

## Multi-Hipot Tester

**MODEL 19052  
19053  
19054**

### Key Features :

- Ground Fault Interruption shutdown the instrument when imbalance current > 0.5mA , provide the highest protection capability
- TUV approved (19052/19054)
- CE certified (19052/19054)
- Programmable output voltage up to 5kV AC and 6kV DC
- Insulation resistance measurements from 1MΩ to 50GΩ
- Ground continuity check with 1Ω Limit
- Arc detection with programmable limit
- Large LCD display (240 x 64dot matrix) can supply great view of test result and setting functions
- Programmable high and low limits
- Programmable ramp and test times
- Front panel lockout
- Quick discharge of DUT in IR and DC hipot
- Storage of 99 test setups with multiple steps per measurement
- Remote control & Printer/RS-232/GPIB interfaces
- Real or total current measurement
- 8 channels scanner (19053)
- 4 channels scanner (19054)
- EMC only (19053)



## MULTI-HIPOT TESTER MODEL : 19052/19053/19054

### Complete Dielectric Testing Solution

The Chroma Hipot Tester 19050 series provide 3 models for choice. The 19052 for AC/DC/IR Hipot testing and insulation resistance (IR) measurements; and the 19053 which combines both AC and DC Hipot tests and IR measurements with 8HV scan channel capability into a single compact unit. The front panel of the fevers make them easy to operate and the 19054 which combines both AC and DC Hipot tests and IR measurements with 4HV scan channel capability into a single compact unit. Digital display and user friendly control allows test parameters and limits to be set easily without the high voltage activating.

The 19050 series electrical safety tester are advanced digital hipots with load and line regulation to ensure the measurement integrity. Multi-step capability allows users to perform multiple tests in a sequence such as AC hipot followed by IR.

The 19052 AC/DC/IR Hipot Tester performs AC/DC dielectric withstand (hipot) tests. The test of AC voltage can be programmed in the range of 50V AC to 5kV AC with a resolution of 2V. Its maximum total output current is 30mA. The test of DC voltage can be programmed in the range from 50V DC to

6kV DC with a resolution of 2V. The maximum total current is 10mA. The IR measurement range is from 1MΩ to 50GΩ with test voltages from 50 to 1000V DC. The 19053 AC/DC/IR/SC Hipot Tester has all of the features of the 19052 plus 8HV Scan Channels for multi-point testing, and the 19054 AC/DC/IR/SC Hipot Tester has all of the features of the 19052 plus 4HV Scan Channels for multi-point testing.

### Quick Discharge

In DC hipot and IR tests the device under test is discharged back through the HV transformer. This technique results in a rapid and safe discharge.

### Ground Continuity Check

All of the 19050 series testers have a ground continuity check feature to determine the resistance, that is between the ground blade of power cord and any exposed metal on the product, is less than 1Ω.

### Ground Fault Interrupters(GFI)

GFI is required by the National Electrical Code in wet locations. Such devices automatically interrupt power when a ground current > 0.5mA exists for more than a few milli-seconds to protect users.



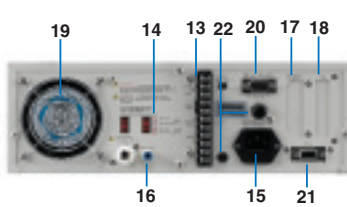
**Chroma**

## Specification

Model	19052	19053	19054
<b>Mode</b>	ACV/DCV/IR	ACV/DCV/IR/SCAN	
<b>Withstanding Voltage Test</b>			
Output Voltage	AC : 0.05 ~ 5kV, DC : 0.05 ~ 6kV		
Load Regulation	1% + 5V		
Voltage Resolution	2V		
Voltage Accuracy	1% + 5 counts		
Cutoff Current	AC : 30mA, DC : 10mA		
Current Resolution	AC : 1µA, DC : 0.1µA		
Current Accuracy	1% + 5 counts (5% + 20 counts for real current)		
Output Frequency	50Hz/60Hz		
Test Time	0.3 ~ 999 sec., continue		
Ramp up Time	0.1 ~ 99.9 sec., off		
Waveform	Sine wave		
<b>Insulation Resistance Test</b>			
Output Voltage	DC : 0.05 ~ 1kV	DC : 0.05 ~ 1kV	
Voltage Resolution	2V	2V	
Voltage Accuracy	1.5% + 5 V	1.5% + 5V	
IR Range	1MΩ ~ 50GΩ	1MΩ ~ 10GΩ	
Resistance Resolution	0.1MΩ	0.1MΩ	
Resistance Accuracy	≥ 500V : 1MΩ ~ 1GΩ : ±5% + 10 counts, 1GΩ ~ 10GΩ : ±10% + 10 counts 10GΩ ~ 50GΩ : ±15% + 10 counts, ≤ 500V : 0.1MΩ ~ 1GΩ : ±10% + 10 counts		
Scanner Unit	-- --	8 ports, ±phase	4 ports, ±phase
<b>Arc Detection</b>			
Setting Mode	Programmable setting		
Detection Current	AC : 1mA ~ 15mA, DC : 1mA ~ 10mA		
Minimum Pulse Width	10µs approx.		
<b>Secure Protection Function</b>			
Fast Output Cut-off	0.4ms after NG happen		
Fast DC discharge	0.2 sec.		
Ground Fault Interrupt (GFI)	0.5mA ± 0.25mA AC, Close		
Panel Operation Lock	Present password		
Continuity Check	1Ω ± 0.2Ω, Off		
<b>GO/NG Judgment Window</b>			
Indication, Alarm	GO: Short sound, Green LED; NG: Long sound, RED LED		
Data Hold	Least tests data memories		
Memory Storage	99 steps or 99 groups for total 500 memory locations		
<b>Remote Connector</b>			
Real Panel 9 pin D-type connector	Input : Start, Stop, Interlock (at 11 pin terminal block only); Output : Under test, Pass, Fail		
<b>General</b>			
Operation Environment	Temperature : 0 ~ 40 °C, Humidity : ≤ 80% RH		
Power Consumption	No load : < 100W, With rated load : < 500W max.		
Power Requirements	100V/120V/ 220V (AC ±10%), 240V (AC +5%~- -10%), 50/60Hz		
Weight	14 kg approx.	15 kg approx.	15 kg approx.
Dimension(W X H X D)	320 x 105 x 400mm		

All specifications are subject to change without notice.

## Panel Description



- |                          |                           |                                     |
|--------------------------|---------------------------|-------------------------------------|
| 1. LINE Switch           | 9. Test Indicator         | 16. RTN/LOW                         |
| 2. Window Display        | 10. HV Output             | 17. GPIB/Printer Interface (Option) |
| 3. Stop Button           | 11. RTN/LOW               | 18. Scan Interface (Option)         |
| 4. Start Button          | 12. 8 channels HV Output  | 19. Fan                             |
| 5. Function Keys (F1~F4) | (19053 only)              | 20. Remote Interface                |
| 6. Calibration Switch    | 13. Remote I/O            | 21. RS-232 Interface                |
| 7. Pass Indicator        | 14. LINE Voltage Selector | 22. Continuity Test O/P             |
| 8. Fail Indicator        | 15. Power Cord Receptacle | 23. Update Switch                   |

## Application

- Production test of appliances, instruments and information technology equipment in accordance with UL, IEC, TUV and other standards such as EN 60335, EN 60950, EN 61010, CSA C22.2 No.1010.1, UL 3111 and UL 1950
- Transformer electrical safety test
- Electric motor safety test
- Various electronic components tests

## Order Information

- |                |                                   |
|----------------|-----------------------------------|
| <b>19052</b>   | Hipot Tester (AC/DC/IR)           |
| <b>19053</b>   | Hipot Tester (AC/DC/IR/ 8CH SCAN) |
| <b>19054</b>   | Hipot Tester (AC/DC/IR/ 4CH SCAN) |
| <b>A190501</b> | Manual Operation TR. Scan Box     |
| <b>A190512</b> | Auto Control TR. Scan Box         |
| <b>A190513</b> | Auto Control Dual TR. Scan Box    |
| <b>A190508</b> | GPIB Interface                    |
| <b>A190510</b> | Printer Interface                 |
| <b>A190702</b> | 40kV HV Test Probe                |

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