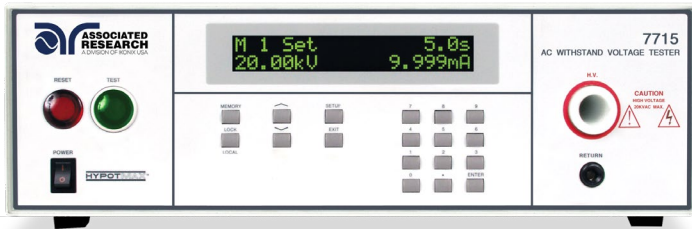# Quick Start Guide

HypotMAX®

Models 7705, 7710, 7715, 7720

SAFETY CHECKLIST

Survey the test station. Make sure it is safe & orderly.

Always keep unqualified/unauthorized personnel away from the test area.

Familiarize yourself with safety protocols in the event of a problem.

Exercise caution and never touch products or connections during a test.

Train operators. Never touch clips directly and always connect the return lead first.

**Y**ou should always know when a test is being performed.

WARNING: THIS GUIDE WAS CREATED FOR OPERATORS HAVING SOME FAMILIARITY WITH ELECTRICAL SAFETY TESTING. AN ELECTRICAL SAFETY TESTER PRODUCES VOLTAGES AND CURRENTS THAT CAN CAUSE HARMFUL OR FATAL ELECTRIC SHOCK. TO PREVENT ACCIDENTAL INJURY OR DEATH, THESE SAFETY PROCEDURES MUST BE STRICTLY OBSERVED WHEN HANDLING AND USING A TEST INSTRUMENT. CONTACT US AT INFO@ARISAFETY.COM FOR MORE INFO ON HOW TO GET TRAINED ON ELECTRICAL SAFETY TESTING.

FRONT PANEL CONTROLS
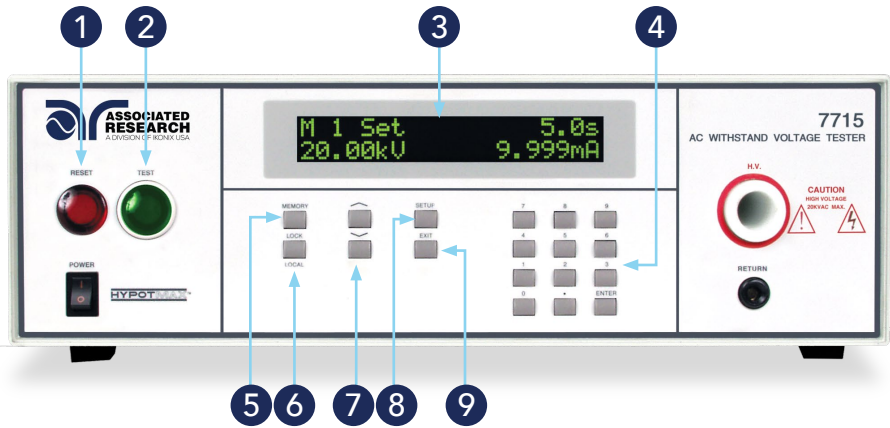
1. **RESET BUTTON:** Resets the instrument. If a failure condition occurs during a test, pressing this button will reset the system, shut off the alarm and clear the failure condition. The Reset button must be pressed before performing another test or changing any of the setup parameters. This button also serves as an abort signal to stop any test in progress.

2. **TEST BUTTON:** Starts a test.

3. **LCD DISPLAY:** The 2x20-character display indicates test function, memory location, test parameter and failure type as well as test measurements during a test.

4. **DATA ENTRY KEYS:** Keys to input numeric parameters.

5. **MEMORY KEY:** Use this key to select one of the 50 memories to modify or run stored test parameters.

6. **LOCK/LOCAL KEY:** Enters key lockout mode. Use this key when you wish to go from the Remote operation of the instrument to the Local mode.

7. **UP-DOWN ARROW KEYS:** Keys to cycle through test parameter setup.

8. **SETUP KEY:** Use this key to enter the setup menu and view or change the display contrast, alarm volume, and PLC remote settings.

9. **EXIT KEY:** Use this key to exit any menu or to clear an unwanted entry in a parameter field.

FRONT PANEL CONTROLS
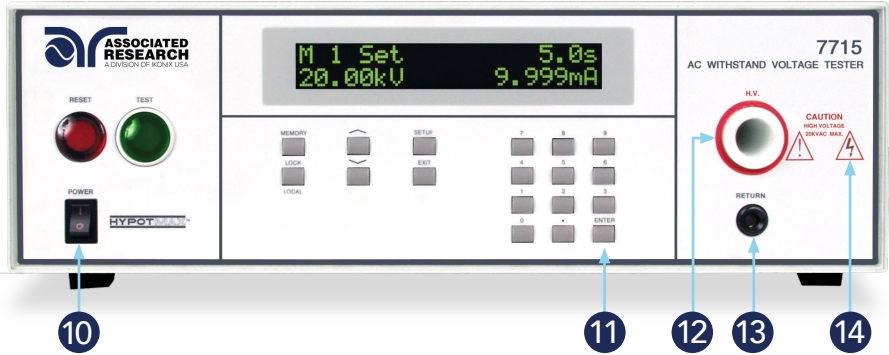
10 **POWER SWITCH:** Rocker style power switch with international ON (|) and OFF (0) markings.

11 **ENTER KEY:** Use the ENTER key to accept numeric data for parameter settings.

12 **HIGH VOLTAGE OUTPUT TERMINAL:** Connector used to attach the high voltage test lead, adapter box high voltage lead or test fixture high voltage lead to the instrument. This connection provides the high voltage used during a Hipot test.

13 **RETURN OUTPUT TERMINAL:** Connector used to attach the return test lead, adapter box return lead or test fixture return lead to the instrument. This connection provides the return current path.

14 **HIGH VOLTAGE INDICATOR:** This indicator flashes to warn the operator that high voltage is present at the high voltage output terminal.

BACK PANEL CONTROLS
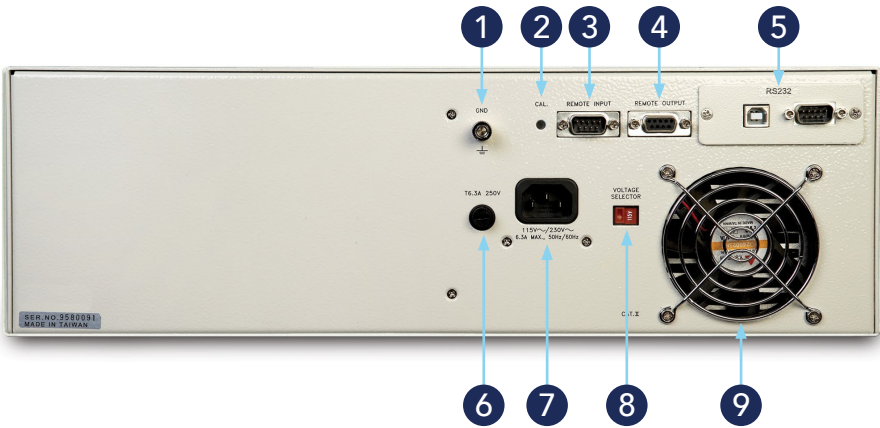
1. **CHASSIS GROUND (Earth) CONNECTION:** This terminal should be connected to a good earth ground before operation.

2. **CALIBRATION BUTTON:** To put the instrument into the calibration mode push this button and turn on the power switch simultaneously.

3. **REMOTE SIGNAL INPUT:** 9-Pin D-type subminiature male connector for remote control of TEST, RESET, and REMOTE INTERLOCK DISABLE functions, as well as MEMORY SELECTION.

4. **REMOTE SIGNAL OUTPUT:** 9-Pin D-type subminiature female connector for monitoring PASS, FAIL, and PROCESSING output relay signals.

5. **BUS INTERFACE:** Standard connector for interconnection to the RS-232 Bus interface. Optional IEEE 488 interface may be substituted for the RS-232.

6. **FUSE RECEPTACLE:** To change the fuse, unplug the power (mains) cord and turn the fuse receptacle counter-clockwise. The fuse compartment will be exposed. Please replace the fuse with one of the proper rating.

7. **INPUT POWER RECEPTACLE:** Standard IEC 320 connector for connection to a standard NEMA style line power (mains) cord.

8. **INPUT POWER SWITCH:** Sets the line voltage configuration of the instrument. In the left position it is set for 115 volt operation, in the right position it is set for 230 volt operation.

9. **THERMAL COOLING FAN:** Runs continuously to cool the instrument.

INSTRUMENT SETUP

> ⚠️ WARNING: LOCATE A SUITABLE TESTING AREA WITH A THREE-PRONG, GROUNDED OUTLET. BE SURE THAT YOUR THREE-PRONG OUTLET HAS BEEN TESTED FOR PROPER WIRING. READ THE SAFETY CHECKLIST OF THIS GUIDE BEFORE STARTING TO TEST.

1. Choose the correct input line voltage on the rear panel of the instrument, either 115VAC or 230VAC.

2. Connect the line cord into the rear of the instrument and plug the male end of the cord into a grounded power source.

3. Plug the interlock connector into the Remote Signal Input connector on the rear panel of the instrument. HypotMAX is equipped with a Remote Interlock feature, which utilizes a set of closed contacts to enable the instrument's output. In order to perform a test, the interlock connector must be plugged into the Remote Signal Input connection on the rear panel of the instrument.

4. Turn the POWER switch to ON.

The initialization screen will appear. After three seconds the Perform Test Screen will appear as shown below.

```
M 1 Set          1.0s
 1.50kV        5000uA
```

CHANGING SYSTEM SETTINGS

ADDING A NEW TEST

Press the SETUP key to progress through the menu of System Parameters. Successive key presses will advance the menu forward. The sequential forward menu items are:

PLC Remote
```
PLC Remote =   OFF
<ENTER> to Select
```

Fail Stop
```
Fail Stop  =    ON
<ENTER> to Select
```

Contrast
```
Contrast   =     5
Range:1-9   9=High
```

Alarm
```
Alarm      =     5
0-9 0=OFF   9=High
```

Smart GFI
GPIB address
(Displayed with Option 01)
```
Smart GFI  =    ON
<ENTER> to Select
```

BUS Remote
Command Set
```
Command Set=  488.2
<ENTER> to Select
```

Memory Lock
```
Memory Lock=    ON
<ENTER> to Select
```

Use the ENTER key and numeric keys to edit the System Parameters. Press the EXIT key to return to the Perform Test screen. The system settings are global and are not specific to any memory location.

SELECTING A MEMORY LOCATION

The HypotMAX is equipped with 50 memory locations, numbers 1 through 50. Each memory location consists of 1 test and may be linked to perform up to 50 tests in sequence. To select the Memory Location press the MEMORY key. Use the Numeric Keys to enter the memory location number, and then press the ENTER key. The program will recall the test parameters stored in this location and return to the operation mode automatically.

CHANGING TEST SETTINGS

EDITING TEST PARAMETERS

If you wish to edit the test parameters, use the Up or Down arrow keys to progress through the test parameters menu. The Down arrow key will advance forward and the Up arrow key will advance backward. The sequence for forward menu items are Voltage, HI-Limit, LO-Limit, Ramp-UP, Dwell Unit, Dwell Time, Ramp-DOWN, Frequency (AC Model), Arc Detect, Arc Sense, Ramp-HI (DC Models), Charge-LO (DC Models), and Connect. To edit the individual parameters, use the numeric keys to enter the appropriate value. In some cases the ENTER key will activate or deactivate a particular parameter such as Connect. After all parameters have been adjusted, press the EXIT key to return to the Perform Test screen.

TEST TYPE	PARAMETER	VALUE
ACW units	Voltage	1.24kVAC
	HI-Limit (current)	5.000mA
	LO-Limit (current)	0.000mA
	Ramp-UP	0.3s
	Dwell Unit	Second
	Dwell Time	1.0s
	Ramp-DOWN	0.0s
	Frequency	60Hz
	Arc Detect	Off
	Arc Sense	5
	Connect	OFF
DCW units	Voltage	1.5kVDC
	HI-Limit	5000µA
	LO-Limit	0.0µA
	Ramp-UP	0.4s
	Dwell Unit	Second
	Dwell Time	1.0s
	Ramp-DOWN	0.0s
	Arc Detect	OFF
	Arc Sense	5
	Ramp-HI	OFF
	Charge-LO	0.0µA
	Connect	OFF

CONDUCTING A TEST

Plug the black return lead into the Return terminal on the front panel of the instrument. Then connect the red high voltage lead into the High Voltage terminal on the front panel of the instrument.

Attach the black clip-terminated end of the return lead to the dead metal on the chassis of the DUT. Always check to make sure a good connection is made between the DUT and the return clip.

Attach the red clip-terminated end of the high voltage lead to the current-carrying conductors of the DUT. After the proper connections have been made, you can initiate a test through the front panel of the HypotMAX by pressing the TEST button. The red RESET button will abort a test in process.
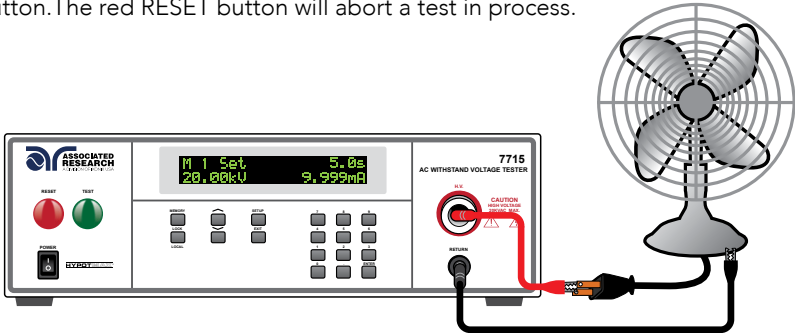
RESULTS

Press the ENTER key at the end of the test sequence to view results. Results can also be reviewed at any time before the next test is executed by pressing the ENTER key and then scrolling with the up and down arrow keys or by repeatedly pressing the ENTER key. The results of the last test in the process will be followed by the first test when scrolling through the results.

For additional information about these and other key features of the HypotMAX®, please consult the full Operation and Service Manual or call us toll-free 1-800-858-TEST (8378) or 1-847-367-4077
© Associated Research • arisafety.com

FOLLOW US!