



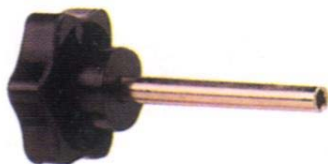
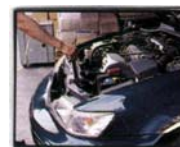
KA-6500 Headlight Adjusting & Brake Spring Hook

This tool made from heat treated alloy steel is especially designed for removing and installing hard-to-reach headlight adjusting springs. OAL 6"



KA-9122A Headlight Adjusting Ratchet For Ford

- Used to adjust aerodynamic headlights with rear mounted adjusters on newer Ford vehicles
- These adjusters are not easily accessible and require this tool for adjusting
- The extra-long handle allows easy access to hard-to-reach spaces
- 4mm hex with a roller clutch for infinite settings.



KA-6066 Headlight Adjuster For Ford

Fit 4mm hex headlight adjusting bolts on late model Ford, Mercury and Lincoln cars and pickups with aerodynamic headlights.

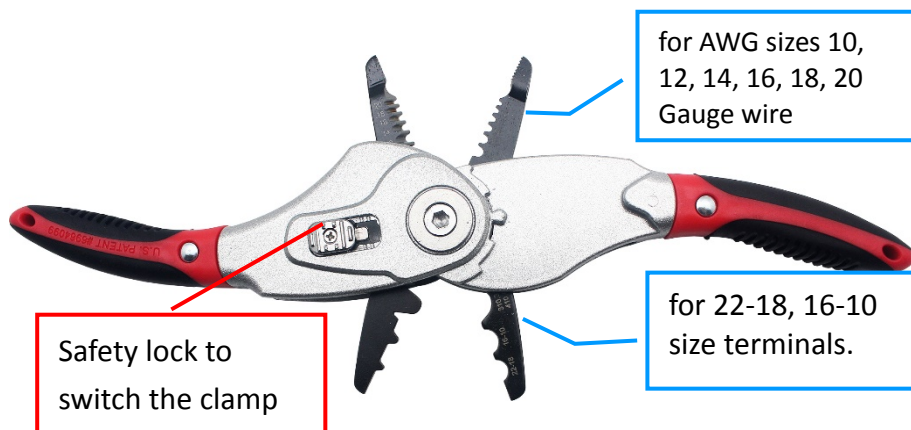


KA-3874 Spark Plug Electric Wire Remover

- The tool is designed to separate the electric wire from spark plug
- Applicable: VW VR6, PASSAT, BENZ, V-CLASS

KA-3800 2 In 1 Multi Wire Stripper & Crimper Tool

- Easy One-Hand Selector Switch.
- One end features a professional grade stripper for AWG sizes 10, 12, 14, 16, 18 and 20 Gauge wire.
- Flip the handles around and you have a full range crimper for 22-18, 16-10 size terminals.
- Three position safety lock: open to switch, lock to hold on position, closed to prevent operation.



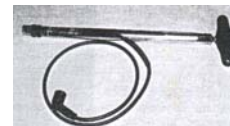


Spark Plug Socket Remover

The tool is designed to separate the electric wire from spark plug.

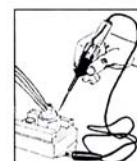
KA-3874A L: 352.2mm

KA-3874B L: 225mm

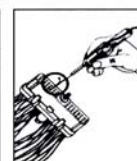


KA-2720 Finger Saver Wire Piercing Guide

An ingenious device that eliminates stabbed fingers. Quickly, easily and safely guides the pick point of any circuit tester into the center of all primary automotive electrical wire. Also holds the circuit tester in position allowing you to work with both hands free. Resists gasoline, oil, thinners, and other shop chemicals.



Tests standard primary electrical systems.



Tests computer controlled electrical systems.



KA-4193 Trailer Light Tester (4pole)

The ideal tester for the workshop and service station.

Permits the testing of connections at tractor unit plug socket (not for checking the flasher indicator lamps on the dashboard)



KA-7244 Tractor Unit Electrical System Tester (European For Cars)

Economical tractor unit tester with plastic housing, for 12V LED's indicate correct polarity and function. Cable length 100cm (39")

Test Functions:

- Flashers right/left
- Brake lights
- Tail lights right/left
- Rear fog lamp



KA-7245 Tractor Unit Electrical System Tester (American For Cars)

Economical tractor unit tester with plastic housing, for 24V LED's indicate correct polarity and function. Cable length 100cm (39")

Test Functions:

- Flashers right/left
- Brake lights
- Tail lights right/left
- Rear fog lamp



KA-2543 Remote Starter Switch

- Heavy duty, push button remote starter allows technicians to bump or crank engines while under the hood.
- Long, 5 ft. leads.
- Heavy duty insulated alligator clips.
- Rugged rubber housing.
- Great for high-use environments.



KA-7016 Remote Starter Switch

Heavy clips with insulated sleeves attach to ground and starter solenoid switch. Thumb activated switch. 6-foot (183cm) heavy insulated wire for long tool life.



KA-7015 Auto Computer Memory Unit

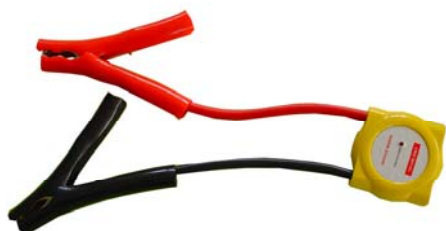
Maintains the memory of car radios, clocks and computer functions when is disconnected. Simply attach a 9-volt battery and plug into cigarette lighter. Will retain settings up to 4 hours. Will not power any lights or other accessories.



KA-2544 Fibre Optic Noid Light Extension Cable

Insert noid light into the cup of extension cable then connect it to the vehicle wiring harness. The extra long fibre optic cable can be secured with suction cup to the windscreen, bonnet etc. to observe the flashing noid light through the lens of the fibre optic cable.

- Length: 6ft (1.8m)



KA-7303 Anti-Zap Service Minder

This unique electronic device provides total protection against transient voltage spikes or surges generated by modern welding units like Argon ARC, MIG, TIG, and plasma cutters. Designed for use on 12-volt systems. Protects: computer and EFI fuel systems, mobile phones and faxes, all modern L.E.D. instrumentation, radio cassette tapes, alarms, C.D players. Connects easily to battery terminals.

1. Connect the red nipper to the cable positive (near the terminal).
2. Connect the black nipper to the cable negative (near the terminal).
3. Light the green LED: clamps correctly connected Battery being tested is in good condition. Proceed.
4. If it's not in good condition the battery. no star a vehicle and change battery.



KA-6725GH IAC Signal Tester

Use testers for checking the electronic control module signal that provides direction to the idle air-control motor on GM vehicles with throttle body or port fuel injection systems.



KA-6724 Deluxe Noid Set

- The most economic way to check electronic fuel injection (EFI) signals
- Fast and easily checks for systems of GM TBI, Bosch PFI Ford TBI, GM PFI, Geo TBI and GM SCPI just disconnect the fuel injector, plug the Noid Lite into injector, Plug the Noid Lite into injector wiring harness then crank the engine.



KA-6724A Deluxe Noid Lite Set

- The most economic way to check electronic fuel injection (EFI) signals
- Fast and easily checks for systems of GM TBI, Bosch PFI Ford TBI, GM PFI, Geo TBI and GM SCPI just disconnect the fuel injector, plug the Noid Lite into injector, Plug the Noid Lite into injector wiring harness then crank the engine.

IAC Signal Test Lights

Use testers for checking the electronic control module signal that provides direction to the idle air-control motor on GM vehicles with throttle body or port fuel injection systems.



KA-6724B Noid Lights/ IAC Test Lights & Ignition

Set includes:

- GM TBI Noid Lite
- Bosch PFI Noid Lite
- Ford Noid TBI Lite
- GM Multec 2 Noid Lite
- GM PFI Noid Lite
- Geo TBI Noid Lite
- GM SCPI Noid Lite
- Bosch 2 Noid Lite
- '82 and newer GM TBI/PFI with square 4 pin connector
- '87 and newer Model 700 TBI/PFI with flat 4 pin connector



KA-6724BL

10pcs Deluxe Noid Light/ IAC Test Kit Plus One Fibre Optic Noid Light Extension

- Sets includes enght noid lights for testing GM PFI, Ford TBI, Geo TBI, Bosch PFI, GM TBI, GM SCPI, GM MUL TEC 2, Bosch 2.
- One IAC signal test lights for GM TBI and PFI fuel injection system, and one for GM model 1987 or newer GM model 700 TBI and PFI fuel injection system. Plus one fibre optic Noid Light extension

**KA-1282****281pcs Professional Crimper and Stripper Assorted Terminals Tool Kit**

Ins-Ring Terminal#10[AWG12-10]	3 pcs
Ins-Ring Terminal#1/4[AWG12-10]	3 pcs
Ins-Spade Terminal#10[AWG12-10]	3 pcs
Ins-Spade Terminal#1/4[AWG12-10]	3 pcs
Ins-Spade Terminal#6[AWG16-14]	10 pcs
Ins-Ring Terminal#8[AWG16-14]	10 pcs
Ins-Spade Terminal#8[AWG16-14]	10 pcs
Ins-Ring Terminal#6[AWG16-14]	10 pcs
Ins-Ring Terminal#6[AWG22-16]	10 pcs
Ins-Spade Terminal#6[AWG22-16]	10 pcs
Ins-Ring Terminal#8[AWG22-16]	10 pcs
Non-Ins Ring Terminal#6[AWG22-16]	5 pcs
Non-Ins Ring Terminal#6[AWG16-14]	5 pcs
Non-Ins Spade Terminal#6[AWG22-16]	5 pcs
Non-Ins Spade Terminal#6[AWG16-14]	5 pcs
Non-Ins Ring Terminal #6[AWG 12-10]	3 pcs
Non-Ins Spade Terminal #6[AWG 12-10]	3 pcs
Ins-Butt Connectors[AWG12-10]	3 pcs
Ins-Male Disconnectors[AWG 12-10]	3 pcs
Ins-Female Disconnectors[AWG 12-10]	3 pcs
Ins-Butt Connectors[AWG 16-14]	5 pcs
Ins-Male Disconnectors[AWG 16-14]	3 pcs
Ins-Female Disconnectors[AWG 16-14]	3 pcs
Ins-Butt Connectors[AWG22-16]	5 pcs
Ins-Male Disconnectors[AWG 22-16]	3 pcs
Ins-Female Disconnectors[AWG 22-16]	3 pcs
Non-Ins Butt Connectors[AWG22-16]	5 pcs
Non-Ins Butt Connectors[AWG16-14]	5 pcs
Non-Ins Butt Connectors[AWG12-10]	3 pcs
Open Barrel Female Terminals	5 pcs
Open Barrel Male Terminals	5 pcs
PVC Cover for Open Barrel Terminals	5 pcs
Cord End Terminal 1.0mm,L:8mm	25 pcs
Cord End Terminal 0.75mm,L:8mm	25 pcs
Cord End Terminal 1.5mm,L:8mm	25 pcs
Cord End Terminal 0.5mm,L:8mm	25 pcs
Cord End Terminal 10.0mm,L:18mm	2 pcs
Cord End Terminal 6.0mm,L:18mm	2 pcs
Cord End Terminal 16.0mm,L:18mm	2 pcs
Jaw for crimping Insulated Terminals	1 set
Jaw for crimping Non-insulated Terminals	1 set
Jaw for crimping Open Barrel Terminals	1 set
Jaw for crimping Cord-End Terminals	1 set
Jaw for core-end terminal	1 set
Quick Interchangeable Heavy-duty Ratchet Crimper	1 pcs
Interchangeable Heavy-Duty Stripper	1 pcs

**KA-1275****5pcs Professional Quick Interchangeable Ratchet Crimping Tool Set**

Jaw for 4P4C / RJ22 Plug	1 set
Jaw for 6P2C,6P4C, / RJ11,6P6C/RJ12 Plugs	1 set
Jaw for 8P8C/RJ45 Plugs	1 set
4.4" Professional Wire Stripper	1 pcs
Quick Interchangeable heavy-duty crimper	1 pcs
or	
4.4" Professional Wire Stripper	1 pcs

**KA-1278****7pcs Professional Quick Interchangeable Ratchet Crimping Tool Set**

Jaw for Insulated Terminal	1 set
Jaw for non-insulated terminal	1 set
Jaw for open barrel terminal	1 set
Jaw for cord-end terminal-small size	1 set
Jaw for BNC connector	1 set
Jaw for cord-end terminal-large size	1 set
Quick Interchangeable heavy-duty crimper	1 pcs

**KA-1276**
1000pcs Quick Interchangeable Ratchet Crimping Tool & Terminals Kit (Ins. & Non-Ins. Terminals)

- 1000pcs jaws and professional crimping tool-changeable
- Insulated Jaw and Non-Insulated Jaw each one pcs
- crimping tool body-one
- 997pcs terminal

**KA-1277**
3pcs Quick Interchangeable Heavy-Duty Ratchet Crimping Bags

- Jaw for Crimping Insulated Terminal- 1 set
- Jaw for Crimping Non-Insulated Terminal- 1 set
- Quick Interchangeable Heavy-Duty Crimper- 1 pcs

KA-1279 11pcs Quick Interchangeable Ratchet Crimping Tool Kit


Jaw for Insulated Terminal	1set
Jaw for non-insulated terminal	1 set
Jaw for open barrel terminal	1 set
Jaw for cord-end terminal	1 set
Jaw for BNC connector	1 set
Jaw for cord-end terminal (For large size)	1 set
Jaw for Open Barrel Terminals (For large size)	1 set
Jaw for 4 Position 4 Contact Connector	1 set
Jaw for 6 Position 6 Contact Connector	1 set
Jaw for 8 Position 8 Contact Connector	1 set
Quick Interchangeable heavy-duty crimper	1 pcs

Material→ AISI-4140

Procedure→ Precision and Wax-lost Casting

Treatment→ Finished with heat treatment (HRC 38° - 45°) and Zinc Phosphate Surface Treatment

Jaw's Instruction

<p>A jaw Insulated Terminals For AWG 22/18/16-14/12-10 or Din 0.5-1.0/1.5-2.5/4-6mm²</p>	<p>B jaw Non-Insulated Terminals For AWG 20-18/16-14/12-10/8 Din 1.5/2.5/6/10mm² Jis 1.25/2/5.5/8mm²</p>	<p>C jaw Open Barrel Terminals For AWG 20-18/16-14/12-10 DIN 0.5-1.0/1.5-2.5/4-6mm²</p>	<p>D jaw Insulated Cord-End Terminals For AWG 22/20/18/16/14/12 DIN 0.5/0.75/1.0/1.5/2.5/4.0mm²</p>	<p>E jaw RG Type Coaxial Cable Connector(BNC) Coaxial cable connectors [6.48/5.41/2.50/1.72/8.23mm] [0.255"/0.213"/0.1"/0.68"/0.324"] and coaxial cable connectors have to fit for coaxial cable RG type 58.59.62.6</p>
<p>F jaw Insulated Cord-End Terminals (Huge AWG) For AWG 10/8/6 DIN 6/10/16mm²</p>	<p>H Jaw Open Barrel Terminals For AWG 14-22/8-6 JIS 2.5/0.5/8-10mm²</p>	<p>G1 Jaw 4 Position 4 Contact Connector For 4P4C / RJ22 PLUG</p>	<p>G2 Jaw 6 Position 6 Contact Connector For 6P2C, 6P4C/RJ11 6P6C/RJ12 PLUGS</p>	<p>G3 Jaw 8 Position 8 Contact Connector For 8P8C / RJ45 PLUGS</p>



KA-7305 Electric Marking Pencil

This ETCHING PENCIL will operate from either 6 or 12 volts. The recommended hook-up is shown below using the leads supplied with the pencil.



(Recommended Hook-Up)



KA-6806 High Tension Tester

Set of four testers of quick check on H.T. System. If the testers flash, the H.T. supply to the plugs is good. If the tester does not flash, check the H.T. Leads points, distributor, coil, etc. Supplied for 4 cylinder engines, but can be tested in all combinations.



KA-3569 Ignition Extension

Convenient, Simple, Accurate

- Check ignition timing, engine RPM, ignition state
- Allows for inductive couplers to be used on engines that have no HT leads to diagnose engine faults.
- Ideal for coil-pack diagnose a fault without unnecessary component changing.
- Simply plugs in-between the coil-pack and spark plug.
- Length: 600mm



KA-3576

KA-3576 Leakage Current Catcher Without Spark Tester

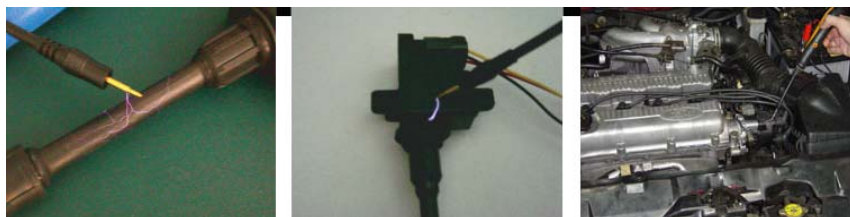
KA-3576A Leakage Current Catcher With Spark Tester

(with KA-5162 x 2sets)

- Find the leakage quickly.
- Apply the ignition leakage ester are very easy. All we need to do is to connect the electric source wires according to their colors. (red wire connect to the positive of the battery, black to the negative), if the LED is flashing, the electric leakage has occurred.



KA-3576A



To operate gasoline engine have to accompany with ignition system, is combined by ignition coil, high tension cable, spark plug, distributor, ignition amplifier, etc. The coil produce the power of high voltage surge, it is the most difficult part to diagnose. Choice the IGNITION EXPERT can help you to judge the defect accurate and rapidly. To solve the ignition problem by the redouble function tools.



KA-5174 Ignition Expert (simply)

Standard coil connectors:

Mitsubishi x 2 / Nissan x 1 / Ford x 1 / Toyota x 1 / Honda x1
(connector type could collocate you want)



KA-5174A Ignition Coil Connectors

Coil connectors type: Benz, Volvo, Suzuki, Toyota, Luxgen, Honda, Nissan, VW/Audi, Ford, Hyundai, GM, BMW, Mitsubishi
(connector type could collocate you want)



KA-5174K Ignition Expert (professional)

Operation:



Step 1:

Connect the ignition coil and spark tester (will ground connected).
Connect the adapter cable with ignition coil



Step 2:

Ensure that the testers speed adjustment knob is turned to the left end (counterclockwise for minimum)



Step 3:

Connect the tester's power supply clips to the battery terminals. Plug the power cable into the tester's power input socket



Step 4:

When the DC 12V power is supplied, the tester's Red LED will light up. The unit will run through a Self-test for about 2 seconds and the Green LED up start the flash



Step 5:

Connect the coil power and signal cable with tester.



Step 6:

Turn the knob to change the ignition speed fast or slow. After test finished turn the knob to the left end (counterclockwise)

- Apply to any Automotive Multi-meter, the extended line of probe for oscilloscope.
- More convenient connection and checking rapidly.
- When checking the electric current, only use the lines to connect the circuit, do not need to cut the electric wires.
- Various wires in this box, it is suitable for the Europe, America and Japan terminal. High common use and convenience.



KA-1608 23pcs Car Testing Line Kit

- CE UL APPROVAL
- Universal
- Packed in Velcro Pouch Bag








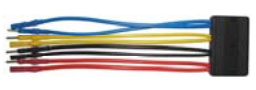



KA-1608A 13pcs Car Testing Line Kit

- CE UL APPROVAL
- Universal
- Packed in color sleeve



KA-1608C 15pcs Car Testing Line Kit

- CE UL APPROVAL
- Universal
- Packed in white box

	Description	KA-1608	KA-1608A	KA-1608C
	Alligator Clip Can be used in conjunction with the test probes or banana plug extension cable	2	2	2
	Wiring Checking Clip Rated Voltage: 300V Rated Current: 5A	1	1	1
	1 to 1 Male / Female Extension Wire	4	2	4
	Testing Probe Allows the multi-meter tester probes to be extended. Can be used with the banana plug extension cable to lengthen the reach of the test probes	2	2	2
	Resistance Signal Simulator 5KΩ potentiometer. This can determine the condition of the sensor whether it is good or bad before replacing it when diagnosing with a diagnostic scanner	1	—	—
	Flat Female Terminals-various sizes Can be used as a breakout connection for measuring signals with test equipment	6	—	—
	SRS (airbag) Plug Used to test the functionality of the airbag or safety seat belt retractor circuitry	1	—	—
	LED stroboscope This LED stroboscope is very useful for checking the pulsing signals of the controls systems. Its LED light will blink according the signals received	2	2	2
	Needle Probe This Needle Probe is very useful due to its fine needle contact. It can reach small tight openings and for piecing through the insulation without noticeable damage the outer insulation	4	4	4

Various male/ female connectors are designing and making for car factory demand. It's a perfect circuit checking tool. You can use it nimble on the adjustment and assistant the technician checking the car problem rapidly and accurately.



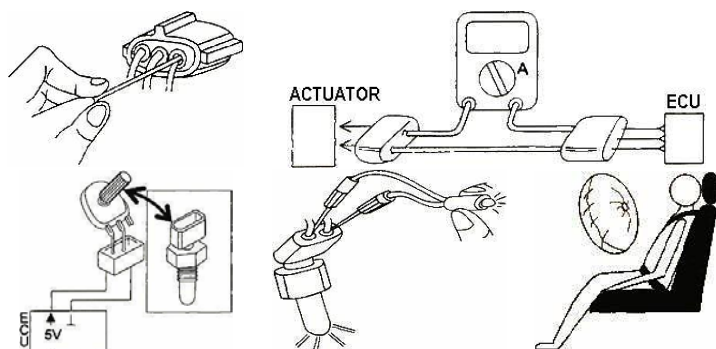
KA-3563N 92pcs Multi-Purpose Connector



KA-3563A 94pcs Multi-Purpose Connector

Contents	Q'ty	KA-3563N	KA-3563A
5K Ω potentiometer (variable resister)	2	●	●
LED stroboscope	2	●	●
SRS Connector	2	●	●
1 to 2 Connector	2	●	●
1 to 1 Male / Female Extension Wire	4	●	●
Alligator clip	2	●	●
Testing Probe	2	●	●
Acicular probe	4	●	●
Wire Checking Clip	2		●
Round terminals	24	●	●
Flat Terminals	48	●	●

*Please see next page
ET-A10-1 for more
function description.*



Application Of Operation:

1. When checking the parts, it could connect the back of terminal directly, would not to damage the circuit, reduce the circuit rust and avoid to adding impedance.
2. Apply to any Automotive Multimeter, the extended line of probe for oscilloscope. More convenient connection and checking rapidly.
3. When checking the electric current, only use the lines to connect the circuit, do not need to cut the electric wires.
4. Variable Resister can simulate the pretend signal of coolant temperature sensor, throttle valve sensor and send the pretend signal to computer. It would avoid risk to change the new parts again.

5. Equip 2 sets LED light. It can supervise hall effect, photoelectric signal, nozzle, electromagnetic valve, electromagnetic valve of transmission shift gear....and control signals.
6. SRS Connector can simulate airbag and routed contracting device of safety belt to avoid accident or miss-judgment.
7. Various wires in this box, it is suitable for the Europe, America and Japan terminal. High common use and convenience.

Parts Function of KA-3563 & KA-3563A:



5KΩ potentiometer (variable resistor)

Many parts in vehicle are applied to the variable resistor (engine coolant temp. sensor, air charge temp. sensor, oil temp.). You can adjust the resistor to meet your demand.



LED stroboscope

2-color and 2-way LED. The LED changes the color when shifting the positive (+) / Negative (-).



SRS Connector

While the SRS airbag or routed contracting device of seat belt is bad or after accident, it needs to set up a new SRS airbag. The SRS connector is used to replace the SRS airbag to connect with the system first. The connector will be burned if the current is over 0.25A.



1 to 2 Connector

1 to 2 Male / Female connectors of banana sockets.



1 to 1 Male / Female Extension Wire

1 to 1 Male / Female connectors of banana sockets.



Alligator clip

Clip the testing part, can be used together with the probe and extended line.



Testing Probe

Probe the testing part, can be used together with the alligator clip and extended line.



Acicular probe

To avoid the damage, please notice the operating angle.(Good strength with carbon steel)



Wire Checking Clip

By clipping the wire with this clip, the needle with in the clip will pierce through the wire, and so user can test the system without unplug the wire or clear all the insulator



Round terminals

1.5mm (Male / Female)+ Female banana socket (3pcs / each)
2.0mm (Male / Female)+ Female banana socket (3pcs / each)
3.5mm (Male / Female)+ Female banana socket (3pcs / each)
4.0mm (Male / Female)+ Female banana socket (3pcs / each)



Flat Terminals

0.8mm (Male / Female)+ Female banana socket (3pcs / each)
1.2mm (Male / Female)+ Female banana socket (4pcs / each)
2.0mm (Male / Female)+ Female banana socket (4pcs / each)
2.5mm (Male / Female)+ Female banana socket (3pcs / each)
3.0mm (Male / Female)+ Female banana socket (4pcs / each)
5.0mm (Male / Female)+ Female banana socket (3pcs / each)
6.0mm (Male / Female)+ Female banana socket (3pcs / each)



KA-4043 Testing Leads Assortment (16pcs)

- Facilitates the measurement on connectors and components without destroying the insulation or the plug connection
- 4mm connector for banana plugs
- Includes:
 - Male flat and round plugs x 7 in different sizes
 - Females flat and round plugs x 7 in different sizes
 - Test probe x 1 pc
 - Banana plug x 1 pc
- For use on the 6 – 12V circuits



KA-4044 Terminal Test Kit

14-piece terminal adapter kit with circuit tester.

Terminals include Weather-Pack, Metri-Pack, and Micro-Pack style terminals. External-internal design to test the circuit without damaging the connector. Use this tester to check 6 - 24 volt circuits and accessories including lights starters alternators, cooling and heating components, radios and relays. Not recommended for use on computers, sensors or computer wiring. Consult the service manual for circuit diagrams and specific test procedures.



KA-4045 Terminal Test Kit

14-piece terminal adapter kit with circuit tester.

Terminals include Weather-Pack, Metri-Pack, and Micro-Pack style terminals. External-internal design to test the circuit without damaging the connector. Use this tester to check high and low voltages (power and ground) on 6, 12 and 24 volt system. High impedance to protect sensitive electronic sensors, microprocessors, electronic ignition components and air bags. LED indicates red for power (high) and green for ground (low). Connects the red lead to a power source and the black lead to a ground source.

Contents:

PARTS	DESCRIPTION	KA-4043	KA-4044	KA-4045
	Heavy Duty circuit tester	—	●	—
	LED circuit Tester	—	—	●
	6.0mm male/female terminal	●	●	●
	5.0mm male/female terminal	●	●	●
	3.0mm male/female terminal	●	●	●
	2.5mm male/female terminal	●	●	●
	2.0mm male/female terminal	●	●	●
	1.2mm male/female terminal	●	●	●
	0.8mm male/female terminal	●	●	●
	Ø4.0 banana adapter	●	●	●
	Alligator Clip x 2	—	●	●
	Wire Check Clip x 1	—	—	●
	1 to 1 Male/Female Extension Wire x 2	—	—	●

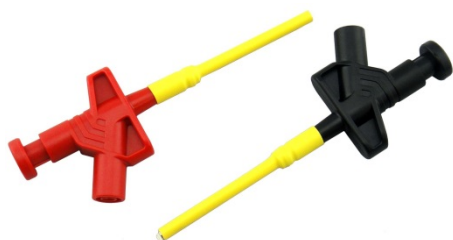
KA-3565 Wire Checking Clips

- Easy, rapid and convenient measuring checking!!
(Apply to various electric wires.)

Applicative wire diameter	1.5Ø~4.5Ø
Voltage range	0V ~ 330V
Current load	Max 0.5A

Include:

- Wire checking clip (black) x 1
- Wire checking clip (red) x 1

**KA-3565B Wire Checking Clip**

- Diameter: Ø 4mm
- Current Rate: 10A
- Voltage Rate: CATIII 1000V
- Specification: 1000mm, ABS

**KA-3565C Wire Checking Clip**

- Diameter: Ø 4mm
- Current Rate: 10A
- Voltage Rate: CATIII 1000V
- Specification: 1000mm, ABS

**KA-5379 VAG Connector Removal Tool**

- The safe and proper way to remove most VAG push & pull connectors.
- This style electrical connector is often found on mass air flow (MAF) sensor, coil packs, headlights / fog lights, level sensors, MAP sensors, and etc...
- Suitable for VAG group: VW / Audi / Porsche, and etc...

**KA-4304A Battery Replacement Driver**

- This driver features a specially curved tip to fit Dzus and many other coin headed style screws where the slot has a concaved base.
- These style fasteners are found on body panels, cowls, etc, on aircraft, trucks and special purpose vehicles.
- Tip width: 9/16"(14mm)
- Length: 5"(125mm)





KA-3698 5pcs Wire Installer's Kit

- Developed for safer and more accurate working in electrical wiring, re-wiring, and component placement and removal operations while reducing the chance of damage to a wire's insulation. Useful in all kinds of automotive, aerospace, marine and industrial environments these wire control tools allow the user to push, pull and feed wires safer in hard to reach areas and panels.
- Carefully selected tool tips assist the placement and extraction of cables, connectors and components.
- Enable safer prying and opening of control panels, inspection covers and plastic case assemblies.

* NOT WARRANTED FOR HIGH VOLTAGE USE*

KA-3698-1 Small Gauge Wire Feed Tool

Wire guide tool replaces common industry steel spoons that are used in this type of wire feeding operations. Designed to assist re-wiring through existing harnesses and allows safe cutting of cable ties by providing a backing cradle.

* NOT WARRANTED FOR HIGH VOLTAGE USE*

KA-3698-2 Wire soldering/Case Opener Tool (Double Ended)

Keeping fingers and metal tools away from component edges reduces risk of operator injury and electrical shorting. Also assists component placement during soldering operations. (no direct contact with soldering tools)

* NOT WARRANTED FOR HIGH VOLTAGE USE*

KA-3698-3 Wire Pulling Tool

Allows pulling wires that are in tight spaces such as behind dashes and machine panels, reducing the chance of damaging the insulation.

* NOT WARRANTED FOR HIGH VOLTAGE USE*

KA-3698-4 Wire Stuffing Tool

Allows stuffing of wires that are located in tight spaces such as behind dashes and machine panels, reducing the chance of damaging the insulations.

* NOT WARRANTED FOR HIGH VOLTAGE USE*

KA-3698-5 Micro Case Pry Tool

Micro pry tool tip designed to be used on "steel screw driver slots" found everywhere in car interiors, electronic case covers, appliances, etc. Very short rocker point allows micro prying with low surface point pressure as well.

* NOT WARRANTED FOR HIGH VOLTAGE USE*



KA-5274 Battery Plugs Tool

- Flat Head
- For screwing battery plugs in and out.
- Profile is especially suitable for battery plugs.
- Special length allows universal application in areas with restricted access.



Screwdriver for battery screw plug

Universal application. Also suitable for the ventilation/-locking screw on the radiator; for example on BMW vehicles.

- This tool is designed for loosening and tightening the cross-recessed plastic screw plug on the starter battery or plastic radiators without the risk of damage.
- Special length allows universal application in areas with restricted access.
- Cross Head

KA-5275A 1.3mm

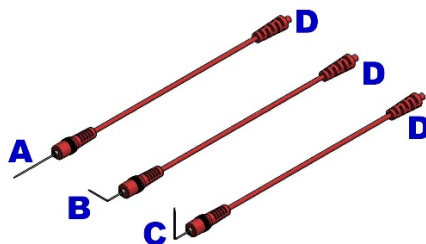
KA-5275B 1.8mm





KA-2197 Super Thin Back Probes With Angles

- Probes are provided in straight, 45° and 90° can access to connectors in limited spaced.
- Super thin probes access to connector back easily between the insulation and weather seal, creating contact on the metal part without damage the insulation.
- 6 colors help identify different lines for testing.
- Rear side of female 2mm to connect probes from digital multimeter (DMM) without needing additional adapters.



- A. Straight: 0.7mm probe overall length 202 ± 2 mm
 B. 45°: 0.7mm probe overall length 197 ± 2 mm
 C. 90°: 0.7mm probe overall length 183 ± 2 mm
 D. Multimeter probe connector

Instruction:

1. Refer to the wiring diagram on the automotive manufacturer's manual.
2. Locate the connector and identify the line to be tested.
If multiple lines will be tested, then use back probes with different colors.
3. Insert the test probe into the rear side of the connector (Fig. 1) and feel a slight resistance to make sure the probe is in contact with the metal part.
4. Connect digital multimeter (DMM) to the test probe.
5. Remove the multimeter after a reading is made.

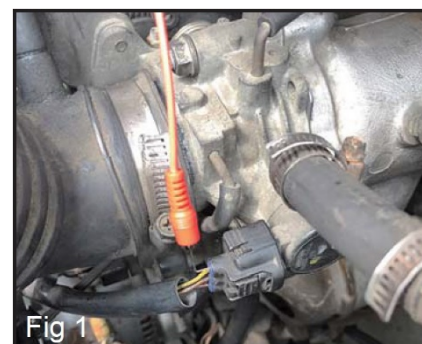


Fig 1



KA-1134PPS Small Piercing Probe

- Stainless steel tip can connect with the wire without cutting it.
- With 4mm socket connection.
- Wire: 20~28 Gauge
- Current Rating: 10.0 Amp



KA-1135PPL Large Piercing Probe

- Stainless steel tip can connect with the wire without cutting it.
- With 4mm socket connection.
- Wire: 8~18 Gauge
- Current Rating: 20.0 Amp



FLEXIBLE 10 GAUGE LEADS

KA-1130-1FT Length: 1ft

KA-1130-3FT Length: 3ft

KA-1130-6FT Length: 6ft


PATENTED

•TAIWAN •USA
•GERMANY •CHINA

KA-9063 Solar Connector Ratchet Crimper Kit – 4 PCE

- Ideal for solar connectors!!
- Fulfills all the requirements prescribed by the various green building electrical installation.



Content: Quick Change Ratchet Crimper + 3 Jaws

IQ1 Jaw
For MC3 Solar Connector
2.5 – 6.00 mm²
• AWG 12/10/14
• DIN 4/6/2.5 mm²



IQ2 Jaw
For MC4 Solar Connector
2.5 – 6.00 mm²
• AWG 14/12/10
• DIN 2.5/4/6 mm²



IQ3 Jaw
For Tyco Solar Connector
2.5 – 6.00 mm²
• AWG 15-10
• DIN 1.5/2.5/4/6 mm²



Jaw	
Material	AISI-4140
Procedure	Metal Injection Molding(MIM)
Treatment	Heat Treatment
Surface Treatment	Zinc Phosphate

Quick Change Ratchet Crimper	
Body Material	Carbon Steel
Handle	PP + TPR (PAHs Approved)

KA-9064 Solar Connector Crimping Tool Kit For MC4 Connectors

– 14 PCE with Stripper & Cutter

- A Complete Tool kit to Install MC4 Solar Connectors Easily and Accurately.
- Solar Cable Stripper works a wonder to strip off Double-Layer Insulated Cables (2.5-6.00 mm²)
- Cable Cutter with High Leverage Jaw and Shear Blade to cut clean without damage.
- MC4 Crimper features Consistent and Accurate Performance
- MC4 Connector & MC4 Spanner for opening the Locking Device, Securing & Tightening the Cable Gland.


PATENTED

•TAIWAN •USA
•GERMANY •CHINA

Contents	Q'TY
Quick Change Ratchet Crimper	1
Jaw for MC4 Solar Connector	1
7" 4-Way Grinding Wire Stripper(With Lock)	1
6-1/2" Automatic Wire Stripper	1
Stamped & Formed Pin Contact[AWG 14-10]	2
Stamped & Formed Socket Contact AWG[AWG 14-10]	2
Receptacle Connector	2
Plug Connector	2
Spanner for MC4 CAP for 1000V MC4 connector	2

Jaw	
Material	AISI-4140
Procedure	Metal Injection Molding(MIM)
Treatment	Heat Treatment
Surface Treatment	Zinc Phosphate

Quick Change Ratchet Crimper	
Body Material	Carbon Steel
Handle	PP + TPR (PAHs Approved)

Stamped & Formed Pin / Socket Contact	
Material	Copper
Plating	Tin

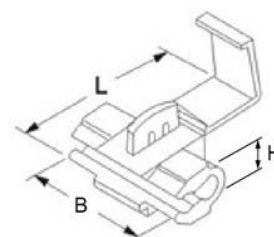
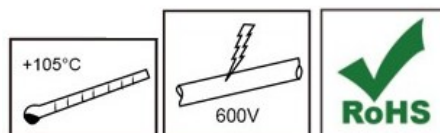
Receptacle / Plug Connector:	
Material	PPO
Rated Voltage	TUV 1000 DC / UL 600V DC

Spanner	
Material	ABS



Quick Splice Connector

- **No Strippers** or crimpers required!!
- **Easy** Wire Splicing of Wire.
- **Fast, Simple , Strong** Splicing of Electrical Wires.



Application:

- Automotive and Transportation Sector
- Commercial and Domestic Appliances.
- Electrical and Electronic Equipment
- Industrial Control System

No.	Color	Wire Range AWG/mm ²	Drawing	Dimension (mm)		
				B	H	L
(1)	RED	AWG 22-18 0.5 – 10.0/mm ²		0.787" (20.0mm)	0.315" (8.0mm)	1.055" (26.8mm)
(2)	BLUE	AWG 18-14 1.0 – 2.50/mm ²		0.787" (20.0mm)	0.315" (8.0mm)	1.055" (26.8mm)
(3)	WHITE	AWG 18-14 1.0 – 2.5/mm ²		0.787" (20.0mm)	0.315" (8.0mm)	1.055" (26.8mm)
(4)	YELLOW	AWG 12-10 4 – 6/mm ²		0.787" (20.0mm)	0.433" (11.0mm)	1.378" (35.0mm)

How to use:

- (1) Lift the flap
- (2) insert the wires
- (3) Close the flap, Blade strip the wires
- (4) Secure the flap with pliers.



Multi-Pack



Packed in PVA Tube

Item No	Color	Quantity
KA-9076RB	RED + BLUE	25 + 25
KA-9076R	RED	50
KA-9076B	BLUE	50
KA-9076Y	YELLOW	17



Packed in PP Box

Item No	Color	Quantity
KA-9076K32	RED + BLUE	16 + 16



KA-9076K60 60PCE Insulated Terminal Set

- Splice the wire, connect the wire in T shape.

	A	B	C	D	E
Description	Stripping Quick Splice			Nylon Fully Ins - Male Disconnecter	
Size	AWG 22-18 0.5~1.0mm ²	AWG 18-14 1.0~2.5mm ²	AWG 12-10 4.0~6.0mm ²	AWG 16-14 1.5~2.5mm ²	AWG 18-14 1.0~2.5mm ²
Color	RED	BLUE	YELLOW	BLUE	BLUE
Q'ty	10	18	4	14	14

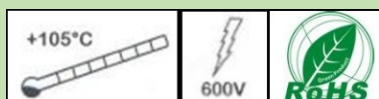


KA-9076T36 36PCE T-TAP Disconnecter Kit

- Quick Installation without stripping wire job.
- Easy Crimping with regular tool.
- Safety Insulator Tap

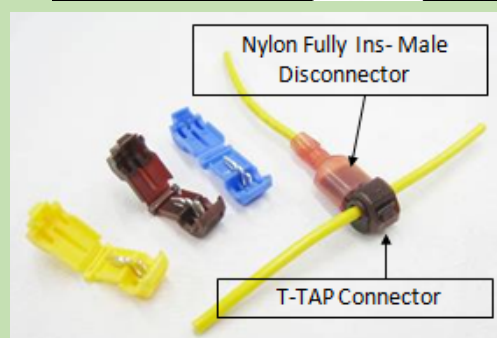
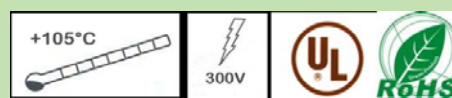
	A	B	C	D	E	F
Description	T-TAP Connector			Nylon Fully Ins - Male		
Size	AWG 22-18 0.5~1.0mm ²	AWG 18-14 1.0~2.5mm ²	AWG 12 4 mm ²	AWG 22-16 0.5~1.5mm ²	AWG 16-14 1.5~2.5mm ²	AWG 12-10 4~6mm ²
Color	RED	BLUE	YELLOW	RED	BLUE	YELLOW
Q'ty	6	6	6	6	6	14

Stripping Quick Splice



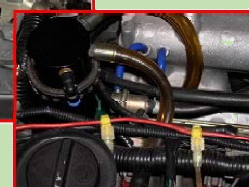
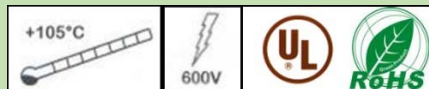
Nylon Fully Ins - Male Disconnecter

- Use Stripper & Crimper to prepare the Wire for splicing.



T-TAP Connector

Insert the wire into the T-TAP Connector.
No need to use stripper/crimper, the metal blade cut open the wrapping of the wire.



KA-2241 All Purpose 6-in-1 Combination Pliers**Drop Forged & Heat-treated**

- Hardened, Tempered for exceptional Strength & Durability
- 6 in 1 Functions:
 - Gripping and Looping
 - Screw Extractor
 - Stripping: 10-18 AWG Solid 12-20AWG Stranded
 - Wire Cutting
 - Screw Shearing : 6-32 & 8-32 screw
 - Crimping

**KA-2242 High Leverage 7-in-1 Combination Pliers***** Patented ***

- Stripping / Crimping / Shearing / Reaming / Wire Cutting / Gripping / Bolt Extracting

Crimping**Extract Screw****Cut Clean Edge****Cut Hard Wire****Reaming****Stripping****Gripping**



KA-9301
Plastic Case Battery Brush



KA-9302
Plastic Case Battery Brush



KA-9303
Metal Case Battery Brush
(ZINC PLATED, NICKEL PLATED)



KA-9305
Profession 4 Way Battery Post &
Terminal Cleaner



KA-9307 Battery Post Shims



KA-9308 Battery Filler



KA-9310 3 Way Battery Cleaner



KA-9311
Universal Battery Hold Down
Rubber Clamps



KA-9312
Side Terminal Battery Brush



KA-9345
Steel Battery Terminal Lifters



KA-9201
Large Replacement Battery Tray



KA-9209
Adjustable Battery Hold Downs



KA-9340 Battery Carrier Strap



KA-9342
12" "J" Style Battery Hold Down
Bolts



KA-9343
10" "L" Style Battery Hold Down
Bolts



KA-9318
Clamp Type Wing Nut
Lead Terminal

A. 5/16" 100CARDS 0.4'
B. 3/8" 72CARDS 0.45'
C. 5/16" 10CARS 0.45'



KA-9322
Heavy Duty Universal
Lead Battery Terminal

72CARDS
GW:19.00KGS 0.45'



KA-9321
Swan Type Battery
Terminals

72CARDS
GW:22.00KGS



KA-9323
Heavy Duty
Replacement Side
Terminal

144CARDS
GW:19.00KGS 0.8'



KA-9325
Angle Type P&N Brass
Battery Terminals

100CARDS
GW:18.00KGS 1.2'



KA-9324
Side Terminal Battery
Wrench

100CARD
GW:16.00KGS 1'



KA-9326
Heavy Duty Universal
Lead Battery Terminal

72CARDS
GW:19.00KGS 0.45'



KA-9331
Speed Japanese Type
Brass Terminal

144CARDS
GW:19.00KGS 0.9'



KA-9327
Wing Nut Marine Brass
Terminals

144CARDS
GW:26.00KGS 2.17'



KA-9332
Universal Solderless
Brass Battery
Terminal

20CARDS
GW:16.00KGS 1'



KA-9328
Side Terminal Cable
Adapters Kit

48CARDS
GW:23.00KGS 1'



KA-9333
Emergency Bolt Type
Brass Terminal (S)

20CARDS
GW:16.00KGS 1'



KA-9329
Slide Terminal Charging
Post

120CARDS
GW:22.00KGS 0.6'



KA-9334
Speed Japanese Type
Zinc Battery Terminal

288CARDS
GW:25.00KGS 0.8'



KA-9330
Standard Universal
Lead Battery Terminal

100CARDS
GW:17.00KGS 0.9'



KA-9335
U Type P&N Brass
Battery Terminal

40CARDS
GW:26.00KGS 1.3'



KA-9336 Grip-Tight Battery Carrier

For all 6 and 12 volt batteries. Rugged, zinc plated steel jaws grip battery securely for lifting. Acid resistant, nonconductive strap. Designed to carry side terminal or post batteries. Easy one hand control.



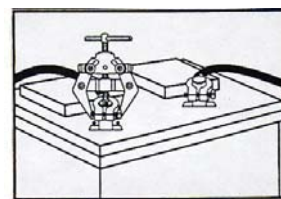
KA-9337 Battery Holder

- Self locking design with rubber grip pads provide a secure grip on batteries 4-1/2" to 7" width.
- Suitable for top and side terminal batteries.
- Allows one handed lifting of batteries in awkward locations.
- Heavy duty zinc-plated steel construction for long life.



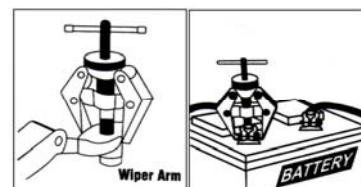
KA-6674 Battery Terminal/Alternator Bearing Puller

The tightest terminals will be lifted off without damage to the battery case or posts, because the sharp jaws are able to engage either below or on the sides of terminals. The centre screw swivel also makes this puller very effective on alternator bearings.



KA-2431 Battery Terminal & Wiper Pick Up Tool

- To working for battery terminal & windshield wiper...etc.
- The tights at terminals will be lifted off without damage to the battery case or posts, because the sharp jaws are able to engage either below or on the sides of terminals.
- The center screw swivel also makes this puller very effective on alternator bearings.
- Travel: 4" Long.



KA-6674A Heavy Duty Battery Cable and Small Bearing Puller

- Use toggle-type action to grip onto all standard post battery terminals.
- Pulls small bearings and gears with 1" reach and spread.
- Weight: 300g



KA-9346
Red & Green Side Post Battery Terminal Protector



KA-9347
Red & Green Top Post Battery Terminal Protectors



KA-3338 Battery Tester

- Avoid dead battery and help to extend battery life
- Test battery life hot or cold detects overcharge.
- Applicable: 6, 12, 24 Volts systems.



KA-7501 Battery Tester

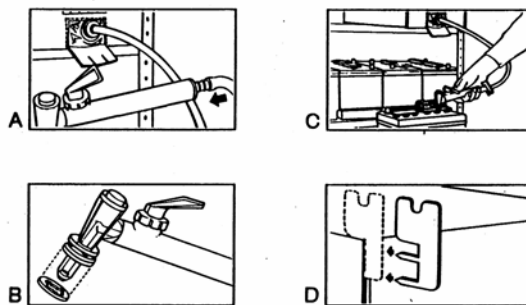
- Deluxe type and more function such as starter motor load, dynamo condition, individual load current.
- Suitable capacity of batteries 18-200 AH 12V (24V).



KA-6842 Battery Tester

- Quickly identifying problems in battery, electrical or charging systems in 20 second test
- Heavy duty cable and copper plated clamps

KA-6682-1 Dry Charge Battery Filler



Insert points of holder in corrugations
Of front flap of acid pack. Push all the way in.

1. Attach hose from acid bag to ribbed filler nipple. (Be sure hose clip is closed before cutting sealed end off)
2. Add or remove washers to desired cell fill level.
Nozzle of filler should not touch plates or inner fill ring.
3. Open hose clip, revolve 90° and leave open. Take kinks out of hose. Place nozzle in cell, push firmly down on thumb valve.
4. Hold valve down until "EYE" turns black. Cell is full. Move on to next cell.
5. When battery is full, hang filler up on holder card. (Install holder as shown)

NOTE:

When changing to new acid pack, stand old pack on closed end. Hold filler above pack, depress valve to drain unit. Close hose clip and carefully remove filler. Wipe tip of filler with damp soft cloth to maintain "Cell-Eye" image.
Fast neat way to fill dry charge batteries. Positive thumb release valve controls acid flow.

- Helps eliminate spills, burns, and damage to clothing.
- Features "Cell-Eye" to indicate when battery is full.
- Attaches to any standard acid pack tube.
- Ribbed nipple holds tube in snugly.
- Handy hanger card.
- Spacers included for different fill heights.

**KA-6841 Battery Charger**

Input : 100 ~ 240V AC 50/60 HZ

Output: 12V = 4A 65W

LED Indicators:

- Green: power on disconnect (or) full charged
- Red: Charging

**KA-7502 Car Battery & Alternator Checker**

- Led lights indicate car battery condition (engine stop) or output of alternator (engine running).
- Lights show in poor, fair or good condition.
- Magnetic backboard keeps your hands free for checking.

**KA-3568 Battery Analyzer**

- Measure the life of battery easily, quickly, accurately and safely.
- For 12V vehicle battery only
- Working voltage range is 9V ~ 15V DC, don't operate on a series battery(24V)
- Please operate after turn on the headlight 3~5 minutes to clean the surface voltage when the battery was just full recharged

**Accurate**

Unique internal-resist and lifetime, more accurately.

**Easy**

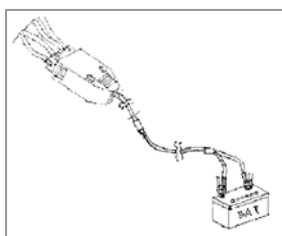
Find and input the battery specification then press enter.

**Safe**

Conductance test, more safe and convenient.

KA-3568A Battery Analyzer (For Motorcycle)**KA-3570 Uninterruptible Power Supply Without On Board Diagnostic II (OBD II 16pin)****KA-3570A Uninterruptible Power Supply With On Board Diagnostic II****(NEW STYLE)**

- * Built-in fuse
- * 2.2M electrical cord.

**Feature:**

Each car is equipped with electronic / computer device. When the battery needs to be replaced or temporarily stop, we need to re-set the system after repair. It makes the system be prone to problems such as "unable to ignite" or "abnormal running". KA-3570 battery power supply would make the power supply interrupt.

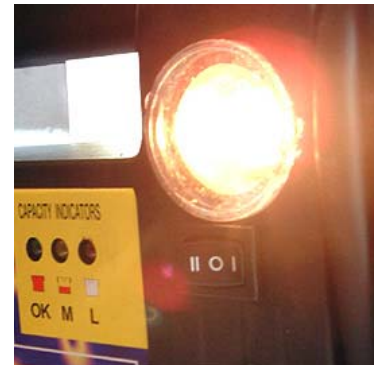
Procedure:

1. Please remove the car keys before stop the battery power supply.
2. Connect KA-3570 Uninterruptible Power Supply(OBD II16pin) to OBD IIplug. Observe if KA-3570 illuminate one light to ensure they are firmly connected.
3. Connect the power supply with 12V power, and KA-3570 would illuminate two lights. If the RED light illuminates, the power supply is under 7.5V±0.5. Please do not change batter at the stage.

Warning: Please close all doors before changing the battery to avoid power consumed by car interior light.

**KA-V0001 Professional Type Power Master**

- Output Voltage: 12V 500A
- Battery: 12V/ 25H
- Charge Time: 20-24 hours (indoor), 4-6 Hour (in car)
(Initial charge time: 48 hours for fully charge power)
- Weight: 8.2 kg
- Indoor Charger, Cigarette Charger, Battery Charger and Car Battery/ Alternator Tester
- U.S. PATENT, TAIWAN PATENT.
- CE Certified/ Approval

**APPLICATION**

1. Start the Stall Car: Connect the red clamp to the (+) of car battery & black clamp to (-) of car battery.
2. Checking the Car Battery Volume: touch the (-) of car battery with black clamp, put the car Battery tester into the "Hole" for tester, touch the (+) pole of car battery with the Car Battery tester.
3. When Generator is Broken: Ignite the car, connect the power master to the cigarette plug and the Charge/ Release Hole. The power last 2-3 hours.
4. Maintain the Setting / Memory of the Car Stereo System and Computer when changing battery: Connect the power Master with the cigarette plug, then change the battery.
5. Check the Car Motor
6. Emergency Light Source: Turn on the light for illumination. Or connect the working light for illumination.
7. Plug with a Transformer: Power Master provide the power for home appliances such as notebook or fax machine.
8. Emergency Power Sources.
9. Fast Recharge Power: When the Power Master is out of power, you can recharge Power Master with the car battery with battery clamp in only 15 minutes.

(Note: when the Red light illuminates on the indication board, please recharge the power master within 2 days)



KA-V0002 Power Master – Simple Type

- Output Voltage: 12V 500A
- Battery: 12V/ 20AH
- Charge Time: 20-24 hours (indoor), 4-6 Hour (in car)
(Initial charge time: 48 hours for fully charge power)
- Weight: 8.2 kg
- Indoor Charger, Cigarette Charger, Battery Charger

(NO TESTING FUNCTION)

- U.S. PATENT, TAIWAN PATENT.
- CE Certified/ Approval



APPLICATION

1. Start the Stall Car: Connect the red clamp to the (+) of car battery & black clamp to (-) of car battery. It can also start a 3000 cc car.
2. When Generator is Broken: Ignite the car, connect the power master to the cigarette plug and the Charge/ Release Hole. The power last 2-3 hours.
3. Maintain the Setting / Memory of the Car Stereo System and Computer when changing battery: Connect the power Master with the cigarette plug, then change the battery.
4. Emergency Light Source: Turn on the light for illumination. Or connect the working light for illumination.
5. Plug with a Transformer: Power Master provide the power for home appliances such as notebook or fax machine.
6. Emergency Power Sources.
7. Fast Recharge Power: When the Power Master is out of power, you can recharge Power Master with the car battery with battery clamp in only 15 minutes.

(Note: when the Red light illuminates on the indication board, please recharge the power master within 2 days)

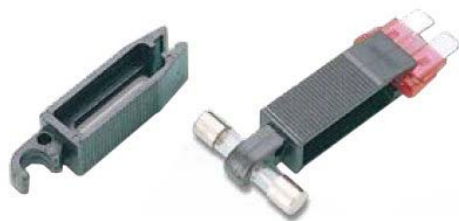
KA-V0003 Portable Power Source

- 12 Volt-2200 Peak Amps, 500 Cold Cranking Amps (CCA)
- 24 Volt-1100 Peak Amps, 250 Cold Cranking Amps (CCA)
- External AC charger (output 1.5A 15V DC)
- 17Ah*2(GS 1217) Battery Type
- able Gauge #2, length-6 ft./72inches/183cm
- Spark prevention
- Clamp: Plastic, 30% nylon w/rugged jaw 600A

Feature:

- Portable power source provide ultimate portable power.
- It contains maintenance free battery delivers high peak amps and crank assist power.
- Polarity connect reverse protection is available.
- Perfect jump starter for professional and emergency rescue.
- Heavy duty copper jaw and metal clamps good for solid connection to battery posts.
- Easy to read battery status LEDs tell user percentage of battery level.
- Integrated PCB will automatically cut off power when integrated battery charged.
- 12VDC outlet equips with overload and short circuit protection for external 12V accessory.
- DC to DC power extension cord to charge from 12V vehicle lighter socket.



**KA-1289 Fuse puller****Blade Fuse & 3AG Fuse - Short-Dual Type Puller**

Applications: ATY-N(ATO/ATC) Fuse & AGC(3AG) Fuse

Body Color: Black

Dimensions(L x W x H): 50 x 12 x 12.3mm

**KA-1283****Maxi Fuse & 5AG Fuse - Dual Type Fuse Puller**

Applications: MAX-N (MAXI & MAX) Fuse & AGU(5AG) Fuse

Body Color: Yellow

Dimensions(L x W x H): 88 x 24.5 x 17.5mm

**KA-1284 ATY-N Fuse Puller**

Applications: ATY-N (ATO/ATC) Fuse

Body Color: Yellow

Dimensions(L x W x H): 31.3 x 10.1 x 10.8mm

**KA-1288 Mini Fuse Puller**

Applications: MINI-N(ATM & MIN) fuse

Body Color: Orange

Dimensions(L x W x H): 32.8 x 13.5 x 11.4mm

**KA-1287 Blade Fuse Puller & Tester With LED**

Applications: ATY-N (ATO/ATC) Fuse

Body Color: White

LED □ 3.0mm Color: Green

Dimensions(L x W x H): 65 x 20.1 x 15.1mm

- Fuse Testing:
If the fuse is broken, the LED will not light.
If the fuse remains functional, the LED will light.

**KA-1285 Mini Fuse Puller & Tester With LED**

Application: MIN-N (ATM & MIN) fuse

Body Color: White

Dimensions(L x W x H): 66.6 x 19.7 x 15.2mm

- Fuse Testing:
If the fuse is broken, the LED will not light.
If the fuse remains functional, the LED will light.



KA-1050



KA-1051

Fuse Puller**KA-1050 KA-1051**

- Pulls 0-200 AMP, 250 Volt or 0-100 AMP, 600 Volt fuses.
- Plastic shockproof construction
- For removing or installing fuses.

**KA-1286 Fuse Puller****Blade Fuse & 3AG Fuse -Long-Dual Type Puller**

Applications: ATY-N (ATO/ATC) Fuse & AGC(3AG) Fuse

Body Color: Orange

Dimensions(L x W x H): 105.2 x 10.3 x 13.8mm

Mini / Portable Emergency Power Source

Made In Taiwan

- Light, Easy, Portable
- Be substitute as car battery.
- Supply car electronic and computer device power not interrupt when replace the battery.



KA-V0005

*** Suit for 12V petrol vehicle , under 3500c.c.**

KA-V0005 KA-V0007

Feature:

- Can rechargeable with car cigarette lighter when car power is supply.
- Only 15 minutes to faster recharge with booster when car power is on.
* Do not recharge more than 20 minutes.
- Fully automatic charger, safe design to avoid overcharge.

Specification:

	KA-V0005	KA-V0007
Size: (CM)	(L)15 x (W)8.5 x (H)16.5	(L)14.6 x (W)8.5 x (H)23.5
Weight: (Kg)	3.5	
Output:	DC 12V	
Charging Power:	AC adaptor AC 110V	
Charging Time:	Recharge: RED light ON Finish charge: RED light OFF, and auto shutdown	
Rechargeable Battery:	12V 7Ah	
Accessories:	AC adapter charge	AC adapter charge + car charge



KA-V0007

*** Suit for 12V petrol / diesel vehicle**

KA-V0006

*** Just used booster clip on +/- wire to easy power on vehicle with booster clip on +/- wire, no more need through car battery**

Feature:

- Light, convenience
- Can be a backup emergency light or backup battery
- High capacitance
- Intelligent charger device, safe design auto shutdown to avoid overcharge.
- With 2 function of super bright LED.
 1. Life time over 20 days in emergency light.
 2. Warning light in twinkle light
- Suits 12V petrol/ diesel vehicle, under 4500c.c.
- Output electric current: 250~280

Specification:

Size:	(L)22 x (W)10 x (H)19 CM
Weight:	4kgs
Output:	DC 12V
Rechargeable Battery:	12V 8.3Ah
Electricity:	Recharge: RED light ON Finish charge: GREEN light ON, and auto shutdown
Accessories:	AC Charge adapter + Car charger



Mini / Portable Emergency Power Source

Made In Taiwan

- Light, Easy, Portable
- Be substitute as car battery.
- Supply car electronic and computer device power not interrupt when replace the battery.

*** Suits 12V diesel/petrol, Forklift Truck, Bus, Generator**

KA-V0008

Feature:

- Fully automatic charger, safe design to avoid overcharge.
- Suits 12V petrol/ diesel vehicle, under 4500c.c.
- Light, convenience.
- Can be a backup emergency light or backup battery.
- High capacitance
- Intelligent charger device, safe design auto shutdown to avoid overcharge.
- With 2 super bright LED. (life time over 500 hours (about 20 days))
- 2 USB ports, each 1A

Specification:

Size: (L x W x H) (cm)	20.3 x 18.4 x 16.1
Weight: (Kg)	4.96
LED running time	500 hours
Output:	DC 12V / 110W
Charging Power:	AC adaptor AC 110V ~ 240V
Rechargeable Battery:	12V 14Ah
Option Accessories:	Car charger





KA-6785B Vehicle Battery Tester

Descriptions:

1. This is a device to test the 12 volt lead-acid battery of any vehicle.
2. The tester will focus on health condition analysis of vehicle battery; it estimates the cold cranking ampere (CCA) of the vehicle, and predicts the lifetime of the battery.
3. Very helpful for the technician to inspect and maintain the electrical system of the vehicle.
4. Base on the inspection, user can predict the time to replace the battery.

Features:

- Battery Test (SAE/DIN/EN/IEC/CA Standard)
- Engine Starting Voltage Test
- Charging Voltage Test
- CCA Level Bar Indication
- LCD with background light
- Accuracy Voltage: $\pm 0.05V$

Testing Standard

Measured Standard	Testing Range
SAE(Society of Automotive Engineers)	200-950
EN(Europe-Norm)	185-900
DIN(Deutsche Industrie-Norm)	105-600
IEC(International Electrotechnical Commission)	125-710
CA(Cracking Amperes)	250-1190
MCA(Marine Cracking Amperes)	250-1190



Battery not included



KA-6785A Relay Tester

Descriptions:

1. Test 3 popular vehicle relays.
2. LED indication display the testing results.
3. Technician can use the device to figure out the condition of the relay, and determine the problem in the vehicle.

Features:

- KA-6785A is for testing 3 most popular kind of relays.
- Power Supplied: 12V / 24V vehicle battery
- Support both 4 pin / 5 pin relay.
- Problem pin indication.
- Working Temperature: $0 \sim 50^{\circ}C$ ($32 \sim 122^{\circ}F$); $< 85\%RH$
- Storage Temperature: $-20 \sim 60^{\circ}C$ ($-4 \sim 140^{\circ}F$); $< 85\%RH$



KA-3421C Vehicle Battery Tester



- Check 12V Vehicle Battery Power Level
- Check: Alternator Condition, Charging Condition.
- Magnetic Base to Stick on any Iron surface.

Specification:

- Voltage Range: DC6-16V
- Reverse Polarity Protection: YES
- Short Circuit Protection: YES
- Over-Voltage Protection: YES
- (Forward DC Voltage <30V for <10 seconds)
- Working Temperature: 0-50°C(32-122°F) <80%RH
- Storage Temperature: -20-60°C(-4-140°F) <85%RH

**Battery Power Test**

Good Fair Poor

**Battery Condition Test**

Rotate to Acc Function



Indicator	Condition
Alternator Overcharging (RED)	Strong Output
Alternator O.K (Green)	Normal Output
≥ 75% (Green)	Good
≥ 25% (Green)	Fair
< 25% (Red)	Poor
Battery Power (Green)	Battery Connected



KA-6730 Heavy Duty Electric Circuit Tester- Power On

Bulb lights within handle to indicate open, grounded or short circuits on 6-12-24 Volt AC or DC systems, Features heavy duty 4-3/4" (121mm) probe and extra long 60 inch (152mm) cable to reach into open test area. Tension relief spring connects cable to handle for long life. Heavy-duty ground clip is enclosed in thick anti-shock boot cover.



KA-6731 Electric Circuit Tester- Power On

Test 6-12-24 volt circuits for wire breaks, shorts, fuses, lamps, relay armatures. etc. with power on. 4" inspection probe set in threaded ferrule and screwed into plastic handle. 36" (914mm) 16 gauge wire with alligator clip.



KA-6745 Car-Light-Tester 6-24 Volts

- Fully shielded indicator bulb
- Insulated test lead with alligator clip
- Pointed probe for piercing wires.



KA-6758 Circuit Tester For 3-48 Volt

- Test appliance for car electrics and electronics.
- For trouble shooting on electronic components.
- Indication with 2 LED (Positive or Negative pole).
- Checks circuit from 3-48V
- Cable length: 1M.



KA-6758A



KA-6758B

Item No.	KA-6758	KA-6758A	KA-6758B
Testing Range	3-48V DC	3-48V DC	3-48V DC
Probe Tip	--	•	--
Alligator Clip	--	•	--
Indication	+/- RED LED	+/- RED LED	+ RED LED - GREEN LED



KA-6755



Car Light Testers, 6-24 Volt

- Solid brass body with a test light
- Prod tip is covered a brass protective screw cap
- 850mm cable with an alligator clip on the end



KA-6756



KA-6755 (Silver)

KA-6756 (Yellow)

KA-6757 (Yellow)



KA-6757





KA-3489 Voltage Testing Tool

- Check 110-250VAC.
- Tests voltage, continuity and polarity.
- By contact 110-250VAC,
- By non-contact 110-600VAC,
- Two LR41 1.5V Batteries Included.



KA-1232 Electronic Voltage Detector with Buzzer

- Tester for voltage from 100V to 600V
- Locates break along live, insulated wire and power cords.
- Audible and visual indication.
- 4-sections Power/Sensitivity switch (H, L, M, OFF)
- Two LR44, 1.5V batteries included.



KA-1233B Non-contact Voltage Tester

Tests for voltage from 80V to 1000V AC

- Over voltage category: CAT III
- Adjustable high and low sensitivity by rotating gear.
- Power supply: two AAA battery (not included)
- Power off with knob
- With CE and cUL Approval



KA-3573 Screwdriver-Voltage-Continuity tester

- With LED indicator and pocket clip
- Screwdriver tip fits common screw size.
- Check voltage from 12V to 300V AC.
- Two LR44(1.5V) batteries included



KA-1031 Tester Circuit, Multi-voltage

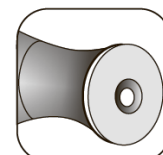
- Compatible with current 12V system plus newer 42V system.
- LED indicates blue for 12V and red for 42 systems.
- Heavy-duty alligator clips help prevent accidental shorts
- New crystal-clear handle provides 360° visibility, even in bright light.

**KA-6775 Heavy Duty Circuit Tester**

- Checks 6V and 12V system
- 5-ft tough flexible rubber cable with spring relief
- Heavy duty insulated ground clip

**KA-6735****KA-6735 Heavy Duty Circuit Tester**

- Checks 6V and 12V system
- 5-ft tough flexible rubber cable with spring relief
- Tough plastic handle lights up if circuit is good

**KA-6735A****KA-6735A Mini Heavy Duty Circuit Tester**

- Checks 6V and 12V system
- 5-ft tough flexible rubber cable with spring relief
- Tough plastic handle lights up if circuit is good

**KA-6735C Mini-Coil Circuit Tester**

- Checks point probe for easy back probing and piercing.
- Includes screw-in alligator clip for additional versatility.
- When back ground clip is clamped to suitable sample, test bulb will glow if current is present.
- 12" coiled cord.

**KA-1026 Adjustable Non-contact Wire Tracer****Features**

- Non Contact Voltage Detection. Voltage Detectable lines between 12-600VAC.
- Reads hot wire with respect to ground. Easy to recognize audible and visual indication.
- Compact, light, sleek, hand-held design, complete with a durable built in pocket clip.

Specifications

- Working voltage range: 12-600 VAC max to ground
- Require two LR44/1.5V batteries (not included)
- Frequency: 50/60HZ
- Dielectric strength: 2000V, 1 minute, 100uA or less during dielectric strength test
- Operating environment: 3°F to 104°F(0°C to 40°C) 80%RH max. 50% RH above 31°C

**KA-1049 Auto Circuit Tracer Detector**

Find short and open circuits fast and easily.

It is designed to identify and trace wires or cables without damaging the insulation, you just simply attach the sender unit to the circuit and follow the wires using the detector. There is a sender and a receiver included in the instrument.

- Suitable for all DC circuits up to 42V
- Checking for short circuit
- Locating open circuit
- Battery voltage indication
- Two 9V batteries required





KA-1035 20A Auto Current Tester

Simply plugs into a fuse slot and the current in the circuit is displayed immediately. Provides an easy-to read LCD display of the circuits performance. Identifies the circuit draining your car battery.

Current Test:

- Maximum load: 20A/48V DC for 10 seconds
- Accuracy: $\pm 2\%$, or 0.2 reading with a decimal point

Voltage Test:

- Test range: 1~ 48V
- Accuracy: $\pm 1\%$ or 0.1 reading with a decimal point

The LCD indicates "Err" condition:

- When the positive or negative pole is connected reversely
- The tested voltage is less than 1V
- When conducting voltage test, the resistance between the measured object is less than 1K

Power Supply: one AAA 1.5V battery(not included)



Auto Circuit Tester

This equipment used to test the automotive electrical system within 6-24Volts. In order to save the testing hours for the automotive electrical system, it is designed to testing the system without re-connection between the vehicle battery and the testing components and it contains the following functions:

- Polarity testing: determine the polarity and circuit circumstance (Short/Open).
- Activating the components with positive and negative current without jumper wire.
- Testing the voltage and continuity of the circuit.
- LED Flashlight.
- Illumination



KA-1234

Multi-functional Auto Tester With LED indication

- Check from 6V to 24V system with LED indicator and illumination



KA-1234A

Multi-functional Auto Tester With LCD indication

- Check from 6V to 24V system with LCD indicator and LED illumination
- Testing the voltage of the circuit and the voltage reading will be indicated on the LCD display within 1/10th of a volt.



KA-1234-2M

- same function to KA-1234, but with different accessories
- Accessories:
2M extended lead
0.8M ground lead
2 alligator clips



KA-1234A-2M

- same function to KA-1234, but with different accessories
- Accessories:
2M extended lead
0.8M ground lead
2 alligator clips



KA-6753A Low Voltage Circuit Tester

- Testing range: 5 -50V AC/DC
- Neon indicator glows when voltage is present.
- Insulated housing and test leads.
- Pocket clip for added convenience.
- Reinforced casing.
- Tests
 - Low volt outdoor lighting
 - Low volt control panels
 - Doorbells
 - Alarm systems
 - Automotive 12V DC and 36V DC

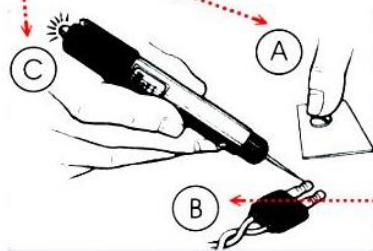


KA-1037 Cordless Circuit Tester

- Checks 3 to 28 volt circuits.
- Safe with ECMs, sensors, transducers, airbags, etc.
- No ground wire or clip required.
- Replaceable long-life alkaline batteries included.

C-Tester will light, buzz and vibrate when a positive voltage is detected

A- Hold tester by metal barrel and place free hand on bare (grounded) metal part of the vehicle



B- Place tester point into connector or wire (pierce insulation if necessary)

Special designed V-tip Needle Allows Safe piercing & prevents Side-slipping when piercing wire's insulation. V-Tip can be removed to test hard to reach places.

Voltage Tester

KA-1052 with LED KA-1052A with LCD

- Suits to Tesla vehicle.
- Quickly and safely tests high and low voltages on all vehicle voltages, including computerized engine.
- Self-Diagnostic test.
- Voltage Test: 12-690V AC/DC, with LED and LCD (only KA-1052A)
- Single-pole phase test: 100-690V AC (45-100Hz)
- Polarity indication
- Phase rotation test
- Continuity test
- Auto-power ON/OFF
- Pen light for illuminating measurement points
- Two way clip for adjustable spacing of probes
- Probe cover protects user and probe tips
- IP64
- Compact design (light weight and portable)
- Measurement:



KA-1052



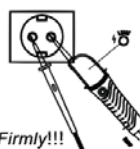
KA-1052A



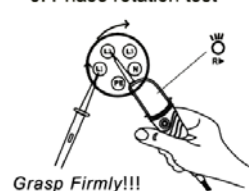
1. Double-pole test



2. Up Voltage indication



3. Phase rotation test



4. Polarity indication

5. Continuity test

6. Pen light function

KA-1063 Voltage Tester

■ Suitable for Tesla vehicle.

- Measuring of DC/AC from 6~1000V/24~1000V AC.
- Continuity test
- Phase rotation test: three-phase 4-wire system.
- LCD display with backlight.
- Non-contact voltage sensing.
- IP65-protection degree.
- CAT IV 1000V.
- Standards: EN61243-3, EN61326-1.
- Power: 1.5V battery, type AAA 2pcs

**2 Pole Voltage Tester**

This pole voltage tester provides a clear indication of AC or DC voltages levels via bright LED's from 6V to 600V. It is constructed in accordance with the latest safety standards and is durable enough for both industrial and domestic uses.

Specification:

- LED polarity indication
- Built to CAT III 600V safety standards
- Conforms to EN61243-3 standards
- No batteries required
- IP 66 protection

KA-6894B**KA-6907B**

	KA-6894B	KA-6907B
Voltage Range	6-600V AC/DC	12-600V AC/DC
LED Resolution	LED $\pm 6V$, 12V, 24V, 50V, 120V, 230V, 400V	LED \pm , AC or DC indication

Digital LCD Circuit Tester**Feature:**

- Digital display to read the accurate voltage value.
- LED indication for power (Red).
- Stainless steel testing probe.
- Spring cable, which is able to extend to 3 meter.
- Small testing current < 10mA.

Specification:

- Resolution: 0.1V
- Accuracy: $\pm 3\%$
- LED indication: Blue(-) / Red(+)
- Operating temperature: -10~50°C
- Operating Humidity <80%



	KA-3424	KA-3424A
Check Voltage	6, 12, 24V DC	12, 24, 26, 48V DC
Measured Voltage	5 -30V DC	10 - 55V DC

KA-3424B Nixie Display Circuit Tester

Suggest system: 12, 24, 48V DC system

Measured voltage: 0.3~60V DC

6"(1.8m) long heavy-duty dual leads with battery clips

Testing current < 10mA

Operating temperature: 0~50°C (32~122°F)

Humidity $\leq 80\%$

Operation:

- Step 1: Red clip connect with positive(+) polarity, and black clip connect with negative(-) polarity. The nixie light will show "00.0" when nothing connecting with the testing probe.
- Step 2: When the tester probe connects with positive voltage, the nixie light will display the voltage. If the voltage is less than 0.3VDC, buzzer will be on, and green LED will light up. If the voltage is greater than 60VDC, the nixie light will display "Err".
- Step 3: When the tester probe connects with negative pole, green LED will light up, and buzzer will be on.



KA-1061 30A Current and Voltage Tester**Feature:**

- Fast, accurate and safety current measurement form the fuse box.
 - Feature with large LCD display and mini/ATO fuse probe.
 - Ideal for diagnostic of vehicle's electrical.
 - Current measurement:
 - Max. loading: 30A/18V DC for 10 seconds.
 - Accuracy: +/-1%, or 0.1 reading with 1 decimal place.
 - Voltage Measurement:
 - Range: 1-48V DC
 - Accuracy: +/-1%, or 0.1 reading with 1 decimal place.
 - Wrong polarity: when user reversely connects the polarity, the display will show "ERR"
 - Continuity test:
 - If the measured resistance is less than 1K Ω , LCD will display "ERR".
- Working temperature: 0 to 60°C (-4°F to 140°F)
 Moisture: <70% RH (working), <80% RH (storage)
 Max. height: 7,000ft (2,000m)
 Power: 9V battery x 1

**KA-1082 Auto Circuit Tracer**

- Find short and open circuits quick and easily in DC circuits from 6 and up to 42V volts.
- Designed to identify and trace wires or cables without damaging the insulation
- Green LED for power on and open circuits; Red LED for short circuits.
- Sensitivity: Three user selectable sensitivity levels (low, medium and high)
- Power source: two 9V batteries(not included)

**KA-1349 Vehicle Actuator Tester**

Test electronic components by magnetic field or electronic magnetic field. Like actuator, ignition coil, AC generator, indoor air blower, spark plug, relay and hall effect sensor.

Description:

- (1) Positive and Negative sensor
- (2) Two sensitive level indicator:
 - Red LED - strong
 - Yellow LED - weak
- (3) LED and buzzer indication
- (4) Power supply: 1.5V AA x 2pcs

**KA-1064A Adjustable Non-Contact Wire Tracer**

- Testing rang: 12~1000V, CAT IV 1000V
- Locates breaks along live, insulated wires and power cords.
- Adjustable sensitivity allows tracing of wires behind walls, around switches or receptacle.
- Easy to recognize by Audio signal and LED indicator.
- Compact, light, sleek, hand-held design.
- Complete with a durable built-in pocket clip.
- Operates by two LR44, 1.5V batteries.

**LED & BUZZER****Digital Circuit Tester With Piercing Test Probes****Feature:**

- Digital circuit tester with 2 piercing test probes.
- Available for 6, 12, & 24V DC system.
- Voltage measurement from 5 - 28V.
- Coil cord stretches to 12-ft.
- Small testing current: <10mA.

Content	KA-5323	Ka-5323A
piercing probes with Banana socket	•	•
Test probe	•	•
Insulated cable piercer probe	--	•
Alligator Clip	--	•



KA-5323

KA-5323A



Retractable Cable with Circuit Tester

- Set can be used with any multiple meter or device equipped with banana jack connectors.
- Included banana plugs on the 2 x 6m with retractable test leads.
- Voltage measurement from 10-55V.
- LED indication for power (red) and ground (green).
- Available for 6, 24V and 48V DC system.
- Used for testing electrical circuits in cars, trailer, boats.
- Alligator Clip (1 Red & 1 Black).

Caution:

Maximum=10 AMPS(Unwound) / 6 AMPS(wound)

KA-1065 without magnet

KA-1065A with magnet



How to unwind the cable



How to wound the cable



Magnet adsorption



KA-6767 Auto Battery and Charging System Analyzer

- Auto battery analyzer checks batteries, regulators and alternators
- For all 12V system vehicles, with LED indicator that helps pinpoint problems for fast troubleshooting
- Other car battery testers are also available
- With CE approval



KA-3424E Digital Circuit Tester

- Digital display to read the accurate voltage value.
- Available for 12V, 24V, 48V DC system.
- LED indication for power (red) and ground (green).
- Stainless steel testing probe.
- Voltage measurement from 4 - 60V
- Spring cable, which is able to extend to 3 meters.
- Small testing current: <10mA.

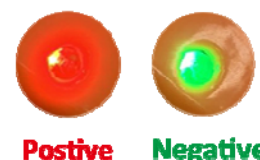


KA-6771A Cordless Circuit Tester

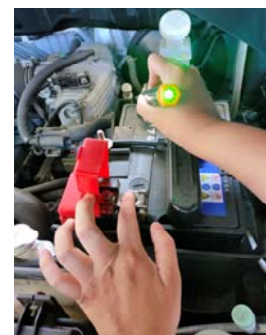
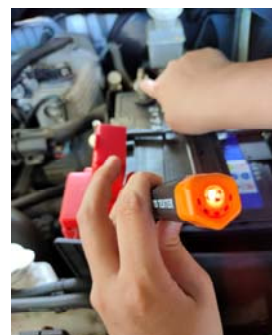
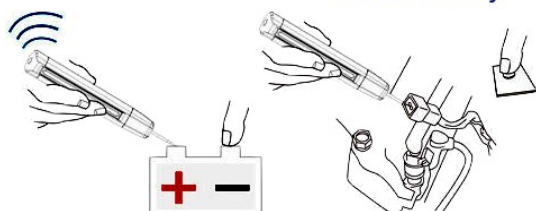
Cordless circuit tester for 3-30V DC power measurement.

Features:

- Bi-color LED and dual-tone buzzer can distinguish between positive and negative polarity voltage.
- No ground wire or clip required.
- **V-groove** needle accessory makes piercing and carrying safe.
- Battery: 3V (2 x SUM5 1.5V)

Bi-color LED lights

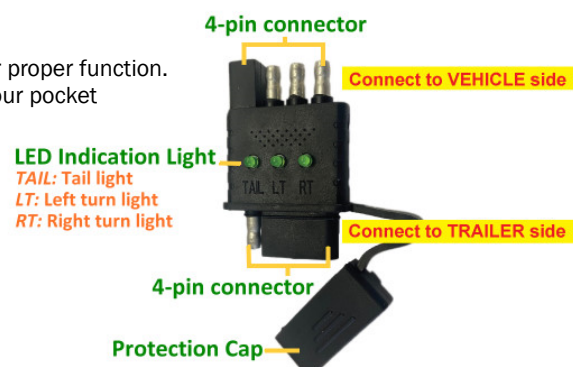
Dual-tone buzzer + continuously
— intermittently

**KA-6786A 4-Pin Trailer Light Tester****Descriptions:**

1. 4-Pin Small Size Trailer Light Tester & Circuit Troubleshooter for US type.
2. Plug tester into vehicle's 4-pin connector and operate vehicle's turn signals, lights and brakes. The green light will illuminate if there is power connection.

Features:

- Fits 4-Pin Small Size Trailer Light Tester & Circuit Troubleshooter.
- Quickly and easily see if your trailer wiring is properly installed on your vehicle
- No Batteries Required.
- LED light Indication
- Test right, left, turn, and brake lights for proper function.
- Easy to carry, Compact Design Fits in your pocket

**Descriptions:**

Especially designed to test the function of the 7 way connector of the vehicle. Simply plug the tester with the 7 way connector, and switch on the corresponding function of the vehicle to check if the LED indication that is lighted up correctly.

**KA-6786B****7-WAY Blade & 4 Flat Connector Tester****Features:**

- The product comes handy when in need of checking the circuit's configuration arises.
- 4 pins which makes the product perfectly usable.
- The trailer plug tester is extremely easy and convenient to use.
- Use in the garages, workshops where there is a need to check the configuration of circuit.
- No Batteries Required



KA-6788 AC Line Splitter**Descriptions:**

The AC line splitter is a helpful testing device for electrician.

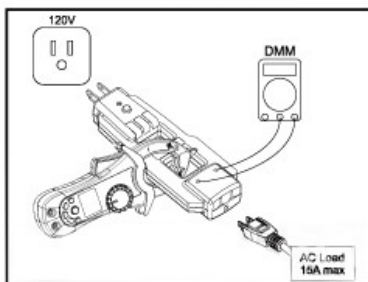
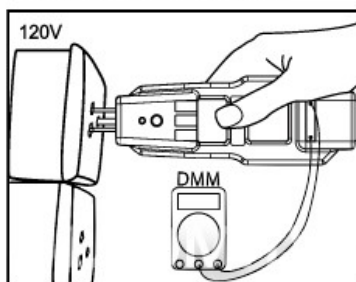
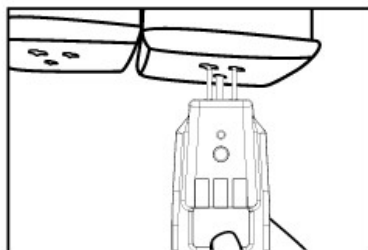
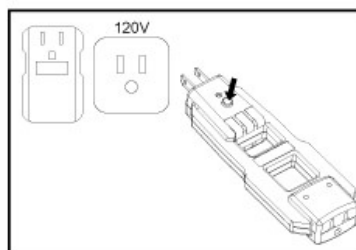
Electrician can measure the current with clamp meter through the X1 and X10 measuring rings.

X1 is 1:1 measurement, and X10 is ten times (1:10) of the actual current, which is helpful for small current measurement.

This device also combines the function of socket tester and GFCI tester, which means electrician can use this tester to test socket and load at the same time.

Features:

- Detect faulty wiring in 3 wire receptacle.
- Test for GFCI receptacle for proper operation, 110-125V circuits.
- Various combinations of three lights tell if wiring is correct or six possible faulty conditions.
- Measure the current with clamp meter through the X1 and X10.
- Patented.

KEY FEATURES**1. Current Measurement****2. Voltage Measurement****3. Receptacle Test****4. GFCI Test****Socket Tester KA-6788AUK / KA-6788AEU / KA-6788AAU****Descriptions:**

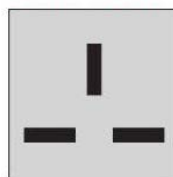
1. Portable 220VAC socket tester to inspect the wiring conditions.

2. Also featuring current variation for simulation of different leaking current.

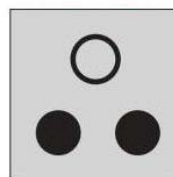
3. With the current variation, technician is able to test the condition of Ground Fault Circuit Interrupter (GFCI) / Residual Current Device (RCD) easily.

Features:

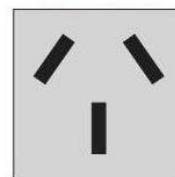
- CE and LVD Approval
- Test for GFCI receptacle for proper operation
- GFCI / RCD Leaking Current Selection Switch-10mA, 15mA, 20mA, 25mA, 30mA and 35mA.
- Test the wiring condition
- Various combinations of 3 neon indicators tell if wiring is OK or 6 possible faulty conditions
- Power Plug type & Voltage: 220V \pm 10% (For UK and EURO) / 230V \pm 10% (For AUS)

**KA-6788AUK**

TYPE G
(For UK)

KA-6788AEU

TYPE E
(For EURO)

KA-6788AAU

TYPE I
(For AUS)

KA-1079 Digital Multi-Meter

This is a low power consumption, high accuracy and stable hand held multi-meter; with special designed IC to support true RMS measurement. It performs measurements of AC/DC voltage, DC current, resistance, diode and square wave output.

Features:

TRMS Multimeter
High Accuracy
Stable Hand Held
Low Power Consumption
LCD Display: CAT III 300V
Low Battery Power Indication: 9V 6F22 Battery

Measurement:

DC/AC Voltage Measurement
DC Current Measurement
Resistance Measurement
Diode Measurement
Square Wave Output
CAT CATEGORY: CAT III 300V / CAT II 600V

**Selectable Range:**

\overline{V}	500V/200V/20V/ 2000mV/200mV
\tilde{V}	500V/200V
\overline{A}	10A/200mA/20mA/ 2000μA/200μA
Ω	2000KΩ/200KΩ/20KΩ/2000Ω/200Ω

KA-1079A Digital Multi-Meter

This is a low power consumption, high accuracy, and stable hand held 3 1/2 digits (2000 counts) multimeter; with special designed IC to support true RMS measurement. It performs measurements of DC voltage / current, true RMS AC voltage / current, resistance, diode, continuity, and non-contact voltage sensing.

Features:

- With ETL&CE Approval
- Category: CAT III 600V
- Display LCD
- Maximum Resolution: 2000, 3- 1/2 digits with auto polarity and unit.
- Range: Auto / Manual
- Data Refresh Rate: 3 times / sec
- Measurement Rotation Switch
- Continuity / Resistance / Diode
- DC Voltage / AC Voltage
- AC/DC Current
- NCV(Non-contact voltage)
- Power Source: 2 x 1.5V AAA Battery (With Low battery indication)

Function:

NCV	Non-contact Voltage Detection (80~1000VAC)
\overline{V}	DC Voltage (199.9mv~600V)
\tilde{V}	AC Voltage (199.9mv~600V)
\overline{A}	AC/DC Current (199.9uA~199.9mA)
\rightarrow	Diode (0-2.00V)
\equiv	Continuity
Ω	Resistance (199.9~19.99M)

**Measurement:**

Item No.	KA-1072	KA-1072A
DC Voltage (V)	0.1mV-1000V	0.1mV-1000V
AC Voltage (V)	0.1mV-750V	0.1mV-750V
DC Current (A)	0.1μA-10A	0.1μA-10A
AC Current (A)	0.1μA-10A	0.1μA-10A
Resistance (Ω)	0.1Ω-19.99MΩ	0.1Ω-60MΩ
Temperature	-200-1300°C	-200-1300°C
Capacitance	X	0.001nF-9.999mF
Frequency	X	0.001Hz-9.999MHz
Square Wave Output	X	X

Specification:

Item No.	KA-1072	KA-1072A
Digit	3 1/2 (2000 counts)	3 6/7 (6000 counts)
Backlight	V	V
Auto Range	V	V
Manual Range	V	V
Auto Power Off	15 Minutes	15 Minutes
Low Power Indication	V	V
Diode	V	V
Continuity	V	V
Continuity Buzzer	V	V
NCV	V	V
Relative Value	V	V
Data Hold	V	V
Max/Min	V	V
Hz/Duty Cycle (%)	V	V
Power Source	9V 6F22 Battery	9V 6F22 Battery
CAT Category	CAT IV600V & CAT III 1000V	CAT IV600V & CAT III 1000V

LCD Multi-Meter

KA-1072
Basic



KA-1072A
Advanced



KA-1080 Leaking Current Meter for Car

Descriptions:

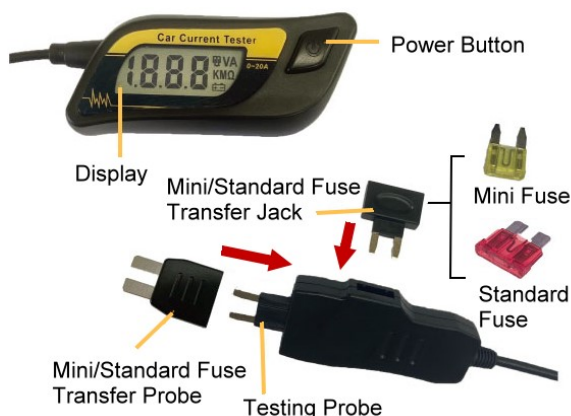
- This is a stable, low power consumption, and high accuracy 3-1/2 digits (2000 counts) leaking current meter for automobile.
- Leaking current for automobile is generally as small as milliamps, which is hard to measure by clamp meter.
- By plug this meter with the fuse box, user is able to measure leaking current as small as 1 mA.

Features:

1. Display: 2000 counts; 3 1/2 digits LCD
2. Use for 2 Blade types of FUSE(Standard/Mini)
3. Refresh Rate: 3 times per seconds
4. Low Voltage Indication
5. Power: 1.5V AAA Battery x 2 (3V)
6. Maximum current Measured: 20A

Specification:

Auto Range	Accuracy	Resolution
1999mA	±0.5% ±2 digits	1mA
20A	±0.5% ±2 digits	10mA



(Optional) Thermocouple



KA-1070 Multi-Function Automobile Test

(Optional Accessory: KA-1070-TP Thermocouple)

- The multi-function automobile tester has LCD display to indicate the measured result.
- It has polarity detection with the LEDs for a positive and negative indication of DC voltage.
- For auto use, the functions included the measurement of DC voltage and current, signal frequency and max/min voltage, resistance, temperature and power providing testing.

Features:

- Signal Frequency and Max / Min Voltage Measurement
- Illumination
- DC Voltage Measurement
- Resistance Measurement
- Current Measurement
- Power Providing Test

(Optional Accessory) KA-1070-TP Thermocouple and for temperature measurement.



Temperature measured by Thermocouple



Thermocouple Plug





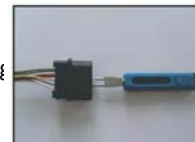
KA-3248 Terminal Release Tools Set (For Car Electronic And Computer)

- This collection of terminal release tools is the most complete around, covering GM, FORD, CHRYSLER, AND a variety of the vehicles.
- When terminals need cleaning or replacing, these tools are the quickest and easiest ways to release them from their plastic connectors without damaging them or delicate computer components.
- Their design makes them easier to hold on to than the key-ring style release tools.



KA-3982 12PCS Universal Terminal Release Tool Set

- Easy quick and professional repair of malfunctions due to loose contacts.
- Cover 80% all plug-type connections in passenger cars and releasing of plug-type connectors, e.g. flat and round connectors without damage.
- Universal application in the field of car electricity.
- 2-color plastic handles with foldable caps to protect the blades from damage and avoid injury.
- Application: FORD, BMW, BENZ MERCEDES, OPEL, VW, FIAT, MAN, SAAB, RENAULT, DIAMLERCHRYLER, PORSCHE, PSA, SKODA, AUDI, MAZDA, TOYOTA



KA-3511K Terminal Tools Kit

Feature:

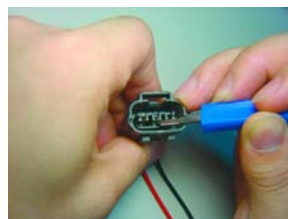
- Fits most GM and American Motors computer connectors and terminals.
- Eliminates damage to wires or terminal blocks
- Compact for easy in handling.



KA-3660 2pcs Terminal Release Tool Set



KA-3575 Housing Disassemble Kit





KA-7326 Connector Release Tool Set

- For use on most domestic vehicle's electrical connectors
- Tools are designed to provide access to and disconnect electrical connectors
- Individual "puller" and "pusher" style tools provide for easy connection/removal regardless of component location
- Either tool can be used conveniently with one hand



KA-5322 Terminal Release Tool Set

- Two terminal release tool kits combined offer the techniques 18 different press barbs.
- Set allows you to remove terminal from electrical and computer connectors on most GM, mid-90s and later vehicles.
- Each press barb folds into the body handle like a "Swiss army knife", the "compact slide-apart mechanism" makes two halves separated and held together easily via an interlocking channel.



KA-3754 Deutsch Terminal Tool Kit (3pcs)

- Works on OEM electrical connectors used on trucks and equipment.
- Such as Caterpillar, Kenworth, Peterbilt, Freightliner, Mack and more.
- Also used on some Harley Davidson and industrial equipment connectors. Slotted tubes are made from stainless steel which is more durable than plastic.



KA-3755 Deutsch Terminal Tool Kit (7pcs)

- Use to release Deutsch connectors on numerous vehicle type: Automotive, Motorcycle, Heavy Duty Trucks, Construction Equipment, Agricultural Equipment and some Outboard Engines.
- Such as Caterpillar, Kenworth, Peterbilt, Freightliner, Mack and more. Also used on some Harley Davidson.
- Includes 4, 8, 12, 14, 16 and 20 gauge terminal release tools and a combination wedge removal / flat tip screwdriver tool.



KA-3756 Asian Terminal Tool Kit (5pcs)

Easily removes terminals from electrical connectors without damaging the vehicles' wiring harness.

Fits most asian and domestic vehicles: Acura, Honda, Toyota, Lexus, Nissan, Infiniti, Mitsubishi, etc.

Single face blade tool, 1.0mm(W) x 1.0mm(T) tip

Single face blade tool, 1.5mm(W) x 1.0mm(T) tip

Single face blade tool, 1.8mm(W) x 1.0mm(T) tip

Ladder blade tool, 1.5mm(W) x 0.3mm(T) tip

Knife blade tool, 2.0mm(W) x 0.8mm(T) tip

Acura, Honda, Toyota, Mitsubishi, Lexus, Nissan, Infiniti.



KA-2994A (Blow Case)



KA-2994B (Aluminum Case)

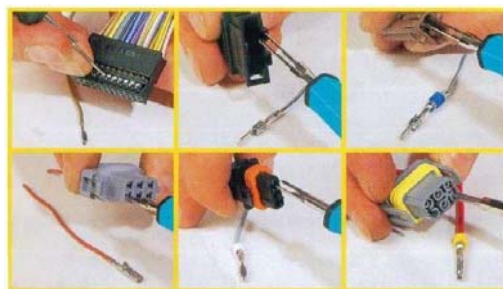
23pcs System Release Tool Set




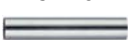








- Release the Flat Plug Contacts...etc with Ease and Cause NO Damage.
- Easily and Fast Repair the Connection Defects or Corrosion.

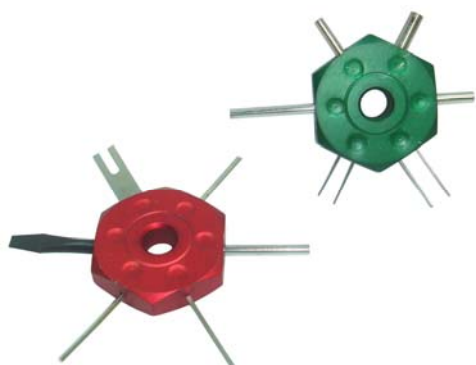
1 BENZ, BMW, OPEL, VW/AUDI	2 BENZ, BMW, JAGUAR, PORSCHE, SAAB, SEAT, SKODA	3 BENZ, BMW, JAGUAR, PORSCHE, VW/AUDI	4 FORD
5 BENZ, BMW, FORD, OPEL, PORSCHE, SEAT, SKODA, VW/AUDI	6 BENZ, BMW, FORD, JAGUAR, SEAT, SKODA, VW/AUDI	7 MERCEDES BENZ	8 BENZ, FORD, JAGUAR, OPEL, PORSCHE, VW/AUDI
9 MERCEDES BENZ, FORD	10 MERCEDES BENZ	11 BENZ, BMW, FORD, JAGUAR, OPEL, SAAB, SEAT, SKODA, VW/AUDI	12 OPEL, RENAULT, SKODA, VW/AUDI
13 MERCEDES BENZ, FORD	14 FORD, JAGUAR, PORSCHE	15 BENZ, BMW, FORD, OPEL, SEAT, SKODA, VW/AUDI	16 BENZ, BMW, FORD, JAGUAR, OPEL, PORSCHE, VW/AUDI
17 MERCEDES, BENZ	18 MERCEDES, BENZ	19 CTTROEN, CHRYSLER, FIAT, FORD, HONDA, MZADA, BENZ, MITSUBISHI, OPEL, PORSCHE, RENAULT, SEAT, TOYOTA, VW/AUDI	20 FORD
21 BENZ, BMW, FORD, JAGUAR, OPEL, PORSCHE, SAAB, SEAT, SKODA, VW/AUDI	22 HONDA, OPEL, TOYOTA, VW/AUDI	23 OPEL, VW/AUDI	



KA-6512K 15PCS Universal Terminal Release Tool Set



Description	Application	description	Application
CE-01 & CE-02  Ejection tools for contact sizes Ø 3.5mm W/dismantling sleeves for contact sizes	CE-11 & CE-12  BMW, DaimlerChrysler, Fiat, MAN, Opel, Porsche, Seat, Skoda, VW/Audi	CE-05+CE-15  Ejection tools for contact sizes Ø2.3 mm W/dismantling sleeves for contact sizes	CE-15  Ford, Opel, PSA, Renault
CE-53  Cable extractor tool for plugs with one release channel 2.8 and 5.8 mm	BMW, DaimlerChrysler, Ford, MAN, Opel, Porsche, PSA, Renault, Seat, Skoda, VW/Audi	CE-54  Cable extractor tool for plugs with one release channel 2.8mm	BMW, PSA, Renault
CE-56  Cable extractor tool for Micro-Timer II, III contacts Ø1.6mm	DaimlerChrysler, Opel, Porsche, PSA, Renault, Saab, Seat, Skoda, VW/Audi	CE-57 & CE-58  For flat plug-in sockets with asymmetrically positioned latches in terminals with two release channels,	Seat, Skoda, VW/Audi
CE-59  Cable extractor tool for Maxi-Power Timer contacts 9.5 mm	DaimlerChrysler, VW/Audi	CE-62  Cable extractor tool for Pit-Pod contacts	all vehicle makes
CE-74  Cable extractor tool for Micro-Timer I contacts and ABS plug-in housing Ø1.6 mm	Fiat, Ford, Mazda, Opel, PSA, Renault, Saab, VW/Audi	CE-91  Cable extractor tool for plugs with two release channels 2.8 and 5.8 mm	BMW, DaimlerChrysler, Fiat, Ford, MAN, Opel, PSA, Renault, Saab, VW/Audi



KA-7559K Terminal Tools

Fits most GM and American Motors computer connectors and terminals.
 Eliminates damage to wires of terminal blocks.
 Compact for easy in handling.

KA-7559A Red, fit most GM and American Motors

KA-7559B Green, eliminates damage to wires of terminal blocks

Master Terminal Kit

- Updated kit for most modern vehicles
- Includes newest terminal tools for Audi and Volkswagon
- Specialty tools included for coolant sensors, wiring harnesses and terminal blocks.
- Eliminates potential damage to wires and terminal blocks
- Knurled finish handles for superior grip
- Application chart included



KA-3511K-19



KA-2992A (Aluminum)



KA-2992B (Blow Case)

1 15 System Terminal Tools (General Motors).	2 15 System Terminal Tools (General Motors).	3 Open connectors (General Motors).	4 Open connectors (General Motors).	5 ALDL connectors to access fault codes (General Motors).	6 Open connectors (General Motors).	7 Removal of wires from terminal blocks (Audi & VW).
8 Use to remove wires from terminal blocks for weather pack and pack con terminals on most Domestic and Import vehicles.	9 Use to remove wires from terminal blocks for weather pack and pack con terminals on most Domestic and Import vehicles.	10 Use to remove wires from terminal blocks for weather pack and pack con terminals on most Domestic and Import vehicles.	11 Use to remove wires from terminal blocks for weather pack and pack con terminals on most Domestic and Import vehicles.	12 Use to remove wires from terminal blocks for weather pack and pack con terminals on most Domestic and Import vehicles.	13 For Chrysler, Hyundai, Kia & Mitsubishi.	14 To release tabs on modern terminal blocks (Most Domestic & Imports).
15 Sensors such as coolant temp and throttle position. (Ford, GM, Chrysler, Mitsubishi & Hyundai)	16 General Purpose - Slits harness sheathing without piercing the wires.	17 BMW, Chrysler, Jeep, Ford, GM, Hyundai, Jaguar, Kia, Mercedes, Volvo & VW.	18 For use on Audi, BMW, Chrysler, Ford, GM, Isuzu, Jaguar, Mazda, Mercedes, Mitsubishi, Nissan, Porsche, Subaru, Saab, Volvo & VW.	19 For use on Audi, BMW, Chrysler, Ford, GM, Isuzu, Jaguar, Mazda, Mercedes, Mitsubishi, Nissan, Porsche, Subaru, Saab, Volvo & VW.		

KA-8409 Connector and Terminal Removal Tool Kit

- These tools are designed specifically for removing connectors and releasing terminals of the VAG vehicles.
- Removing most of VW/Audi push and pull style connectors.
- Releasing terminals of VW/Audi junior and micro connectors.



VW/Audi MAF sensor, coil pack, headlight, fog light, level sensor, MAP sensor, etc...



Junior



micro

**KA-3756U Asian Terminal Tool Kit**

- Remove the Electrical Connector Terminals Easily.
- Large Knurled Polished Chrome Handles & Stainless Steel Tips.
- Application: Most Asian & Domestic Vehicles.
- Acura, Honda, Toyota, Lexus, Nissan, Infinity & Mitsubishi..etc.

Single Face Blade	1.0mm (W) x 1.0mm (T) tip
	1.8mm (W) x 1.0mm (T) tip

Ladder Blade Tool	1.5mm (W) x 0.3mm (T) tip
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Knife Blade Tool	2.0mm (W) x 0.8mm (T) tip
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**KA-3756L 6PCS Import Terminal Tool Kit****Multi-Application in a Kit !!**

- Release tabs on modern terminal blocks.
- Transmission harness tools Chrysler, Hyundai and Mitsubishi.
- Under bonnet tool for working on coolant sensors ... etc : Chrysler, Mitsubishi, Kia and Hyundai.
- Sheathing cutting tool to cut wire harnesses providing easy access.
- ABS ECU 55pin tool: GM, Jeep, Jaguar, Volkswagen, Volvo, BMW, Hyundai, Mercedes-Benz, KIA.
- ABS ECU 35pin tool: Audi, BMW, Chrysler, Ford, GM, Infiniti, Suzuki, Jaguar, Mazda, Mercedes-Benz, Mitsubishi, Nissan, Porsche, Saab, Subaru, Volkswagen, Volvo.