

VEVOR 2 Assi

VEVOR 2-Axis Digital Readout (DRO) System User Manual

Model: 2 Assi

1. INTRODUCTION

This manual provides comprehensive instructions for the installation, operation, and maintenance of your VEVOR 2-Axis Digital Readout (DRO) system. Please read this manual thoroughly before using the device to ensure safe and efficient operation.

1.1. Product Overview

The VEVOR 2-Axis Digital Readout is a high-precision measurement system designed for use with various machine tools such as lathes, milling machines, grinding machines, and boring machines. It features a crystal metrological grating sensor for accurate and rapid measurement, providing real-time digital display of axis positions.

1.2. Safety Precautions

- Always ensure the power supply matches the device's requirements before connecting.
- Do not expose the DRO unit to excessive moisture, dust, or extreme temperatures.
- Handle the precision grating sensor with care to avoid damage.
- Ensure all connections are secure before operation.
- Refer to the machine tool's manual for specific safety guidelines related to its operation.

2. PRODUCT FEATURES

- **High Performance:** Utilizes a precision crystal metrological grating sensor for high scanning frequency, fast graphic processing, and low measurement error.
- **Wide Application:** Compatible with lathes, grinding machines, milling machines, boring machines, and EMD.
- **Multiple Diameter Designs:** Supports ARC processing for lathes, bolt hole circles, screw hole lines, and hanging processing.
- **Durable Construction:** Features a fully enclosed, robust keyboard and a dust-resistant bar made of special plastic for corrosion, scratch, and friction resistance.
- **Professional Parameter Configuration:** Automatic system initialization and parameter modification capabilities to adapt to various machine tools.

3. COMPONENTS AND PARTS

The VEVOR 2-Axis Digital Readout system typically includes the following components:

- Digital Readout (DRO) Display Unit
- Power Cable
- Mounting Brackets (2 sets)
- Screw Set for installation
- Linear Scales (required for operation, sold separately or as part of a complete kit)



Figure 3.1: Overview of the VEVOR 2-Axis DRO system and its included accessories.



RICH ACCESSORIES

Figure 3.2: Detailed view of the mounting hardware and power cable.

4. SETUP AND INSTALLATION

Follow these steps to properly set up and install your VEVOR 2-Axis DRO system:

4.1. Mounting the DRO Display Unit

1. Choose a suitable location on your machine tool (lathe, milling machine, etc.) for the DRO display unit. Ensure it is easily visible and accessible during operation.
2. Use the provided mounting brackets and screws to securely attach the display unit. The brackets allow for flexible positioning.



Figure 4.1: Dimensions of the DRO display unit for mounting reference.

4.2. Connecting Linear Scales

Connect your linear scales (not included in this specific product package but required for DRO functionality) to the corresponding X and Y (or Z) axis ports on the rear of the DRO unit. Ensure the connectors are firmly seated.



4.3. Power Connection

Connect the provided power cable to the DRO unit and then to a suitable power outlet. The unit will automatically initialize upon power-up.

5. OPERATING INSTRUCTIONS

This section details the basic and advanced functions of your VEVOR 2-Axis DRO.

5.1. Basic Operation

1. **Power On:** Turn on the power switch. The DRO will perform a self-check and display the current axis readings.
2. **Zero Setting:** To set the current position to zero, press the '0' button for the desired axis (X or Y/Z).
3. **Inch/Metric Conversion:** Press the 'MM/INCH' button to toggle between millimeter and inch display units.
4. **Absolute/Incremental Mode:** Use the 'ABS/INC' button to switch between absolute and incremental measurement modes.

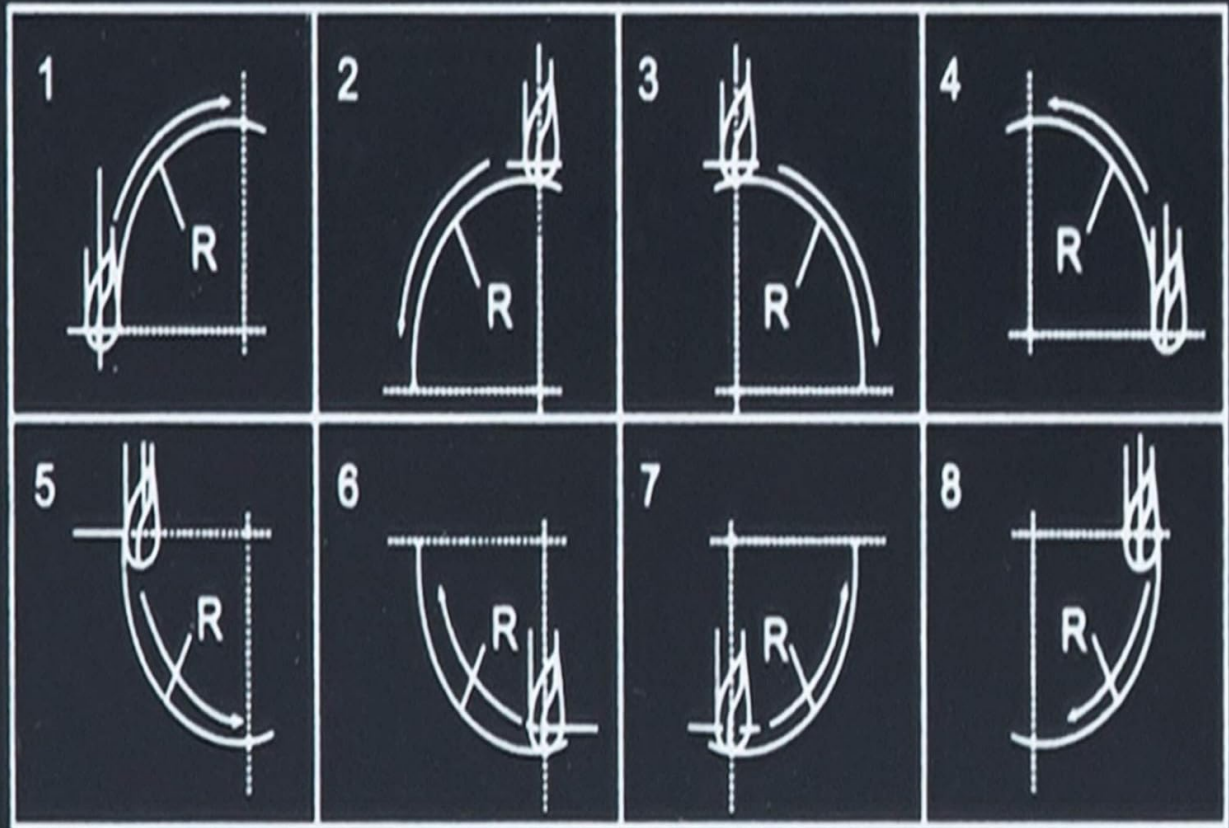


Figure 5.1: High accuracy digital display of axis positions.

5.2. Advanced Functions

The DRO unit offers several advanced functions for complex machining operations:

- **ARC Processing:** The unit supports various ARC processing patterns, making it convenient for lathe operations. Refer to the display's graphical indicators for different arc types.
- **Bolt Hole Circle (PCD):** Use the dedicated function key to calculate and display positions for bolt hole circles.
- **Linear Hole Pattern:** Functionality for creating and measuring linear patterns of holes.
- **Tool Compensation:** The system allows for tool diameter compensation.
- **Parameter Setting:** Access the parameter settings to customize the DRO's behavior for different machine tools and specific measurement needs. The system automatically controls after startup, allowing for quick parameter modification.



MORE DIAMETER PATTERNS

Figure 5.2: Examples of ARC processing patterns.

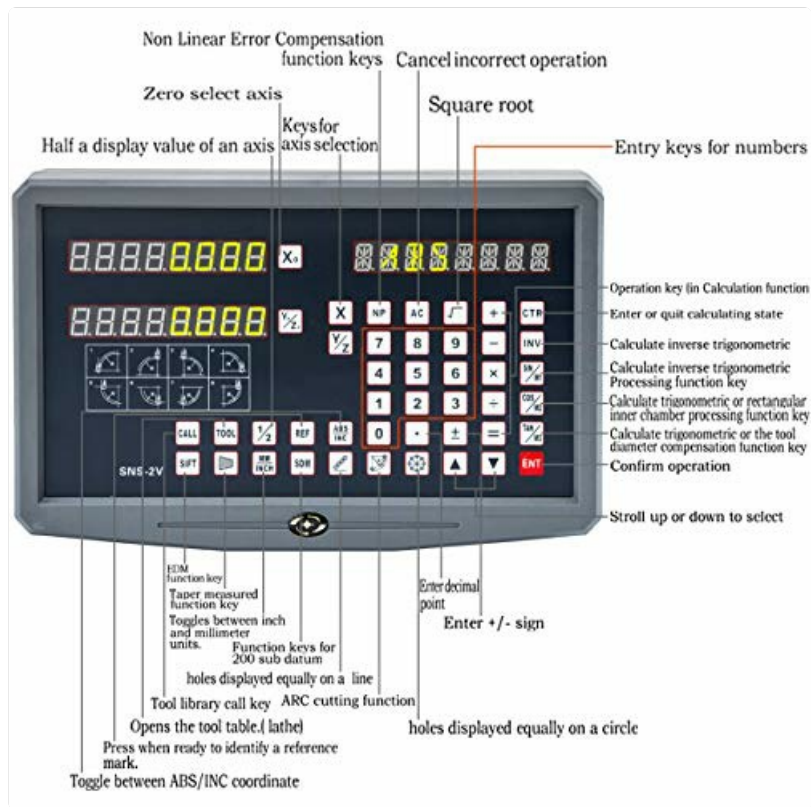


Figure 5.3: Comprehensive keyboard layout and function guide.

6. MAINTENANCE

Proper maintenance ensures the longevity and accuracy of your VEVOR 2-Axis DRO system.

- **Cleaning:** Regularly wipe the display unit and keyboard with a soft, dry cloth. Avoid using abrasive cleaners or solvents. The fully enclosed keyboard and dust bar are designed for durability and resistance to corrosion.
- **Environmental Conditions:** Keep the unit in a clean, dry environment. Protect it from excessive dust, metal chips, and coolant splashes.
- **Cable Inspection:** Periodically check all cables and connections for wear or damage. Ensure they are securely plugged in.
- **Linear Scales:** Ensure the linear scales (if applicable) are kept clean and free from debris to maintain measurement accuracy.

7. TROUBLESHOOTING

This section provides solutions to common issues you might encounter with your DRO unit.

Problem	Possible Cause	Solution
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Problem	Possible Cause	Solution
Display not turning on	No power supply; loose power cable.	Check power connection and outlet. Ensure power switch is ON.
Incorrect readings or erratic display	Linear scale connection issue; dirty linear scale; damaged sensor.	Check linear scale connections. Clean linear scales. Contact support if sensor is suspected to be damaged.
Keys not responding	Keyboard malfunction; unit frozen.	Restart the unit. If problem persists, contact customer support.
Unit not recognizing specific functions	Incorrect parameter settings; software glitch.	Review and adjust parameter settings. Restart the unit.

8. SPECIFICATIONS

Feature	Detail
Model Number	2 Assi
Dimensions (L x W x H)	36.07 x 24.89 x 13.97 cm (14.2 x 9.8 x 5.5 inches)
Weight	1.81 kg (3.99 lbs)
Display Type	Digital LED Display
Axis Support	2-Axis (X, Y/Z)
Measurement Unit	Millimeter (mm), Inch (in)
Sensor Type	Precision Crystal Metrological Grating
Application	Lathe, Grinding Machine, Milling Machine, Boring Machine, EMD

9. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the official VEVOR website or contact their customer service directly. Keep your purchase receipt as proof of purchase.

VEVOR Official Website: www.vevor.com

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