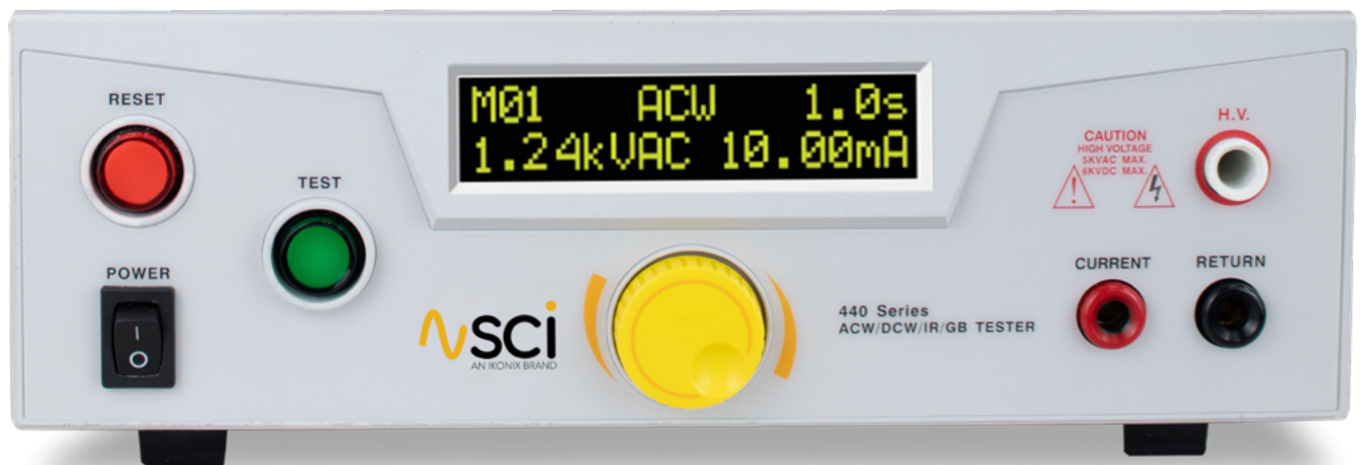




Electrical Safety Compliance Simplified.™










Hipot • Insulation Resistance • Ground Bond • Leakage Current • Multi-Function Electrical Safety

We've been providing Customers with the features they have needed for over 60 years. We aim to simplify the Electrical Safety Industry for our Customers by applying this philosophy to everything we do.



All testers come with the accessories you need to run a test right out of the box.

PRODUCT SELECTION GUIDE

	 AC Hipot	 DC Hipot	 Insulation Resistance	 Ground Continuity Check	 Ground Bond	 Leakage Current	 Functional Run
440 Series							
446	•	•	•		40VA		
448	500VA	•	•		40VA		
290 Series							
294		•		•			
295	•			•			
296	•	•		•			
297	•	•	•	•			
298	500VA			•			
260 Series							
264					40VA		
266					60VA		

CUSTOMER HAPPINESS PROMISE

We aim to provide an amazing experience and quality testers that last a long time. If you're not satisfied with your tester, return it within 45 days for a full refund. Calibrate annually with us, or one of our authorized partners, and we'll extend your warranty an additional year for the service life of your tester, and at least five years after discontinuation. If it breaks during that time, we promise to fix it for free (unless abuse or excessive damage is present). When your tester reaches the end of its service life, we'll responsibly recycle it and give you a discount on a replacement.

*Annual calibration and inspection must be made in each successive year starting one year after the original purchase date in order to remain eligible for extended warranty coverage beyond the standard warranty period (five years).

5 YEAR WARRANTY









Your new tester is warranted to be free from defects in workmanship and material for a period of (5) years from date of shipment.

**5 year warranty is valid on any model purchased in 2021 or after.

ONGOING SUPPORT

We work to provide the best service and support in the industry. With decades of industry experience we are the pros you can trust to help you be compliant to NRTL standards. We'll work closely with you to help you achieve your goals. We've built a worldwide network of knowledgeable partners, so you're covered no matter where you are.



 Frequency Selection	 Ramp	 Dwell	 Low Current Sense	 Safety Agency Listed	 PLC Remote	 USB	 RS-232	
								440 Series
•	•	•		•		•		446
•	•	•		•		•		448
								290 Series
	•	•	•	•	•	OPT		294
•	•	•	•	•	•	OPT		295
•	•	•	•	•	•	OPT		296
•	•	•	•	•	•	OPT		297
•	•	•	•	•	•	OPT		298
								260 Series
•		•		•	•	OPT		264
•		•		•	•	OPT		266

440 SERIES



VERSATILE 4-IN-1
FUNCTIONALITY

INTUITIVE USER INTERFACE

40A GROUND BOND
CAPABILITY





20 PROGRAMMABLE
MEMORIES

EASILY AUTOMATE FOR
DATA COLLECTION

REMOTE SAFETY INTERLOCK

EASILY SAFEGUARD YOUR
WORKSTATION WITH PPE
ACCESSORIES

The **440 Series** provides advanced 4-in-1 test capability in a convenient one-box solution. This new series performs AC Hipot (448 - 500 VA), DC Hipot, Insulation Resistance and 40A AC Ground Bond tests while taking up minimal production line space. The **440 Series** is simple and easy-to-use; reducing setup time and increasing production line throughput for your application. With multiple memories and an optional USB port for remote BUS communication so you can quickly perform tests on a variety of DUTs from the front panel or with a PC.

	 AC Hipot	 DC Hipot	 Insulation Resistance	 40A Ground Bond
446	•	•	•	•
448	500VA	•	•	•

RELEVANT APPLICATIONS

- APPLIANCE
- INDUSTRIAL EQUIPMENT
- INFORMATION TECHNOLOGY
- CONTRACT MANUFACTURING
- LABORATORY EQUIPMENT

WHAT'S IN THE BOX

- 33189

Power Cord (10A) 6ft - *446 Model
- 38071

Power Cord (15A) 6ft - *448 Model
- 99-10783-01

Fuse 10A Slow Blow 20mm - *446 Model
- 99-10168-01

Fuse 15A Fast Blow 30mm - *448 Model
- 38075

Interlock Connector Male
- 99-10866-01

Ground Bond Test Lead
- 99-10865-01

Ground Bond Return Lead
- 04040A-08

High Voltage Test Lead 6ft
- 99-10797-01

USB A-B 1.8M Cable

All testers come with the accessories you need to run a test right out of the box.

OPTIONS

Description	446	448
Rear Outputs	<div></div>	<div></div>
USB Port	<div></div>	<div></div>



SCI 448 Model

SERIES FEATURES



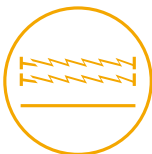
Test Setup Memories



Frequency Selection



Ramp



Dwell



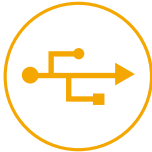
Low Current Sense



Safety Agency Listed



PLC Remote



USB (optional)



On the Go Portability



Intuitive User Interface



290 SERIES

HIPOT TESTERS



5 PROGRAMMABLE
MEMORIES WITH 10
OPTIONAL

EASILY AUTOMATE FOR
DATA COLLECTION

ADVANCED SECURITY
SETTING





TAMPER-PROOF FRONT
PANEL CONTROLS

REDUNDANT HARDWARE
SAFETY INTERLOCK

PORTABLE, RUGGED DESIGN

EASILY SAFEGUARD YOUR
WORKSTATION WITH PPE
ACCESSORIES

The **290 Series** is our most popular line of Hipot testers. These testers are designed to simplify every aspect of safety testing for operators of all comfort levels. Our **290 Series** includes the most intuitive user interface in the industry and won't take up too much space on the production line. With multiple memories and an optional USB interface, you can quickly perform tests on a variety of DUTs from the front panel or with a PC. Choose from 5 different models to satisfy your testing requirements.

	 AC Hipot	 DC Hipot	 Insulation Resistance	 Ground Continuity Check
294		•		•
295	•			•
296	•	•		•
297	•	•	•	•
298	500VA			•

RELEVANT APPLICATIONS

- APPLIANCE
- AC/DC POWERED PRODUCTS
- CABLES & COMPONENTS
- LIGHTING & LED TESTING
- MODULAR HOMES
- MOTORS & PUMPS

WHAT'S IN THE BOX

02100A-13	Return Lead 6 ft. (1.8m)
04040A-08	High Voltage Lead 6 ft. (1.8m)
33189	Input Power Cable USA
38075	Interlock Connector

All testers come with the accessories you need to run a test right out of the box.

OPTIONS

Description	294	295	296	297	298
Rear Outputs	•	•	•	•	•
USB Port	•	•	•	•	•
10 Memory	•	•	•	•	•
3mA Current Limit	•	•	•	•	
Pulse Mode		•			
Push to Test Mode		•			



SERIES FEATURES



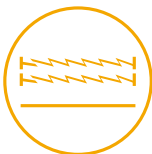
Test Setup Memories



Frequency Selection



Ramp



Dwell



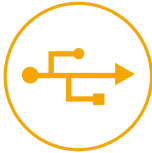
Low Current Sense



Safety Agency Listed



PLC Remote



USB (optional)



On the Go Portability



Intuitive User Interface



260 SERIES

GROUND BOND TESTERS



5 PROGRAMMABLE
MEMORIES

EASILY AUTOMATE FOR
DATA COLLECTION

ADVANCED SECURITY
SETTINGS

MILLIOHM OFFSET
FUNCTION FOR ACCURATE
GROUND BOND TESTING

REDUNDANT HARDWARE
SAFETY INTERLOCK

PORTABLE, RUGGED DESIGN

EASILY SAFEGUARD YOUR
WORKSTATION WITH PPE
ACCESSORIES

Our **260 Series** makes Ground Bond testing simple. Choose between two easy-to-use Ground Bond testers that provide the output current to satisfy NRTL specifications. With an intuitive interface that allows you to set-up a test in seconds and practical security settings, our **260 Series** can easily be deployed in both laboratory and production line environments.

	40A Ground Bond	60A Ground Bond
264	•	
266		•

RELEVANT APPLICATIONS

- APPLIANCE
- INDUSTRIAL EQUIPMENT
- MEDICAL
- LABORATORY EQUIPMENT
- WATER PUMPS

264 WHAT'S IN THE BOX

- 99-10725-01 40 Amp High Current Lead 6 ft. (1.8m)
- 99-10724-01 40 Amp High Current Return Lead 6 ft. (1.8m)
- 33189 Input Power Cable USA
- 99-10783-01 Fuse 10 Amp (264 Model)
- 38075 Interlock Connector

266 WHAT'S IN THE BOX

- 40406 60 Amp High Current Lead 6 ft. (1.8m)
- 40405 60 Amp High Current Return Lead 6 ft. (1.8m)
- 38071 Input Power Cable USA
- 99-10791-01 Fuse 12 Amp (266 Model)
- 38075 Interlock Connector

All testers come with the accessories you need to run a test right out of the box.

OPTIONS

Description	264	266
Rear Outputs	•	•
USB Port	•	•
Display Voltage Drop	•	•



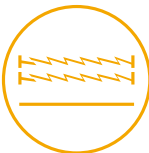
SERIES FEATURES



Test Setup Memories



Frequency Selection



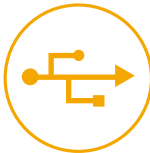
Dwell



Safety Agency Listed



PLC Remote



USB (optional)



On the Go Portability



Intuitive User Interface



440 SERIES SPECIFICATIONS

INPUT (446 and 448)

Voltage	100 - 120Vac / 200 - 240Vac \pm 10% Auto Range	
Frequency	50/60Hz \pm 5%	
Fuse	446	10A / 250Vac Slow-Blow
	448	15A / 250Vac Fast-Blow

DIELECTRIC WITHSTAND TEST MODE

Output Rating	446	5 KV @ 20 mA AC 6 KV @ 5 mA DC
	448	5 KV @ 99.99 mA AC 6 KV @ 10 mA DC
Voltage Setting/Display	Range	0 – 5.00 KV AC 0 – 6.00 KV DC
	Resolution	0.01
	Accuracy	\pm (2% of setting + 5V)
Current Display	446	Range: 0 - 20.00 mA AC, 0 - 5.00 mA DC Resolution: 0.01 mA Accuracy: \pm (2% of reading + 0.02 mA)
	448	Range: 0 - 99.99 mA AC, 0 - 10.00 mA DC Resolution: 0.01 mA Accuracy: \pm (2% of reading + 0.06 mA)
Hi-Limit Lo-Limit	446 AC	Range: Lo-Limit 0 - 20.00 mA, Hi-Limit 0.10 – 20.00 mA Resolution: 0.01 mA Accuracy: \pm (2% of setting + 2 counts)
	446 DC	Range: Lo-Limit 0 - 5.00 mA, Hi-Limit 0.02 – 5.00 mA Resolution: 0.01 mA Accuracy: \pm (2% of setting + 2 counts)
	448 AC	Range: Lo-limit 0 - 99.99 mA, Hi-Limit 0.10 – 99.99 mA Resolution: 0.01 mA Accuracy: \pm (2% of reading + 6 counts)
	448 DC	Range: Lo-Limit 0 - 10.00 mA, Hi-Limit 0.02 – 10.00mA Resolution: 0.01 mA Accuracy: \pm (2% of reading + 6 counts)
Failure Detector	Audible and Visual	
DC Output Ripple	446	<5 % (6KV / 5mA at Resistive Load)
	448	<5 % (6KV / 10mA at Resistive Load)
Discharge Time	446	< 50 ms for no load, < 200 ms for capacitor load
	448	< 50 ms for no load, < 100 ms for capacitor load
Max. Capacitive Load in DC Mode	1 μ F < 1KV	0.08 μ F < 4KV
	0.75 μ F < 2KV	0.04 μ F < 5KV
	0.5 μ F < 3KV	0.015 μ F < 6KV
AC Wave Form	Sine Wave, Crest Factor = 1.3 - 1.5 and output voltage > 300V	
AC Output Frequency	50Hz/60Hz \pm 0.1%, User Selection	

DIELECTRIC WITHSTAND TEST MODE (Cont.)

Output Regulation	\pm (1% of output + 5V), From no load to full load	
Dwell Timer	Range:	0, 0.2 - 60.0 (0=continuous)
	Resolution:	0.1
	Accuracy:	\pm (0.1% of setting + 0.05 sec)
Ramp Timer	Range:	0.2-180.0
	Resolution:	0.1
	Accuracy:	\pm (0.1% of setting + 0.05 sec)

INSULATION RESISTANCE TEST MODE

Output Voltage, VDC	Range:	100 - 1000
	Resolution:	1
	Accuracy:	\pm (2% of setting + 5V)
Hi-Limit resistance, MΩ	Range:	0, 1 - 1000 (0 = OFF)
	Resolution:	1
	Accuracy:	100-499V \pm (7% of setting + 2 counts)
Lo-Limit resistance, MΩ	Range:	1 - 1000
	Resolution:	1
	Accuracy:	500-1000V \pm (3% of setting + 2 counts)
Ramp Time , second	Range:	0.1 or 2.0
	Resolution:	0.1
	Accuracy:	\pm (0.1% of setting + 0.05 sec)
Delay Time, second	Range:	0, 0.5 - 999.9 (0=continuous)
	Resolution:	0.1
	Accuracy:	\pm (0.1% of setting + 0.05 sec)

Specifications subject to change without notice.

440 SERIES SPECIFICATIONS

GROUND BOND

Output AC Current, A	Range: Resolution: Accuracy:	1.0 – 40.0 0.1 $\pm (2\% \text{ of setting} + 2 \text{ counts})$
Output AC Voltage, V	8V(Fixed)	
Output Frequency, Hz	50Hz/60Hz $\pm 0.1\%$, User Selectable	
Maximum Loading	1.0–10.0A/0–600m Ω , 10.1–30.0A/0–200m Ω , 30.1–40.0A/0–150m Ω	
Offset, mΩ	Range: Resolution: Accuracy:	0-100 1 $\pm (2\% \text{ of setting} + 2 \text{ counts})$
HI and LO-Limit Resistance, mΩ	Range: Resolution: Accuracy:	0 – 150 (30.1-40.0A) 1 $\pm (2\% \text{ of setting} + 2 \text{ counts})$
	Range: Resolution: Accuracy:	0 – 200 (10.1-30.0A) 1 $\pm (2\% \text{ of setting} + 2 \text{ counts})$
	Range: Resolution: Accuracy:	0 – 600 (1.0-10.0A) 1 $\pm (2\% \text{ of setting} + 2 \text{ counts})$
	Range: Resolution: Accuracy:	0.4 0.1 $\pm 0.05 \text{ sec}$
Fix Ramp Timer, second	0-250m Ω à 0.1sec ramp up 251-300m Ω à 0.2sec ramp up 301-450m Ω à 0.3sec ramp up >450m Ω = 0.4sec	
Dwell Timer, second	Range: Resolution: Accuracy:	0, 0.1 - 240.0 (0 = continuous) 0.1 $\pm 0.05 \text{ sec}$

GENERAL SPECIFICATIONS

Memories	Allows storage of up to 20 different test programs and a single step mode	
Remote I/O	Input:	Test, Reset, Interlock & Recall Memory 1 – 6
	Output:	Pass, Fail, Test-in-Process
Interface	USB (Optional)	
Security	Lockout capability to avoid unauthorized access to test set-up programs	
Calibration	Software and adjustments made through the front panel	
Dimension	446	280mm(W) x 89mm(H) x 400 mm(D)
	448	430mm(W) x 132mm(H) x 400 mm(D)
Weight	446	18lbs (8kg)
	448	53lbs (24kg)

Specifications subject to change without notice.

290 SERIES SPECIFICATIONS

INPUT (294, 295, 296, 297, 298)

Voltage	100-120 VAC / 200-240 VAC \pm 10% Auto Range
Frequency	50/60 Hz \pm 5%
Fuse	3.15 A / 250 VAC Fast-Blow

DIELECTRIC WITHSTAND TEST MODE

Output Rating	298	AC 0-5.00 kVAC, 99.99 mA
	297	AC 0-5.00 kVAC, 12.00 mA DC 0-6.00 kVDC, 5.00 mA
	296	AC 0-5.00 kVAC, 12.00 mA DC 0-6.00 kVDC, 5.00 mA
	295	AC 0-5.00 kVAC, 12.00 mA
	294	DC 0-6.00 kVDC, 5.00 mA
Voltage Setting	298	0-5.00 kVAC
	297	Resolution: 0.01 kV
	296	Accuracy: ± (1.5% of setting + 5V)
	295	
	297	0-6.00 kVDC
	296	Resolution: 0.01 kV
	294	Accuracy: ± (1.5% of setting + 5V)
Output Frequency	294	DC only
	295, 298	50/60 Hz Selectable
	296, 297	DC and 50/60 Hz Selectable
	Accuracy	± 0.1%
AC Waveform	Sine Wave, Crest Factor = 1.3 - 1.5	
DC Output Ripple	294	<5% (6 kVDC / 5mA at Resistive Load)
	296	
	297	
Dwell Timer	0, 0.2 - 60 sec, (0=continuous), 0.1 sec/step	
Ramp Timer	0.2 - 180 sec, 0.1 sec/step	
Leakage Failure Settings	298	AC Hi-Limit: 0.10 - 99.99 mA Lo-Limit: 0 - 99.99 mA
		Resolution: 0.01 mA
		Accuracy: ± (2% of reading + 0.06 mA)
	297	AC Hi-Limit: 0.10 - 12.00 mA
	296	Lo-Limit: 0 - 12.00 mA DC Hi-Limit: 0.02 - 5.00 mA Lo-Limit: 0 - 5.00 mA
	295	AC Hi-Limit: 0.10 - 12.00 mA Lo-Limit: 0 - 12.00 mA
	294	DC Hi-Limit: 0.02 - 5.0 mA Lo-Limit: 0 - 5.00 mA
		Resolution: 0.01 mA
		Accuracy: ± (2% of reading + 0.02 mA)
Discharge Time	< 50 msec for no load, < 100 msec for capacitive load	

INSULATION RESISTANCE TEST MODE (297 only)

Output Voltage	Range:	0.1-1.00 kVDC
	Resolution:	0.01 kV
	Accuracy:	\pm (1.5% of setting + 3 V)
Resistance Display	Range:	1 - 1000 M Ω
	Resolution:	1 M Ω
	Accuracy:	100-499 V \pm (7% of setting + 2 M Ω) 500-1000 V \pm (3% of setting + 2 M Ω)
Hi-Limit	Range:	0.1 - 1000 M Ω (0=off)
	Resolution:	1 M Ω
Lo-Limit	Range:	1 - 1000 M Ω
	Resolution:	1 M Ω
Timer	Ramp:	0.1 or 2.0 sec
	Delay:	0, 0.5 - 999.9 sec, (0=continuous)

GENERAL SPECIFICATIONS

Continuity Feature	Range:	0.0 - 1.50 Ω
	Resolution:	0.01 Ω
	Accuracy:	\pm (2% of setting + 0.02 Ω)
Memories	5 (10 optional)	
Remote I/O	Input:	Test, Reset, Interlock
	Output:	Pass, Fail, Test-in-Process <u>Hardware Interlock - a relay on the high voltage output opens when the Interlock signal is disabled.</u>
3mA AC/DC Current Limit (optional)	294	Range: 0.00 - 3.00 mA
	295	Resolution: 0.01 mA
	296	Accuracy: \pm (2% of setting + 0.02mA)
	297	
Meter Max (standard)	Displays the maximum voltage value recorded during a breakdown.	
I_{max} (optional)	Displays the maximum leakage current value read during a test. Option 3 (USB port) must be installed to receive this measurement.	
Security	Option to turn On or Off, when On you can switch between two security levels:	
	1. Run - Operator can only run a test. No ability to change memory locations or edit test parameters.	
	2. Mem - Operator can run a test and change memory locations. No ability to edit test parameters.	
Safety Mark	CE/cTUVus	
Dimensions (W x H x D)	294, 295 296, 297	8.5" x 3.5" x 11.9" (215 x 88.1 x 300 mm)
	298	16.93" x 5.20" x 11.84" (430 x 132 x 300 mm)
Weight	294, 295 296, 297	12 lbs (5.46 Kg)
	298	46 lbs (20.86 Kg)

Specifications subject to change without notice.

260 SERIES SPECIFICATIONS

INPUT

Voltage	264	100 - 120 VAC / 200 - 240 VAC \pm 10% Auto Range
	266	100 - 240 VAC \pm 10% Full Range
Frequency	50/60 Hz \pm 5%	
Fuse	264	10A / 250 VAC Slow-Blow
	266	12A / 250 VAC Slow-Blow

GROUND BOND TEST MODE

Output Rating	264	3.0 - 40.0 AAC
	266	3.0 - 60.0 AAC
	Resolution: 0.1 A	
	Accuracy: \pm (2% of setting + 0.1A)	
	264	Voltage 8 VAC (fixed)
	266	Voltage 12 VAC (fixed)
Output Frequency	50/60 Hz user selectable Accuracy: \pm 0.1%	
Resistance Limit Settings	264	0 - 150 m Ω for 30.1 - 40.0 A 0 - 200 m Ω for 10.1 - 30.0 A 0 - 600 m Ω for 3.0 - 10.0 A
	266	0 - 150 m Ω for 30.1 - 60.0 A 0 - 200 m Ω for 15.1 - 30.0 A 0 - 600 m Ω for 3.0 - 15.0 A
	Resolution: 1 m Ω Accuracy: \pm (2% of setting + 2 m Ω)	
Offset Limit Settings	0 - 100 m Ω Resolution: 1 m Ω Accuracy: \pm (2% of setting + 2 m Ω)	
Dwell Timer	0, 0.5 - 240.0 sec, (0=continuous), 0.1 sec/step	
Ramp Timer	0.1 sec fixed	
Measurement Current	264	0.0 - 40.0 AAC
	266	0.0 - 60.0 AAC
	Resolution: 0.1 A Accuracy: \pm (3% of reading + 0.1 A)	
Ohmmeter	264	0 - 600 m Ω Resolution: 1 m Ω Accuracy: \pm (3% of reading + 3 m Ω) for 3 - 5.9 A, \pm (2% of reading + 2 counts) for 6 - 40A
	266	0 - 600 m Ω Resolution: 1 m Ω Accuracy: \pm (3% of reading + 3 m Ω) for 3 - 5.9 A \pm (2% of reading + 2 m Ω) for 6 - 60 A

GENERAL SPECIFICATIONS

Memories	5	
Remote I/O	Input:	Test, Reset, Interlock
	Output:	Pass, Fail, Test-in-Process
	<u>Hardware Interlock - a relay on the high voltage output opens when the Interlock signal is disabled.</u>	
Voltage Drop Display (optional)	Display the voltage drop across the circuit instead of the resistance measurement.	
Voltage Limit Settings	264	0.00 - 6.00 VAC
	266	0.00 - 9.00 VAC
	Resolution: 0.01 V Accuracy: \pm (2% of setting + 0.02 V)	
Offset Limit Settings	264	0.00 - 4.00 VAC
	266	0.00 - 6.00 VAC
	Resolution: 0.01 V Accuracy: \pm (2% of setting + 0.02 V)	
Security	Option to turn On or Off, when On you can switch between two security levels: 1. Run - Operator can only run a test. No ability to change memory locations or edit test parameters. 2. Mem - Operator can run a test and change memory locations. No ability to edit test parameters.	
Safety Mark	CE/cTUVus	
Dimensions (W x H x D)	264	8.5" x 3.5" x 11.81" (215 x 88 x 300 mm)
	266	16.93" x 5.20" x 11.81" (430 x 132 x 300 mm)
Weight	264	9.25 lbs. (4.3 Kg)
	266	20.25 lbs. (9 Kg)

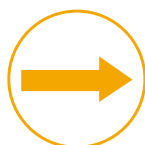
Specifications subject to change without notice.

ICONOGRAPHY



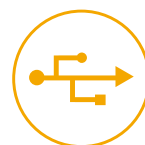
AC Hipot

The AC Hipot test is used to stress the insulation of a DUT with AC high voltage.



Functional Run

The Functional Run test ensures your DUT is operating properly before shipment.



USB

Connect your tester to a PC for automated applications with optional USB control.



DC Hipot

The DC Hipot test is used to stress the insulation of a DUT with DC high voltage.



500 VA

Output up to 100 mA of current during an AC Hipot test.



RS-232

Connect your tester to a PC for automated applications with optional RS-232 control.



Ground Bond

The Ground Bond test is used to verify the integrity of a DUT's earth ground conductor.



Test Setup Memories

Quickly setup, edit and recall test settings for different types of DUTs with multiple user-defined memory locations.



PLC Remote

Maximize operator safety by connecting an enclosure, warning lights, or safety probes to your tester.



Ground Continuity Check

The Ground Continuity test is used to verify the presence of the DUT's earth ground conductor.



Frequency Selection

Get your products ready for the global market by testing at 50 or 60 Hz.



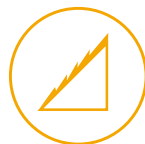
On the Go Portability

Denotes a tester designed for optimal portability. Perfect for use in the field.



Insulation Resistance

The Insulation Resistance test is used to determine the total resistance of a DUT's insulation.



Ramp

Prevents false failures by slowly ramping up the output voltage over time – perfect for sensitive or highly capacitive DUTs.



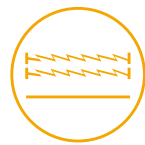
Low Current Sense

Prevents false Hipot passes with confidence by ensuring your test leads are connected correctly.



Leakage Current

The Leakage Current test is used to determine the amount of current that flows through the insulation of a DUT during operation.



Dwell

Eliminates the need to make adjustments during testing by consistently applying the correct voltage for the correct amount of time.



Safety Agency Listed

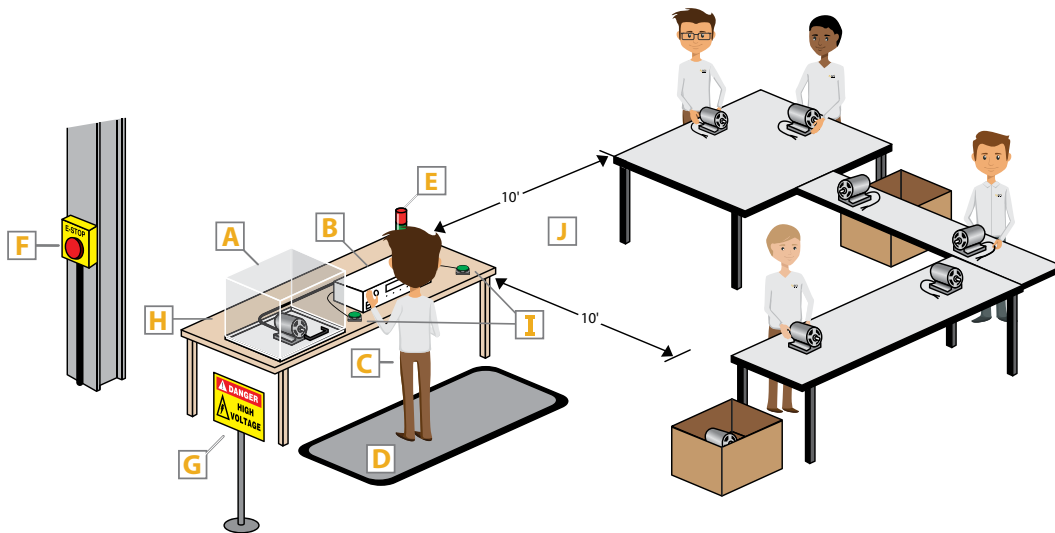
This tester is NRTL listed and was subjected to the same rigorous tests it must perform.

SAFETY STANDARD REFERENCE CHART

Standard / Harmonized Standard	Testing Type	Dielectric Withstand			Ground Bond/Continuity				Earth Leakage		Insulation Resistance			Suggested Model #
		Test Voltage	Max I.	Test Time	Test Current	V Limit	Max. R	Test Time	Test Voltage	Max I.	Test Time	V Limit	Min R	SCI Tester
H.U.D. Specification #24 CFR 3280.810	Performance	900-1079 VAC or 1273-1526 VDC	No Breakdown	60 s	Continuity				N/A		N/A			294, 295, 296, 297
	Production	1080-1250 VAC or 1527-1768 VDC	No Breakdown	1 s	Continuity				N/A		N/A			294, 295, 296, 297
R.V.I.A. (NEC)	Performance	900 VAC or 1280 VDC	No Breakdown	60 s	Continuity				N/A		N/A			294, 295, 296, 297
	Production	1080 VAC or 1530 VDC	No Breakdown	1 s	Continuity				N/A		N/A			294, 295, 296, 297
IEC 60335-1 Household Electrical Appliances	Performance	500 – 2400 VAC x rated V + 2400 VAC	No Breakdown	60 s	≥ 10 A	≤ 12 V	0.1 – 0.2 Ω	≤ 120 s	1.06 x rated V	0.25 – 5.0 uA	N/A			298*
UL 60335-1 Household Electrical Appliances	Performance	500 V – 2400 VAC x rated V + 2400 VAC	No Breakdown	60 s	40 A	≤ 6.5 V	≤ 0.5 Ω	120 s	1.06 x rated V	0.25 – 5.0 uA	N/A			298*
IEC 60598-1 Luminaires	Performance	500 – 4 x rated V + 2000 VAC	No Breakdown	60 s	≥ 10 A	≤ 12 V	≤ 0.5 Ω	60 s	Rated V	0.5 – 10 mA	60 s	500 VDC	1-4 MΩ	298*
	Production	Not Specified - Responsibility of Manufacturer												294, 295, 296, 297
UL 1598 Luminaires	Production	1200 VAC	No Breakdown	1 s	Continuity		≤ 0.1 Ω	Continuity	N/A		N/A			295
IEC/UL 61010-1 & CSA 22.2 No. 61010-1 Laboratory Control Test & Measurement Equipment	Performance	840 - 11940 VAC or 1200 - 7500 VDC	No Breakdown	5 - 60 s	25 or 30 A	≤ 10 V or ≤ 12 V	≤ 0.1 Ω or <4 V 0.133 Ω	60 or 120 s	< 300 V	0.5 mA	N/A			298*
	Production			5 s max ramp up 2 s dwell	Continuity				N/A		N/A			294, 295, 296, 297
	Production	Not Specified - Responsibility of Manufacturer												294, 295, 296, 297
UL 45A Portable Electrical Appliances	Production	1000 - 3000 VAC	No Breakdown	1 s	Continuity				N/A		N/A			294, 295
UL 60950-1 CSA 22.2 No. 60950-1 & IEC 62368-1 Audi/Video, Information & Communication Technology Equipment	Production	1000 – 3000 VAC or 1414 – 4242 VDC	No Breakdown	1 – 6 s	Continuity				N/A		N/A			294, 295, 296

* This standard requires the use of a 500VA Hipot Tester

SAFE WORKSTATION



One of the best ways to prevent injury is to ensure that your test station is set up safely and securely. Test stations can be setup with or without direct protection depending on your requirements. Direct protection means that the operator cannot physically come into contact with an energized DUT while a test is running. This safe workstation diagram uses a Hipot tester as an example to illustrate how our protective equipment can be used to keep operators safe.

A

DUT Safety Enclosure

This is wired to the Hipot tester's Remote Safety Interlock. This protects you from touching the DUT while a test is in progress. If the enclosure door is opened, the tester's high voltage is immediately disabled.

E

Signal Tower Light 24V

Gives an indication as to the status of the testing area.

H

Non-Conductive Work Bench

Only use a work bench made of non-conductive material such as plastic or wood. This ensures no stray leakage current could flow through you during a test.

B

Hipot Tester

Tester used to test the DUT.

F

Emergency Stop Button

Located on the perimeter of the test area. In the event of an emergency, someone outside the test area can hit the E-Stop button to immediately cut off power to the entire test station.

I

Dual Palm Remote Switches

Two hand operation switches force the operator to place a hand on each switch and hold them throughout the test. The palm switches should be placed at least 21.6" (550mm) apart to prevent the operator from one hand activation of both switches.

C

Test Operator

G

Warning Sign

Mark the testing area with a clearly posted sign that reads: DANGER - HIGH VOLTAGE TEST AREA. AUTHORIZED PERSONNEL ONLY.

J

NEC (National Electric Code) & NFPA (National Fire Protection Agency)

Stipulate that any unqualified workers shall not come within 10' of an EXPOSED energized circuit.

D

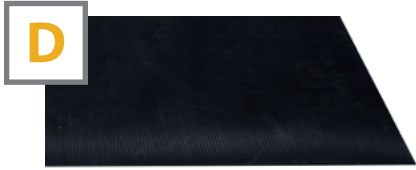
Insulation Mat

This isolates you from ground which provides an additional means of protection when operating high voltage equipment.

PPE ACCESSORIES

IMPROVE WORKSTATION SAFETY WITH PPE

Our Personal Protective Equipment improves workstation safety, warns unqualified operators of a dangerous testing area, and safeguards operators from electric shock. OSHA 1910 Subpart S requires, by law, that employers provide their employees with working conditions free of known hazards. We'll help you provide your employees with all necessary PPE.



CLASS 3 INSULATION MAT 40396

This class 3 electrical insulation mat is an ideal means for adding a level of operator safety. The mat isolates the operator from ground while testing, which greatly mitigates the shock hazard.

Thickness: 3/8" (9.53 mm) **Dimensions:** 3' x 3' (91.44 x 91.44 cm)



HIGH VOLTAGE WARNING SIGN 39538

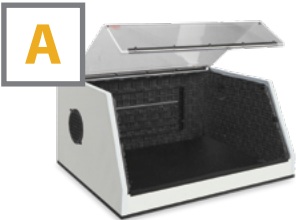
This "DANGER: HIGH VOLTAGE TEST AREA" sign is ideal for warning unauthorized operators to stay away from the test area. This sign should be clearly visible and mounted outside of the electrical testing area.



SIGNAL TOWER LIGHT 24V 40417

Our Signal tower light gives operators a visual indication of the status of the testing area. A green light indicates the Hipot tester is not outputting high voltage and the test area is safe. A red light indicates that the Hipot tester is active and to stay clear of the test area.

Compatible Models: 290 Series, 260 Series, and 440 Series



DUT ENCLOSURE 39067

Our DUT Enclosures are designed to protect the operator from electric shock during testing. Interface an enclosure with our Remote Safety Interlock feature to automatically disable the instrument's output when the enclosure door is opened.

Outside dimensions (W x D x H): 24" x 19" x 11.5" (610 x 483 x 293 mm)

Inside dimensions (W x D x H): 20" x 16" x 10" (508 x 407 x 254 mm) 3/4" Walls, 3/4" Flame Retardant Foam 1/4" Plexiglass cover



EMERGENCY STOP SWITCH ESTOP

The E-Stop trigger will immediately stop the flow of electric current to your SCI tester when pressed, preventing operator injury or damage to a device under test.

Compatible Models: 290 Series, 260 Series, and 440 Series



REMOTE TRIGGER FOOT SWITCH 35822

Allows for remote operation of electrical safety tests while a safe distance is maintained between the operator and test instrument.

Compatible Models: All testers



DUAL PALM REMOTE SWITCHES DPR-01

Using two-hand operation switches ensures operator safety because it forces you to place a hand on each switch and hold throughout the test. This prevents you from accidentally touching a DUT while the test is running. The palm switches should be placed at least 21.6" (550mm) apart to prevent one-hand activation of both switches.

Compatible Models: 290 Series and 440 Series

PPE ACCESSORIES



REMOTE TEST BOX (RTB)

The RTB is a Remote Test and Reset Control Box. It comes in two different configurations: RTB-01 and RTB-02. Both models utilize the connection of Remote Input/Output on the back of all compatible SCI testers and can be used to initiate and reset a test. The RTB-02 has an additional feature (LEDs) which allow the operator to monitor the PASS, FAIL and PROCESSING signals.

RTB-01 Compatible Models: 260 Series, 290 Series, 440 Series, 1300 Series, 2205, 2503, 2510, 2550, 4320, 4520, 6330

RTB-02 Compatible Models: 290 Series, 260 Series, 440 Series, 2525, 4320, 4520, 6330



HIGH VOLTAGE RETRACTABLE PROBE 6FT (1.8M)

38081

The simple-to-use high voltage retractable probe gives operators the ability to press to activate the retractable probe tip.

Compatible Models: All Hipots

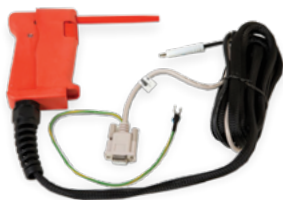


RETURN RETRACTABLE PROBE 6FT (1.8M)

38082

Our return retractable probe allows for safe contact to ground points of a DUT. The trigger style is ergonomically comfortable for daily use.

Compatible Models: 290 Series, 2500 Series, 1300 Series



DUAL ACTION TRIGGER TEST PROBE 10 FT. (3m)

38814

This high voltage test gun has a dual action test trigger that controls the retractable probe tip and activates the high voltage output of the tester. The unique ergonomic shape makes this probe easy and comfortable to use.

Compatible Models: 1340, 2500 Series, 290 Series, 4320, 4520



40 AMP HIGH CURRENT PROBE W/ LUG 10 FT. (3m)

38539

This fixed tip probe allows for easy contact with the grounding points of the DUT. The probe has two separate test buttons making it comfortable to use in various positions. The test switch can be used to activate high current after making good contact with the test point.

Compatible Models: 4000 Series, 6000 Series 264, 2630

TESTER VERIFICATION

Nationally Recognized Testing Laboratories (NRTLs) require minimums for in-service checks of electrical safety testers. In-service checks are designed to verify the measurement accuracy of the test equipment. These verification checks must accurately detect a pass and failure condition to ensure electrical safety testers are functioning properly. NRTLs require verification testing to be performed daily.



TEST VERIFICATION BOX

Our test verification box solutions are a go / no-go daily test verification designed to ensure that the failure detectors of an SCL electrical safety tester are functioning properly. These boxes were designed to verify AC and DC Hipot test functionality (the TVB-2 also has Ground Bond test functionality), making it the ideal solution for manufacturers who are required to conduct daily verifications on their test equipment.

TVB-1 Compatible Models: All Testers

TVB-2 Compatible Models: All Testers

PASS/FAIL VERIFICATION



120 kΩ Resistor

P/N: 35445

Use the 120 kΩ resistor for Hipot failure verification. It can also be used to establish a Hipot trip current/failure point.

Compatible Models: All Testers

FAIL VERIFICATION

ADAPTER BOX

An adapter box allows for safe and easy testing of line cord-terminated products. Simply connect the adapter box to the tester and then plug the DUT into the adapter box. Adapter boxes are available for most test instruments in multiple country configurations.

Part Number	Name	Compatible With
36544	Universal US - 10FT	290 Series, 2500 Series, 1340
36541	Universal US - HV, HC - 10FT	4000 Series, 2630, 264
40400	Universal US - HV, HC 40Amp - 10FT	440 Series



SHIP IT SAFE PROGRAM

Our ship it safe program provides the packaging and peace of mind you need to ensure your tester arrives in perfect condition. Call us when you're ready to return your tester for calibration or repair and we'll overnight a custom shipping box for a flat fee of \$75.00.

What's included

- Overnight shipment of custom box and inserts.
- Detailed return packaging, instruction sheet, plus a video.
- Convenient, worry-free method to return your tester to us.
- All testers are calibrated in an A2LA Accredited Lab

Call Us At **800-504-0055**
To Order Your Ship It Safe Box!



Remember

Choose us for your annual calibration needs and we'll extend your warranty at no additional cost for up to 3 years!

We ship all standard calibrations and repairs within 10 business days.

APPLICATIONS CONSULTING

- Implement best practices
- Validate your test system
- Conform to OSHA requirements



Master Workstation Safety with One-On-One Support

Applications Consulting provides customized training tailored to your specific company needs. We provide Online and On-site training packages as well as post-training support.

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A web-based learning program. Choose from 2 packages; our Consulting on Demand or Customized Digital Package.

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1-4 day on-site, hands-on training for your production line or R&D lab.

On-site Validation Package

2 or 4 day on-site training to completely satisfy your organization's validation needs.

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