

FACTORY CALIBRATION PROCEDURE

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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:

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For all serial numbers.



067-0528-00
CALIBRATION
FIXTURE

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. D.C.



EQUIPMENT REQUIRED:

The following equipment is necessary to complete this procedure:

- 1 20,000 Ω /VDC Multimeter, Triplet Model 630NA or equivalent

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

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1. PRELIMINARY INSPECTION
2. RESISTANCE
 - a. Check -6V load resistance
LO-LOAD: 6 Ω \pm 10%, max
HI-LOAD: 1.5 Ω \pm 10%, max
 - b. Check -90V load resistance
LO-LOAD: 18k Ω \pm 10%, max
HI-LOAD: 4.5k Ω \pm 10%, max
 - c. Check +135V load resistance
LO-LOAD: 27k Ω \pm 10%, max
HI-LOAD: 7k Ω \pm 10%, max

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1. PRELIMINARY INSPECTION

Remove the bottom cover and check for unsoldered joints, rosin joints, lead dress and long leads. Check for loose hardware and protruding parts. Replace the bottom cover.

2. RESISTANCE

a. *Check -6V load resistance*

LO-LOAD: $6\Omega \pm 10\%$, max

HI-LOAD: $1.5\Omega \pm 10\%$, max

Set the load selector switch to LO-LOAD. Set the multimeter to $\Omega \times 1$. Measure the resistance between -6V binding post and ground. Should be $6\Omega \pm 1\%$. Change the load selector switch to HI-LOAD. Resistance should change to $1.5\Omega \pm 10\%$. Move the multimeter leads to pin 1 of the octal plug and ground. Measure resistance at HI-LOAD and LO-LOAD as before.

b. *Check -90V load resistance*

LO-LOAD: $18K\Omega \pm 10\%$, max

HI-LOAD: $4.5K\Omega \pm 10\%$, max

Set the load selector switch to LO-LOAD. Set the multimeter to $\Omega \times 10K$. Measure the resistance between -90V binding post and ground. Should be $18K\Omega \pm 10\%$. Change the load selector switch to HI-LOAD and the multimeter to $\Omega \times 1K$. Resistance should be $4.5K \pm 10\%$. Move the multimeter leads to pin 5 of the octal plug and ground. Measure resistance at HI-LOAD and LO-LOAD as before.

c. *Check +135V load resistance*

LO-LOAD: $27K\Omega \pm 10\%$, max

HI-LOAD: $7K\Omega \pm 10\%$, max

Set the load selector switch to LO-LOAD and the multimeter to $\Omega \times 10K$. Measure the resistance between +135V binding post and ground. Should be $27K\Omega \pm 10\%$. Change the load selector switch to HI-LOAD and the multimeter to $\Omega \times 1K$. Resistance should be $7K \pm 10\%$. Move the multimeter leads to pin 4 of the octal socket. Measure the resistance at HI-LOAD and LO-LOAD as before.

THE END

