



OVERHAUL MANUAL

ADDENDUM

MODEL S.104.3.109 - D.C. VOLTMETER, 0-40 V.

In addition to the information contained in the main part of this manual, the following details apply to the Model S.104.3.109 only.

REVISION RECORD SHEET

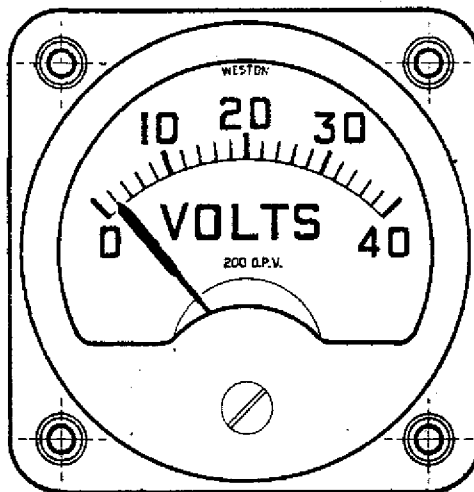
Revision No.	Date of Issue	Incorporated by	Date	Remarks
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OVERHAUL MANUAL

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Description

This is a moving coil indicator designed to measure the voltage of a d.c. supply over a range of 0 - 40 volts. The scale is calibrated in increments of 2 volts with cardinals at 10 volt intervals from 0. The word 'volts', the cardinals and figures are finished in photographic white on a black background. Terminal connection is used, the positive terminal being indicated on the rear of the magnetic shield.

Data

Resistance of moving coil	3.8 - 5.8 ohms
Resistance of moving element	4.8 - 7.5 ohms
Resistance of spool	8000 \pm 80 ohms
Sensitivity	200 ohms per volt

OVERHAUL MANUAL

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Calibration

If the movement has been disassembled, the magnet must be aged and stabilized, as described in Chapter 6, para. A of the manual, with 40 volts d.c. applied to the indicator. Connect the indicator as shown in Fig. 6 and calibrate to the following table.

Cardinal at	0	10	20	30	40
Calibrate at		10	20	30	40

The accuracy must be within $\pm 2\%$ of full scale deflection.

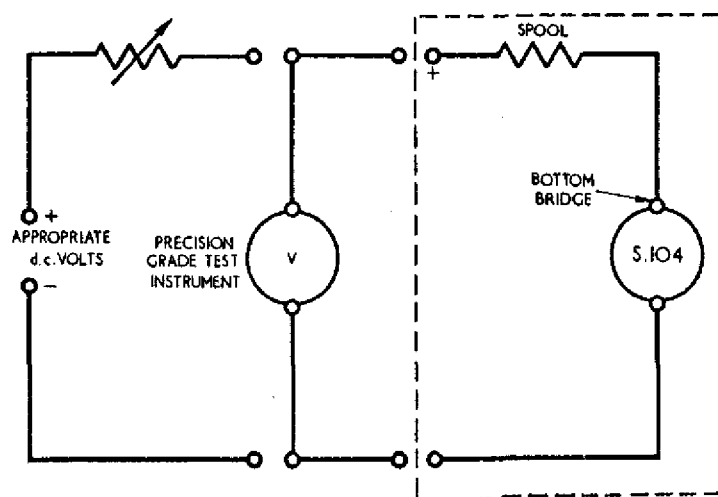


Fig. 6 Calibration circuit diagram



OVERHAUL MANUAL

This list to be used with Common Parts List for Model S.104 Form 3

VARIANT PARTS LIST

S.104.3.109

Ref.No.	Description	Part No.	No.Off
Fig. 5	D.C. Voltmeter 0-40V.	S.104.3.109	
2	Lockwasher, 6 B.A. (Shield)	156976	3
3	Magnetic Shield	163577	1
7	Cover	166880	1
8	Ring, Bezel	160244	1
9	Glass	152917	1
10	Spring (Zero Stud)	154087	1
11	Stud, Zero	155063	1
12	Screw, 10 B.A. x 0.19" (Black)	156396	2
13	Lockwasher, 10 B.A. (Black)	159306	2
15	Scale Plate (0-40)	160625	1
16	Shield, Plate	160626	1
20	Magnet, Large	160701	1
21	Screw, 10 B.A. x 3/16" (Spool)	150330	1
22	Lockwasher, 10 B.A. (Spool)	153367	1
23	Spool	23A/S.104.3.109	1
41	Element, Moving c/w Springs, Pivots, Pivot Nuts, Pivot Bases, Pointer and Balance Weights	41/S.104.3.109	1
42	Pole Piece Std.	173458	1
48	Screw and Washer Assem.	157716	2
49	Base	164969	1

NOTE: SANGAMO WESTON Code appears on front of Scale

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