DJFHDIHRFHBVCASIJ HS800-2

DJFHDIHRFHBVCASIJ HS800-2 Multilingual 2-Axis Digital Readout Instruction Manual

Model: HS800-2

1. Introduction

The DJFHDIHRFHBVCASIJ HS800-2 is a versatile 2-axis digital readout (DRO) system designed for precision measurement in various industrial applications. It is compatible with linear scales and rulers, making it suitable for lathes, milling machines, grinders, wire cutting, and drilling machines. This manual provides essential information for the proper installation, operation, and maintenance of your HS800-2 unit.

2. Product Overview

2.1 Key Features

- Multilingual interface with 9 supported languages for global user convenience.
- Professional design with a robust die-casting alloy shell for durability and shielding.
- Large, easy-to-read LCD display for clear data visualization.
- Wide voltage range (AC 80V~264V) for broad compatibility.
- High stability and strong anti-jamming capability.
- Tactile switches and durable panel buttons for simple and convenient operation.
- Supports TTL square wave/EIA-442 signals.
- Acceptable resolutions: 10um, 5um, 2um, 1um, 0.5um.

2.2 Supported Languages

The HS800-2 supports the following languages:

- Chinese Simplified
- Chinese Traditional
- English
- Russian
- German
- French

- Spanish
- Korean
- Turkish

3. Package Contents

Upon opening the package, verify that all the following items are present and undamaged:

- 1 x HS800-2 Digital Readout Unit
- 1 x Protective Cover
- 1 x Mounting Bracket
- 1 x Screw Bag (for mounting)
- 1 x User Manual (this document)
- Power Cable(s) (specific type may vary by region)

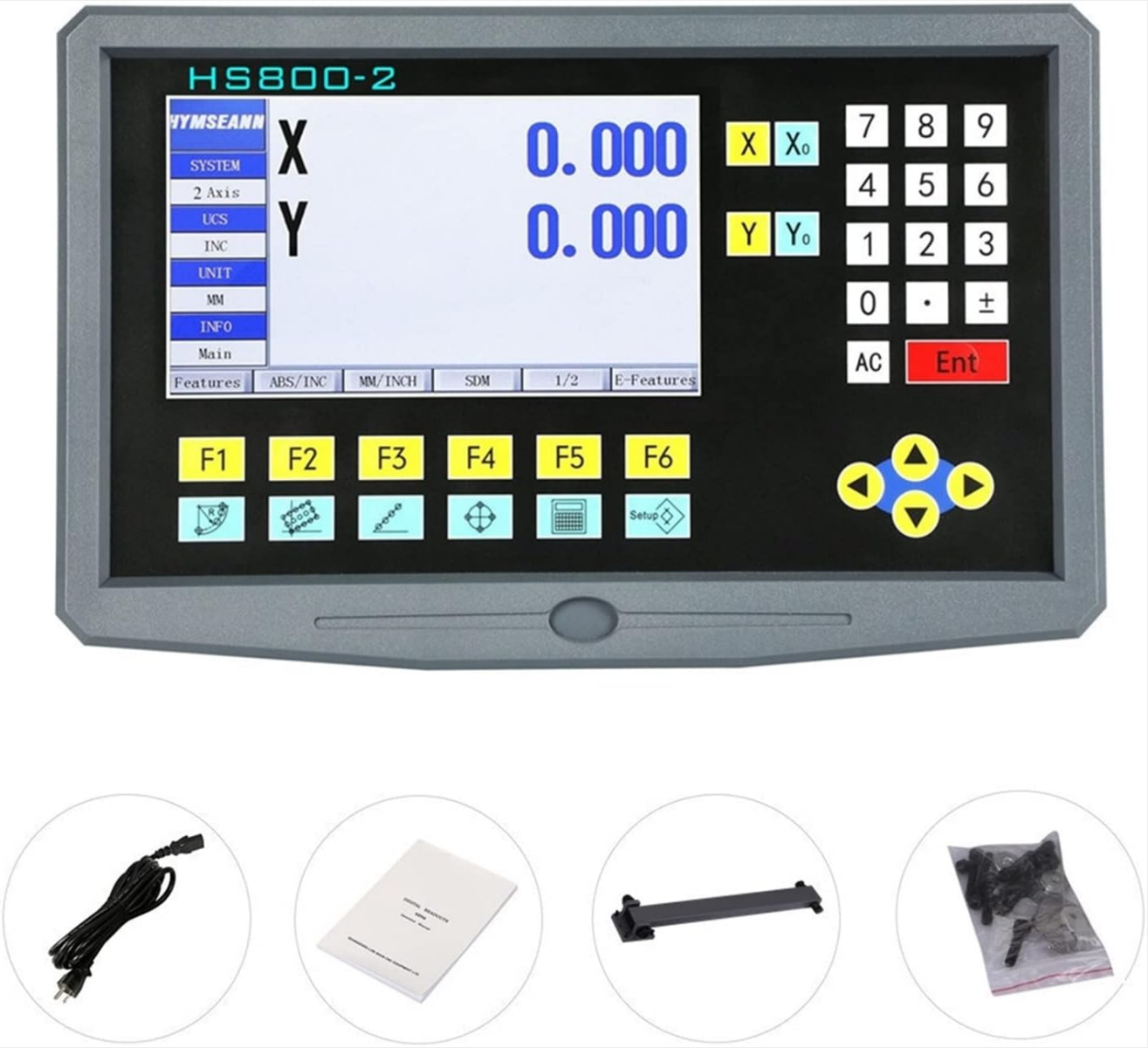

Figure 3.1: HS800-2 Digital Readout unit and its accessories. This image shows the main display unit, a power cable, a printed user manual, a mounting bracket, and a bag of screws.

4. Setup and Installation

4.1 Mounting the DRO Unit

1. Identify a suitable location on your machine (lathe, milling machine, etc.) for mounting the HS800-2 unit. Ensure it is easily visible and accessible during operation.
2. Attach the mounting bracket to the desired location using appropriate fasteners.
3. Secure the HS800-2 unit to the mounting bracket using the screws provided in the screw bag. Ensure the unit is stable and securely fastened.

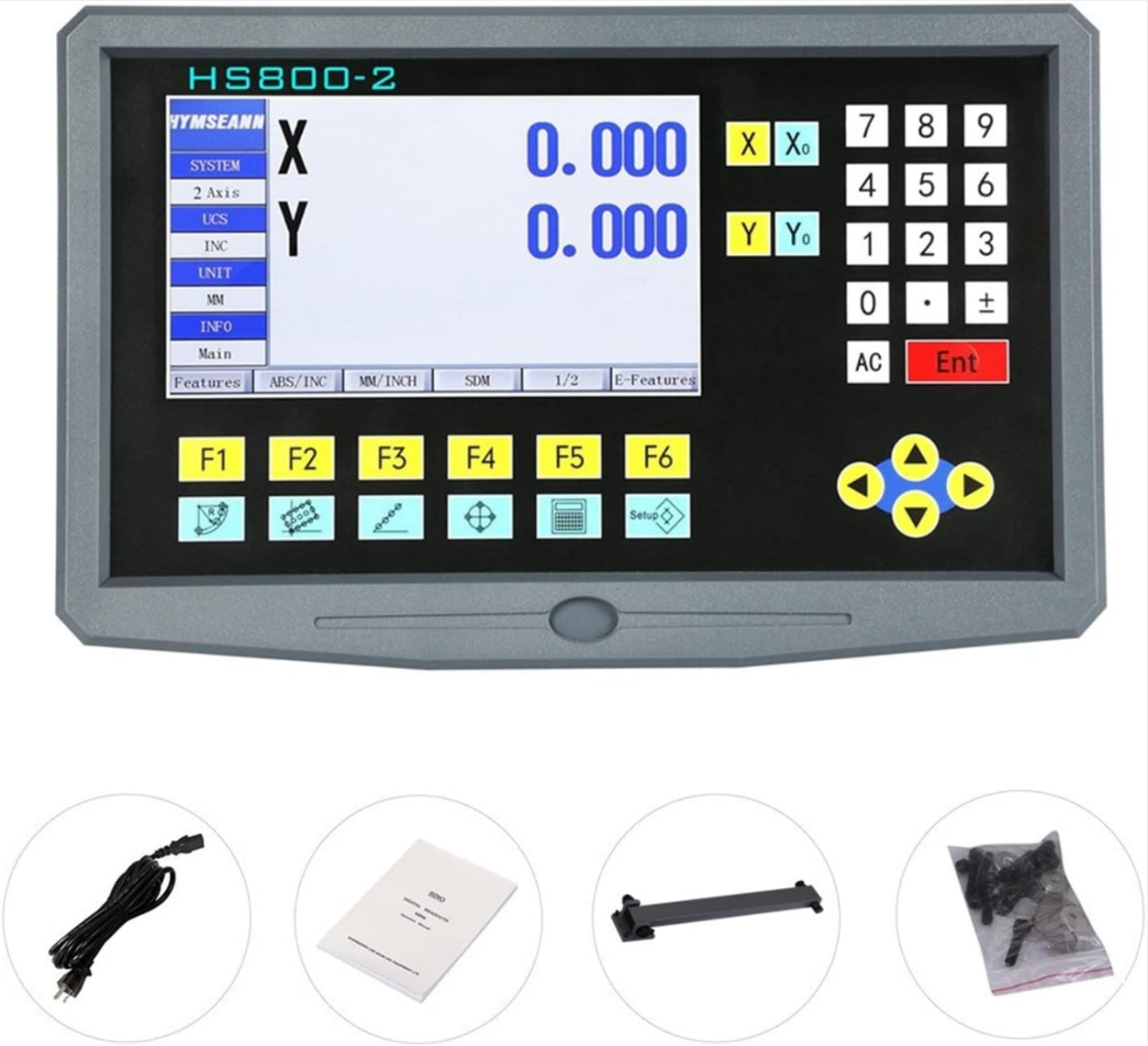

Figure 4.1: The mounting bracket used to secure the HS800-2 unit to a machine. It is a grey metal bar with a square plate at one end for attaching the DRO.

4.2 Connecting Linear Scales and Power

1. Locate the input ports on the rear of the HS800-2 unit. These are typically labeled for X-axis, Y-axis, and potentially Z-axis or other functions (EDM, RS232).
2. Connect your linear scales to the corresponding X and Y axis ports using the appropriate DB9 connectors. Ensure connections are firm.
3. Connect the provided power cable to the AC input port on the rear of the unit.
4. Plug the power cable into a compatible AC 80V~264V power outlet.
5. Turn on the unit using the power switch located on the rear panel.

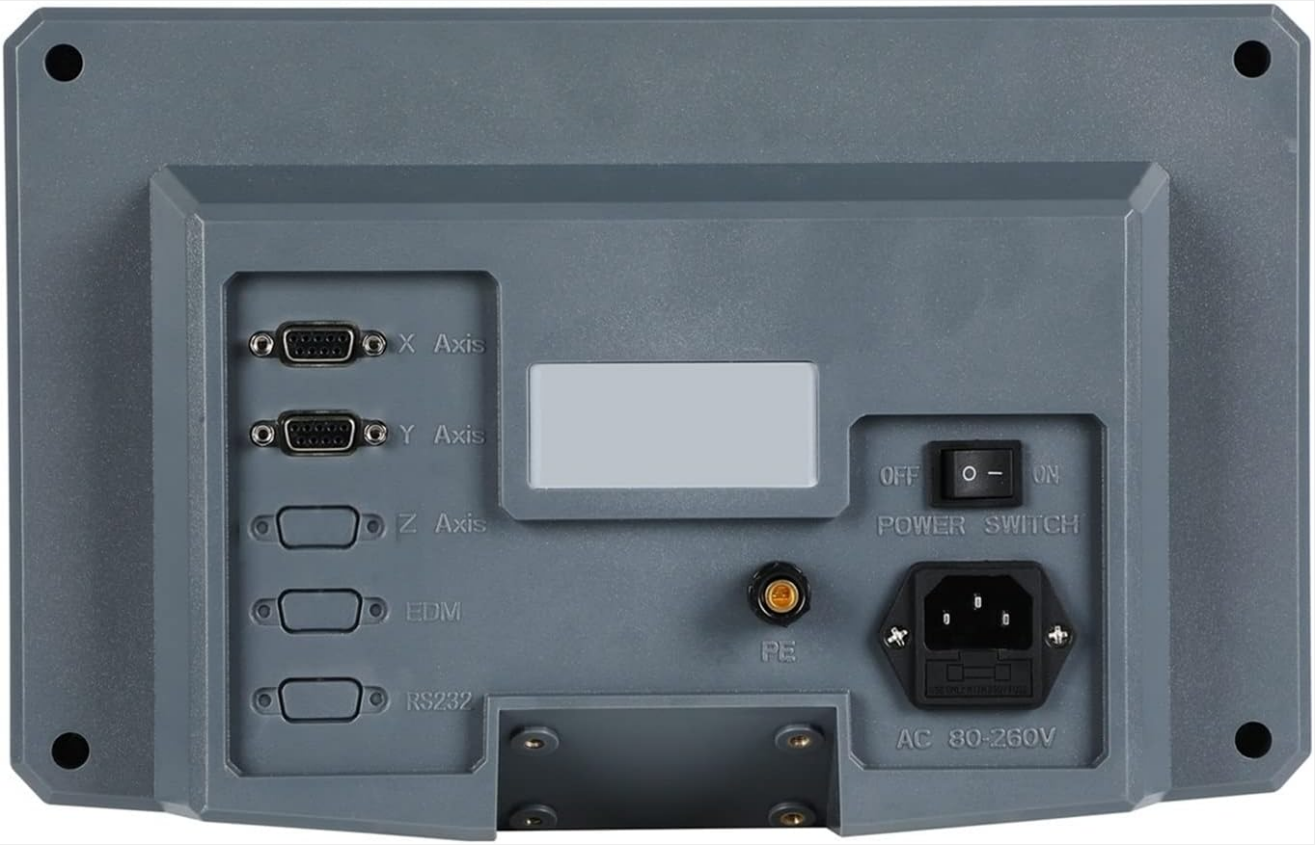

Figure 4.2: Rear panel of the HS800-2 DRO, displaying various connection ports including X, Y, Z Axis inputs, EDM, RS232, a power switch, and the AC power input (AC 80-260V).

5. Operating Instructions

The HS800-2 features a user-friendly interface with a large LCD display and tactile buttons. The main display shows the X and Y axis readings, along with various function indicators.

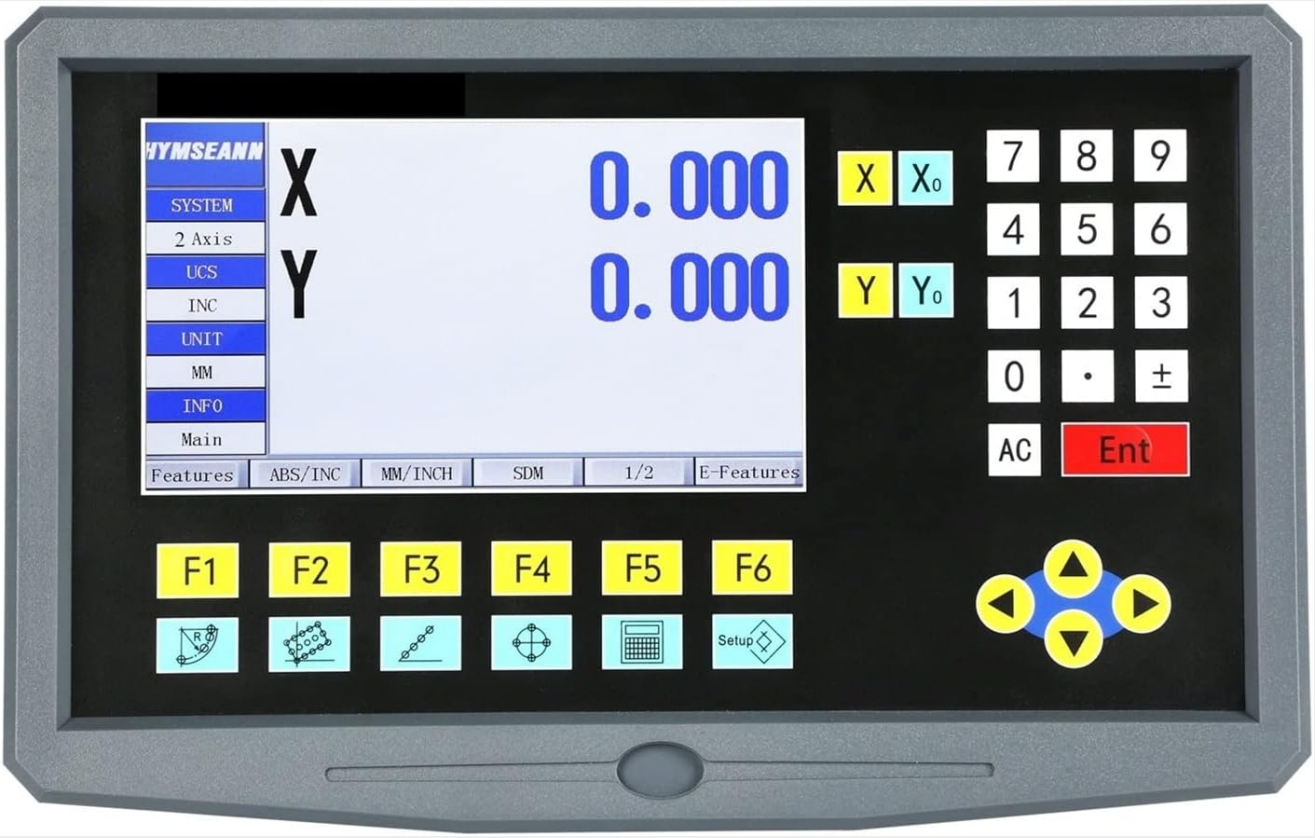

Figure 5.1: The front panel of the HS800-2 DRO, showing the LCD display with X and Y axis readings, a numeric keypad, and

function buttons (F1-F6) at the bottom.

5.1 Basic Functions

- **200 Points Auxiliary Zero Position Function:** Allows setting and recalling up to 200 auxiliary zero points.
- **Mid-split Function:** Calculates the center point between two measured points.
- **"mm/inch" Conversion:** Toggles between metric (mm) and imperial (inch) units.
- **Radius/Diameter Switch:** Changes display between radius and diameter measurements.
- **Segmented Error Compensation:** Corrects for linear errors along the scale.
- **Linear Error Compensation:** Compensates for overall linear inaccuracies.
- **Power Interruption Memory:** Retains current position data in case of power loss.
- **Sleep Switch:** Puts the unit into a low-power sleep mode.
- **Mathematics Calculation:** Perform basic arithmetic operations directly on the unit (sine, cosine, tangent functions).
- **RS-232-C Interface (Option):** For data output to external devices.

5.2 Machining Functions

- **PCD (Pitch Circle Diameter) Circumferential Division:** Applicable for milling machines and spark testers to divide a circle into equal segments.
- **Involute:** Specific function for involute gear profiles (details may vary, refer to on-screen prompts).
- **200 Zero Memory:** Stores and recalls 200 zero points.
- **Tool Offsets:** Manages tool length and diameter compensation.

6. Specifications

Parameter	Value
Voltage Range	AC 80V~264V / 50HZ~60HZ
Acceptable Signal	TTL square wave / EIA-442
Plug Type	DB9
Acceptable Resolution	10um, 5um, 2um, 1um, 0.5um
Display	Large LCD
Axes Supported	Up to 2 linear encoders (2-axis model)
Housing	Die-cast alloy

7. Maintenance

To ensure the longevity and accurate performance of your HS800-2 Digital Readout, follow these maintenance guidelines:

- **Cleaning:** Regularly wipe the display and unit housing with a soft, dry cloth. For stubborn dirt, a slightly damp cloth with mild detergent can be used, ensuring no liquid enters the unit. Avoid abrasive cleaners or solvents.
- **Environmental Conditions:** Operate and store the unit in a clean, dry environment, free from excessive dust, moisture, and extreme temperatures.

- **Cable Inspection:** Periodically check all connecting cables (power, linear scales) for any signs of wear, damage, or loose connections. Replace damaged cables immediately.
- **Protective Cover:** Use the provided protective cover when the unit is not in use to shield it from dust and debris.

8. Troubleshooting

This section addresses common issues you might encounter with your HS800-2 unit. If you experience problems not listed here, please contact customer support.

- **Unit does not power on:**
  - Ensure the power cable is securely connected to both the unit and a working power outlet.
  - Verify that the power switch on the rear panel is in the "ON" position.
  - Check the power outlet with another device to confirm it is supplying power.
- **No display or incorrect readings:**
  - Confirm that linear scales are correctly connected to the appropriate axis ports.
  - Check for any damage to the linear scale cables or connectors.
  - Ensure the linear scales are clean and free from debris.
  - Perform a system reset if available (refer to on-screen menu or specific function button).
- **Buttons are unresponsive:**
  - Ensure the unit is not in a locked or sleep mode.
  - Gently clean around the buttons to remove any potential obstructions.
  - Restart the unit by cycling the power.

9. Warranty and Support

For warranty information, technical support, or service inquiries regarding your DJFHDIHRFHBVCASIJ HS800-2 Digital Readout, please refer to the warranty card included with your product or contact the manufacturer directly through their official website or customer service channels. Please have your product model number (HS800-2) and purchase details ready when contacting support.