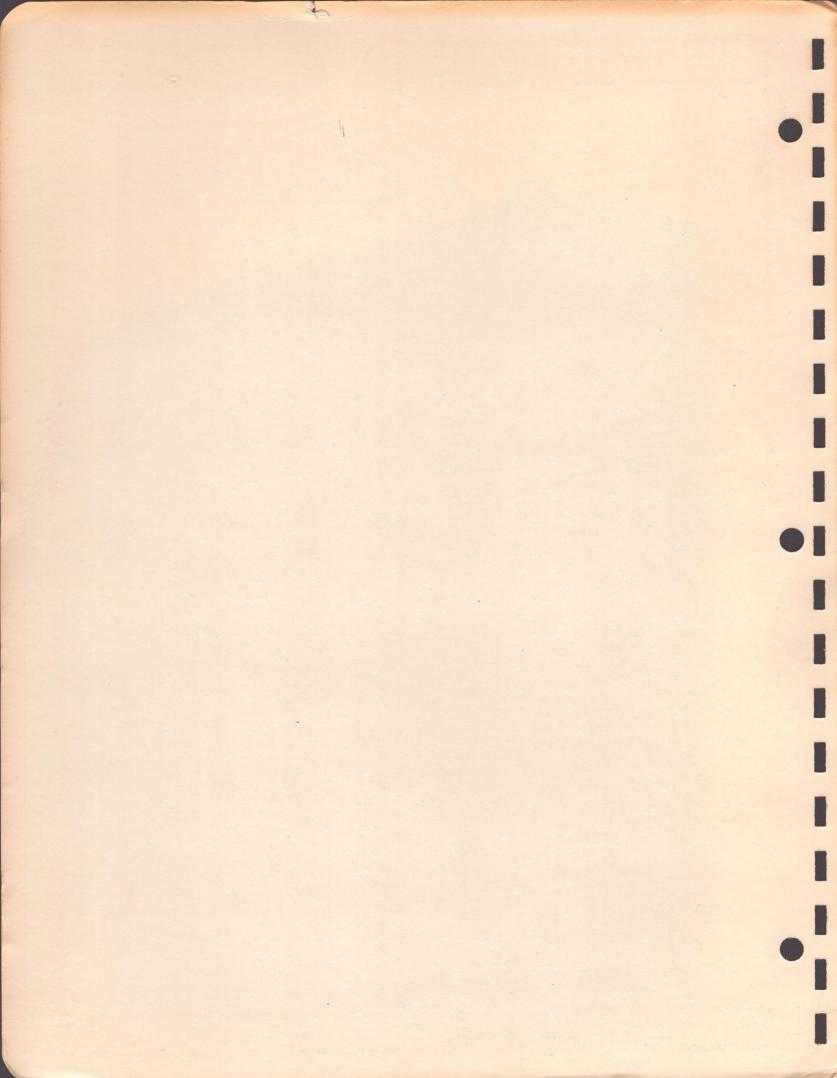
directory of

# STANDARDS

TEKTRONIX, INC. BEAVERTON, OREGON, U.S.A.



published by
CORPORATE STANDARDS



## PLEASE NOTE!

In order for you to receive up-to-date information and revisions to this directory, you must fill in the information below and send this page to Corporate Standards at 39-015.

(Please Print or Type)

NAME: DEPARTMENT: DELIVERY STATION: EXTENSION NO: YOUR MGR'S NAME: If you are interested in obtaining a special heavy-duty vinyl 3-ring, loose-leaf binder for your directory (when they are available), please add the information below. The cost of these binders is approximately \$2.00 each. DEPARTMENT RESPONSIBILITY NO: COST CENTER:



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#### Introduction Section

The sections which make up the total Tektronix Standards document have been developed for use throughout the corporation.

There are two major divisions, individual sections for particular categories of standards and a Directory of Tektronix Standards.

-00		
-669	CONTENTS OF THIS SECTION:	AGI
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21 OCT 74

TEKTRONIX, INC. P.O. BOX 500 BEAVERTON, OREGON U.S.A. 97077

CODE IDENT NO 80009

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#### Distribution of Tektronix Standards

Each section you request is assigned to your name and delivery station. To assure that you receive future revisions of the particular sections you have been issued, please advise us of any change

in your delivery station. In the interest of economy, notify us if you no longer need to receive a particular section.

Thank you,

CORPORATE STANDARDS 39-015 Ext 7976



P. O. BOX 500 TEKTRONIX, INC.

BEAVERTON, OREGON U.S.A. 97077

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#### Foreword

The development of Standards during the history of Tektronix has been due to input from various segments of the company. In this age of tighter competition and higher costs it is important to standardize wherever possible. Some of the benefits derived are: 1) clearer communication from design personnel all the way through to manufacturing and assembly, 2) less confusion, 3) fewer errors, and 4) lower tooling costs by multiple use.

These Standards have been developed with a new concept and approach, a new format, and a new identification system, to encourage a greater awareness and a more effective application of Standards throughout Tektronix.

It is our intention that these Standards will gradually replace the entire

"Volume I, Tektronix Standards", even though it may be only one Standard at a time or one complete section.

Tektronix Standards represent a consensus of the best solutions to problems of other areas of Tektronix as well as outside sources.

Information for these Standards has been researched from other documents and also from compiled data supplied by various knowledgeable areas of the company.

These Standards, like other documents can only be effective if they are utilized in the applications and methods they were developed for.



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## Advantages of Tektronix Standards

There are many advantages to be realized from correct and continuous application of Tektronix Standards.

- 1) More effective and accurate communications . . . .
- . . . Tektronix Standards provide uniform symbols, terms, and practices for conveying engineering information on drawings.
- . . . Uniform interpretation of all drawings and other documents throughout the entire corporation.
- . . . Standards establish a single reference for all common methods, practices, and designs.
- 2) Minimize design, development and production time . . . .

- . . . By referring to Tektronix Standards first to minimize unnecessary re-design of applicable items.
- . . . Tektronix Standards provide a valid, single source of regularly needed reference data.
- 3) Reduction of normal parts costs . . . . . . Standard designs usually cost less than special designs.
- . . . Use of standard methods and practices minimizes needless new process development.
- . . . Coordination and compatibility with national, international, military, and industry standards as they apply to Tektronix products.

## Application, Deviations & Organization of Standards

These Standards have been developed for corporate-wide use. Their primary purpose is to provide a common source of information for materials, methods and processes and thereby promote uniformity of application and interpretation.

These Standards shall govern in all cases where they are applicable, unless otherwise stated on drawing for individual parts. For other deviations or conflicts involving groups or categories of parts prior approval must be obtained from Corporate Standards in order that these deviations can be properly documented.

All questions should be directed to the Corporate Standards Group.

These Standards are separated into major categories, or sections, for several reasons:

- 1. To cut cost by reduction of unnecessary distribution.
- 2. To put similar Standards subjects into the same section.
- 3. To permit individuals to obtain the Standards that apply only to their area of responsibility.
- 4. To make these Standards easier to use and apply where applicable.

The complete set of Tektronix Standards consists of two major divisions; the Directory of Standards and the individual sections for particular categories of Standards subjects.

The Directory of Standards is a small booklet which has corporate-wide distribution. It was designed to permit updating by the modification procedure as required, the same as the other sections of the Standards.

Individual sections can be obtained by ordering them by part number from Reprographics or the Corporate Standards Group. Subsequent changes will automatically be distributed to all who have copies of the particular section being changed. However, this does not apply to all holders of the Directory. Revised materials for the Directory will be supplied only to those who have requested them by returning the "Directory Order Form" at the front of the Directory.

Please notify the Corporate Standards Group if you no longer have need for updated copies.



#### Modifications to Standards

All changes to these standards shall be routed through the Tektronix Central Mods Group. Requests for changes may be submitted from any area of the company by originating a "Tektronix Stan-(See sample form dards Change Notice". on next page.) This change notice does not require the wide range of routing for approvals that is necessary with some other mods that are handled through the Central Mod System. The only approvals that will be required will be one representative each from Central Mods and Corporate Standards, as well as the originator's signature. It is intended that each of these approvals shall have the consensus support of concerned areas as necessary.

The originator of a Tektronix Standards Change Notice will be notified in writ- . ing if the request is not approved. This notification may be in the form of a suggested revision to an original change request.

Any discrepancies found in this set of Standards will also be corrected by use of the modification procedure.

The forms for originating a Change Notice for these Standards may be obtained from Corporate Standards, at Ext. 7976.



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#### CHANGE NOTICE

#### TEKTRONIX STANDARDS

	CHANGE NUMBER
PART NUMBER OF STANDARD:	CURRENT REV. LTR.
	PARAGRAPH NO:
OTHER PAGES AFFECTED:	
REASON FOR CHANGE:	
DESCRIPTION OF CHANGE:	
	1.10.
	MP
<b>C</b>	
w T	
APPROVALS	DATE
ORIGINATOR:	DEPT. OF ORIGIN:
MODIFICATIONS:	DATE SUBMITTED:
STANDARDS:	BY:
EFFECTIVE DATE:	URGENCY NO

## Numbering System for Tektronix Standards

The numbering system for Tektronix Standards was developed with the following objectives in mind:

- To use a numbering system that was compatible with other Tektronix document and part numbering systems already established.
- 2. To maintain room in the system for future expansion, additions and corrections.
- 3. To permit use of the concept of the Directory of Standards and the separate individual Standards sections.
- 4. To provide a clear method for any individual to identify and obtain a needed Standard.

These Standards will be distributed originally by complete part-numbered standard only, and not in minor subsections.

However, in the interest of economy, revisions will be made and distributed on the basis of need for each individual sheet.

Please notify the Corporate Standards Group immediately if you no longer have need for up-dated copies of revised sheets. (Ext. 7976)



## Locating Information in these Standards

The subjects in these Standards will be identified by a nine-digit part number and a revision letter. All of these Standards will carry the same first three digits. (062-XXXX-XX)

Subjects can be located by looking under the proper category heading in the Table of Contents (062-1738-00) or by locating the particular subject in the Subject Index (062-1700-00).

Both the Table of Contents and the Subject Index are located in the

Directory of Standards as well as other pertinent common and introductory information.

If a needed subject cannot be located by following steps described above, contact the Corporate Standards Group (Ext 7976) for help.

In some cases where Tektronix has adopted the use of a Standards document from some other source, a page of the Tektronix Standards will reference that document and specify where a copy can be obtained for reference. (Generally the Corporate Standards Group),





ISSUE DATE

1 Nov 74

**List of Changes** 

REV	REF	DESCRIPTION OF CHANGE	СНК ВҮ	DATE

TEKTRONIX, INC. P. O. BOX 500 BEAVERTON, OREGON U.S.A. 97077 80009

н оғ 10 10 PART NUMBER 062-1699-00

PART NUMBER

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NUMBER

PART

TEKTRONIX, INC. P.O. BOX 500 **BEAVERTON, OREGON U.S.A. 97077** 

to electrical design.

CODE IDENT NO 80009

Circuit Board Standards - Design. . . . . . . . . . . . (31 Dec 74)

This standard describes the parameters which apply

OF 1

PART NUMBER

062-1722-00

DATE

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# Table of Contents

This Table of Contents is currently complete, but it will be constantly undergoing revision and updating as new standards are added. Information about any standard may be obtained from Corporate Standards.

The column "PREDICTED DATE AVAILABLE" attempts to forecast when the listed standard will be available for approval.

PREDICTED DATE

AVAILABLE

## TABLE OF STANDARDS SECTIONS:

(30 Nov 74) 062-1737-00 This standard lists the reference documents that define the abbreviations and symbols that shall be used throughout Tektronix. There is also a supplementary list of commonly used abbreviations. (31 Jul 75) 062-1717-00 This standard describes the criteria that apply in good design practice; for ease of manufacture, economy of design, tooling, and manufacture. Circuit Board Standards - Assembling and Soldering. . . (31 May 75) This standard describes those requirements that apply to hand insertion of components and hardware, and to both hand and flow soldering. Circuit Board Standards - Automatic Insertion . . . . (31 Jan 75) This standard contains the requirements that apply to automatic insertion of components in circuit boards.

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	PREDICTED DATE AVAILABLE	PART NUMBER
Circuit Board Standards - Design - Mechanical	(31 Dec 74)	062-1724-00
This standard applies to the requirements for the mechanical portion of circuit board design.	2	
Circuit Board Standards - Drafting	(31 Mar 75)	062-1721-00
This standard governs the drafting practices used making circuit board drawings.	lin	
Circuit Board Standards - Manufacturing	( * )	062-1723-00
This standard specifies the parameters required in the manufacture of one and two-layer circuit board only. This applies only to raw circuit boards, put to installation of any components or hardware. It standard applies only to those boards turned regulater the issue date of this standard except as standard in the standard.	ds rior his lar	
Circuit Board Standards - Manufacturing - EC 200B .	( * )	062-1725-00
This standard is merely a re-assignment of identication to the nine-digit part number of the previstandard - EC 200B. It has been up-dated and corted slightly, but remains basically the same. This standard applies to one and two-layer boards, and multi-layer boards as well.	ous rec-	
Circuit Board Standards - Multi-Layer - Design	(31 Jan 75)	062-1726-00
This standard describes those parameters that are peculiar to the design characteristics of multi-layer boards.		
Circuit Board Standards - Multi-Layer - Manufacturin	g . (30 Nov 74)	062-1727-00
This standard is a companion to 062-1723-00. I applies to <u>all</u> the requirements for manufacturing a multi-layer board. This standard includes thos parameters that apply to one and two-layer boards as well as those that are peculiar to manufacture of multi-layer boards only.	e	
Component Mounting Standards	(31 Aug 75)	062-1732-00
This standard describes the requirements that app to component mounting hole details. Use of this standard and the input of new information will re duce costs due to repetition and duplication of tooling.		

\*Currently available.



TERTHONIX STANDARDS		1 NOV 74	
	REDICTED DATE AVAILABLE	PART NUMBER	
Converting Fractions to Decimals	( * )	062-1706-00	
This standard describes the rules to be followed in converting fractions to decimals.			
Conversions - Metric and English	(30 Sep 75)	062-1698-00	
This standard specifies the rules methods and formu- las which apply in conversions of Metric and English.			
Design Standards	(30 Apr 75)	062-1703-00	
This standard describes those parameters that are applicable to or govern general designing or are common to a number of design categories.			
Documentation Standards	(28 Feb 75)	062-1701-00	
This standard lists the requirements imposed on all formal documentation practices, methods and formats.			
Drafting Standards	(30 Apr 75)	062-1704-00	š
This standard is a compilation of the restrictions and directions applicable to drafting techniques, methods, and practices.			
Drawing Formats	(31 Mar 75)	062-1708-00	
This standard describes the approved drawing formats and how and when they are to be used.			
Extrusion Standards	(31 Aug 75)	062-1713-00	
This standard is a description of the approved requirements that shall be used in ordering extrusions and/or extrusion tooling. Also included are instructions in methods of specifying extrusions on drawings			
Fabrication Standards	(31 Oct 75)	062-1710-00	
This standard applies to those subjects having to do with manufacture and light assembly that are common to a number of part numbers.			
Finish Standards	(30 Jun 75)	062-1718-00	
This standard describes those requirements that are pertinent to final finishes on parts.			
Front Panel Standards	(30 Sep 75)	062-1711-00	
This standard describes those common parameters that regulate design and manufacture of front panels, probe covers, and tags.			

\*Currently available.



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General Standards
apply to more than one category or subject.  Glossary Section
This standard contains definitions of technical terms, and definitions of drafting terms.  Hardware Standards
terms, and definitions of drafting terms.  Hardware Standards
This standard lists the required parameters of common hardware.  Interconnection System Standards (31 Aug 75) 062-1730-00  This standard describes the major interconnection
common hardware.  Interconnection System Standards (31 Aug 75) 062-1730-00  This standard describes the major interconnection
This standard describes the major interconnection
systems used with circuit boards and how each con- nector type is used.
Introduction Section
This section contains a complete description of the new standards system including part numbering, methods of distribution, and modification procedures.
Metals Parts Standards - General (31 Mar 75) 062-1716-00
This standard describes general design and manu- facturing practices and requirements.
Metric Drafting Standards (30 Sep 75) 062-1705-00
This standard specifies the practices that shall be used in drafting when dimensioning in metric units.
Packaging Standards - Components (28 Feb 75) 062-1763-00
This standard describes the requirements needed in packaging of components, those purchased outside for special operations and those that need special protection "in-house".
Packaging Standards - Transportation (30 Nov 75) 062-1735-00
This standard lists those requirements that apply to packing of instruments and sub-assemblies for transportation both within Tektronix and outside.
Plastics Design Standards (31 May 75) 062-1719-00
This standard describes the requirements necessary for good design of plastic parts and some of the practices to be avoided.
*Currently available.



TEKTRONIX, INC. BEAVERTON, OREGON U.S.A. 97077 80009

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	PREDICT AVAII			PART NUMBER	
Plastics Finishing Standards	(31	May	75)	062-1720-00	
This standard specifies the common practices and operations performed on plastic parts.			,		
Product Safety Standards	у	Jan	75)	062-1734-00	
Rack-mount Standards	ıd	Dec	75)	062-1733-00	
Rounding Off Decimal Numbers		*	)	062-1707-00	
Schematic Drafting Standards	(30	Jun	75)	062-1709-00	
This standard describes the procedures and formats that shall be used for schematic drafting.					
Screw Thread Standards	(31	Dec	75)	062-1715-00	
This standard lists the requirements and terminolog to be used in specifying screw threads and the nece ary tolerances.					
Sheet Metal Standards	(30	Jun	75)	062-1712-00	
This standard describes the common requirements for specifications and manufacturing practices that app to design and production of sheet metal parts.					
Subject Index	(31	Oct	75)	062-1700-00	
This section lists the part number of the standard which a particular subject can be found.	in				
Table of Contents	(	*	)	062-1738-00	
This section lists the titles of each standard with very brief description of the contents of each and identifies the part number by which each standard m be obtained.	_				
Tooling Standards	(31	Ju1	75)	062-1714-00	
This standard describes the common parameters that required for both temporary and hard tooling, both those tools made within Tektronix and those "farmed	for				

\*Currently available.





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**List of Changes** 

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## Subject Index

The Subject Index for this Directory will be developed and published when a sufficient number of new standards have been completed (or existing standards have been restructured to the new format) to make such an index meaningful.

In the interim, the Subject Index in the Table of Contents section of Volume I - Tektronix Standards may be used. It should be remembered, however, that the Subject Index references only to Volume I.

If you have further questions, please call Corporate Standards, Ext. 7976.

Dwam M. Hall

21 OCT 74

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