

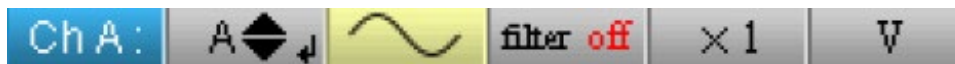









# Model OX5042 Handscope Instructions for General Electrical Measurements

## First-Time Setup


1. Turn the instrument ON.
2. Press **Scope Mode** .
3. Press **Channel A** . The main menu appears as follows at the bottom of the screen (default settings):





4. Press **Channel B** .
5. Press the right navigation key  until the Multiplier field is highlighted. By default this is set to **x1**.
6. Press the down navigation key  until the **x1000** setting is highlighted.
7. Press **Enter**  to save the setting.
8. Press  to highlight the Units field.
9. Press  to highlight the **A** setting.
10. Press  to save the setting. The main menu now appears as follows:

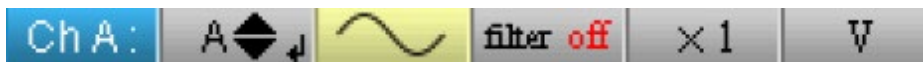



**NOTE:** These settings will remain in effect (even if the instrument batteries are drained or removed) until changed by the user.

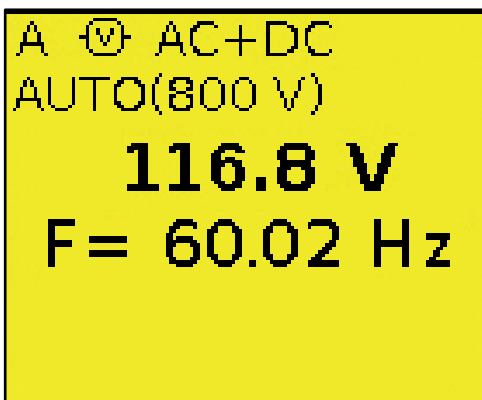
11. Apply the voltage to be measured to Channel A and current to Channel B.
12. Press the Auto Set  button to properly scale the measurements.


# AC Voltage Measurement

1. Attach the BNC adapter (shown on right) to the Channel A input.
2. Attach the 10' black and red leads to the adapter.
3. Select the alligator or pencil tip probes and attach them to the leads as needed.
4. Attach the test leads to the measurement point.
5. Turn the instrument ON.
6. Press **Scope Mode** .
7. Press **Channel A** . Verify that the main menu appears as follows:




8. Press **Meter Mode** . The voltage measurement appears on the screen (see the example below):



9. Press **A**  and verify that Auto is ON in the menu at the bottom of the display. If it isn't, use the right navigation key to highlight Auto then the up or down navigation key to select ON.
10. The bottom display should appear as follows:



**NOTE:** If this menu screen is not displayed, press the **Meas**  key. Then, press the **A** channel key to show the menu.

11. Read the voltage and record it: \_\_\_\_\_



# AC Current Measurement


1. Select the current probe based on the current to be measured:
  - MN251T (if in your kit) for measuring from 1 – 200A
  - MN379T (if in your kit) for measuring from 0.05 – 120A
  - MiniFlex sensor for measuring 10 – 3000A.

2. Attach the current probe to the **Channel B** input.


3. Clip the current probe around the conductor to be measured.

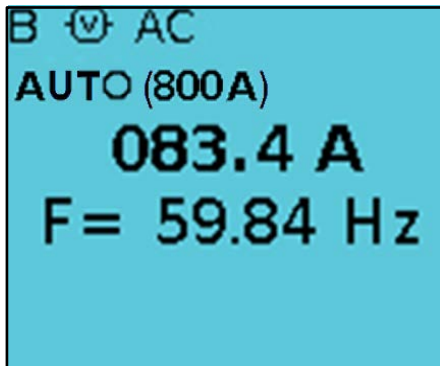
4. Turn the instrument ON.


5. Press **Scope Mode** .

6. Press **Channel B** . Verify the main menu appears as follows:




7. Press **Meter Mode** . The current measurement appears on the Channel B display (see the example below):



8. Press **B**  and verify that Auto is ON in the menu at the bottom of the display. If it isn't, use the right navigation key to highlight Auto then the up or down navigation key to select ON.


9. The bottom display appear as follows:

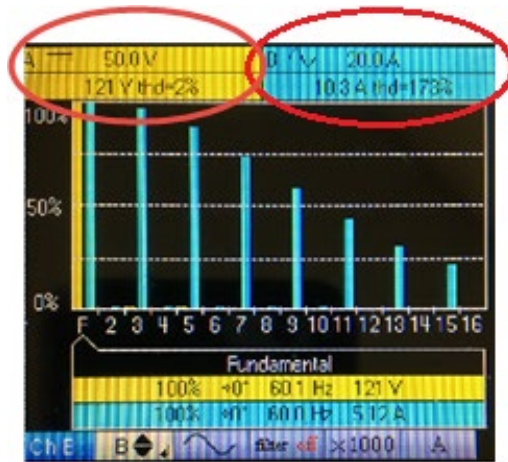


**NOTE:** If this menu screen is not displayed, press the **Meas**  key. Then, press the **B** channel key to show the menu.

10. Read the current and record it: \_\_\_\_\_

# AC Current Harmonics


1. Set up the instrument for current measurement, as instructed by steps 1 through 6 of the “AC Current Measurement” section above.
2. Press **Harmonics Mode** . The THD (Total Harmonics Distortion) percentage appears in the upper right corner on the Channel B display (see the example below):

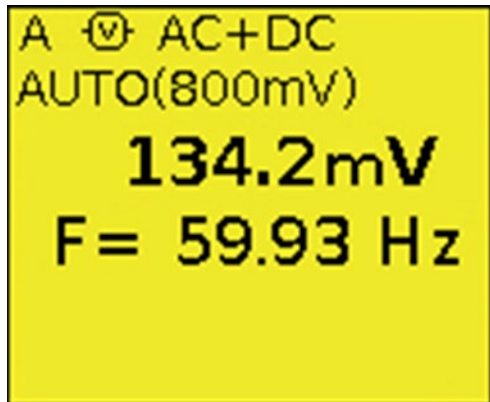


3. Record the THD percentage: \_\_\_\_\_ %

**NOTE:** If either channel is not connected, an error message appears. To eliminate the error and clear the message, rapidly press twice the key for the channel causing the error. This turns OFF the channel, removes the error message, and displays the THD of the active channel. The channel that is OFF is grayed out. To re-activate the channel, press its button.

# Millivolt Drop

1. Set up the instrument for voltage measurement, as instructed by steps 1 through 6 of the “AC Voltage Measurement” section on page 2 above.
2. Press **Channel A** .
3. Move the test leads to each measurement point, and record each millivolt drop:



_____	_____	_____
_____	_____	_____
_____	_____	_____

If applicable, record the completed measurements in your report software.



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