

18/1/62

## Tested thermocouples.

They produce full scale deflection on 2" dia meter with 100 ma therm couple as expected.

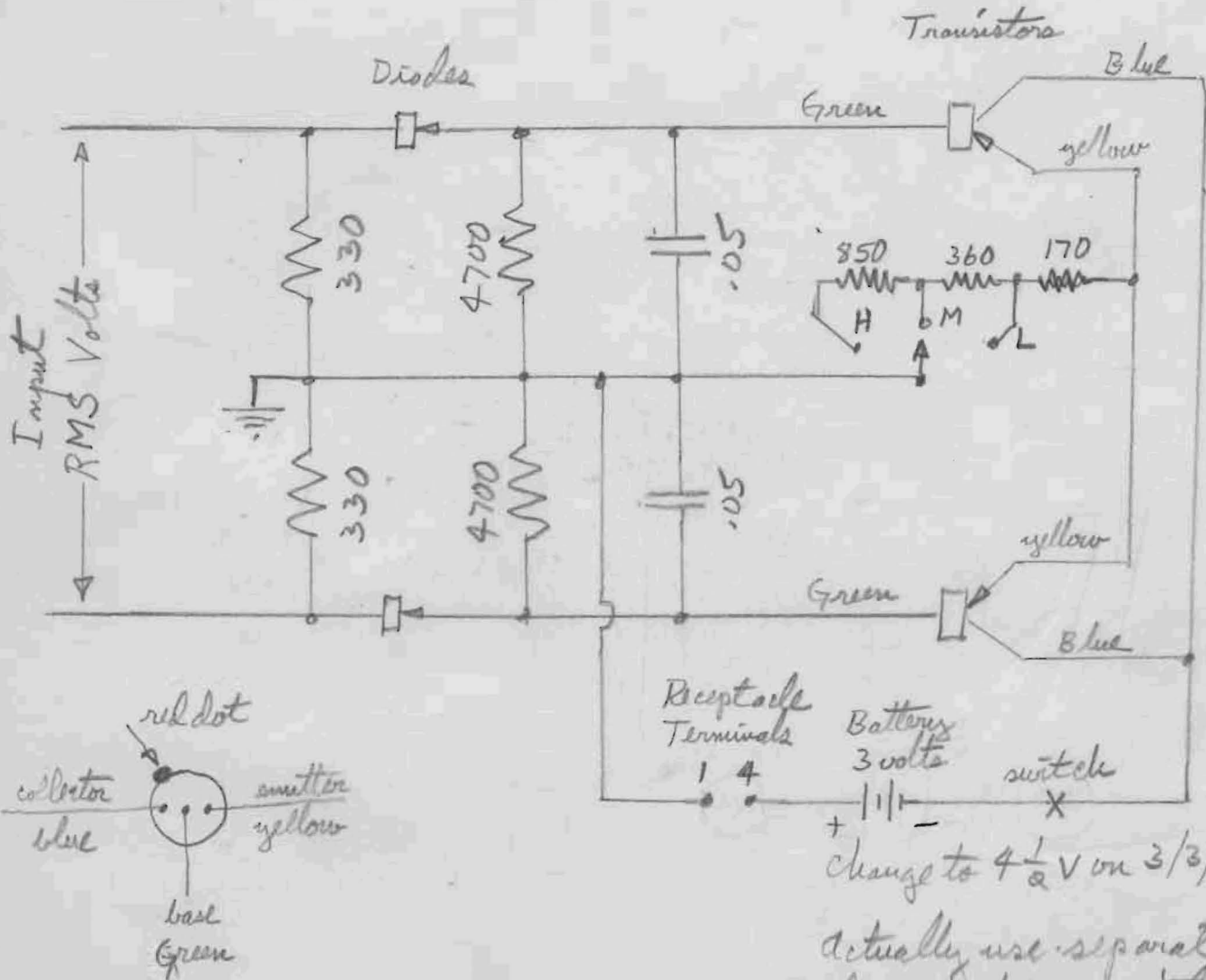
When proper 2" meter is replaced by a General Radio 3" meter the deflection is only 65% for same 100 ma therm couple. Obviously the General Radio meter is not as sensitive as Vane 2" diameter meter. Use the proper meter.

10/1/62

The movement on Sangamo 4 ampere R.F. meter was disconnected from thermocouple. A movement from General Radio meter was then connected to thermocouple. This gave a full scale deflection of 3.25 amperes which is not significantly better than built in 4 ampere movement.

# Detector

3/5/62



change to  $4\frac{1}{2}$  V on 3/3/64

actually use separate degeneration resistors for the three ranges.

changed to 15V on 2/10/64

13/6/62

# Calibration of Output meter using balanced input

Input 2.2 mc

Input 0.8V on half.

Volts

Input

across

Half

Output

ma

 $\Delta$ 

ma

Freq.

Mc

right

side

left

side

0.1

.043

1.

Output Ma

0.2

.131

1.6

.972 .981

0.3

.247

1.8

.958 .988

0.4

.371

2.0

.946 .990

0.5

.500

2.2

.930 .992

0.6

.645

2.4

.919 .981

0.7

.785

2.6

.908 .976

0.8

.928

2.8

.903 .961

0.9

1.060

3.0

.888 .950

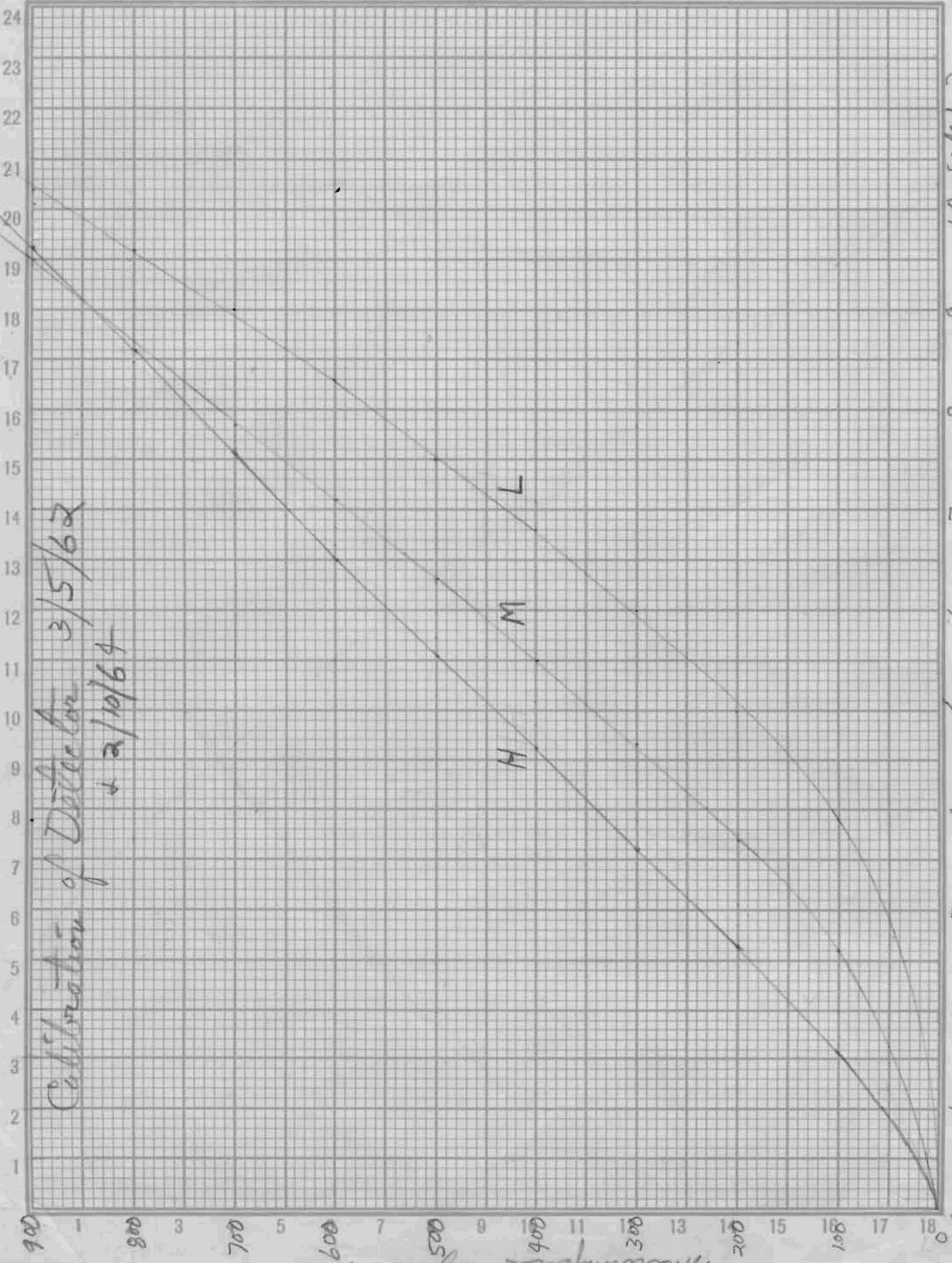
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Calibration of 600- $\Omega$  detector at 50 cycles

Range	Low	Medium	High	3/3/64 High
Degeneration Resistor	170 ohms.	530 ohms	1380 ohms.	2070 ohms
Ma. Output	RMS Volts Input.			
0	0	0	0	0
.1	.39	.52	1.72	.80 1.26 .87
.2	.50	.74	2.81	1.23 2.10 1.42
.3	.60	.93	3.93	1.64 2.88 1.94
.4	.68	1.10	5.02	2.04 3.69 2.43
.5	.75	1.26	6.10	2.40 4.44 2.86
.6	.83	1.42	7.14	2.73 5.21 3.32
.7	.90	1.57	8.26	3.08 6.05 3.80
.8	.96	1.74	9.38	3.47 6.89 4.24
.9	1.02	1.89	10.40	3.80 7.65 4.75
1.0	1.09	2.05	11.47	4.19 8.47 5.17

High  
7/10/64  
4600- $\Omega$   
degeneration  
resistor

High  
2/10/64  
3150- $\Omega$   
degeneration  
resistor.



Calibration of Detector 3/5/62  
 ↓ 2/10/64

Scale	Volts
1.0 Scale L	1.9
2.0 Scale M	1.8
8.0 Scale H	7.2

0.7	0.8
1.4	1.6
5.6	6.0
6.4	

0.6	0.8
1.2	4.8

0.5	4.0
1.0	

0.4	3.2
0.8	

0.3	2.4
0.6	

0.4	1.6
0.8	

0.2	0.8
0.4	

0.1	0.4
0.2	



# Calibration of 600 ohm Detector

Input 50 cycles RMS

9 October 64

Range	Low	Middle	High
Degeneration Resistor ohms	170	963	3780

Microamperes  
Output

Input Volts

0	0	0	0
100	.38	.65	1.46
200	.49	.97	2.44
300	.57	1.25	3.39
400	.65	1.52	4.30
500	.73	1.77	5.23
600	.80	2.05	6.17
700	.86	2.30	7.10
800	.93	2.55	8.07
900	.99	2.79	9.03
1000	1.05	3.03	9.98

# Calibration of 600 ohm Detector

9th October 1964

