

Panel-Mounted pH Indicators & Controllers



Dear Customer,

Thank you for choosing a Spark Instruments product. Please read this instruction manual carefully before using these instruments. This manual will provide you with the necessary information for correct use of these instruments.

MAJOR EXAMINATION

Remove the instrument from the packing material and examine it carefully to make sure that no damage has occurred during shipping. If there is any damage and each meter is supplied with:

- Mounting brackets
- Instruction manual
- Two screwdriver for install and calibration

GENERAL INFORMATION

SP22 is panel-mounted pH indicators and controllers designed for simplicity of use in a wide range of industrial applications. Connections and wiring to electrode, power supply and contacts are made via the terminal blocks on the rear panel.

The meters are equipped with a BNC socket and accept input from any conventional pH electrodes. Other features include: overtime control system, selection of dosing direction (Acid/Alk.), one dosing contact, multi-color LED for indicating if the meter is in measurement/dosing/ alarm condition, possibility to set (Off-Auto-On switch) dosing action mode SP22 powered at 220 Vac.

SPECIFICATIONS

Range	0.0 to 14.0 pH
Resolution	0.1 pH
Accuracy	Accuracy (@ 25 °C / 77 °F) ± 0.2 pH
Calibration	Calibration Manual, through CAL (Offset) & Slope tune trimmer
Dosing	Dosing Contact Maximum 2A (fuse protected), 250 Vac.
Dosing Selection Acid or Alk.	Contact Open=Acid dosage=Relay ON if Measure > Set point Contact Close=Alk dosage=Relay ON if Measure < Set point
Set point	Set point Adjustable, from 0 to 14 pH
Overtime	Overtime Adjustable, typically from 5 to approx. 30 minutes
Power Consumption	10 VA
Power supply	External (fuse protected), 220/230 Vac ; 50/60 Hz
Dimensions	93 x 100 x 79 mm

CALIBRATION

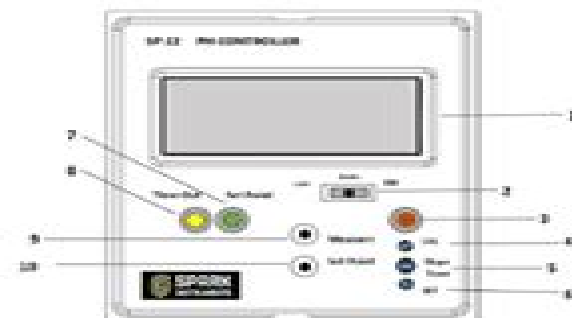
To achieve best measurement, we recommend to calibrate the instrument once every week. And the procedure as following: - with meter in measurement mode, immerse electrode and Matching Pin (if available) in pH 7.01 buffer solution, shake briefly and wait for reading to stabilize. Adjust the CAL trimmer until "7.0" is displayed on the LCD. And for more accurate result use 4.01 buffer solution and Adjust the Slope Tune trimmer until "4.0" is displayed on the LCD.

ACCESSORIES

- Calibration and Installation screwdrivers
- Mounted bracket

FEATURE DESCRIPTION

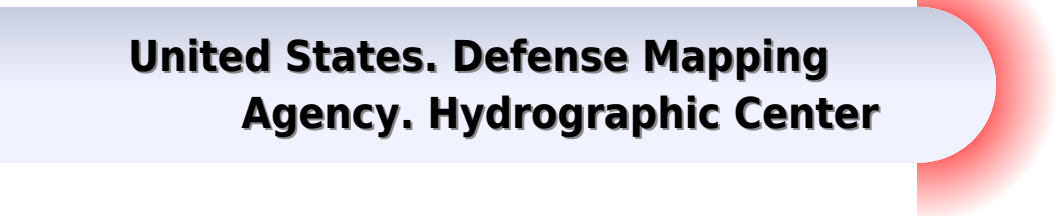
Front panel



1. Liquid Crystal Display
2. Switch for selecting dosing mode:
 - OFF = Dosing disabled
 - Auto =Automatic dosage, depending on set point
 - ON = Dosing always active
3. RGB-LED indicator:
 - Green = meter in measurement mode
 - Orange/Yellow = dosing in progress
 - Red, blinking = indicates an alarm condition
4. CAL to adjust the pH offset value during calibration
5. Slope Tune to adjust the pH slope tune value during calibration process
6. SET to adjust the set point take value (0 to 14 pH)
7. SET Point indicator green led flashing when set point switch is pressed
8. Time Out indicator yellow led flashing when dosing setting over time dosing for protection.
9. Measure key to set the instrument to measurement mode
10. SET Point key to display and set the set point value

Sp22 Operators Manual

**United States. Defense Mapping
Agency. Hydrographic Center**



Sp22 Operators Manual:

Sp22 Operators Manual Book Review: Unveiling the Magic of Language

In an electronic digital era where connections and knowledge reign supreme, the enchanting power of language has become apparent than ever. Its ability to stir emotions, provoke thought, and instigate transformation is truly remarkable. This extraordinary book, aptly titled "**Sp22 Operators Manual**," written by a very acclaimed author, immerses readers in a captivating exploration of the significance of language and its profound effect on our existence. Throughout this critique, we shall delve into the book's central themes, evaluate its unique writing style, and assess its overall influence on its readership.

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Table of Contents Sp22 Operators Manual

1. Understanding the eBook Sp22 Operators Manual
 - The Rise of Digital Reading Sp22 Operators Manual
 - Advantages of eBooks Over Traditional Books
2. Identifying Sp22 Operators Manual
 - Exploring Different Genres
 - Considering Fiction vs. Non-Fiction
 - Determining Your Reading Goals
3. Choosing the Right eBook Platform
 - Popular eBook Platforms
 - Features to Look for in an Sp22 Operators Manual
 - User-Friendly Interface
4. Exploring eBook Recommendations from Sp22 Operators Manual
 - Personalized Recommendations
 - Sp22 Operators Manual User Reviews and Ratings

- Sp22 Operators Manual and Bestseller Lists
- 5. Accessing Sp22 Operators Manual Free and Paid eBooks
 - Sp22 Operators Manual Public Domain eBooks
 - Sp22 Operators Manual eBook Subscription Services
 - Sp22 Operators Manual Budget-Friendly Options
- 6. Navigating Sp22 Operators Manual eBook Formats
 - ePub, PDF, MOBI, and More
 - Sp22 Operators Manual Compatibility with Devices
 - Sp22 Operators Manual Enhanced eBook Features
- 7. Enhancing Your Reading Experience
 - Adjustable Fonts and Text Sizes of Sp22 Operators Manual
 - Highlighting and Note-Taking Sp22 Operators Manual
 - Interactive Elements Sp22 Operators Manual
- 8. Staying Engaged with Sp22 Operators Manual
 - Joining Online Reading Communities
 - Participating in Virtual Book Clubs
 - Following Authors and Publishers Sp22 Operators Manual
- 9. Balancing eBooks and Physical Books Sp22 Operators Manual
 - Benefits of a Digital Library
 - Creating a Diverse Reading Collection Sp22 Operators Manual
- 10. Overcoming Reading Challenges
 - Dealing with Digital Eye Strain
 - Minimizing Distractions
 - Managing Screen Time
- 11. Cultivating a Reading Routine Sp22 Operators Manual
 - Setting Reading Goals Sp22 Operators Manual
 - Carving Out Dedicated Reading Time
- 12. Sourcing Reliable Information of Sp22 Operators Manual
 - Fact-Checking eBook Content of Sp22 Operators Manual
 - Distinguishing Credible Sources

13. Promoting Lifelong Learning
 - Utilizing eBooks for Skill Development
 - Exploring Educational eBooks
14. Embracing eBook Trends
 - Integration of Multimedia Elements
 - Interactive and Gamified eBooks

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