

Imada DSV-1000N

IMADA DSV-1000N Advanced Digital Force Gauge Instruction Manual

Model: DSV-1000N | Capacity: 1000N | Resolution: 1N

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1. INTRODUCTION

This manual provides essential instructions for the safe and effective use of the IMADA DSV-1000N Advanced Digital Force Gauge. The DSV-1000N is a high-precision dynamometer designed for accurate measurement of tension and compression forces up to 1000 Newtons. Manufactured in Japan, this device is suitable for various industrial and laboratory applications requiring precise force measurement.

2. SAFETY INFORMATION

WARNING: To prevent damage to the load cell, ensure that the applied force does not exceed the specified overload capacity (1000N). Overloading can cause permanent damage to the device, regardless of whether the power supply is ON or OFF.

Always operate the device in a stable environment, free from excessive vibration, dust, or moisture. Do not attempt to disassemble or repair the unit yourself. Refer all servicing to qualified personnel. Use only the supplied attachments and power adapter.

3. PACKAGE CONTENTS

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

- IMADA DSV-1000N Digital Force Gauge Unit
- Standard Attachments (S1~S6)
- AC Power Adapter / Charging Cable
- Instruction Manual / Inspection Certificate
- Carrying Case



Image: The IMADA DSV-1000N Digital Force Gauge, along with its various attachments, power adapter, and instruction manual, neatly organized within its protective carrying case.

4. SETUP

4.1 Initial Inspection

Before first use, carefully inspect the force gauge and all accessories for any signs of damage during transit. If any damage is found, do not use the device and contact your supplier.

4.2 Charging the Device

Connect the supplied AC power adapter to the charging port on the side of the force gauge and plug it into a suitable power outlet. Allow the device to charge fully before initial use. The charging port is a mini-USB type, and there is also a round multi-pin connector for data output or external control.



Image: A close-up view of the side of the IMADA DSV-1000N, highlighting the mini-USB port for charging/data connection and a multi-pin circular connector, likely for advanced data output or external device integration.

4.3 Attaching Accessories

Select the appropriate attachment (S1-S6) for your measurement application. The attachments screw onto the M6 threaded shaft at the top of the force gauge. Ensure the attachment is securely fastened before use.

5. OPERATING INSTRUCTIONS

5.1 Power On/Off

Press and hold the **Power** button (green button with power symbol) to turn the device ON or OFF. The display will illuminate upon power-on.

5.2 Zeroing the Display

Before taking a measurement, ensure the display reads zero. If it does not, press the **ZERO** button (blue button) to reset the reading to zero. This is crucial for accurate measurements.

5.3 Taking a Measurement

Apply the force to be measured to the attached accessory. The current force reading will be displayed on the screen. The DSV-1000N can measure both tension (pulling) and compression (pushing) forces.

5.4 Info and Send Functions

- The **Info** button (gray button) typically provides access to device information or settings. Refer to the detailed instruction manual for specific functions.
- The **SEND** button (blue button) is used to transmit data, likely to a connected computer or data logger.



Image: The front panel of the IMADA DSV-1000N Digital Force Gauge, showing its digital display, power button, ZERO button, SEND button, and INFO button, all clearly labeled for user interaction.

6. MAINTENANCE

6.1 Cleaning

Wipe the device with a soft, dry cloth. Do not use abrasive cleaners or solvents, as these can damage the casing or display. Ensure no liquids enter the device.

6.2 Storage

When not in use, store the force gauge and its accessories in the provided carrying case in a cool, dry place, away from direct sunlight and extreme temperatures. Avoid storing in areas with high humidity or corrosive gases.

6.3 Calibration

Regular calibration is essential to maintain the accuracy of the force gauge. Refer to the included Inspection Certificate for calibration details and recommended intervals. The back of the unit provides important information regarding input power and serial number.



Image: The rear casing of the IMADA DSV-1000N, displaying the serial number label, manufacturer details, and caution labels regarding proper usage and input power specifications (DC5.0V 500mA MAX).

7. TROUBLESHOOTING

7.1 Device Not Powering On

- Ensure the battery is charged. Connect the device to the power adapter and allow it to charge for at least 30 minutes.
- Verify the power adapter is correctly plugged into a working outlet.

7.2 Inaccurate Readings

- Ensure the device is zeroed before each measurement.
- Check for any physical obstructions or damage to the load cell or attachments.
- If readings remain inconsistent, the device may require recalibration.

7.3 Overload Warning

If an overload warning appears, immediately remove the applied force. Continued application of force beyond the 1000N capacity will damage the load cell permanently. This damage is not covered by warranty.

8. SPECIFICATIONS

Feature	Specification
Model	DSV-1000N
Capacity	1000 N
Resolution	1 N
Thread Size	M6
Supplied Attachments	S1~S6
Input Power	DC5.0V 500mA (MAX)
Manufacturer	Imada
Country of Origin	Japan

9. WARRANTY AND SUPPORT

The IMADA DSV-1000N Digital Force Gauge comes with a manufacturer's warranty. Please refer to the included Inspection Certificate and warranty card for specific terms and conditions. Generally, the warranty covers manufacturing defects but does not cover damage resulting from misuse, unauthorized repairs, or exceeding the specified overload capacity.

For technical support, service, or warranty claims, please contact your authorized IMADA distributor or the manufacturer directly. Ensure you have your product's serial number (found on the back of the unit) and proof of purchase available when contacting support.

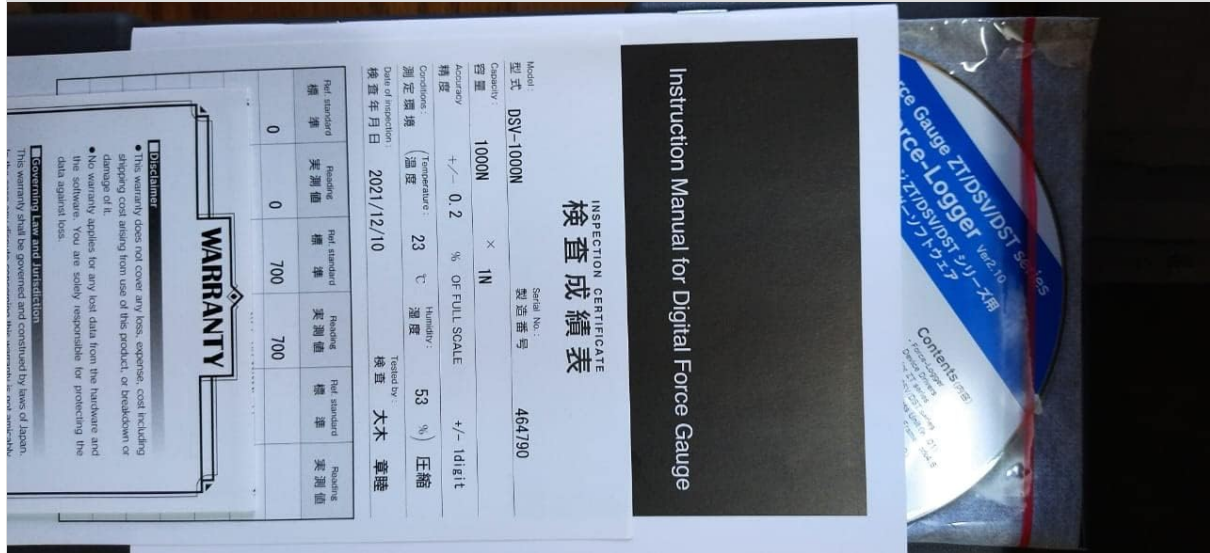


Image: A partial view of the IMADA DSV-1000N Inspection Certificate and Warranty document, providing details on quality control and warranty terms.