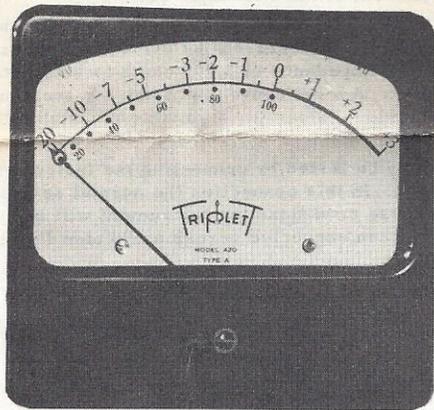


# VOLUME UNIT METER

Make your recordings professional

Designed for use with any recorder



Model 420

\*Complete in black Bakelite case ready to connect.

\*Standard VU scales and sensitivity

\*Dial is cream yellow with lettering in Black and Red.

\*Dimensions 420 VU Meter 4 5/8" x 4 3/16" - body depth back of panel 1 1/4"

\*Dimensions 327-T VU Meter 3" x 3" body depth back of panel 1 3/8"

\*Available with or without Triplett's diffused illumination.

"A" scale VU on top of arc and percent of modulation on bottom of arc.

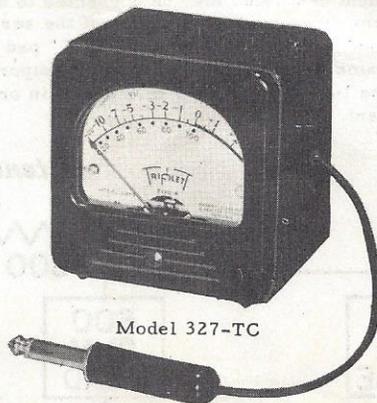
"B" scale percent of modulation on top of arc and VU on bottom of arc.

	Dealer Net
420 VU Meter A or B scale	\$16.50
420 VU Meter A or B scale illuminated	18.00
426 VU Meter A or B scale	16.50
426 VU Meter A or B scale illuminated	18.00
327-T VU Meter A or B scale	15.50
327-T VU Meter A or B scale illuminated	17.00
327-TC VU Meter (in Bakelite cube)	19.00

ALL PRICES ARE SUGGESTED U. S. A. DEALER NET SUBJECT TO CHANGE.  
(SLIGHTLY HIGHER WEST OF ROCKIES.)

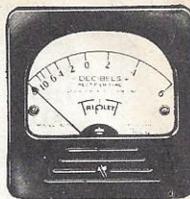
Every portable recorder should be equipped with a Triplett VU Meter. A VU Meter will help you make professional recordings like the broadcast engineers do. With a VU Meter you can visually determine the correct recording level. You can properly control recording level to prevent distortion.

## Special for home Recorders



Model 327-TC

Where space will not permit using the standard 4 inch VU meter this 3 inch VU Meter can be used. If still short of space you surely can find room for a phone jack. The 327-TC VU Meter is supplied in black bakelite cube with cord 18" plug, and jack. Installation is very simple on any recorder.



Model 327-T

## POWER LEVEL INDICATORS (DB Meters)

Standard range reads up 6 down 10 decibels. Zero decibel = 1.73 volts. Calibrated for use on a 500-Ohm line. Reference level 6 milliwatts.

Internal resistance 5000 Ohms. May also be supplied with 2500 Ohms resistance to special order, at extra cost. Must be clearly specified on order. Standard damping furnished, unless special high or low damping requested on the order. Extra charge.

	Dealer Net
Models 321-T or 327-T DB Meter	\$12.40
Models 321-T or 327-T DB Meter (III)	14.00
Models 420 or 426 DB Meter	13.40
Models 420 or 426 DB Meter (III)	15.00



THE TRIPOLET ELECTRICAL INSTRUMENT CO., BLUFFTON, OHIO

# The Story on Volume Level Indicators

This volume level indicator has been designed with the cooperation of the major users of instruments of this type. The response characteristics of its pointer represent more faithfully to the eye the actual sound levels in the line than has heretofore been the case with many other type of instrument.

The design and adjustment of these instruments are such that the pointer will indicate 99% of its normal deflection at "0" DB in 0.3 seconds  $\pm 10\%$ . The pointer overswing at this same mark is between 1 and 1.5%. The modulation effect of the instrument on the circuit to which it is connected is very low due to the high sensitivity of the instrument. This effect is below 0.3% and may be neglected for practical operation. The error due to frequency is small and is negligible over the audio frequency band.

This type volume indicator has been designed to be used in series with an external resistor of 3600 ohms. The total resistance of the instrument and this external resistor is 7,500 ohms when the instrument is indicating "0" DB.

The instrument is adjusted to show a deflection of "0" DB on its scale when a voltage of 1.225 volts a.c. sine wave is impressed across the instrument and the external series resistor of 3,600 ohms. This value of voltage represents 6 DB down from a reference level of 10 m.w. in a 600 ohm line.

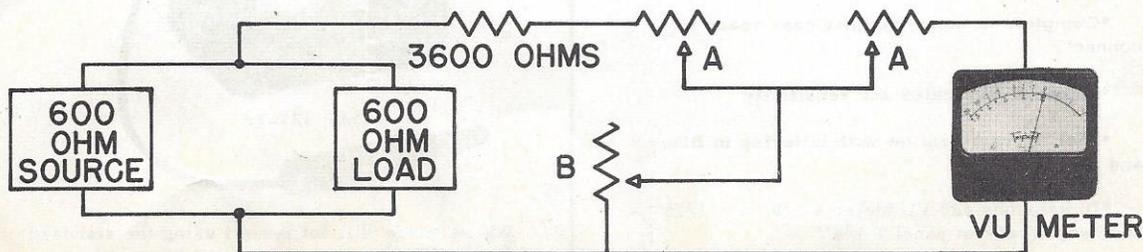
In practice the volume indicator will most commonly be used with an attenuator between the instrument and the line to which it is connected. The attenuator should be of the constant impedance type in order that the dynamic characteristics of the instrument may be maintained independent of the attenuator setting.

The instrument itself has an internal resistance of 3,900 ohms. The external resistor of 3,600 ohms plus the combined impedance of a 600 ohm source and a 600 ohm load in parallel also represent an overall resistance of 3,900 ohms. The attenuator pad should therefore be designed for an impedance of 3,900 ohms looking both from the instrument into the line and from the line into the instrument. A most convenient form for such an attenuator is the so-called "T" attenuator with all three arms adjustable. Values for a suitable adjustable "T" attenuator are tabulated on the reverse side of this sheet.

Tone signals of a value corresponding to 1 m.w. in a 600 ohm line may be tested by connecting the instrument only in series with an external resistance of 842 ohms across the line. In this connection the normal series resistor of 3,600 ohms and the attenuator pad are not used. Under these conditions the instrument will be slightly over-damped. It will, however, show a deflection to "0" DB when connected across a 600 ohm line in which a tone signal of 1 m.w. level is present.

The instrument described may be connected to a voice frequency circuit as shown on the reverse page. For various attenuations reference values of the series and shunt arms "A" and "B" respectively are given in the tabulation. Conventional adjustable "T" pad arrangement is shown and listed but any equivalent network giving the same result may be used. It is important to note that the pad should present constant impedance both from the line and from the instrument in order to maintain the damping and dynamic characteristics of the instrument.

## Attenuation Network



ALL AB RESISTORS 1/2 WATT

True DB Attenuation	True Level*	Arm A Ohms	Arm B Ohms	True DB Attenuation	True Level*	Arm A Ohms	Arm B Ohms
0	- 6	0	Open	24	+ 18	3437	494.1
1	- 5	224.3	33801	25	+ 19	3485	440.0
2	- 4	447.1	16788	26	+ 20	3528	391.9
3	- 3	666.9	11070	27	+ 21	3566	349.1
4	- 2	882.5	8177	28	+ 22	3601	311.0
5	- 1	1093	6415	29	+ 23	3633	277.1
6	0	1296	5221	30	+ 24	3661	246.9
7	+ 1	1492	4352	31	+ 25	3686	220.0
8	+ 2	1679	3690	32	+ 26	3708	196.1
9	+ 3	1857	3166	33	+ 27	3729	174.7
10	+ 4	2026	2741	34	+ 28	3747	155.7
11	+ 5	2185	2388	35	+ 29	3764	138.7
12	+ 6	2334	2091	36	+ 30	3778	123.7
13	+ 7	2473	1838	37	+ 31	3791	110.2
14	+ 8	2603	1621	38	+ 32	3803	98.21
15	+ 9	2722	1432	39	+ 33	3813	87.53
16	+ 10	2833	1268	40	+ 34	3823	78.01
17	+ 11	2935	1124	41	+ 35	3831	69.52
18	+ 12	3028	997.8	42	+ 36	3839	61.96
19	+ 13	3113	886.3	43	+ 37	3845	55.22
20	+ 14	3191	787.8	44	+ 38	3851	49.21
21	+ 15	3262	700.8	45	+ 39	3857	43.86
22	+ 16	3326	623.5	46	+ 40	3861	39.09
23	+ 17	3411	555.0				

\*in DB from 10 m.w., 600 ohms.

Printed in USA

Form 123053-1-10M