

ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
(217) 352-9330 | sales@artisantg.com | artisantg.com

Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

Expert team | Trust guarantee | 100% satisfaction

All trademarks, brand names, and brands appearing herein are the property of their respective owners.

Visit our website - *Click HERE*

Agilent 4338B Milliohmmeter

User's Guide

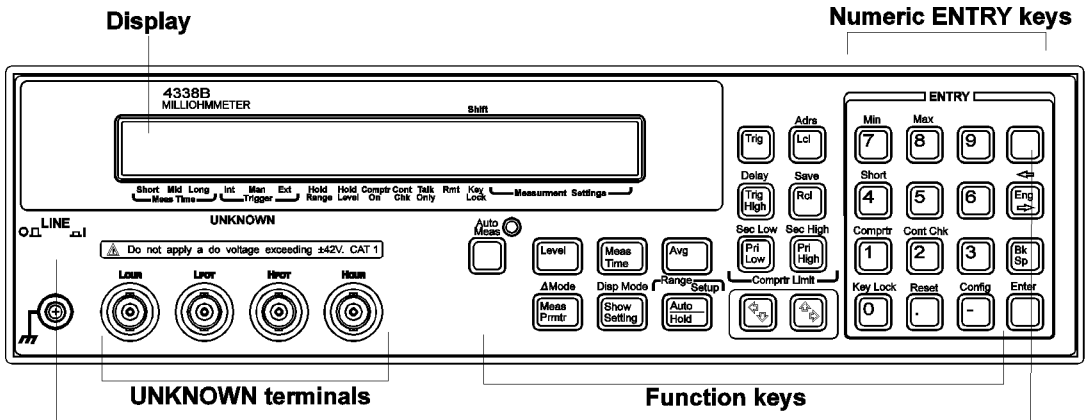


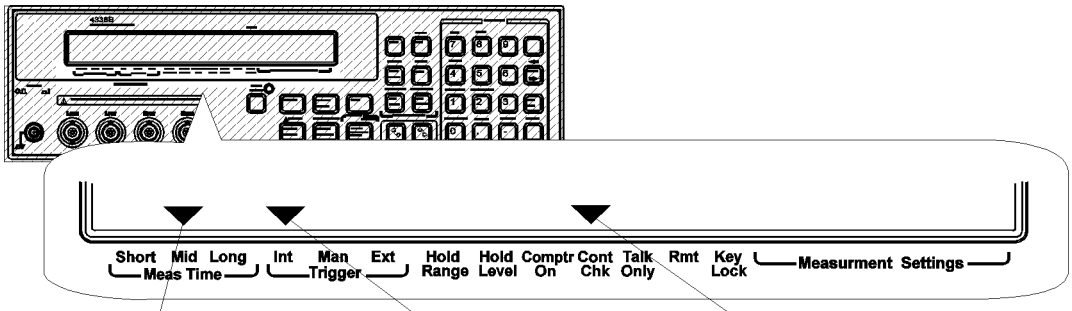
Agilent Technologies

Agilent Part No. 04338-90021
Printed in JAPAN January 2001

Fourth Edition

4338B Milliohmmeter





Contents of this Manual

- Chapter 1, Preparation for Use

  For initial turn ON of the 4338B

- Chapter 2, Operating the 4338B

  Basic measurement operation

  Getting acquainted with the 4338B—for beginners
  Handy reference for common measurement tasks—for all users

- Chapter 3, Measurement Example

  Measurement Examples for typical 4338B applications

  Measuring Electrolytic Capacitor
  Measuring Inductor
  Measuring Transformer

In the 4338B User's Guide, information on the following subjects is not discussed:

- Initial Inspection
- GPIB remote control
- Using with Handler
- Maintenance
- Specifications
- Error Messages

For detailed information on these subjects, see the *4338B Operation Manual*.

©Copyright 1996, 1997, 2000, 2001 Agilent Technologies Japan, Ltd.

Contents

1. Preparation for Use

In This Chapter 1-1
Power Requirements 1-1
To Set Power LINE Voltage 1-1
To Set Power LINE Frequency 1-2

2. Operating the 4338B

In This Chapter 2-1
Let's Try—Fully Automatic Measurement 2-2
Resetting 4338B to its Default Settings 2-2
Connecting the Test Leads 2-2
Performing a SHORT Correction
—Canceling the residual impedance in series with the DUT 2-3
If "WARNING: Out Of Limit" is displayed 2-3
If "WARNING: Improper Correction" is displayed 2-3
Measuring a DUT 2-4
Test Voltage Limit 2-4
To Set Test Signal Level 2-4
To Select Measurement Range 2-5
Auto Range mode—Automatically selecting the optimum measurement range . 2-5
Hold Range mode—Holding the measurement range of your choice 2-5
To Select Measurement Parameter 2-5
To Select Measurement Time Mode 2-6
To Set Averaging Rate—Stabilizing the measurement result 2-6
To Select Trigger Mode 2-7
To Set Trigger Delay Time and Source Delay Time 2-7
To Use Deviation Measurement Function 2-8
Setting the Deviation Reference Values 2-8
Selecting the Deviation Mode 2-8
To Use Comparator Function 2-9
Setting the Limit Values 2-9
Sorting 2-9
To Use Contact Check Function
—Monitoring the connection of test electrodes and DUT 2-10
To Select Display Mode 2-10
To Select Beeper Mode 2-11
To Print Measurement Data 2-11
Setting the Printer 2-11
Printing 2-11
Disabling Printing 2-12
To Display the Current Settings 2-12
To Trigger a Measurement 2-13
If You Have a Problem 2-14
If you find yourself lost when operating the 4338B 2-14
If the 4338B does not accept key input: 2-14
If ------ or "OVLD" is displayed: 2-14

Reference 2-15
Default Settings 2-15
Accessories Available 2-15
16064B LED Display/Trigger Box 2-15
16338A Test Lead Set 2-15
SHORT Configuration 2-16
Measurement Range Setting 2-17
Other Topics 2-17

3. Measurement Examples
In This Chapter 3-1
Testing Contanct of Electromechanical Devices 3-2
Measuring the Contact Resistance of Switch 3-2
DUT 3-2
Requirements 3-2
Measurement Setup 3-2
Measurement Procedure 3-2
For More Information 3-4
Evaluating Battery Internal Resistance 3-5
Measuring Battery Internal Resistance 3-5
DUT 3-5
Requirements 3-5
Measurement Setup 3-5
Measurement Procedure 3-5
For More Information 3-7

Figures

2-1. Connecting 16338A Test Lead Set 2-2
2-2. Printer Output 2-12
2-3. SHORT Configuration for Each Test Leads 2-16
2-4. Measurement Range 2-17
3-1. Connecting the DUT 3-4
3-2. Connecting the DUT 3-7

Tables

1-1. Line Voltage Selection 1-1

1

Preparation for Use

In This Chapter

Before turning the 4338B ON, you must first set the 4338B to match the available power LINE voltage.

If the 4338B's power LINE voltage and frequency are properly set and ready to use, you can skip this chapter.

Power Requirements

The 4338B's power source requirements are as follows:

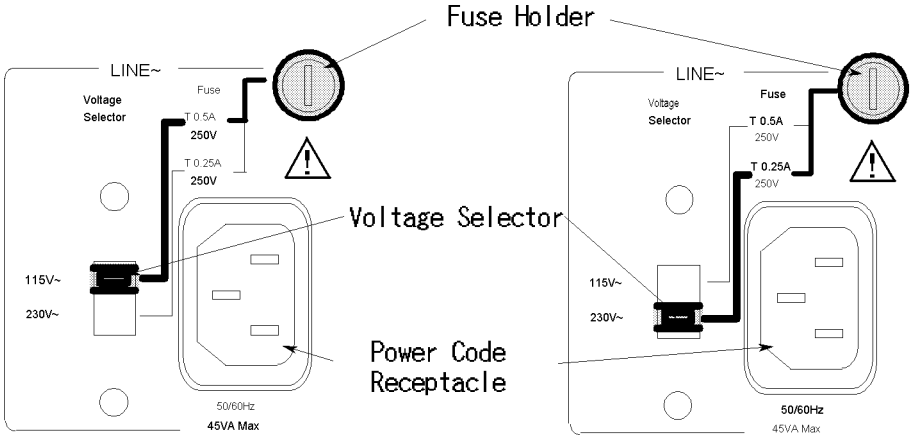
LINE Voltage : 100 / 120 / 220 / 240 V ac (±10%)
LINE Frequency : 47 to 66 Hz
Power Consumption : 45 VA maximum

To Set Power LINE Voltage

1. Confirm that the power cable is disconnected.
2. Slide the LINE Voltage selector on the rear panel to match the power LINE voltage which will be used (see Table 1-1).

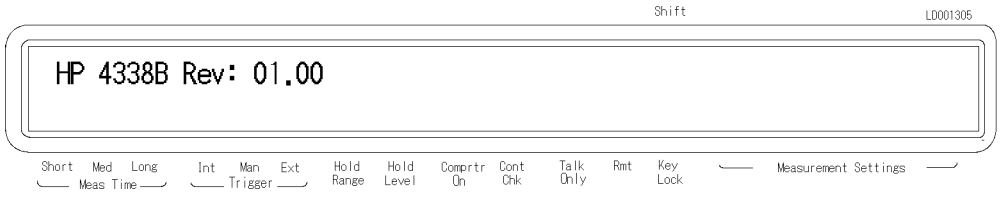
Table 1-1. Line Voltage Selection

Voltage Selector	Line Voltage	Required Fuse
115V	100/120Vac(±10%)	UL/CSA type, Time delay 0.5A 250V (Agilent part number 2110-0202)
230V	220/240Vac(±10%)	UL/CSA type, Time delay 0.25A 250V (Agilent part number 2110-0201)

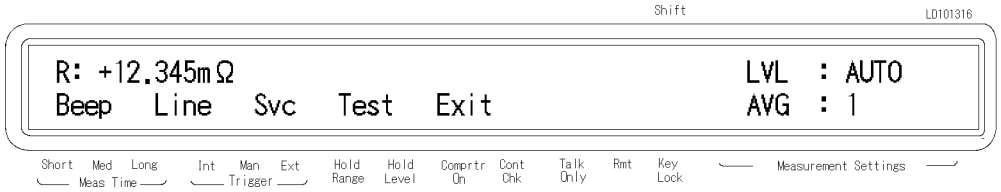


To Set Power LINE Frequency

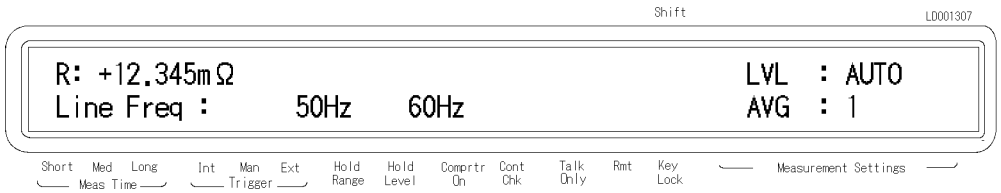
1. Connect the power cable to the power cord receptacle on the rear panel.
2. Push the LINE switch in. The 4338B will emit a beep when it turns ON, and perform the self test. (If any message is displayed, see "Error Messages" back of *4338B Operation Manual*.) The 4338B will be ready for operation after a message like the following is displayed.



3. Press blue Config -. The following message is displayed.



4. Press ⇧ until "`Line`" blinks, and press Enter.



   A blinking item means that it is currently selected.
5. If the setting does not match the power LINE frequency, press ⇧ to toggle the setting between "`50 Hz`" and "`60 Hz`", then press Enter.
6. Press ⇧ until `Exit` blinks, and press Enter.

Note

The power line frequency setting is stored and is not changed after reset or power-off. Once you set it, you do not need to set the line frequency again as long as the same power line frequency is being used.

2

Operating the 4338B

In This Chapter

Basic measurement operations of the 4338B and references are explained.

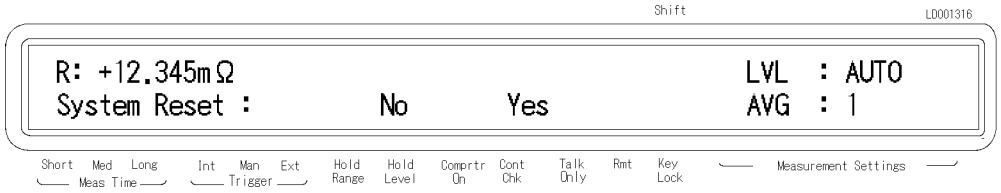
For measurement, we use the 16338A Test Lead Set with the 4338B.

Let's Try—Fully Automatic Measurement

The 4338B's auto measurement function automatically selects the appropriate test signal level and measurement range. You can measure the DUT with very simple procedure, only connecting test leads, performing a SHORT correction, and connecting the DUT.

Resetting 4338B to its Default Settings

1. Press (blue) (Reset) to select the reset menu.



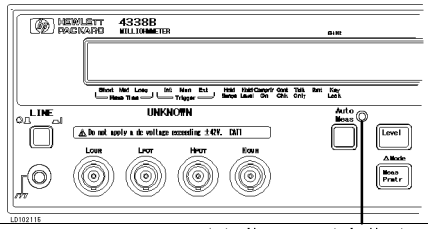
2. Press ⇧ until `Yes` blinks, and press Enter.

The 4338B will be reset to its default settings. For more information about the default settings, see "Default Settings" later in this chapter.

Note

When the **Auto Measurement indicator** turns ON, the auto measurement function is active.

Resetting the 4338B, or pressing Auto Meas activates the auto measurement function.



Auto Measurement Indicator

Connecting the Test Leads

Connect the test leads to the UNKNOWN terminals as follows:

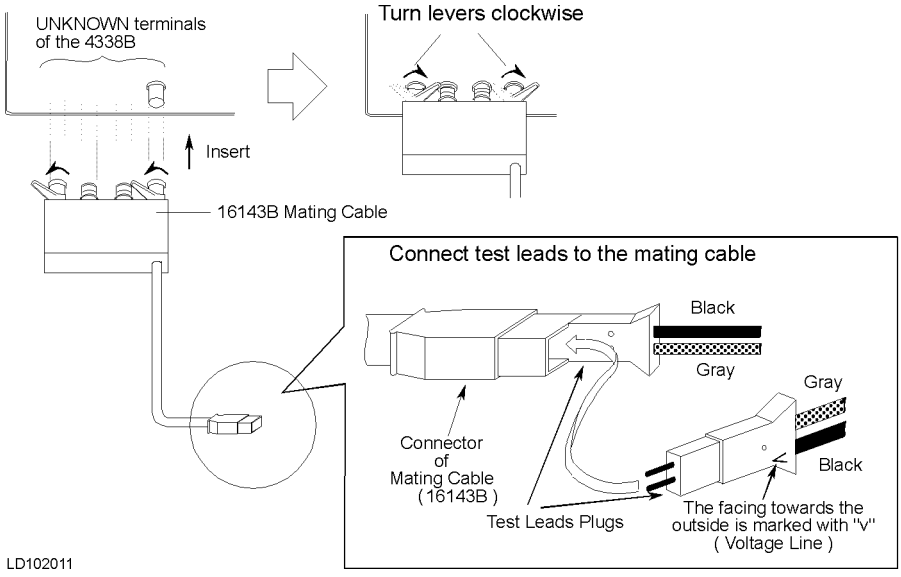
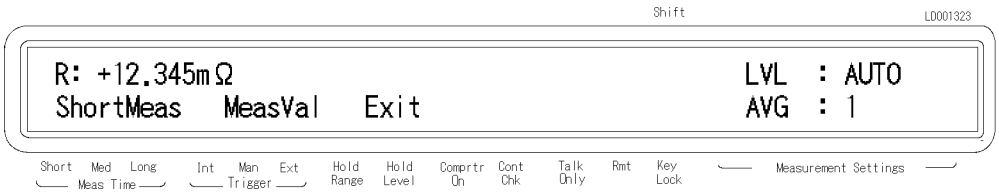


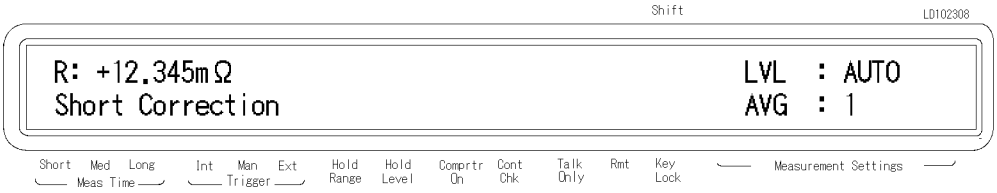
Figure 2-1. Connecting 16338A Test Lead Set

Performing a SHORT Correction —Canceling the residual impedance in series with the DUT

1. Configure the test electrodes in a SHORT configuration by connecting the High and Low electrodes to each other. (For information on the SHORT configuration, see "SHORT Configuration" on page 2-13.)
2. Press blue, Short 4. The SHORT correction menu is displayed.



3. Select `ShortMeas` using ↓ or ↑, and press Enter. The SHORT correction is performed with the following message.



After a while, the 4338B will display the SHORT correction finished message,



and return to the measurement mode.

If "`WARNING: Out Of Limit`" is displayed

The SHORT impedance is so high that it would be unsuitable for SHORT correction data.

If "`WARNING: Improper Correction`" is displayed

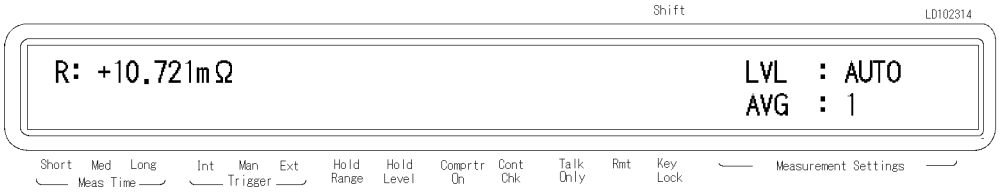
When the "`OVLD`", "`OVVOL`" or "`N.C.`" is displayed during the SHORT correction.

- □ Check that the test leads are properly connected to the UNKNOWN terminals.
- □ Check that the test clips are properly shorted.

And then perform the SHORT correction again.

Measuring a DUT

Connect the DUT to the test leads, and the measurement result will be displayed.

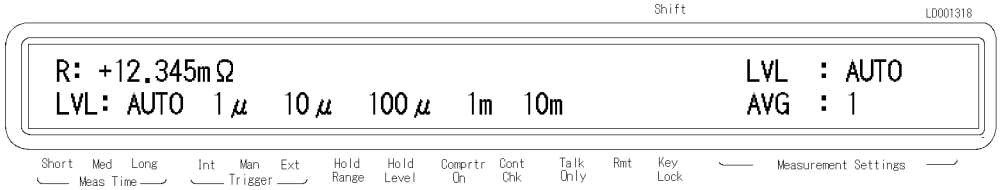


Test Voltage Limit

The peak voltage across the DUT does not exceed 20 mV. (When the test voltage exceeding 20 mV, the 4338B disables the test voltage output and displays "OVVOL"(Over Voltage).) It prevents the test voltage from destroying the oxidation film, formed between the contacts. So, even when an unknown DUT is measured without special preparation, the contact resistance is still accurately measured without disturbing the state of the oxidation film.

To Set Test Signal Level

1. Press [Level]. The test signal level menu is displayed.



   The blinking level is currently selected.

2. Select the test level using [Level], or [◁] [▷].
3. Press [Enter].

   If the test signal setting is other than AUTO, the **Hold Level** annunciator(▼) appears in the LCD display.

To Select Measurement Range

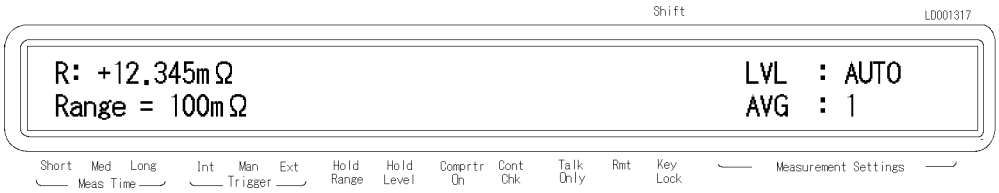
Auto Range mode —Automatically selecting the optimum measurement range

Press Range Setup Auto Hold. The **Hold Range** annunciator(▼) turns OFF.

Hold Range mode—Holding the measurement range of your choice

To select the measurement range,

1. Press blue Range Setup Auto Hold. The measurement range setup menu is displayed.

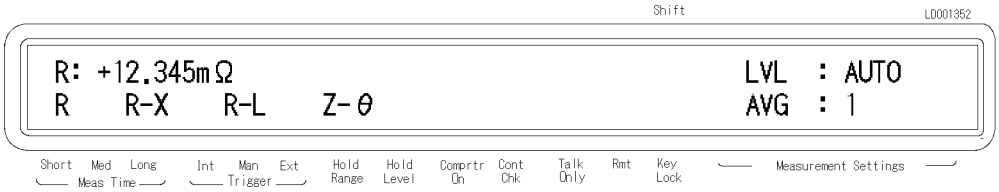


2. Press ⇦ or ⇨ until the desired range is displayed. Or input the impedance value to be measured using the numeric ENTRY keys, and the 4338B will select the optimum measurement range setting.
3. Press Enter. The **Hold Range** annunciator(▼) turns ON.

To determine which measurement range you should select, see "Measurement Range Setting" later in this chapter.

To Select Measurement Parameter

1. Press △Mode Meas Prmtr. The measurement parameter menu is displayed.



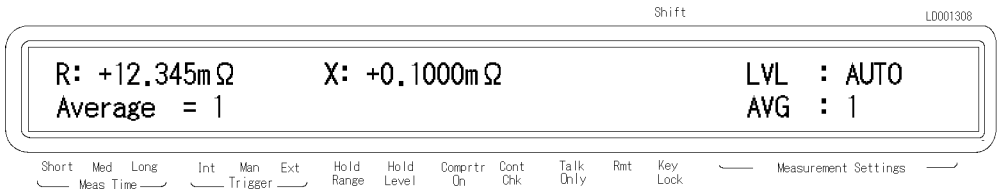
2. Press ⇦ or ⇨ to select the measurement parameter, and press Enter. The following parameters are available.
   - R (Resistance)
   - R—X (Resistance—Reactance)
   - R—L (Resistance—Equivalent series inductance)
   - Z— θ (Absolute value of impedence—phase angle)

To Select Measurement Time Mode

Press (Meas Time) until the **Meas Time** annunciator(▼) points to the desired measurement time mode (Short, Med or Long).

To Set Averaging Rate—Stabilizing the measurement result

1. Press (Meas Time).



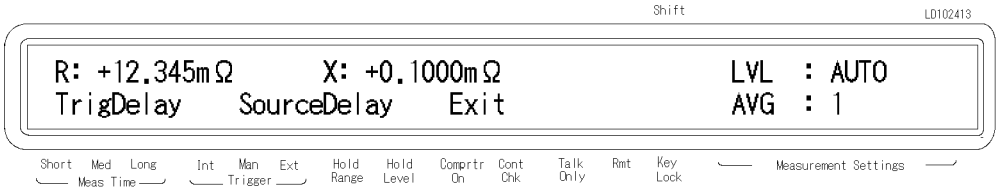
2. Enter the averaging rate using the numeric ENTRY keys. (For example, to enter 4, press (Short 4).) You can enter integer values from 1 to 256. Also, you can increase or decrease the value using (▲) or (▼) .
3. Press (Enter) to set the value and to exit.

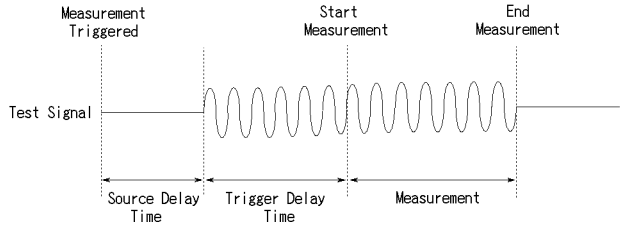
To Select Trigger Mode

Press Delay (Trig Mode) until the **Trigger** annunciator(▼) points to the desired trigger mode (Int, Man or Ext). To trigger a measurement in each mode, see "To Trigger a Measurement" later in this chapter.

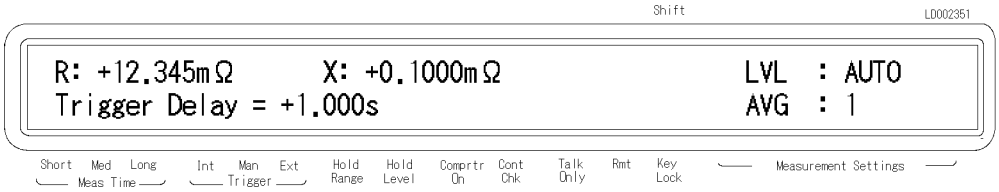
To Set Trigger Delay Time and Source Delay Time

1. Press (blue) Delay (Trig Mode). The delay time setting menu is displayed.



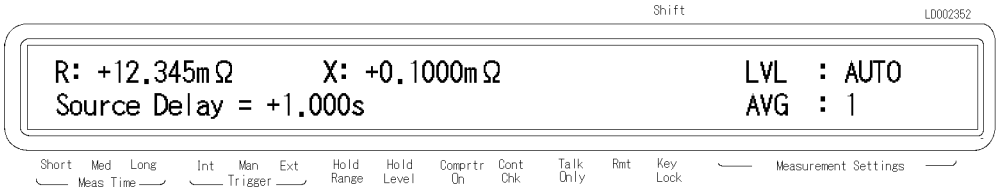


2. If you select `TrigDelay`, the trigger delay setup menu appears. Enter the desired trigger delay time using the numeric ENTRY keys. (For example, to set 0.5 sec, press Key Lock 0 Reset . 5.)
   You can set the trigger delay time from 0 sec to 9.999 sec.



3. Press Enter to set the value.

4. If you select `SourceDelay`, the source delay setup menu appears. Enter the desired source delay time using the numeric ENTRY keys. (For example, to set 0.5 sec, press Key Lock 0 Reset . 5.)
   You can set the source delay time from 0 sec to 9.999 sec.



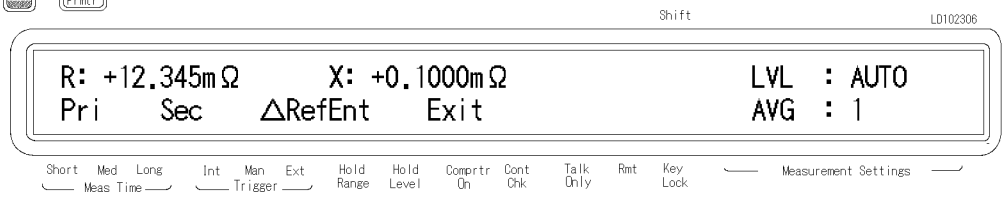
5. Press Enter.

6. Select `Exit` to exit the menu.

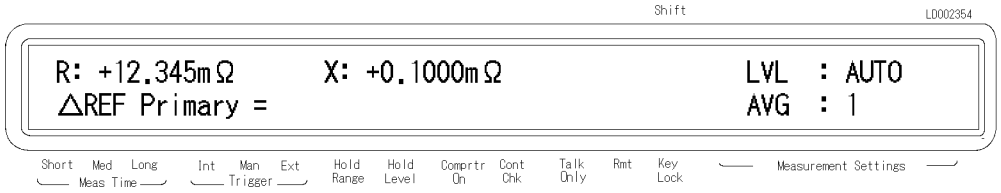
To Use Deviation Measurement Function

Setting the Deviation Reference Values

1. Press (blue) (△Mode Meas Prmtr). The deviation measurement menu is displayed.

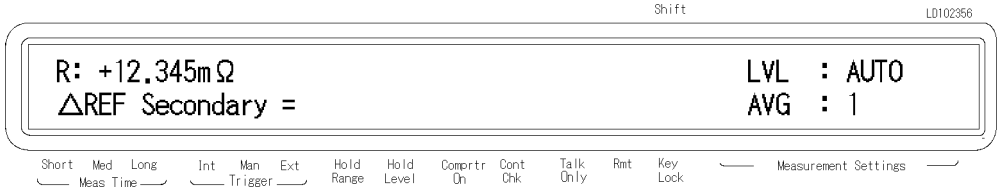


2. Select `RefEnt` using (↓) or (↑), and press (Enter). The 4338B displays the primary parameter reference setup menu.



   Enter the reference value using the numeric ENTRY keys, and press (Enter).

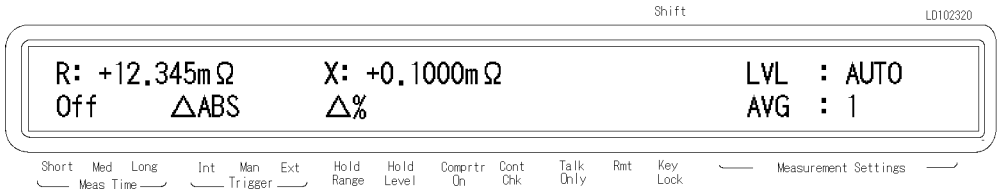
3. In the case of R—X, R—L or Z—θ measurement mode, the 4338B displays the secondary parameter reference setup menu.



   Enter the reference value using the numeric ENTRY keys, and press (Enter).

Selecting the Deviation Mode

1. If you select `Pri` from the deviation measurement menu, you can select the deviation measurement mode for the primary parameter.



`ΔABS`	measured value−reference
`Δ%`	(measured value−reference)/reference×100 %
`Off`	turns OFF the deviation measurement

   Select the desired mode using (↓) or (↑), and press (Enter).

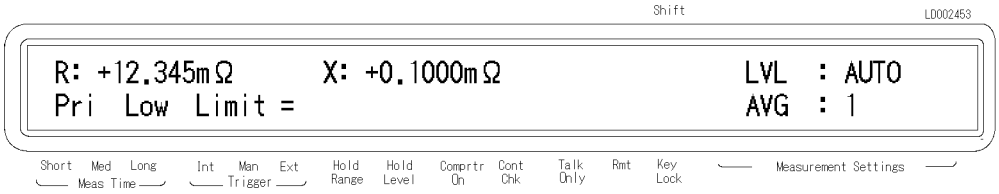
2. If you select `Sec`, the 4338B displays the same menu as above figure. You can select the deviation measurement mode for the secondary parameter in the same manner as the primary parameter.

3. Select `Exit` using (↓) or (↑) and press (Enter).

To Use Comparator Function

Setting the Limit Values

1. For setting the lower/higher limit of the primary parameter, press Sec Low / Pri Low / Sec High / Pri High . And for setting the lower/higer limit of the secondary parameter, press blue Sec Low / Pri Low / blue Sec High / Pri High .
   For example, if you press Sec Low / Pri Low , the primary parameter lower limit setup menu is displayed as follows:



2. Enter the limit value using the numeric ENTRY keys, and press Enter to enter the value. You can set the value from -9.999×10^{13} to 9.999×10^{13}.

Sorting

To start sorting,

Press blue Comprtr / 1. The **Comprtr On** annunciator(▼) turns ON.

To abort sorting,

Press blue Comprtr / 1. The **Comprtr On** annunciator(▼) turns OFF.

The sorting results are HIGH, IN, and LOW.

Where,

HIGH	greater than higher limit
IN	between higher limit and lower limit
LOW	less than lower limit

The 4338B shows the comparison results using the display, beeper, printer, and 16064B LED Display/Trigger Box. (To use the 16064B, see "Accessories Available" later in this chapter.)

- For result output to the display, see "To Select Display Mode" in the next page.
- For result output to the beeper, see "To Select Beeper Mode" later in the next page.
- For result output to the printer, see "To Print Measurement Data" later in this chapter.

To Use Contact Check Function —Monitoring the connection of test electrodes and DUT

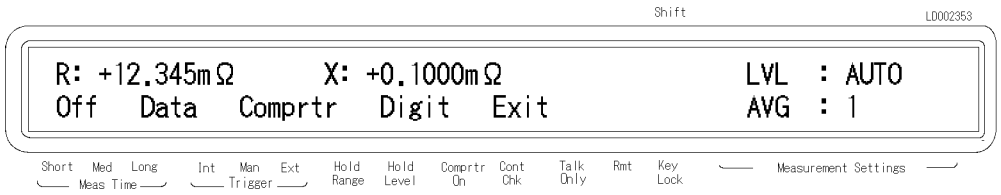
Press (blue) (Cont Chk 2). The **Cont Chk** annunciator(▼) appears, and contact check function is ON.

Press (blue) (Cont Chk 2) again to turn OFF the contact check function. The **Cont Chk** annunciator(▼) disappears.

When the contact check result is FAIL, the 4338B will display `N.C.` (No-Contact).

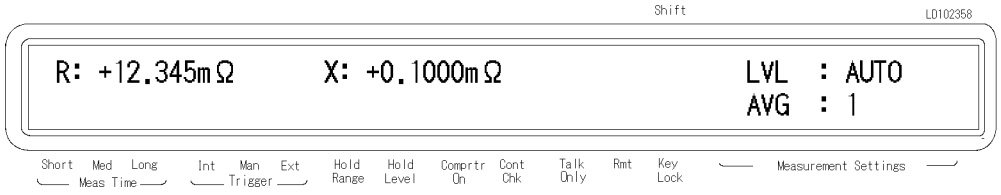
To Select Display Mode

1. Press (blue) (Disp Mode Show Setting).

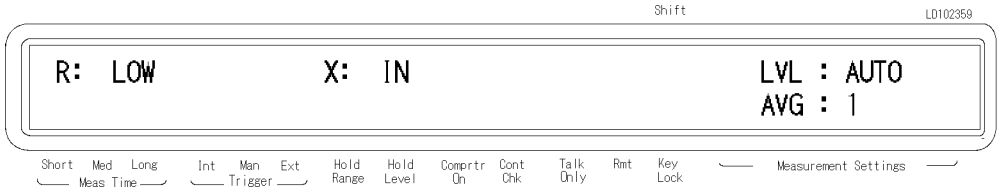


2. Use (←) or (→) to select a mode from `Data`, `Cmprtr`, `Digit` or `Off`.

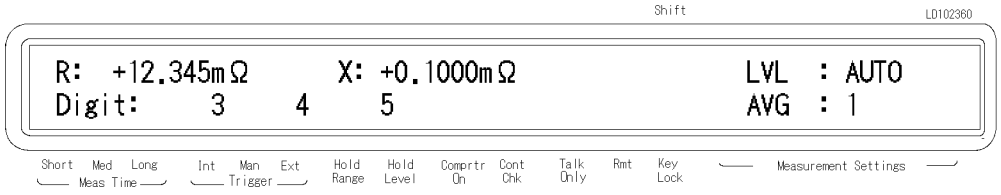
■ If you select `Data`, the 4338B displays the measurement result.



■ If you select `Cmprtr`, the 4338B displays the comparator result.



■ If you select `Digit`, the following menu appears, and you can select the display digits for the measurement data.

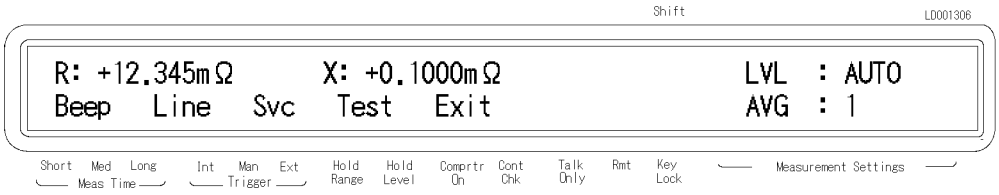


■ If you select `Off`, the 4338B will not display any measurement result (Display OFF mode).

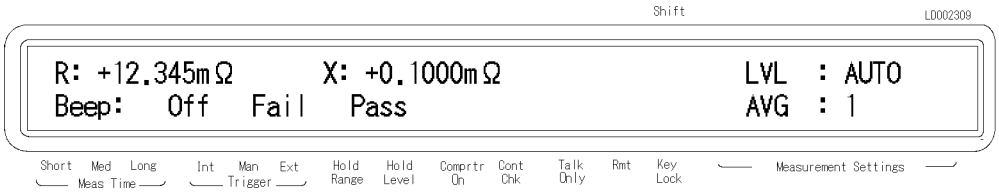
To Select Beeper Mode

To change the beeper mode for the comparator result reporting:

1. Press blue, Config (-).



2. Select `Beep` using ◁ or ▷ and press Enter to select.



`Fail`	Emits a beep when the comparison result is HIGH/LOW, Or the contact check result is FAIL.
`Pass`	Emits a beep when the comparison result is IN.
`Off`	No beep.

3. Select the beep mode using ◁ or ▷, and press Enter to exit to the previous display.
4. Select `Exit` using ◁ or ▷, and press Enter to exit.

To Print Measurement Data

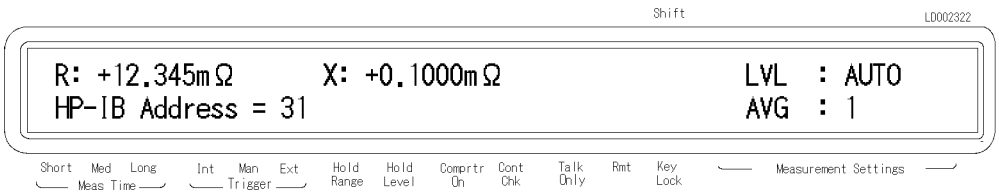
Setting the Printer

1. Use an GPIB compatible printer, set to the listen-always mode.
2. Connect the printer to the 4338B's GPIB port on the rear panel.
3. Turn the printer ON.

Printing

Set the 4338B to talk only mode (Set the 4338B's GPIB address to 31).

1. Press blue, Adrs (Lcl), 3, Comprtr (1).



2. Press Enter. The **Talk Only** annunciator(▼) turns ON, and the printer begins printing the measurement data.

   When the measurement parameter R is selected, the measurement result of the secondary parameter is +0.00000E+00, and the comparison result of the secondary parameter is +0.

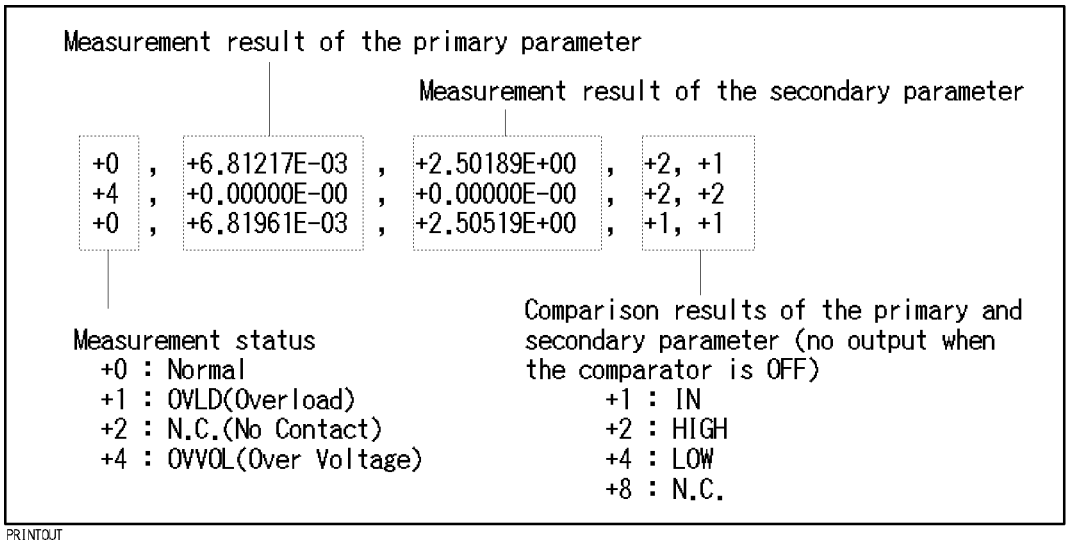


Figure 2-2. Printer Output

Disabling Printing

Change the GPIB address to an address other than 31 (for example, 17, which is the default setting).

Press Blue, Adrs Lcl, Comprtr 1, Min 7, Enter.

To Display the Current Settings

1. Press Disp Mode Show Setting.

   The 4338B displays the current settings in the Measurement Settings area of the LCD display. Each time Disp Mode Show Setting is pressed, the displayed menu is changed as follows:

   - Test signal level and Averaging rate
   - Trigger delay time and Source delay time
   - Comparator limits for the primary parameter
   - Comparator limits for the secondary parameter

To Trigger a Measurement

- In internal trigger mode—The 4338B makes continuous free-running measurements.
- In manual trigger mode—Press  when you want to trigger a measurement.
- In external trigger mode— Connect the external trigger source to the EXT TRIGGER terminal on the 4338B's rear panel, and apply a TTL level trigger signal to trigger a measurement. (For details, see the *4338B Operation Manual.*)
  Note that the 4338B must be set to the external trigger mode to be triggered from an external handler or the 16064B LED Display/Trigger Box.

If You Have a Problem

If any of the problems listed below occur, follow the instructions described.

If you find yourself lost when operating the 4338B

You can get back on track by:

To return to the measurement mode Press Enter several times. Select `Exit` if available.

To return to the default settings Press blue Reset. (If the reset is not accepted, confirm that the **Key Lock** annunciator is turned ON. See next.)

If the 4338B does not accept key input:

- Check whether or not the **Key Lock** annunciator is ON. If so:
  - Press blue Key Lock 0. The **Key Lock** annunciator turns OFF and the front-panel keys are unlocked.
  - Check that the 16064B LED display/trigger box is connected to the 4338B and it is set to lock out the keys. If so, unlock the keys from the 16064B.

If ------ or "OVLD" is displayed:

The measurement result is out of the measurable range. Check the DUT and make sure the measurement range is properly set.

Reference

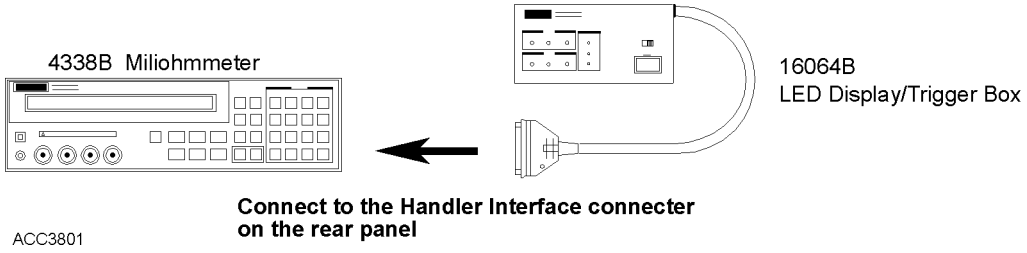
Default Settings

- Auto measurement : ON
(Auto level, auto range mode)
- Measurement parameter : R
- Deviation measurement : OFF
- Measurement time : MEDium
- Averaging rate : 1
- Trigger mode : Internal
- Trigger delay time : 0 ms
- Source delay time : 0 ms
- Comparator : OFF
- Display mode : Measurement data
- Display digit : 5
- Beep mode : FAIL mode
- SHORT correction data is cleared
- Contact check : OFF

Accessories Available

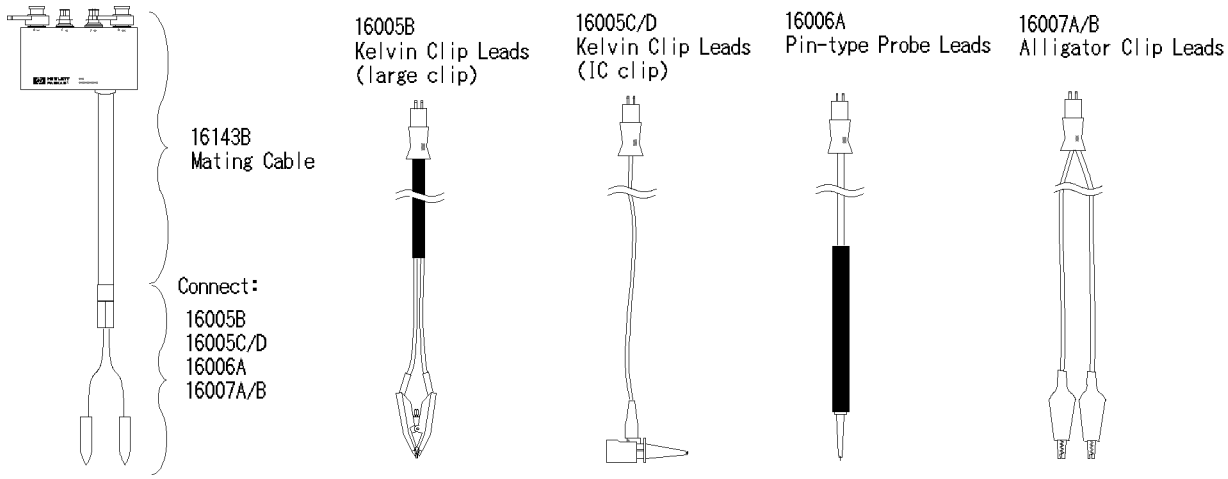
16064B LED Display/Trigger Box

The 16064B LED Display/Trigger Box triggers a measurement when its trigger key is pressed, and displays the comparison results using LEDs. It allows you to manually operate the comparator function of the 4338B.



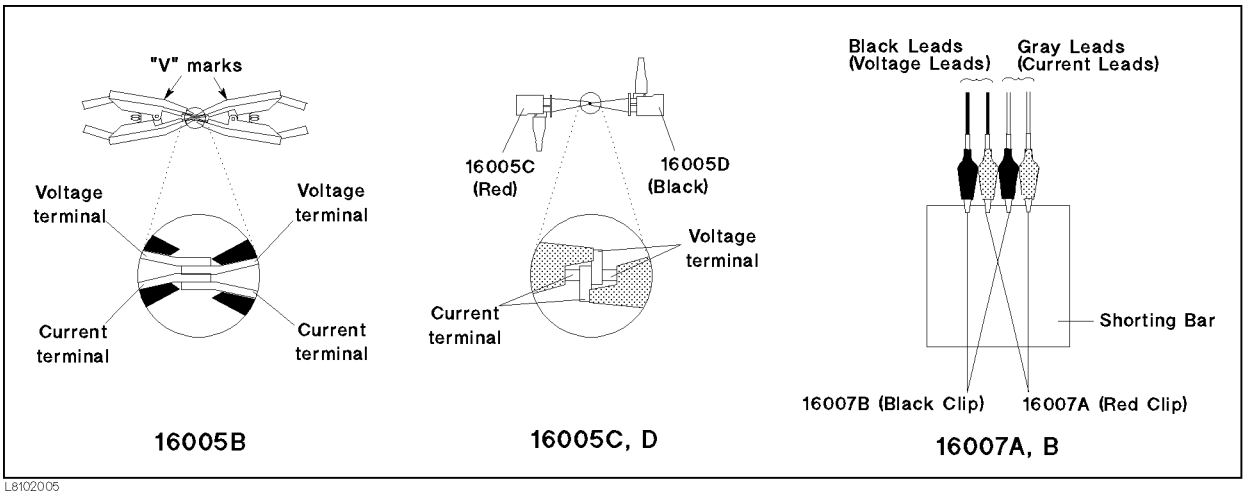
16338A Test Lead Set

Four types of test leads are available for the various types of DUTs.



Note In addition to using two of the same types of test leads for a measurement, you can use two different types of test leads together.

SHORT Configuration



L8102005

Figure 2-3. SHORT Configuration for Each Test Leads

DO NOT perform the SHORT correction when using the 16006A Pin-type Probe, or two test clips of different types. (It is difficult to achieve effective SHORT impedance.)

Measurement Range Setting

The available measurement range settings are 1 mΩ, 10 mΩ, 100 mΩ, 1 Ω, 10 Ω, 100 Ω, 1 kΩ, and 10 kΩ, which are limited by test level setting. See Figure 2-4.

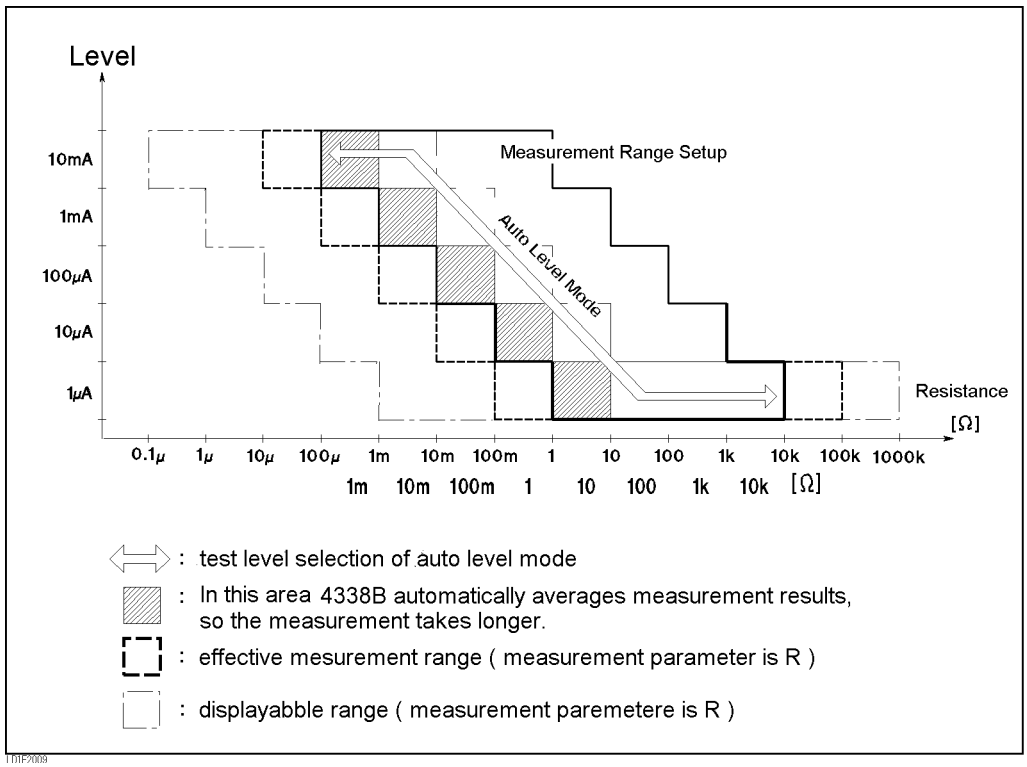


Figure 2-4. Measurement Range

Other Topics

For details on these functions, see the *4338B Operation Manual.*

- Initial Inspection — Chapter 1 of the *Operation Manual*
- Key Lock Function — Chapter 2 and Chapter 3 of the *Operation Manual*
- GPIB — Chapter 4 and Chapter 5 of the *Operation Manual*
- Handler Interface — Chapter 3, Chapter 6, and Appendix B of the *Operation Manual*
- Save / Recall — Chapter 2 and Chapter 3 of the *Operation Manual*
- Backup Function — Chapter 3 of the *Operation Manual*
- Specification — Chapter 8 of the *Operation Manual*
- Maintenance — Chapter 9 of the *Operation Manual*
- Error Messages — "Error Messages" in back of the *Operation Manual*

3

Measurement Examples

In This Chapter

The 4338B's features and benefits are discussed, which you can investigate by trying the typical measurement examples described in this chapter.

Testing Contanct of Electromechanical Devices

Contact failure of electromechanical devices in low current circuits is a key issue in determining these components' reliability. The 4338B offers selectable low level ac test signals (1 μA to 10 mA), so now low current conditions can be characterized. A high resolution of 5 digits measurement result allows you to determine the slightest differences in contact resistance of devices. The ac (1 kHz) test signal eliminates potential errors introduced by thermo-electric effects across the DUT contacts.

- Auto Measurement Mode

  When performing gross continuity testing where the test signal level is not a significant factor in the test, the auto measurement function allows the 4338B to select the appropriate test signal level and measurement range.

- Test Voltage Limit

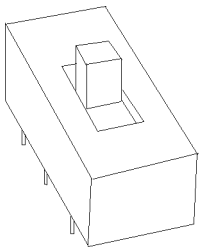
  If the peak voltage across the DUT exceeds 20 mV, the 4338B disables the test voltage output. It prevents the test signal voltage applied across the DUT from disturbing the state of the oxidation film formed between the contacts.

Measuring the Contact Resistance of Switch

This example shows the procedure to measure contact resistance of switch. Using the auto measurement function reduces the test measurement complexity due to selecting the test level and measurement range according to the DUT.

DUT

Switch



Requirements

Test Fixture : 16143B Mating cable
16005C IC Clip Leads (red clip)
16005D IC Clip Leads (black clip)

Measurement Setup

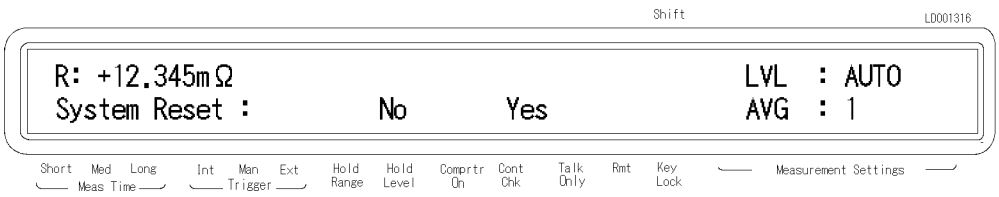
Measurement parameter : R

Use Auto Measurement Mode
(Auto level, Auto measurement range)

Measurement Procedure

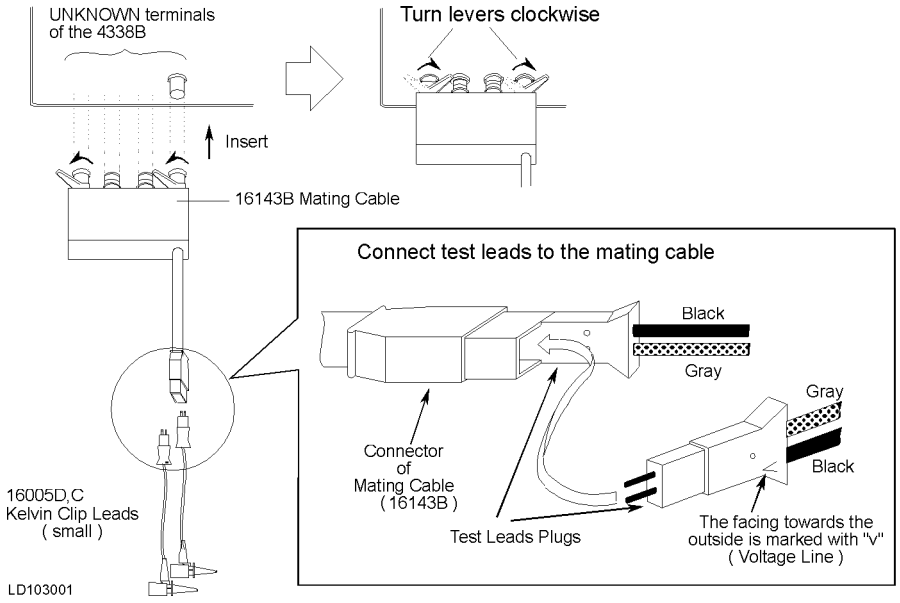
1. Reset the 4338B.

   a. Press  .



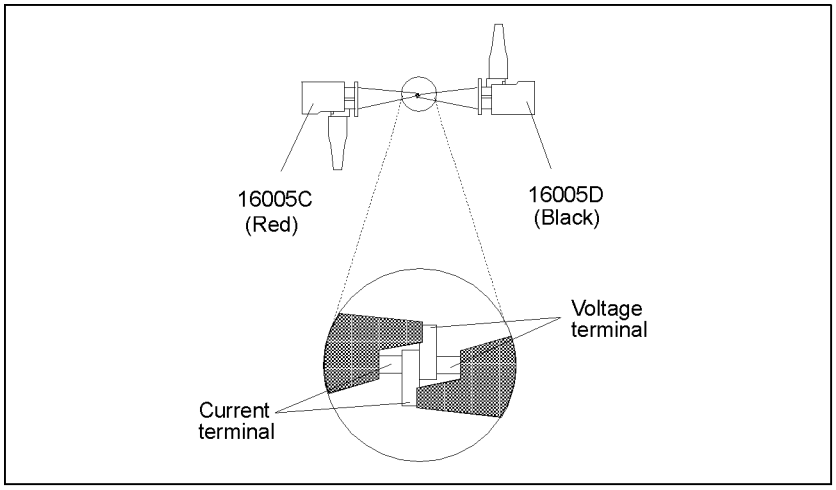
   b. Press  until `Yes` blinks, and press .

2. Connect test fixture to the UNKNOWN terminals as follows:

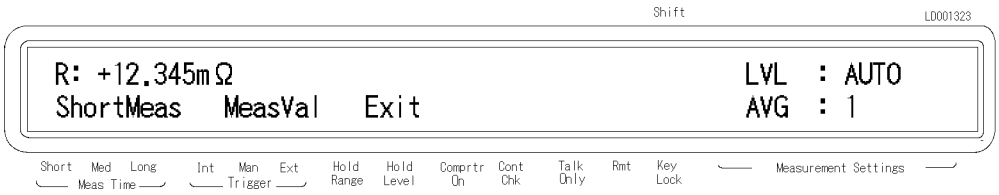


3. Perform a SHORT correction.

   a. Short the test lead clips together as shown in the following figure:



b. Press blue (Short) 4.



c. Press ⇦ or ⇨ to select `ShortMeas`, and press Enter.

After a while, the SHORT correction will be completed with the message "`Short Correction Complete`". (If "`Out Of Limit`" is displayed, see "Performing a SHORT Correction —Canceling the residual impedance in series with the DUT" in Chapter 2.)

4. Connect the DUT to the test fixture.

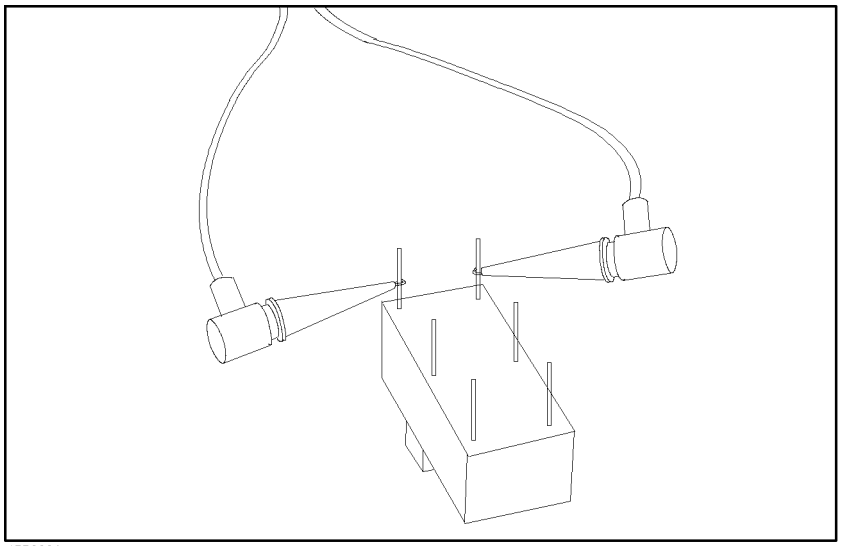
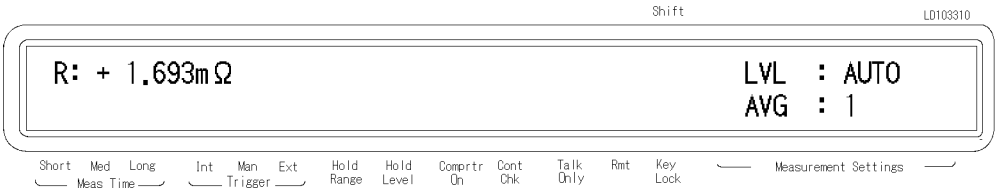


Figure 3-1. Connecting the DUT

The measurement result will be displayed. The following figure shows the typicalmeasurement result display.



For More Information

- To print out the measurement result — See "To Print Measurement Data" in Chapter 2
- To select other measurement parameters — See "To Select Measurement Parameter" in Chapter 2
- To select measurement level — See "To Set Test Signal Level" in Chapter 2

Evaluating Battery Internal Resistance

The 4338B's voltage protection on the UNKNOWN terminals allows you to evaluate internal resistance of the battery (42 V maximum).

The 1 kHz ac test signal is the best solution for evaluating the internal resistance of batteries because it avoids dc energy consumption.

Measuring Battery Internal Resistance

DUT

Battery ($\leq$ 42 V)



Requirements

Test Fixture : 16143B Mating cable

16006A Pin-type Probe Leads
(use two leads)

Measurement Setup

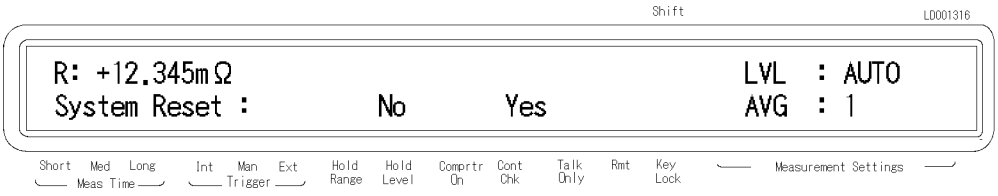
Measurement parameter : R
Measurement Range : Auto range mode
Test signal level : 1 mA[1]

1 If the internal resistance of the battery is higher than 10 Ω, set the test level 100 μA, not to be OVLD(overload).

Measurement Procedure

1. Reset the 4338B.
   a. Press 

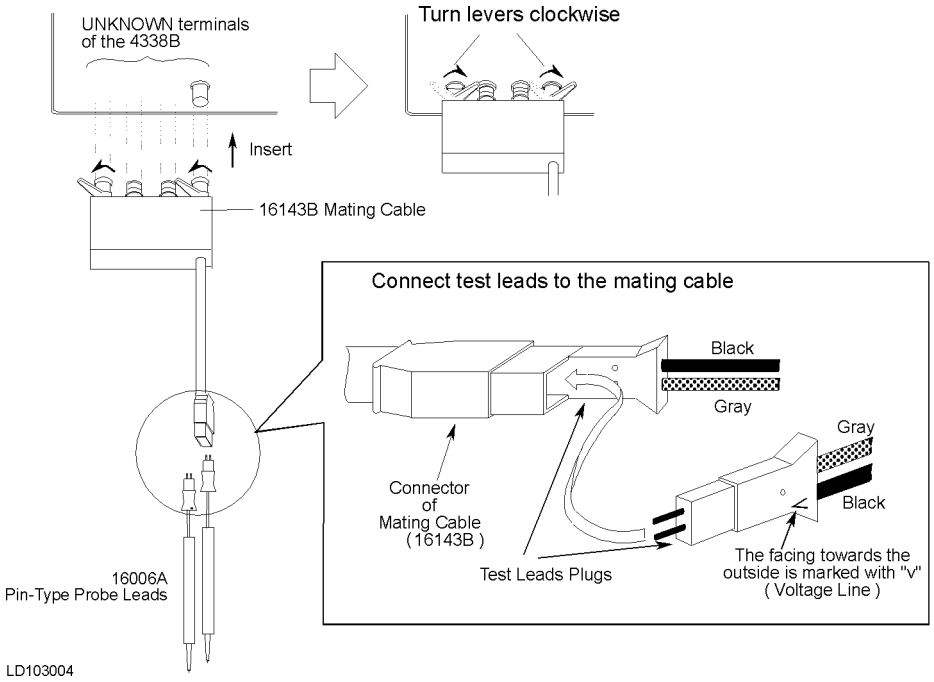
.



   b. Press  until Yes blinks, and press 

.

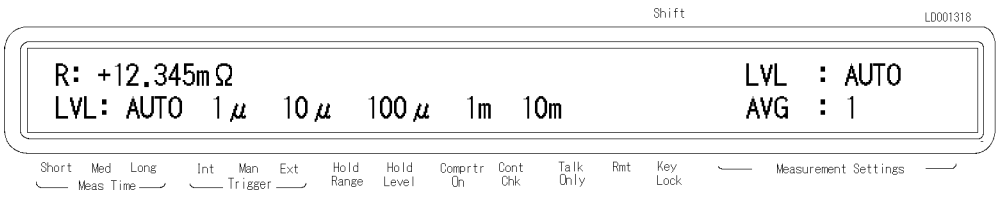
2. Connect the test fixture to the UNKNOWN terminals.



Note DO NOT perform SHORT correction when using the 16006A Pin-type Probe.

3. Set the test signal level to 1 mA (or 100 μA if R_{DUT}>10 Ω:).

   a. Press Level.



   The blinking level is the level currently selected.

   b. Press ◁ or ▷ to select "1m" (or "100μ" if R_{DUT}>10 Ω).

4. Connect the DUT.

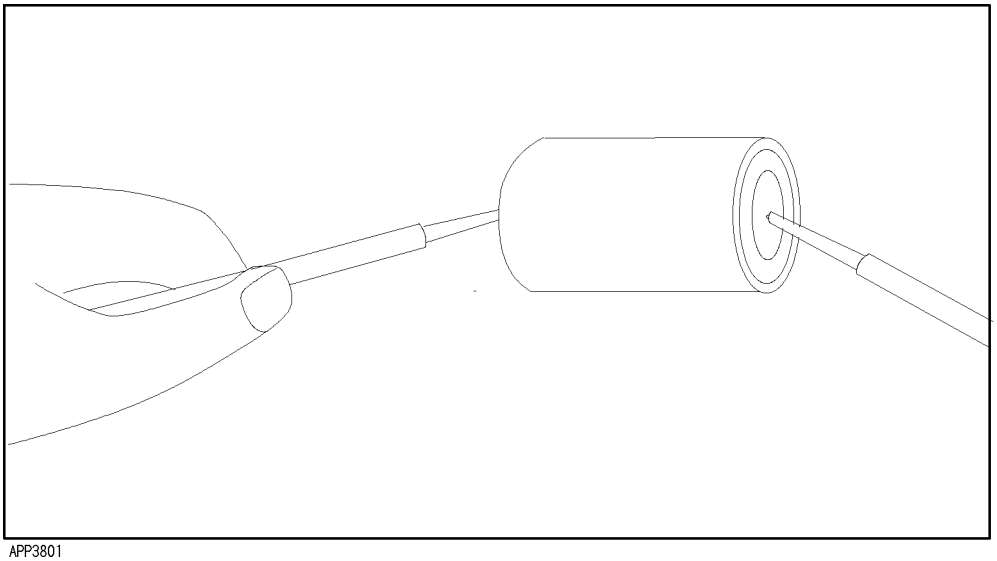
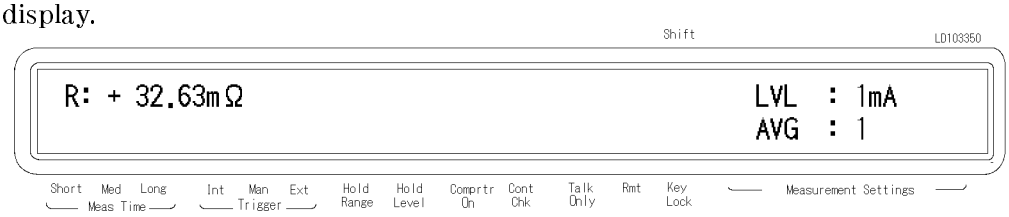


Figure 3-2. Connecting the DUT

The measurement result is displayed. The following figure shows the typical measurement result display.



For More Information

- To print out the measurement result — See “To Print Measurement Data” in Chapter 2
- To select other measurement parameters — See “To Select Measurement Parameter” in Chapter 2

Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

We're here to make your life easier. How can we help you today?

(217) 352-9330 | sales@artisantg.com | artisantg.com

ARTISAN® TECHNOLOGY GROUP