

FACTORY CALIBRATION PROCEDURE

CONTENTS:

General	1
Equipment required	2
Factory test limits	3
Factory calibration procedure	4

INTRODUCTION:

This is the guide for calibrating brand-new instruments, it therefore, calls out many procedures and adjustments that are rarely required for subsequent recalibration. *This procedure is company confidential.* In this procedure, all front panel control labels or Tektronix equipment names are in capital letters (VOLTS/DIV, etc.) internal adjustment labels are capitalized only (Gain Adj, etc.).

Tek form number:

0-333

August 1966

For all serial numbers.



134
POWER SUPPLY

FACTORY TEST LIMITS:

We initially calibrate the instrument to Factory Test Limits. These limits are often more stringent than advertised performance requirements. This helps insure that the instrument will meet advertised requirements after shipment, allows for inaccuracies of test equipment used, and may allow for changes in environmental conditions.

QUALIFICATION:

Factory test limits are qualified by the conditions specified in the main body of the calibration procedure. The numbers and letters to the left of the limits correspond to the factory calibration procedure steps where the check or adjustment is made. Instruments may not meet factory test limits if calibration or check-out methods and test equipment differ substantially from those in this procedure.

ABBREVIATIONS:

Abbreviations in this procedure will be found listed in TEKTRONIX STANDARD A-100.

CHANGE INFORMATION:

This procedure has been prepared by Product Manufacturing Staff Engineering. For information on changes that have been made to this procedure, to make suggestions for changing this procedure, or to order additional copies: please contact PMSE, 47-261.



EQUIPMENT REQUIRED:

The following equipment is necessary to complete this procedure:

a. TEKTRONIX Test Equipment

- 1 TYPE 530-540 SERIES OSCILLOSCOPE
- 1 TYPE L PLUG-IN UNIT
- 1 TYPE 76 TU LINE VOLTAGE CONTROL UNIT

b. Test Fixtures and Accessories

- 1 115 to 230 VAC Transformer (for 230V Power Supply only)
- 1 70mA Load (5W, 260 Ω \pm 1% resistor)

c. Other Equipment

- 1 Multimeter, 20,000 Ω /VDC

Substitute test equipment may be used. The Plant Staff Engineer must approve any substitutions. All equipment listed must perform within its manufacturer's specifications, unless otherwise stated.

It is assumed that all equipment is provided with BNC connectors; if equipment used has other than BNC connectors, adapters, not listed, may be needed.

FACTORY TEST LIMITS

QUALIFICATIONS

Factory test limits are qualified by the conditions specified in the main body of the calibration procedure. The numbers and letters to the left of the limits correspond to the factory calibration procedure steps where the check or adjustment is made. Instruments may not meet factory test limits if calibration or checkout methods and test equipment differ substantially from those in this procedure.

1. PRELIMINARY INSPECTION
2. RESISTANCE
3. PRESETS
4. RIPPLE VOLTAGE AND FREQUENCY

Check power supply voltage and ripple frequency.

Voltage:

115V PS 31.5 to 33.8V P to P

230V PS 34.5 to 37.8V P to P

Ripple Frequency: 120Hz

© , 1966 TEKTRONIX, INC., P. O. Box 500
BEAVERTON, OREGON. All rights reserved.

1. PRELIMINARY INSPECTION

Inspect the power supply, the power supply case, cable and connector for scratches, chips, stains, or defects in the paint or metal parts. Check the power supply for unsoldered joints, rosin joints, lead dress and long ends. Correct any defects found.

2. RESISTANCE

Check diodes D105 and D106

Connect the multimeter between the outer conductor of the output jack and case ground. Check that the back to back diodes D105 and D106 are not open or shorted. Reverse the meter leads and repeat check.

3. PRESETS

Set the TYPE 533A controls with TYPE L PLUG-IN UNIT installed.

HORIZONTAL DISPLAY	NORMAL (X1)
TRIGGERING MODE	AUTO
TRIGGER SLOPE	+ LINE
STABILITY	cw
TRIGGERING LEVEL	cw
TIME/CM	5mSEC
VARIABLE TIME/CM	CALIBRATED
HORIZONTAL POSITION	midrange
VERNIER	midrange

Set the TYPE L PLUG-IN UNIT controls.

VERTICAL POSITION	midrange
VOLTS/CM	10
VARIABLE	CALIBRATED
INPUT SELECTOR	AC

4. VOLTAGE AND FREQUENCY

Check power supply voltage and ripple frequency.

*Voltage: 115V PS 31.5 to 33.8V P to P
230V PS 34.5 to 37.8V P to P*

Ripple frequency: 120 Hz

Plug the TYPE 76 TU into a line voltage source and adjust output for 115 VAC.

Plug the TYPE 134 POWER SUPPLY into the TYPE 76 TU (for 230 VAC POWER SUPPLY use the 115-230 VAC transformer between the TYPE 76 TU and the TYPE 134 POWER SUPPLY.)

Connect the 70mA load to the TYPE L INPUT connector and to the power supply output. Check the voltage amplitude and frequency as indicated on the CRT. Voltage: 115V PS 31.5 to 33.8V P to P, 230V PS 34.5 to 37.8V P to P. Ripple frequency: 120 Hz.

THE END