

INSULATED TOOLS

Ensure worker safety and prevent equipment damage

Insulated tools are required for the maintenance for HV and/or EV for the safety. KTC's insulated tools conform to international standards.

Conforms to IEC 60900:2004 standard

Conforms to IEC 60900:2004 standard, the only international standard for insulated tools.

	Electrical and Electronic Technology	All industrial sectors except electrical and electronic technology
International standards (world standard)	IEC standards	ISO Standards
European standards (regional level)	EN standard (CENELEC standard)	EN standards (CEN standard)

Tools designed for safety and ease of use

The outside diameter of the socket has a power-fit shape that prevents stress concentration and is gentle on bolts and nuts.

To prevent the socket from falling off, the Ratchet handle has a union mechanism and the Extension bar and T-shaped handle have a "drop prevention screw". (except 1/4 sq. Extension bar)



Two-layer insulating coating



Anti-drop screw to prevent sockets from falling out

Selected items needed for maintenance of hybrid vehicles

KTC eliminated unnecessary contents, and carefully selected the tools necessary for maintenance of hybrid vehicles.

Includes voltage tester to check 0V (zero volts) before work (ZTB311VB, ZTB310VB)



Voltage measurement required before work is specified in the vehicle manufacturer's maintenance instructions.

Easy to manage and carry

The special case is colored red and protect the insulating film from ultraviolet rays.

Comes with a special tray for the individual tool storage. (Case size: W475 x D415 x H120)

No.	Description	Insulated Tool Set A	Insulated Tool Set B	Insulated Tool Set C	Insulated Tool Set D
		No. ZTB311A Weight 2.9kg	No. ZTB311VB Weight 3.2kg	No. ZTB310A Weight 2.5kg	No. ZTB310VB Weight 2.8kg
ZGEVA-1000	Voltage Tester		●		●
ZBE3-125	3/8"Sq. Insulated Extension Bar 125mm	●	●	●	●
ZBE3-250	3/8"Sq. Insulated Extension Bar 250mm	●	●	●	●
ZBR3	3/8"Sq. Insulated Ratchet Handle	●	●		
ZTH3	3/8"Sq. Insulated T-Shaped Handle	●	●	●	●
ZB3-08	3/8"Sq. Insulated Socket 8mm	●	●	●	●
ZB3-10	3/8"Sq. Insulated Socket 10mm	●	●	●	●
ZB3-12	3/8"Sq. Insulated Socket 12mm	●	●	●	●
ZB3L-08	3/8"Sq. Insulated Socket (Deep) 8mm	●	●	●	●
ZB3L-10	3/8"Sq. Insulated Socket (Deep) 10mm	●	●	●	●
ZB3L-12	3/8"Sq. Insulated Socket (Deep) 12mm	●	●	●	●
ZD1M-100	Insulated Screwdriver	●	●	●	●



WARNING

- Before using this product, fully understand the product's instruction manual and the work instructions must be read.
- Work under high voltage may require qualifications specified by laws and regulations. Work should be performed by workers who are qualified for the work conditions.
- Make sure that the area where the product is to be used is below AC 1000V and DC 1500V before use.
- If the red part of the product is worn away and the yellow part is exposed, stop using immediately.

- Do not use this product in combination with any other insulated tools except KTC insulated tools.
- When using this product, wear approved protective equipment (insulated gloves, insulated shoes, etc.).
- * Protective equipment is also available. Please contact your dealer.
- * All insulated tools are not subject to repair.

• Do not use products marked with in combination with other than KTC insulated tools.

• Required qualifications is needed to work under high voltage environment.

3/8"sq. INSULATED TOOL SET A [11pcs.]

3/8" sq.
11 pcs.



No.	Weight(kg)	□	
ZTB311A	2.9	1	
Set contents			
3/8"sq. socket (6pt.)	POWERFIT	ZB3-08,10,12	
3/8"sq. deep socket (6pt.)	POWERFIT	ZB3L-08,10,12	
3/8"sq. extension bar		ZBE3-125, 250	
3/8"sq. ratchet handle		ZBR3	
3/8"sq. T type handle wrench		ZTH3	
Slotted screwdriver		ZD1M-100	

• Red resin case with tray. (Case size: W475×D415×H120)

Spare parts

No.	Description	□	
ZEKT-12A	Tray	1	

* Special trays are set up as spare parts.

3/8"sq. INSULATED TOOL SET B [12pcs.]

3/8" sq.
12 pcs.



No.	Weight(kg)	□	
ZTB311VB	3.2	1	
Set contents			
3/8"sq. socket (6pt.)	POWERFIT	ZB3-08,10,12	
3/8"sq. deep socket (6pt.)	POWERFIT	ZB3L-08,10,12	
3/8"sq. extension bar		ZBE3-125, 250	
3/8"sq. ratchet handle		ZBR3	
3/8"sq. T type handle wrench		ZTH3	
Slotted screwdriver		ZD1M-100	
Voltage tester		ZGEVA-1000	

• Red resin case with tray. (Case size: W475×D415×H120)

Spare parts

No.	Description	□	
ZEKT-12A	Tray	1	

* Special trays are set up as spare parts.

3/8"sq. INSULATED TOOL SET C [10pcs.]

3/8" sq.
10 pcs.



No.	Weight(kg)	□	
ZTB310A	2.5	1	
Set contents			
3/8"sq. socket (6pt.)	POWERFIT	ZB3-08,10,12	
3/8"sq. deep socket (6pt.)	POWERFIT	ZB3L-08,10,12	
3/8"sq. extension bar		ZBE3-125, 250	
3/8"sq. T type handle wrench		ZTH3	
Slotted screwdriver		ZD1M-100	

• Red resin case with tray. (Case size: W475×D415×H120)

Spare parts

No.	Description	□	
ZEKT-12A	Tray	1	

* Special trays are set up as spare parts.

3/8"sq. INSULATED TOOL SET D [11pcs.]

3/8" sq.
11 pcs.



No.	Weight(kg)	□	
ZTB310VB	2.8	1	
Set contents			
3/8"sq. socket (6pt.)	POWERFIT	ZB3-08,10,12	
3/8"sq. deep socket (6pt.)	POWERFIT	ZB3L-08,10,12	
3/8"sq. extension bar		ZBE3-125, 250	
3/8"sq. T type handle wrench		ZTH3	
Slotted screwdriver		ZD1M-100	
Voltage tester		ZGEVA-1000	

• Red resin case with tray. (Case size: W475×D415×H120)

Spare parts

No.	Description	□	
ZEKT-12A	Tray	1	

* Special trays are set up as spare parts.

TRAY



No.	Description	Weight(g)	□	
ZEKT-12A	Tray	300	1	

• This is a spare parts for ZTB311A, ZTB311VB, ZTB310A, and ZTB310VB.

• Size W425×D325×H95 (lid side 50, storage side 45)

• Function mark is indicated under the product name. For the details, please refer to P.004-005.
• Products marked with ⚡ should be ordered after checking stock.



1/4"sq. INSULATED SOCKET (DEEP)



ZB2L-10

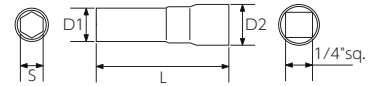


ZB2L-08

No.	S	D1	D2	L	Weight(g)	⊖
ZB2L-08	8	17	20	70	40	1
ZB2L-10	10	19	20	70	45	1
ZB2L-12	12	20	20	70	45	1

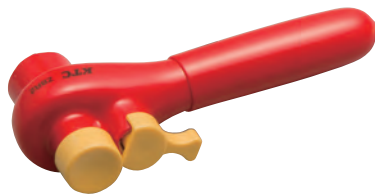
· The outside diameter has a power-fit shape that prevents stress concentration and damage to the edge of the bolt/nut.

* Dimensions are for reference only because insulated tools are covered with an insulating film.



· This product is not to be used in combination with any tools other than 1/4"sq. KTC insulated tools.

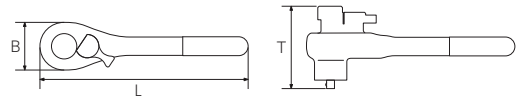
1/4"sq. INSULATED RATCHET HANDLE



No.	Angle	B	T	L	Weight(g)	⊖
ZBR2	10°	40	70	140	300	1

· A union mechanism is used to prevent the socket from falling off.

* Dimensions are for reference only because insulated tools are covered with an insulating film.

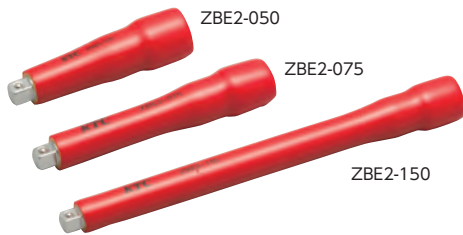


· This product is not to be used in combination with any tools other than 1/4"sq. KTC insulated tools.



· To avoid damage or idling, be sure to operate the left and right switching levers.

1/4"sq. INSULATED EXTENSION BAR



ZBE2-050

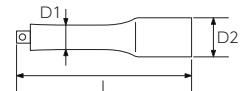
ZBE2-075

ZBE2-150

No.	D1	D2	L	Weight(g)	⊖
ZBE2-050	13	20	70	35	1
ZBE2-075	13	20	90	50	1
ZBE2-150	13	20	170	80	1

* Anti-drop screws to prevent sockets from falling out are not used.

* Dimensions are for reference only because insulated tools are covered with an insulating film.



· This product is not to be used in combination with any tools other than 1/4"sq. KTC insulated tools.

3/8"sq. INSULATED SOCKET



ZB3-12



ZB3-10

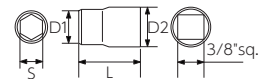


ZB3-08

No.	S	D1	D2	L	Weight(g)	⊖
ZB3-08	8	16	22	40	20	1
ZB3-10	10	18	22	40	20	1
ZB3-12	12	21	22	45	30	1

· The outside diameter has a power-fit shape that prevents stress concentration and damage to the edge of the bolt/nut.

* Dimensions are for reference only because insulated tools are covered with an insulating film.



· This product is not to be used in combination with any tools other than 3/8"sq. KTC insulated tools.

3/8"sq. INSULATED SOCKET (DEEP)



ZB3L-12



ZB3L-10

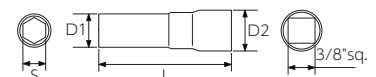


ZB3L-08

No.	S	D1	D2	L	Weight(g)	⊖
ZB3L-08	8	16	22	80	57	1
ZB3L-10	10	18	22	85	60	1
ZB3L-12	12	21	22	85	85	1

· The outside diameter has a power-fit shape that prevents stress concentration and damage to the edge of the bolt/nut.

* Dimensions are for reference only because insulated tools are covered with an insulating film.



· This product is not to be used in combination with any tools other than 3/8"sq. KTC insulated tools.

· Required qualifications is needed to work under high voltage environment.

3/8"sq. INSULATED MAGNETIC SOCKET (DEEP)

3/8" sq.



POWERFIT



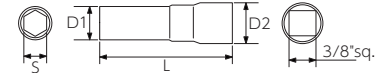
ZB3L-12MG



ZB3L-08MG

No.	S	D1	D2	L	Weight(g)	⊞
ZB3L-08MG	8	16	22	80	60	1
ZB3L-12MG	12	21	22	85	90	1

- The outside diameter has a power-fit shape that prevents stress concentration and damage to the edge of the bolt/nut.
- The magnet built in the outside diameter prevents bolts and nuts from falling off.
- * Dimensions are for reference only because insulated tools are covered with an insulating film.



• This product is not to be used in combination with any tools other than 3/8"sq. KTC insulated tools.



• The magnets may broken if the product is dropped.

3/8"sq. INSULATED RATCHET HANDLE

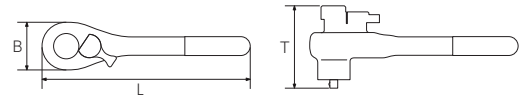
3/8" sq.

36



No.	Angle	B	T	L	Weight(g)	⊞
ZBR3	10°	45	60	190	350	1

- A union mechanism is used to prevent the socket from falling out.
- * Dimensions are for reference only because insulated tools are covered with an insulating film.



• This product is not to be used in combination with any tools other than 3/8"sq. KTC insulated tools.



• To avoid damage or idling, be sure to operate the left and right switching levers.

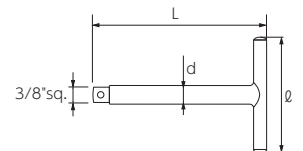
3/8"sq. INSULATED T-SHAPED HANDLE

3/8" sq.



No.	ℓ	L	d	Weight(g)	⊞
ZTH3	145	230	20	410	1

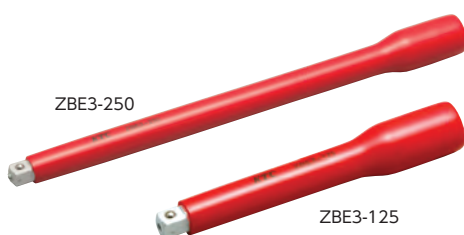
- Anti-drop screws are used to prevent sockets from falling out.
- * Dimensions are for reference only because insulated tools are covered with an insulating film.



• This product is not to be used in combination with any tools other than 3/8"sq. KTC insulated tools.

3/8"sq. INSULATED EXTENSION BAR

3/8" sq.

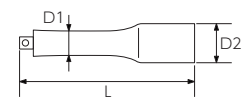


ZBE3-250

ZBE3-125

No.	D1	D2	L	Weight(g)	⊞
ZBE3-125	17	23	145	130	1
ZBE3-250	17	23	270	270	1

- Anti-drop screws are used to prevent sockets from falling out.
- * Dimensions are for reference only because insulated tools are covered with an insulating film.



• This product is not to be used in combination with any tools other than 3/8"sq. KTC insulated tools.

• Function mark is indicated under the product name. For the details, please refer to P.004-005.
 • Products marked with ⚡ should be ordered after checking stock.

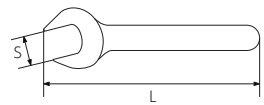


INSULATED OPEN END WRENCH



No.	S	L	Weight(g)	⊠	
ZS2-08SE	8	110	25	1	
ZS2-10SE	10	110	30	1	
ZS2-12SE	12	130	60	1	

* Dimensions are for reference only because insulated tools are covered with an insulating film.



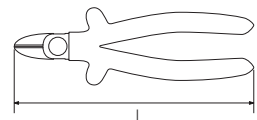
INSULATED TOOLS

INSULATED CUTTING PLIERS



No.	Cutting capability	L	Weight(g)	⊠	
ZPN1-160	Soft wire ϕ 1.5	160	210	1	

* Dimensions are for reference only because insulated tools are covered with an insulating film.



• The insulation function is available only for the grip and the red cover part of the shaft.

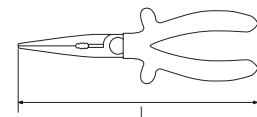
INSULATED NEEDLE NOSE PLIERS



No.	L	Weight(g)	⊠	
ZPSL-160	160	150	1	

• Includes wire cutter.

* Dimensions are for reference only because insulated tools are covered with an insulating film.



• The insulation function is available only for the grip and the red cover part of the shaft.

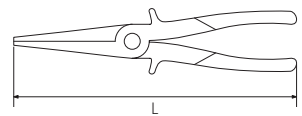
INSULATED RESIN NOSE PLIERS



Tip shape

No.	Material	L	Weight(g)	⊠	
ZPSL-220R	Resin	220	145	1	

- The long nose allows for use in narrow and deep space.
- Easy to remove the terminals that have become adhered.
- Resin design prevent from damaging switchboards, wiring, and other components.



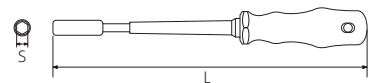
• Required qualifications is needed to work under high voltage environment.

INSULATED NUT DRIVER



No.	S	L	Weight(g)	⊞
ZND-08	8	225	110	1

* Dimensions are for reference only because insulated tools are covered with an insulating film.

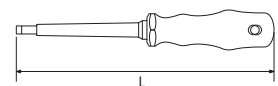


INSULATED SCREWDRIVER



No.	L	Weight(g)	⊞
ZD1M-100	180	35	1

* Dimensions are for reference only because insulated tools are covered with an insulating film.



INSULATED SCREWDRIVER SET [4pcs.]



No.	Weight(g)	⊞
PMDEZA4	255	1

Set contents		
Insulated screwdriver (cross)	No.1	PDEZA-1
	No.2	PDEZA-2
Insulated screwdriver (Flat)	100	MDEZA-4
	125	MDEZA-5

* Dimensions are for reference only because insulated tools are covered with an insulating film.

Insulated drivers (PDEZA, MDEZA series) 1000V

WARNING **Conforms to DIN EN60900/IEC60900 (European Committee for Standardization/International Standard).** Supports up to 1000 V AC (alternating current) and 1500 V DC (direct current).

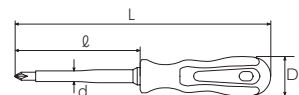
- Disconnect active electrical circuits before starting work.
- The insulation function is available only for the grip and the orange-colored cover of the shaft.
- Always wear insulated gloves when using the product.
- Do not use the tool if the insulation coating or the tool itself is damaged.

INSULATED SCREWDRIVER NON-PENETRATING TYPE



No.	No.	d	D	L	ℓ	Weight(g)	⊞
PDEZA-1	No.1	7	29.5	170	80	52	5
PDEZA-2	No.2	8	33	200	100	78	5

* Dimensions are for reference only because insulated tools are covered with an insulating film.



• Function mark is indicated under the product name. For the details, please refer to P.004-005.
 • Products marked with should be ordered after checking stock.



**INSULATED SCREWDRIVER
NON-PENETRATING TYPE**

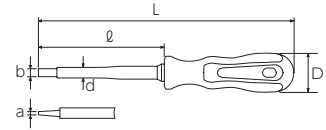


Flat



No.	a	b	d	D	L	ℓ	Weight(g)	⊠
MDEZA-4	0.8	4	6	29.5	190	100	47	5
MDEZA-5	1	5.5	7	33	225	125	78	5

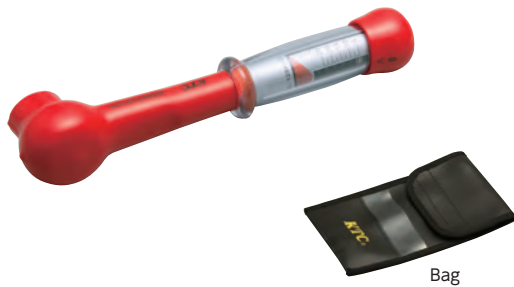
* Dimensions are for reference only because insulated tools are covered with an insulating film.



1/4"sq. INSULATED TORQUE WRENCH



1/4" sq.

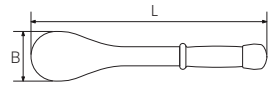


No.	Torque range N·m	Min. scale	Feed angle	L	B	Weight (g)	⊠
ZGWPA20525	5~25	1.25	9°	210	40	390	1

- Pre-set type insulated torque wrench for use with 1/4"sq. insulated tools.
- The product conforms to the IEC60900:2004 standard.
- Torque measurement range is ideal for maintenance of hybrid vehicles (HV).
- Easy to change the set torque by simply pulling and turning the grip end.
- Measurement accuracy is ±8%. (Measurement direction is right-hand thread only.)
- Includes a special storage bag.

* Repair and calibration services are not available for this product.

* Dimensions are for reference only because insulated tools are covered with an insulating film.



• This product is not to be used in combination with any tools other than 1/4"sq. KTC insulated tools.

3/8"sq. INSULATED TORQUE WRENCH



3/8" sq.



PUSH

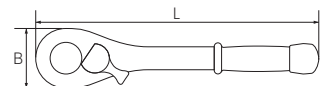


No.	Torque range N·m	Min. scale	Feed angle	L	B	Weight (kg)	⊠
ZGWPA30550	10~50	2.5	11°	370	50	1.1	1

- Pre-set type insulated torque wrench for use with 3/8"sq. insulated tools.
- The product conforms to the IEC 60900:2004 standard.
- Torque measurement range is ideal for maintenance of hybrid vehicles (HV).
- Easy to change the set torque by simply pulling and turning the grip end.
- Union mechanism to prevent sockets from falling out.
- Measurement accuracy is ±8%. (Measurement direction is right-hand thread only.)
- Includes a special storage bag.

* Repair and calibration services are not available for this product.

* Dimensions are for reference only because insulated tools are covered with an insulating film.



• This product is not to be used in combination with any tools other than 3/8"sq. KTC insulated tools.

VOLTAGE TESTER



No.	Weight(g)	⊠
ZGEVA-1000	250	1

Body size	W80×D50×H255	
Measuring range	Voltage	AC 1~1,000V DC 1~1,200V
	Resistance	0.1~300kΩ
	Electric conduction	0.1 to 100kΩ (acoustic signal, LED lighting)
	Phase indication	230V 50/60HzAC
	Frequency	10~1,000Hz
	Diode Test	0.3V~2.0V
Power	AAA batteries (1.5V DC)×2	
Usable temperature	-15°C~55°C	

- A voltage tester for measuring small capacitance electric circuits.
- Used to measure power line voltage, various voltages, resistance, etc.
- No need to switch measurement ranges.
- The backlight and LED light allow the operator to illuminate the work area.
- In addition to voltage measurement, it can be used for resistance test, 1-polar topology test, 2-polar topology sequence indication, electric conduction test, etc.
- Cable disconnection function.
- Conforms to DIN EN 61243-3:2013 IEC61243-3:2014.
- * This product is not subject to repair.

• Required qualifications is needed to work under high voltage environment.