

Qservice - 2252 Programming manual sample - Qservice

**THE**  
**2252**  
PORTABLE  
OSCILLOSCOPE

**Programmer  
Manual**

Please check for **CHANGE INFORMATION**  
at the rear of this manual.

### Instrument Serial Numbers

Each instrument manufactured by Tektronix has a serial number on a panel insert or tag, or stamped on the chassis. The first letter in the serial number 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:

B010000	Tektronix, Inc., Beaverton, Oregon, USA
E200000	Tektronix United Kingdom, Ltd., London
J300000	Sony/Tektronix, Japan
H700000	Tektronix Holland, NV, Heerenveen, The Netherlands
HK00000	Hong Kong

Instruments manufactured for Tektronix by external vendors outside the United States are assigned a two digit alpha code to identify the country of manufacture (e.g., J3 for Japan, HK for Hong Kong, etc.).

Tektronix, Inc., P.O. Box 500, Beaverton, OR 97077

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This manual is organized as follows:

- Chapter 1, *Setting Up the Instrument*, shows how to connect the 2252 to the GPIB controller.
- Chapter 2, *Getting Started*, provides tutorials to get you started programming with the GPIB controller. It also explains basic command syntax.
- Chapter 3, *Advanced Applications*, describes programming strategies for taking certain measurements and digitizing waveforms.
- Chapter 4, *Transferring Waveforms*, explains how to transfer waveform data from the 2252 and the format used to do so.
- Chapter 5, *Status and Events*, discusses the status and event-handling capabilities of the GPIB interface. This is useful for debugging programs and synchronizing events.
- Chapter 6, *Command Reference*, provides complete syntax definitions and brief explanations of all GPIB commands for the 2252.
- Appendix A, *GPIB Concept*, provides a brief overview of basic GPIB theory.

This manual is intended to be used as a reference guide. Chapters 1 and 2 provide general set-up and programming information for users who have not programmed GPIB devices before. Chapters 3 and 4 introduce more advanced applications. Chapter 5 provides debugging and synchronization information. Chapter 6 lists the commands both functionally and alphabetically. The appendices provide additional reference information.

### Additional Information

The following other manuals may provide useful information:

*The 2252 Programmable Hardcopy Oscilloscope Operator Manual* (Tektronix part number 070-7837-00)

You can also ask your local Tektronix Application Engineer or Sales Engineer for help. If you don't know who they are, or need other help, call in the U. S., call the Tektronix National Marketing Center toll-free at 1-800-426-2200.

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## Tips for New Users

If you have never worked with GPIB devices, start by reading the first and second chapters of this manual. More experienced users can skip these chapters. All users can benefit from the advanced applications discussed in the third and fourth chapters: find the application most like the task you wish to accomplish.

A few guidelines can help make your programming task easier. In general, write programs that are easy to maintain and modify. Specifically:

- Program in a modular fashion. Each module should be responsible for one general category of concerns.
- Minimize dependencies between modules.
- Isolate device-specific concerns in as few modules as possible.
- Use the full command name. Abbreviated commands are convenient for communicating over the GPIB interface interactively. However, future releases of firmware may add commands. When this happens, command abbreviations can change, because it may take more characters to distinguish between commands when the command set grows. Full command names are less likely to cause problems between your program and new firmware releases.

Full command names also make your programs easier for others to read.

- Comment your programs. Not only will they be easier for others to read, but you may be grateful yourself after a six-month interlude.
- Follow consistent conventions for line breaks and indentation.

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