INSTRUCTION MANUAL
FOR
WIEN'S BRIDGE (FREQUENCY MEASUREMENT)
MODEL NO. ME 2206

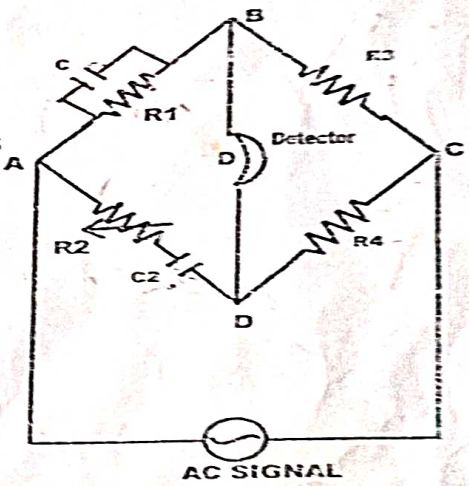
'MARS' made Wien's Bridge has been designed to calculate the unknown value of frequency.

The instrument comprises of the following built in parts: -

1. Panel with two ratio dial X (1,10,100,1000)Ω marked with R_3 & R_4.
2. Two decade dial X (.01,0.1) μF for capacitance marked C_2.
3. Three decade dials X (10,100 & 1000)Ω marked R_4.
3. Three decade dials X (1,10,100)Ω marked R_3.

PROCEDURE

1. Connect the output of oscillator across terminals marked AC Supply.
2. Connect the decade Capacitance box across terminals marked 'C' on the front panel
3. Connect the Detector at the detector terminals.
4. Adjust 'C_2' at the same value of C.
5. Switch ON Audio Frequency Function Generator and set any freq of max. amplitude. There will be noise in the Detector.
6. Keep R_3 and R_4 at same ratio.



7. Vary the Resistance R_1, & R_2 to balance the bridge till the noise is reduced to minimum or complete silence.

Calculate the value of Frequency using formula

$$f = 1 / [2 \times 3.14 (R_1 \times R_2 \times C_1 \times C_2)^{1/2}]$$

FOR FREQUENCY MEASUREMENT

0.03
0.3
0.33

Formula Used = $1/ [2\pi (R_1 R_2 C_1 C_2)^{1/2}]$

S. NO.	R_1 (Ω)	R_2 (Ω)	C_1 (μF)	C_2 (μF)	Calculated Value of Frequency	Actual Value of Frequency
1.	3000Ω	10Ω	.33μF	.33μF	2.785 KHz	2.88 KHz
2.	6000Ω	100Ω	.33μF	.33μF	622.9 Hz	609 Hz
3.	1500Ω	3Ω	.33μF	.33μF	7.1 KHz	7 KHz

STANDARD ACCESSORIES

Instruction Manual

OPTIONAL ACCESSORIES

Fixed freq. Sine Wave Oscillator 1Khz Model No. ME 955.

Detector CRO/ Headphone .

Capacitance box.

Instruction Manual.