9455

PIN TYPE LEAD

INSTRUCTION MANUAL

Introduction

Thank you for purchasing the HIOKI "9455 PIN TYPE LEAD." To obtain maximum performance from the product, please read this manual first, and keep it handy for future reference.

Inspection

When you receive the product, inspect it carefully to ensure that no damage occurred during shipping. If damage is evident, or if it fails to operate according to the specifications, contact your dealer or Hioki representative.

Safety Notes

⚠WARNING **Mishandling this product during use could result in injury or death, as well as damage to the product. Be certain that you understand the instructions and precautions in the manual before use. We disclaim any responsibility for accidents or injuries not resulting directly from product defects.**

Safety symbols

⚠	In the manual, this mark indicates explanations which it is particularly important that the user read before using the equipment.
⎓	Indicates DC (Direct Current).

The following symbols are used in this Instruction Manual to indicate the relative importance of cautions and warnings.

⚠DANGER	Indicates that incorrect operation presents extreme danger of accident resulting in death or serious injury to the user.
⚠WARNING	Indicates that incorrect operation presents significant danger of accident resulting in death or serious injury to the user.
⚠CAUTION	Indicates that incorrect operation presents possibility of injury to the user or damage to the equipment.

Notes on Use

In order to ensure safe operation and to obtain maximum performance from the unit, observe the cautions listed below.

⚠DANGER

Do not use these leads on a circuit with a voltage exceeding the maximum input voltage of the tester to which they are connected. In any event, do not use on a circuit exceeding 60 V DC. There is a danger of electric shock.

⚠CAUTION

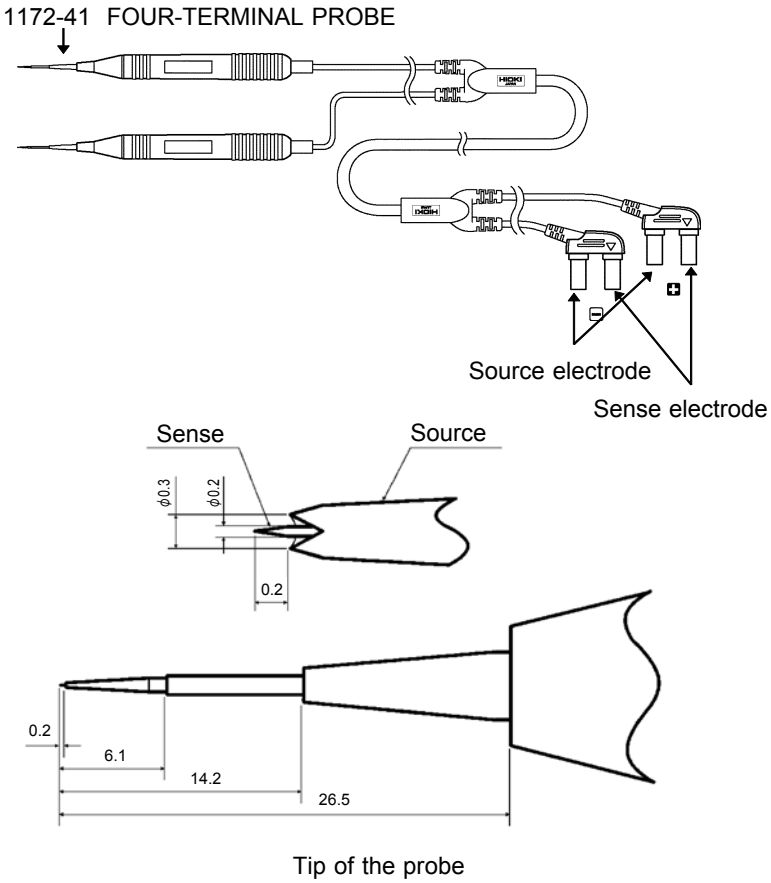
- **The ends of the 9455 PIN TYPE LEAD are sharp. Be careful to avoid injury.**
- **Before using the leads, make sure that the insulation on the leads is undamaged and that no bare conductors are improperly exposed. Using the product under such conditions could result in electrocution. Replace the leads with the specified 9455 PIN TYPE LEAD.**

1. Overview

1.1 Product Overview

The ends of the 9455 PIN TYPE LEAD have an extremely fine four-electrode construction, developed for testing for raised leads on mounted ICs. They can therefore be used for accurate measurement of resistance on small-dimensioned items.

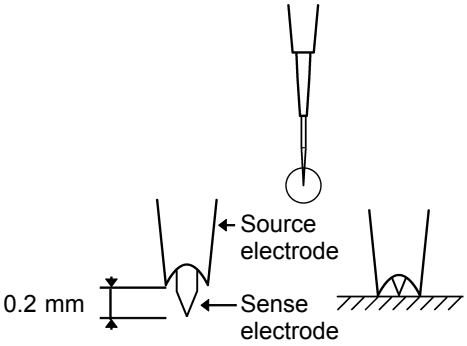
1.2 Names of Parts



2. Method of Measurement

Connect the leads correctly to the tester. For details, refer to the instructions supplied with the tester.

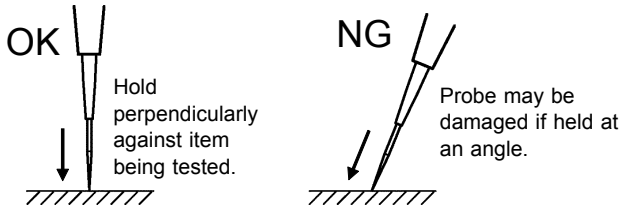
For testers with zero adjustment, carry out the zero adjustment with the standard leads connected, then remove the standard leads and connect these leads to carry out measurement.



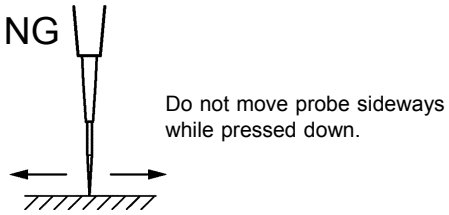
Hold these leads lightly against the two sides of the item to be tested.
After the sense electrode contacts the item, pushing the probe in by another 0.2 mm brings the source electrode into contact, and allows measurement to start.

⚠CAUTION

- **These leads are a precision instrument. Take all reasonable care in handling them.**
- **Treat the tips of the probes carefully; do not press them too hard against the item being tested or anything else. Because of the precision construction, this could cause the tips to break or bend.**
- **Hold the probes perpendicularly against the tested item. If pressed at an angle, scraped off material may prevent the four-terminal function from operating correctly.**



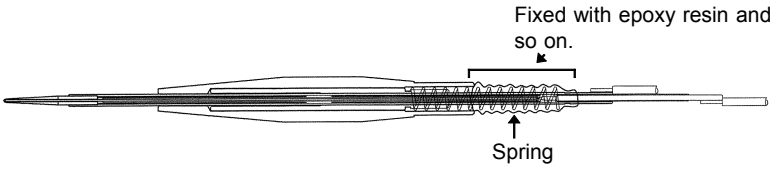
- **While the probe is pressed against an item being tested, do not move it sideways, as this may result in a broken tip. Take particular care when using the 9466 REMOTE CONTROL SWITCH.**



- **There are two movable parts on the pin tips. Measurement uses a stroke of 0.2 mm.**
- **After use, protect the probe tips with the plastic caps.**

3. Maintenance and Repair

1



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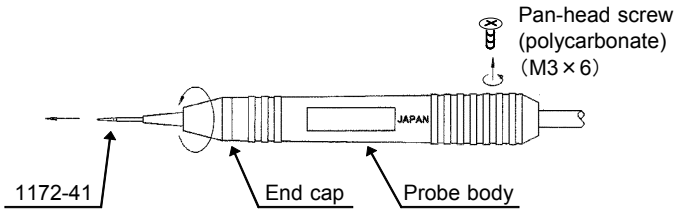

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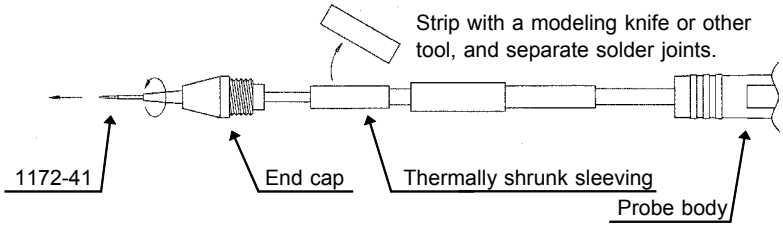

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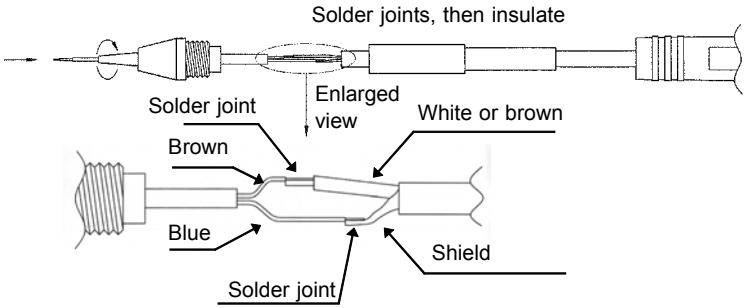

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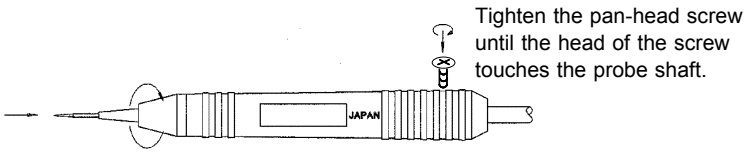

If the probe tips break, you can replace them by obtaining a 1172-41 FOUR-TERMINAL PROBE set.

1. Fix the part of the spring of the 1172-41 FOUR-TERMINAL PROBE with epoxy resin and so on.
   It is to make it elastic only by 1 step by this lead though 1172-41 is elastic by 2 steps.
2. Remove the pan-head screw (polycarbonate) (M3 × 6) from the probe body, then remove the end cap.
3. Remove the thermally shrunk sleeving, and separate the two soldered joints. Take care not to damage the inner conductor. Remove the 1172-41 FOUR-TERMINAL PROBE from the end cap.
4. First pass the leads through the probe body, then join the unit consisting of the 1172-41 FOUR-TERMINAL PROBE and end cap by soldering the two leads. The solder joints should be offset, to reduce the possibility of a short-circuit. Finally, reinforce the soldered portions with insulating tape or similar, to prevent short-circuits.
5. Reassemble the 1172-41 FOUR-TERMINAL PROBE, end cap, and probe body, and finally fix the leads with the pan-head screw. Tighten the pan-head screw until the head of the screw touches the probe shaft. Do not overtighten - doing so will tear the screw thread. Refer to the "Names of parts" diagram, and check the connectivity of the banana plugs and probe tips using a tester connectivity function.

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