

100

EZ Digital MultimeterInstruction Manual

SAFETY CONSIDERATIONS

WARNING: Please follow manufacturers test procedures whenever possible. Do not attempt to measure unknown voltages or components until a complete understanding of the circuit is obtained.

GENERAL GUIDELINES ALWAYS

- Test the 100 before using it to make sure it is operating properly.
- Inspect the test leads before using to make sure there are no breaks or shorts.
- Double check all connections before testing.
- Have someone check on you periodically if working alone.
- Have a complete understanding of the circuit being measured.
- Disconnect power to circuit, then connect test leads to the 100, then to circuit being measured.

NEVER

- Attempt to measure unknown high voltages.
- Connect the test leads to a live circuit before setting up the instrument.
- Touch any exposed metal part of the test lead assembly.

CATEGORY RATINGS DEFINITIONS

IEC 1010 Over Voltage: Cat II - 1000V CAT III - 600V Pollution Degree 2

CAT II - 1000V Installation Category (Overvoltage Category) II: Includes voltages encountered on the step down side of the transformer on the building and at a distance of 10 meters from the CAT III source.

CAT III - 600V Installation Category (Overvoltage Category III: Includes voltage encountered on the distribution level with short distance to the main service connection.

Pollution Degree 2 Normally only nonconductive pollution occurs. Occasionally temporary conductivity caused by condensation must be expected.

SPECIFICATIONS

Function	Range	Resolution	<u>Accuracy</u>
DCV	1.5V- 4V 40.00V 400.0V	0.001V 0.01V 0.1V	±(0.5% + 4)
	600V	0.1V	$\pm (0.8\% + 4)$
ACV	1.7V-4V 40.00V 400.0V	0.001V 0.01V 0.1V	±(0.8% + 4)
	600V	1V	±(1.2% + 4)
OHM	400.0 4.000k 40.00k 400.0k 4.000M	0.1 0.001k 0.01k 0.1k 0.001M	±(0.8% + 4)
	40.00M	0.01M	$\pm (2.0\% + 4)$

GENERAL SPECIFICATIONS

Power Supply	2 Each 1.5 Volt "AA" Batteries
Battery Life	560 hrs. Alkaline
Size (H x L x W)	45mm x 78mm x 153mm
	(1.8" x 3.1" x 6.0")
Weight	340g (12 oz)

MEASURING AC/DC VOLTAGE

Make sure that the ground and positive leads are plugged into the proper receptacle for corresponding function positions.

AWARNING

Do not attempt to make a voltage measurement of more than 500V or of a voltage that is unknown.

Measurement Procedure:

- 1. Disconnect power to circuit to be measured.
- 2. Plug black test lead into the **COM** input jack.
- 3. Plug the red test lead into the V/Ω input jack.
- 4. Set the rotary switch to the "ON" position.
- 5. Connect test leads to circuit to be measured.
- 6. Reconnect power to circuit to be measured.
- 7. Read the voltage on the TPI 100.

Note: For Auto mode to operate properly, DC voltage must be between +0.7 and 600V. AC voltage must be between 3 and 500V.

MEASURING RESISTANCE



Do not attempt to make resistance measurements with circuit energized. For best results, remove the resistor completely from the circuit before measuring.

NOTE: To make accurate low ohm measurements, short the test leads together and record the resistance reading. Deduct this value from actual readings.

Measurement Procedure:

- 1. Disconnect power to circuit to be measured.
- 2. Plug black test lead into the **COM** input jack.
- 3. Plug the red test lead into the V/Ω input jack.
- 4. Set the rotary switch to the "ON" position.
- Connect test leads to circuit to be measured.
- 7. Read the resistance on the TPI 100.

MAINTENANCE

- **1. Battery Replacement:** The 265 will display a battery symbol when the internal 9 Volt battery needs replacement. The battery is replaced as follows:
 - a. Disconnect and remove all test leads from live circuits and from the 265.
 - b. Loosen the screw from the back of the 265 battery cover.
 - c. Remove the battery compartment cover.
 - d. Remove old battery and replace with new battery. Observe the correct polarity on the battery.
 - e. Reassemble the instrument in reverse order from above.

2. Cleaning your 265:

Use a mild detergent and slightly damp cloth to clean the surfaces of the 265.

SAFETY CONSIDERATIONS

WARNING: Please follow manufacturers test procedures whenever possible. Do not attempt to measure unknown voltages or components until a complete understanding of the circuit is obtained.

GENERAL GUIDELINES ALWAYS

- Test the 100 before using it to make sure it is operating properly.
- Inspect the test leads before using to make sure there are no breaks or shorts.
- · Double check all connections before testing.
- Have someone check on you periodically if working alone.
- Have a complete understanding of the circuit being measured.
- Disconnect power to circuit, then connect test leads to the 100, then to circuit being measured.

NEVER

- · Attempt to measure unknown high voltages.
- Connect the test leads to a live circuit before setting up the instrument.
- Touch any exposed metal part of the test lead assembly.

2

CATEGORY RATINGS DEFINITIONS

IEC 1010 Over Voltage: Cat II - 1000V CAT III - 600V Pollution Degree 2

CAT II - 1000V Installation Category (Overvoltage Category) II: Includes voltages encountered on the step down side of the transformer on the building and at a distance of 10 meters from the CAT III source.

CAT III - 600V Installation Category (Overvoltage Category III: Includes voltage encountered on the distribution level with short distance to the main service connection.

Pollution Degree 2 Normally only nonconductive pollution occurs. Occasionally temporary conductivity caused by condensation must be expected.

3

SPECIFICATIONS

<u>Function</u>	Range	Resolution	<u>Accuracy</u>
DCV	1.5V- 4V 40.00V 400.0V	0.001V 0.01V 0.1V	±(0.5% + 4)
	600V	0.1V	$\pm(0.8\% + 4)$
ACV	1.7V-4V 40.00V 400.0V	0.001V 0.01V 0.1V	±(0.8% + 4)
	600V	1V	$\pm(1.2\% + 4)$
ОНМ	400.0 4.000k 40.00k 400.0k 4.000M	0.1 0.001k 0.01k 0.1k 0.001M	±(0.8% + 4)
	40.00M	0.01M	$\pm (2.0\% + 4)$

GENERAL SPECIFICATIONS

Power Supply	2 Each 1.5 Volt "AA" Batteries
Battery Life	560 hrs. Alkaline
Size (H x L x W)	45mm x 78mm x 153mm
	(1.8" x 3.1" x 6.0")
Weight	340g (12 oz)

MEASURING AC/DC VOLTAGE

Make sure that the ground and positive leads are plugged into the proper receptacle for corresponding function positions.

AWARNING Do not attempt to make a voltage measurement of more than 500V or of a voltage that is unknown.

Measurement Procedure:

- 1. Disconnect power to circuit to be measured.
- 2. Plug black test lead into the **COM** input jack.
- 3. Plug the red test lead into the V/Ω input jack.
- 4. Set the rotary switch to the "ON" position.
- 5. Connect test leads to circuit to be measured.
- 6. Reconnect power to circuit to be measured.
- 7. Read the voltage on the TPI 100.

Note: For Auto mode to operate properly, DC voltage must be between +0.7 and 600V. AC voltage must be between 3 and 500V.

MEASURING RESISTANCE

AWARNING |

Do not attempt to make resistance measurements with circuit energized. For best results, remove the resistor completely from the circuit before measuring.

NOTE: To make accurate low ohm measurements, short the test leads together and record the resistance reading. Deduct this value from actual readings.

Measurement Procedure:

- Disconnect power to circuit to be measured.
- 2. Plug black test lead into the **COM** input jack.
- 3. Plug the red test lead into the V/Ω input jack.
- 4. Set the rotary switch to the "ON" position.

6

- Connect test leads to circuit to be measured.
- 7. Read the resistance on the TPI 100.

MAINTENANCE

- Battery Replacement: The 265 will display a battery symbol when the internal 9 Volt battery needs replacement. The battery is replaced as follows:
 - a. Disconnect and remove all test leads from live circuits and from the 265.
 - b. Loosen the screw from the back of the 265 battery cover.
 - c. Remove the battery compartment cover.
 - d. Remove old battery and replace with new battery. Observe the correct polarity on the battery.
 - e. Reassemble the instrument in reverse order from above.

2. Cleaning your 265:

Use a mild detergent and slightly damp cloth to clean the surfaces of the 265.

7



100 Instruction Manual

Test Products International, Inc. 9615 SW Allen Blvd Beaverton, OR 97005-4814 USA Ph: 503-520-9197 Fax: 503-520-1225

Test Product International Ltd. 342 Bronte Street South, Unit 9 Milton, Ontario L9T 5B7 Ph: 905-693-8558 Fax: 905-693-0888

Test Products International Europe Longley House, International Drive, Southgate Crawley, West Sussex RH10 6AQ Ph: +44 (0) 1293 561212 Fax: +44 (0) 1293 813465

Copyright © 2006, Test Products International, Inc