4) Set the OUTPUT ON/OFF switch of the Type 2558 to ON, successively set the output by the output setting dials as shown in Table 2-1, and measure the output voltage at each set point by means of the Model 931B.

5) From these values, check if the output voltages at each inspection point satisfy the specifications in the table.

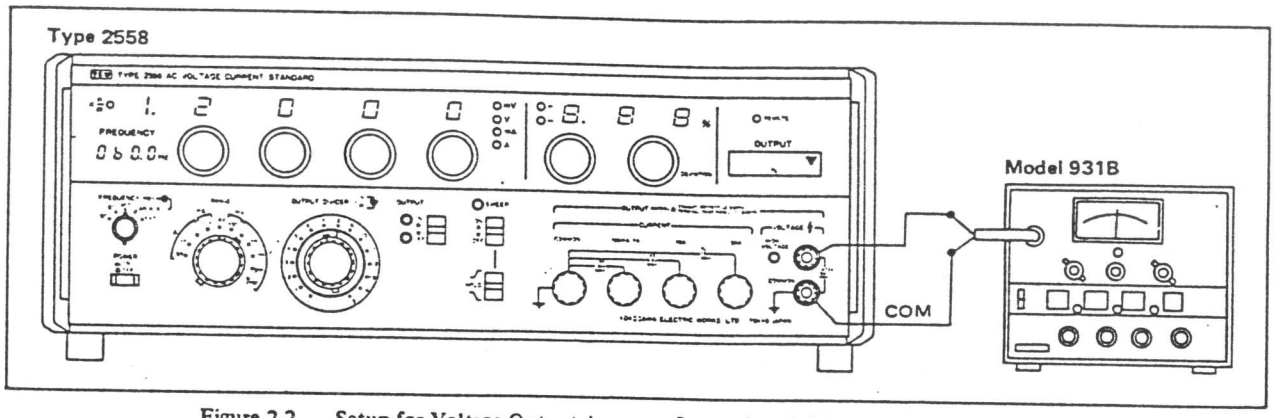

Figure 2-2. Setup for Voltage Output Accuracy Inspection (100 mV to 1000 V Ranges).

Table 2-1. Voltage Output Accuracy Inspection (50/60 Hz)

Type 2558		Model 931B	Allowable Error Range
Range	Output Setting	Range	
10 V	00.100 V	10 V	± 2 mV
	01.000 V		± 2 mV
	02.000 V		± 3.1 mV
	03.000 V		± 3.9 mV
	04.000 V		± 4.7 mV
	05.000 V		± 5.5 mV
	06.000 V		± 6.3 mV
	07.000 V		± 7.1 mV
	08.000 V		± 7.9 mV
	09.000 V		± 8.7 mV
	10.000 V		± 9.5 mV
	11.000 V		± 10.3 mV
	12.000 V		± 11.1 mV
100 mV	010.00 mV	100 mV	± 20 μV
	050.00 mV		± 55 μV
	100.00 mV		± 95 μV
1 V	0.1000 V	1 V	± 200 μV
	0.5000 V		± 550 μV
	1.0000 V		± 950 μV
100 V	010.00 V	100 V	± 20 mV
	050.00 V		± 55 mV
	100.00 V		± 95 mV
300 V	0030.0 V	300 V	± 60 mV
	0150.0 V		± 165 mV
	0300.0 V		± 285 mV
1000 V	0100.0 V	1000 V	± 200 mV
	0500.0 V		± 550 mV
	1000.0 V		± 950 mV
Accuracy	± (0.08 % of setting + 0.015 % of range). Accuracy at output of less than 20 % of range is ± 0.02 % of range.		

CAUTION

The accuracy inspection for voltage output is important to judge the quality of this instrument. For the inspection, use a calibrated Model 931B and correct the measured values according to the calibrated values.

WARNING

When the RANGE selector is set at 300 V or 1000 V, the HIGH VOLTAGE lamp will light to warn that a high voltage is developed. Pay utmost attention to the dielectric strength of the circuitry and protection of the human body from electric shock.

A voltage as high as 1400 V (5 A) may appear instantaneously when turning ON or OFF power.

(4) Voltage Output Accuracy (100 mV to 1000 V Ranges, 400 Hz).

1) After the step (3), set the FREQUENCY selector of the Type 2558 to 400 Hz.

2) As shown in Table 2-2, successively set outputs, and check if output voltages at each inspection point satisfy the values in the table.