

Fluke 123/003S

Fluke 123/003S Industrial ScopeMeter User Manual

1. INTRODUCTION

This manual provides essential information for the safe and effective use of the Fluke 123/003S Industrial ScopeMeter. The Fluke 123/003S is a versatile handheld electrical test device that integrates a two-channel digital oscilloscope with a true RMS digital multimeter, designed for industrial applications. It is capable of viewing electrical signals and measuring various electrical properties.

2. SAFETY INFORMATION

Always adhere to safety precautions when operating the Fluke 123/003S ScopeMeter. Failure to do so may result in injury or damage to the instrument. This device is rated for CAT III installations to 600V, covering equipment in fixed installations. It meets European Standard (EN) 61010-1:2001, American National Standards Institute and International Society of Automation (ANSI/ISA) S82.02.01, CAN/CSA (Canadian Standards Association) C22.2 61010-1-04, and UL (Underwriters Laboratories) 61010-1-04 safety standards, and carries CE marking.

- Ensure the device and accessories are in good condition before use.
- Do not exceed the maximum input ratings for any function.
- Use only specified test leads and accessories.
- Always disconnect power to the circuit under test before making connections, if possible.
- Refer to the detailed safety instructions in the included user manual for comprehensive guidelines.

3. SETUP AND UNPACKING

Upon receiving your Fluke 123/003S Industrial ScopeMeter, carefully unpack all components and verify the contents against the list below. Inspect for any signs of damage.

3.1 What's in the Box

- Fluke ScopeMeter series 120 handheld oscilloscope/multimeter
- Set of test leads with mini clips and alligator clips
- BNC-to-banana adapter

- Rechargeable NiMH battery pack (installed)
- AC adapter/battery charger
- User manual
- SCC120 kit (for models with kit):
 - FlukeView software CD-ROM
 - RS-232/USB adapter cable
 - Hard carrying case



Image 1: Fluke 123/003S Industrial ScopeMeter with its complete SCC120 kit, including the main unit, test leads, adapters, power supply, and hard carrying case.

3.2 Powering the Device

The Fluke 123/003S operates on a rechargeable NiMH battery pack, which comes pre-installed. To charge the battery or operate the device from a power outlet, use the included AC adapter/battery charger. Connect the charger to the device and then to a standard 120V, 60Hz AC outlet. The device features an automatic shutdown function after 30 minutes of non-use to conserve battery life, and a low-battery indicator will signal when recharging is necessary.

4. OPERATING INSTRUCTIONS

The Fluke 123/003S combines the functionality of an oscilloscope and a multimeter. Familiarize yourself with the front panel controls and display before operation.

4.1 Oscilloscope Function

The two-channel digital oscilloscope allows for viewing electrical signals. It features a real-time sample rate of 25MS/s and a record length of 512 points per channel. Key features include:

- **Automatic and Cursor Measurements:** For in-depth waveform analysis.
- **Edge and Video Triggers:** To isolate specific signals.
- **Advanced Automatic Triggering:** Recognizes signal patterns and optimizes triggering, timebase, and amplitude settings automatically.
- **External Triggering:** An optical port supports attachment of a Fluke ITP120 probe (sold separately).

4.2 Multimeter Function

The true RMS, 5,000-count multimeter provides accurate readings for both linear and non-linear loads. It can measure:

- AC and DC voltage up to 1,250V
- Resistance up to 50MΩ
- Capacitance up to 500μF
- Frequency up to 50MHz
- Duty cycle from 2% to 98%

Additional multimeter features include:

- **Ranging Modes:** Manual (user selects range) and Auto (device selects range).
- **Relative Function:** Sets a reference value and displays subsequent measurements as deviations.
- **Touch-Hold Mode:** Captures a stable reading.
- **Data-Hold Function:** Freezes a reading on the display.
- **Continuity Buzzer:** Confirms electrical conduction.
- **Diode Check:** Detects proper diode function.

4.3 Display and Data Management

The device features a 2.83-inch monochrome LCD with a resolution of 240 x 240 pixels, equipped with a backlight for visibility in low-light conditions. Up to 10 setups and screenshots can be stored in the internal memory.

The **TrendPlot chart recorder** graphs minimum and maximum values over time for both oscilloscope and multimeter functions. It can be programmed for various time scales, from 15 seconds per division over 120 seconds to 2 days per division over 16 days.

4.4 Connectivity

An optically isolated RS-232 interface allows connection to a compatible printer for direct data printing or to a PC for data storage and analysis. The SCC120 kit includes an RS-232/USB adapter cable and FlukeView CD-ROM software, compatible with Microsoft Windows 2000 and later operating systems, for enhanced data management.

5. MAINTENANCE

To ensure the longevity and accuracy of your Fluke 123/003S ScopeMeter, follow these maintenance guidelines:

- **Battery Charging:** Recharge the NiMH battery pack regularly using the provided AC adapter/charger. Avoid deep discharge cycles to prolong battery life.

- **Cleaning:** Clean the instrument's exterior with a soft, damp cloth. Do not use abrasive cleaners or solvents.
- **Storage:** Store the device and its accessories in the hard carrying case (if included with SCC120 kit) in a dry, dust-free environment when not in use.
- **Calibration:** Periodic calibration by authorized service centers is recommended to maintain measurement accuracy. Refer to the full user manual for recommended calibration intervals.

6. TROUBLESHOOTING

If you encounter issues with your Fluke 123/003S, consider the following basic troubleshooting steps:

- **Device Not Powering On:** Check if the battery is charged. Connect the AC adapter/charger and attempt to power on.
- **Incorrect Readings:** Ensure test leads are properly connected and not damaged. Verify the correct measurement function is selected.
- **Display Issues:** Check for physical damage. If the display is dim, ensure the backlight is enabled and the battery is sufficiently charged.
- **Connectivity Problems:** For PC connection, ensure the RS-232/USB adapter is correctly installed and the FlukeView software is properly configured.

For more complex issues, refer to the comprehensive troubleshooting section in the full user manual or contact Fluke customer support.

7. SPECIFICATIONS

Feature	Specification
Display	2.83" monochrome LCD, 240 x 240 pixels, backlight
Bandwidth	20MHz
Input Channels	Two
Real-time Sample Rate	25MS/s
Record Length	512 points per channel
Maximum DC Voltage Measured	1,250V
Maximum Resistance Measured	30MΩ
Maximum Capacitance Measured	500μF
Maximum Frequency Measured	50MHz
Installation Rating	CAT III, 600V
Standards Met	EN 61010-1:2001, ANSI/ISA S82.02.01, CAN/CSA C22.2 61010-1-04, UL 61010-1-04; CE marking

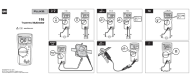
Feature	Specification
Power Source	Rechargeable NiMH battery pack or 120V, 60Hz AC adapter/charger
Interface	Optically isolated RS-232

8. WARRANTY AND SUPPORT

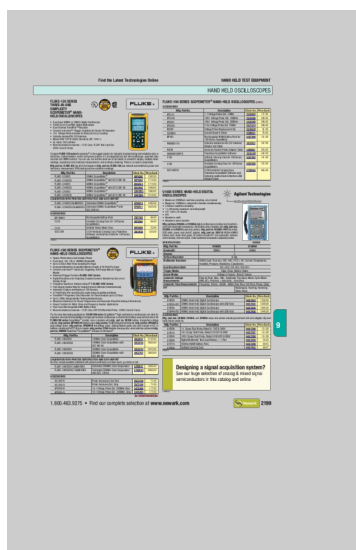
The Fluke 123/003S Industrial ScopeMeter is manufactured by Fluke Corporation, headquartered in Everett, WA. For specific warranty details, please refer to the warranty card included with your product or visit the official Fluke website. For technical support, service, or replacement parts, please contact Fluke customer service directly. Contact information can typically be found in the full user manual or on the Fluke Corporation website.

Related Documents - 123/003S

	Fluke FEV100 Adapter Kit for Electric Vehicle Charging Stations: Technical Data and Specifications Explore the technical specifications, features, and testing procedures for the Fluke FEV100 Adapter Kit, designed to safely and efficiently test electric vehicle charging stations (EVSEs). Includes safety information, compatibility, and ordering details.
	Fluke 106/107 Palmsized Digital Multimeters: Technical Specifications and Features Detailed technical specifications, product highlights, and general information for the Fluke 106 and 107 palmsized digital multimeters. Learn about their electrical specifications, accuracy, features, and included equipment.
	Fluke 107 Handheld CAT III Digital Multimeter - Technical Specifications Detailed technical specifications, features, and general information for the Fluke 107 handheld CAT III digital multimeter. Includes electrical measurements, safety ratings, and ordering details.
	Fluke Handheld Test Equipment Catalog: Oscilloscopes and Multimeters Explore a comprehensive range of Fluke handheld oscilloscopes and digital multimeters, including Scopemeters, industrial multimeters, and specialized test equipment. Find detailed specifications, accessories, and combo kits for various electrical and electronic testing needs.

	Fluke 107 CAT III Digitale Multimeter Specificaties en Kenmerken Gedetailleerde specificaties, kenmerken en technische gegevens voor de Fluke 107 CAT III digitale multimeter in handpalmformaat. Inclusief elektrische en algemene specificaties, afmetingen, garantie en informatie over EURO-INDEX diensten.
	Fluke 116 True-rms Multimeter: Quick Reference Guide Quick reference guide for the Fluke 116 True-rms Multimeter, detailing its functions, measurement capabilities, and usage for electrical testing.

Documents - Fluke – 123/003S



[Fluke Handheld Test Equipment Catalog: Oscilloscopes and Multimeters](#)

Explore a comprehensive range of Fluke handheld oscilloscopes and digital multimeters, including Scopemeters, industrial multimeters, and specialized test equipment. Find detailed specifications, accessories, and combo kits for various electrical and electronic testing needs.

lang:en score:19 filesize: 5.42 M page_count: 44 document date: 2009-09-22

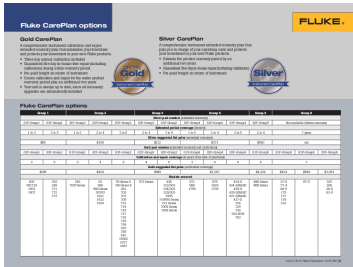


[\[pdf\] User Manual Datasheet Catalog](#)

Test Tools Catalog 30 kHz Auto manual ranging Norma 4000 5000 Analyzers certificate with calibration values user power supply cable and are completely customiz able TestToolCatalog 2006 2007 media digikey Data Sheets Fluke

Test Tools Catalog Volume one, 2007 Fluke Ti20 Thermal Imager Fluke 975 AirMeterTM Fluke 1587 Insu ... 124/003S Industrial ScopeMeter 40 MHz with SCC Kit FLUKE-123/003 Industrial ScopeMeter 20 MHz FLUKE-123/003S Industrial ScopeMeter 20 MHz with SCC Kit For more information and detailed specifications...

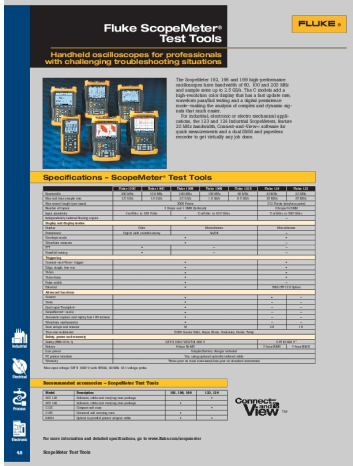
lang:en score:18 filesize: 11.85 M page_count: 72 document date: 2006-11-16



[\[pdf\]](#) Warranty

Fluke Careplan options 4105176 6003 ENG F W dev dam assets fluke s3 amazonaws s3fs public |||
 Fluke CarePlan options Gold CarePlan A comprehensive instrument calibration and repair extended warranty plan that minimizes your downtime and protects your investment in your new Fluke products. Three day annual calibration included Guaranteed five day in-house free repair including calibration...

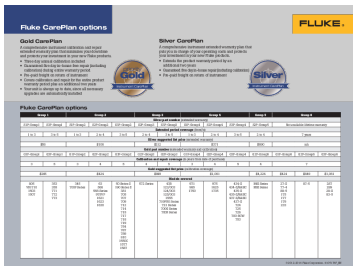
lang:en score:16 filesize: 81.74 K page_count: 1 document date: 2014-05-28



[\[pdf\]](#) Troubleshooting Guide Specifications

9030135 ENG A W dev dam assets fluke s3 amazonaws s3fs public |||
 Fluke ScopeMeter Test Tools Handheld oscilloscopes for professionals with challenging troubleshootin ... 000 V are fully supported. Ordering information FLUKE-123/003 Industrial ScopeMeter . 20 MHz. FLUKE-123/003S Industrial ScopeMeter . 20 MHz with SCC Kit. FLUKE-124/003 Industrial ScopeMeter . 40 MHz. ...

lang:en score:15 filesize: 1.29 M page_count: 4 document date: 2006-05-17



[\[pdf\]](#) Warranty

Fluke Careplan options CarePlan silver care gold plans testequity documents
 Fluke CarePlan options Gold CarePlan A comprehensive instrument calibration and repair extended warranty plan that minimizes your downtime and protects your investment in your new Fluke products. Three day annual calibration included Guaranteed five day in-house free repair including calibration...

lang:en score:15 filesize: 87.95 K page_count: 1 document date: 2015-01-02



[\[pdf\]](#) Warranty Borchure

FLK 123 003S EW baltelectronika ru x decode 844fd8e5ebbc2a15069eb3e33eb77752 part |||
 Fluke CarePlans Everything you need to make your life easier Distributor brochure Help your customers decrease costs and increase productivity. Fluke Corporation introduces new CarePlans. These CarePlans provide your customer the highest level of service at the best price available. The CarePlans...

lang:en score:14 filesize: 1.1 M page_count: 4 document date: 2025-05-12



[\[pdf\]](#) Catalog

Test Tools Catalog NET w Logging SW Fluke 574 NI Precision Infrared Thermometer 196B 003S
 ScopeMeter 100 MHz B W with SCC kit 199B 003 fluke 80bka sup2manufacturernocatlinknew xonstorage
 blob core windows net |||
 Test Tools Catalog Volume one, 2007 Fluke Ti20 Thermal Imager Fluke 975
 AirMeterTM Fluke 1587 Insu ... 124/003S Industrial ScopeMeter 40 MHz with SCC Kit
 FLUKE-123/003 Industrial ScopeMeter 20 MHz FLUKE-123/003S Industrial
 ScopeMeter 20 MHz with SCC Kit For more information and detailed specifications...
 lang:en score:11 filesize: 11.64 M page_count: 73 document date: 2021-03-07



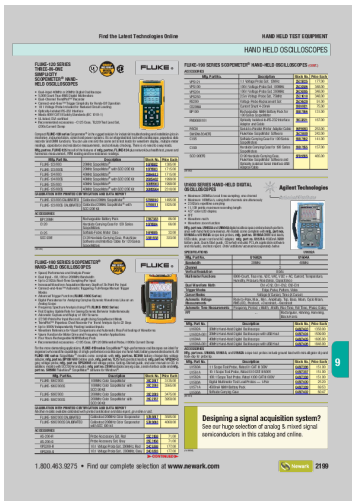
[\[pdf\]](#) Datasheet Warranty Borchure

4208055 0000 ENG A W 483653 mouser datasheet 2 159
 Fluke CarePlans Everything you need to make your life easier Distributor brochure
 Help your customers decrease costs and increase productivity. Fluke Corporation
 introduces new CarePlans. These CarePlans provide your customer the highest level
 of service at the best price available. The CarePlans...
 lang:en score:10 filesize: 1.16 M page_count: 5 document date: 2012-06-08



[\[pdf\]](#) Datasheet Warranty Borchure

Mouser Electronics 4208055 0000 ENG A W 1166405 mouser jp datasheet 2 159 |||
 Fluke CarePlans Everything you need to make your life easier Distributor brochure
 Help your customers decrease costs and increase productivity. Fluke Corporation
 introduces new CarePlans. These CarePlans provide your customer the highest level
 of service at the best price available. The CarePlans...
 lang:en score:10 filesize: 1.16 M page_count: 5 document date: 2012-06-08

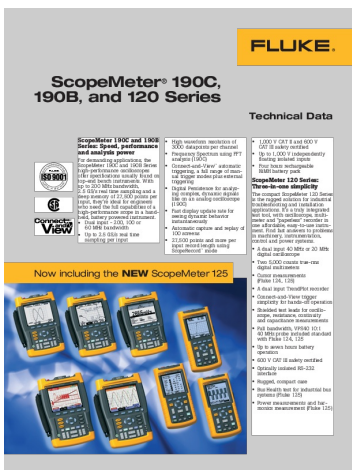


[\[pdf\]](#) Troubleshooting Guide Accessories Catalog

newark s catalogs c127 Hand Held Test Equipment DSCHOI HAND HELD OSCILLOSCOPES IIS
Windows Server For the more demanding applications FLUKE 190 series ScopeMeter® high
performance PV500 PowerVisa 4400 mainframe DRAN VIEW USB hasp version c126 sec9 TestMeA
common leocom jp cat cat2009

Find the Latest Technologies Online HAND HELD TEST EQUIPMENT HAND HELD
OSCILLOSCOPES FLUKE-120 SER ... harmonics measurement, RPM reading and
low resistance readings. Mfg. Part No. FLUKE-123/003 FLUKE-**123/003S** FLUKE-
124/003 FLUKE-124/003S FLUKE-125/003 FLUKE-125/003S Description 20MHz
ScopeMeter 20M...

lang:en **score:10** filesize: 3.35 M page_count: 44 document date: 2009-12-24

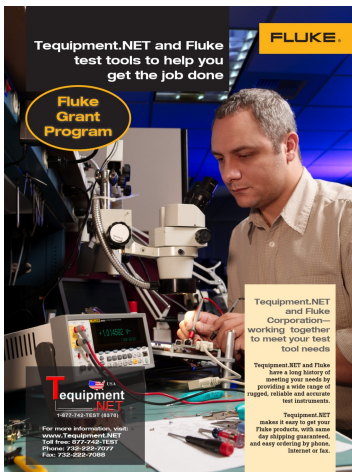


[\[pdf\]](#) Specifications Datasheet

1629083 6120 ENG F W 860 mouser datasheet 2 159

ScopeMeter 190C, 190B, and 120 Series Technical Data QUAL 9001 STEM CERT
ITY MANAGEMENT SY IFIE ... entory, Delivery Lifecycle Information: Fluke: FLUKE-
123/003 FLUKE-199B/003S FLUKE-124/003S FLUKE **123/003S** FLUKE-124/003
FLUKE-125/003S ...

lang:en **score:10** filesize: 751.15 K page_count: 9 document date: 2007-04-03

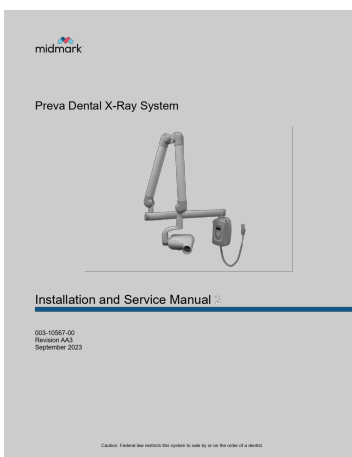


[\[pdf\]](#) Borchure

TeqFlukeGrant assets tequipment net 1 26 Documents |||

Tequipment.NET and Fluke test tools to help you get the job done Fluke Grant
Program For more infor ... # Fluke 123/3 List price 1,385.00 Fluke 123 Industrial
ScopeMeter 20 MHz with SCC120 Kit Fluke **123/003S** 1,715.00 Your price 1,039
1,289 Fluke 190 Series ScopeMeterTM Dual-input-200, 100 ...

lang:en **score:10** filesize: 10.35 M page_count: 8 document date: 2009-04-27

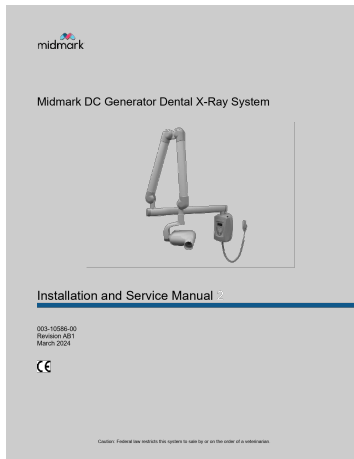


[\[pdf\]](#) User Manual

Preva Dental X Ray System Installation and Service Manual Accompanying Documents User EOIS Lubo
L Cekov Midmark Corporation 003 10567 00 AA3 technicallibrary midmark |||

Preva Dental X-Ray System Installation and Service Manual 2 003-10567-00
Revision AA3 September 2023 Caution: Federal law restricts this system to sale by or
on the order of a dentist. This page is intentionally left blank 003-10567-00, Preva
Installation and Service Manual, Revision AA3 Conte...

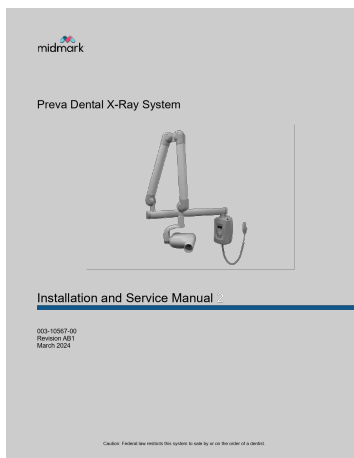
lang:en **score:10** filesize: 24.03 M page_count: 290 document date: 2023-09-21



[\[pdf\]](#) User Manual

Midmark DC Generator Dental X Ray System Installation and Service Manual Accompanying Documents User EOIS Lubo L Cekov Corporation 003 10586 00 Rev AB1 Animal Health technicallibrary midmark ||| Midmark DC Generator Dental X-Ray System Installation and Service Manual 2 003-10586-00 Revision AB1 March 2024 Caution: Federal law restricts this system to sale by or on the order of a veterinarian. This page is intentionally left blank 003-10586-00, Midmark DC Generator Installation and Ser...

lang:en score:9 filesize: 24.48 M page_count: 293 document date: 2024-03-26



[\[pdf\]](#) User Manual

Preva Dental X Ray System Installation and Service Manual Accompanying Documents User EOIS Lubo L Cekov Midmark Corporation Technical Librarytechnicallibrary midmark â° 003 10567 00 Rev AB1 technicallibrary ||| Preva Dental X-Ray System Installation and Service Manual 2 003-10567-00 Revision AB1 March 2024 Caution: Federal law restricts this system to sale by or on the order of a dentist. This page is intentionally left blank 003-10567-00, Preva Installation and Service Manual, Revision AB1 Contents ...

lang:en score:9 filesize: 24.39 M page_count: 290 document date: 2024-03-26