IDEAL® TEST & MEASUREMENT

3-Phase Power Analyzer

- True RMS
- Single- or three-phase measurements
- Up to one month of recording time
- 4-channels for voltage plus 4-channels for current measurements
- Backlit display
- Programmable trigger-points and start/stop time
- Easy set-up and interactive demo CD
- 2-year warranty

POWER & ENERGY MEASUREMENTS

- Kilowatts (kW)
- Volt-amperes (VA)
- Inductive reactive power (kvarL)
- Capacitive reactive power (kvarC)
- Power factor (PF)
- Frequency
- Kilowatt hours (kWh)

HARMONICS MEASUREMENT

- Total harmonic distortion (% THD)
- Harmonic factorization (FFT) to 51st harmonic

Description	Cat. No.
Power Analyzer Kit	**61-807**

Accessories

Optional	
1000AAC Clamps (set of 3)	**61-811**
100AAC Neutral Clamp (1)	**61-813**
2000AAC Clamps (set of 3)	**61-810**
5AAC Compact Clamps (set of 3)	**61-819**
100AAC Compact Clamps (set of 3)	**61-820**
200/2000/20000AAC Flexible Clamp adapters (set of 3)	**61-457**

Specifications

	Range & Resolution	Accuracy
AC VOLTAGE	20 to 600 V (phase-neutral) 20 to 866 V (phase-phase)	0.5%
AC CURRENT	10 to 1000A (with supplied clamp adapters)	1.0%
ACTIVE POWER	866 kW (with supplied clamp adapters)	1.0%
REACTIVE POWER	866 kW (with supplied clamp adapters)	1.0%
POWER FACTOR	0.5 to 1.0	1.0%

100AAC Neutral Clamp (61-813)

Test Leads with Alligator Clips (TL-805)

Power Analyzer

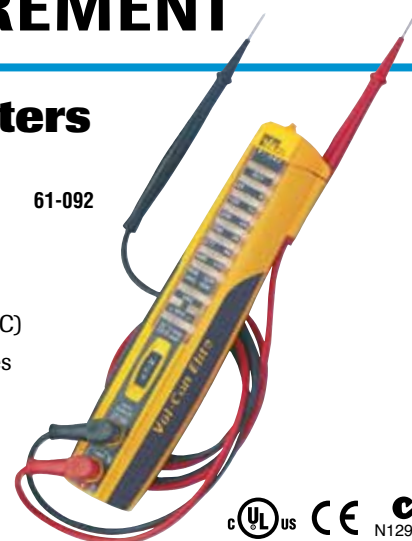RS-232 Interface/ Power Supply

1000AAC Clamp Adapters (61-811)

Vol-Con® Elite Digital Voltage Testers

61-092

- Tests for AC Voltage from 24-600VAC
- Tests for DC Voltage from 6-220VDC
- Visual and audible warning
- Audible continuity
- Non-contact voltage indication (40-600VAC)
- Low impedance to eliminate ghost voltages
- Low battery indicator
- Replaceable silicone test leads
- Integral lead storage
- 2-year warranty

c(UL)us CE N12966 **CAT III 1000V**

Description	Cat. No.
Vol-Con® Elite Digital Voltage Tester w/vibration mode	**61-092**
Vol-Con® Elite Digital Voltage Tester	**61-090**

Accessories

Includes	
Silicone Test Leads	**TL-102**
Optional	
Carrying Case	**C-90**

Solenoid Voltage Testers

61-076

- Extremely rugged and reliable
- Vibrates when voltage is present
- Indicates AC/DC voltage level
- Replaceable leads with shielded probe tips
- Bright, long-life LED's and neon indicator lamp
- Dual voltage indication for backup safety

(UL) (SA) **CAT III 600V**

Description	Cat. No.
Vol-Con® Voltage/Continuity Tester, 5-600V AC/DC	**61-076**
Vol-Test® Voltage Tester, 100-600V AC/DC	**61-065**

Accessories

Includes	
Standard Test Leads	**61-070**
Optional	
Resistor-fused Leads*	**61-072**
Padded Nylon Case	**C-90**
Leather Case	**61-010**
Batteries	**61-201**

Special, current-limiting resistor in each lead acts as a fuse to open in a short-circuit situation

XL-Series Solenoid Voltage Testers

61-086

- Rugged and reliable tester
- Vibrates when voltage is present
- Indicates AC/DC voltage level
- Replaceable leads with shielded probe tips
- Bright, long-life LED's and neon indicator lamp
- Dual voltage indication for backup safety
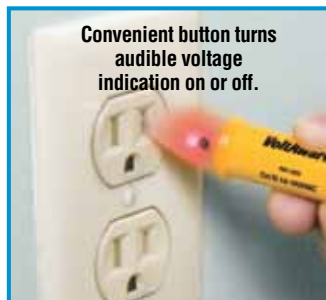- Compact size
- 2-year warranty

Vol-Con® Tests AUDIBLE Voltage & Continuity

c(UL)us CE N12966 **CAT III 600V**

Description	Cat. No.
Vol-Con® XL Voltage/Continuity Tester, 6-600V AC/DC	**61-086**
Vol-Test® XL Voltage Tester, 80-600V AC/DC	**61-085**

Accessories

Includes	
Standard Test Leads	**TL-80**
Optional	
Resistor-fused Leads*	**TL-82**
Padded Nylon Case	**C-90**
Leather Case	**61-010**

Special, current-limiting resistor in each lead acts as a fuse to open in a short-circuit situation.
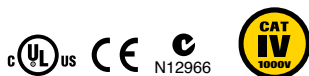
VOLTAGE TESTERS

VoltAware™ Non-Contact Voltage Tester

- Indicates presence of voltage from 40-1000VAC
- Visual indication of voltage
- Selectable audible indication of voltage
- Sleek, compact design
- Green LED indicates power on
- Low battery indicator
- Battery replacement (AAA size)
- 2-year warranty

Convenient button turns audible voltage indication on or off.

CAT IV 1000V

Description	Cat. No.
VoltAware™ Non-Contact Voltage Tester	**61-025**

VoltSensor™ Non-Contact Voltage Tester

- Tests for voltage from 40-600VAC
- Audible and visual indication
- Locates breaks along live insulated wires
- Tests for energized circuits
- Battery replacement (LR44/61-201)
- 1-year warranty

CAT III 600V

Description	Cat. No.
Volt-Sensor® Non-Contact Voltage Tester	**61-063**

Continuity Tester

- Checks continuity of dead circuits and ground on conduit systems and identifies wires in multi-wire cables
- Light signal indicates completed circuit
- Bulb-in end can serve as flashlight
- Pocket clip functions as probe
- Removable 4-ft. test lead with alligator clip
- 1-year warranty

Description	Cat. No.
Continuity Tester	**61-030**

E-Z Check® Circuit Tester

- Tests for correct wiring, open ground, reverse polarity, open hot, open neutral, hot on neutral, hot and ground reversed with open hot, and ground fault interruption in 3-wire, 120VAC circuits
- No-slip ergonomic design maximizes comfort
- Premium neon lamps prevent false readings
- Tough, impact-resistant case
- 2-year warranty

61-051

Description	Cat. No.
E-Z Check® Plus GFCI Circuit Tester	**61-051**
E-Z Check® Circuit Tester	**61-035**

Receptacle Testers

- Warns against faulty wiring in 3-wire receptacles
- For use on 120VAC circuits
- 1-year warranty

61-501

Description	Cat. No.
GFCI Receptacle Tester	**61-501**
Receptacle Tester	**61-500**

Test-Glo™ Circuit Tester

- Industrial-quality tester checks voltage from 80V to 600V AC/DC
- Neon test lamp at front of probe
- Resistors reduce voltage reaching leads
- 24-in. lead — rated 1,000V
- 1-year warranty

Description	Cat. No.
Test-Glo™ Circuit Tester	**61-040**

Digital Light Meter

- Measures all visible light sources
- Measures LED lighting
- Measures in four ranges up to 20,000 FC or 200,000 Lux
- +/- 3% basic accuracy
- Data hold mode
- Max reading mode
- Auto zero adjustment
- Low battery indication
- Auto power off
- Remote sensor with 59 in. (1.5m)

CE N12966

Description	Cat. No.
Digital Light Meter	**61-686**

Includes Carrying Case.

Infrared Thermometer

- Measurement range: -76°F to 932°F
- Distance spot: 12:1
- Modes: Ave., Difference, Hi/Lo limits w/alarm, Max, Min, Lock
- Emissivity Range: Adjustable from 0.1 to 1
- Precision K-type thermocouple (optional)
- Backlight
- Auto power off
- Low battery indicator
- 2-year warranty

Description	Cat. No.
Infrared Thermometer	**61-685**

Includes Carrying Case.

Accessories

Optional	
K-type Thermocouple	**61-461**

Specifications

	Range & Resolution	Accuracy
Object Temperature	-27 to 932°F (-33 to 500°C)	+/- 2% of reading or +/- 4°F (+/-2°C) whichever is greater

3-Phase/Motor Rotation Tester

- Identifies three-phase sequence
- Indicates motor rotation
- Checks for open phases
- For use up to 600V
- 2-year warranty

CE N12966   CAT III 300V

Description	Cat. No.
3-Phase/Motor Rotation Tester	**61-521**

Includes Carrying Case.

3-Phase Sequence Tester

- For use up to 600V
- Color-coded insulators over alligator clips
- Shock resistant housing
- Easy to read
- 2-year warranty

Description	Cat. No.
3-Phase Sequence Tester	**61-520**

Includes Carrying Case.

SecuriTEST™ PRO CCTV/Security Tester

SecuriTEST™ PRO is the most versatile all-in-one installation and troubleshooting tool for the CCTV professional. CCTV installers often need to carry a variety of testing tools to complete their work. SecuriTEST™ PRO combines the most-needed tools in one easy-to-carry package. Since all connections (video/communications/DMM) attach to a single unit, SecuriTEST™ PRO eliminates the need to juggle several devices while on a ladder or lift, making working conditions safer and increasing productivity.

- IRE video level and sync tests
- Sound level test through integrated speaker and on screen level indicator
- High capacity lithium ion battery
- Support for additional PTZ protocols
- Carrying case included
- **Seven Essential CCTV Tools** - Combines a CCTV video tester, PTZ camera controller, Digital Multimeter, UTP cable tester, video test pattern generator, PTZ protocol analyzer and camera programmer in a single compact package.
- **Save Time & Money** - Test, aim, focus and program cameras when working alone. Save time by not having to walk back to the control center to verify functionality of each camera.
- **Compact Design** - Combines all the most needed security tools in a lightweight easy-to-carry unit. Sharp, bright 2.5 in. (6.3 cm) color LCD screen with on-screen displays for PTZ control/diagnostics and DMM readouts.
- **PTZ Protocol Analyzer** - Compatible with 20+ PTZ protocols to test and program cameras in the field. Decodes and identifies output from PTZ console to aid in troubleshooting.

Description	Cat. No.
SecuriTEST™ PRO CCTV/Security Tester only	**33-892**

VDV Pro Cable Tester

The VDV PRO Cable Tester is an easy-to-use cable testing and verification device that can quickly test all wiring requirements found throughout today's residential and commercial environments.

- Voice – tests 3-pair USOC and 6-position RJ-11/12 jacks for voice cable testing
- Data – tests wire map of shielded and unshielded cable to T568A/B standard
- Video – tests coax cable for opens, shorts and length with F-Connector interface
- Larger backlit LCD screen for better test results readability
- Network link LED blink for visual cable tracing
- Voice testing capability detects RJ-11 (1, 2, or 3 pair)
- Voice test also shows Normal or Reverse for pins 1 through 6
- Length measurement is shown during initial test results for convenience and time savings
- Eight remotes have RJ-45, RJ-11 and Coax F-jacks for increased testing capabilities
- Tests for shield continuity, shorts, opens, miswires, reversals and split pairs with remote connected
- Full dot-matrix LCD display for user convenience to read display results
- One-ended testing for shorts, opens and split pairs (no remote needed)
- Test results displayed in wire map format with message line for shorts and split pairs

Description	Cat. No.	Description	Cat. No.
VDV PRO w/one remote and terminator	**33-770**	VDV PRO Eight Remote Replacement Kit (ID 1-8)	**33-774**
VDV PRO w/eight remotes and terminators	**33-771**	Eight Coax Terminator Kit	**33-775**
VDV PRO (33-770) w/one remote and Amplifier Probe (62-164)	**33-780**		

TESTERS

3-Phase Power Analyzer

- True RMS
- Single- or three-phase measurements
- Up to one month of recording time
- 4-channels for voltage plus 4-channels for current measurements
- Backlit display
- Programmable trigger-points and start/stop time
- Easy set-up and interactive demo CD
- 2-year warranty

POWER & ENERGY MEASUREMENTS

- Kilowatts (kW)
- Volt-amperes (VA)
- Inductive reactive power (kvarL)
- Capacitive reactive power (kvarC)
- Power factor (PF)
- Frequency
- Kilowatt hours (kWh)

HARMONICS MEASUREMENT

- Total harmonic distortion (% THD)
- Harmonic factorization (FFT) to 51st harmonic

Description	Cat. No.
Power Analyzer Kit	**61-807**

Accessories

Optional	
1000AAC Clamps (set of 3)	**61-811**
100AAC Neutral Clamp (1)	**61-813**
2000AAC Clamps (set of 3)	**61-810**
5AAC Compact Clamps (set of 3)	**61-819**
100AAC Compact Clamps (set of 3)	**61-820**
200/2000/20000AAC Flexible Clamp adapters (set of 3)	**61-457**

Specifications

	Range & Resolution	Accuracy
AC VOLTAGE	20 to 600 V (phase-neutral) 20 to 866 V (phase-phase)	0.5%
AC CURRENT	10 to 1000A (with supplied clamp adapters)	1.0%
ACTIVE POWER	866 kW (with supplied clamp adapters)	1.0%
REACTIVE POWER	866 kW (with supplied clamp adapters)	1.0%
POWER FACTOR	0.5 to 1.0	1.0%

100AAC
Neutral Clamp
(61-813)

Test Leads with
Alligator Clips
(TL-805)

Power Analyzer

RS-232 Interface/
Power Supply

1000AAC
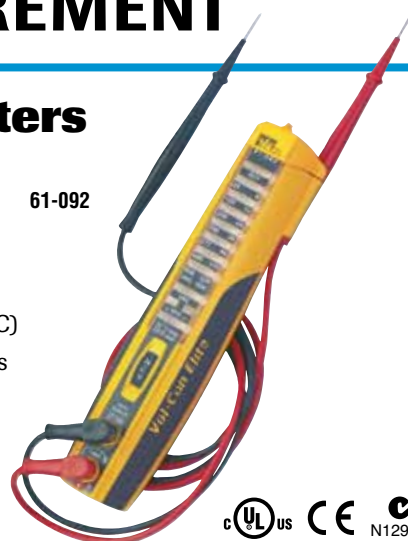Clamp Adapters
(61-811)

POWER QUALITY

Vol–Con® Elite Digital Voltage Testers

- Tests for AC Voltage from 24-600VAC
- Tests for DC Voltage from 6-220VDC
- Visual and audible warning
- Audible continuity
- Non-contact voltage indication (40-600VAC)
- Low impedance to eliminate ghost voltages
- Low battery indicator
- Replaceable silicone test leads
- Integral lead storage
- 2-year warranty

61-092

Description	Cat. No.
Vol-Con® Elite Digital Voltage Tester w/vibration mode	**61-092**
Vol-Con® Elite Digital Voltage Tester	**61-090**

Accessories

Includes	
Silicone Test Leads	**TL-102**
Optional	
Carrying Case	**C-90**

Solenoid Voltage Testers

- Extremely rugged and reliable
- Vibrates when voltage is present
- Indicates AC/DC voltage level
- Replaceable leads with shielded probe tips
- Bright, long-life LED's and neon indicator lamp
- Dual voltage indication for backup safety

61-076

Description	Cat. No.
Vol-Con® Voltage/Continuity Tester, 5-600V AC/DC	**61-076**
Vol-Test® Voltage Tester, 100-600V AC/DC	**61-065**

Accessories

Includes	
Standard Test Leads	**61-070**
Optional	
Resistor-fused Leads*	**61-072**
Padded Nylon Case	**C-90**
Leather Case	**61-010**
Batteries	**61-201**

Special, current-limiting resistor in each lead acts as a fuse to open in a short- circuit situation

XL–Series Solenoid Voltage Testers

- Rugged and reliable tester
- Vibrates when voltage is present
- Indicates AC/DC voltage level
- Replaceable leads with shielded probe tips
- Bright, long-life LED's and neon indicator lamp
- Dual voltage indication for backup safety
- Compact size
- 2-year warranty

61-086

Description	Cat. No.
Vol-Con® XL Voltage/Continuity Tester, 6-600V AC/DC	**61-086**
Vol-Test® XL Voltage Tester, 80-600V AC/DC	**61-085**

Accessories

Includes	
Standard Test Leads	**TL-80**
Optional	
Resistor-fused Leads*	**TL-82**
Padded Nylon Case	**C-90**
Leather Case	**61-010**

Special, current-limiting resistor in each lead acts as a fuse to open in a short-circuit situation.

VOLTAGE TESTERS

ELECTRICAL TESTERS

VoltAware™ Non-Contact Voltage Tester

- Indicates presence of voltage from 40-1000VAC
- Visual indication of voltage
- Selectable audible indication of voltage
- Sleek, compact design
- Green LED indicates power on
- Low battery indicator
- Battery replacement (AAA size)
- 2-year warranty

Convenient button turns audible voltage indication on or off.

Description	Cat. No.
VoltAware™ Non-Contact Voltage Tester	**61-025**

VoltSensor™ Non-Contact Voltage Tester

- Tests for voltage from 40-600VAC
- Audible and visual indication
- Locates breaks along live insulated wires
- Tests for energized circuits
- Battery replacement (LR44/61-201)
- 1-year warranty

Description	Cat. No.
Volt-Sensor® Non-Contact Voltage Tester	**61-063**

Continuity Tester

- Checks continuity of dead circuits and ground on conduit systems and identifies wires in multi-wire cables
- Light signal indicates completed circuit
- Bulb-in end can serve as flashlight
- Pocket clip functions as probe
- Removable 4-ft. test lead with alligator clip
- 1-year warranty

Description	Cat. No.
Continuity Tester	**61-030**

E-Z Check® Circuit Tester

- Tests for correct wiring, open ground, reverse polarity, open hot, open neutral, hot on neutral, hot and ground reversed with open hot, and ground fault interruption in 3-wire, 120VAC circuits
- No-slip ergonomic design maximizes comfort
- Premium neon lamps prevent false readings
- Tough, impact-resistant case
- 2-year warranty

61-051

Description	Cat. No.
E-Z Check® Plus GFCI Circuit Tester	**61-051**
E-Z Check® Circuit Tester	**61-035**

Receptacle Testers

- Warns against faulty wiring in 3-wire receptacles
- For use on 120VAC circuits
- 1-year warranty

61-501

Description	Cat. No.
GFCI Receptacle Tester	**61-501**
Receptacle Tester	**61-500**

Test-Glo™ Circuit Tester

- Industrial-quality tester checks voltage from 80V to 600V AC/DC
- Neon test lamp at front of probe
- Resistors reduce voltage reaching leads
- 24-in. lead — rated 1,000V
- 1-year warranty

Description	Cat. No.
Test-Glo™ Circuit Tester	**61-040**

Digital Light Meter

- Measures all visible light sources
- Measures LED lighting
- Measures in four ranges up to 20,000 FC or 200,000 Lux
- +/- 3% basic accuracy
- Data hold mode
- Max reading mode
- Auto zero adjustment
- Low battery indication
- Auto power off
- Remote sensor with 59 in. (1.5m)

CE ℃ N12966

Description	Cat. No.
Digital Light Meter	**61-686**

Includes Carrying Case.

Infrared Thermometer

- Measurement range: -76°F to 932°F
- Distance spot: 12:1
- Modes: Ave., Difference, Hi/Lo limits w/alarm, Max, Min, Lock
- Emissivity Range: Adjustable from 0.1 to 1
- Precision K-type thermocouple (optional)
- Backlight
- Auto power off
- Low battery indicator
- 2-year warranty

Description	Cat. No.
Infrared Thermometer	**61-685**

Includes Carrying Case.

Accessories

Optional	
K-type Thermocouple	**61-461**

Specifications

	Range & Resolution	Accuracy
Object Temperature	-27 to 932°F (-33 to 500°C)	+/- 2% of reading or +/- 4°F (+/-2°C) whichever is greater

3-Phase/Motor Rotation Tester

- Identifies three-phase sequence
- Indicates motor rotation
- Checks for open phases
- For use up to 600V
- 2-year warranty

CE ℃ N12966   CAT III 300V

Description	Cat. No.
3-Phase/Motor Rotation Tester	**61-521**

Includes Carrying Case.

3-Phase Sequence Tester

- For use up to 600V
- Color-coded insulators over alligator clips
- Shock resistant housing
- Easy to read
- 2-year warranty

Description	Cat. No.
3-Phase Sequence Tester	**61-520**

Includes Carrying Case.

SecuriTEST™ PRO CCTV/Security Tester

SecuriTEST™ PRO is the most versatile all-in-one installation and troubleshooting tool for the CCTV professional. CCTV installers often need to carry a variety of testing tools to complete their work. SecuriTEST™ PRO combines the most-needed tools in one easy-to-carry package. Since all connections (video/communications/DMM) attach to a single unit, SecuriTEST™ PRO eliminates the need to juggle several devices while on a ladder or lift, making working conditions safer and increasing productivity.

- IRE video level and sync tests
- Sound level test through integrated speaker and on screen level indicator
- High capacity lithium ion battery
- Support for additional PTZ protocols
- Carrying case included
- **Seven Essential CCTV Tools** - Combines a CCTV video tester, PTZ camera controller, Digital Multimeter, UTP cable tester, video test pattern generator, PTZ protocol analyzer and camera programmer in a single compact package.
- **Save Time & Money** - Test, aim, focus and program cameras when working alone. Save time by not having to walk back to the control center to verify functionality of each camera.
- **Compact Design** - Combines all the most needed security tools in a lightweight easy-to-carry unit. Sharp, bright 2.5 in. (6.3 cm) color LCD screen with on-screen displays for PTZ control/diagnostics and DMM readouts.
- **PTZ Protocol Analyzer** - Compatible with 20+ PTZ protocols to test and program cameras in the field. Decodes and identifies output from PTZ console to aid in troubleshooting.

Description	Cat. No.
SecuriTEST™ PRO CCTV/Security Tester only	**33-892**

VDV Pro Cable Tester

The VDV PRO Cable Tester is an easy-to-use cable testing and verification device that can quickly test all wiring requirements found throughout today's residential and commercial environments.

- Voice – tests 3-pair USOC and 6-position RJ-11/12 jacks for voice cable testing
- Data – tests wire map of shielded and unshielded cable to T568A/B standard
- Video – tests coax cable for opens, shorts and length with F-Connector interface
- Larger backlit LCD screen for better test results readability
- Network link LED blink for visual cable tracing
- Voice testing capability detects RJ-11 (1, 2, or 3 pair)
- Voice test also shows Normal or Reverse for pins 1 through 6
- Length measurement is shown during initial test results for convenience and time savings
- Eight remotes have RJ-45, RJ-11 and Coax F-jacks for increased testing capabilities
- Tests for shield continuity, shorts, opens, miswires, reversals and split pairs with remote connected
- Full dot-matrix LCD display for user convenience to read display results
- One-ended testing for shorts, opens and split pairs (no remote needed)
- Test results displayed in wire map format with message line for shorts and split pairs

Description	Cat. No.	Description	Cat. No.
VDV PRO w/one remote and terminator	**33-770**	VDV PRO Eight Remote Replacement Kit (ID 1-8)	**33-774**
VDV PRO w/eight remotes and terminators	**33-771**	Eight Coax Terminator Kit	**33-775**
VDV PRO (33-770) w/one remote and Amplifier Probe (62-164)	**33-780**		

TESTERS