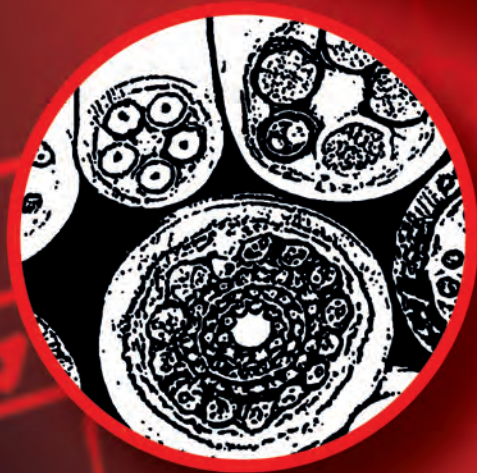# K15

KS TOOLS

ELECTRICAL / ELECTRONIC TOOLS

KS TOOLS®

Innovation is our mission!

RELAY TESTER

12 V relay tester

- Simple, quick and professional testing of vehicle relay
- Easy handling
- Detection of defective relay through fully automatic test
- The result is signalled via a red or green light
- Contact resistance of 200 milliohm/0.2 ohm
- Applicable with 12 V
- Sturdy ABS plastic

		🔧
150.1755	12 V relay tester	290

KEY TESTER

12 V infrared and high frequency key tester

- Easy, quick and professional testing of infrared and radio (433 + 868 MHz) keys
- The keys should be checked at each inspection or servicing, because a new battery or a flashing LED is no guarantee for 100% functionality
- Easy handling
- The result is signalled via a light or sound
- Applicable with 12 V
- Includes 9 V block battery
- Sturdy ABS plastic

		🔧
150.0999	12 V infrared and high frequency key tester	320

12-42 V detector for locating short circuits, cable breaks and leakage current

- For the quick, easy and proper searching for short circuits, cable faults and leakage current without having to puncture wires
- Saves a great deal of time, because removing interior lining, carpeting and trim on the vehicle can be reduced to the essentials
- Short circuiting is eliminated
- For tracking cable guides
- For locating electrical components in the vehicle
- For detecting broken circuits or cable breaks
- For locating the cause of severe battery charge losses
- For testing and detecting temporarily interrupted connections ("loose connections")
- The transmitter is connected to the circuit to be tested with the insulated crocodile clamps via the fuse box
- The output signal is received by the receiver and indicated acoustically as well as through a directional LED
- The error can be localised by following the line
- If the receiver no longer receives a signal, the short circuit has been found
- The transmitter can be optionally expanded to include headphones via the built-in port
- Can be used for circuits from 12 V to 42 V
- The detection sensitivity can be variably adjusted
- Includes 2 x 9 V block battery
- In plastic bag

		🔧
150.3075	2 pcs	12-42 V detector for locating short circuits, cable breaks and leakage current	400

consists of:

		🔧
150.3076	Receiver	200
150.3077	Transmitter with crocodile clamps	200

VOLTAGE TESTERS

Insulated voltage tester 150 - 250 V

- In accordance with DIN/ISO 0680
- Slot blade with hollow grinding
- Nickel-plated blade
- Transparent handle
- With retaining clip

	D mm	L1 mm	L2 mm	L3 mm	🔧
911.2188	3.0	145.0	65.0	80.0	14

Test lamp 6 - 24 V

- Probe protected by a cap
- Ideal for helping to locate short circuits and breaks
- With shielded crocodile clamp
- Cable with shielded crocodile clamp
- Stainless steel probe
- Brass housing and cap

	L mm	🔧
550.1504	125.0	30

Voltage tester 3 - 48 V

- Universal test instrument for motor vehicle electrics and electronics
- Two light-emitting diodes indicate voltage as well as polarity
- Test tip with push mechanics to tap into the cable
- With shielded crocodile clamp

	L mm	🔧
550.1503	140.0	70

Insulated universal voltage tester 6 - 400 V

- In accordance to DIN ISO 0680
- For the professional, multi-stage voltage and polarity test
- For direct and alternating voltage
- With rotating field and phase display

Technical data:

Readout:	light-emitting diodes/LE
Power requirement:	140 mA
Allowable duty cycle:	30 s
Frequency range:	0 - 100 Hz
Protection class:	IP40
AC voltage range alternating voltage:	12 - 50 - 120 - 230 - 400 V
DC voltage range direct voltage:	12 - 50 - 120 - 230 - 400 V

	⚡	🔧
550.1501	1000V	180

Insulated voltage tester double pole 12 - 750 V

• Tested and accredited in accordance with international standard insulated to IEC IEN 61243-3 (DIN VDE 0682-401)
• Voltage class B
• DC and AC voltage shown by LED indicators
• Rotating field and phase displayed on LED display
• Conscious release of a 30 mA of FI-protection switch
• With vibration alarm

Technical data:

Readout:	LED/LCD
Display level:	12 - 690 V
Power requirement:	200 mA
Allowable duty cycle:	30 s
Frequency range:	0 - 500 Hz
Protection class:	IP64
AC voltage range alternating voltage:	12 - 50 - 120 - 230 - 400 - 500 - 750 V
DC voltage range direct voltage:	12 - 50 - 120 - 230 - 400 - 500 - 750 V

	⚡	🔟
117.1503		210

Insulated voltage test ball, double-pole, 50 - 1000 V

• Tested and accredited in accordance with international standard
• Insulated to IEC EN 61243-3 (DIN VDE 0682-401)
• Corresponds to EMC requirements in accordance with DIN EN 61326
• DC and AC voltage shown by LED indicators
• Rotating field and phase displayed via LEDs
• With display of rotating field direction (clockwise and anti-clockwise)
• Deliberate tripping of a 30 mA ELCB

Readout:	LED/LCD
Power requirement:	300 mA
Allowable duty cycle:	30 s
Frequency range:	0 - 100 Hz
Protection class:	IP65
Overvoltage category:	CAT IV 600 V
	CAT III 1000 V
Test voltage:	6 kV
AC voltage range alternating voltage:	120 - 200 - 300 - 350 - 400 - 450 - 500 - 550 - 600 - 650 - 700 - 750 - 800 - 850 - 900 - 950 - 1000 V
DC voltage range direct voltage:	120 - 200 - 300 - 350 - 400 - 450 - 500 - 550 - 600 - 650 - 700 - 750 - 800 - 850 - 900 - 950 - 1000 V

		⚡	🔟
117.4266	Insulated voltage test ball, double-pole, 50 - 1000 V		620

Test probe 6-24V DC with 5 meter cable

• Ideal standard lamp with many test functions
• High-speed functional testing without removal of components
• Via toggle switches can be plus or minus given to the probe
• Built in bi-metal short circuit protection
• No protection wear for troubleshooting
• Version with replaceable probe and alligator clip
• For continuity test, self test and fault diagnosis
• Immediate polarity determination by LED display

Technical data:

Cable length:	5 m
Test probe diameter:	4 mm

	Application area	Replacement test tip	🔟
150.1670	6 - 24 V DC	150.1671	500

Electronic multifunctional tester 6 - 24 V with 25 metres of cable

• Ideal tester for passenger and commercial vehicle electrics and electronics
• With built-in lighting for optimal illumination of the test point
• With replaceable probe for the optional expansion with commercially available inspection and test components
• For the quick testing of electrical components without disassembly
• For continuity test, self-test on the power switch and fault diagnosis
• Immediate continuity test of switches, relays, diodes, fuses, wiring harnesses, etc.
• For the operation of electronic components, such as relays, fuel pumps, window motors, switches, lamps, etc.
• For determining poor ground connections
• Immediate polarity determination via red/green LED display
• Changing acoustic signals depending on the polarity
• Power can be supplied immediately at the push of a button with the tester
• Built-in bimetallic short circuit fuse (7.5 A), therefore no fuse wear during troubleshooting
• Cable with shielded crocodile clamp and pole terminals
• 25 metre cable length
• Stainless steel probe

Technical data:

Test probe diameter:	4 mm
Replacement test tip	150.1671

	Application area	Cable length m	⚖️
150.1655	6 - 24 V DC	25 m	1.26

DIGITAL AMPERE METER

12V - 48V Automotive current tester 20A

• For the quick measurement of direct current through the plug contact of automotive fuses directly on the fuse box with ignition on or off
• Ideal for detecting quiescent current consumers
• The measuring circuit is protected during the current measurement, as the existing fuse is laterally inserted into the tester
• Can be used for circuits from 12 V to VIV with 0.1 to 19.9 A
• 20 A separate protection
• With large 75 mm LCD display

	Connector type	L mm	Volt max	Ampere max	🔟
150.3096	mini	900.0	48	20	70
150.3095	standard	900.0	48	20	100

Digital amp pliers 200 A

• Due to the small pliers' diameter, a high level of accuracy and safe working in previously hard-to-reach places is a given
• They measure current with a resolution of 0.01 A to max. 200 A
• The built-in multimeter with a bar graph means there is no need for any additional measuring instruments
• Ideal for locating hidden consumers
• Very easy-to-read display
• Ideal for direct and alternating current tests
• Max. pliers opening of 30.0 mm
• LCD display
• Includes measuring line set with probes
• In practical storage pouch

Functions:
• Direct current
• DC and AC voltage
• Resistance
• Diode test
• Continuity test
• Temperature measurement
• Data hold function
• Peak hold function

Technical data:

Co-current flow:	0,01 - 200 A
Alternating current :	0,01 - 200 A
DC voltage:	0,1 - 400 V
AC voltage:	0,1- 400 V
Resistance measurement:	32 - 32000 ohm
Temperature accuracy :	23° C ± 5° C
Power requirement:	3x 1,5V AAA (not in the delivery)
Storage temperature:	-20° to +60° C (-4° to 140° F)
Working temperature:	0° to +40° C (32° to 104° F)

	Length mm	Width mm	Depth mm	🔟
150.1745	185.0	42.0	30	160

Digital amp pliers 600 A

- Very easy to read display
- Ideal to use for direct and alternating current tests
- Max. pliers opening of 27.0 mm
- Max. measurable conductor diameter of 29.0 mm
- Includes automatic shutdown after about 15 min.
- LED display
- Includes probes and temperature gauge
- In practical storage pouch

Functions:
- Direct current
- DC and AC voltage
- Resistance
- Diode test
- Continuity test
- Temperature measurement
- Data hold function
- Peak hold function

Technical data:

Co-current flow:	200 A, 600 A
Alternating current :	200 A, 600 A
DC voltage:	600 V
AC voltage:	600 V
Resistance measurement:	2 megaohm
Temperature accuracy :	23° C ± 5° C
Power requirement:	9V block battery
Storage temperature:	-10° to +50° C (14° to 122° F)
Working temperature:	0° to +40° C (32° to 104° F)

150.0925	4 pcs	Digital amp pliers 600 A	655	

consists of:

150.0926	Digital amp pliers 600 V without accessories	370	
150.0927	Probe set	75	
150.0928	Temperature gauge	20	

CIRCUIT BREAKERS

Circuit breaker set (10 A - 15 A - 20 A)

- Ideal for easy and time-saving troubleshooting without stopping work
- No thermal load of the fuse box
- No constant replacement of blown fuses
- The search can be continued immediately by simply resetting the interrupt button
- Long extension cable (3 metres) for easy use
- Suitable for flat and mini fuses with duo adapter
- In durable plastic storage case

Technical data:

Safety fuse:	10 - 15 - 20 A
Nominal voltage:	10 - 14 V DC
Working temperature:	0° / +40°C

150.0990	4 pcs	Circuit breaker set (10 A - 15 A - 20 A)	945	

consists of:

150.0991	Automatic circuit breaker 10 A	81	
150.0992	Automatic circuit breaker 15 A	81	
150.0993	Automatic circuit breaker 20 A	81	
150.0994	Extension cable 3 m	254	

TRAILER SOCKET TESTER

12 V towing vehicle tester/tester for trailer receptacle set 7 + 13-pole

- For DIN 72570 trailer receptacles
- Ideal for easy and time-saving checking of the trailer receptacle function
- The tester can also be used on vehicles without CAN BUS technology
- Suitable for vehicles with CAN BUS technology due to the integrated load resistors
- LEDs with corresponding labelling offer optimal testing properties
- A 5-metre long cable for easy handling from the driver's seat
- The tester is also suitable for vehicles with electronic trailer controllers due to the load resistors for shutting off fog lamps and for the right/left indicators, which can be activated via the rocker switch on the tester
- Brake lights, indicators, fog lamps, back-up lights, tail lamps are checked
- Function consists of a built-in load being activated with a thermal fuse
- Essential for TÜV
- Includes 13 to 7-pole adapter
- Sturdy and handy device

150.0995	2 pcs	12 V towing vehicle tester/tester for trailer receptacle set 7 + 13-pole	732	

consists of:

150.0936	12 V towing vehicle tester/tester for trailer receptacle 13-pole	648	
150.0937	DIN 72570 adapter 13 to 7-pole	93	

CIGARETTE LIGHTER SOCKET TESTER

12 V/24 V cigarette lighter receptacle tester

- The standardised connection ensures a quick and easy connection in the cockpit, front and boot
- This tester makes it possible to check the cigarette lighter receptacle to ensure it is short-circuit-proof
- Suitable for 12 V and 24 V
- Figure height on LED display 9.1 mm
- Safe handling
- The result of the voltage test is displayed via LED
- Sturdy ABS plastic

Technical data:

Display accuracy:	+/- 1 %
Readout:	3 digit
DC voltage range direct voltage:	DC 8 V -30 V
Operating temperature:	-5°C to +60°C

150.0997	8 - 30 V	40	

MULTIMETER

Digital Multimeter incl. test probes

• Solid multimeter with basic measurement functions for passenger and commercial vehicle electrics and electronics
• Compact and handy
• With automatic overflow and polarity indication
• With safety mechanism for V, µA/mA/A, therefore incorrect connection is impossible
• Central 19-digit rotatory switch
• Large LCD display with 3.1/2-digit, high-contrast display with background lighting
• With integrated glass fuse 250 V (2 A) – 20 x 5 mm to protect the circuits
• Includes measuring line set with probes
• With fold-out stand
• Sturdy plastic housing
• With rubber protective capping

Functions:
• DC and AC voltage measurement
• DC and AC current measurement
• Resistance measurement
• Diode test (with acoustic signal)
• Transistor measurement
• Continuity test (with acoustic signal)
• Data hold function

Technical data:

Co-current flow:	200 mA - 10 A
DC voltage:	200 mA - 600 V
AC voltage:	200 V - 600 V
Resistance measurement:	200 - 2000 ohm
Temperature accuracy :	23° C ± 5° C
Power requirement:	9V block battery
Fuse protection S1 (fine flow):	200mA/250V (20x5mm)
Storage temperature:	-10° to +50° C (14° to 122° F)
Working temperature:	0° to +40° C (32° to 104° F)

	B mm	L mm	Depth mm	
150.1495	69.0	138.0	31	342

Motor vehicle multimeter

• Specially developed multimeter for working in the motor vehicle area
• Double display (digital and bar chart display)
• 4 test leads for current with test tip / crocodile clip
• Central rotary switch
• Large display
• With integrated safety fuse for the protection of the circuits
• With fold out adjustable foot in protective rubber holster
• Sturdy plastic housing

Functions:
• Continuity test (with acoustic signal)
• Transistor tester
• Diode test (with acoustic signal)
• Capacity
• Frequency measurement
• Data hold function
• Automatic measuring range selection

Technical data:

Co-current flow:	326µA - 10A
Alternating current :	326µA - 10A
DC voltage:	326 mV - 1000 V
AC voltage:	3,26 V - 750 V
Resistance measurement:	32 - 32000 ohm
Frequency measurement:	32,60 - 200kHz
Temperature accuracy :	23° C ± 5° C
Power requirement:	9V block battery
Fuse protection S1 (fine flow):	300mA/250V (20x5mm)
Fuse protection S2 (power-test socket):	10A/250V (30x5mm)
Storage temperature:	-10° to +50° C (14° to 122° F)
Working temperature:	0° to +40° C (32° to 104° F)

	B mm	L mm	Depth mm	
150.1480	91.0	189.0	31.5	834

Multimeter with inductive clamp

• Specially developed professional multimeter for automotive and commercial electrics and electronics
• With enhanced function for rpm measurement
• Dual LCD display with digital display and bar diagram display (32 segment bar graph)
• With automatic overflow and polarity indication
• With safety mechanism for V, µA/mA/A, therefore incorrect connection is impossible
• Central 23-digit rotatory switch
• Large LCD display with 3.1/2-digit, high-contrast display with background lighting
• With integrated glass fuse 250 V (500 mA) – 20 x 5 mm to protect the circuits
• Includes measuring line set with probes, crocodile clamps, inductive clamp and temperature probe
• With on/off switch and automatic temperature shutdown
• With fold-out, two-way adjustable pedestal
• Sturdy plastic housing
• With rubber protective capping

Functions:
• DC and AC voltage measurement
• DC and AC current measurement
• Resistance measurement
• Dwell
• Diode test (with acoustic signal)
• RPM measurement
• Frequency measurement
• Battery check indicator

Technical data:

Co-current flow:	326 µA - 10 A
Alternating current :	326 µA - 10 A
DC voltage:	326 mV - 1000 V
AC voltage:	3,26 V - 750 V
Resistance measurement:	32 - 32000 ohm
Frequency measurement:	32,60 - 200 kHz
Speed measurement:	300 - 12000 rpm
Temperature accuracy :	23° C ± 5° C
Power requirement:	9V block battery
Fuse protection S1 (fine flow):	500mA/350V (20x5mm)
Fuse protection S2 (power-test socket):	10A/250V (30x5mm)
Storage temperature:	-10° to +50° C (14° to 122° F)
Working temperature:	0° to +40° C (32° to 104° F)
Temperature measurement:	-20°C bis 760°C (-4°F bis 1400°F)

	B mm	L mm	Depth mm	
150.2040	91.0	189.0	31.5	500

MULTIMETER ACCESSORIES

12/24 V diagnostic testing and measuring cable set

- To use with function test lamps and multimeters on consumers and circuits
- Easy and safe signal pick-up through direct contacting
- High-quality checking and testing accessory components for different test leads, test cables and test strips for the professional mechanic
- For daily use in diagnostics and error detection
- Small set composition for versatile use, e.g. for checking poor ground connections, continuity test trials, polarity testing or for operating electrical units, such as starters, wiper motors, electrical window lifters, electrical antennas, etc.
- Includes polarity tester with duo LED for checking hall sensors, photo sensors or whether injector plus or earth are controlled. Varies depending on the direction of current flow: red for positive voltage or green for negative voltage
- Flexible silicone cable
- Extra-thin probe
- Applicable up to a maximum of 24 V (10 A)
- Bi-colour test leads for polarity indication

			g
150.1675	13 pcs	12/24 V diagnostic testing and measuring cable set	300

consists of:

|	X	Colour code		g
150.1667	1	🔴	Measuring line extension with double plug and additional socket 1,100 mm	30
150.1668	1	⚫	Measuring line extension with double plug and additional socket 1,100 mm	30
150.1669	1	🔴	Bushing plug connection on injection probe	30
150.1672	2		Polarity tester with 4.0 mm banana plug connection and duo LED	10
150.1673	2	⚫	4.0 mm input socket on needle-shaped probe	10
150.1674	2	🔴	4.0 mm input socket on needle-shaped probe	10
150.1676	1	⚫	4.0 mm input socket on probe	10
150.1677	1	🔴	4.0 mm input socket on probe	10
150.1678	1	🔴	4.0 mm input socket on narrow crocodile clamp	20
150.1679	1	⚫	4.0 mm input socket on narrow crocodile clamp	20

12/24V Master diagnostic test and measurement lead set

- To use with function test lamps and multimeters on consumers and circuits
- Easy and safe signal pick-up through direct contacting
- High-quality checking and testing accessory components for different test leads, test cables and test strips for the professional mechanic
- For daily use in diagnostics and error detection
- Large set composition for versatile use, e.g. for checking poor ground connections, continuity test trials, polarity testing or for operating electrical units, such as starters, wiper motors, electrical window lifters, electrical antennas, etc.
- Includes potentiometer with adjustable resistor (0 to 5 kiloohms) for testing temperature sensors or position sensors, such as in throttle valves, tank sensors, intake manifold flap actuators and air control valves of air conditioning systems
- Includes 2 ohm SRS test measuring resistor for diagnosing airbag sensors
- Includes polarity tester with duo LED for checking hall sensors, photo sensors or whether injector plus or earth are controlled. Varies depending on the direction of current flow: red for positive voltage or green for negative voltage
- Flexible silicone cable
- Extra-thin probe
- Applicable up to a maximum of 24 V (10 A)
- Bi-colour test leads for polarity indication

			kg
150.0950	92 pcs	12/24V Master diagnostic test and measurement lead set	3.05

consists of:

	X	Colour code		g
150.1667	2	🔴	Measuring line extension with double plug and additional socket 1,100 mm	30
150.1668	2	⚫	Measuring line extension with double plug and additional socket 1,100 mm	30
150.1672	2		Polarity tester with 4.0 mm banana plug connection and duo LED	10
150.1673	2	⚫	4.0 mm input socket on needle-shaped probe	10
150.1674	2	🔴	4.0 mm input socket on needle-shaped probe	10
150.1676	1	⚫	4.0 mm input socket on probe	10
150.1677	1	🔴	4.0 mm input socket on probe	10
150.1678	1	🔴	4.0 mm input socket on narrow crocodile clamp	20
150.1679	1	⚫	4.0 mm input socket on narrow crocodile clamp	20
150.0951	2		Potentiometer with adjustable resistance	27
150.0952	2		SRS airbag test measuring resistor (2 ohm)	13

consists of:

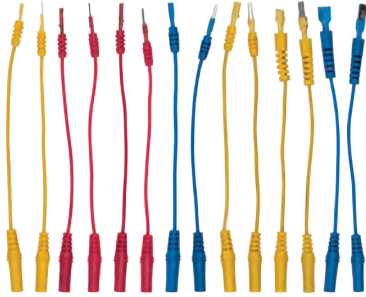|	X	Colour code		g	
150.0953	2		Plug distributor with input socket on double banana plug connection	13	
150.0957	3	⚫	4.0 mm input socket on 1.5 mm test adapter socket, round	6	
150.0974	3	⚫	4.0 mm input socket on 1.5 mm test adapter plug, round	6	
150.0956	3	⚫	4.0 mm input socket on 2.0 mm test adapter socket, round	6	
150.0975	3	⚫	4.0 mm input socket on 2.0 mm test adapter plug, round	6	
150.0955	3	⚫	4.0 mm input socket on 3.5 mm test adapter socket, round	6	
150.0976	3	⚫	4.0 mm input socket on 3.5 mm test adapter plug, round	6	
150.0954	3	🔵	4.0 mm input socket on 4.0 mm test adapter socket, round	6	
150.0977	3	🔵	4.0 mm input socket on 4.0 mm test adapter plug, round	6	
150.0958	3	🟡	4.0 mm input socket on 0.8 mm test adapter socket, flat	6	
150.0973	3	🟡	4.0 mm input socket on 0.8 mm test adapter plug, flat	6	
150.0959	4	🔴	4.0 mm input socket on 1.2 mm test adapter socket, flat	6	
150.0972	4	🔴	4.0 mm input socket on 1.2 mm test adapter plug, flat	6	
150.0961	4	🔴	4.0 mm input socket on 2.0 mm test adapter socket, flat	6	
150.0971	4	🔴	4.0 mm input socket on 2.0 mm test adapter plug, flat	6	
150.0962	3	🔵	4.0 mm input socket on 2.5 mm test adapter socket, flat	6	
150.0969	3	🔵	4.0 mm input socket on 2.5 mm test adapter plug, flat	6	
150.0964	4	🟡	4.0 mm input socket on 3.0 mm test adapter socket, flat	6	
150.0968	4	🟡	4.0 mm input socket on 3.0 mm test adapter plug, flat	6	
150.0965	3	🟡	4.0 mm input socket on 5.0 mm test adapter socket, flat	6	
150.0967	3	🟡	4.0 mm input socket on 5.0 mm test adapter plug, flat	6	
150.0963	3	🔵	4.0 mm input socket on 6.0 mm test adapter socket, flat	6	
150.0966	3	🔵	4.0 mm input socket on 6.0 mm test adapter plug, flat	6	

Circular sockets measuring line

- Insulated
- Universally applicable
- Round designs
- With 4.0 mm input socket
- Flexible silicone cable
- Applicable up to a maximum of 24 V (10 A)
- Overall length 175.0 mm
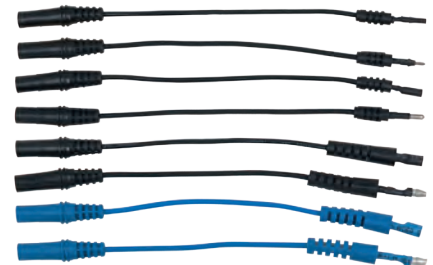
	Colour code		g
150.0957	⚫	4.0 mm input socket on 1.5 mm test adapter socket, round	6
150.0974	⚫	4.0 mm input socket on 1.5 mm test adapter plug, round	6
150.0956	⚫	4.0 mm input socket on 2.0 mm test adapter socket, round	6
150.0975	⚫	4.0 mm input socket on 2.0 mm test adapter plug, round	6
150.0955	⚫	4.0 mm input socket on 3.5 mm test adapter socket, round	6
150.0976	⚫	4.0 mm input socket on 3.5 mm test adapter plug, round	6
150.0954	🔵	4.0 mm input socket on 4.0 mm test adapter socket, round	6
150.0977	🔵	4.0 mm input socket on 4.0 mm test adapter plug, round	6

Receptacle measuring line

- Insulated
- Universally applicable
- Round designs
- With 4.0 mm input socket
- Flexible silicone cable
- Applicable up to a maximum of 24 V (10 A)
- Overall length 175.0 mm

	Colour code		
150.0958	● (yellow)	4.0 mm input socket on 0.8 mm test adapter socket, flat	6
150.0973	● (yellow)	4.0 mm input socket on 0.8 mm test adapter plug, flat	6
150.0959	● (red)	4.0 mm input socket on 1.2 mm test adapter socket, flat	6
150.0972	● (red)	4.0 mm input socket on 1.2 mm test adapter plug, flat	6
150.0961	● (red)	4.0 mm input socket on 2.0 mm test adapter socket, flat	6
150.0971	● (red)	4.0 mm input socket on 2.0 mm test adapter plug, flat	6
150.0962	● (blue)	4.0 mm input socket on 2.5 mm test adapter socket, flat	6
150.0969	● (blue)	4.0 mm input socket on 2.5 mm test adapter plug, flat	6
150.0964	● (yellow)	4.0 mm input socket on 3.0 mm test adapter socket, flat	6
150.0968	● (yellow)	4.0 mm input socket on 3.0 mm test adapter plug, flat	6
150.0965	● (yellow)	4.0 mm input socket on 5.0 mm test adapter socket, flat	6
150.0967	● (yellow)	4.0 mm input socket on 5.0 mm test adapter plug, flat	6
150.0963	● (blue)	4.0 mm input socket on 6.0 mm test adapter socket, flat	6
150.0966	● (blue)	4.0 mm input socket on 6.0 mm test adapter plug, flat	6

Measuring line extension 1,100 mm

- Insulated
- Universally applicable
- Untwisted cable extension
- With double 4.0 mm banana plug connection and each additional 4.0 mm input socket
- Applicable up to a maximum of 24 V (10 A)
- Flexible silicone cable
- Overall length 1,100 mm

	Colour code		
150.1667	● (red)	Measuring line extension with double plug and additional socket 1,100 mm	30
150.1668	● (black)	Measuring line extension with double plug and additional socket 1,100 mm	30

Duo plug distributor

- Insulated
- Universally applicable
- With double 4.0 mm banana plug connection and a 4.0 mm input socket
- Applicable up to a maximum of 24 V (10 A)
- Overall length 50.0 mm

150.0953	Plug distributor with input socket on double banana plug connection	13

SRS airbag test measuring resistor (2 ohm)

- Insulated
- For checking the voltage supply in the SRS airbag system before the installation of a new airbag and for the general diagnosis of the airbag sensors
- With double 4.0 mm banana plug connection
- Applicable up to a maximum of 24 V (10 A)
- Overall length 125.0 mm
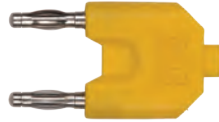
150.0952	SRS airbag test measuring resistor (2 ohm)	13

Potentiometer with adjustable resistance

- Insulated
- Quick and easy way to adjust the resistance without a multimeter during a simulation in a circuit with resistance
- With adjustable resistor (0 to 5 kiloohms) for testing temperature sensors or position sensors, such as in throttle valves, tank sensors, intake manifold flap actuators and air control valves of air conditioning systems
- With 4.0 mm banana plug connection
- Applicable up to a maximum of 24 V (10 A)
- Overall length 125.0 mm

150.0951	Potentiometer with adjustable resistance	27

Measuring line extension 6,000 mm

- Insulated
- Universally applicable and ideal as an extension
- With compact and practical Ø 143.0 mm magazine
- Easy to wind up and unwind
- Untwisted cable extension
- With straight 4.0 mm banana plug connection on angled 4.0 mm banana plug connection
- Applicable up to a maximum of 24 V (10 A)
- Flexible silicone cable
- Overall length 6,000 mm

	Colour code		
150.0931	● (black)	Measuring line extension 6,000 mm	180
150.0932	● (red)	Measuring line extension 6,000 mm	180

Measuring line extension set

- Insulated
- Universally applicable and ideal as an extension
- With compact and practical Ø 143.0 mm magazine
- Easy to wind up and unwind
- Untwisted cable extension
- With straight 4.0 mm banana plug connection on angled 4.0 mm banana plug connection
- Applicable up to a maximum of 24 V (10 A)
- Flexible silicone cable
- Overall length 6,000 mm

150.0930	2 pcs	Measuring line extension set	360

consists of:

150.0932	Test lead extension 6m, red Ø = 143mm	180
150.0931	Test lead extension 6m, black Ø = 143mm	180

Measuring line extension 30,000 mm

- Insulated
- Universally applicable and ideal as an extension
- Drum with hand knob on both sides
- Easy to wind up and unwind
- Untwisted cable extension
- With angled 4.0 mm banana plug connection and 4.0 mm input socket
- Applicable up to a maximum of 24 V (10 A)
- Flexible silicone cable
- Overall length 30,000 mm

	H mm	B mm	T mm	kg
150.0935	260.0	195.0	115.0	1.51

Injection probe

- Insulated
- Universally applicable
- Allows for the measurement of lines without having to strip the connection at the point to be measured
- For puncturing cables up to 4.0 mm in diameter
- With 4.0 mm input socket
- Applicable up to a maximum of 24 V (10 A)
- Overall length 170.0 mm

150.1669	Injection probe	30

Crocodile clamp

- Insulated
- Universally applicable
- With 4.0 mm input socket
- Applicable up to a maximum of 24 V (10 A)
- Overall length 85.0 mm

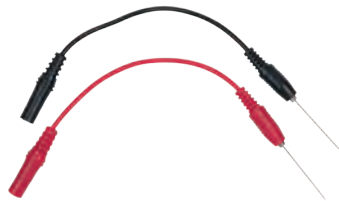|	Colour code		
150.1678	● (red)	4.0 mm input socket on narrow crocodile clamp	20
150.1679	● (black)	4.0 mm input socket on narrow crocodile clamp	20

Test probe

- Insulated
- Universally applicable
- Removable probes allow for easy cable extension during testing
- With 4.0 mm input socket
- Applicable up to a maximum of 24 V (10 A)
- Overall length 125.0 mm

	Colour code		
150.1676	●	4.0 mm input socket on probe	10
150.1677	●	4.0 mm input socket on probe	10

Needle-shaped probe

- Insulated
- Universally applicable
- Ideal for testing narrower and thinner cables, e.g. display units
- With 4.0 mm input socket
- Applicable up to a maximum of 24 V (10 A)
- Cable length 200.0 mm

	Colour code		
150.1673	●	4.0 mm input socket on needle-shaped probe	10
150.1674	●	4.0 mm input socket on needle-shaped probe	10

Polarity tester with duo LED

- Insulated
- With duo LED for checking hall sensors, photo sensors or whether injector plus or earth are controlled. Varies depending on the direction of current flow: red for positive voltage or green for negative voltage
- With 4.0 mm banana plug connection
- Applicable up to a maximum of 24 V (10 A)
- Cable length 120.0 mm

150.1672	Polarity tester with 4.0 mm banana plug connection and duo LED	10

DISASSEMBLY AND ASSEMBLY TOOLS

Central cable plug - grooved nut key

- 3-stage adjustable groove nut key
- For the disassembly and assembly of difficult to access central cable connectors on the A-pillar (installed in door frame)
- Easy to use
- Sturdy design

Application areas: Ford (Galaxy), Seat (Alhambra), Škoda and Volkswagen (Polo, Sharan)

115.1306	Central cable plug - grooved nut key	240

Relay pliers

- For the secure, straight and damage-free fitting and insertion of the relay
- Can also be used for the new shortened relay
- Easy to use
- Self-opening
- Sturdy gripper jaws
- Full plastic body

	Format	Total length mm	
115.1307	straight	200.0	130

Relay pliers bent at 45°

- Particularly suitable for closely inserted relays that are not accessible in a straight line
- For the secure and damage-free fitting and insertion of the relay
- Can also be used for the new shortened relay
- Easy to use
- Self-opening
- Sturdy gripper jaws
- Full plastic body

	Format	Total length mm	
115.1308	45° angle	200.0	130

CLEANING TOOLS

Contact cleaner tweezers set

- Ideal for professional cleaning at the corroded plug housing
- Suitable for flat and spade-shaped flat plugs as well as for flat plug sockets
- Damage to the sensitive contacts is prevented by the special tweezers shape
- No more unnecessary troubleshooting
- Avoidance of bad connections
- With three different shapes
- Diamond-coated on the tweezers tip and at the end of the tweezers
- Stainless steel
- In a practical storage case

118.0030	3 pcs	Contact cleaner tweezers set	60

consists of:

118.0031	Cleaning tweezers, pointed for small plug	20
118.0033	Cleaning tweezers, pointed/flat for medium-sized plug	20
118.0034	Cleaning tweezers, flat for large plug	20

Contact cleaner set, round

- Ideal for professional cleaning at the corroded plug housing
- Suitable for round push-on contacts and round sockets
- No more unnecessary troubleshooting
- Diamond-coated round files
- With 12 different sizes
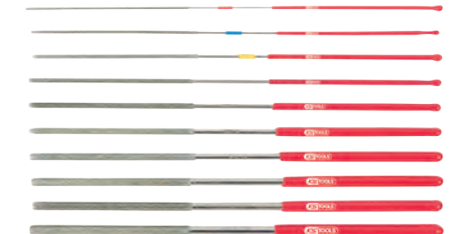
115.1370	10 pcs	Contact cleaner set, round	35

consists of:

115.1371	Diamond round file, Ø 0.7 mm	1
115.1372	Diamond round file, Ø 1.0 mm	1
115.1373	Diamond round file, Ø 1.3 mm	1
115.1374	Diamond round file, Ø 1.35 mm	1
115.1375	Diamond round file, Ø 1.8 mm	3
115.1376	Diamond round file, Ø 2.0 mm	3
115.1377	Diamond round file, Ø 2.3 mm	4
115.1378	Diamond round file, Ø 2.5 mm	5
115.1379	Diamond round file, Ø 2.8 mm	5
115.1381	Diamond round file, Ø 3.0 mm	7

CABLE UNLOCKING TOOLS

Housing types

150.1299	150.1299	154.0102	154.0103
Principle 5	Principle 5	Principle 5	Principle 1

154.0106	154.0107	154.0107	154.0107
Principle sidewise	Principle 2	Principle 2	Principle 2

154.0108	154.0108	150.1265	150.1265
Principle 5	Principle 5	Principle 2	Principle 2

150.1268	154.0111	154.0112	150.1264
Principle 5	Principle 2	Principle 2	Principle 5

Housing types
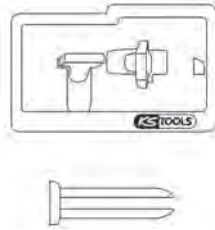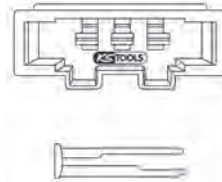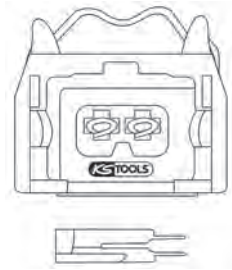
150.1264	150.1288	150.1275	154.0118
Principle 5	Principle 2	Principle 3	Principle 2 primary + secondary
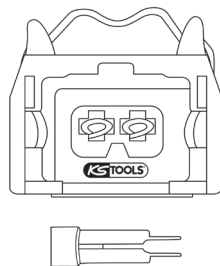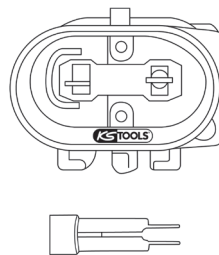
154.0118	154.0119	154.0119	154.0121
Principle 2 primary + secondary	Principle 2	Principle 2	Principle 2
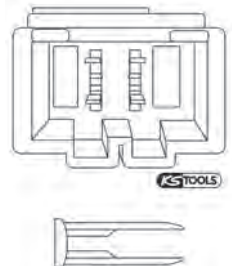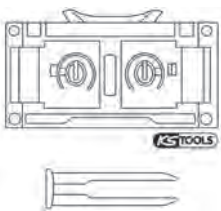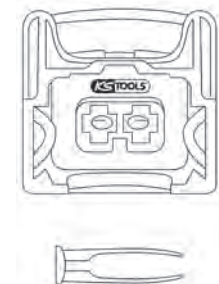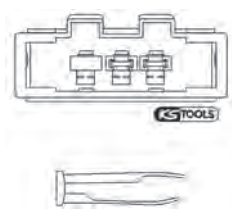
154.0122	150.1269	150.1269	150.1276
Principle 2	Principle 2	Principle 2	Principle 3
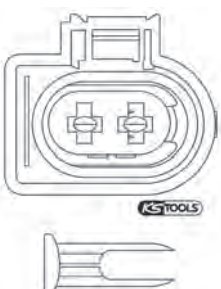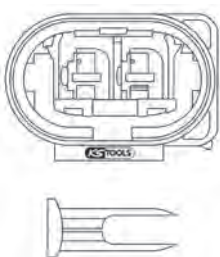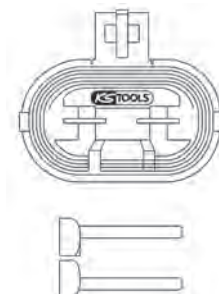
154.0125	154.0125	150.1285	150.1285
Principle 2	Principle 2	Principle 2	Principle 2
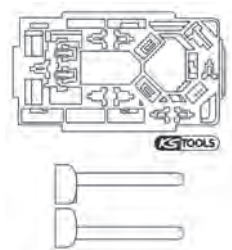
Housing types

150.1273
Principle 5

154.0128
Principle 1

154.0130
Principle 2

154.0130
Principle 2

150.1267
Principle 6

150.1287
Principle 2

154.0134
Principle 2

154.0135
Principle 2

150.1266
Principle 2

154.0138
Principle 2

150.1289
Principle 2

154.0201
Principle 1

154.0203
Principle 1

154.0205
Principle 1

154.0207
Principle 5

150.1263
Principle 1

Housing types
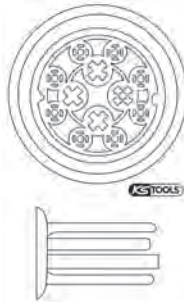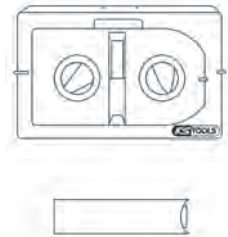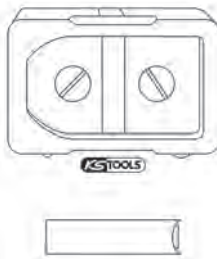
150.1263	150.1290	150.1290	150.1249
Principle 1	Principle 2	Principle 2	Principle 4
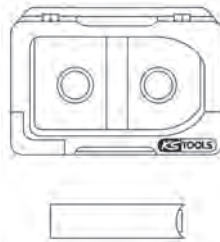
150.1249	150.1249	150.1249	150.1291
Principle 4	Principle 4	Principle 4	Principle 2
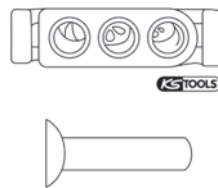
150.1257	150.1257	150.1262	150.1262
Principle 1	Principle 1	Principle 1	Principle 1
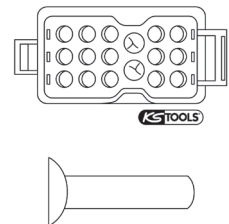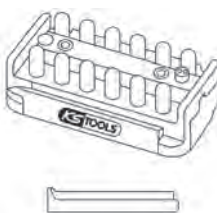
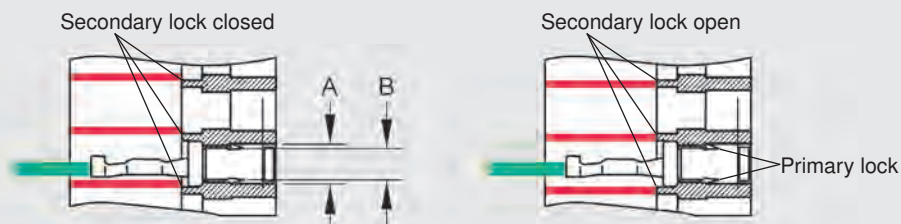| 150.1248	150.1292	150.1292	150.1256
Principle 4	Principle 1	Principle 1	Principle 1

Release principle 1

Round plug systems with 2 locks

Tool selection for principle 1 according to dimension A and B

A = Outer dimension

B = Inner dimension

Secondary lock closed   Secondary lock open

A B

Primary lock

1. Insert tool into the chamber

2. Push handle through

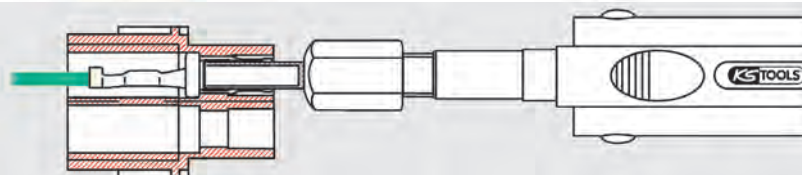**3. Contact is ejected**

Release principle 2

Flat plug systems with secondary lock

Tool selection for principle 2 according to dimension A and B

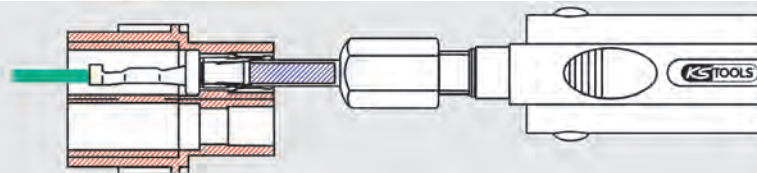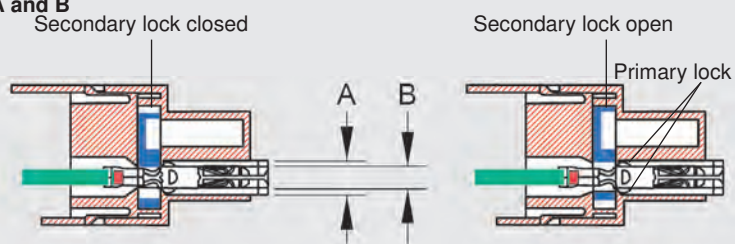A = Outer dimension

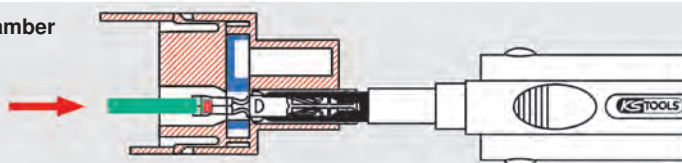B = Inner dimension

Secondary lock closed   Secondary lock open

Primary lock

A B

1. Insert tool into the chamber

2. At the same time, push contact into the chamber

3. Pull contact on the cable out of the chamber

Release principle 3

Asymmetrical flag plug systems

Unlock secondary lock (if present)
A = Outer dimension
B = Inner dimension

1. Insert tool into the chamber

2. At the same time, push contact into the chamber

3. Pull contact on the cable out of the chamber

Release principle 4

Round plug systems with injected snap-in pin in the housing

Tool selection for principle 4 according to dimension A and B
A = Outer dimension
B = Inner dimension

Secondary lock closed   Secondary lock open
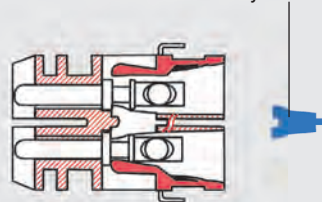
1. Insert tool into the chamber from behind

2. Push the cable into the pipe with your finger
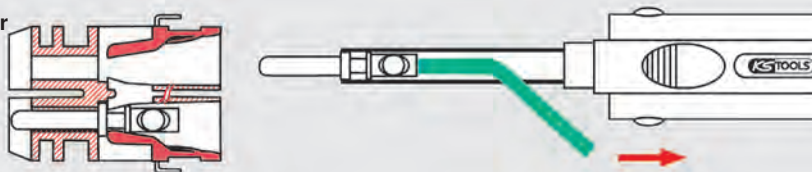
3. Pull tool with depressed the cable out of the chamber
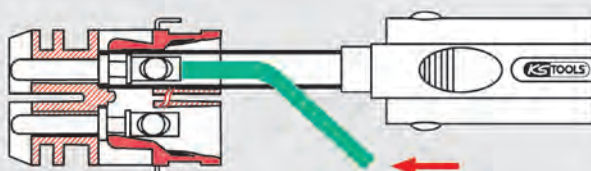
Release principle 5

Flat plug systems with a lock
Tool selection for principle 5 according to dimension A
A = Strength of the tool blade
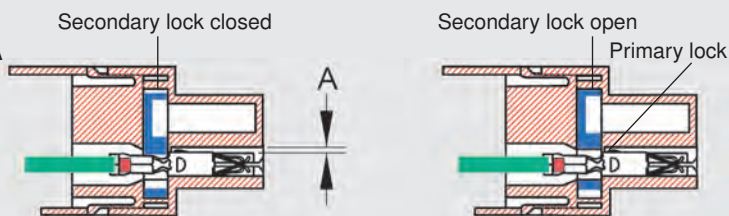
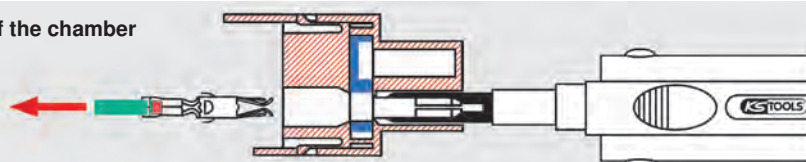Secondary lock closed   Secondary lock open

Primary lock

A

1. Insert tool into the chamber

2. At the same time, push contact into the chamber
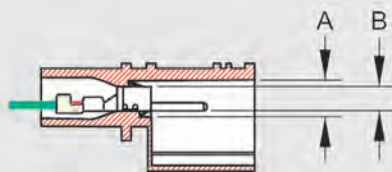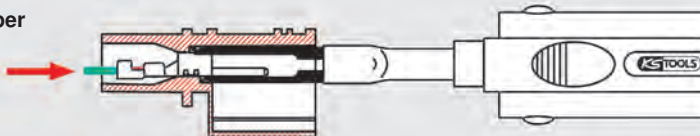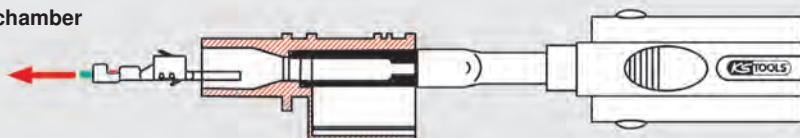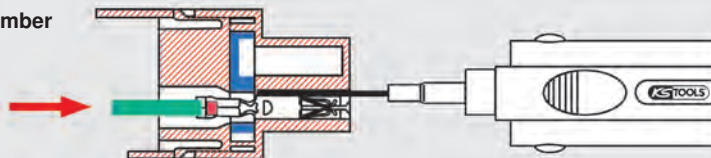
3. Pull contact on the cable out of the chamber
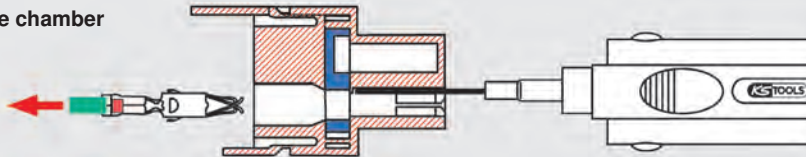
Release principle 6

Flag plug systems
This tool loosens the housing and contact safeguard.
1. Insert tool into the chamber, unlock the secondary lock (if present)
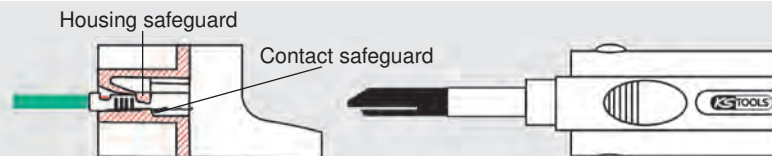
Housing safeguard

Contact safeguard

2. At the same time, push contact into the chamber

3. Pull contact on the cable out of the chamber

Release principle 7
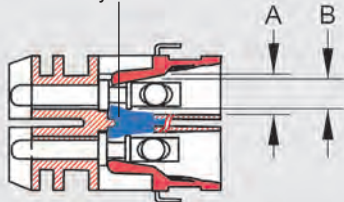
Flag plug systems
1. Insert tool into the chamber

2. Push the secondary lock laterally on the housing until it stops

3. Pull contact on the cable out of the chamber

UNIVERSAL UNLOCKING TOOLS

Universal cable unlocking tool for flat plugs and receptacles

- For the professional and non-destructive release of contacts
- **for manufacturers AMP Tyco JPT, AMP Tyco JT, AMP Tyco SPT, AMP Tyco ST**
- For plug design of flat plug and receptacle
- For plug widths of 2.8 mm, 4.8 mm, 5.8 mm and 6.3 mm
- Unlocking according to principle 2+5
- Universally applicable
- With tool tips made of high-quality spring band steel
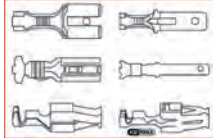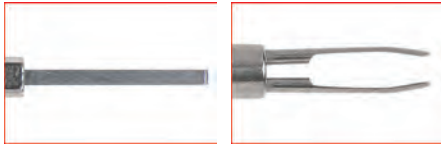
	Plug width mm	Plug type	Release principle	Length mm	
154.0011	2,8 / 4,8 / 5,8 / 6,3	Blade terminal / Blade terminal sleeve	2 + 5	117.0	20

Universal cable unlocking tool for flat plugs and receptacles

- For the professional and non-destructive release of contacts
- **for manufacturers AMP Tyco MT I, AMP Tyco MT II**
- For plug design of flat plug and receptacle
- For plug widths of 1.6 mm
- Unlocking according to principle 2+5
- Universally applicable
- With tool tips made of high-quality spring band steel

	Plug width mm	Plug type	Release principle	Length mm	
154.0012	1,6	Blade terminal / Blade terminal sleeve	2 + 5	117.0	18

Universal cable unlocking tool for round plugs and circular sockets

- For the professional and non-destructive release of contacts
- **For manufacturers AMP Tyco CI2, AMP Tyco Mate-N-Lok, GHW RAM, GHW RSA2**
- For plug design of round plugs and circular sockets
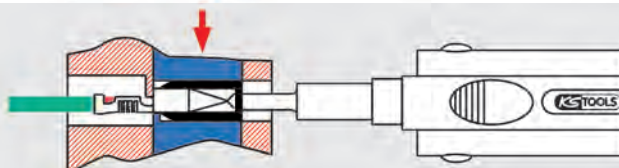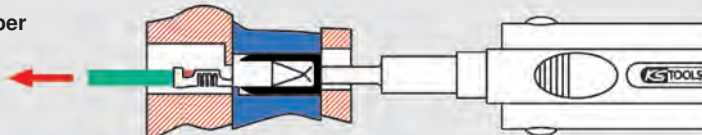- For plug diameters of 1.5 mm, 3.5 mm
- Unlocking according to principle 1
- Universally applicable
- With tool tips made of high-quality spring band steel

	Plug Ø mm	Plug type	Release principle	Length mm	
154.0013	1,5 / 3,5	Round connector / Round connector sleeve	2 + 5	107.0	16

Unlocking tool

- Universal application in the field of electrics in passenger vehicles
- Precision tool to repair a breakdowns or failure electrical links
- Ideal for Pack Con and Weather Pack connection terminals on GM C3 systems
- With six different unlocking connections
- Professional and non-destructive release of contacts
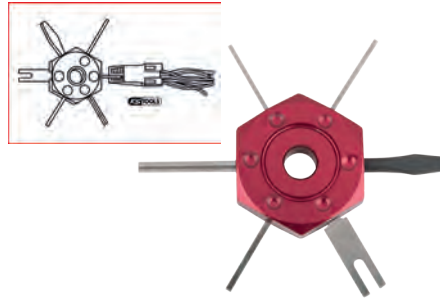
|		
150.1231	Unlocking tool	60

Unlocking tool

- Universal application in the field of electrics in passenger vehicles
- Precision tool to repair a breakdowns or failure electrical links
- The barbed hooks are pressed onto the connecting terminal via the forks of the tool during the unlocking process
- Cables with plugs can then pulled out easily
- With six different unlocking connections
- Professional and non-destructive release of contacts
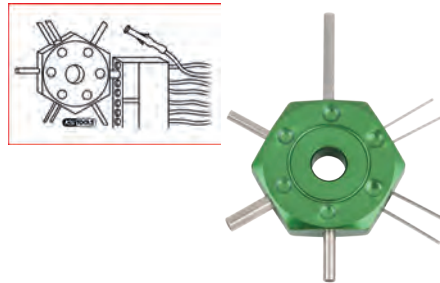
150.1232	Unlocking tool	60

UNLOCKING TOOLS FOR RECEPTACLES/FLAT PLUGS

Cable unlocking tool for flat plugs and receptacles

- For the professional and non-destructive release of contacts
- **for manufacturer Delphi Ducon**
- For plug design of flat plug and receptacle
- For plug widths of 0.8 mm, 1.5 mm
- Unlocking according to principle 5
- With safety bar to protect the blades and to avoid injuries
- With tool tips made of high-quality spring band steel

Application areas: Opel, Renault, etc.
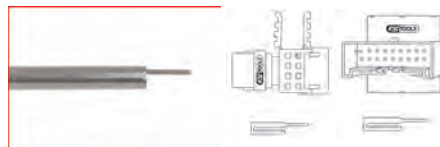
	Plug width mm	Plug type	Release principle	Length mm	
150.1299	0,8 / 1,5	Blade terminal / Blade terminal sleeve	5	139.0	20

Cable unlocking tool for receptacles

- For the professional and non-destructive release of contacts
- **for manufacturer KOSTAL MLK**
- For plug design receptacle
- For plug widths of 1.2 mm
- Unlocking according to principle 5
- With safety bar to protect the blades and to avoid injuries
- With tool tips made of high-quality spring band steel

Application areas: BMW, Mercedes, etc.

	Plug width mm	Plug type	Release principle	Length mm	
154.0102	1,2	Blade terminal sleeve	5	139.0	28

Cable unlocking tool for flat plugs

- For the professional and non-destructive release of contacts
- **for manufacturer KOSTAL MLK**
- For plug design of flat plug
- For plug widths of 1.2 mm
- Unlocking according to principle 1
- With safety bar to protect the blades and to avoid injuries
- With tool tips made of high-quality spring band steel

Application areas: BMW, Mercedes, etc.
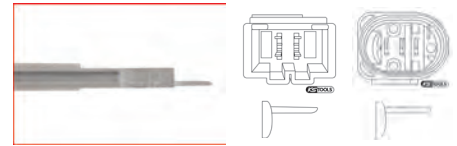
	Plug width mm	Plug type	Release principle	Length mm	
154.0103	1,2	Blade terminal	1	138.0	17

Cable unlocking tool for flat plugs and receptacles

- For the professional and non-destructive release of contacts
- **For manufacturers AMP Tyco MCP**
- For plug design of flat plug and receptacle
- For plug widths of 1.2 mm
- Unlocking according to principle 5
- With safety bar to protect the blades and to avoid injuries
- With tool tips made of high-quality spring band steel

Application areas: Volkswagen, Audi, Seat, Škoda, Mercedes, etc.

	Plug width mm	Plug type	Release principle	Length mm	
154.0104	1,2	Blade terminal / Blade terminal sleeve	5	139.0	16

Cable unlocking tool for flat plugs and receptacles

- For the professional and non-destructive release of contacts
- **For manufacturers AMP Tyco MQS**
- For plug design of flat plug and receptacle
- For plug widths of 1.2 mm
- Unlocking according to principle 1
- With safety bar to protect the blades and to avoid injuries
- With tool tips made of high-quality spring band steel

Application areas: BMW, Volkswagen, Audi, Seat, Mercedes, Škoda, etc.

	Plug width mm	Plug type	Release principle	Length mm	
154.0105	1,2	Blade terminal / Blade terminal sleeve	1	123.0	14

Cable unlocking tool for flat plugs and receptacles

- For the professional and non-destructive release of contacts
- **For manufacturers AMP Tyco Superseal**
- For plug design of flat plug and receptacle
- For plug widths of 1.5 mm
- Unlocking according to principle 5
- With safety bar to protect the blades and to avoid injuries
- With tool tips made of high-quality spring band steel

Application areas: Ford

	Plug width mm	Plug type	Release principle	Length mm	
154.0108	1,5	Blade terminal / Blade terminal sleeve	5	137.0	16

Cable unlocking tool for receptacles

- For the professional and non-destructive release of contacts
- **For manufacturer Delphi AF2**
- For plug design receptacle
- For plug widths of 1.6 mm
- Unlocking according to principle 2
- With safety bar to protect the blades and to avoid injuries
- With tool tips made of high-quality spring band steel
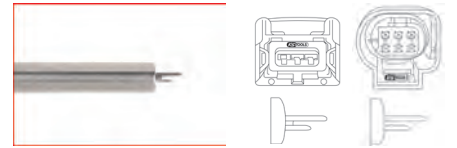
Application areas: Opel

	Plug width mm	Plug type	Release principle	Length mm	
154.0111	1,6	Blade terminal sleeve	2	139.0	35

Cable unlocking tool for flat plugs and receptacles

- For the professional and non-destructive release of contacts
- **For manufacturers AMP Tyco MQS**
- For plug design of flat plug and receptacle
- For plug widths of 1.2 mm
- Unlocking according to the lateral principle
- With safety bar to protect the blades and to avoid injuries
- With tool tips made of high-quality spring band steel

Application areas: BMW, Volkswagen, Audi, Mercedes, Opel, etc.

	Plug width mm	Plug type	Release principle	Length mm	
154.0106	1,2	Blade terminal / Blade terminal sleeve	sidewise	134.0	25

Cable unlocking tool for flat plugs and receptacles

- For the professional and non-destructive release of contacts
- **For manufacturer AMP Tyco MT II**
- For plug design of flat plug and receptacle
- For plug widths of 1.6 mm
- Unlocking according to principle 2
- With safety bar to protect the blades and to avoid injuries
- With tool tips made of high-quality spring band steel

Application areas: BMW, Mercedes, Opel, Volkswagen, Audi, Seat, Renault, etc.

	Plug width mm	Plug type	Release principle	Length mm	
150.1265	1,6	Blade terminal / Blade terminal sleeve	2	131.0	30

Cable unlocking tool for flat plugs

- For the professional and non-destructive release of contacts
- **For manufacturer GHW GSK**
- For plug design of flat plug
- For plug widths of 1.6 mm
- Unlocking according to principle 2
- With tool tips made of high-quality spring band steel

Application areas: Mercedes Sprinter
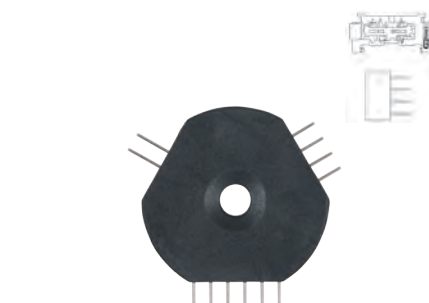
	Plug width mm	Plug type	Release principle	Length mm	
154.0112	1,6	Blade terminal / Blade terminal sleeve	2	65.0	27

Cable unlocking tool for receptacles

- For the professional and non-destructive release of contacts
- **For manufacturers AMP Tyco MCP**
- For plug design receptacle
- For plug widths of 1.5 mm
- Unlocking according to principle 2
- With safety bar to protect the blades and to avoid injuries
- With tool tips made of high-quality spring band steel

Application areas: Volkswagen, Audi, Škoda, Seat, etc.
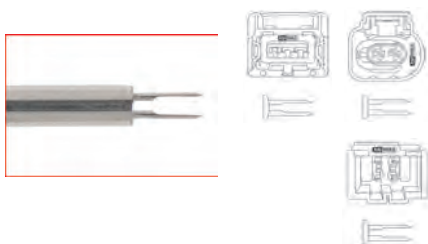
	Plug width mm	Plug type	Release principle	Length mm	
154.0107	1,5	Blade terminal sleeve	2	139.0	20

Cable unlocking tool for receptacles

- For the professional and non-destructive release of contacts
- **For manufacturer AMP Tyco MT I**
- For plug design of flat plug and receptacle
- For plug widths of 1.6 mm
- Unlocking according to principle 5
- With safety bar to protect the blades and to avoid injuries
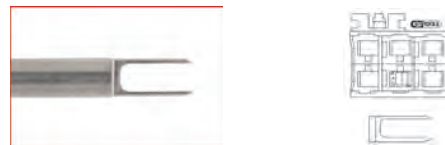- With tool tips made of high-quality spring band steel

Application areas: BMW, Mercedes, Ford, Opel, Volkswagen, Audi, Renault, etc.
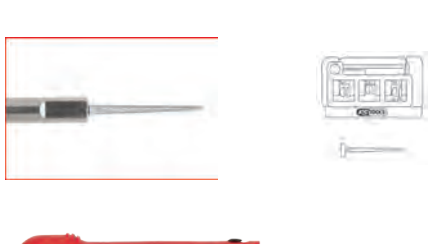
	Plug width mm	Plug type	Release principle	Length mm	
150.1268	1,6	Blade terminal sleeve	5	137.0	30

Cable unlocking tool for receptacles

- For the professional and non-destructive release of contacts
- **For manufacturer AMP Tyco E-95**
- For plug design receptacle
- For plug widths of 1.65 mm
- Unlocking according to principle 2
- With safety bar to protect the blades and to avoid injuries
- With tool tips made of high-quality spring band steel

Application areas: Mercedes
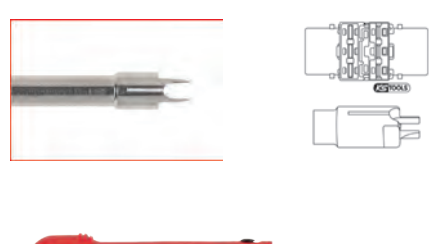
	Plug width mm	Plug type	Release principle	Length mm	
150.1289	1,65	Blade terminal sleeve	2	137.0	30

Cable unlocking tool for flat plugs and receptacles

- For the professional and non-destructive release of contacts
- **For manufacturers AMP Tyco JT, AMP Tyco ST, Deutsch DT**
- For plug design of flat plug and receptacle
- For plug widths of 2.8 mm
- Unlocking according to principle 5
- With safety bar to protect the blades and to avoid injuries
- With tool tips made of high-quality spring band steel

**Application areas:** BMW, Mercedes, Opel, Volkswagen, Audi, Seat, Renault, etc.

	Plug width mm	Plug type	Release principle	Length mm	
150.1264	2,8	Blade terminal / Blade terminal sleeve	5	137.0	30

Cable unlocking tool for receptacles

- For the professional and non-destructive release of contacts
- **For manufacturer GHW MDK**
- For plug design receptacle
- For plug widths of 2.8 mm
- Unlocking according to principle 3
- With safety bar to protect the blades and to avoid injuries
- With tool tips made of high-quality spring band steel

Application areas: Ford

	Plug width mm	Plug type	Release principle	Length mm	
154.0117	2,8	Blade terminal sleeve	3	138.0	16

Cable unlocking tool for flat plugs and receptacles

- For the professional and non-destructive release of contacts
- **For manufacturer KOSTAL SLK**
- For plug design of flat plug and receptacle
- For plug widths of 2.8 mm
- Unlocking according to principle 2/primary and secondary
- With safety bar to protect the blades and to avoid injuries
- With tool tips made of high-quality spring band steel

Application areas: BMW, Mercedes, etc.

	Plug width mm	Plug type	Release principle	Length mm	
154.0120	2,8	Blade terminal / Blade terminal sleeve	2 Primarily- and Secondary	165.0	54

Cable unlocking tool for flat plugs

- For the professional and non-destructive release of contacts
- **Universally applicable**
- For plug design of flat plug
- For plug widths of 2.8 mm
- Unlocking according to principle 2
- With safety bar to protect the blades and to avoid injuries
- With tool tips made of high-quality spring band steel

Application areas: Commercial vehicles

	Plug width mm	Plug type	Release principle	Length mm	
150.1288	2,8	Blade terminal	2	137.0	20

Cable unlocking tool for flat plugs and receptacles

- For the professional and non-destructive release of contacts
- **For manufacturer KOSTAL SLK**
- For plug design of flat plug and receptacle
- For plug widths of 2.8 mm
- Unlocking according to principle 2/primary and secondary
- With safety bar to protect the blades and to avoid injuries
- With tool tips made of high-quality spring band steel

Application areas: BMW, Mercedes, etc.

	Plug width mm	Plug type	Release principle	Length mm	
154.0118	2,8	Blade terminal / Blade terminal sleeve	2 Primarily- and Secondary	166.0	53

Cable unlocking tool for flat plugs and receptacles

- For the professional and non-destructive release of contacts
- **For manufacturers AMP Tyco MCP**
- For plug design of flat plug and receptacle
- For plug widths of 2.8 mm
- Unlocking according to principle 2
- With safety bar to protect the blades and to avoid injuries
- With tool tips made of high-quality spring band steel

Application areas: Volkswagen, Audi, Seat, Škoda, Mercedes, etc.
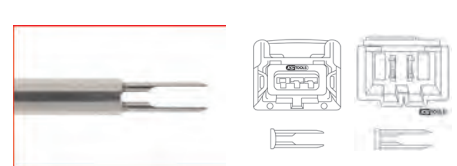
	Plug width mm	Plug type	Release principle	Length mm	
154.0121	2,8	Blade terminal / Blade terminal sleeve	2	139.0	20

Cable unlocking tool for flat plugs

- For the professional and non-destructive release of contacts
- **For manufacturers AMP Tyco JT, AMP Tyco JPT asy**
- For plug design of flat plug
- For plug widths of 2.8 mm
- Unlocking according to principle 3
- With safety bar to protect the blades and to avoid injuries
- With tool tips made of high-quality spring band steel

Application areas: Volkswagen, Audi, Seat, Škoda, etc.

	Plug width mm	Plug type	Release principle	Length mm	
150.1275	2,8	Blade terminal	3	137.0	30

Cable unlocking tool for receptacles

- For the professional and non-destructive release of contacts
- **For manufacturer KOSTAL SLK**
- For plug design receptacle
- For plug widths of 2.8 mm
- Unlocking according to principle 2
- With safety bar to protect the blades and to avoid injuries
- With tool tips made of high-quality spring band steel

Application areas: BMW, Mercedes, etc.

	Plug width mm	Plug type	Release principle	Length mm	
154.0119	2,8	Blade terminal sleeve	2	135.0	43

Cable unlocking tool for flat plugs and receptacles

- For the professional and non-destructive release of contacts
- **For manufacturer AMP Tyco SPT**
- For plug design of flat plug and receptacle
- For plug widths of 4.8 mm, 5.8 mm, 6.3 mm
- Unlocking according to principle 2
- With safety bar to protect the blades and to avoid injuries
- With tool tips made of high-quality spring band steel

Application areas: Volkswagen, Audi, Seat, Škoda, Mercedes, etc.

	Plug width mm	Plug type	Release principle	Length mm	
154.0122	4,8 / 5,8 / 6,3	Blade terminal / Blade terminal sleeve	2	139.0	18

Cable unlocking tool for flat plugs and receptacles

- For the professional and non-destructive release of contacts
- **for manufacturers AMP Tyco JPT, AMP Tyco SPT, AMP Tyco TAB, Delphi HVF2, GHW DFK, GHW MDK 3**
- For plug design of flat plug and receptacle
- For plug widths of 2.8 mm, 4.8 mm, 5.8 mm, 6.3 mm
- Unlocking according to principle 2
- With safety bar to protect the blades and to avoid injuries
- With tool tips made of high-quality spring band steel

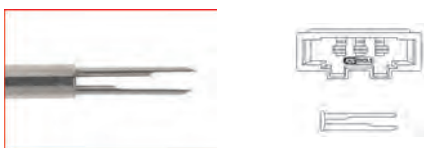**Application areas:** BMW, Mercedes, Opel, Volkswagen, Audi, Škoda, NKW, etc.

Plug width mm	Plug type	Release principle	Length mm	
150.1269	2,8 / 4,8 / 5,8 / 6,3	Blade terminal / Blade terminal sleeve	2	139.0	30

Cable unlocking tool for flat plugs and receptacles

- For the professional and non-destructive release of contacts
- **for manufacturer Delphi Ducon**
- For plug design of flat plug and receptacle
- For plug widths of 4.8 mm, 6.3 mm
- Unlocking according to principle 2
- With safety bar to protect the blades and to avoid injuries
- With tool tips made of high-quality spring band steel

Application areas: Opel, Renault, etc.

Plug width mm	Plug type	Release principle	Length mm	
150.1285	4,8 / 6,3	Blade terminal / Blade terminal sleeve	2	139.0	30

Cable unlocking tool for receptacles

- For the professional and non-destructive release of contacts
- **For manufacturer KOSTAL SLK**
- For plug design receptacle
- For plug widths of 5.8 mm
- Unlocking according to principle 2
- With safety bar to protect the blades and to avoid injuries
- With tool tips made of high-quality spring band steel

Application areas: BMW, Audi, Volkswagen, Seat, Mercedes, Škoda, etc.

Plug width mm	Plug type	Release principle	Length mm	
154.0129	5,8	Blade terminal sleeve	2	169.0	69

Cable unlocking tool for flat plugs

- For the professional and non-destructive release of contacts
- **For manufacturer AMP Tyco 4.8 asy**
- For plug design of flat plug
- For plug widths of 4.8 mm
- Unlocking according to principle 3
- With safety bar to protect the blades and to avoid injuries
- With tool tips made of high-quality spring band steel

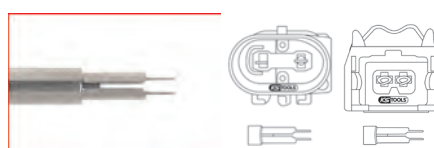**Application areas:** Volkswagen, Audi, Seat, Škoda, etc.

Plug width mm	Plug type	Release principle	Length mm	
150.1276	4,8	Blade terminal	3	139.0	20

Cable unlocking tool for flat plugs and receptacles

- For the professional and non-destructive release of contacts
- **For manufacturer AMP Tyco ST**
- For plug design of flat plug and receptacle
- For plug widths of 5.8 mm
- Unlocking according to principle 5
- With safety bar to protect the blades and to avoid injuries
- With tool tips made of high-quality spring band steel

Application areas: BMW

Plug width mm	Plug type	Release principle	Length mm	
150.1273	5,8	Blade terminal / Blade terminal sleeve	5	137.0	30

Cable unlocking tool for flat plugs and receptacles

- For the professional and non-destructive release of contacts
- **For manufacturer KOSTAL LSK 8 primary**
- For plug design of flat plug and receptacle
- For plug widths of 6.3 mm
- Unlocking according to principle 2
- With safety bar to protect the blades and to avoid injuries
- With tool tips made of high-quality spring band steel
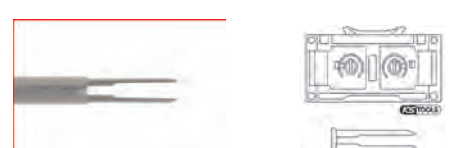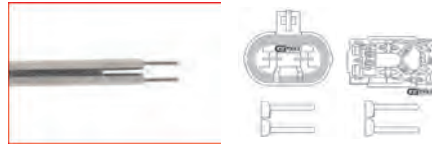
Application areas: BMW, Mercedes, etc.

Plug width mm	Plug type	Release principle	Length mm	
154.0130	6,3	Blade terminal / Blade terminal sleeve	2	139.0	34

Cable unlocking tool for flat plugs and receptacles

- For the professional and non-destructive release of contacts
- **For manufacturers AMP Tyco MCP**
- For plug design of flat plug and receptacle
- For plug widths of 4.8 mm
- Unlocking according to principle 2
- With safety bar to protect the blades and to avoid injuries
- With tool tips made of high-quality spring band steel

Application areas: Audi, Volkswagen, Seat, Škoda, etc.

Plug width mm	Plug type	Release principle	Length mm	
154.0125	4,8	Blade terminal / Blade terminal sleeve	2	139.0	36

Cable unlocking tool for flat plugs and receptacles

- For the professional and non-destructive release of contacts
- **For manufacturer KOSTAL SLK**
- For plug design of flat plug and receptacle
- For plug widths of 5.8 mm
- Unlocking according to principle 1
- With safety bar to protect the blades and to avoid injuries
- With tool tips made of high-quality spring band steel

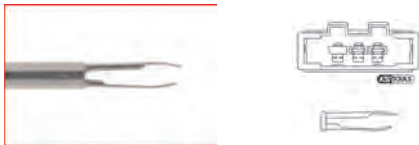**Application areas:** BMW, Audi, Volkswagen, Seat, Mercedes, Škoda, etc.
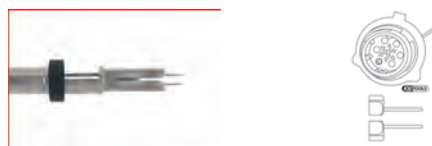
Plug width mm	Plug type	Release principle	Length mm	
154.0128	5,8	Blade terminal	1	167.0	71

Cable unlocking tool for flat plugs and receptacles

- For the professional and non-destructive release of contacts
- **For manufacturer KOSTAL LSK**
- For plug design of flat plug and receptacle
- For plug widths of 6.3 mm, 8.0 mm
- Unlocking according to principle 2/primary and secondary
- With safety bar to protect the blades and to avoid injuries
- With tool tips made of high-quality spring band steel

Application areas: BMW, Mercedes, etc.

Plug width mm	Plug type	Release principle	Length mm	
154.0131	6,3 / 8,0	Blade terminal / Blade terminal sleeve	2 Primarily- and Secondary	149.0	39

Cable unlocking tool for receptacles

• For the professional and non-destructive release of contacts
• **For manufacturer GHW 6.3**
• For plug design receptacle
• For plug widths of 6.3 mm
• Unlocking according to principle 6
• With safety bar to protect the blades and to avoid injuries
• With tool tips made of high-quality spring band steel
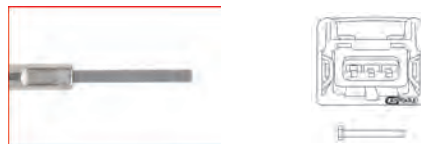
Application areas: Opel, Renault, etc.

Plug width mm	Plug type	Release principle	Length mm	
150.1267 6,3	Blade terminal sleeve	6	139.0	30

Cable unlocking tool for receptacles

• For the professional and non-destructive release of contacts
• **For manufacturer AMP Tyco MPT**
• For plug design receptacle
• For plug widths of 9.5 mm
• Unlocking according to principle 2
• With safety bar to protect the blades and to avoid injuries
• With tool tips made of high-quality spring band steel

Application areas: Commercial vehicles

Plug width mm	Plug type	Release principle	Length mm	
154.0135 9,5	Blade terminal sleeve	2	139.0	34

Cable unlocking tool for receptacles

• For the professional and non-destructive release of contacts
• **for manufacturers AMP Tyco SensorTime, Bosch BDK**
• For plug design receptacle
• For plug widths of 2.8 mm
• Unlocking according to principle 2
• With safety bar to protect the blades and to avoid injuries
• With tool tips made of high-quality spring band steel

**Application areas:** BMW, Audi, Volkswagen, Seat, Mercedes, Škoda, etc. (especially for knock sensor, air mass flow meter, Bosch contact systems)
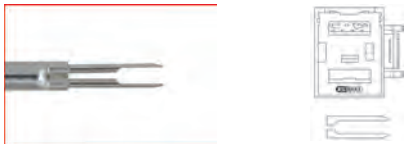
Plug width mm	Plug type	Release principle	Length mm	
154.0138 2,8	Blade terminal sleeve	2	139.0	21

Cable unlocking tool for flat plugs and receptacles

• For the professional and non-destructive release of contacts
• **for manufacturer Delphi Ducon**
• For plug design of flat plug and receptacle
• For plug widths of 9.5 mm
• Unlocking according to principle 2
• With safety bar to protect the blades and to avoid injuries
• With tool tips made of high-quality spring band steel

Application areas: Opel

Plug width mm	Plug type	Release principle	Length mm	
150.1287 9,5	Blade terminal / Blade terminal sleeve	2	143.0	30

Cable unlocking tool for receptacles

• For the professional and non-destructive release of contacts
• **For manufacturers AMP Tyco MPT, GHW Maxi-DFK**
• For plug design receptacle
• For plug widths of 9.5 mm
• Unlocking according to principle 2
• With safety bar to protect the blades and to avoid injuries
• With tool tips made of high-quality spring band steel

Application areas: Commercial vehicles
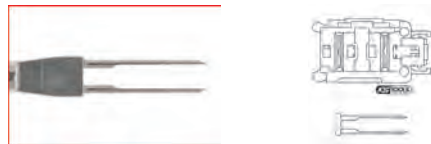
Plug width mm	Plug type	Release principle	Length mm	
150.1266 9,5	Blade terminal sleeve	2	156.0	30

UNLOCKING TOOLS FOR CIRCULAR SOCKET/ROUND PLUGS

Cable unlocking tool for round plugs and circular sockets

• For the professional and non-destructive release of contacts
• **For manufacturer AMP Tyco 1.5**
• For plug design of round plugs and circular socket
• For plug diameters of 1.2 mm
• Unlocking according to principle 1
• With safety bar to protect the blades and to avoid injuries
• With tool tips made of high-quality spring band steel

Application areas: BMW, Mercedes, Volkswagen, Audi, Seat, etc.

Plug Ø mm	Plug type	Release principle	Length mm	
154.0201 1,2	Round connector / Round connector sleeve	1	155.0	51

Replacement sleeve:

154.0202	Sleeve Ø 1.2 mm (AMP Tyco 1.5)	4

Cable unlocking tool for flat plugs and receptacles

• For the professional and non-destructive release of contacts
• **For manufacturer AMP Tyco MPT**
• For plug design of flat plug and receptacle
• For plug widths of 9.5 mm
• Unlocking according to principle 2
• With safety bar to protect the blades and to avoid injuries
• With tool tips made of high-quality spring band steel

Application areas: Mercedes, Volkswagen, BMW, Renault, Audi, Škoda, Seat, etc.
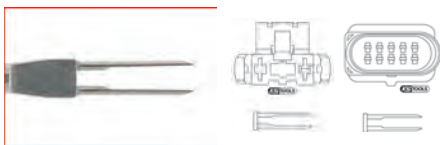
Plug width mm	Plug type	Release principle	Length mm	
154.0134 9,5	Blade terminal / Blade terminal sleeve	2	135.0	16

Cable unlocking tool for receptacles

• For the professional and non-destructive release of contacts
• **For manufacturer KOSTAL PLK**
• For plug design receptacle
• For plug widths of 14.5 mm
• Unlocking according to principle 2
• With safety bar to protect the blades and to avoid injuries
• With tool tips made of high-quality spring band steel

Application areas: Commercial vehicles

Plug width mm	Plug type	Release principle	Length mm	
154.0137 14,5	Blade terminal sleeve	2	156.0	36

Cable unlocking tool for round plugs

- For the professional and non-destructive release of contacts
- **For manufacturer KOSTAL LKS**
- For plug design of round plug
- For plug diameters of 1.5 mm
- Unlocking according to principle 1
- With safety bar to protect the blades and to avoid injuries
- With tool tips made of high-quality spring band steel

Application areas: BMW, Mercedes, etc.

Plug Ø mm		Plug type	Release principle	Length mm	
154.0203	1,5	Round connector	1	160.0	37

Replacement sleeve:

150.1247	Sleeve Ø 1.5 mm (KOSTAL LKS)	1

Cable unlocking tool for circular sockets

- For the professional and non-destructive release of contacts
- **For manufacturer KOSTAL LKS**
- For plug design of circular socket
- For plug diameters of 1.5 mm
- Unlocking according to principle 1
- With safety bar to protect the blades and to avoid injuries
- With tool tips made of high-quality spring band steel

Application areas: BMW, Mercedes, etc.

Plug Ø mm		Plug type	Release principle	Length mm	
154.0205	1,5	Round connector sleeve	1	152.0	36

Replacement sleeve:

154.0206	Sleeve Ø 1.5 mm (KOSTAL LKS)	1

Cable unlocking tool for circular sockets

- For the professional and non-destructive release of contacts
- **For manufacturer LBK**
- For plug design of circular socket
- For plug diameters of 1.5 mm
- Unlocking according to principle 5
- With safety bar to protect the blades and to avoid injuries
- With tool tips made of high-quality spring band steel

Application areas: Ford

Plug Ø mm		Plug type	Release principle	Length mm	
154.0207	1,5	Round connector sleeve	5	139.0	20

Cable unlocking tool for circular sockets

- For the professional and non-destructive release of contacts
- **For manufacturer AMP Tyco 1.5**
- For plug design of circular socket
- For plug diameters of 1.5 mm
- Unlocking according to principle 1
- With safety bar to protect the blades and to avoid injuries
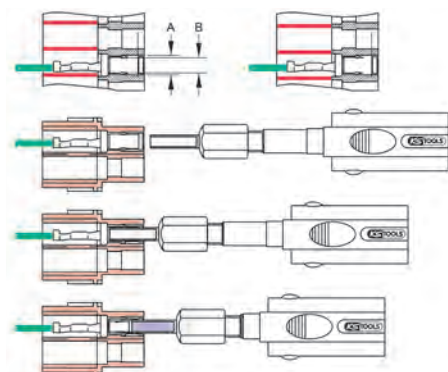- With tool tips made of high-quality spring band steel

Application areas: Commercial vehicles

Plug Ø mm		Plug type	Release principle	Length mm	
154.0208	1,5	Round connector sleeve	1	157.0	36

Replacement sleeve:

154.0209	Sleeve Ø 1.5 mm (AMP Tyco 1.5)	1

Cable unlocking tool for round plugs

- For the professional and non-destructive release of contacts
- **For manufacturer AMP Tyco 1.5**
- For plug design of round plug
- For plug diameters of 1.5 mm
- Unlocking according to principle 1
- With safety bar to protect the blades and to avoid injuries
- With tool tips made of high-quality spring band steel

Application areas: BMW, Mercedes, Opel, Volkswagen, Audi, Škoda, Seat, NKW, etc.

Plug Ø mm		Plug type	Release principle	Length mm	
150.1263	1,5	Round connector	1	160.0	30

Replacement sleeve:

150.1270	Sleeve Ø 1.5 mm (AMP Tyco 1.5)	10

Cable unlocking tool for circular sockets

- For the professional and non-destructive release of contacts
- **For manufacturers GHW MKS, GHW MKR**
- For plug design of circular socket
- For plug diameters of 1.5 mm
- Unlocking according to principle 2
- With safety bar to protect the blades and to avoid injuries
- With tool tips made of high-quality spring band steel

Application areas: Commercial vehicles

Plug Ø mm		Plug type	Release principle	Length mm	
150.1290	1,5	Round connector sleeve	2	139.0	30

Cable unlocking tool for round plugs and circular sockets

- For the professional and non-destructive release of contacts
- **For manufacturers AMP Tyco 2.3, Delphi 2.3, GHW 2.3**
- For plug design of round plugs and circular socket
- For plug diameters of 2.5 mm
- Unlocking according to principle 1
- With safety bar to protect the blades and to avoid injuries
- With tool tips made of high-quality spring band steel

Application areas: Ford, Opel, Renault, etc.

	Plug Ø mm	Plug type	Release principle	Length mm	g
150.1261	2,3	Round connector / Round connector sleeve	1	164.0	30

Replacement sleeve:

		g
150.1272	Sleeve Ø 2.3 mm (AMP Tyco 2.3, Delphi 2.3, GHW 2.3)	10

Cable unlocking tool for round plugs and circular sockets
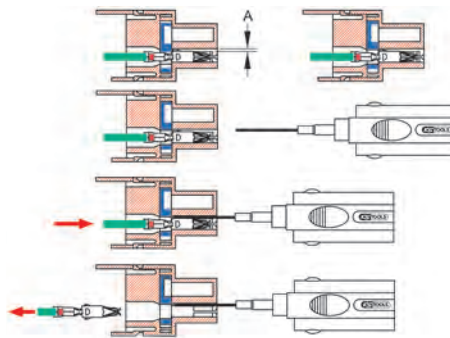
- For the professional and non-destructive release of contacts
- **For manufacturer KOSTAL RK**
- For plug design of round plugs and circular socket
- For plug diameters of 2.5 mm
- Unlocking according to principle 4
- With safety bar to protect the blades and to avoid injuries
- With tool tips made of high-quality spring band steel

Application areas: Mercedes

	Plug Ø mm	Plug type	Release principle	Length mm	g
150.1249	2,5	Round connector / Round connector sleeve	4	138.0	16

Cable unlocking tool for round plugs and circular sockets

- For the professional and non-destructive release of contacts
- **For manufacturer GHW VKR Plus**
- For plug design of round plugs and circular socket
- For plug diameters of 2.5 mm
- Unlocking according to principle 2
- With safety bar to protect the blades and to avoid injuries
- With tool tips made of high-quality spring band steel

Application areas: Commercial vehicles

	Plug Ø mm	Plug type	Release principle	Length mm	g
150.1291	2,5	Round connector / Round connector sleeve	2	138.0	30

Cable unlocking tool for round plugs and circular sockets

- For the professional and non-destructive release of contacts
- **For manufacturer AMP Tyco 2.5**
- For plug design of round plugs and circular socket
- For plug diameters of 2.5 mm
- Unlocking according to principle 1
- With safety bar to protect the blades and to avoid injuries
- With tool tips made of high-quality spring band steel

Application areas: BMW, Mercedes, etc.

	Plug Ø mm	Plug type	Release principle	Length mm	g
150.1257	2,5	Round connector / Round connector sleeve	1	150.0	33

Replacement sleeve:

		g
154.0218	Sleeve Ø 2.5 mm (AMP Tyco 2.5)	1

Cable unlocking tool for round plugs and circular sockets

- For the professional and non-destructive release of contacts
- **For manufacturer AMP Tyco 3.5**
- For plug design of round plugs and circular socket
- For plug diameters of 3.5 mm
- Unlocking according to principle 1
- With safety bar to protect the blades and to avoid injuries
- With tool tips made of high-quality spring band steel

Application areas: BMW, Mercedes, etc.

	Plug Ø mm	Plug type	Release principle	Length mm	g
150.1262	3,5	Round connector / Round connector sleeve	1	150.0	30

Replacement sleeve:

		g
150.1271	Sleeve Ø 3.5 mm (AMP Tyco 3.5)	10

Cable unlocking tool for round plugs and circular sockets

- For the professional and non-destructive release of contacts
- **For manufacturer KOSTAL RK**
- For plug design of round plugs and circular socket
- For plug diameters of 4.0 mm
- Unlocking according to principle 1
- With safety bar to protect the blades and to avoid injuries
- With tool tips made of high-quality spring band steel

Application areas: Commercial vehicles

	Plug Ø mm	Plug type	Release principle	Length mm	g
154.0221	4,0	Round connector / Round connector sleeve	1	156.0	70

Replacement sleeve:

		g
154.0222	Sleeve Ø 4.0 mm (KOSTAL RK 4.0)	1

Cable unlocking tool for round plugs and circular sockets

- For the professional and non-destructive release of contacts
- **For manufacturer KOSTAL RK**
- For plug design of round plugs and circular socket
- For plug diameters of 4.0 mm
- Unlocking according to principle 4
- With safety bar to protect the blades and to avoid injuries
- With tool tips made of high-quality spring band steel

Application areas: Mercedes
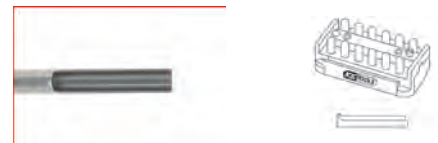
	Plug Ø mm	Plug type	Release principle	Length mm	g
150.1248	4,0	Round connector / Round connector sleeve	4	138.0	17

Cable unlocking tool for round plugs and circular sockets

• For the professional and non-destructive release of contacts
• **For manufacturer ABS**
• For plug design of round plugs and circular socket
• For plug diameters of 4.0 mm
• Unlocking according to principle 1
• With safety bar to protect the blades and to avoid injuries
• With tool tips made of high-quality spring band steel

Application areas: for unlocking ABS contacts on 5, 7, 13 and 15-pole sockets

	Plug Ø mm	Plug type	Release principle	Length mm	🪪 g
150.1292	4,0	Round connector / Round connector sleeve	1	172.0	30

Replacement sleeve:

		🪪 g
154.0225	Sleeve Ø 4.0 mm (ABS 4.0)	3

Cable unlocking tool for round plugs and circular sockets

• For the professional and non-destructive release of contacts
• **For manufacturer ABS**
• For plug design of round plugs and circular socket
• For plug diameters of 5.5 mm
• Unlocking according to principle 1
• With safety bar to protect the blades and to avoid injuries
• With tool tips made of high-quality spring band steel

Application areas: for unlocking ABS contacts on 5, 7, 13 and 15-pole sockets

	Plug Ø mm	Plug type	Release principle	Length mm	🪪 g
150.1256	5,5	Round connector / Round connector sleeve	1	172.0	38

Replacement sleeve:

		🪪 g
154.0227	Sleeve Ø 5.5 mm (ABS 5.5)	2

UNLOCKING TOOLS FOR HOUSING

Unlocking tool for housing

• For the professional and non-destructive release of housing
• For manufacturers AMP Tyco Superseal, Deutsch DT
• For plug design of the housing
• For secondary lock
• With safety bar to protect the blades and to avoid injuries
• With tool tips made of high-quality spring band steel

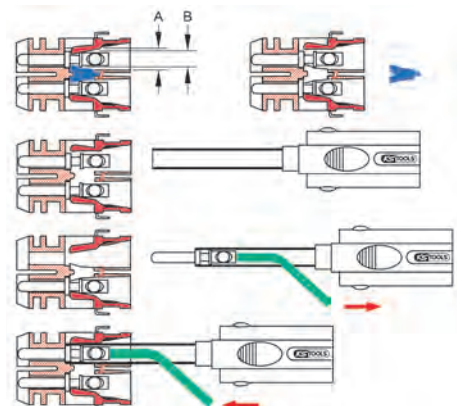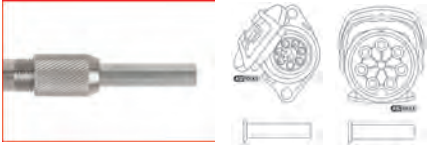|	Plug width mm	Plug type	Release principle	Length mm	🪪 g
154.0228	1,6	Housing	2	140.0	25

UNLOCKING TOOL SETS

Passenger vehicle unlocking tool set for the new generation of vehicles

• Specially designed for BMW, Mercedes, Opel, Renault, Volkswagen, Audi, Seat, Škoda, NKW etc. plug-in contacts
• For the professional and non-destructive release of contacts
• For manufacturers AMP Tyco (JT, JPT, MCP, ST,SPT, TAB), Delphi (HVF2, Ducon), Deutsch DT, GHW (DFK, MDK3), KOSTAL (MLK, RK)
• Contains the most common unlocking tools for the new generation of vehicles

			🪪 g
154.0140	8 pcs	Passenger vehicle unlocking tool set for the new generation of vehicles	1180

consists of:

		🪪 g
150.1264	Unlocking Tool for blade terminal/blade terminal sleeve 2,8 mm (AMP Tyco JT, AMP Tyco ST, Deutsch DT)	30

consists of:

		🪪 g
154.0107	Unlocking Tool for blade terminal sleeve 1,5 mm (AMP Tyco MCP)	20
150.1269	Unlocking Tool for blade terminal/blade terminal sleeve 2,8 mm, 4,8 mm, 5,8 mm, 6,3 mm (AMP Tyco JPT, AMP Tyco SPT, AMP Tyco, TAB, Delphi HVF2, GHW DFK, GHW MDK 3)	30
150.1265	Unlocking Tool for blade terminal sleeve 1,5 mm (AMP Tyco MT II)	30
154.0102	Unlocking Tool for blade terminal sleeve 1,2 mm (KOSTAL MLK)	28
150.1248	Unlocking Tool for round plug/round connector sleeve 4,0 mm (KOSTAL RK)	17
150.1299	Unlocking Tool for blade terminal/blade terminal sleeve 0,8 mm, 1,5 mm (Delphi Ducon)	20
154.0104	Unlocking Tool for blade terminal/blade terminal sleeve 1,2 mm (AMP Tyco MCP)	16

Passenger vehicle unlocking tool set for the older generation of vehicles

• Specially designed for BMW, Mercedes, Opel, Renault, Volkswagen, Audi, Seat, Škoda, NKW etc. plug-in contacts
• For the professional and non-destructive release of contacts
• For manufacturers AMP Tyco (MT1, MPT, Superseal, 1,5 and 3,5), GHW 6,3, KOSTAL RK
• Contains the most common unlocking tools for the new generation of vehicles

			🪪 g
154.0145	8 pcs	Passenger vehicle unlocking tool set for the older generation of vehicles	1180

consists of:

		🪪 g
150.1263	Unlocking Tool for round plug 1,5 mm (AMP Tyco 1,5)	30
154.0203	Unlocking Tool for round plug 1,5 mm (KOSTAL LKS)	37
154.0108	Unlocking Tool for blade terminal/blade terminal sleeve 1,5 mm (AMP Tyco Superseal)	16
150.1268	Unlocking Tool for blade terminal/blade terminal sleeve 1,6 mm (AMP Tyco MT I)	30
154.0134	Unlocking Tool for blade terminal/blade terminal sleeve 9,5 mm (AMP Tyco MPT)	16
150.1267	Unlocking Tool for blade terminal sleeve 6,3 mm (GHW 6,3)	30
150.1248	Unlocking Tool for round plug/round connector sleeve 4,0 mm (KOSTAL RK)	17
150.1262	Unlocking Tool for round plug/round connector sleeve 3,5 mm (AMP Tyco 3,5)	30
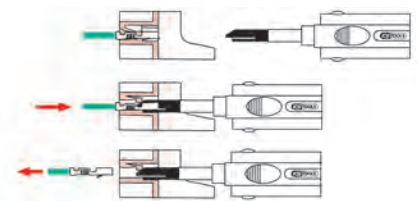
Unlocking tool set for Renault/PSA plug-in contacts

- Specially designed for Renault / PSA plug-in contacts
- For the professional and non-destructive release of contacts
- For manufacturers AMP Tyco (JT, MT1, MPT, ST, 2 and 3), Delphi (Ducon, 2 and 3), Deutsch DT, GHW (2,3 and 6,3)
- Contains the most common unlocking tools for the new generation of vehicles

			🔧 g	
154.0160	7 pcs	Unlocking tool set for Renault/PSA plug-in contacts	1150	

consists of:

		🔧 g	
150.1268	Unlocking Tool for blade terminal/blade terminal sleeve 1,6 mm (AMP Tyco MT I)	30	
150.1264	Unlocking Tool for blade terminal/blade terminal sleeve 2,8 mm (AMP Tyco JT, AMP Tyco ST, Deutsch DT)	30	
150.1285	Unlocking Tool for blade terminal/blade terminal sleeve 4,8 mm, 6,3 mm (Delphi Ducon)	30	
154.0134	Unlocking Tool for blade terminal/blade terminal sleeve 9,5 mm (AMP Tyco MPT)	16	
150.1267	Unlocking Tool for blade terminal sleeve 6,3 mm (GHW 6,3)	30	
150.1261	Unlocking Tool for round plug/round connector sleeve 2,5 mm (AMP Tyco 2,3, Delphi 2,3, GHW 2,3)	30	
150.1299	Unlocking Tool for blade terminal/blade terminal sleeve 0,8 mm, 1,5 mm (Delphi Ducon)	20	

Unlocking tool set for Opel/GM plug-in contacts

- Specially designed for Opel / GM plug-in contacts
- For the professional and non-destructive release of contacts
- For manufacturers AMP Tyco (JT, JPT, MT I, MT ll, MQS, ST, SPT), Delphi (AF2, Ducon, HVF2), Deutsch DT, GHW (DFK, MDK3, 6,3)
- Contains the most common unlocking tools for the new generation of vehicles

			🔧 g	
154.0155	10 pcs	Unlocking tool set for Opel/GM plug-in contacts	1255	

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consists of:

|		🔧 g	
150.1299	Unlocking Tool for blade terminal/blade terminal sleeve 0,8 mm, 1,5 mm (Delphi Ducon)	20	
150.1268	Unlocking Tool for blade terminal/blade terminal sleeve 1,6 mm (AMP Tyco MT I)	30	
150.1265	Unlocking Tool for blade terminal sleeve 1,5 mm (AMP Tyco MT II)	30	
154.0106	Unlocking Tool for blade terminal sleeve 1,2 mm (AMP Tyco MQS)	25	
154.0111	Unlocking Tool for blade terminal sleeve 1,6 mm (Delphi AF2)	35	
150.1264	Unlocking Tool for blade terminal/blade terminal sleeve 2,8 mm (AMP Tyco JT, AMP Tyco ST, Deutsch DT)	30	
150.1269	Unlocking Tool for blade terminal/blade terminal sleeve 2,8 mm, 4,8 mm, 5,8 mm, 6,3 mm (AMP Tyco JPT, AMP Tyco SPT, AMP Tyco, TAB, Delphi HVF2, GHW DFK, GHW MDK 3)	30	
150.1285	Unlocking Tool for blade terminal/blade terminal sleeve 4,8 mm, 6,3 mm (Delphi Ducon)	30	
150.1287	Unlocking Tool for blade terminal/blade terminal sleeve 9,5 mm (Delphi Ducon)	30	
150.1267	Unlocking Tool for blade terminal sleeve 6,3 mm (GHW 6,3)	30	

Unlocking tool set for VAG plug-in contacts

- Specially designed for Volkswagen, Audi, Seat, Škoda etc. plug-in contacts
- For the professional and non-destructive release of contacts
- For manufacturers AMP Tyco (JT, JPT asy, MCP, MPT, MQS, MT I, MT ll, TAB, ST, SPT, Sensortime, Superseal and 1,5) Bosch, Delphi HVF2, Deutsch DT, GHW (DFK, MDK3), KOSTAL SLK
- Contains the most common unlocking tools for the new generation of vehicles

			🔧 g	
154.0165	20 pcs	Unlocking tool set for VAG plug-in contacts	1650	

consists of:

		🔧 g	
154.0104	Unlocking Tool for blade terminal/blade terminal sleeve 1,2 mm (AMP Tyco MCP)	16	
154.0107	Unlocking Tool for blade terminal sleeve 1,5 mm (AMP Tyco MCP)	20	
150.1265	Unlocking Tool for blade terminal sleeve 1,5 mm (AMP Tyco MT II)	30	
154.0105	Unlocking Tool for blade terminal/blade terminal sleeve 1,2 mm (AMP Tyco MQS)	14	
154.0108	Unlocking Tool for blade terminal/blade terminal sleeve 1,5 mm (AMP Tyco Superseal)	16	
150.1268	Unlocking Tool for blade terminal/blade terminal sleeve 1,6 mm (AMP Tyco MT I)	30	
154.0106	Unlocking Tool for blade terminal/blade terminal sleeve 1,2 mm (AMP Tyco MQS)	25	
150.1275	Unlocking Tool for blade terminal 2,8 mm (AMP Tyco JT, AMP Tyco JPT asy)	30	
150.1264	Unlocking Tool for blade terminal/blade terminal sleeve 2,8 mm (AMP Tyco JT, AMP Tyco ST, Deutsch DT)	30	
154.0121	Unlocking Tool for blade terminal/blade terminal sleeve 2,8 mm (AMP Tyco MCP)	20	
150.1276	Unlocking Tool for blade terminal 4,8 mm (AMP Tyco 4,8 asy)	20	
154.0122	Unlocking Tool for blade terminal/blade terminal sleeve 4,8 mm, 5,8 mm, 6,3 mm (AMP Tyco SPT)	18	
154.0125	Unlocking Tool for blade terminal/blade terminal sleeve 4,8 mm (AMP Tyco MCP)	36	
154.0128	Unlocking Tool for blade terminal/blade terminal sleeve 5,8 mm (KOSTAL SLK)	71	
150.1269	Unlocking Tool for blade terminal/blade terminal sleeve 2,8 mm, 4,8 mm, 5,8 mm, 6,3 mm (AMP Tyco JPT, AMP Tyco SPT, AMP Tyco, TAB, Delphi HVF2, GHW DFK, GHW MDK 3)	30	

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consists of:

		🔧 g	
150.1299	Unlocking Tool for blade terminal/blade terminal sleeve 0,8 mm, 1,5 mm (Delphi Ducon)	20	
150.1268	Unlocking Tool for blade terminal/blade terminal sleeve 1,6 mm (AMP Tyco MT I)	30	
150.1265	Unlocking Tool for blade terminal sleeve 1,5 mm (AMP Tyco MT II)	30	
154.0106	Unlocking Tool for blade terminal sleeve 1,2 mm (AMP Tyco MQS)	25	
154.0111	Unlocking Tool for blade terminal sleeve 1,6 mm (Delphi AF2)	35	
150.1264	Unlocking Tool for blade terminal/blade terminal sleeve 2,8 mm (AMP Tyco JT, AMP Tyco ST, Deutsch DT)	30	
150.1269	Unlocking Tool for blade terminal/blade terminal sleeve 2,8 mm, 4,8 mm, 5,8 mm, 6,3 mm (AMP Tyco JPT, AMP Tyco SPT, AMP Tyco, TAB, Delphi HVF2, GHW DFK, GHW MDK 3)	30	
150.1285	Unlocking Tool for blade terminal/blade terminal sleeve 4,8 mm, 6,3 mm (Delphi Ducon)	30	
150.1287	Unlocking Tool for blade terminal/blade terminal sleeve 9,5 mm (Delphi Ducon)	30	
150.1267	Unlocking Tool for blade terminal sleeve 6,3 mm (GHW 6,3)	30	

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consists of:

		🔧 g	
154.0129	Unlocking Tool for blade terminal sleeve 5,8 mm (KOSTAL SLK)	69	
154.0134	Unlocking Tool for blade terminal/blade terminal sleeve 9,5 mm (AMP Tyco MPT)	16	
154.0138	Unlocking Tool for blade terminal sleeve 2,8 mm (AMP Tyco SensorTime, Bosch BDK)	21	
154.0201	Unlocking Tool for round plug/round connector sleeve 1,2 mm (AMP Tyco 1,5)	51	
150.1263	Unlocking Tool for round plug 1,5 mm (AMP Tyco 1,5)	30	

Unlocking tool set for BMW/Mercedes plug-in contacts

- Specially designed for BMW / Mercedes plug-in contacts
- For the professional and non-destructive release of contacts
- For manufacturers AMP Tyco (E-95, JT, JPT, MPT, MT I, TAB, Sensortime, ST, SPT, 2,5 and 3,5), Bosch, Delphi HVF2, GHW (DFK, MDK3), KOSTAL (LSK8, MLK, RK, SLK)
- Contains the most common unlocking tools for the new generation of vehicles

|			🔧 g	
154.0150	22 pcs	Unlocking tool set for BMW/Mercedes plug-in contacts	1730	

consists of:

|		🔧 g	
154.0102	Unlocking Tool for blade terminal sleeve 1,2 mm (KOSTAL MLK)	28	
150.1268	Unlocking Tool for blade terminal/blade terminal sleeve 1,6 mm (AMP Tyco MT I)	30	
154.0103	Unlocking Tool for blade terminal 1,2 mm (KOSTAL MLK)	17	
150.1264	Unlocking Tool for blade terminal/blade terminal sleeve 2,8 mm (AMP Tyco JT, AMP Tyco ST, Deutsch DT)	30	
150.1269	Unlocking Tool for blade terminal/blade terminal sleeve 2,8 mm, 4,8 mm, 5,8 mm, 6,3 mm (AMP Tyco JPT, AMP Tyco SPT, AMP Tyco, TAB, Delphi HVF2, GHW DFK, GHW MDK 3)	30	
154.0118	Unlocking Tool for blade terminal/blade terminal sleeve 2,8 mm (KOSTAL SLK)	53	
150.1289	Unlocking Tool for blade terminal sleeve 1,65 mm (AMP Tyco E-95)	30	
154.0119	Unlocking Tool for blade terminal sleeve 2,8 mm (KOSTAL SLK)	43	
154.0120	Unlocking Tool for blade terminal/blade terminal sleeve 2,8 mm (KOSTAL SLK)	54	
150.1273	Unlocking Tool for blade terminal/blade terminal sleeve 5,8 mm (AMP Tyco ST)	30	
154.0128	Unlocking Tool for blade terminal/blade terminal sleeve 5,8 mm (KOSTAL SLK)	71	
154.0129	Unlocking Tool for blade terminal sleeve 5,8 mm (KOSTAL SLK)	69	
154.0130	Unlocking Tool for blade terminal/blade terminal sleeve 6,3 mm (KOSTAL LSK 8)	34	
154.0131	Unlocking Tool for blade terminal/blade terminal sleeve 6,3 mm, 8,00 mm (KOSTAL)	39	
154.0134	Unlocking Tool for blade terminal/blade terminal sleeve 9,5 mm (AMP Tyco MPT)	16	
154.0138	Unlocking Tool for blade terminal sleeve 2,8 mm (AMP Tyco SensorTime, Bosch BDK)	21	
154.0205	Unlocking Tool for round connector sleeve 1,5 mm (KOSTAL LKS)	36	
154.0203	Unlocking Tool for round plug 1,5 mm (KOSTAL LKS)	37	
150.1249	Unlocking Tool for round plug/round connector sleeve 2,5 mm (KOSTAL RK)	16	
150.1257	Unlocking Tool for round plug/round connector sleeve 2,5 mm (AMP Tyco 2,5)	33	
150.1262	Unlocking Tool for round plug/round connector sleeve 3,5 mm (AMP Tyco 3,5)	30	
150.1248	Unlocking Tool for round plug/round connector sleeve 4,0 mm (KOSTAL RK)	17	

STRIPPING TOOLS

Automatic wire stripper

- Allows for stripping of any cable length, therefore ideal for retrofitting auxiliary heating systems, gas systems and other electrical consumers
- Automatically adjusts to the respective diameters
- For the professional and damage-free stripping of electric wires, stranded conductors and cables
- For copper and aluminium wires
- With return spring
- Smooth running mechanics
- Sturdy design
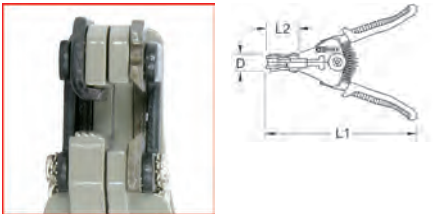
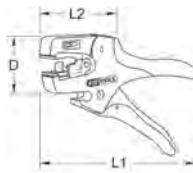|	Ø mm	AWG	D mm	L1 mm	L2 mm	
115.1028	0,5-2,0	2,0-0,5	20.0	170.0	35.0	280
115.1029	1,0-3,2	3,2-1,0	20.0	170.0	35.0	280

Self regulating wire stripper

- Suitable for single and multi-core cable with popular standard insulation
- For the professional and damage-free stripping of electric wires, stranded conductors and cables
- With length stop from 3.0 - 22.0 mm
- For copper and aluminium wires
- With cutting function
- Lightweight
- Smooth running mechanics
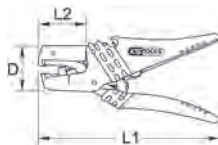
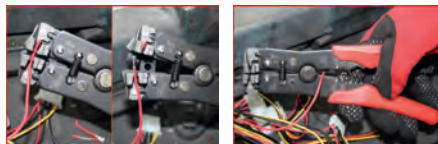|	ø mm²	AWG	D mm	L1 mm	L2 mm	
115.1240	0,5-4,0	20-12	43.0	185.0	50.0	140

Self regulating wire stripper

- With easily interchangeable knife modules
- Suitable for single and multi-core cable with popular standard insulation
- Exact adjustment possible for safe stripping
- For the professional and damage-free stripping of electric wires, stranded conductors and cables
- With three different length stops from 8.0 – 12.0 mm
- For copper and aluminium wires
- With cutting function
- Lightweight
- Smooth running mechanics

|	ø mm²	AWG	D mm	L1 mm	L2 mm	Replacement blades	
115.1244	0,1-4	28-12	48.0	190.0	73.0	115.1247	130
115.1245	0,02-10	34-8	48.0	190.0	73.0	115.1246	130
115.1249	4-16	12-6	48.0	190.0	73.0	115.1248	130

Automatic wire stripper

- Allows for stripping of any cable length, therefore ideal for retrofitting auxiliary heating systems, gas systems and other electrical consumers
- These wire strippers handle all common wire cross sections in passenger and commercial vehicle electrical equipment
- Automatically adjusts to the diameters 0.2 mm² - 6.0 mm²
- With crimping function for insulated and non-insulated lugs
- Suitable for single and multi-core cable with popular standard insulation
- For the professional and damage-free stripping of electric wires, stranded conductors and cables
- For copper and aluminium wires
- With wire cutting function
- With return spring
- Smooth running mechanics
- Sturdy design

|	ø mm²	AWG	L1 mm	
115.1254	0,2-6	10-24	210.0	280

Wire stripper

- In accordance to DIN / ISO 5232
- Locking jaw opening
- Adjusting screw and spring
- PVC dipped handle
- For wires from 0,5 - 4.0 mm²
- Matt chrome
- Special tool steel
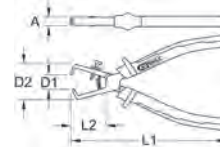
	A mm	D1 mm	D2 mm	L1 mm	L2 mm	
115.1314	9.0	20.5	33.0	176.0	39.0	170

ERGOTORQUE® wire stripper

- In accordance to DIN / ISO 5232
- Locking jaw opening
- Adjusting screw and spring
- Two component handle
- For wires from 0,5 - 4.0 mm²
- Matt Chrome
- Special tool steel
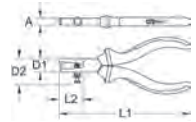
	A mm	D1 mm	D2 mm	L1 mm	L2 mm	
115.1014	9.0	20.5	33.0	179.0	39.0	300

Universal cable knife

- For the slitting and stripping of round cable
- Hook blade for the stripping of insulated and flat cable
- Internal knife with adjustable cutting depth, rotating mouting
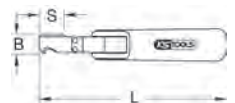
	Ø mm	B mm	L mm	S mm	
907.2184	28,0	18.0	175.0	24,0	100

Stripping tool for data cable

- Round cut
- For the stripping of flat and flat oval data cables
- Safety locking device for safe storage

	ø mm²	L1 mm	L2 mm	
115.1241	2,5-12,0	105.0	72.0	40

Multifunction stripping tool

- Round- and length cutting function
- Stripping function
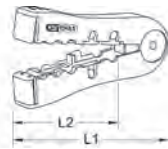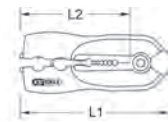- Cutting function
- For the stripping of flexible and large wire
- Safety locking device for safe storage
- Includes replacement knife set

	ø mm²	AWG	L1 mm	L2 mm	
115.1251	0,2-0,8	30-20	117.0	85.5	96
115.1252	0,8-2,6	20-10	117.0	85.5	96

Insulation stripping knife

- For stripping all standard round cables
- Cutting depth can be adjusted exactly to thickness of sheath
- The knife automatically switches from round to longitudinal cutting
- Retaining bracket adjustable
- Complete stripping of insulation
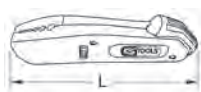
	ø mm²	ø Wire mm	AWG	L mm	
115.1003	0,5-6,0	4,0-28,0	20-10	143.0	120

Insulation stripping knife

- For stripping external insulation layers
- Stripping insulation from single- and multiple-wire conductors
- Round and longitudinal cutting

	ø mm²	ø Wire mm	L mm	
115.1007	0,5-16,0	4,0-12,0	137.0	81

Insulation stripping knife

- Basic stripping of insulation from conductors
- The scanning system automatically adapts to the conductor cross-section
- The stranded conductor can then be twisted

	ø mm²	AWG	L mm	
115.1001	0,5-6,0	20-10	158.0	116

Round cable insulation stripper

- For round cables and damp-proof cables
- Flush stripping of insulation even in areas that are hard to access, e.g. in ceilings and walls, in junction and distribution boxes and switch cabinets

	ø Wire mm	L mm	
115.1006	8,0-13,0	125.0	43

Coaxial cable insulation strippers

- Gradual stripping of insulation from all coaxial cables with an outer diameter of 4.8 - 7.5 mm
- Equally suitable for flexible cables and 3 x 0.75 mm², 10 mm² and 16 mm² cables

	ø Wire mm	L mm	
115.1002	4,8-7,5	110.0	30

Universal stripping tool

- Round cut and length cutting function
- Suited for spiral cutting of hard insulation
- Variable cut depth adjustment through thumb wheel
- For a maximum insulation strength of up to 4,5 mm
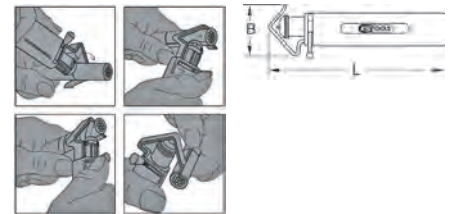
	ø mm²	B mm	L mm	Replacement blades	
115.1256	6-25	41.0	138.0	115.1257	138

CUTTING TOOLS

Electricians pen knife

- Retractable blade
- With sickle blade and downward curved tip that ensures a powerful cut
- Sturdy, practical and very sharp
- Moulded recess made out of wood
- Rust-proof
- Stainless steel
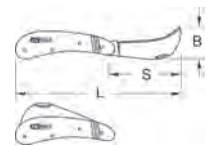
	B mm	L mm	S mm	
907.2185	37.0	185.0	70,0	60

Electricians pen knife

- Retractable blades
- With straight blade
- With sickle blade and downward curved tip that ensures a powerful cut
- Sturdy, practical and very sharp
- Moulded recess made out of wood
- Rust-proof
- Stainless steel
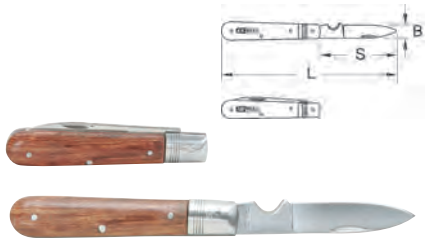

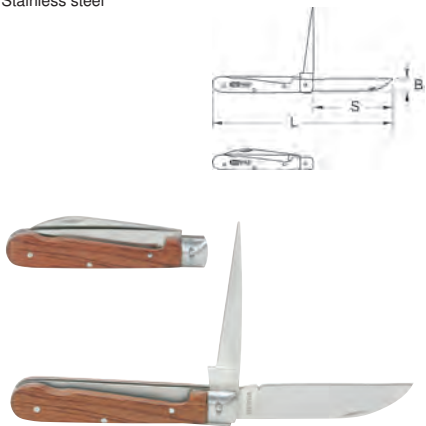|	B mm	L mm	S mm	🏋 g
907.2186	37.0	185.0	70,0	90

Electricians pen knife

- Retractable blade
- With a straight blade that ensures a powerful cut
- With stripping function for cables
- Sturdy, practical and very sharp
- Moulded recess made out of wood
- Rust-proof
- Stainless steel

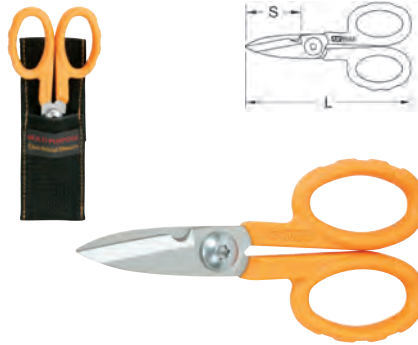|	B mm	L mm	S mm	🏋 g
907.2187	15.0	195.0	85,0	60

Electricians pen knife

- Retractable blades
- With straight blade and extra narrow pointed blade that provides for a powerful cut
- Sturdy, practical and very sharp
- Moulded recess made out of wood
- Rust-proof
- Stainless steel

	B mm	L mm	S mm	🏋 g
907.2188	19.0	198.0	90,0	60

Universal workshop shear

- Sturdy short shears
- For various application areas
- With cable cutter
- Practical and very sharp
- Includes belt bag with cut protection

	Ø mm	L mm	S mm	🏋 g
118.0060	24,0	140.0	42,0	170

Universal shear, angled

- Self-opening
- With safety locking device
- Practical and very sharp
- offset design
- With ergonomically shaped plastic handle
- Ideal for seals and cables

	Ø mm	L mm	S mm	🏋 g
118.0072	35,0	185.0	42,0	190

Universal cable shear

- Self-opening
- With safety locking device
- Hardened blades with precision cut
- No crushing, slight deformation of the cable
- With ergonomically shaped plastic handle
- Ideal for soft cables
- Not suited for steel wire and hard-drawn copper conductors

	Ø mm	L mm	🏋 g
118.0073	10,0	165.0	180

CRIMPING PLIERS

Wire end ferrule pliers

- For the proper crimping of lugs and plug connectors
- Suitable for insulated and non-insulated cable end sleeves
- Ideal leverage
- Easy solderless pressing on in one work step
- With PVC dipped handle
- Pliers' body made of flat steel

	Ø mm	L mm	🏋 g
115.1236	0,25 - 2,5	155.0	165
115.1237	0,5 - 16,0	220.0	240

Crimp pliers for not insulated, opened cable connector

- Ideally suited for converting not insulated contacts
- For stripping of wires from 0.5 - 6.0 mm²
- Cut wires up to 6.0 mm²
- For crimping blade terminals 2.8 / 4.8 / 6.3 mm and other contacts with open crimp sleeve
- Handle dip insulated
- Plier body from special steel
- Material strength 3 mm

	A mm	L1 mm	L2 mm	🏋 g
115.1235	38.0	220.0	120.0	196

Multifunction pliers for insulated and non insulated cable terminals

- For professional cable cutting and stripping of wires from 0,75 - 6,0 mm²
- For crimping cable lugs and connectors of 1,5 - 6,0 mm²
- Cutting function
- Two component handle
- Pliers body made of flat steel
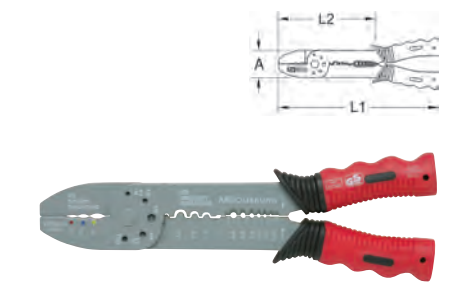
	A mm	L1 mm	L2 mm	🏋 g
115.1231	40.0	220.0	130.0	230

Multifunction crimping pliers set

- For insulated and un-insulated cable terminals
- Includes 270 pcs consumables
- For professional cable cutting and stripping wires from 0,75 - 6,0 mm²
- For crimping cable terminals and connectors from 1,5 - 6,0 mm²
- Cutting function
- Two component handle
- Pliers body made of flat steel
- In durable plastic storage case

115.1230	271 pcs	Multifunction crimping pliers set	560

Crimping pliers for non insulated terminals

- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
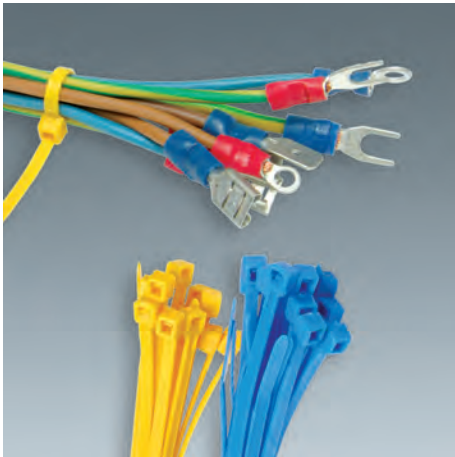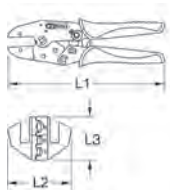- Optimal crimping through precision profile
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- Two component handle
- Burnished
- Pliers body made of flat steel

	ø mm²	AWG	L1 mm	L2 mm	L3 mm		
115.1425	0,5-1,0/1,5-2,5/4,0-6,0	22-18/16-14/12-10	220.0	50.0	34.0	115.1415	491

Crimping pliers for insulated terminals

- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profile
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- Two component handle
- Burnished
- Pliers body made of flat steel
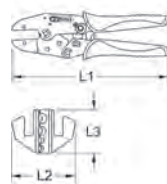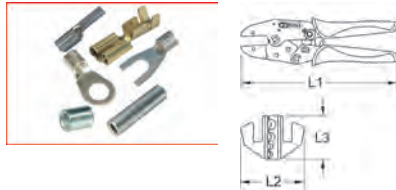
	ø mm²	AWG	L1 mm	L2 mm	L3 mm		
115.1430	1,5/2,5/6,0/10,0	20-18/16-14/12-10/8	220.0	50.0	34.0	115.1416	487

Crimping pliers for pin terminals

- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through Precision profile
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- Two component handle
- Burnished
- Pliers body made of flat steel

|	ø mm²	AWG	L1 mm	L2 mm	L3 mm		
115.1440	0,5/0,75/1,0/1,5/2,5/4,0	22/20/18-16/14/12-10	220.0	50.0	34.0	115.1418	499
115.1450	6,0/10,0/16,0	10/8/6	220.0	50.0	34.0	115.1420	499

Crimping pliers for spade terminals

- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profile
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
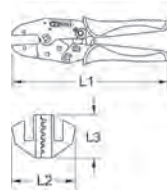- Two component handle
- Burnished
- Pliers body made of flat steel

	ø mm²	AWG	L1 mm	L2 mm	L3 mm		
115.1435	0,5-1,0/1,5-2,5/4,0-6,0	20-18/16-14/12-10	220.0	50.0	34.0	115.1417	499
115.1455	2,5/0,5/8,0/10,0	14-22/8-6	220.0	50.0	34.0	115.1421	505

Electricians crimping pliers set

- Ideal configuration for electricians
- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profile
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- In durable plastic storage case
- Two component handle
- Burnished
- Pliers body made of flat steel

115.1480	3 pcs	Electricians crimping pliers set	910

consists of:

115.1401	Crimping tool	440
115.1415	Crimp head for insulated terminals	60
115.1416	Crimp head for non-insulated terminals	60

Net working crimping pliers set
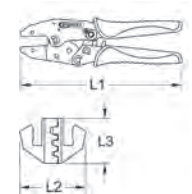
- Ideal configuration for network cabling
- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profile
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- In durable plastic storage case
- Two component handle
- Burnished
- Pliers body made of flat steel

			kg
115.1490	5 pcs	Net working crimping pliers set	1.05

consists of:

			g
115.1401	Crimping tool		440
115.1421	Crimp head for non-insulated terminalsfor non insulated contact with open surface, Ø 0.5 - 2.5 - 8/10 mm²		60
115.1422	Crimp head for non shielded WE plugs 4P, RJ 22		60
115.1423	Crimp head for non shielded WE plugs 6P2K, 6P4K/RJ11, 6P6K/RJ12		71
115.1424	Crimp head for non shielded WE plugs 4P, RJ 22		65

Universal crimping tool set with automatic wire stripper

- Extremely robust and reliable crimping plier
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profile
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- In durable plastic storage case
- Two component handle
- Burnished
- Pliers body made of flat steel
- Includes self-closing and damage free automatic wire stripper

			kg
115.1400	8 pcs	Universal crimping tool set with automatic wire stripper	2.37

consists of:

			g
115.1401	Crimping tool		440
115.1402	Crimping tool set, 8 pcs		270
115.1415	Crimp head for insulated terminals		60
115.1416	Crimp head for non-insulated terminals		60
115.1417	Crimp head for spade terminals 4,8 and 6,3 mm		60
115.1418	Crimp head for pin terminals		60
115.1419	Crimp head for coaxial terminals		60

DIN AND STANDARD PARTS

Automotive mini fuses assortment

- According to ISO 8820-3
- Fuses colour-coded according to ampere sizes
- In plastic storage case

			g
970.0280	120 pcs	Automotive mini fuses assortment	190
20 x		5 A / ISO 8820-3	
20 x		10 A / ISO 8820-3	
20 x		15 A / ISO 8820-3	
20 x		20 A / ISO 8820-3	
20 x		25 A / ISO 8820-3	
20 x		30 A / ISO 8820-3	

Automotive fuses assortment

- According to ISO 8820-3
- Fuses colour-coded according to ampere sizes
- In plastic storage case

			g
970.0250	120 pcs	Automotive fuses assortment	210
20 x		5 A / ISO 8820-3	
20 x		10 A / ISO 8820-3	
20 x		15 A / ISO 8820-3	
20 x		20 A / ISO 8820-3	
20 x		25 A / ISO 8820-3	
20 x		30 A / ISO 8820-3	

Glass fuses assortment

- Trigger characteristics: Idle
- In plastic storage case

			g
970.0270	120 pcs	Glass fuses assortment	220
20 x		5 A	
20 x		10 A	
20 x		15 A	
20 x		20 A	
20 x		25 A	
20 x		30 A	

Crimp connectors assortment

- Suitable for wire cross sections: Red 0.5-1.5 mm², blue 1.5-2.5 mm², yellow 2.5-6.0 mm²
- In plastic storage case

			g
970.0290	160 pcs	Crimp connectors assortment	260
12 x		0,5-1,5 mm²	
18 x		1,5-2,5 mm²	
20 x		1,5-2,5 mm²	
12 x		2,5-6,0 mm²	
8 x		0,5-1,5 mm² M4	
10 x		1,5-2,5 mm² M4	
10 x		1,5-2,5 mm² M5	
10 x		1,5-2,5 mm² M6	
4 x		2,5-6,0 mm² M5	
4 x		2,5-6,0 mm² M8	
4 x		2,5-6,0 mm² M10	
10 x		1,5-2,5 mm²	
5 x		2,5-6,0 mm²	
10 x		1,5-2,5 mm²	
5 x		2,5-6,0 mm²	
10 x		1,5-2,5 mm² M4	
4 x		0,5-1,5 mm²	
4 x		1,5-2,5 mm²	

Crimp connectors assortment

- Suitable for wire cross sections: Red 0.5-1.5 mm², blue 1.5-2.5 mm², yellow 2.5-6.0 mm²
- In plastic storage case

970.0300	360 pcs	Crimp connectors assortment		450
10 x		0,5-1,5 mm²		
30 x		0,5-1,5 mm²		
30 x		1,5-2,5 mm²		
10 x		1,5-2,5 mm²		
15 x		2,5-6,0 mm²		
30 x		1,5-2,5 mm² M5		
20 x		1,5-2,5 mm² M6		
20 x		1,5-2,5 mm² M10		
20 x		2,5-6,0 mm² M5		
15 x		2,5-6,0 mm² M6		
15 x		2,5-6,0 mm² M10		
25 x		1,5-2,5 mm²		
25 x		1,5-2,5 mm²		
30 x		1,5-2,5 mm² M5		
20 x		2,5-6,0 mm² M5		
25 x		1,5-2,5 mm²		
10 x		1,5-2,5 mm²		
10 x		1,5-2,5 mm²		

Branch connectors assortment

- Suitable for wire cross sections: Red 0.5-1.5 mm², blue 1.5-2.5 mm²
- In plastic storage case

970.0570	50 pcs	Branch connectors assortment		145
25 x		0,5-1,5 mm²		
25 x		1,5-2,5 mm²		

Shrink-on tubes assortment

- Shrinkage ratio 2:1
- In plastic storage case

970.0230	127 pcs	Shrink-on tubes assortment		100
30 x		2,0x40 mm		
25 x		2,5x40 mm		
20 x		3,5x40 mm		
20 x		5,0x40 mm		
16 x		7,0x80 mm		
8 x		10,0x80 mm		
8 x		13,0x85 mm		

Shrink tubing assortment

- Shrinkage ratio 2:1
- In plastic storage case

970.0540	100 pcs	Shrink tubing assortment		130
30 x		1,5x100 mm		
30 x		2,5x100 mm		
20 x		4,0x100 mm		
10 x		6,0x100 mm		
6 x		10,0x100 mm		
4 x		13,0x100 mm		

ELECTRICAL INSULATING TAPE

PVC insulation tape set

- Good resistance to abrasion and corrosion and/or moisture
- High di-electric strength and good mechanical protection
- Excellent ability to adapt to different forms
- Conforms to BS3924
- Temperature resistance of 0°C to +90°
- Multicoloured assortment

		B mm	L m	
141.6010	8 pcs	19.0	10.0	150

Self welding repair tape

- Excellent weather resistance
- Easy to apply due to high elasticity
- Insulates air and water tight, due to self welding characteristics
- Temperature resistance of -40°C to +90°C
- With a tape thickness of 0,5 mm
- Made from Polyisobutylene tape
- For a range of applications in electrical, plumbing and automotive

	Colour code	B mm	L m	
141.6000	●	18.0	10.0	100
141.6001	●	38.0	10.0	210

Insulated adhesive tape

- For working enviroment of voltage of AC 1000 V and DC 1500 V
- On a roll

	Colour code	B mm	L m	⚡	
117.4231	●	52.0	10.0	⚠ G	105
117.4232	●	102.0	10.0	⚠ G	190
117.4233	●	102.0	10.0	⚠ G	190

SOLDERING TOOLS

Soldering wire pliers

- For the secure attachment of stranded conductors
- Prevents kinking of the solder connection
- The locking device of the pliers means that these can be stored so that both hands are free for soldering
- No more burning fingers
- Slim design for hard-to-access areas
- Adjustable arm for optimal application
- With PVC dipped handle
- Chrome molybdenum

	A mm	C mm	L mm	⬛g
115.1052	78,0	65.0	245.0	260

Mini pocket soldering torch

- Gas operated micro soldering device up to 1,300°C / 2,450°F
- Piezo ignition
- Optimal for light soldering
- Safety lock

	L mm	⬛g
960.1110	80.0	130

Mini pocket soldering torch

- Gas operated micro soldering device up to 1,300°C / 2,450°F
- With piezo ignition
- For melting, hard soldering, small soldering jobs
- Filled with standard lighter gas/ISO butane gas
- Compact construction
- With child-proofing and switch-off function

	L1 mm	L2 mm	H mm	⬛g
960.1215	75.0	50.0	110.0	112

Small soldering torch

- Gas operated micro soldering device up to 1,300° / 2,450°F
- With piezo ignition
- Optimal for fine soldering
- Table stand

	L mm	⬛g
960.1200	140.0	350

Small soldering torch with flame reflector

- Gas operated micro soldering device up to 1,300° / 2,450°F
- With piezo ignition
- Optimal for fine soldering
- Shrink / flame reflector
- Table stand

	L mm	⬛g
960.1210	140.0	350

Micro soldering terminal set

- Gas operated micro soldering device up to 1,300°C / 2,450°F
- With piezo ignition
- Optimal for fine working
- Gas supply totally adjustable
- Filled with standard lighter gas / ISO butan gas
- Includes different attachments soldering wire and soldering sponge
- In durable plastic storage box

			⬛g
960.1160	10 pcs	Micro soldering terminal set	370

consists of:

		⬛g
960.1161	Soldering iron with piezo ignition	80
960.1162	Soldering head for screw solder tips	9
960.1163	Soldering tip 3.5 mm, chisel	3
960.1164	Soldering tip 4.5mm, diagonal	3
960.1165	Soldering tip knife	3

consists of:

		⬛g
960.1166	Shrink hose attachment	3
960.1167	Soldering sponge	12
960.1168	Soldering wire spool	25
960.1169	Protective cap	14
960.1170	Housing for additional adaptors for 960.1160	7

Micro soldering terminal set

- Gas operated micro soldering device up to 1,300°C / 2,450°F
- Optimal for fine working
- Gas supply totally adjustable
- Filled with standard lighter gas / ISO butan gas
- Includes different attachments soldering wire and soldering sponge
- In durable plastic storage box

			⬛g
960.1150	13 pcs	Micro soldering terminal set	200

consists of:

		⬛g
960.1151	Gas soldering iron	110
960.1152	Bunsen burner nozzle head	20
960.1153	Soldering head including. 6 different on screw solder tips	30
960.1154	Flat attachment for flame protection for Bunsen burner nozzle head	10
960.1155	Attachment for Bunsen burner nozzle head	10
960.1156	Soldering sponge	6
960.1157	Soldering wire spool	24

Our wide range of soldering tools is available in our Industrial Tools catalogue on page 726.