RM9003 PRESS UNIT
Instruction Manual

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Thank you for choosing the Hioki RM9003 Press Unit. Preserve this manual carefully and keep it handy to make full use of this device for a long time. Familiarize yourself with the RM2610 Electrode Resistance Measurement System Instruction Manual and the separate document entitling “Operating Precautions” before using the device.

Introduction

Target audience

This manual has been written for use by individuals who use the product in question or who teach others to do so. It is assumed that the reader possesses basic electrical knowledge (equivalent to that of someone who graduated from the electrical program at a technical high school). This manual has been written for use by individuals who use the product in question or who teach others to do so. It is assumed that the reader possesses basic electrical knowledge (equivalent to that of someone who graduated from the electrical program at a technical high school).

Safety notations

This manual classifies seriousness of risks and hazard levels as described below.

**CAUTION**

Indicates an action that must be performed.

**IMPORTANT**

Indicates information or content that is particularly important from the standpoint of operating or maintaining the device.

**NOTICE**

Indicates an action that must be performed.

**ATTENTION**

Indicates a potentially hazardous situation that may result in minor or moderate injury to the operator or damage to the device or malfunction.

**WARNING**

Indicates an action that must be performed.

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Operating Precautions

Follow these precautions to ensure safe operation and to obtain the full benefits of the various functions.

Do not place the device on an unstable or uneven surface. Doing so could cause the device to fall or turn over, causing bodily injury or damage to the device.

Specifications

Operating environment

Indoors, Pollution Degree 2, altitude up to 2000 m (6562 ft.)

Operating temperature and humidity

0°C to 40°C (32°F to 104°F), 80% RH or less (no condensation)

Storage temperature and humidity

0°C to 50°C (32°F to 122°F), 80% RH or less (no condensation)

Dimensions

Approx. 230W × 325D × 370H mm (9.06″W × 12.80″D × 14.57″H)

Measuring object size

148 mm × 210 mm (A5 size)

Thickness: up to 10 mm

Up/down stroke

Approx. 27.5 mm

Measurement stage

Resin graduated plate (10 mm, 5 mm)

Center line in the middle

Mass

Approx. 8.5 kg (299.8 oz.)

Operation method

The test fixture is raised and lowered manually. The test fixture descends under its own weight until it comes into contact with the electrode sheet.

Lowering mechanism

The downward speed is cushioned by a damper. Time to lowered position: 1 s to 4 s (within the operating temperature range)

Tilt mechanism

This mechanism orients the tips of the test fixture to the measurement orientation with the test fixture in the specified position. A slide engages or disengages the lock function (to improve convenience during use).

Connecting and disconnecting the test fixture

The test fixture can be slid in and out. No set screws are used.

Locking the test fixture

The test fixture can be slid in and out. No set screws are used.

Up/down lock function

Raising the test fixture engages the lock. A screw holds the lock mechanism in place (for use when transporting the system). A slide disengages the lock function (to improve convenience during use).

Product warranty period

3 years

Accessories

Instruction manual

Quick manual

Overview

The RM9003 Press Unit, which is designed exclusively for use with the Electrode Resistance Measurement System, is used after being affixed to the RM9004 Test Fixture. It serves to place the probes in contact with the measurement surface on the object under test (the electrode sheet). A tilt mechanism improves maintainability, while an up/down lock mechanism improves safety.

Part Names

1. Up/down lever
2. Test fixture clamp knob
3. Test fixture insertion rail
4. Test fixture lock lever
5. RM9004 Test Fixture
6. Measurement stage
7. Lock release lever
8. Lock release lever clamp knob
9. Lock disable pin
10. Clamp
11. Serial number
12. Shaft
13. Maintenance plunger
14. Graduated plate
Assembly (RM9003, RM9004, RM9005)

**CAUTION**
To avoid equipment damage, turn off the RM2611 Electrode Resistance Meter before connecting or disconnecting the RM9005 Connection Cable.

**IMPORTANT**
The device ships with the up/down lever locked with the lock release lever clamp knob. Loosen the knob before using the device for the first time.

1. Place the RM9003 Press Unit’s up/down lever in the raised position.
2. Slide the RM9004 Test Fixture into position along the RM9003 Press Unit’s test fixture insertion rails. Push the test fixture toward the rear until it won’t go any further.
3. Pull the test fixture lock lever toward you and downward and then let go to lock. The RM9004 Test Fixture will lock in place.
4. Connect the grounding cable on the rear of the RM9003 Press Unit to the ground terminal on the RM9004 Test Fixture.
5. Connect the connector on the RM9004 (the female side) and connector on the RM2611 (the male side) using the RM9005 Connection Cable and screws that hold it in place.
6. Secure the RM9005 Connection Cable in place with the cable clamp.

**Basic Operation**

**IMPORTANT**
- Exercise caution not to pinch your fingers or other body parts when lowering the RM9004 Test Fixture.
- Do not touch the tips of the probes when handling the electrode sheet.

1. Place an electrode sheet on the measurement stage. The probes will make contact with the bold graduated marks.
2. Pull the up/down lever toward you and down while pulling the lock release lever toward you. The RM9004 Test Fixture will move downward under its own weight.
3. Once the RM9004 Test Fixture is fully lowered, start measurement from the main screen of RM2612 Resistance Calculation Software. See the RM2610 Electrode Resistance Measurement System Instruction Manual.
4. Once measurement completes, raise the up/down lever.
5. Remove the electrode sheet from the measurement stage after verifying that the RM9004 Test Fixture is fully raised.

**Precautions when transporting the device**

Be sure to follow these precautions.
- To avoid damage to the device, remove the RM9004 Test Fixture and RM9005 Connection Cable from the device. Additionally, use the packaging in which the device was packed when you purchased it, and be sure to double-box it. Hioki cannot guarantee that the device will not be damaged during transport.
- Attach a description of the issue when sending out your device for repair.
- Raise the up/down lever and then tighten the lock release lever clamp knob to ensure that the press unit does not move up or down during transport.