SB** with a **PH** logo and **SERIAL NO** label.
- A black circular port below the switch.
- A circular port with a brass pin at the bottom right.

AUGER SYSTEM CONTROL
PHI MODEL T1-500M



PHYSICAL ELECTRONICS INDUSTRIES INC.

POWER



ELECTRON ENERGY



START



HOLD



PARTIAL SWEEP



METER

BEAM CURRENT

10.0

10.0

10.0

10.0

10.0

10.0

10.0

10.0

10.0

10.0

10.0

10.0

10.0

10.0

10.0

10.0

10.0

10.0

10.0

10.0

10.0

10.0

10.0

10.0

10.0

10.0

10.0

10.0

10.0

10.0

10.0

10.0

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10.0

10.0

10.0

10.0

10.0

10.0

10.0

10.0

10.0

10.0

10.0

10.0

10.0

MODULATION
AMPLITUDE
BY
PEAK TO PEAK



SCALE
X-DIVISION



ZERO
SUPPRESS



TC

1

0.3

3

0.3

3

0.3

3

0.3

3

0.3

3

0.3

3

0.3

3

0.3

3

SWEEP

MULTIPLIER



AUGER SYSTEM CONTROL
PHI MODEL 11-500M



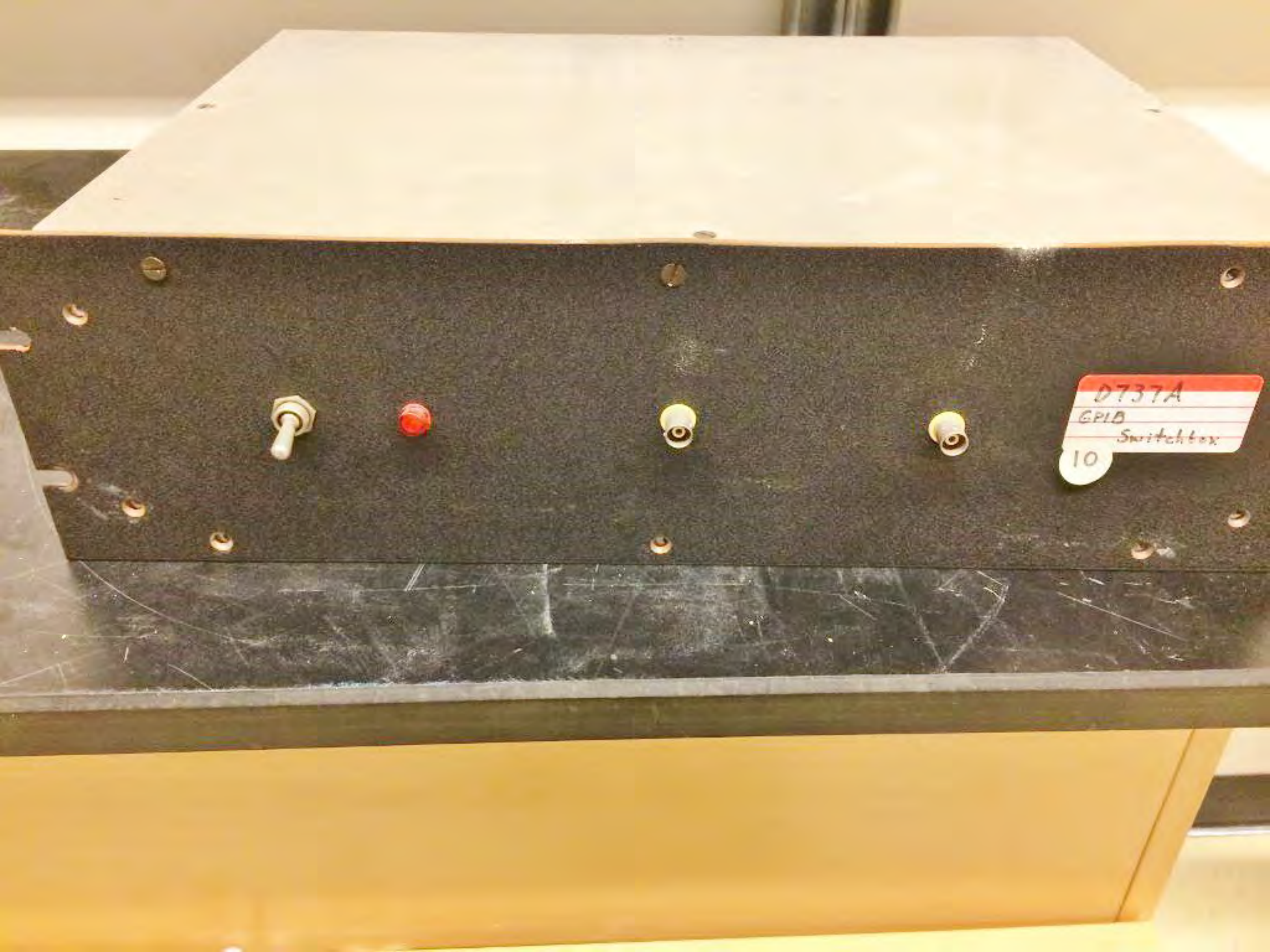
PHYSICAL ELECTRONICS

POWER



ELECTRON ENERGY, eV





D737A
GPID
Switchbox
10









Si Diode Current

Adjust

+
off
-

Magnet Current

A

External
off
Internal

Int R1

Int R2

Int R3

Internal Current

On

Off

On

Off

R1: Int/0.1A; Ext/1.25mA
R2: Int/0.01A; Ext/1.5mA
R3: Int/0.001A; Ext/25mA
R4: Int/0.0001A; Ext/250mA
R5: Int/0.00001A; Ext/1.9A



External
magnet
current
supply

(A)

+

-

Ch6 SiDi

Heater
Current
In

Ch5

Mag.
Current (A)
Monitoring
Voltage

Magnet
Current
Source (B)

He Level Meter

Current
I_h

Voltage Channel D

Magnet
Current
Source (C)

Cernox

A

B

Probe
I/O



Turn On
Power Supply

On/Off
Resistance
DCA

Therm.
Select

Bridge
Error

Relat.
Lock

Temp.
Sweep

On
Off

RC Adj. 5k

Reset

Integrator

Level

On
Off

Prog.

Level

On
Off

Rate

Feedback
Mon.

Heat
Level

Feedback
Mon.

Heat
Out

Max
Heat





