


# Model OX5042 & OX5042B Handscope


## Instructions for General Electrical Measurements

### First-Time Setup

1. Turn the instrument ON.

2. Press **Memory Mode** .


3. Use the left/right keys to highlight the .cfg icon 



4. Use the up/down keys to select the Load File icon.  and press Enter. 


5. Press the left arrow key twice to select files and the up/down keys to highlight default.cfg



6. Press Enter, then Right Arrow, and then Enter again to load the default configuration.

7. Press **Meter Mode**  then **Channel B** .

8. Press the right navigation key  until the Multiplier field is highlighted. By default this is set to **x1**.

9. Press the down navigation key  until the **x1000** setting is highlighted. 


10. Press **Enter**  to save the setting.

11. Press  to highlight the Units field. Press  to highlight the **A** setting.

12. Press  to save the setting. The main menu now appears as follows:



13. Press **Memory Mode** .



14. Use the left/right keys to highlight the .cfg icon 

15. Use the up/down keys to highlight the Save mode  and press Enter. 

16. Use the up key to highlight the Save File icon  and press Enter. 

**This completes the First Time Setup**


# 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 **Meter Mode**  and press **Channel A** .

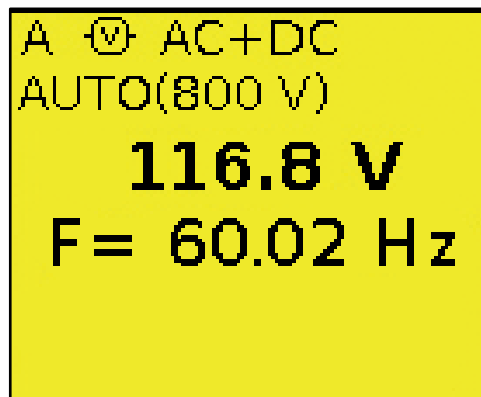


The bottom display should appear as follows:





**NOTE:** If this menu screen is not displayed, press the channel **A** key  again. Verify that AUTO is ON in the menu at the bottom of the display. If AUTO is not ON, see “Loading a Saved Configuration” at the end of this document.

7. The voltage measurement appears on the screen (see the example below):



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

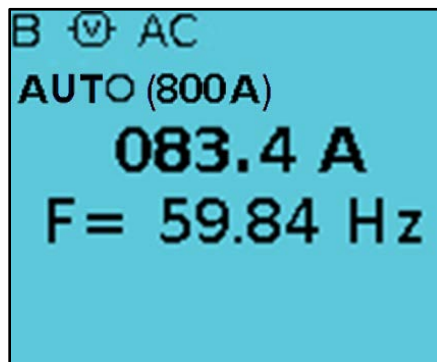
# AC Current Measurement

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.
7. Press **Meter Mode**  then press **Channel B** 
8. The bottom display should appear as follows:





**NOTE:** If this menu screen is not displayed, press the B channel key again.

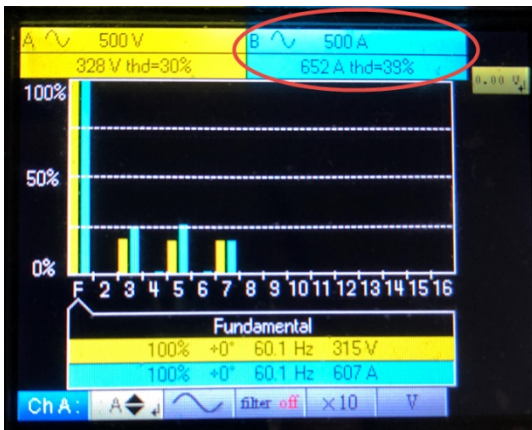
9. Verify that Auto is ON and X1000 in the menu at the bottom of the display. If AUTO is not ON, see “Loading a saved configuration” at the end of this document
10. The current measurement appears on the Channel B display (see the example below):



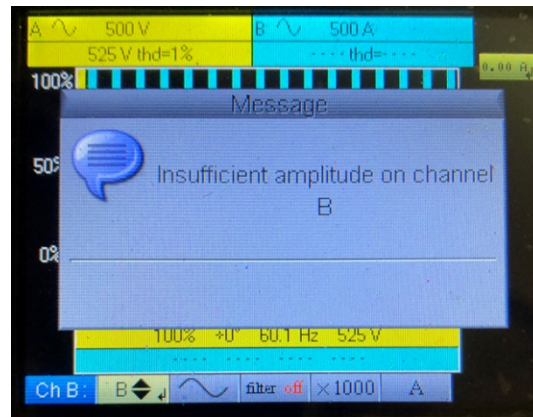
11. Read the current and record it: \_\_\_\_\_

# AC Voltage and Current Harmonics

1. Press **Harmonics Mode** . Connect the voltage leads and attached the current probe. Press Auto Set 
2. The Voltage and Current THDs (Total Harmonics Distortion) percentages appear on the top of the display (see the example below):




Typical Display





Error Message (see note below)

Record the Voltage THD percentage: \_\_\_\_\_ %


Record the Current THD percentage: \_\_\_\_\_ %

**NOTE:** If either channel is not connected, an **Insufficient amplitude** error message, as shown above, appears. If pressing the Auto Set  does not eliminate the error, rapidly press the channel key for the channel causing the error twice. This turns OFF that channel, removes the error message, and displays the THD of the active channel. The channel that is OFF is grayed out. To re-activate **a channel that is turned OFF**, press its channel button one more time.

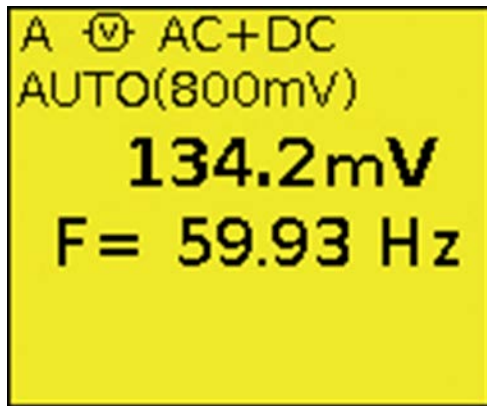
# Millivolt Drop

1. Press Meter Mode  and then press **Channel A** .
2. Verify the following menu appears.



**NOTE:** If this menu screen is not displayed, press the channel **A** key  again. Verify that Auto is ON in the menu at the bottom of the display. If AUTO is not ON, see “Loading a Saved Configuration” at the end of this document.

3. Move the test leads to each measurement point, and record each millivolt drop:









_____	_____	_____
_____	_____	_____
_____	_____	_____

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









## Three most IMPORTANT things to remember

- 1) **Make sure you are in “AUTO” for Meter mode**
- 2) **Turn Channels OFF when they are not being used**
- 3) **Scale factor must be set correctly for each mode**

## Loading a Saved Configuration

1. Press **Memory Mode** .
2. Use the left/right keys to highlight the .cfg icon   
3. Use the up/down keys to select the Load File icon.  and press Enter. 
4. Press the left arrow key twice to select files and the up/down keys to highlight setup\_00.cfg
5. Press Enter, then Right Arrow, and then Enter again to load the saved configuration.

## Saving a Configuration

1. Press **Memory Mode** .
2. Use the left/right keys to highlight the .cfg icon   
3. Use the up/down keys to highlight the Save mode  and press Enter. 
4. Use the up key to highlight the Save File icon  and press Enter. 



**CHINA** - Shanghai Pu-Jiang - Enerdis Instruments Co. Ltd  
3F, 3<sup>rd</sup> Building - N° 381 Xiang de Road  
200081 Shanghai  
Tel: +86 21 65 21 51 96 - Fax: +86 21 65 21 61 07

**DEUTSCHLAND** - Chauvin Arnoux GmbH  
Ohmstraße1 - 77694 Kehl / Rhein  
Tel: +49 7851 99 26-0 - Fax: +49 7851 99 26-60

**ESPAÑA** - Chauvin Arnoux Ibérica S.A.  
C/ Roger de Flor, n°293 - 1a Planta - 08025 Barcelona  
Tel: +34 902 20 22 26 - Fax: +34 934 59 14 43

**FRANCE** - Chauvin Arnoux Ltd  
190, RUE CHAMPIONNET - 75876  
Paris Cedex 18 France  
Tél: +33 1 44 85 44 85 - Fax : +33 1 46 27 73 89  
Export Tél: +33 1 44 85 44 38  
Export Fax: +33 1 46 27 95 59

**ITALIA** - Amra SpA  
Via Sant'Ambrogio, 23/25 - 20846 Macherio (MB)  
Tel: +39 039 245 75 45 - Fax: +39 039 481 561

**ÖSTERREICH** - Chauvin Arnoux Ges.m.b.H  
Slamastrasse 29/2/4 - 1230 Wien  
Tel: +43 01 61 61 9 61-0 - Fax: +43 01 61 61 9 61-61

**UNITED KINGDOM** - Chauvin Arnoux Ltd  
Unit 1 Nelson Ct - Flagship Sq - Shaw Cross Business Pk  
Dewsbury, West Yorkshire - WF12 7TH  
Tel: +44 1924 460 494 - Fax: +44 1924 455 328

**SCANDINAVIA** - CA Mätssystem AB  
Sjöflygvägen 35 - SE 18304 TÄBY  
Tel: +46 8 50 52 68 00 - Fax: +46 8 50 52 68 10

**SCHWEIZ** - Chauvin Arnoux AG  
Moosacherstrasse 15 - 8804 AU / ZH  
Tel: +41 44 727 75 55 - Fax: +41 44 727 75 56

**MIDDLE EAST** - Chauvin Arnoux Middle East  
P.O. Box 60-154 - 1241 2020 Jal el Dib (Beirut) - Lebanon  
Tel: +961 1 890 425 - Fax: +961 1 890 424

**USA** - Chauvin Arnoux Inc - d.b.a AEMC Instruments  
15 Faraday Dr. - Dover, NH 03820  
Tel: +1 (800) 945-2362 - Fax: +1 (603) 742-2346  
Export Tel: +1 (603) 740-7520 - Fax: +1 (603) 740-7550