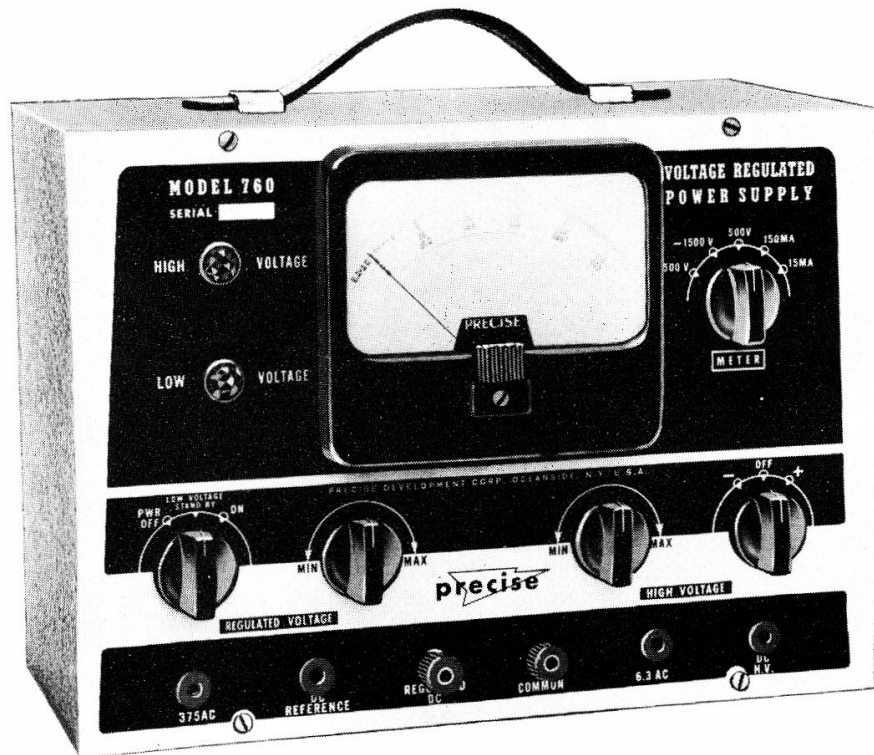


INSTRUCTION BOOK

MODEL 760



precise

PRECISE DEVELOPMENT CORP.
Oceanside, L. I., N. Y.

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INTRODUCTION

Your PRECISE MODEL 760 Voltage Regulated Power Supply has been engineered to supply the numerous voltages most often needed in laboratory, experimental and repair work. The low ripple percent and excellent regulation qualities make it extremely valuable for work even in low level DC amplifier, low frequency oscillator, and multivibrator design.

The high voltage section lends itself to oscilloscope applications where high voltages at low currents of either polarity are used. The instrument is also invaluable as a substitution device for radio and TV repair work involving power supply troubles.

In general, it may be said that the uses of the MODEL 760 are unlimited in aiding the design and service engineer to determine his power supply requirements.

ELECTRICAL SPECIFICATIONS:

POWER	100 Watts
VOLTAGE	105 - 125 Volts
LINE FREQUENCY	50 - 60 Cycles

OUTPUT VOLTAGES:

160 to 450V DC (1% Regulation)
450 to over 1000V DC
75V Approx. Reference 1%
6.3V AC
375V AC

OUTPUT CURRENTS:

100 to 20 MA (1% Regulation)
1 MA Unregulated
10 MA
4 Amperes
50 MA

TUBES:

1 - 5Y3	Low Voltage Supply
1 - 6W4	High Voltage Supply
1 - 0A2	Voltage Reference
1 - 6Y6	Series Regulator
1 - 6AU6	Voltage Amplifier

MECHANICAL SPECIFICATIONS:

HEIGHT	8"
WIDTH	11"
DEPTH	5"
WEIGHT	15 Pounds
PANEL	Slate Grey, Deeply Etched Aluminum With Raised Numerals.
CABINET	Baked, Wrinkle Grey Steel
HANDLE	Leather

PRECISE, again keeping in mind its BALANCED DESIGN principle, has separated the controls on the front panel into three groups as follows:

- 1 - The Meter Section is at the upper right with the indicator lamps at the upper left.
- 2 - The Regulated Voltage Section is at the lower left.
- 3 - The High Voltage Section is at the lower right.

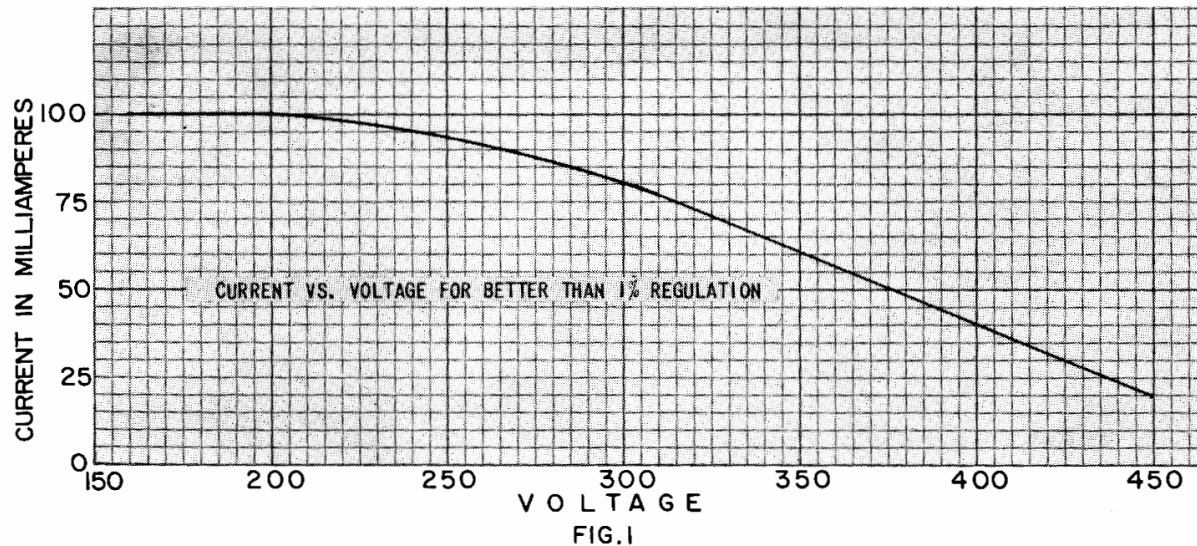
METER SECTION

METER SWITCH - This 5 position switch selects the particular voltage or current range to be measured. Current ranges apply only to the regulated section and not to the high voltage. The indicator lamps at the upper left of the panel show whether low or high voltage is being measured. The meter accuracy is 2% of full scale on the low voltage and current ranges and 5% of full scale on the high voltage ranges.

REGULATED VOLTAGE SECTION

POWER SWITCH - This is a 3 position switch which controls the power to both the high and low voltage supplies. position 1 is POWER-OFF. When the switch is in position 2 (LOW VOLTAGE STANDBY) no regulated power voltage is available at the terminals, but all other sections have power. In Position 3, regulated voltage is supplied to the regulated D.C. binding post.

REGULATED VOLTAGE POTENTIOMETER - This control adjusts the regulated output voltage between 160 and 450 volts. The current limit for any voltage is shown in Figure 1. The regulated voltage can be adjusted with the switch in the Standby position and should not change when voltage is supplied to the load as long as current ratings are not exceeded.



Regulation of the unit is well within 1% if loads are within specified ratings. The ripple is less than .1% if load is within ratings.

NOTE: The above chart is approximate and may vary with instruments.

HIGH VOLTAGE SECTION

HIGH VOLTAGE SWITCH - In the "OFF" position, the high voltage is disconnected from both the meter and the D.C.-H.V. (High Voltage D.C.) output jack. Negative and positive voltage is applied to the high voltage jack in the - and + positions respectively. The return lead for either position of the high voltage is the COMMON binding post.

HIGH VOLTAGE POTENTIOMETER - This control varies the high voltage from approximately 450 to over 1000 volts. This voltage is not regulated and currents should not exceed a maximum of 1 MA.

NOTE: Proper polarity of high voltage must be observed when using the Meter Switch on the high voltage positions. It is suggested that the High Voltage Switch be placed in "OFF", then the correct high voltage range be selected.

HIGH VOLTAGE, unlike the regulated low voltage, cannot be measured if the High Voltage Switch is in the "OFF" position.

HIGH VOLTAGE CURRENT cannot be measured on the internal meter. This was purposely left out to protect the meter.

BINDING POSTS AND JACKS

COMMON - The common 5 way binding post is the common terminal for all voltages both AC and DC.

REGULATED DC - This 5 way binding post is the positive output of the variable regulated DC supply.

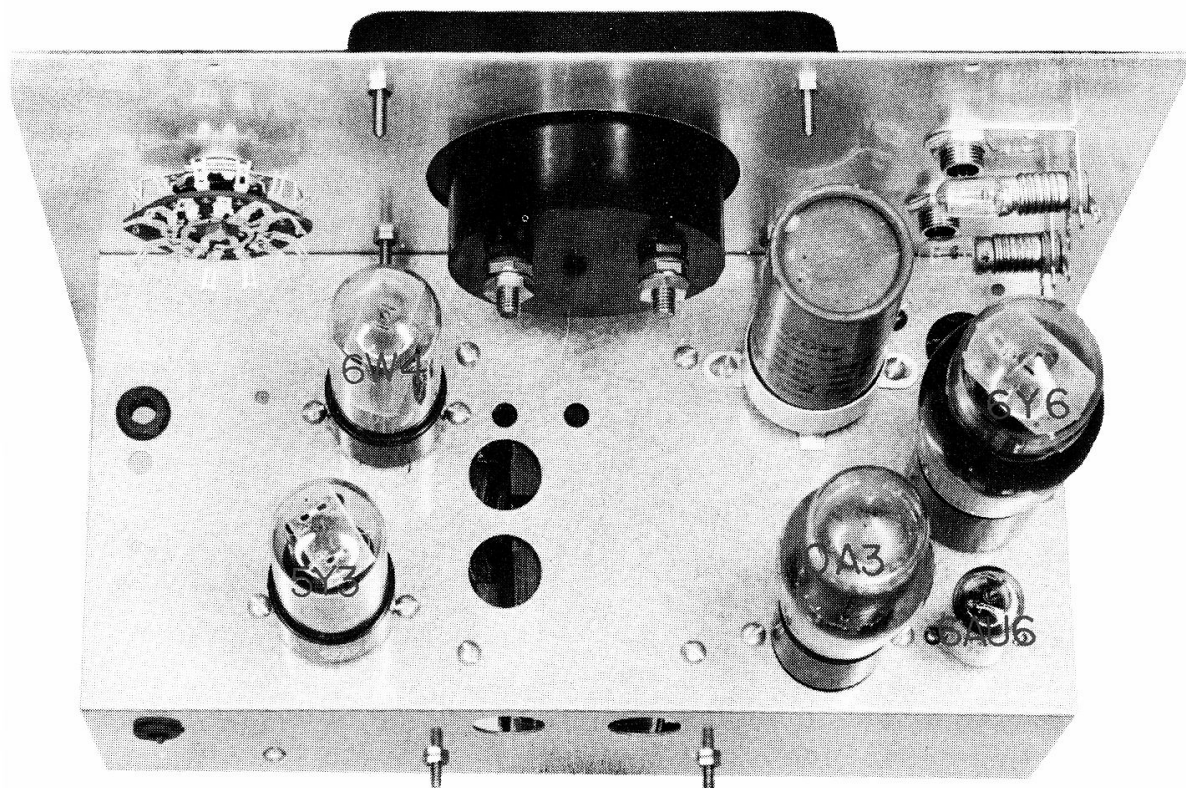
375 VOLT AC JACK - This jack supplies approximately 375 volts AC at 50 milliamperes.

DC REFERENCE JACK - This jack supplies a reference voltage from the voltage regulation tube of approximately 75 volts at 10 milliamps. This voltage may be used as a bias or screen supply.

NOTE: Voltages of the voltage regulation tube varies from tube to tube, but will remain constant within 1% for a given tube and can be used as a standard once this voltage is known.

6.3 VOLT AC JACK - 6.3 volts AC at 3 amperes is available at this jack for filaments.

DC HIGH VOLTAGE JACK - a variable DC voltage of either positive or negative.



VOLTAGE AND RESISTANCE CHARTS

FOR THE FOLLOWING RESISTANCE AND VOLTAGE CHECKS, SET THE CONTROLS AS FOLLOWS:
POWER SWITCH in Position 2 (LOW VOLTAGE STANDBY); HIGH VOLTAGE SWITCH in
Position 3 (+) and METER SWITCH in Position 3 (500V).

NC MEANS NO CONNECTION.

* VARIES WITH POTENTIOMETER SETTINGS.

MT MEANS MORE THAN.

LT MEANS LESS THAN.

** VARIES THEN COMES BACK.

All measurements are taken with respect to the common binding post.

Make sure power is off and capacitors discharged before taking resistance measurements.

RESISTANCE CHECK CHART

SOCKET	1	2	3	4	5	6	7	8
H1A (6Y6)	N C	MT 500K	MT 500K	MT 500K	MT 500K	LT 1	MT 500K	MT 150K
H1B (6W4)	N C	N C	MT 1M	500K	MT 100K*	MT 150K	LT 1	LT 1
H1C (5Y3)	N C	MT 500K	N C	100	MT 500K	100	N C	MT 500K
H1D (0A3)	N C	LT 1	N C	N C	MT 500K	*70K	N C	N C
H61 (6AU6)	500K	MT 500K	LT 1	LT 1	MT 500K	MT 500K	MT 500K	

VOLTAGE CHECK CHART

SOCKET	1	2	3	4	5	6	7	8
H1A	N C	500	500	500	*100	0	500	*200
H1B	N C	N C	*750	*200	*500 AC	*200	6.3 AC	0
H1C	N C	500	N C	400 AC	500	400 AC	N C	500
H1D	N C	0	N C	N C	75	75 **	N C	N C
H61	75	75	0	6.3 AC	*300	*150	75	

The above voltages and resistances have been taken with a VTVM. All readings are normally $\pm 20\%$.

Oceanside, New York

MODEL		DESCRIPTION		
760		VOLTAGE REGULATED POWER SUPPLY		
DWG. NO.	DATE	DESIGN BY	DRAWN BY	CHECKED BY
760-1-1841	1-4-54	<i>W. E. Brown</i>	<i>PA Hollinger</i>	<i>P. A. S.</i>
REVISIONS	PROJECT		SUPERCEDES DWG. NO.	
	<i>PA Hollinger</i>			