

**2432**  
**DIGITAL STORAGE**  
**OSCILLOSCOPE**  
**OPERATORS**

*Qservice - 2432 Operators Sample - Qservice*

*Please Check for  
CHANGE INFORMATION  
at the Rear of This Manual*

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### INSTRUMENT SERIAL NUMBERS

Each instrument has a serial number on a panel insert, tag,  
or stamped on the chassis. The first number or letter  
designates the country of manufacture. The last five digits  
of the serial number are assigned sequentially and are  
unique to each instrument. Those manufactured in the  
United States have six unique digits. The country of  
manufacture is identified as follows:

B000000	Tektronix, Inc., Beaverton, Oregon, USA
100000	Tektronix Guernsey, Ltd., Channel Islands
200000	Tektronix United Kingdom, Ltd., London
300000	Sony/Tektronix, Japan
700000	Tektronix Holland, NV, Heerenveen, The Netherlands

# Preface

The documentation for the 2432 consists of the following publications:

1 Operators Manual	070-6613-00
1 Users Reference	070-6615-00
1 Programmers Reference Guide	070-6614-00
1 Service Manual (Optional accessory)	070-6285-00

The Operators Manual is the authoritative reference for all operating information. The only exception is information regarding system interfacing and operating this instrument via the GPIB; the Programmers Reference Guide is the primary reference for GPIB operation.

This manual contains seven sections plus appendices. A brief description of each follows.

## Section 1

This section introduces you to the instrument. It begins with a description of the instrument and continues with an explanation of how to prepare the instrument for initial start-up. Operating considerations necessary for preventing damage to the scope are also covered. Next, the user gets some "hands-on" experience with the instrument through a "Getting Acquainted" procedure.

## Section 2

This is a two-part section. Part one, "Operating Considerations," details the basic things to be aware of when making measurements. Part two, "Operators Familiarization Procedures," gives you the opportunity to make some measurements that demonstrate various features while familiarizing you with the scope's controls and menus. Use of the important Self Calibration feature is also covered.

## **Section 3**

This four-part section provides detailed procedures for making measurements with the scope. They are intended to help you develop your own methods for your specific measurement requirements.

The first part of the section, "General Applications," details the more familiar graticule measurements of signal amplitude and time period. Use of the Vertical and Horizontal Display modes (including delay-time measurements) is also covered in part one.

Part two, "Special Applications," describes use of the versatile cursors for making highly accurate measurements of voltage, time, and frequency. It includes an application for the combined A\*B trigger source.

The third part, "Storage Applications," describes the various storage acquisition modes and their uses.

The final section, "Extended Features Applications," outlines use of the Auto Setup, AutoStep Sequencer, and MEASURE features.

## **Section 4**

This section contains check and adjustment procedures the operator can use to ensure the accuracy of measurements.

## **Section 5**

This is the reference section that describes instrument features. It illustrates the locations of the controls, connectors, and indicators and describes their functions. A listing of the control menus, at the rear of the section, includes information about their use.

## **Section 6**

This section contains tables of the electrical, environmental, and mechanical characteristics of the instrument. An introductory summary of the instrument's capabilities precedes the specification tables. A dimensional drawing of the instrument is included at the end of the section.

## **Section 7**

This section contains information about available instrument options, including operating instructions for the Video Option and the Word Recognizer Probe. It also contains a list of the standard instrument accessories and a partial list of the recommended optional accessories.

## **Appendix A**

The Extended Functions menus and the internal calibration and diagnostics capabilities of the scope are described. For the operator's information, a table at the rear of the appendix lists the Extended Diagnostics test codes and abbreviated names.

## **Appendix B**

This appendix contains supplemental reference tables and information.

## **Appendix C**

This appendix discusses special considerations for using the MEASURE feature to automatically extract and measure waveform parameters. It includes a table that lists and explains the error and warning messages issued by MEASURE.

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# Operators Safety Summary

The general safety information in this part of the summary is for both operating and servicing personnel. Specific warnings and cautions will be found throughout the manual where they apply and do not appear in this summary.

## Terms

### In This Manual

**CAUTION** statements identify conditions or practices that could result in damage to the equipment or other property.

**WARNING** statements identify conditions or practices that could result in personal injury or loss of life.

### As Marked on Equipment

**CAUTION** indicates a personal injury hazard not immediately accessible as one reads the markings, or a hazard to property, including the equipment itself.

**DANGER** indicates a personal injury hazard immediately accessible as one reads the marking.

## Symbols

### In This Manual



This symbol indicates where applicable cautionary or other information is to be found. For maximum input voltage see Table 6-1.

### As Marked on Equipment



**DANGER**—High voltage.



Protective ground (earth) terminal.



**ATTENTION**—Refer to manual.

### ***Power Source***

This product is intended to operate from a power source that does not apply more than 250 volts rms between the supply conductors or between either supply conductor and ground. A protective ground connection by way of the grounding conductor in the power cord is essential for safe operation.

### ***Grounding the Product***

This product is grounded through the grounding conductor of the power cord. To avoid electrical shock, plug the power cord into a properly wired receptacle before connecting to the product input or output terminals. A protective ground connection by way of the grounding conductor in the power cord is essential for safe operation.

### ***Danger Arising From Loss of Ground***

Upon loss of the protective-ground connection, all accessible conductive parts (including knobs and controls that may appear to be insulating) can render an electric shock.

### ***Use the Proper Power Cord***

Use only the power cord and connector specified for your product.

Use only a power cord that is in good condition.

For detailed information on power cords and connectors see Table 1-1.

### ***Use the Proper Fuse***

To avoid fire hazard, use only a fuse of the correct type, voltage rating and current rating as specified in the parts list for your product.

### ***Do Not Operate in Explosive Atmospheres***

To avoid explosion, do not operate this product in an explosive atmosphere unless it has been specifically certified for such operation.

### ***Do Not Remove Covers or Panels***

To avoid personal injury, do not remove the product covers or panels. Do not operate the product without the covers and panels properly installed.