

SERVICE NOTE



523DR-3A

Ⓜ MODELS 523CR/DR ELECTRONIC COUNTERS SERIALS BELOW 826

TRIGGER UNIT MODIFICATION

This easily accomplished modification to your Ⓜ Model 523CR/DR Electronic Counter, serial below 826, will better measurement reliability, particularly on Phase measurements. Operation of the Trigger Units is improved by changing one tube in each Trigger Unit. Replacing the type 6922 used for Amplifier, V601, with a type 7308 will result in lower noise and less drift of sensitivity (triggering point) in the Trigger Units.

The modification consists of changing three tubes and their chassis markings. Adjustment of your counter is required as outlined under "Adjustment Procedure".

COMPONENTS REQUIRED FOR MODIFICATION

| <u>Quantity</u> | <u>Description</u> | <u>Ⓜ Stock No.</u> |
|-----------------|--|--------------------|
| 3 | Tube, electron: 7308, for V601 | 1932-0032 |

MODIFICATION PROCEDURE

CAUTION

Do not remove V601 from any trigger unit while the instrument is turned on. Heater voltage to these tubes is regulated and, if one tube is removed, excessive voltage will be applied to the others.

1. Disconnect power. Remove top and bottom plates from instrument.
2. Replace V601 (Type 6922) in each trigger unit with a Type 7308 tube (Ⓜ Stock No. 1932-0032).
3. Remove each trigger unit, change marking on unit for V601 to 7308, and return trigger unit to original socket. Original silkscreen marking can be removed with naphtha or a similar solvent.

ADJUSTMENT PROCEDURE

4. Locate R227 and R228 between pins 2 and 6 of socket for RT201 regulator tube near fan motor. Turn instrument on and measure filament voltage between pins 2 and 6.

Note

For this measurement, use an ungrounded or isolated AC voltmeter such as the Ⓜ Model 403A Transistorized AC Voltmeter.

This voltage should be 6.3 ± 0.1 volts. If necessary adjust by changing resistors R227 and R228. Nominal values for these resistors are 100 and 150 ohms, 2 watts, respectively.

5. Refer to the Maintenance Section of the Operating and Service Manual for your instrument and make the following adjustments:

- a. Frequency Sensitivity
- b. Period Sensitivity
- c. Time Interval Sensitivity
- d. Phase Input

6. Install top and bottom cover plates.

7. Change references to V601 in the Operating and Service Manual for your instrument to read:

Tube, electron: 7308; Ⓜ Stock No. 1932-0032;
Mfr. Code 80131

These references appear in the Table of Replaceable Parts, Tube Replacement Chart, and in the Schematic Diagram for the trigger unit.

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COMPLETE COVERAGE IN
ELECTRONIC MEASURING EQUIPMENT

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