eec
AN IKONIX BRAND

8500 Series Quick Start Guide

Programmable AC Power Source

MODELS **8505, 8512, 8520, 8530, 8540, 8560**

POWER CHECKLIST

Power down output while connections are made. Output & input cabling have unique AWG carrying capacity. *(Be sure to use the appropriate gauge for your application)* Work in a safe and orderly manner, your test station should always be neat. Educate unqualified personnel of test area dangers. Refrain from touching test connections and product while testing.

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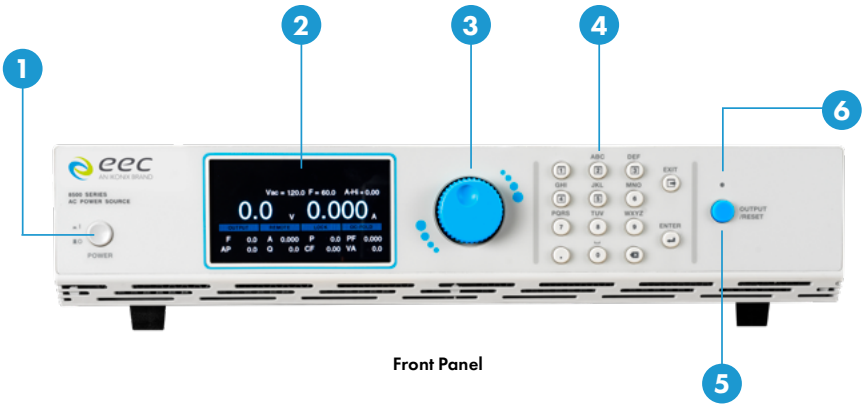
WARNING: An AC Power Source produces voltages and currents that can cause harmful or fatal electrical shock. This guide was created for operators who have some familiarity with high voltage/current testing applications. To prevent accidental injury or death, strictly follow all warnings within this guide.

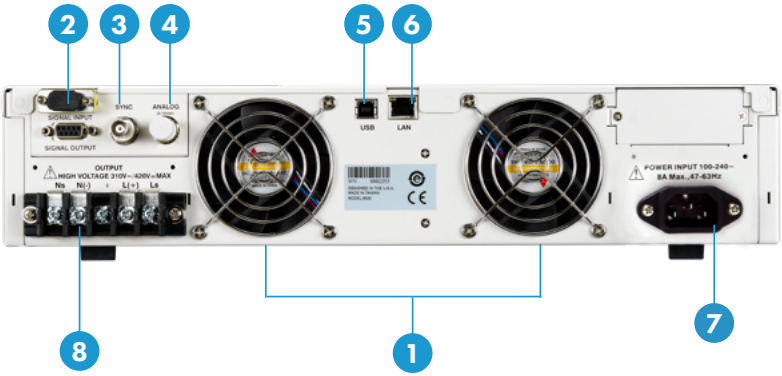
FRONT PANEL CONTROLS



Front Panel

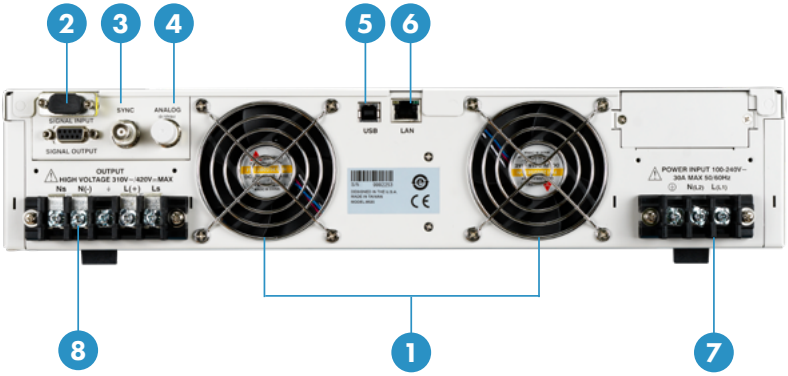
1. **Power Switch** - Power switch to power the source ON (|) and OFF (0).
2. **Graphic Display** - 480 x 272 TFT LCD.
3. **Rotary Knob** - Multifunctional rotary knob.
4. **Number Keypad** - Numeric and multifunctional keys.
5. **Output Button** - This button is used for starting and resetting a test.
6. **Output Active LED Indicator** - This LED will illuminate whenever the output of the source is active.

BACK PANEL CONTROLS

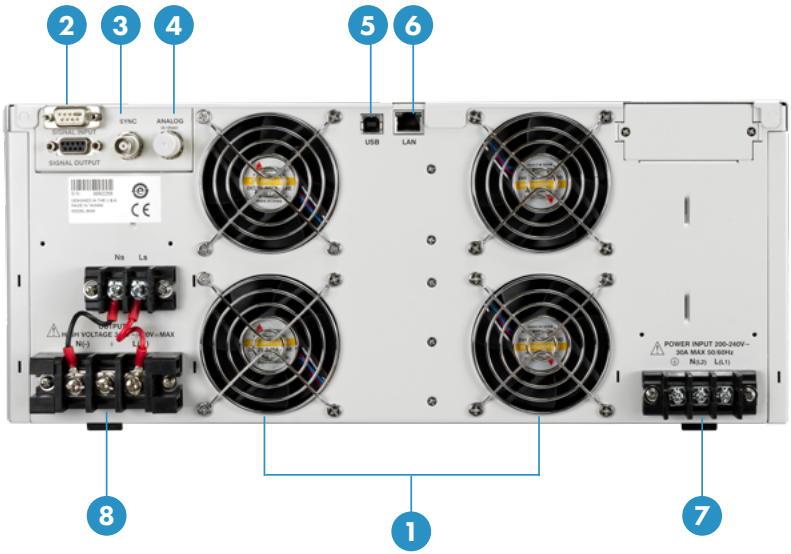


8505 Back Panel

BACK PANEL CONTROLS CONT.



8512 and 8520 Back Panel



8540 Back Panel

BACK PANEL CONTROLS CONT.

1. **Thermal Fans** - Used to cool the instrument. Automatically controlled.

2. **Signal Input/Output Connectors**
   - **a. Signal Input:** 9-Pin D-type subminiature male connector for remote control of OUTPUT ON, OUTPUT OFF/RESET, Output Verify, File Recall, Trigger, and REMOTE INTERLOCK DISABLE functions.
   - **b. Signal Output:** 9-Pin D-type subminiature female connector for monitoring FAIL and TEST-IN-PROCESS output relay signals.

3. **Sync Output Connector** - Provides the capability to monitor a 5 Vdc output signal.

4. **Analog Input Signal Connector 10V (This function is currently not available)** – The 10V analog connector allows you to remotely set the voltage applied to the device under test and measure the actual voltage and current.

5. **USB Interface Port** - Interface used to control, program, and capture data via a serial interface.

6. **Ethernet LAN Interface Port** - Interface used to control, program, and capture data via a LAN.

7. **Input Power Terminal Block/Receptacle** – Model 8505 has a standard input receptacle. Models 8512, 8520, and 8540 come with terminal block to connect input power lines to the instrument. Line, Neutral, and Earth Ground screw terminals provide a secure connection. Please reference the instrument specifications and section 2.5 Power Cable of the user manual for details.

8. **Output Terminal Block** – Terminal block to connect output power lines for the device under test or load. Line, Neutral, Ground, Sense(L) and Sense(N) screw terminals provide a secure connection. Please reference the instrument specifications and section 2.5 Power Cable for details on output wire specifications.

Functional Keys

Soft Keys	Description
All keys	Press any key on the keypad (except for the OUTPUT/RESET key) to drop down the main menu.
Multi-functional keys 1-5	Allows you to change the output mode, create/edit/load test files, select System Settings, and select meter. The functions of these keys change depending on the output mode and menu you are in.
Enter	Allows you to save parameters and values.
Exit	Allows you to exit the current screen.
Output/Reset	Allows you to start output and abort/reset a test.

Mode and File

To program a test file, you must first specify the output mode. This power source will save the test files for each output mode. Once you select the output mode, you can then start programming test files.

1. To select the output mode, press any key on the keypad from the test screen, the drop-down menu bar will appear on the top of the screen.

2. Press the number 1 key on the keypad to enter the Mode menu. The selections for Mode will be displayed on the menu bar, all associated with a number.

3. Once the mode has been selected, press any key to drop down the menu bar then press the number 2 key on the keypad to enter the File menu.

4. The File screen will be displayed and the selections on the menu bar will change. The menu bar of the File menu will display the selections to Add, Edit, or Load a test file. The Next selection on the menu bar will not do anything. To start adding a test file press the number 1 key on the keypad to select Add.

5. The next screen will display a field with a blinking cursor to enter a name for the file. Use the keypad to enter a name for the test file (23 character limit).

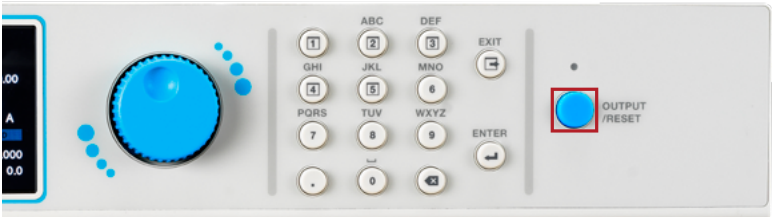
6. After entering the file name press the ENTER key on the keypad to save the file name and display the test parameters for editing. The test parameters can be edited using a combination of the rotary knob and keypad. To edit a test parameter, use the rotary knob to highlight the parameter then press the rotary knob to edit the parameter. Use the rotary knob or keypad to edit the test parameter value. The available range or settings for the test parameter being edited will be displayed at the bottom of the screen. Once the desired value of the test parameter is entered press the rotary knob or the ENTER key on the keypad to save the value and move to the next test parameter.

7. Once all test parameters have been programmed press the EXIT key on the keypad and the screen will display your newly created test file. When you are ready to test, press the number 3 key on the keypad to select Load and the screen will change to the test screen. The power source will start outputting if you press the OUTPUT/RESET key on the front panel. Make sure all the output connections are secure and all other safety precautions are taken before performing a test.

Perform Test

1. Once a test file is loaded, the power source is ready to start outputting. Make all the necessary test connections to the DUT (Device Under Test) and perform all safety measures before performing the test. Pressing the OUTPUT/RESET key will start a test. All meters on the screen will display the live test data.

2. To abort a test press the OUTPUT/RESET.



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