



The LP01-TOS/LP02-TOS Test Probe is a dedicated probe for a KIKUSUI TOS6210/TOS6200A/TOS6200/TOS6100 Earth Continuity Tester. Its convenient shape allows faster connection to the device under test (DUT).

The LP01-TOS and LP02-TOS can measure until 30 A and 60 A respectively in the earth continuity test.

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**NOTE**

- This product is designed to be used with a KIKUSUI Earth Continuity Tester. Carefully read the warnings and precautions given in the Earth Continuity Tester Operation Manual before attempting to use it.
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## Precautions for Use

■ **Be sure to connect the remote control cable.**

- Never perform testing using the Tester START switch without the remote control cable.

■ **Never use the test probe with other earth continuity testers.**

- The test probe is designed specifically for use with a KIKUSUI Earth Continuity Tester. It cannot be used with other earth continuity testers, even if the connector appears to be compatible.

■ **Never use the product at currents over the rated maximum current**

- The rated maximum current (see Description \*1 on page 7) of the probe is 30 Aac (LP01-TOS) or 60 Aac (LP02-TOS). Use at over currents may result in fire.

■ **Never touch the contact pin immediately testing is completed.**

- If the LP02-TOS is used more than 30 A, the contact pin will be high temperatures. Never touch the contact pin immediately testing is completed. Touching will result in getting burned.

■ **Handle the test probe attentively. Do not swing it around.**

■ **Do not yank the test probe cable or drape it over any part of your body.**

# Component Names and Functions

Figure shows the LP02-TOS.

## Contact Pin

Test current is delivered to this pin contacting a test point of the DUT.

## Holder

This part holds the contact pin.

## START Switch

This is used to begin testing. Depress the switch continuously during testing. Releasing your finger from the switch will stop testing.

## OUTPUT LED

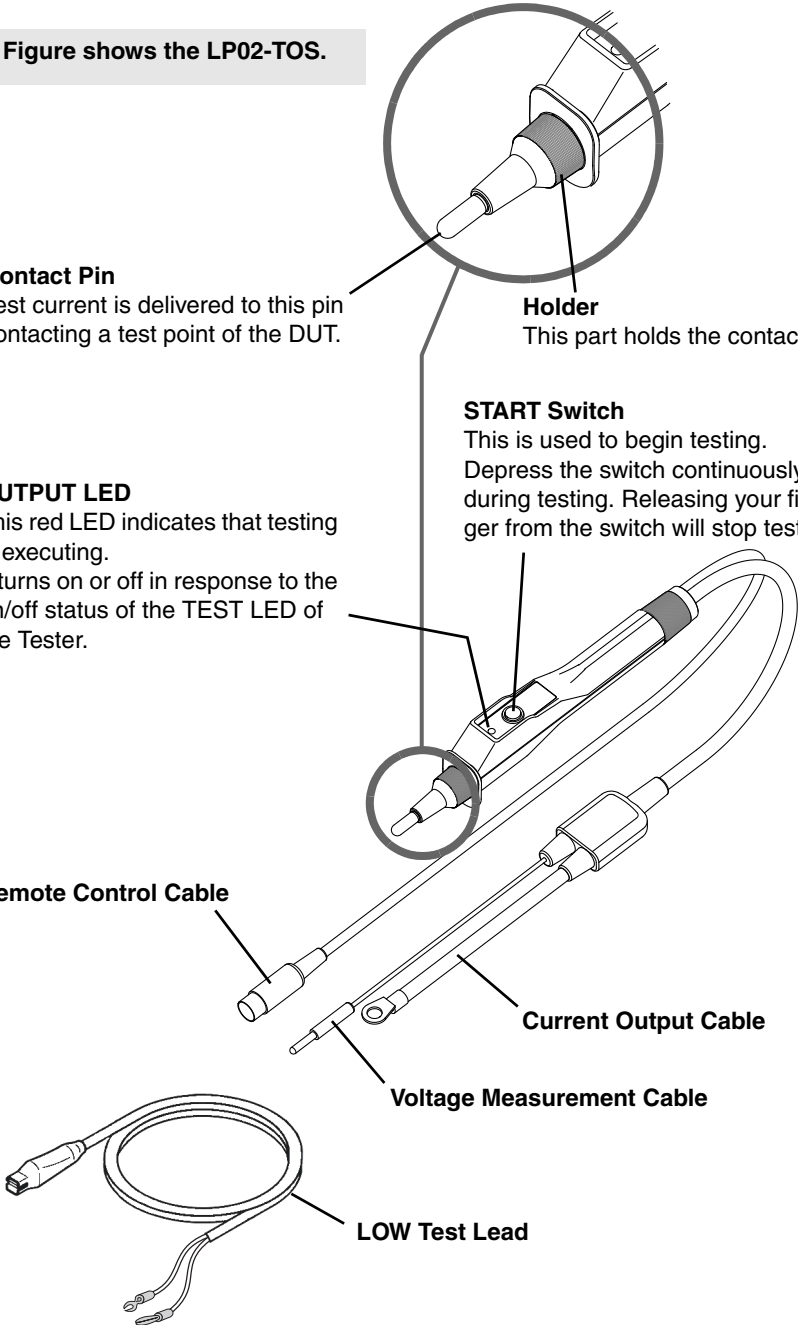
This red LED indicates that testing is executing. It turns on or off in response to the on/off status of the TEST LED of the Tester.

## Remote Control Cable

## Current Output Cable

## Voltage Measurement Cable

## LOW Test Lead



# Inspection Before Starting

Always inspect and confirm the following items before beginning an actual test.

If any abnormality or failure is found in the “Inspection Before Starting,” immediately stop using the test probe and contact your Kikusui distributor or agent for repairs.

## ■ Test probe cable and LOW test lead

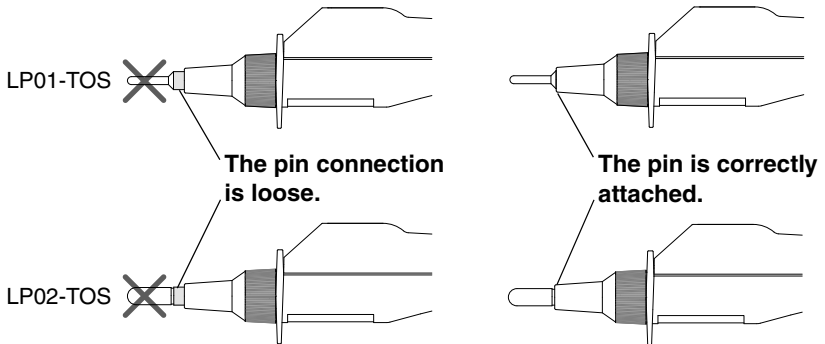
- Check for broken sheathing and loose or cracked connectors.
- Confirm electrical continuity.

## ■ Start switch

- Confirm that the switch operates smoothly when pressed.

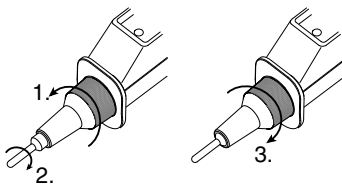
## ■ Contact pin

- Check for any signs of damage.
- Check the pin for loose connection.



### Pin adjustment

1. Turn the holder counter clockwise.
2. Turn the pin fully clockwise.
3. Turn the holder fully counter clockwise.



## Stop Use in the Event of Failure

In the following cases, the test probe is defective. To minimize hazards, immediately turn off the POWER switch of the Tester and stop using the test probe.

- **The OUTPUT LED does not light.**
- **The on/off status of the OUTPUT LED of the test probe is inconsistent with that of the TEST LED on the Tester.**
- **The OUTPUT LED remains lit even when you release your finger from the START switch.**

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** WARNING**

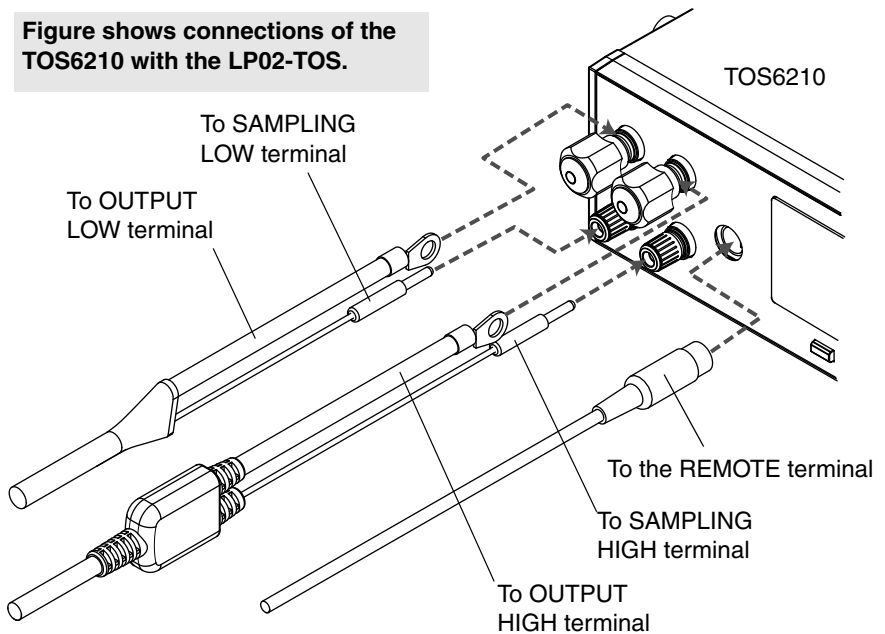
- Implement measures so that no one can use the test probe until it has been repaired.
  - To minimize potential hazards, always contact your Kikusui distributor or agent for repairs.
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# Connecting to the Earth Continuity Tester

**⚠ WARNING** • Improper terminal connections can result in inaccurate measurements and burns or injury resulting from heat generated by contact resistance at the terminals.

1. Turn off the POWER switch of the Tester.
2. Remove the short-circuit bars connecting the OUTPUT and SAMPLING terminals.
3. Connect the LOW test lead to the LOW terminal of the Tester.
4. Connect the each cable of the test probe to the HIGH and REMOTE terminals of the Tester.

**Figure shows connections of the TOS6210 with the LP02-TOS.**



Connecting the remote control cable starts or stops testing as indicated below:

	Tester's Panel Operation	Operation of Test Probe
Starting test	Disabled	Depress the START switch.
Stopping test	Press the STOP switch.	Release your finger from the START switch.

# Test Procedure

**⚠ WARNING** • If the LP02-TOS is used more than 30 A, the contact pin will be high temperatures. Never touch the contact pin immediately testing is completed. Touching will result in getting burned.

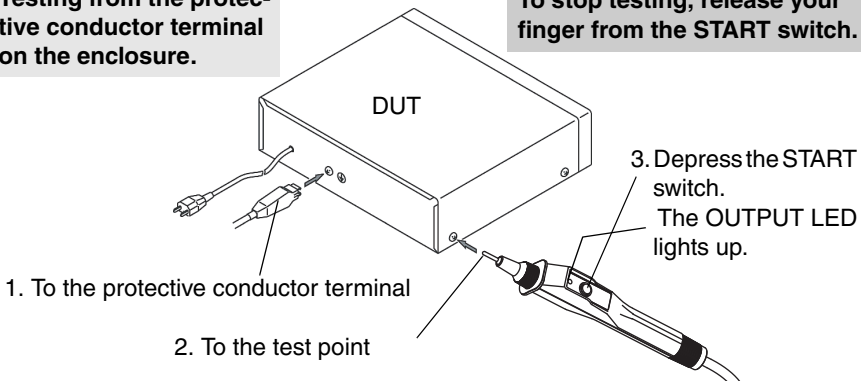
**⚠ CAUTION** • Be sure to connect the contact pin and the alligator clip to the DUT. If the contact pin is removed or the clip is disconnected from the DUT during testing, result in sparking and potentially damaging the DUT.

- Configure the required test conditions for the Tester by referring to the operation manual.
  - To obtain secure identification of FAIL judgment, turning on the FAIL MODE of the Tester is recommended.
  - Connect the test probe to the Tester according to the “Connecting to the Tester” item.
1. Connect the alligator clip of the LOW test lead to the protective conductor terminal of the DUT.
  2. Apply the contact pin of the test probe to the test point of the DUT.
  3. Depress the START switch.  
This causes the OUTPUT LED to light up; the test current flows from the contact pin.  
Do not remove the contact pin from the DUT during testing.
  4. When testing is complete, lift your finger from the START switch.  
Do not remove the contact pin from the DUT.
  5. Confirm that the OUTPUT LED is not lit.
  6. Remove the test probe from the DUT.
  7. Disconnect the alligator clip of the LOW test lead from the DUT.

After completing all tests, turn off the POWER switch of the Tester.

**Testing from the protective conductor terminal on the enclosure.**

**To stop testing, release your finger from the START switch.**



# Maintenance

Periodic inspections and maintenance are required to maintain the product's original performance over the long term.

- Be sure to disconnect the test probe from the Tester before starting inspections or maintenance.
- Avoid volatile solvents such as thinner and benzene, which may discolor the probe's surface coating, erase printed characters, etc.

## Cleaning

If the test probe becomes soiled, moisten a piece of soft cloth with a mild, dilute detergent and gently wipe the probe.

## Periodic Inspection

The cable of the test probe, contact pin, and LOW test lead are consumables. We recommend an annual inspection by one of service engineers. To have an inspection performed, contact your Kikusui distributor or agent.

# Specifications

		LP01-TOS	LP02-TOS
Rated maximum voltage (*1)		30 V	
Rated maximum current (*1)		30 Aac	60 Aac
Residual resistance		10 mΩ or less	
Operating environment		Indoor use, Altitude: up to 2000 m	
Operating temperature and relative humidity range		0 °C to 40° C 20 % to 80 % (no condensation)	
Storage temperature and relative humidity range		-20 °C to 70 °C 90 % or less (no condensation)	
Insulation resistance	Between contact pin and signal cable	30 MΩ or more (500 Vdc)	
Withstanding voltage	Between contact pin and signal cable	500 Vac for 5 seconds, 2 mA or less	
Cable length		Approx. 2 m	
Physical dimensions		28 (W) x 45.5 (H) x 226 (D) mm	
Weight		Approx. 500 g	Approx. 700 g
Accessories		LOW test lead: 1 (1.5 m) Operation manual: 1 copy	

### Description

\*1: The rated maximum voltage/current refers to the maximum voltage/current the test probe is capable of handling within the given operating temperature and humidity ranges.



## 环境保护使用期限 Environment-friendly Use Period

该标记为适用于在中华人民共和国销售的电子信息产品的环境保护使用期限。只要遵守有关该产品的安全及使用注意事项，从制造年月起计算，在该年度内，就不会对环境污染、人身、财产产生重大的影响。

产品的废弃请遵守有关规定。

产品的制造年月可以在以下网址中确认。

<http://www.kikusui.co.jp/pi/>

### 有毒有害物质或元素名称及含有标示 Name of hazardous materials and symbol of element in the equipment and quantity

部件名称	有毒有害物质或元素					
	铅 Pb	汞 Hg	镉 Cd	六价铬 Cr(VI)	多溴联苯 PBB	多溴二苯醚 PBDE
LP01-TOS	×	○	○	○	○	○
LP02-TOS	×	○	×	○	○	○

本表格依据 SJ/T 11364 的规定编制。

○：该部件所有均质材料的有毒有害物质的含量不超过 GB/T 26572 标准所规定的极限值要求。

×：该部件至少有一种均质材料的有毒有害物质的含量超过 GB/T 26572 标准所规定的极限值要求。

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The newest version of the operation manual can be downloaded from Download service of Kikusui website.

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