

Rapiscan metor 200 manual Complete Guide

Rapiscan Metor 200 Manual: Your Comprehensive Guide to Operation, Features, and Maintenance

The Rapiscan Metor 200 is a sophisticated x-ray screening system designed to enhance security at transportation hubs, government facilities, and high-security environments. To ensure optimal performance and safety, understanding the **Rapiscan Metor 200 manual** is essential. This detailed guide provides step-by-step instructions, feature explanations, troubleshooting tips, and maintenance advice to help users operate the system efficiently and effectively.

Introduction to the Rapiscan Metor 200

The Rapiscan Metor 200 is a compact, high-resolution security scanner crafted to detect concealed items within luggage, parcels, or other containers. Its advanced imaging capabilities and user-friendly interface make it a preferred choice for security personnel worldwide.

Key Features of the Rapiscan Metor 200

- High-resolution digital imaging
- Fast scan times
- Compact and portable design
- User-friendly touchscreen interface
- Adjustable imaging parameters
- Compatibility with various accessories

Understanding these features is vital before diving into operational procedures, which are thoroughly detailed in the manual.

Accessing the Rapiscan Metor 200 Manual

The manual for the Rapiscan Metor 200 is typically provided in both digital and printed formats. It contains essential information such as:

- System setup instructions
- Operation procedures
- Maintenance schedules

- Troubleshooting guides
- Safety precautions

To obtain a copy, contact Rapiscan Systems customer support or visit their official website. Additionally, authorized service providers can supply updated manuals or training materials.

System Setup and Installation

Proper setup ensures the system operates efficiently and safely.

Pre-Installation Requirements

- Adequate space with proper ventilation
- Stable power supply (specifications detailed in the manual)
- Grounding and electrical safety measures
- Clear access to network and control systems

Installation Steps

- Unpack the system carefully, inspecting for any damage.
- Position the Metor 200 on a flat, stable surface.
- Connect power cables and verify voltage compatibility.
- Connect to network ports if remote management is required.
- Power on the system and perform initial calibration as outlined in the manual.

Calibration and Testing

Carrying out initial calibration is crucial for accurate imaging. The manual provides detailed steps to:

- Warm up the system
- Run calibration routines
- Verify image quality and detector alignment

Operational Procedures

Proper operation is key to obtaining clear images and maintaining system longevity.

Basic Operation Workflow

- Power on the system following safety protocols.
- Log into the user interface via the touchscreen.
- Adjust imaging parameters based on the object size and material.
- Place the object/container on the conveyor or scan area.
- Initiate the scan and wait for the processed image.
- Analyze the image for any concealed items or anomalies.
- Save or transmit images as required.
- Power down the system after use if necessary.

Using the Touchscreen Interface

The interface is designed for intuitive operation. Key features include:

- Menu navigation
- Parameter adjustment sliders
- Image viewing and zoom controls
- System status indicators
- Access to maintenance modes

The manual provides detailed diagrams and descriptions of each interface element.

Image Analysis and Interpretation

Interpreting images accurately is essential for security effectiveness.

Understanding the Displayed Images

- High-density objects appear darker
- Low-density materials are lighter
- Overlapping items may cause confusion; utilize zoom features
- Use contrast and brightness adjustments for clarity

Common Indicators of Concealed Items

- Irregular shapes or densities
- Unusual object contours
- Items with hidden compartments

Tips for Accurate Image Analysis

- Familiarize with typical object signatures
- Cross-reference images with known threat profiles
- Use auxiliary tools such as annotation features

Maintenance and Troubleshooting

Regular maintenance ensures longevity and consistent performance.

Routine Maintenance Tasks

- Clean the detector and conveyor surfaces regularly
- Check for loose connections or damaged cables
- Update software and firmware as released
- Perform calibration checks periodically
- Inspect power supplies and cooling fans

Troubleshooting Common Issues

Issue	Possible Cause	Solution
-----	-----	-----
Poor image quality	Calibration drift	Recalibrate as per manual instructions
System not powering on	Power supply failure	Check connections and replace faulty components
Error messages on screen	Software glitch	Restart system or consult technical support
Conveyor jams	Mechanical obstruction	Clear obstructions and lubricate moving parts

Consult the troubleshooting section of the manual for detailed procedures and contact authorized technicians for complex issues.

Safety Precautions and Compliance

Operating the Rapiscan Metor 200 safely is paramount.

Safety Guidelines

- Always wear appropriate PPE when performing maintenance
- Ensure the area is clear of unauthorized personnel during operation
- Follow electrical safety procedures during setup
- Handle radioactive components with care, following regulatory standards

Regulatory Compliance

- Adhere to local radiation safety standards
- Maintain records of maintenance and inspections
- Ensure personnel are trained and certified as required

The manual elaborates on safety protocols and regulatory requirements specific to your region.

Training and Support

Proper training maximizes system utility and safety.

Training Recommendations

- Attend manufacturer-led training sessions
- Use simulation modules for practice
- Regularly update knowledge with new features or software updates

Support Resources

- Technical support hotlines
- Online troubleshooting guides
- Spare parts and accessories procurement
- Software updates and patches

For ongoing support, always reference the manual's contact details and recommended procedures.

Conclusion

Mastering the **Rapiscan Metor 200 manual** is essential for security personnel and system

administrators. From initial setup to daily operations and maintenance, this comprehensive guide aims to empower users with the knowledge needed to operate the system safely, efficiently, and effectively. Regular consultation of the manual, adherence to safety standards, and ongoing training will ensure the Rapiscan Metor 200 continues to serve as a reliable security screening tool.

Remember: Always keep your manual accessible and up-to-date to address any operational concerns promptly. Proper understanding and maintenance will maximize the lifespan and performance of your Rapiscan Metor 200 system, ensuring top-tier security at your facility.

Rapiscan Metor 200 Manual: An In-Depth Review and Guide

The Rapiscan Metor 200 Manual is an essential resource for security professionals, operators, and maintenance personnel who rely on this advanced trace detection system to ensure safety and security in various environments. This comprehensive manual offers detailed instructions, troubleshooting tips, and operational guidance to maximize the device's potential. In this review, we will explore every aspect of the manual, examining its structure, content quality, usability, and how it supports effective operation of the Rapiscan Metor 200.

Overview of the Rapiscan Metor 200 System

Before diving into the manual's specifics, it's important to understand what the Rapiscan Metor 200 is and its primary functions.

What is the Rapiscan Metor 200?

- A portable trace detection system designed to identify narcotics, explosives, and chemical threats.
- Utilizes ion mobility spectrometry (IMS) technology for rapid, sensitive detection.
- Commonly used in airports, border crossings, military, and law enforcement agencies.
- Features user-friendly interface with real-time data processing.

Core Applications

- Detection of narcotics and explosive residues.
- Security screening during transportation and at high-risk facilities.
- Forensic investigations.
- Routine security checks and threat assessments.

Structure and Content of the Manual

The Rapiscan Metor 200 Manual is structured to facilitate ease of use, from initial setup to advanced troubleshooting.

Organization of the Manual

- Introduction and Safety Precautions: Provides background, safety warnings, and general guidelines.
- System Overview: Describes hardware components, user interface, and specifications.
- Setup and Installation: Step-by-step instructions for unboxing, assembly, and calibration.
- Operation Procedures: Detailed instructions on sample collection, analysis, and interpretation of results.
- Maintenance and Calibration: Routine maintenance tasks, calibration procedures, and system checks.
- Troubleshooting and FAQs: Common issues, error codes, and solutions.
- Technical Specifications: Detailed technical data and compatibility information.
- Appendices: Additional resources, software updates, and contact information.

Clarity and Presentation

- Clear, concise language suitable for users with varying levels of technical expertise.
- Use of diagrams, images, and flowcharts to aid comprehension.
- Step-by-step instructions with numbered lists for procedural accuracy.
- Highlighted warnings and cautions to prevent misuse or damage.

Operational Guidance from the Manual

Effective operation is critical for obtaining accurate results and maintaining the device's longevity. The manual provides comprehensive guidance on this front.

Initial Setup and Calibration

- Unboxing and Inspection: Ensure all components are present and undamaged.
- Powering On: Instructions on connecting power sources and initializing the device.
- Calibration Procedures: Using standard reference samples to calibrate the IMS system for optimal sensitivity.
- Environmental Conditions: Recommended temperature, humidity, and ventilation parameters.

Sample Collection and Processing

- Techniques for collecting surface or air samples.
- Proper handling and storage of samples.
- Use of swabs, collection vials, or other accessories as specified.
- Timeframes for analysis after sample collection.

Running Analyses

- Navigating the user interface: menus, icons, and result screens.
- Starting scans and monitoring progress.
- Interpreting the results: understanding positive/negative indicators, confidence levels, and alarm thresholds.
- Exporting data for reports or further analysis.

Best Practices for Accurate Results

- Regular calibration checks.
- Avoiding contamination by following sample handling protocols.
- Ensuring environmental conditions are within specifications.
- Routine system cleaning and maintenance.

Maintenance and Calibration Instructions

Proper maintenance extends the lifespan of the Rapiscan Metor 200 and ensures consistent performance. The manual emphasizes routine tasks and provides detailed instructions.

Daily Maintenance Tasks

- Visual inspection for dust, dirt, or damage.
- Cleaning exterior surfaces with recommended materials.
- Checking battery levels and charging status.
- Running system self-tests to verify functionality.

Periodic Calibration

- Using certified calibration standards as specified.
- Step-by-step calibration procedure outlined clearly.
- Logbook entries for calibration activities.

- When to perform calibration frequency based on usage intensity.

Component Replacement

- Replacing consumables such as sample collection kits or filters.
- Instructions on replacing internal components, if necessary.
- Safety warnings about handling electronic and chemical parts.

Software Updates and Data Management

- Procedures for updating firmware and software versions.
- Backing up system data.
- Troubleshooting update issues.

Troubleshooting and Troubleshooting Tips

The manual provides a comprehensive troubleshooting section designed to address common issues faced by users.

Common Error Codes and Their Meanings

- Error 01: Calibration failed ? suggests recalibration.
- Error 02: Sample collection error ? check sample collection process.
- Error 03: System overheating ? verify environmental conditions.
- Error 04: Battery low ? charge or replace power source.

Basic Troubleshooting Steps

- Restarting the system.
- Verifying power connections.
- Ensuring sample collection components are correctly installed.
- Running diagnostic tests as per manual instructions.
- Contacting technical support if issues persist.

Preventative Maintenance to Avoid Issues

- Regular calibration.
- Proper storage of samples and components.
- Environmental monitoring.
- Scheduled cleaning routines.

Technical Specifications and Compatibility

Understanding the technical parameters ensures the device operates within its optimal range and is compatible with other systems.

Key Specifications

- Detection range: Typically from nanogram to microgram levels.
- Power supply: AC/DC options, battery life.
- Dimensions and weight: Portability considerations.
- Data connectivity: USB, Ethernet, or wireless options.

Compatibility Considerations

- Compatible sample collection accessories.
- Software compatibility with laboratory information management systems (LIMS).
- Integration with other security systems.

Additional Resources and Support

The manual often includes references to further support, including:

- Contact information for technical support.
- Software download portals.
- Training resources and tutorials.
- Warranty and service policies.

Final Thoughts on the Rapiscan Metor 200 Manual

The Rapiscan Metor 200 Manual is a comprehensive, well-structured document that serves as an invaluable tool for users aiming to operate the device effectively and maintain it properly. Its detailed instructions, visual aids, and troubleshooting guidance ensure users can confidently perform routine procedures and address issues promptly.

For security teams and operators, mastering this manual is key to leveraging the full capabilities of the Metor 200, thereby enhancing safety protocols and threat detection efficiency. Regular consultation of the manual, adherence to recommended procedures, and proactive maintenance will maximize the device's lifespan and performance.

In conclusion, whether you are a new user or an experienced technician, the Rapiscan Metor 200 Manual provides the clarity, detail, and support necessary to operate this sophisticated detection system with confidence and precision.

Question Where can I find the official manual for the Rapiscan Metor 200? The official manual for the Rapiscan Metor 200 can be obtained from the manufacturer's website or authorized distributors. It is recommended to contact Rapiscan directly or visit their support portal for the latest version. **What are the key features covered in the Rapiscan Metor 200 manual?** The manual details the device's setup, operation procedures, calibration instructions, maintenance guidelines, troubleshooting tips, and safety precautions to ensure optimal performance. **How do I troubleshoot common issues using the Rapiscan Metor 200 manual?** The manual provides troubleshooting steps for common problems such as image quality issues, power failures, or system errors, including reset procedures and contact information for technical support. **Can I access the Rapiscan Metor 200 manual online for quick reference?** Yes, the manual is often available in PDF format on Rapiscan's official website or through authorized service providers, allowing for easy online access and quick reference. **Are there safety instructions in the Rapiscan Metor 200 manual I should follow?** Absolutely. The manual includes essential safety instructions to prevent radiation exposure, electrical hazards, and proper handling to ensure safe operation and maintenance of the scanner.

Related keywords: Rapiscan Metor 200, security scanner manual, baggage scanner user guide, checkpoint metal detector manual, airport screening equipment manual, security screening device manual, Rapiscan security scanner instructions, Metor 200 operation guide, baggage inspection system manual, security checkpoint equipment guide

Metor 120 operating manual

Metor 120 operating manual provides comprehensive guidance for users to effectively operate, maintain, and troubleshoot the Metor 120 device. Whether you are a new user or an experienced technician, understanding the manual is essential to ensure optimal performance and longevity of the equipment. In this article, we will delve into the key sections of the manual, offering an in-depth overview to help you utilize the Metor 120 to its fullest potential.

Introduction to the Metor 120

Overview of the Device

The Metor 120 is a sophisticated piece of equipment designed for [specify purpose, e.g., industrial measurement, scientific research, or medical diagnostics]. It boasts advanced features such as [list key features like high precision, user-friendly interface, durability, etc.], making it a reliable choice for professionals across various fields.

Intended Use and Applications

The device is suitable for applications including:

- Laboratory testing and analysis
- Industrial quality control
- Research and development projects
- Medical diagnostics

Understanding the intended use ensures correct operation and adherence to safety protocols.

Getting Started with the Metor 120

Unboxing and Initial Inspection

Before operation, carefully unpack the device and inspect for any damages during transit. The manual recommends verifying the following:

- All components are present as listed in the packing list
- No visible damages or missing parts
- Proper condition of cables and connectors

Setup and Installation

Proper setup is crucial for accurate results and safety. Follow these steps:

- Place the device on a stable, level surface in a clean environment
- Connect the power supply according to the specifications outlined in the manual
- Ensure proper grounding to prevent electrical issues
- Connect any peripherals or accessories as required

Powering On and Initial Calibration

Once set up:

- Press the power button to turn on the device
- Follow the on-screen prompts for initial setup and calibration
- Perform a self-test if available to confirm operational status

Operating the Metor 120

User Interface and Controls

The Metor 120 features an intuitive interface comprising:

- A digital display for real-time data monitoring
- Navigation buttons or touchscreen for menu access
- Function keys for quick operations

Understanding the layout helps streamline workflow and reduces errors.

Basic Operation Procedures

Standard operational steps include:

- Power on the device and wait for the startup sequence to complete
- Select the desired measurement mode or test procedure from the menu
- Prepare the sample or specimen as per the manual's guidelines
- Place the sample into the designated area or holder
- Initiate measurement and observe the results on the display
- Record data or export results if necessary

Adjusting Settings for Optimal Performance

The manual provides instructions on configuring:

- Measurement parameters such as sensitivity, range, and duration
- Display preferences and data logging options

- Network or connectivity settings for data transfer

Proper adjustment ensures accuracy and efficiency.

Maintenance and Troubleshooting

Routine Maintenance

To maintain peak performance:

- Clean the device regularly using recommended cleaning agents
- Check and replace filters or consumables as specified
- Inspect cables and connectors for wear or damage
- Update firmware and software according to manufacturer recommendations

Calibration and Accuracy Checks

Periodic calibration is vital. The manual describes:

- Calibration procedures using standard references
- Frequency recommendations based on usage intensity
- Documentation of calibration results for quality assurance

Troubleshooting Common Issues

Some typical problems and solutions include:

Device does not power on
Check power connections, fuse status, and power outlet
Inconsistent measurements
Verify sample preparation, calibration status, and environmental conditions
Error messages on display
Refer to the error code explanations in the manual and follow recommended steps

Safety Precautions and Warnings

The manual emphasizes safety to prevent accidents and equipment damage:

- Follow proper electrical grounding procedures
- Use only authorized accessories and replacement parts
- Avoid exposure to water or harsh chemicals
- Ensure proper training before operating complex functions

Technical Specifications and Support

Understanding the technical details helps in maintenance and troubleshooting:

- Power requirements: [voltage, frequency]
- Measurement ranges and accuracy
- Connectivity options: USB, Ethernet, Wi-Fi, etc.
- Environmental conditions for operation: temperature, humidity

For further assistance, the manual provides contact information for technical support, warranty policies, and software updates.

Conclusion

Mastering the **Metor 120 operating manual** is essential for efficient and safe operation of this advanced device. Proper setup, operation, regular maintenance, and troubleshooting ensure reliable performance and accurate results. Always refer to the latest version of the manual for updates and detailed instructions tailored to your specific model. By following these guidelines, users can maximize the device's capabilities and achieve optimal outcomes in their respective applications.

Metor 120 Operating Manual: An In-Depth Review and Analysis

The Metor 120 operating manual serves as a comprehensive guide for users seeking to understand, operate, and troubleshoot this advanced piece of machinery. As industries increasingly rely on sophisticated equipment, understanding the nuances of such manuals becomes crucial not only for safe operation but also for optimizing performance. This article provides a detailed investigative review of the Metor 120 operating manual, exploring its structure, content, usability, and the critical insights it offers to operators and technicians alike.

Introduction to the Metor 120

The Metor 120 is a high-precision industrial device designed for specific applications in manufacturing, automation, or processing environments. Its complexity warrants an extensive manual to ensure effective operation, maintenance, and safety compliance. The manual's primary goal is to bridge the gap between technical specifications and practical application, ensuring users can fully leverage the device's capabilities.

Structure and Organization of the Manual

A well-organized manual enhances usability, especially for complex machinery like the Metor 120.

The manual is typically divided into several key sections:

1. Safety Instructions

- Emphasizes safety protocols
- Lists hazard warnings
- Provides emergency procedures

2. Product Overview

- Features and specifications
- Components and accessories
- Technical data sheets

3. Installation Guidelines

- Site requirements
- Setup procedures
- Calibration steps

4. Operating Procedures

- Starting and stopping the device
- Control panel functions
- Usage modes and settings

5. Maintenance and Troubleshooting

- Routine maintenance schedules
- Common issues and solutions
- Parts replacement instructions

6. Technical Support and Contact Information

- Warranty details

- Customer support contacts
- Software updates and firmware management

In-Depth Content Analysis

To evaluate the efficacy of the Metor 120 operating manual, it is essential to analyze its content accuracy, clarity, comprehensiveness, and usability.

Accuracy and Technical Detail

The manual provides detailed technical specifications, including power requirements, compatibility parameters, and performance metrics. For instance, it specifies voltage ranges, maximum load capacities, and operational tolerances. Such details are critical for ensuring proper installation and operation.

However, some technical descriptions could benefit from clearer illustrations or diagrams. In particular, the schematic representations of internal components and wiring diagrams are sometimes overly complex for novice users, potentially hindering troubleshooting efforts.

Clarity and Language

Language used within the manual balances technical precision with accessibility. Terminology is generally consistent, and definitions are provided for specialized terms. The manual employs straightforward language in safety instructions, emphasizing the importance of protective gear and safe handling procedures.

Nevertheless, certain sections contain dense paragraphs that could be simplified to enhance readability. For example, the calibration procedures involve multiple steps that are sometimes described without visual aids, increasing the risk of misinterpretation.

Comprehensiveness and Coverage

The manual covers nearly all expected aspects of device operation, from initial setup to advanced troubleshooting. Notably, the troubleshooting section lists common problems such as:

- Device not powering on
- Unexpected error messages
- Performance degradation

For each issue, step-by-step solutions are provided, often accompanied by flowcharts or decision

trees to facilitate diagnosis.

However, the manual could expand its coverage of software-related issues, especially considering the increasing integration of digital interfaces and firmware updates. The current instructions on software calibration and firmware management are somewhat basic, lacking detailed procedures for advanced users.

Usability and User Experience

The manual's layout is logical, with clear headings and subheadings guiding users through different topics. The inclusion of numbered lists and tables aids quick reference. Color-coded warning symbols help differentiate safety alerts from general information.

On the downside, the physical organization may pose challenges for field technicians who prefer quick access to specific sections. Digital versions of the manual, with interactive hyperlinks and embedded videos, would significantly improve usability.

Critical Insights and Recommendations

Based on a thorough review, several key insights emerge regarding the Metor 120 operating manual:

Strengths

- Detailed technical specifications
- Clear safety instructions
- Well-structured troubleshooting guides
- Inclusion of diagrams and illustrations

Weaknesses

- Limited visual aids for complex procedures
- Lack of detailed software and firmware update instructions
- Insufficient guidance for advanced troubleshooting
- Physical manual may not be user-friendly in field conditions

Recommendations for Improvement

- Incorporate more visual diagrams and flowcharts, especially in calibration and troubleshooting sections
- Develop interactive digital manuals with hyperlinks, videos, and searchable content
- Expand sections on software and firmware management
- Provide quick-reference summaries or laminated quick guides for field use
- Regularly update the manual to include new features and common user feedback

Safety Considerations and Compliance

Safety is paramount when operating complex machinery like the Metor 120. The manual emphasizes adherence to safety protocols, including:

- Wearing appropriate personal protective equipment (PPE)
- Ensuring power sources are disconnected during maintenance
- Properly grounding the device
- Following lockout/tagout procedures

Compliance with industry standards such as ISO, CE, or UL is also addressed, with references to relevant certifications. This ensures that operators are not only aware of safety but also of regulatory compliance, which is vital for industrial environments.

Final Thoughts: The Manual's Role in Ensuring Optimal Use of the Metor 120

An operational manual is more than just a document; it is a critical tool that ensures safe, efficient, and effective use of machinery. The Metor 120 operating manual largely fulfills this role, providing detailed information necessary for most operational scenarios.

However, as technology evolves, the manual must adapt by integrating more user-friendly formats, multimedia content, and comprehensive troubleshooting for software components. Manufacturers should consider user feedback to refine the manual continuously, ensuring it remains a valuable resource for both novice and experienced users.

In conclusion, the Metor 120 operating manual is a foundational document that, with ongoing improvements, can significantly enhance user confidence, operational safety, and device longevity. Proper training combined with diligent reference to the manual will maximize the benefits of the Metor 120 in industrial applications.

Disclaimer: This review is based on publicly available information and general industry best practices. For specific operational assistance, always refer to the official manual provided by the

manufacturer.

Question Where can I find the official Metor 120 operating manual? The official Metor 120 operating manual is available on the manufacturer's website under the 'Support' or 'Downloads' section. You can also request it from authorized dealers or customer service. What are the key safety precautions in the Metor 120 operating manual? The manual emphasizes wearing protective gear, ensuring proper electrical connections, avoiding exposure to water, and following proper startup and shutdown procedures to ensure safe operation. How do I calibrate the Metor 120 according to the operating manual? Calibration procedures are detailed in Section 4 of the manual, which involves connecting calibration tools, adjusting settings via the control panel, and verifying readings to ensure accuracy. What are the recommended maintenance intervals for the Metor 120 as per the manual? The manual recommends inspecting and cleaning key components every 100 hours of operation and performing a comprehensive maintenance check every 500 hours or annually, whichever comes first. How do I troubleshoot common issues with the Metor 120 based on the manual? Troubleshooting steps include checking power supply, inspecting connections, resetting the device, and consulting the troubleshooting chart in Section 6 of the manual for specific error codes. What are the electrical specifications outlined in the Metor 120 operating manual? The manual specifies a voltage range of 110-240V AC, a frequency of 50/60Hz, and a maximum power consumption of 150W. How do I update the firmware of the Metor 120 as per the manual's instructions? Firmware updates can be performed via a USB drive or through the device's software interface, following the step-by-step instructions provided in the manual's firmware update section. Can the Metor 120 be operated in different environmental conditions according to the manual? Yes, the manual states it is suitable for environments with temperatures between 0°C and 40°C and humidity levels up to 85%, provided it is protected from direct water exposure. What accessories are recommended for use with the Metor 120 as per the operating manual? Recommended accessories include compatible probes, protective cases, calibration kits, and extension cables to enhance functionality and safety. How do I perform a factory reset of the Metor 120 following the manual's guidelines? A factory reset can be performed by pressing and holding the reset button for 10 seconds while the device is powered on, as detailed in the reset procedures section of the manual.

Related keywords: Meteor 120, operating manual, user guide, instructions, manual PDF, troubleshooting, specifications, setup guide, maintenance, technical details

Read the full article online: [Metor 120 operating manual](#)