CHRISTENSEN TOOLS



GENERAL TOOL CATALOGUE GC7

HEAD OFFICE TEL: +27-11-618-3200 NATAL OFFICE TEL: +27-31-309-7731 CAPE TOWN TEL: +27-21-551-6320

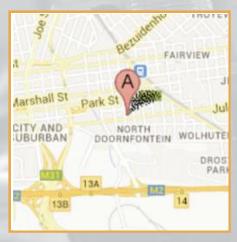
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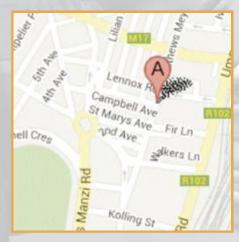


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OUR OFFICES







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TOOLKITS







RSC 802



RSA 130NB - LRG





RSC 130NB





RSC 1251

TECHNICIANS TOOLKITS & CASES

We have a wide variety of Technicians toolkits & Cases. Many are built up complete with tools (a few examples above), we have many others too. We also have a large selection of empty tool cases and zip-up bags, where you can select specific tools suited to your requirements or industry.

- RSA 1608, 1708, & 1808
- More than 40 loose tools.
- Fitted in specially cut-out two colour foams
- Perfect for Electronics technicians
- Includes screwdrivers, pliers, cutters, soldering iron & many more.
- Also available in aluminium cases (please request pricing)
- · Available with latch or combination locks.
- 2 trays of tools, with extra space for additional items
- Easily customised by adding a multi-meter or additional tools

GENERAL ELECTRICIAN TOOLKIT

Product Code: RSA CTE-ETK

STOCK NUMBER	DESCRIPTION	QTY P/K
BKM T18ROR	CABLE TIE, (PKT 100) 2.5mm x 104mm	1
BKM T820	MULTIMETER BIY AC/DC 600V	1
CK AV01010	TRIMMING KNIFE	1
CK AV05050	S/DRIVER SET INSULATED 5PC 1000V	1
CK AV06051	PLIER SET OF 3 PC INSULATED 1000V	1
KAR EX-TORCH	TORCH - 2AA 1W, 20 LUMEN, ALUMINIUM	1
LP IT-B	INSULATION TAPE, 18mmx20m BLACK	1
RSC 1251	ZIP CASE FOR ISCOR WITH SHORT HANDLES	1
VIK SHIFT-150	SHIFTER, PHOSPHATE FINISH 150mm	1
XLT 100-X	WIRE STRIPPER AND CUTTER #43200100	1







ELECTRONIC STARTER TOOLKIT

Product Code: RSA CTE-ELE

CTOCK NILLARED	DECCRIPTION	OTV D/KIT		
STOCK NUMBER	DESCRIPTION	QTY P/KIT		
BKM T820	MULTIMETER BIY AC/DC 600V	1		
CK 2301	TWEEZER, UNIVERSAL 1mm TIP 115mm	1		
CK AV01010	TRIMMING KNIFE	1		
CK AV05010	S/DRIVER, JEWELLERS SET OF 6 (LP JEWEL)	1		
CK AV05021	DRIVER, CAM - 8 BITS, BLADE LENGTH 100mm			
KEN 5587470K	DK PLIER SET - 6PCS MINIATURE			
ORX 30S-220	SOLDERING IRON SUPER30, 220V AC TEMP BAL	1		
RCT 1425	TWEEZER, STRAIGHT 150MM, GUIDE PIN	1		
RCT 1449	TWEEZER, BENT 150MM, GUIDE PIN	1		
RSC 1251	ZIP CASE FOR ISCOR WITH SHORT HANDLES	1		
VIK MULTITOOL	MULTITOOL BLACK	1		



GENERAL ELECTRICAL 25PIECE TOOLKIT

Product Code: RSA CTE-GEK

STOCK NUMBER	DESCRIPTION	QTY P/KIT
BKM T18ROR	CABLE TIE, (PKT 100) 2.5mm x 104mm	1
BKM T820	MULTIMETER BIY AC/DC 600V	1
CK AV01010	TRIMMING KNIFE	1
CK AV02011	TAPE MEASURE 5M	1
CK AV05015	S/DRIVER SET AVIT 7 PIECE	1
CK AV06051	PLIER SET OF 3 PC INSULATED 1000V	1
CK AV07010	SPANNER ADJUSTABLE 200MM (8")	1
CK AV09010	HACKSAW, MINI 150MM	1
KAR DK9301	HEADLAMP - LED 1 WATT 20 LUMEN	1
KAR EX-TORCH	TORCH - 2AA 1W, 20 LUMEN, ALUMINIUM	1
LP IT-B	INSULATION TAPE, 18mmx20m BLACK	1
MTS 1651	ALLEN KEY SET 2-10	1
MTS 3480	FIBRE GLASS CLAW HAMMER	1
MTS 3814	CRIMPER/STRIPPER SET	1
ORX 30S-220	SOLDERING IRON SUPER30, 220V AC TEMP BAL	1
RSC 802	ZIP BAG DOUBLE POUCH C/W SHOULDER STRAP	1
XLT 100-X	WIRE STRIPPER AND CUTTER #43200100	1
XRN 170-11*AS	SIDE CUTTER ESD BLACK HANDLES 170-11*ESD	1



Product Code: RS	A CTE-GMK	
STOCK NUMBER	DESCRIPTION	QTY P/KIT
BKM T18ROR	CABLE TIE, (PKT 100) 2.5mm x 104mm	1
CK AV01010	TRIMMING KNIFE	1
CK AV05021	DRIVER, CAM - 8 BITS, BLADE LENGTH 10	00mm 1
CK AV06010	SIDE CUTTER 180MM	1
CK AV06020	COMBINATION PLIER 20MM	1
KAR EX-TORCH	TORCH - 2AA 1W, 20 LUMEN, ALUMINIU	JM 1
LP IT-B	INSULATION TAPE, 18mmx20m BLAG	CK 1
RSC 1251	ZIP CASE FOR ISCOR WITH SHORT HAND	DLES 1
VIK MULTITOOL	MULTITOOL BLACK	1











CELL PHONE REPAIR TOOLKIT

Product Code: RSA CTE-CRK

STOCK NUMBER	DESCRIPTION	QTY P/KIT
CK 2301	TWEEZER, UNIVERSAL 1mm TIP 115mm	1
KEN 5582530K	PLIER LONG NOSE 115MM S/STEEL	1
KEN 5582540K	PLIERS - MICRO NIPPERS 120mm	1
LP IPHONEREP	IPHONE REPAIR KIT 8PC PRY TOOL &PENTAL	1
LP MACREPAIR2	REPAIR KIT	1
LP PENT-MAC	PENTALOBE S/DRIVER 1.2MM FOR MACBOOK AIR	1
LP PENTALOBE	CHRISTENSEN IPHONE 4 S/DRIVER PENTALOBE	1
LP SPUDGER	OPENING TOOL PLASTIC	1
RCT 1425	TWEEZER, STRAIGHT 150MM, GUIDE PIN	1
RCT 1449	TWEEZER, BENT 150MM, GUIDE PIN	1
RSC 130NB-LRG	130 ZIP CASE LARGE	1
WK AK-1	OLFA ART KNIFE - AK1 WITH 25 BLADE	1
XRN 170-11*AS	SIDE CUTTER ESD BLACK HANDLES 170-11*ESD	1
XRN 170-11*AS	SIDE CUTTER ESD BLACK HANDLES 170-11*ESD	1



BASIC COMPUTER TECHNICIAN TOOLKIT

Product Code: RSA CTE-COMP

BKM T18ROR CABLE TIE, (PKT 100) 2.5mm x 104mm 1 BKM T820 MULTIMETER BIY AC/DC 600V 1 BTS BW103H-L6 WRIST STRAP, 3SNAP 4BAN/CROC CLP S/BLUE 1 CK 1355 MAGNETIC PICKUP, TELESCOPIC & PEN 630mm 1 CK AV05010 S/DRIVER, JEWELLERS SET OF 6 (LP JEWEL) 1	STOCK NUMBER	DESCRIPTION	QTY P/KIT
BTS BW103H-L6 WRIST STRAP, 3SNAP 4BAN/CROC CLP S/BLUE 1 CK 1355 MAGNETIC PICKUP, TELESCOPIC & PEN 630mm 1 CK AV05010 S/DRIVER, JEWELLERS SET OF 6 (LP JEWEL) 1	BKM T18ROR	CABLE TIE, (PKT 100) 2.5mm x 104mm	1
CK 1355 MAGNETIC PICKUP, TELESCOPIC & PEN 630mm 1 CK AV05010 S/DRIVER, JEWELLERS SET OF 6 (LP JEWEL) 1	BKM T820	MULTIMETER BIY AC/DC 600V	1
CK AV05010 S/DRIVER, JEWELLERS SET OF 6 (LP JEWEL) 1	BTS BW103H-L6	WRIST STRAP, 3SNAP 4BAN/CROC CLP S/BLUE	1
	CK 1355	MAGNETIC PICKUP, TELESCOPIC & PEN 630mm	1
CV AVOCOLE S CADRIVED SET AVIT 7 DIECE 1	CK AV05010	S/DRIVER, JEWELLERS SET OF 6 (LP JEWEL)	1
CK AV03015 S/DRIVER SET AVIT / FIECE	CK AV05015	S/DRIVER SET AVIT 7 PIECE	1
KAR EX-TORCH TORCH - 2AA 1W, 20 LUMEN, ALUMINIUM 1	KAR EX-TORCH	TORCH - 2AA 1W, 20 LUMEN, ALUMINIUM	1
KEN 5583410K CUTTING PLIERS - HIGH TENSILE 6-3/8" 1	KEN 5583410K	CUTTING PLIERS - HIGH TENSILE 6-3/8"	1
KEN 5587470K PLIER SET - 6PCS MINIATURE 1	KEN 5587470K	PLIER SET - 6PCS MINIATURE	1
LP B2 BRUSH 25MM EVERYMAN 1	LP B2	BRUSH 25MM EVERYMAN	1
LP IT-B INSULATION TAPE, 18mmx20m BLACK 1	LP IT-B	INSULATION TAPE, 18mmx20m BLACK	1
MTS 1651 ALLEN KEY SET 2-10 1	MTS 1651	ALLEN KEY SET 2-10	1
ORX 30S-220 SOLDERING IRON SUPER30, 220V AC TEMP BAL 1	ORX 30S-220	SOLDERING IRON SUPER30, 220V AC TEMP BAL	1
RSC 1980 ZIP CASE C/W HANDLES, A4 POCKET & HD ZIP 1	RSC 1980	ZIP CASE C/W HANDLES, A4 POCKET & HD ZIP	1
XLT 100-X WIRE STRIPPER AND CUTTER #43200100 1	XLT 100-X	WIRE STRIPPER AND CUTTER #43200100	1









CHRISTENSEN ELECTRONIC, ENGINEERS, TECHNICIANS SERVICE KIT





Product Code: RSA 1708C-CK

The ideal kit for Electronics technicians in Television, Radio, Computer and Office Machinery servicing, maintenance & repair industries. This premium toolkit comes equipped with tools to enable you to perform your job as a technician effectively and professionally. Toolkit can be used by any technician that is in production, maintenance or repair of electronic products.

The 1700 case is made of a wooden frame and vinyl covering with reinforced metal corners. The kit has 2 removable trays of tools and a framework of dividers at the base of the case where additional tools or components may be stored.

The tools shown are available in 3 different cases:

Standard black "leather like" material attache case Case only: Order No. RSC 1700
Std black case also available with combination locks Order No. RSC 1700COMBI
Aluminium case. (Dust proof and very sturdy, almost airline proof) Case only: Order No. RSC 1700ALI.
Explorer cases (above cases are suggestions and are not supplied as std)

For a list of the contents please go to www.christensen.co.za. Please note: Items subject to change depending on stock availability.









CHRISTENSEN DELUXE ELECTRONIC, ENGINEERS, TECHNICIANS TOOLKIT





Product Code: RSA 1808C-CK

The ideal kit for Electronics technicians in Television, Radio, Computer and Office Machinery servicing, maintenance & repair industries. This premium toolkit comes equipped with tools to enable you to perform your job as a technician effectively and professionally. Toolkit can be used by any technician that is in production, maintenance or repair of electronic products.

This kit uses the 1700 case and has 2 removable layers of tools and a framework of dividers in the base where additional tools or spares could be housed. This toolkit has a myriad of screwdrivers, pliers, cutters, a gas soldering iron & electric iron too, just to name a few. Perfect for electronics technicians.

The tools shown are available in 3 different cases:

Standard black "leather like" material attache case RSC 1700

Case Also available with combination locks. RSC 1700COMBI

Aluminium case. (Dust proof and very sturdy, almost airline proof) RSC 1700ALI

Explorer cases (above cases are suggestions and are not supplied as std)

For a list of the contents please go to www.christensen.co.za. Please note: Items subject to change depending on stock.















ITEM: MA2632

- 1. 50 pockets and holders including 4 fold out panels for easy tool access.
- 2. 100% waterproof and crackproof rubberised base.
- 3. Padded handle and shoulder strap for maximum comfort.
- 4. Padded central compartment fits laptop.
- 5. Internal document pocket.















TECHNICIAN'S RUCKSACK ITEM: MA2631

- 1. Mobile phone holder.
- 2. Internal and external document pockets.
- 3. 31 pockets and holders including fold out panels for











MAXI BAG ITEM: MA2628

- 1. 100% waterproof and crackproof rubberised base.
- 2. Padded handle and shoulder strap for maximum comfort.
- 3. Long handles so it can be carried open.
- 4. Internal storage area with 12 additional pockets and holders.













- 1. 100% waterproof and crackproof rubberised base.
- 2. Padded handle and shoulder strap for maximum comfort.
- 3. Long handles so it can be carried open.
- Internal storage area with 12 additional pockets and holders.





TECHNICIAN'S TOOL CASE ITEM: MA2718

- 1. 30 pockets to carry a range of tools.
- 2. Can be used as roll or for wall hanging.
- 3. Padded handle.

TECHNICIAN'S TOOL CASE ITEM: MA2719

- 1. Stores up to 9 chisels.
- 2. Padded handle.









BUILDER'S TOOLBELT SET ITEM: MA2714

AND

ELECTRICIAN'S TOOLBELT SET

ITEM: MA2715

- 1. Builder's Tool Pouch.
- 2. Electrician's Tool Pouch.
- 3. Padded Belt.
- 4. Drill Holster.
- 5. Mobile phone holder.



TECHNICIAN'S VEST ITEM: MA2729





 14 pockets and holders for tools, equipment and mobile phone.

- 2. Fully adjustable.
- 3. Mesh lining for comfort and breathability.
- 4. Reflective strip for visibility on site.





















BUILDER'S RIG ITEM: MA2728

 Incorporates padded belt compatible with C.K Magma tool pouches and holsters.

23 pockets and holders for tools, equipment and mobile phone.

3. Fully adjustable.

4. Mesh lining for comfort and breathability.

5. Reflective strip for visibility on site.







































WATERTIGHT INTERSTACHABLE HIGH THICKNESS COGROSION/PGOOF BODY MATERIAL



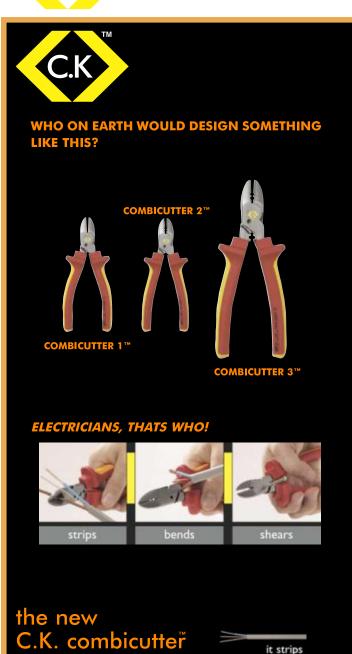








PLIERS & CUTTERS





WIRE STRIPPING SIDE CUTTERS. ITEM:

Side cutters featuring wire stripping notches for 1.5mm sq and 2.5mm sq wire. VDE 0682/201:2005 01, IEC 60900:2004, **DIN ISO 5749**

ITEM	SIZE	CUTTING CAPCITY mmØ		
		HARD	MED/HARD	SOFT
431019	160mm	1.6	2.5	>4.0



SIDE CUTTERS. ITEM:

Head design gives high leverage and easy, clean cutting. VDE 0682/201:2005 01, IEC 60900:2004, DIN ISO 5749

ITEM	SIZE	CUTTING CAPCITY mmØ		
		HARD	MED/HARD	SOFT
431017	160mm	1.6	2.5	>4.0
431005	180mm	1.8	2.3	>4.0



SIDE CUTTERS HEAVYDUTY. ITEM:

Side cutters featuring wire stripping notches for 1.5mm sq and 2.5mm sq wire.

VDE 0682/201:2005 01, IEC 60900:2004, DIN ISO 5749

ITEM	SIZE	CUTTIN	CUTTING CAPCITY mmØ		
		HARD	MED/HARD	SOFT	
431006	175mm	2.0	2.5	>4.0	
431007	200mm	2.5	3.0	>4.0	



ITEM

431004

431009

431008

tools

range from C.K.

DESCRIPTION SIZE

160mm

160mm

160mm

combicutter1

combicutter2

combicutter3



it strips

it bends

it shears

CUTTING CAPCITY mmØ HARD MED/HARD SOFT

 $1.6\ 2.5 > 4.0$

1.0 1.5 > 4.0

 $1.0 \ 1.5 > 4.0$



VDE ELECTRICAL PLIERS & CUTTERS



VDE COMBICUTTER1™

EN 60900, ISO 5749, VDE0682/201, ASTM-F 1505

ITEM: 431004



431005

VDE SIDE CUTTERS - STANDARD

EN 60900, ISO 5749, VDE0682/201, ASTM-F 1505

ITEM: 431017, 431005



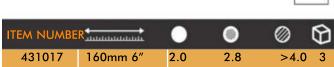
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431004	160mm 6"	1.6	2.0	>4.0 3



VDE COMBICUTTER2™

EN 60900, ISO 5749, VDE0682/201, ASTM-F 1505

ITEM: 431009



2.5





VDE SIDE CUTTERS - HIGH

LEVERAGE

180mm 7"

EN 60900, ISO 5749, VDE0682/201, ASTM-F 1505

3.0

ITEM: 431006, 431007



ITEM NUMBE	R.talatatatatata	•	0	∅
431009	160mm 6"	2.0	2.8	>4.0 3



VDE COMBICUTTER3™

EN 60900, ISO 5749, VDE0682/201, ASTM-F 1505

ITEM: 431008

ITEM NUMBE	R statistististististist.		0	∅
431006	160mm 62"	2.2	3.8	>6.0 3
431007	200mm 8"	2.5	4.2	>6.0 3





NUMBE	R. databalahahah	•	0	Ø (B
31008	160mm 6"	2.0	2.8	>4.0	3



VDE CABLE CUTTER

EN 60900, VDE0682/201, ASTM-F 1505

ITEM: 431030



ITEM NUMBER		Ø 0
431030	160mm 6"	16.0mm 3



VDE WIRE STRIPPING PLIERS

EN 60900, VDE0682/201, ASTM-F 1505

ITEM: 431012



TEM NUMBER		Ø 1	Ø
431012	180mm 7"	0.3-5.0mm	3



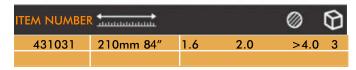


VDE CABLE CUTTERS

EN 60900, VDE0682/201, ASTM-F 1505

ITEM: 431031

















VDE PLIERS & CUTTERS



BENT NOSE PLIERS.

VDE 0682/201:2005 01, IEC 60900:2004, DIN ISO 5745

ITEM	SIZE	CUTTING	CUTTING CAPCITY mmØ			
		HARD	MED/HARD	SOFT		
431015	200mm	1.6	2.5	>4.0		



CABLE CUTTER HEAVY DUTY.

Compact, one handed cable cutter suitable for copper or Aluminium wire, cuts cleanly and effortlessly.

VDE 0682/201:2005 01, IEC 60900:2004

401000 1/5	ITEM SIZ	ZE	CUTTING CAPCITY mmØ SOFT
431030 165mm 16	431030 165	imm	16
431031 210mm 25.0	431031 210)mm	25.0



RATCHET CRIMPING PLIERS FOR FERRULES.

For end sleeve ferrules.

ITEM	SIZE	CUTTING CAPCITY mmØ
		AWG
430018	8 190mm	0.14 - 2.5 / 26 - 14



COMBINATION PLIERS.

Extra long cutting edges, induction hardened for use on medium and hard wire, round and flat cable.

ITEM	SIZE	CUTTING CAPCITY mmØ				
		HARD	MED/HARD	SOFT		
431001	165mm	1.6	2.5	>4.0		
431002	185mm	1.6	2.5	>4.0		
431003	205mm	2.0	2.8	>4.0		



SNIPE NOSE PLIERS.

Serrated inside jaws with rod gripping hole and cutting edges.

ITEM	SIZE	CUTTING CAPCITY mmØ			
		HARD	MED/HARD	SOFT	
431013	175mm	1.4	2.0	>4.0	
431014	200mm	1.6	2.0	>4.0	



STRIPPING PLIERS.

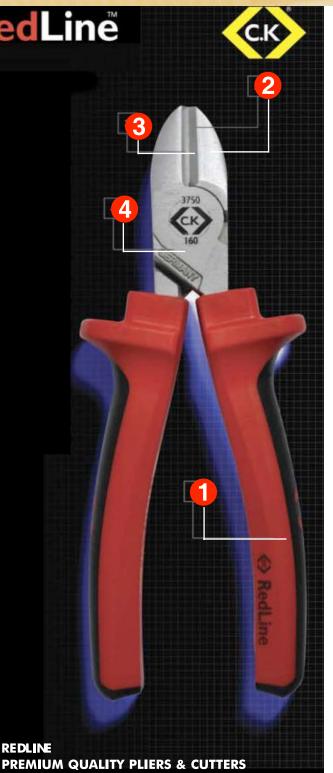
Ideal for repetitive wire stripping featuring an adjustable capacity and spring assisted opening. Wire capacity of 0.3 -5.00mm

ITEM	SIZE	STRIPPING CAPCITY mmØ
431012	160mm	0.3 - 5.0











- 2. Induction hardened jaws for outstanding long term performance.
- 3. Cutting jaws with CK optomised geomerty for unsurpassed cutting performance.
- 4. Special alloy steel, forged, hardened & tempered for exceptional strengh & durability.



SIDE CUTTERS - STANDARD
ISO 5749

ITEM: 3750 145, 3750 160, 3750 180

ITEM NUMBE	R	•	0	0 (B
T3750 145	140mm 5	1.4	1.9	>4.0	3"
		2.0	2.8	>4.0	3"
		2.5	3.0	>4.0	3"



SIDE CUTTERS - HIGH LEVERAGE 2"

		0	0	0
	2.2	3.8	>6.0	3″
	2.5	4.2	>6.0	3″









ELECTRICAL PLIERS & CUTTERS



CABLE CUTTERS ITEM: 431030

ITEM NUMBE	R.i		0	0
T3964 6	160mm 6	16.0		3



COMBINATION PLIERS

ISO 5746

ITEM: 3867 6, 3867 7, 3867 8.

ITEM NUMBE	R.	•	0	0	0
T3867 6	160mm 6	1.6	2.5	>4.0	3
T3767 7	180mm 7	1.6	2.5	>4.0	3
T3767 7	200mm 8	2.0	2.8	>4.0	3



SNIPE NOSE PLIERS - STRAIGHT

ISO 5745

ITEM: 3909 5, 3909 6, 3909 8

ITEM NUMBEI	·	•	0	0	0
T3909 5	140mm 5	1.2	1.6	>4.	0 3
T3909 6	170mm 6	1.4	1.9	>4.	0 3
T3909 8	200mm 8	1.6	2.0	>4.	0 3



SNIPE NOSE PLIERS - BENT

O 5745

ITEM: 3907 8

ITEM NUMBE	R tamaman	•	0	0	Ø
T3907 8	200mm 8"	1.6	2.0	>4.0	3

- Precision engineered jaws for exceptional grip
- · Extra long cutting edge for increased cutting capacity



A NEW HANDLE DESIGN TAILORED TO YOUR HAND'S SHAPE & FEEL

The perfect shape. Scientifically designed with your hand in mind. A grip feeling like a fine kid glove. So much a part of your own hand that it gives you incomparable fatigue-free, safe control for the most-exacting work demands.

OPTIMAL DESIGN ERGONOMICS.

- 1. Soft, comfortable and slipfree thermoplastic material compound grips.
- 2. Anti-slip bow enhances pinpoint control.
- 3. Spot-welded double leaf spring ensures consistently repeatable functioning for a lifetime of top performance.
- 4. Precision box joint means butter smooth action for exact guidance of jaws without need for readjustment.
- 5. Mirror polishing notably reduces risks of corrosion, chrome flaking, and is easy to
- 6. Long-life cutting edges are induction hardened to maintain cutting ease.

Over-all function, beauty, and reliability backed by one of the world's outstanding experts for professional tools.









PLIERS & STRIPPERS



SIDE CUTTERS. ITEM: CK 3773D-115

Ovai	neud	
	C F	.433°
	13 mm/.512*	N.



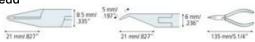
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ITEM NUME	BER	DESCRIPTION	
3773D-115		Mini bevel.	
Wire:	hard	soft steel	copper
mm / AWG	0.4 / 26	1.0 / 18	1.5 / 15
3773DF-115		Full flush.	
Wire:	hard	soft steel	copper
mm / AWG	-	1.0 / 18	1.5 / 15
3773DEF-115		Extra full flush.	
Wire:	hard	soft steel	copper
mm / AWG	-	1.0 / 18	1.5 / 15



OBLIQUE CUTTERS. ITEM: CK 3871DF-120

Oval head



ITEM NUA	ABER	DESCRIPTION	
CK 3871DF-1	20	Full flush.	
Wire:	hard	soft steel	copper
mm / AWG	-	=	0.6 / 22



SNIPE NOSE PLIERS. ITEM: CK 3772D-120 Straight



ITEM NUMBER	DESCRIPTION	
CK 3772D-120	Smooth jaws.	
CK 3772D-120 -1	Serrated jaws.	



SNIPE NOSE PLIERS. ITEM: CK 3777D 150 Straight, long and slim jaws



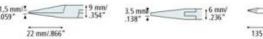
ITEM NUMBER

T3777D 150

	145 mm/5.344
DESCRIPTION	7
Smooth iaws.	



FLAT NOSE PLIERS ITEM: CK 3770D-120



		0.000
ITEM NUMBER	DESCRIPTION	
CK 3770D-120	Smooth jaws.	
CK 3770D-120 -1	Serrated jaws.	









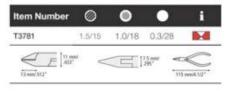




ELECTRONIC PLIERS & CUTTERS

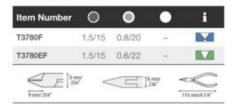


3781 Side cutter



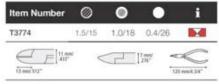


3780 Side cutter





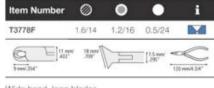
3774 Side cutter



Laid-in-joint.



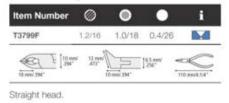
3778 Oblique cutter



Wide head, long blades.

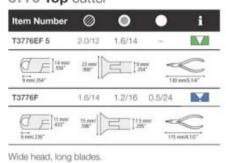


3799 Oblique cutter





3776 Top cutter



李阳

3786 Oblique tip cutter

Item Number	0	0	•	i
T3786F 4	0.8/20	0.6/22	-	М
	11-1	S mm/		

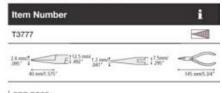


3772 Snipe nose pliers

Item Number	i
T3772	
T3772 1	
2 ment 1 10 mm 1 1 ment 1 150 mm 1 150	120 mol 34*



3777 Snipe nose pliers



Long nose.









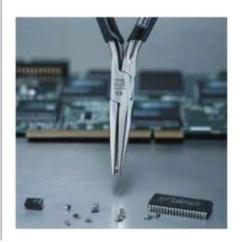
CK ELECTRONIC PLIERS & CUTTERS













22 mm/ 866°

15 mm/ F 10 mm/ 15 mm/ F 165 mm/





PLIERS & STRIPPERS CUTTERS



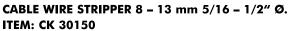


C.K-Jokari Cable Knife (No. 28H) with new dual-compound handle design for more safety at work. Cable holder with comfortable dualcompound anti-slip finger rest. Double sided trimming blade, straight and hook. Continuously adjustable cutting depth. Automatic setting from round to longitudinal cut. Spare blade included. For easy and quick stripping of sheathing of round cable

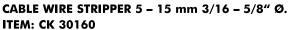


COAX CABLE STRIPPER 4,8 - 7,5 mm 3/16 - 9/32" Ø. ITEM: CK 30010

C.K-Jokari Cable Stripper (Coax) for ingenious and quick stripping of all standard coax cables, e.g. TV-Coax, RG58U, RG59U etc. Also for 3 x 0.75 mm PVC-flex. With length scale. No adjustment necessary. Also for use in very confined spaces, e. g. junction boxes, switch consoles etc.



C.K-Jokari Cable Stripper (No. 15) with additional precision wire stripping blades, retractable safety trimming knife blade, splicing blade, pocket clip. For easy and quick stripping of sheathing of round cable from 8 - 13 mm (5/16 - 1/2") Ø. For stripping of solid and stranded conductors of 0.2, 0.3, 0.8, 1.5, 2.5, 4.0 mm2 (24, 22, 20, 16, 14, 12 AWG). No adjustment necessary. Also for use in very confined spaces, e. g. junction boxes, switch consoles etc.



C.K-Jokari Cable Stripper (PC-Strip) for PVC-insulated dat communication and conductor control cables (e.g. IBM type 1, type 2 etc.). For easy and quick stripping of sheathing of round cable from 5 - 15 mm \emptyset (3/16 – 5/8"). For stripping of solid and stranded conductors of 0.2, 0.3, 0.8, 1.5, 2.5, 4.0 mm² (24, 22, 20, 16, 14, 12 AWG). No adjustment necessary. Also for use in very confined spaces, e. g. junction boxes, switch consoles etc.



Description: CABLE STRIPPER, For Use With: Cables, Solid Wires, SVHC:No SVHC (15-Dec-2010), Cable Diameter Max:1", Stripping Capacity: 28mm², Features: Dual purpose wire stripper and plastic tube, cutting tool – fast and flexible, Cuts and removes insulation from cable, solid conductors and standard wire - quick and safe, Automatically changes from circular to longitudinal cuts, Adjustable cutting depth, Cuts plastic tubing up to 25mm diameter, Replaceable hardened blade, Product Code: CK 430004



Sets the standard imitators can't meet. Shear cutting greatly reduces cutting effort while providing the shear cut desirable in electronics assembly work. Less cutting effort means fewer fatigue related injuries and complaints. Ultra slim profile increases access in high density areas. Flush cuts soft wire up to 18 AWG (1.0 mm).

KEVLAR ® **FIBER SHEAR**. **ITEM: XRN 9180**

Designed and manufactured specifically for cutting the Kevlar fiber strength component of fiber optic cables. Cushioned Xuro-Rubber grips and return spring provide both comfort and convenience.

LX MICRO-SHEAR ® FLUSH CUTTER. ITEM: XRN LX 81

Our patented Micro-Shear cutting action combined precision ground cutting extra tough .100" thick high carbon steel blades, and slim profile for access in density areas. Sized for smaller hands and maximum maneuverability. Flush cuts soft wire 16 AWG (1.29 mm).

MAXI-SHEAR FLUSH CUTTER. **ITEM: XRN 2175**

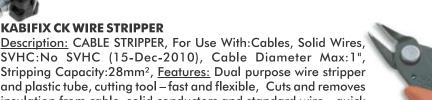
An extremely durable and versatile wire cutter featuring our patented Micro-Shear® cutting action. Tough enough for harnesses and cables with the precision to cut material less than 1 mil. thick or work in high density areas. Flush cuts to soft wire 12 υp (2.05 mm).

MUSIC WIRE SHEAR. **ITEM: XRN 2193**

Large, full by-pass shear designed specifically for cutting music wire and other types of hardened wire. Cuts music wire up to 0.040" diameter.

MICRO-SHEAR * FLUSH CUTTER. **ITEM: XRN 410**

The premium grade version of our world famous 170-II Micro-ShearFlush Cutter. The result is a tough, precise, durable flush cutter capable of reliably and economically cutting soft wire up to 18AWG (1.00mm).











TWEEZERS





2390 Positioning tweezers DIN EN 61340 5.1 & 5.2



2391 Positioning tweezers DIN EN 61340 5.1 & 5.2

Item Number	20000000000	i	TYPE
T2391	130mm	CF	5CF



(200

2392 Positioning tweezers DIN EN 61340 5.1 & 5.2

Item Number	and the same	i	TYPE
T2392	130mm	CF	249CF





2330 Precision tweezers

T2330	110mm	SA	SR SA
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2331 Precision tweezers

T2331	115mm	SA	5C.SA
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2341 Precision tweezers

Item Number	innominated.	i	TYPE
T2341	110mm	SA	5B.SA



2340 Precision tweezers

Item Number	indicated the	i	TYPE
T2340	110mm	SA	3C.SA

Fine, sharp tips, straight.



2343 Precision tweezers

Item Number		i	TYPE
T2343	130mm	SA	MM.SA



2339 Precision tweezers

Item Number	Mannahaaa	i	TYPE
T2339	110mm	SA	7.SA

Fine tips, curved.



2381 Precision tweezers

Item Number	-	i	TYPE
T2381	120mm	SA	00D.SA

Flat, blunt tips, finely milled inside.



2359 Positioning tweezers

Item Number	autumanum.	i	TYPE
T2359	150mm	SA	22.SA

Fine, bent tips, fine cross-cut inside.









ESD SCREWDRIVERS





4741ESD Screwdriver

set

Item Number	i		
T4741ESD	6 piece screwdriver set		

For Slotted and Pozidrive® screws.

Contains: T4725ESD 3.0 x 75, 3.0 x 100, 5.0 x 135, T4723ESD PZ 0 x 60, PZ 1 x 80 PZ 2 x 100.





4741SESD Screwdriver

set

Item Number	i
T4741SESD	6 piece screwdriver set

For Slotted and Phillips screws.

Contains: T4725ESD 3.0 x 75, 3.0 x 100, 5.0 x 125, T4722ESD PH 0 x 60, PH 1 x 80, PH 2 x 100.



4797ESD Screwdriver

set

Item Number	1		
T4797ESD	6 piece screwdriver set		

Long reach screwdrivers,

Contains: T4725ESD 5 x 250, T4722ESD PH 1 x 300, PH 2 x 300, T4718ESD T 08 x 200, T 10 x 300, T 15 x 300.



Screwdrivers

The range of Xonic ESD screwdrivers consists of 'miniature' sized tools for use in areas where non-ESD products are prohibited.

They have been designed with comfort and ease of use in mind. The handle and hollow rotating cap allow great control in low torque applications.





4880XESD Slotted screwdriver

DIN EN 61340 5.1 & 5.2

Item Number	•	=	0	-
T4880XES08	0.8 1/32	60 2º/ii	0.20.008	97 313/16
T4880XES12	1.2 3/64	60 29/4"	0.25.010	97 310/16
T4880XES15	1,5 1/16	60 2%	0.30.012	97 313/16
T4880XES18	1.8 %	60 2º/n	0.30.012	97 313/16
T4880XES256	2.5 1/12	60 2%	0.40.016	97 313/16
T4880XES257	2.5 1/12	75 3	0.40 .016	97 313/16
T4880XES310	3.0 1/6"	100 4"	0.50 .020	97 313/16"
T4880XES315	3.0 1/6"	150 6	0.50 .020"	97 313/16
T4880XES410	4,0 %/32	100 4"	0.60 .024	97 313/16
T4880XES415	4.0 %5	150 6"	0.60 .024	97 310/16





4875XESD PZD/SDV®

screwdriver DIN EN 61340 5.1 & 5.2

Item Number	i	Ø		
T4875X ESD	PZD 0	3.0 1/1"	60 23/1	97 313/16
T4875X ESD 1	PZD 1	4.5 11/64"	80 21/1	97 313/16





4882XESD Phillips screwdriver

DIN EN 61340 5.1 & 5.2

Item Number	i	Ø	===	-	=
T4882X000ES	PH 000	2.5 ∜≈"	60 21/6"	97	313/16
T4882X00ESD	PH 00	2.5 1/10"	60 29/6	97	313/16
T4882X0 ESD	PHO	3.0 1/6"	60 29/6"	97	313/16
T4882X1 ESD	PH 1	4.5 11/64"	80 31/6"	97	319/16









C.K.) PRECISION SCREWDRIVERS



4877XESD Torx® screwdriver DIN EN 61340 5.1 & 5.2

Item Number	i	Ø	=	
T4877XESD04	T 04	2.5 %2	50 2"	97 313/16
T4877XESD05	T 05	2.5 1/12	50 2	97 311/16
T4877XESD06	T 06	3.59/64	50 2	97 313/16
T4877XESD07	T 07	3.5% (%)	50 2	97 3 ¹⁰ /m
T4877XESD08	T 08	3.5%4	60 21/6"	97 39/16





4838XESD Ball ended hexagon screwdriver

DIN EN 61340 5.1 & 5.2

Item Number	0		• Ø	-
T4838XESD15	3.2.126	50 2	2.5 ∜≥	97 319/16
T4838XESD20	3.5 %4	50 2	2.5 Var	97 313/16
T4838XESD25	4.0 %/32	60 29	/6" 3.0 1/6"	97 313/16
T4838XESD30	4.5 11/64	60 21	/6" 3.5 West	97 313/16



4883 Screwdriver set

Item Number	i
T4883XESD	7 piece screwdriver set

Slotted and Phillips screws. Contains: T4880XESD 2.5 x 75, 3.0 x 100, 3.0 x 150, 4.0 x 100, 4.0 x 150, T4882XESD PH 0 x 60,



4884 Screwdriver set

Item Number	i
T4884XESD	4 piece screwdriver set

Slotted and Phillips screws. Contains: T4880XESD 1.8 x 60, 3.0 x 100, 4.0 x 150, T4882XESD PH 0 x 60.



presion

Screwdrivers

The Precision range of screwdrivers has been designed with comfort and ease of use in mind. The handle and hollow rotating cap allow great control in low torque applications.

The wide choice of blade types ensures that C.K Precision screwdrivers are suitable for all applications within the professional sector.









4-910 504,25 607

FOR SMARTPHONES AND TABLETS

Ideal for repairing smartphones and tablets of the brands:

APPLE SAMSUNG HUAWEI SONY etc.



This set consists of:

- Black plastic case with foam inser 180 x 172 x 44 mm
- Suction cup opener, Ø 42 mm
- Opening tool, 120 mm
- Blunt ESD tweezers, 124 mm Magnetic ESD bit screwdriver 80 mm, made of aluminum, with screw cap and extension 110 mm

42 bits in the following sizes:

Slot 1.0, 1.5, 2.0, 2.5, 3.0 **Cross-slot** PH 000, 00, 0, 1 Torx T3, T4, T5 Torx Security T6, T7, T8, T9, T10, T15

Triangle 1.6, 2.0, 2.2, 2.3

Tri-Point 0, 1 Square S0, S1

Hexagon 0.9, 1.3, 1.5, 2.0, 2.5, 3.0

Pentalobe P2, P5, P6

O Socket wrench 2.5, 3.0, 3.5, 4.0, 4.5, 5.0

SIM-Eject-Bit









CK PRECISION SCREWDRIVERS



4880X Slotted screwdriver

Item Number		200		
T4880X 08	2.5 1/12	60 23/6	0.20 0.008	97 313/16
T4880X 12	2.5 1/10	60.2%	0.20 0.008	97 311/16
T4880X 15	2.5 1/10	60 29%	0.25 0.010	97 313/16
T4880X 18	2.5 1/10	60 23/6	0.30 0.012	97 313/16
T4880X 256	2.5 3/32	60 23/6	0.40 0.016	97 313/16
T4880X 257	2.5 1/30	75 3"	0.40 0.016	97 313/16
T4880X 310	3.0 1/62	100 4"	0.50 0.020	97 313/16
T4880X 315	3.0 1/6"	150 6	0.50 0.020	97 312/16
T4880X 410	4.0 1/32	100 4"	0.80 0.031	97 313/16
T4880X 415	4.0 %:	150 6	0.80 0.031"	97 313/16



4882X Phillips screwdriver

Item Number	i	Ø	=	
T4882X 000	PH 000	2.5 3/32	60 21/4"	97 313/16
T4882X 00	PH 00	2.5 ½±	60 2%	97 313/16
T4882X 0	PH 0	3.0 \%	60 21/6"	97 310/16
T4882X 1	PH1	4.5 11/6	80 31/4"	97 313/16



4877X Torx® screwdriver

Item Number	i	Ø	==	
T4877X 04	T:04	2.5 %	50 2"	97 319/16
T4877X 05	T 05	2.5 1/3/	50 Z	97 313/16
T4877X 06	T 06	3.5 %1	50 2"	97 313/16
T4877X 07	T 07	3.5 %4"	50 2"	97 313/16
T4877X 08	T 08	3.5 %	60 21/6"	97 313/16
T4877X 09	T 09	4.0 %	60 21/6"	97 313/16"
T4877X 10	T 10	4.0 5/32"	80 31/6"	97 313/16
T4877X 15	T 15	4.0 %	80 31%"	97 313/16



4880X/5 Screwdriver set

Item Number	i
T4880X/5	5 piece screwdriver set

Slotted and Phillips screws.

Contains: T4880X 2.5 x 75, 3.0 x 100, 4.0 x 100, T4882X PH 00 x 60, PH 0 x 60.

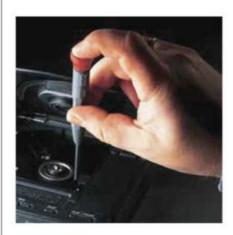


4883X Screwdriver set

Item Number	1
T4883X	7 piece screwdriver set

Slotted and Phillips screws.

Contains: T4880X 2.5 x 75, 3.0 x 100, 3.0 x 150, 4.0 x 100, 4.0 x 150, T4882X PH 0 x 60, PH 1 x 80.





4884X Screwdriver set

Item Number	i		
T4884X	4 piece screwdriver set		

Slotted and Phillips screws.

Contains: T4880X 1.8 x 60, 3.0 x 100, 4.0 x 150. T4882X PH 0 x 60.



4874X Screwdriver set

Item Number	i		
T4874X	7 piece screwdriver set		

Hexagon screws.

Contains: T4873X 0.7 x 50, 0.9 x 50, 1.3 x 50, 1.5 x 50, 2.0 x 50, 2.5 x 60, 3.0 x 60.



4877PX Screwdriver set

Item Number	i		
T4877PX	7 piece screwdriver set		

Torx® screws

Contains: T4877X TX 06, TX 07, TX 08, TX 09, TX 10, TX 15, TX 20.







SCREWDRIVERS

HD CLASSIC



Screwdrivers - Slotted flared

DIN 5264, ISO 2380-2

Item Number	<u>=</u>	===	0	-==	8
T4810 03	5mm %-"	75mm 3"	0.8mm 0.03°	90mm 31/2"	6
T4810 04	6mm 15%"	100mm 4"	1.0mm 0.04"	100mm 4"	6
T4810 05	7mm %√	125mm 5	1.0mm 0.04	100mm 4"	6
T4810 06	8mm Yur	150mm 6°	1.2mm 0.05	110mm 4%*	6
T4810 08	9mm "/u"	200mm 8"	1.2mm 0.05	120mm 4%*	6
T4810 10	10mm %"	250mm 10°	1.6mm 0.06	130mm 5'%"	6
T4810 12	12mm %	300mm 12"	2.0mm 0.08	130mm 51/4"	6



Screwdrivers - PZ

ISO 8764

Item Number	0	Ø	===	-==	0
T4513 0	PZ0	3.5mm %/	60mm 21/4"	70mm 2%"	6
T4813 1	PZ1	5mm 1/16"	80mm 31%"	90mm 31/-	6
T4987 1	PZ1	5mm %-	250mm 10°	100mm 4"	8
T4813 2	PZ2	6mm %/4"	100mm 4"	100mm 4"	6
T4987 2	PZ2	6mm *%/	250mm 10°	110mm 41/6"	6
T4813 3	PZ3	8mm %c	150mm 6	110mm 4'4"	6
T4813 4	PZ4	10mm %"	200mm 8"	120mm 4W*	6







Screwdrivers - PH

ISO 8764

Item Number	0	Ø	==	-==	0
T4812 0	PHO	3,5mm %4"	65mm 21/5"	70mm 2%*	6
T4812 1	PH1	5mm %="	80mm 3%"	90mm 31/1"	6
T4977 1	PH1	5mm %."	250mm 10"	100mm 4"	6
T4812 2	PH2	6mm 1941	100mm 4"	100mm 4"	6
T4977 2	PH2	6mm */w*	250mm 10"	110mm 41/4"	6
T4812 3	PH3	8mm 1/4"	150mm 6"	110mm 41/5"	6
T4812 4	PH4	10mm 3/6	200mm 8"	120mm 4%*	6



Item Number	•	===	•	-=	0
T4965 03	3mm %*	75mm 3"	0.5mm 0.02"	70mm 2W	6
T4975 06	3mm %"	150mm 6"	0.5mm 0.02	80mm 31/4"	6
T4975 08	3mm %"	200mm 8"	0.5mm 0.02"	80mm 31%"	6
T4965 04	4mm %=	100mm 4"	0.8mm 0.03"	80mm 3'4"	6
T4975 10	4mm %/	250mm 10"	0.8mm 0.03	80mm 31/4"	6
T4965 05	4.5mm "%"	125mm 5"	0.8mm 0.03	80mm 31/4"	6
T4965 06	5mm 1/4°	150mm 6°	0.8mm 0.03"	90mm 31/6"	6
T4965 08	6mm "% ₁ "	300mm 12"	0.8mm 0.03	90mm 31/7	6
T4965 12	6mm "%4"	300mm 12"	0.8mm 0.03°	90mm 31//"	6





Screwdrivers -Stubby slotted

DIN 5264, ISO 2380-2

Item Number	=	===	•	-=	0
T4814 25	6.5mm ¼"	25mm 1"	1.2mm 0.05"	60mm 2%*	6
T4814 31	8mm 1/4"	25mm 1"	1.2mm 0.05	60mm 2%"	8





SCREWDRIVERS





Screwdrivers - Slotted flared

ISO2380, DIN 5264

Item Number	•	===	0	-=	0
T49110-040	4,0mm %/	75mm 3"	0.8mm 0.031°	107mm 41/6	6
T49110-055	5.5mm %/	100mm 4"	1.0mm 0.039	120mm 4%	6
T49110-065	6.5mm W	150mm 6"	1.2mm 0.047	120mm 4%*	6
T49110-100	10.0mm %	200mm 8"	1.6mm 0.063"	135mm 5W/	6



Screwdrivers - PZ

ISO 8764

Item Number	0	Ø	===	-=	0
T49113-0	P20	3.5mm %u"	60mm 2%"	95mm 3%"	6
T49113-1	PZ1	5.0mm %="	75mm 3	107mm 41/6"	6
T49113-1250	PZ1	5.0mm %/	250mm 10"	107mm 41/ ₁₀ *	6
T49113-2	PZ2	6.0mm "%"	150mm 6	120mm 4%°	6
T49113-2250	P22	6.0mm %6°	250mm 10"	120mm 4%*	6
T49113-3	PZ3	8.0mm 1/v"	150mm 6"	135mm 51/4"	6



Screwdrivers -

Slotted parallel

ISO 2380-2, DIN 5264

Item Number	=		•	-==	0
T49125-025	3.0mm %	75mm 3"	0.4mm 0.061*	95mm 3W	6
T49125-030	3.0mm 'W"	75mm 3"	0.5mm 0.020°	95mm 3%"	6
T49125-03025	3.0mm W*	250mm 10°	0.5mm 0.020°	95mm 3%*	6
T49125-035	3.5mm 1/w"	100mm 4"	0.6mm 0.024"	95mm 3%*	6
T49125-040	4.0mm %/°	125mm 5"	0.8mm 0.031°	107mm 41/u"	6
T49125-055	5.5mm 1/w"	150mm 6"	1.0mm 0.039*	120mm 4%*	6



Screwdrivers - PH

ISO 8764

Item Number	+	Ø	===	===	0
T49112-0	PHO	3.5mm %/	60mm 2%*	95mm 3%*	6
T49112-1	PH1	5.0mm %/	80mm 3%*	107mm 41/6"	6
T49112-1250	PH1	5.0mm 1/m"	250mm 10"	107mm 41/2°	6
T49112-2	PH2	6.0mm 15%*	100mm 4"	120mm 4%*	6
T49112-2250	PH2	6.0mm 1%4"	250mm 10"	120mm 4%"	6
T49112-3	PH3	8.0mm 1/w"	150mm 6	135mm 51/4"	6





Screwdrivers - TX

Item Number	0	Ø	===	-==	0
T49117-06	T 06	3.0mm W	70mm 2%*	95mm 3%*	6
T49117-07	T 07	3.0mm 1/4"	70mm 2%*	95mm 31/1"	6
T49117-08	T 08	3.0mm 'W'	70mm 2%"	95mm 3%"	6
T49117-09	T 09	3.0mm W	70mm 2%*	95mm 3%"	6
T49117-10	T 10	3.0mm 16°	80mm 31/6"	107mm 4½/	6
T49117-15	T 15	3.5mm %/	80mm 316"	107mm 4%/	6
T49117-20	T 20	4.0mm %/	90mm 31//°	107mm 41/6"	6
T49117-25	T 25	4.5mm "%u"	90mm 31/6"	107mm 41/6"	6
T49117-27	T 27	5.5mm 1/u*	110mm 4%*	120mm 4%*	6
manager and	100.00				1100

















SCREWDRIVERS

DEXTRO VDE



Ø

3.5mm %4"

5.0mm 1/w"

6.0mm 15%4"

8.0mm 1/16"

60mm 2%

80mm 31/4"

100mm 4"

150mm 6"

95mm 3%"

107mm 47/ul

120mm 4%"

135mm 5% "



VDE Screwdrivers -

Slotted parallel



VDE0682/201, ASTM-F 1505, EN 60900, ISO 2380-2, DIN 5264

Item Number	. ≘	===	•	-==	0
T49144-025	2.5mm 1/12"	75mm 3°	0.4mm 0.016°	95mm 3%"	6
T49144-030	3.0mm 1/4"	100mm 4"	0.5mm 0.020°	95mm 3%"	6
T49144-035	3.5mm %4"	100mm 4"	0.6mm 0.024°	95mm 31/4"	6
T49144-040	4.0mm 1/10"	100mm 4"	0.8mm 0.031"	107mm 41/w"	6
T49144-055	5.5mm 1/12"	125mm 5	1.0mm 0.039°	120mm 4%"	6
T49144-065	6.5mm W	150mm 6"	1.2mm 0.047	120mm 4%	6
T49144-080	8.0mm %°	175mm 7"	1.2mm 0.047"	135mm 5%°	6
T49144-100	10.0mm =%4"	200mm 8"	1.6mm 0.063*	135mm 5%e"	6





VDE Screwdriver -

Modulo

Item Number

T49142-0

T49142-1

T49142-2

T49142-3



VDE Screwdrivers - PH

VDE0682/201, ASTM-F 1505, EN 60900, ISO 8764

0

PHO

PH1

PH2

PH3









VDE Screwdrivers - PZ

VDE0682/201, ASTM-F 1505, EN 60900, ISO 8764



Item Number	0	Ø	===	-==	0
T49143-0	PZ0	3.5mm %/	60mm 2%"	95mm 3%*	6
T49143-1	PZ1	5.0mm % =	80mm 31/6"	107mm 47/sc*	6
T49143-2	PZ2	6.0mm *%*	100mm 4"	107mm 41/1/2"	6
T49143-2200	PZ2	6.0mm 15/u*	200mm 8"	120mm 41/4"	6
T49143-3	PZ3	8.0mm 1/w"	150mm 6"	135mm 51/6"	6

CONTENTS: 1 x modulo, sizes: 1 x 80 & 2 x 100mm.



VDE Screwdriver set -

Modulo

VDE0682/201, ASTM-F 1505, EN 60900



Item Number	0	Ø
T49146	182	1





LOCKS

Padlocks

Kasp offers a range of quality padlocks suitable for general domestic applications through to demanding industrial requirements.

















120 Brass padlocks

The Kasp 120 series is a range of general purpose solid brass padlocks featuring a chrome plated hardened steel shackle. 10 year guarantee.

Item Number	0	*	<u>m</u> :	⁶³ O	i	To tree	-0
K12020D	2	20mm	3mm	12mm	(1) (P)	/	-
K12025D	2	25mm	4mm	14mm	9999	1	-
K12030D	3	30mm	Smm.	17mm	9999	1	-
K12040D	3	40mm	6mm	23mm	199 19 19 199	1	-
K12050D	- 6	Somm	8mm	30mm	多三分目	1	
K12060D		60mm	9.5mm	35mm	の間の間の	1	-
K12025A1	2	25mm	Amm	3.4mm	9999	1	
K12030A1	3	30mm	5mm	17mm	999	1	
K12040A1	3	40mm	6mm	23mm	中中国金丽	/	
K12050A1		50mm	amm	30mm	金属分画	/	
K12060A1		60mm	9.5mm	35mm	多数多国品	1	



Item Number	Ð	<u></u>	in!	filipa	i	€ _c m	-5
K12040L55D	4	40mm	Gmm	55mm	中国中国中国	1	-
K12040L55A1	4	.40mm	6mm	55mm	中中国中国	1	

COMPLETE RANGE AVAILABLE ON REQUEST





FILIKE







Instantly trend and monitor intermittent problems with TrendIt graphs.



Wirelessly save measurements directly from your test tools into work ordersonly available with Fluke Connect®

Fluke Connect

An integrated system of wireless test tools and asset management software.

Preventive maintenance simplified. Rework eliminated.

Save time and improve the reliability of your maintenance data by wirelessly syncing measurements using the Fluke Connect ${\tt ®}$ system .

- Eliminate data-entry errors by saving measurement data directly from the tool and associating it with the work order, report or asset record
- Maximize uptime and make confident maintenance decisions with data you can trust and
- · Access baseline, historical and curent measurements by asset
- · Move away from clipboards, notebooks and multiple spreadsheets with a wireless one-step measurement transfer
- Share your measurement data using ShareLive video calls and emails

Fluke Connect enabled products include:

Current meters Digital multimeters Installation testers Portable oscilloscopes Temperature meters Voltage meters Vibration meters Process tools Infrared cameras







Sign up for your free trial at: flukeconnect.com/freetrial

WiFi or cellular service is required to share data . Smart phone, wireless service and data plan not included with purchase . First 5 GB of storage is free. Phone support details can be viewed at fluke .com/phones.

Free Trial Terms: Open to those 18 years or older (or the age of majority under applicable law, whichever is older). Free trial is for a limited duration and is offered for a limited time. Void where prohibited by law. Terms and conditions are available upon registration.

Screens adjusted slightly to accommodate print. Smartphone is not included with purchase.

Within your providers wireless service area and subject to your plans pricing and other terms . Fluke Connect is not available in all countries. Some Fluke Connect features require a subscription subject to payment terms and may not be available in all countries.





DIGITAL MULTIMETERS

Fluke 170 Series Digital Multimeters

Maintenance experts can find most electrical and HVAC problems

The Fluke 170 Series True-rms Multimeters is simple to use with significant improvements over the original Fluke 70 Series.

Wide 1000 V measurement range

True-rms for precise measurement of non-linear signals

Capacitance, resistance, continuity and frequency

Built-in thermometer (Fluke 179 only)

Backlight for work in dimly lit areas (Fluke 177 and 179 only)

Min/Max/Avg to record signal fluctuations

Display hold and auto hold

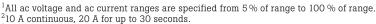
Manual and automatic ranging

Basic dc accuracy (179/0.09 %, 177/0.09 %, 175/0.15 %)

Also available: 177 with true-rms and backlight and 175 with true-rms

Specifications

DC voltage	600.0 mV, 6.000 V, 60.00 V, 600.0 V, 1000 V	± 0.09% (Models 177 and 179) ± 0.15% (Model 175)
AC voltage1	600.0 mV, 6.000 V, 60.00 V, 600.0 V, 1000 V	± 1.0 % of reading
DC current	60.00 mA, 400.0 mA, 6.000 A, 10.00 A ²	± 1.0% of reading
AC current ²	60.00 mA, 400.0 mA, 6.000 A, 10.00 A ²	± 1.5% of reading
Resistance	600.0 N, 6.000 kN, 60.00 kN, 600.0 kN, 6.000 MN, 50.00 MN	± 0.9% of reading
Capacitance	1000 ոF, 10.00 μF, 100.0 μF, 9999 μF	± 1.2 % of reading
$Frequency^3$	99.99 Hz, 999.9 Hz, 9.999 Hz, 99.99 kHz	± 0.1 % of reading
Temperature (179 only)	-40 °C to +400 °C (-40 °F to +752 °F)	1.0% of reading
Battery life	200 hours typical for a	ılkaline
Dimensions (HxWxL)	4.3 cm x 9.0 cm x 18.5 cm (1.7 ir	1 x 3.5 in x 7.3 in)



Ordering information

Included accessories
Test leads, temperature probe, 9 V battery (installed), manual
Test leads, 9 V battery (installed), manual
Test leads, 9 V battery (installed), manual



















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TLK-225 SureGrip Master Accessory Set









 $^{^3}$ Voltage frequency is specified from 2 Hz to 100 kHz. Current frequency is specified from 2 Hz to 30 kHz .

DIGITAL MULTIMETERS























Fluke 289 and 287 True-rms Logging Multimeters

Find little problems before they become big ones

The Fluke 289 and 287 are high performance industrial logging multimeters. The large 50,000 count, 1/4 VGA dot matrix display and multiple on screen displays give you sharp, clear readings. Use the logging function with expanded memory for unattended monitor ing of signals over time. With on-board TrendCapture, you can graphically review up 10,000 recorded events and logged readings. Then, zoom on trend provides an unprecedented ability to zoom in up to 14 times to view and analyze dataall without needing a PC

Two terminal 50 ohm range with 1 milliohm resolution, 10 mA source current. Useful for measuring and comparing differences in motor winding resistance or contact resistance (289)

Low-pass filter for accurate voltage and frequency measurements on adjustable speed motor drives and other electrically noisy equipment (289)

Add the wireless data logging capabilities of Fluke Connect® with Share-Live video call with the if3000 FC connector

True-rms ac bandwidth 100 kHz; dBV/dBm; dc mV resolution 1 µV; Megohm range up to 500 MΩ

Conductance 50.00 nS

Min/Max/Avg/duty cycle/pulse width

Isolated optical DMM interface with USB PC connection

Over 200 hours logging capacity with new power saving function

Lo Ohm capability; Lo Z volts; Lo Pass Filter

Specifications

precincations		
Functions	Range and resolution	Basic accuracy
AC or dc voltage	50.000 mV, 500.00 mV, 5.0000 V, 50.000 V, 500.00 V, 1000.0 V	0.025 % 0.4 % (true-rms) (ac)
AC current dc current	500.00 µA, 5000.0 µA, 50.000 mA, 400.00 mA, 5.0000 A, 10.000 A	0.15 % 0.7 % (true-rms)
Temperature (excluding probe)	-200.0 °C to 1350.0 °C (-328.0 °F to 2462.0 °F)	1.0%
Resistance	50.000 Ω, 500.00 Ω, 5.0000 kΩ, 50.000 kΩ, 500.00 kΩ, 5.0000 MΩ, 50.00 MΩ, 500.0 MΩ	0.05 %
Capacitance	1.000 nF,10.00 nF, 100.0 nF, 1.000 μF, 10.00 μF, 100.0 μF, 1000 μF, 10.00 mF, 100 mF	1.0 %
Frequency	99.999 Hz, 999.99 Hz, 9.9999 kHz, 99.999 kHz, 999.99 kHz	.005%

Ordering information

Models	Included accessories
FLUKE-289 True-rms Industrial Logging Multimeter with TrendCapture	Test leads, alligator clips, holster, AA batteries installed, information packet
FLUKE-287 True-rms Electronics Logging Multimeter with TrendCapture	Test leads, alligator clips, holster, AA batteries installed, information packet

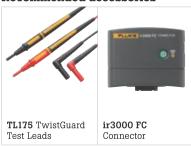




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Recommended accessories







CLAMP METERS









Unprecedented measurement flexibility

The Fluke 370 FC Series clamp meters offer advanced troubleshooting performance plus Fluke Connect features to log and transmit data wirelessly.

Now you are able to log and trend measurements (the 376 FC and 375 FC have internal memory for up to 65,000 measurements), capture measurements outside the arcflash zone with Bluetooth® connectivity to your Apple® or Android® devices, transmit results wirelessly via the Fluke Connect Measurements app, and create and send reports right from the field .

The Fluke 370 FC Series Clamp Meters have a large backlit display, true-rms standard, CAT IV safety rating and a durably constructed body. Additionally, the 376 FC, 375 FC and 374 FC are compatible with the iFlex ${\tt I\!B}$ Flexible Current Probe that measure up to 2500a ac .

Ordering information

Models	Included accessories
FLUKE-373 True-rms Wireless AC Clamp Meter	Test leads, soft carrying case, instruction card, safety information sheet, two AA alkaline batteries.
FLUKE-374 FC True-rms Wireless AC/DC Clamp Meter	Test leads, soft carrying case, instruction card, safety information sheet, two AA alkaline batteries.
FLUKE-375 FC True-rms Wireless AC/DC Clamp Meter	Test leads, soft carrying case, instruction card, safety information sheet, two AA alkaline batteries.
$\begin{tabular}{ll} FLUKE-376 FC \ \ True-rms \ \ Wireless \ AC/DC \ \ Clamp \ \ Meter \\ with \ \ iFlex \end{tabular}$	18-inch (45.7 cm) iFlex flexible current probe, test leads, TPAK magnetic hanging strap, soft carrying case, instruction card, safety information sheet, two AA alkaline batteries.

Find how-to videos, application notes, and other useful resources on the clamp meter product pages on www.fluke.com





Go to work with the best

The small and rugged 320 Series True-rms Clamp Meters are the best general troubleshooting tools for commercial and residential electricians and are designed to verify the presence of load current, ac voltage and continuity of circuits, switches, fuses and contacts . The Fluke 325 also offers dc current and frequency measurements.

400 A ac current measurement (ac and dc current; 325 only) and 600 V ac and dc voltage measurement

Resistance measurement to up to 40 k Ω (325) and 4 k Ω (323 and 324) with continuity CAT IV 300 V/CAT III 600 V safety rating











Models	Included accessories
FLUKE-325 True-rms Clamp Meter	Test leads, temperature probe, soft case and users manual
FLUKE-324 True-rms Clamp Meter	Test leads, temperature probe, soft case and users manual
FLUKE-323 True-rms Clamp Meter	Test leads, soft case and users manual



Recommended accessories





Fluke 320 Series

TL175 TwistGuard Test Leads



L210 Probe Light and Extender





DISTANCE METERS

Fluke 424D, 419D and 414D Laser Distance Meters

Measure farther, with greater accuracy, in more situations

The Fluke family of laser distance meters are essential tools in the tool bag. They provide, instant and accurate measurements up to \pm 1 mm with no scales to interpret or misread . Just point, click, done. The 424D has an inclination sensor that helps with leveling, height tracking and, measuring around obstacles. Find area and volume, easily add and subtract distances and calculate height. Easily measure hard-to-access areas without climbing a ladder and without the need for a helper.

Specifications

Fluke 424D	Fluke 419D	Fluke 414D
100 m (330 ft)	80 m (260 ft)	50 m (165 ft)
± 1 mm (± 0.04 in)	± 1 mm (± 0.04 in)	± 2 mm (± 0.08 in)
5000	5000	3000
Full	Full	1+2
20 complete displays	20 complete displays	5 results
		Yes(Pyth)
4 line	3 line	2 line
	100 m (330 ft) ± 1 mm (± 0.04 in) 5000 Full 20 complete displays	100 m (330 ft) 80 m (260 ft) ± 1 mm (± 0.04 in) ± 1 mm (± 0.04 in) 5000 5000 Full Full 20 complete displays 20 complete displays













Models	Included accessories
Fluke 424D Laser Distance Meter	Two AAA batteries, users manual on CD, quick reference guide, vinyl carrying pouch, and three-year warranty
Fluke 419D Laser Distance Meter	Two AAA batteries, users manual on CD, quick reference guide, vinyl carrying pouch, and three-year warranty
Fluke 414D Laser Distance Meter	Two AAA batteries, users manual on CD, quick reference guide, vinyl carrying pouch, and three-year warranty



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EARTH GROUND TESTERS







Selection guide

	1630	1621	1623-2	1625-2
2-Pole (ac) resistance measurement				
3-Pole earth measurement				
Measurement frequency128 Hz				
4-Pole earth ground and soil resistivity measurement				
Selective testing				
Stakeless testing (ground loop resistance)				
Memory				
USB port				
Automatic Frequency Control (AFC) 94 Hz to 128 Hz				
R* measurement				
Adjustable limits				

Fluke 1625-2 and 1623-2 Geo Earth Ground Testers

Simpler, faster testing

Grounding testers, like the Fluke 1623-2 and 1625-2, help maintain uptime and lower the risk of electric shock to users while helping solve intermittent power quality problems. The Fluke earth ground testers perform all four essential earth ground test methods that users demand:

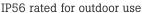
3- and 4-pole Fall of Potential, earth resistance loop testing

4-pole soil resistivity testing

Selective earth ground testing using one clamp

Stakeless earth ground testing using two clamps

The 1623-2 and 1625-2 also make earth grounding tests faster and easier than previous methods because of automatic data collection and storage and faster setup . Color coded wires for easier identification and deploying of wire reels and stakes .



USB data storage and transfer

Automatic Frequency Control (AFC)identifies existing interference and chooses a measurement frequency to minimize its effect, providing more accurate earth ground value R^* measurement calculates earth ground impedance at 55 Hz to more accurately reflect the earth ground resistance that a fault-to-earth ground would see

Adjustable limits for quicker testing





Faster setup, easier testing and deployment of wire reels and stakes.

Clamp-on transformer accessory for ground loop measurements on transmission pylons.

Models	Included accessories	
FLUKE-1625-2 Advanced GEO Earth Ground Tester	Two test leads, USB cable, batteries, quick reference guide, users manual	
FLUKE-1623-2 Basic GEO Earth Ground Tester	Two test leads, USB cable, batteries, quick reference guide, users manual	
FLUKE-1625-2 KIT Advanced GEO Earth Ground Tester Kit	Two test leads, USB cable, 2 clamps (1 source, 1 sensing), carrying case, 4 earth ground stakes, 3 color coded cable	
FLUKE-1623-2 KIT Basic GEO Earth Ground Tester Kit	reels, batteries, quick reference guide, users manual	

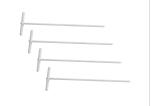
These products are for unpowered installations measuring grounding connections .

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Fluke 1625-2 Kit



ES-162P4-2 Stake/reel set for 4-pole measurement

Recommended accessories







EI-162BN 320 mm (12.6 in) Split Core Transformer for use with Fluke 1625-2





INSULATION TESTERS



Fluke 1587 FC/1577 Insulation Multimeters

The High-Performance 2-in-1 Insulation DMM

The Fluke 1587 FC and 1577 Insulation Multimeters combine a digital insulation tester with a full-featured, true-rms digital multimeter in a single compact, handheld unit, which provides maximum versatility for both troubleshooting and preventive maintenance.

The Fluke 1587 FC Insulation Multimeter adds four powerful new diagnostic functions through the Fluke Connect® Measurements app:

PI/DAR timed ratio tests with TrendIt graphs identifies moisture and contaminated insula tion problems faster

Memory storage through Fluke Connect eliminates writing down results, reduces errors and saves data for historical tracking over time

Temperature Compensation through app for establishing accurate baselines and relevant historical comparisons

Historical tracking and trending of assets identifies degradation over time, allows real-time decisions to be made in the field with Fluke Connect® Assets (sold separately)













Specifications

through Fluke Connect Measurements app Memory storage through Fluke Connect Measurements app Temperature Compensation through Fluke Connect Measurements app Insulation test voltages 50 V, 100 V, 250 V, 500 V, 1000 V Insulation test voltages 500 V, 1000 V Insulation resistance 0.01 MΩ to 2.0 GΩ 0.1 MΩ to 600 MΩ Auto-discharge of capacitive voltage Insulation test smoothing reading Frequency Capacitance Diode test Temperature Min/Max VFD low-pass filter for accurate motor drive measurements AC/DC voltage DC millivolts AC/DC milliamps Resistance 0.1 Ω to 50 MΩ 0.1 Ω to 50 MΩ Continuity			
through Fluke Connect Measurements app Memory storage through Fluke Connect Measurements app Temperature Compensation through Fluke Connect Measurements app Insulation test voltages 50 V, 100 V, 250 V, 500 V, 1000 V Insulation test voltages 500 V, 1000 V Insulation resistance 0.01 MΩ to 2.0 GΩ 0.1 MΩ to 600 MΩ Auto-discharge of capacitive voltage Insulation test smoothing reading Frequency Capacitance Diode test Temperature Min/Max VFD low-pass filter for accurate motor drive measurements AC/DC voltage DC millivolts AC/DC milliamps Resistance 0.1 Ω to 50 MΩ 0.1 Ω to 50 MΩ Continuity		1587 FC	1577
Temperature Compensation through Fluke Connect Measurements app Insulation test voltages 50 V, 100 V, 250 V, 500 V, 1000 V Insulation test voltages 500 V, 1000 V Insulation resistance O.01 MΩ to 2.0 GΩ O.1 MΩ to 600 MΩ Auto-discharge of capacitive voltage Insulation test smoothing reading Frequency Capacitance Diode test Temperature Min/Max VFD low-pass filter for accurate motor drive measurements AC/DC voltage DC millivolts AC/DC milliamps Resistance O.1 Ω to 50 MΩ O.1 Ω to 50 MΩ Continuity	PI/DAR timed ratio measurements with TrendIt graphs through Fluke Connect Measurements app		
Measurements app Insulation test voltages 50 V, 100 V, 250 V, 500 V, 1000 V	Memory storage through Fluke Connect Measurements app		
Insulation test voltages 500 V, 1000 V Insulation resistance 0.01 M Ω to 2.0 G Ω 0.1 M Ω to 600 M Ω Auto-discharge of capacitive voltage Insulation test smoothing reading Frequency Capacitance Diode test Temperature Min/Max VFD low-pass filter for accurate motor drive measurements AC/DC voltage DC millivolts AC/DC milliamps Resistance 0.1 Ω to 50 M Ω 0.1 Ω to 50 M Ω	Temperature Compensation through Fluke Connect Measurements app		
Insulation resistance $0.01 \ M\Omega$ to $2.0 \ G\Omega$ $0.1 \ M\Omega$ to $600 \ M\Omega$ Auto-discharge of capacitive voltage Insulation test smoothing reading Frequency Capacitance Diode test Temperature Min/Max VFD low-pass filter for accurate motor drive measurements AC/DC voltage DC millivolts AC/DC milliamps Resistance $0.1 \ \Omega$ to $50 \ M\Omega$ $0.1 \ \Omega$ to $50 \ M\Omega$	Insulation test voltages 50 V, 100 V, 250 V, 500 V, 1000 V		
Auto-discharge of capacitive voltage Insulation test smoothing reading Frequency Capacitance Diode test Temperature Min/Max VFD low-pass filter for accurate motor drive measurements AC/DC voltage DC millivolts AC/DC milliamps Resistance Continuity O.1 Ω to 50 MΩ O.1 Ω to 50 MΩ	Insulation test voltages 500 V, 1000 V		
Insulation test smoothing reading Frequency Capacitance Diode test Temperature Min/Max VFD low-pass filter for accurate motor drive measurements AC/DC voltage DC millivolts AC/DC milliamps Resistance O.1 \Omega to 50 M\Omega Continuity	Insulation resistance	0.01 M Ω to 2.0 G Ω	0.1 MΩ to 600 MΩ
Frequency Capacitance Diode test Temperature Min/Max VFD low-pass filter for accurate motor drive measurements AC/DC voltage DC millivolts AC/DC milliamps AC/DC milliamps Continuity O.1 Ω to 50 MΩ O.1 Ω to 50 MΩ Continuity O.1 Ω to 50 MΩ O.1 Ω t	Auto-discharge of capacitive voltage		
Capacitance Diode test Temperature Min/Max VFD low-pass filter for accurate motor drive measurements AC/DC voltage DC millivolts AC/DC milliamps Resistance Continuity O.1 Ω to 50 MΩ O.1 Ω to 50 MΩ	Insulation test smoothing reading		
Diode test Temperature Min/Max VFD low-pass filter for accurate motor drive measurements AC/DC voltage DC millivolts AC/DC milliamps Resistance Continuity O.1 Ω to 50 MΩ O.1 Ω to 50 MΩ	Frequency		
Temperature Min/Max VFD low-pass filter for accurate motor drive measurements AC/DC voltage DC millivolts AC/DC milliamps Resistance 0.1 Ω to 50 M Ω Continuity	Capacitance		
Min/Max VFD low-pass filter for accurate motor drive measurements AC/DC voltage DC millivolts AC/DC milliamps Resistance O.1 Ω to 50 MΩ O.1 Ω to 50 MΩ	Diode test		
VFD low-pass filter for accurate motor drive measurements AC/DC voltage	Temperature		
AC/DC voltage	Min/Max		
DC millivolts $AC/DC \ milliamps \\ Resistance \\ Continuity \\ \hline \\ D.1 \ \Omega \ to \ 50 \ M\Omega \\ \hline \\ O.1 \ \Omega \ to \ 50 \ M\Omega \\ \hline \\ O.1 \ \Omega \ to \ 50 \ M\Omega \\ \hline $	VFD low-pass filter for accurate motor drive measurements		
AC/DC milliamps	AC/DC voltage		
Resistance $0.1~\Omega$ to $50~\text{M}\Omega$ $0.1~\Omega$ to $50~\text{M}\Omega$	DC millivolts		
Continuity	AC/DC milliamps		
•	Resistance	0.1 Ω to 50 MΩ	0.1 Ω to 50 MΩ
Auto power off	Continuity		
r	Auto power off		
Warranty (years) 3 3	Warranty (years)	3	3

Ordering information

Models	Included accessories
FLUKE-1587 FC Insulation Multimeter	Remote probe, test leads, alligator clips, K-type thermocouple, hard case, users documentation
FLUKE-1577 Insulation Multimeter	Remote probe, test leads, alligator clips, hard case, users documentation

Troubleshooting efficiency and maximum versatility while testing motors and VSDs accurately with Low-Pass filter.



Kitsbuy more, save more



Fluke 1587 KIT/62MAX+ FC Advanced Electrical Troubleshooting Kit



Fluke 1587/MDT FC Advanced Motor and Drive Troubleshooting Kit



Recommended accessories

TLK289 Industrial Master Test Lead Set









INSULATION TESTERS

Fluke 1507 and 1503 Insulation Resistance Testers

The quality, durability, and convenience you need

These lightweight, affordable insulation testers are perfect for troubleshooting, commissioning and preventive maintenance applications.

Automatic calculation of polarization index and dialectric absorption ratio (1507 only)

Multiple test voltages: 50 V, 100 V, 250 V, 500 V, 1000 V (1507 only)

Remote test probe for rapid testing

Insulation test range 0.01 M Ω to 10 G Ω (1507), 0.1 M Ω to 2 G Ω (1503)

Compare (Pass/Fail) function for repetitive tests (1507 only)

Live circuit detection prevents insulation test if voltage > 30 V is detected

Auto-discharge of capacitive voltage

AC/DC voltage: 0.1 V to 600 V

Lo ohms/Earth-bond continuity (200 mA) for checking connections and motor windings

Resistance: 0.01 Ω to 20.00 k Ω

Specifications

	1507	1503	
Insulation test voltages 50 V, 100 V, 250 V, 500 V, 1000 V			
Insulation test voltages 500 V, 1000 V			
Insulation resistance	0.01 MΩ to 10 GΩ	0.1 MΩ to 2 GΩ	
Auto-discharge of capacitive voltage			
Continuity function	200 mA acc	200 mA acc. EN 61557-4	
Resistance	0.1 Ω to 20.00 kΩ	0.1 Ω to 20.00 kΩ	
Auto power off			
Warranty (years)	1	1	
	•	•	

Ordering information

Models	Included accessories
FLUKE-1507 Insulation Tester	Remote probe, silicone test leads, test probes, large alligator clips, holster, users manual
FLUKE-1503 Insulation Tester	Remote probe, silicone test leads, test probes, large alligator clips, holster, users manual

















Magnetic Meter Hanger frees up both hands to focus on making measurements safely.

Check connections and motor windings with Lo ohms/earth-bond continuity test.



Recommended accessories



TLK289 Industrial Master Test Lead Set



TL27 Heavy Duty Test Lead Set



C116 Soft Carrying Case



C101 Hard Case





POWER QUALITY AND ENERGY TOOLS



Fluke 430-II Series Three-Phase Power Quality and Motor Analyzers



Locate, predict, prevent power quality problems

The Fluke 434-II, 435-II, 437-II and 438-II help troubleshoot power quality problems in three-and single-phase power distribution systems. The Fluke patented energy loss algorithm, Unified Power Measurement, measures, quantifies and monetizes energy losses due to harmonics and unbalance issues, allowing the user to pinpoint the origin of energy waste within a system

Capture fast rms data in real time with PowerWave data capture; show single cycle rms value to characterize electrical system dynamics (generator start-ups, UPS switching etc.) Measure key parameters on direct-on-line motors including torque, RPM, mechanical power and motor efficiency (438-II, or with 430-II/MA upgrade option)

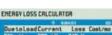
CAT IV 600 V/CAT III 1000 V rated for use at the service entrance

Automatic transient mode; capture 200 kHz waveform data on all phases simultaneously up to 6 kV for 435-II and 437-II

Conduct tests according to the stringent international IEC 61000-4-30 Class-A standard intervals for 435-II and 437-II

With included four iFlex flexible current probes, measure all three phases and neutral Download data wirelessly with the Fluke Connect® SD Card (not included with the INTL) Three-year warranty





Duetolea	dCurrent	Loss C	ost/mo
	323 MI		966
	164 kvar		100
Unbelance	170 kUR		166
Distortion	598 MAR	2.52 W	***
	51.7 kB	3.08 U	6.225
Line loss		3.66 MU	5708
-			-

Ordering information

Models	Included accessories
FLUKE-434-II Three-Phase Energy Analyzer	
FLUKE-435-II Three-Phase Power Quality and Energy Analyzer	Four thin flexible current probes, five test leads and clips, battery charger, Power Log software, USB cable, color localization set, soft
Fluke-438-II Three-Phase Power Quality and Motor Analyzer	carrying case, 8GB WiFi SD memory card, users manual on CD
FLUKE-437-II 400 Hz Three-Phase Power Quality and Energy Analyzer	Four thin flexible current probes, five test leads and clips, battery charger, Power Log software, USB cable, color localization set, hard carrying case with wheels, 8GB WiFi SD memory card, users manual on CD
Fluke-430-II/MA 430-II Motor Analyzer Upgrade Kit	Firmware license code



Fluke 1730 Three-Phase Electrical Energy Logger

Find sources of energy waste

The Fluke 1730 Three-Phase Electrical Energy Logger introduces a new simplicity to discovering sources of electrical energy waste. Profiling energy usage across your facility helps you identify opportunities for energy savings and provides you with the easy-to-understand data. The Fluke 1730 Energy Logger can be used for conducting energy surveys that require both a voltage and current connection . Load studies that require a current connection only for evaluating electrical demand capacity can also be performed .

Quickly understand specific points of energy loss, reduce energy bills more easily than ever Optimized layout with specialized touch screen makes navigation easyeven with gloves on Advanced auto-correct feature eliminates costly errors due to improper connections Power directly from the measured voltage line (up to 500 V) or with conventional ac power cord



Models	Included accessories
1730/BASIC Three-Phase Electrical Energy Logger (excludes current probes)	Power supply, voltage test lead, dolphin clip, i1730-flex 1500 iFlex Flexible Current Probes,
1730/US Portable Energy Logger US version	color-coded wire clips, power cord, test lead set with stackable plugs, dc power cable(s), USB cable
1730/EU Portable Energy Logger EU version	A, mini USB, soft storage bag, input connector decal, information packet. Software included
1730/INTL Portable Energy Logger ITNL version	Software included (FEA, Fluke Energy Analyze)
FLUKE-1735 Three-Phase Power Logger	Four flexible current probes (15 A/150 A/3000 A), Power Log software, voltage leads and clips, color localization set, PC interface cable, international ac adapter (115 V/230 V, 50 Hz/60 Hz), soft carrying case, users manual, multi-language manual on CD





PROCESS CALIBRATION TOOLS







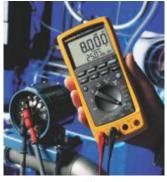












Fluke 789 ProcessMeter is two tools in one, a CAT IV 600V safety rated DMM and a full functioning mA loop calibrator. Perfect for instrumentation and I and E technicians.



Fluke 789 and 787 ProcessMeter Test Tools

Combine the functionality of a loop calibrator with the power of a digital multimeter

Fluke 789 ProcessMeter

The Fluke 789 ProcessMeter is the ultimate troubleshooting tool for process technicians. Add the wireless data logging capabilities of Fluke Connect® with ShareLive video call, and process technicians can do a lot more while carrying a lot less .

Unique new wireless measurement logging capability

24 V loop power supply

HART mode setting with loop power (adds 250 ohm resistor)

20 mA drive into 1200 ohms

0% to 100% mA Span Check buttons to toggle between 4-20 mA

Infrared I/O serial port compatible with FlukeView® Forms Software

Fluke 787 ProcessMeter

Simultaneous mA and % of scale readout on mA output 25 % Manual Step plus Auto Step and Auto Ramp on mA output Min/Max/Avg/Hold/Relative modes

Specifications

Measurement function	Best accuracy range and resolution	(% of reading + LSD)
V dc	400.0 mV, 4.000 V, 40.00 V, 400.0 V, 1000 V	0.1 % + 1
V ac (true-rms)	400.0 mV, 4.000 V, 40.00 V, 400.0 V, 1000 V	0.7 % + 2
mA dc	30.000 mA	.05% + 2
A dc	1.000 A (0.440 A continuous)	0.2 % + 2
A ac	1.000 A (0.440 A continuous)	1% + 2
Resistance	400.0 Ω, 4.000 kΩ, 40.00 kΩ, 400.0 kΩ, 4.000 MΩ, 40.00 MΩ	0.2% + 1
Frequency (0.5 Hz to 20 kHz)	199.99 Hz, 1999.9 Hz, 19.999 kHz	0.005% + 1
Diode test	789: 2.000 V (shows diode voltage drop) 787: 2.400 V (shows diode voltage drop)	2 % + 1
Continuity	Beeps for resistance < approx. 100 ohms	
Output function	Range and resolution	Drive capability Accuracy

Continuity	Beeps for resistance < approx. 100 ohms		
Output function	Range and resolution	Drive capability	Accuracy (% of span)
DC current output-source mode (internal battery operation)	0.000 mA to 20.000 mA or 4.000 mA to 20.000 mA (selectable at power-up) Over-range to 24.000 mA	789: 24 V compliance or, 1,200 ohms, @ 20 mA 787: 12 V compliance or, 500 ohms, @ 20 mA	0.05%
DC current output-simulate mode (external 24 V loop supply, up to 48 V on 789 only)	0.000 mA to 20.000 mA or 4.000 mA to 20.000 mA, (selectable at power-up) Over-range to 24.000 mA	1000 ohms, @ 20 mA	0.05%
24 V loop supply	789: Minimum 24 V, 787: Not available	250 ohms @ 20 mA	> 24 V
Current adjustment modes	Manual: coarse, fine, 25 % and 100 % Automatic: slow ramp, fas		nly)

	Traction brown and property and training, no 70 brown	
General specifications		
Temperature range	18 °C to 28 °C for one year after calibration	
Maximum voltage	1000 V rms (applied between any jack and earth ground)	
Temperature	-40 °C to 60 °C (storage); -20 °C to 55 °C (operating)	
Relative humidity	95 % up to 30 °C; 75 % up to 40 °C; 45 % up to 50 °C; 35 % up to 55 °C	
Safety	IEC 61010-1: 600 V CAT IV / 1000 V CAT III	
Size (HxWxL)/weight (787 w/ holst	er) 52 mm x 98 mm x 201 mm (2.06 in x 3.86 in x 7.93 in)/638 g (1.4 lb)	
Size (HxWxL)/weight (789)	50 mm x 100 mm x 203 mm (1.97 in x 3.94 in x 8.00 in)/600 g (1.3 lb)	
Warranty	Three-year	

Models	Included accessories	
FLUKE-789 ProcessMeter	Test leads, alligator clips, 4 AA alkaline batteries (installed), quick reference guide, users manual, multi-language manual CD	
FLUKE-787 ProcessMeter	Test leads, alligator clips, holster with test lead storage, one 9 V alkaline battery (installed), quick reference guide, users manual, multi-language manual CD	





INFRARED TOOLS



Fluke Performance Series: TiS75/65/60/55/50/45/40/20/10



Easy-to-use frontline troubleshooting

Easily see potential problems with precisely blended IR and visual images with a 5MP visual camera, up to 320×240 resolution, and a large 3 .5 inch LCD. Get precise focus as close as 15 cm (6 in) with manual focus.

With up to 320×240 resolution, you can see more detail in every image, even from a distance detail that could indicate a potential issue

Get the context of the visual and infrared details all in one precisely blended or picture-in-picture image with IR-Fusion \$ technology l

Reduce the amount of time it takes to get an in focus image with manual or fixed focus options

Make decisions in real timewirelessly sync images from your camera, create and email reports all with your smart phone and the Fluke Connect $^{\circledR}$ App .

Wirelessly connect to other Fluke Connect tools and pull in other measurements types like electrical and vibration into your thermal image.

Removable 4GB micro SD card

Digitally document critical information with your infrared image using IR-PhotoNotes or voice annotation³

Monitor battery charge and avoid unexpected loss of power with the smart battery with LED charge indicator

"IR-Fusion" and picture-in-picture mode execution varies by model
"Within your providers wireless service area: Fluke Connect" is not
available in all countries. Subscription to Fluke Connect® Assets is
required in order to the safether asset management and work order function



Inspect industrial components.

Designed for your environment.



Models	Included accessories
FLK-TiS75 30HZ Industrial Commercial Infrared Camera	
FLK-TiS75 9HZ Industrial Commercial Infrared Camera	
FLK-TiS65 30HZ Industrial Commercial Infrared Camera	
FLK-TiS65 9HZ Industrial Commercial Infrared Camera	
FLK-TiS60 9HZ Industrial Commercial Infrared Camera	Universal AC power adapter, lithium ion smart battery (TiS75, TiS65/60 includes 2 eachother models 1 each),
FLK-TiS55 30HZ Industrial Commercial Infrared Camera	USB cable, Micro SD card (TiS75, TiS65/60, TiS55/TiS50,
FLK-TiS55 9HZ Industrial Commercial Infrared Camera	TiS45), hard carrying case (TiS75, TiS65/60, TiS55/50, TiS45/40), soft transport bag, adjustable hand strap
FLK-TiS50 9HZ Industrial Commercial Infrared Camera	(TiS75, TiS65/60, TiS55/50, TiS45/40) and quick start quide. TiS75, TiS65/60 models include a two-bay battery
FLK-TiS45 30HZ Industrial Commercial Infrared Camera	charger.
FLK-TiS45 9HZ Industrial Commercial Infrared Camera	
FLK-TiS40 9HZ Industrial Commercial Infrared Camera	
FLK-TiS20 9HZ Industrial Commercial Infrared Camera	
FLK-TiS10 9HZ Industrial Commercial Infrared Camera	





50 % blending, picture-in-picture mode Picture-in-Picture.







VISUAL IR THERMOMETERS

Fluke VT04/VT04A Visual IR Thermometer

Designed to see it all

See issues in context by blending the infrared heat map with a visual image, and get the detail you need by choosing one of five on-screen blending modes . See aligned images from as close as 15 cm (6 in) in near mode or from a distance in far mode . Plus, obtain accurate temperature readings without taking your eyes off the screen . The center measurement box shows the exact area of temperature measurement. Fill that center box with your target and rest assured youJre not measuring the background.

Identify intermittent problems by monitoring equipment over time or get alerts when a temperature is outside the expected range with temperature alarms and automated monitoring features

Instantly identify the hottest and coldest spots within the field of view with hot and cold markers

Handy when you need it; easily fits in your tool bag or pocket

Intuitive enough to use right out of the box

Easily access saved images with the removable SD card

Save in .bmp format when you only want the image, or choose .is2 format so you can optimize images and create reports with Fluke SmartView @ software, available by free download from Fluke.com



Increase the safety and speed of your electrical infrared inspections

A companys greatest investment is not the equipment that Js behind the panel door . It Js the electricians, engineers and inspectors who risk their lives every day doing their jobs .

Highest arc blast safety rating available 63 kA*

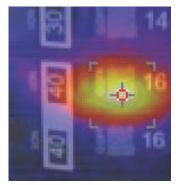
Under 5 minute installation with 1 person; no need to remove panel door

Clearly view equipment both visually and thermally with ClirVu $^{\tiny{\circledR}}$ coating that protects the optic from the elements

Corrosion and UV resistant for challenging outdoor environmentsIP67 rugged*

* CV Series only





50% blended heat map.



Ordering information

Models		Included accessories	
FLK-VT04A Visual IR Thermometer		Soft case, micro-SD card, micro-SD conversion adapter to standard, AA batteries (4), quick reference guide	
	FLK-VT04 Visual IR Thermometer	Hard case, micro-SD card, micro-SD conversion adapter to standard, lithium-ion rechargeable battery, micro USB charger/power supply (including worldwide adapters), quick reference quide	

Models	Included accessories	
CV400 4 in (95 mm) IR Window, Hand Turn Door Latch		
CV401 4 in (95 mm) IR Window, Security Key Door Latch	Fluke IR Windows are supplied complete, assembled and	
CV300 3 in (75 mm) IR Window, Hand Turn Door Latch	ready for installation. In addition to the IR Window, each carton contains warranty statement and security key if that	
CV301 3 in (75 mm) IR Window, Security Key Door Latch	option is ordered.	
CV200 2 in (50 mm) IR Window, Hand Turn Door Latch		
FLK-100-CLKT 4 in (100mm) C-Range IR Window, Kwik Twist		
FLK-075-CLKT 3 in (75mm) C-Range IR Window, Kwik Twist	Fluke IR Windows are supplied complete, assembled and ready for installation. In addition to the IR Window, each carton contains warranty statement	
FLK-050-CLKT 2 in (50mm) C-Range IR Window, Kwik Twist	Sarion solicans warranty statement	

Fluke IR Windows enable you to inspect electrical equipment without opening panel doors.







VISUAL IR THERMOMETERS



Fluke infrared thermometers: 62 MAX+, 62 MAX, 59 MAX and 572-2

Take measurements from a safe distance

Fluke has built infrared thermometers with the durability and accuracy you need to do your job, and all within your budget. These IR Thermometers offer precise laser technology for accurate and repeatable measurements.

Fluke 62 MAX+ highlights:

Three-meter drop tested 12:1 distance to spot ratio Min/Max/Avg/Dif, Hi and Lo alarms Dual lasers for superior targeting

Fluke 62 MAX highlights:

Single laser targeting 10:1 distance to spot ratio

Fluke 59 MAX highlights:

8:1 distance to spot ratio Min/Max/Avg/Dif, Hi and Lo alarms

Fluke 59 Max+ highlights:

10:1 distance to spot ratio Min/Max/Avg/Dif, Hi/Lo alarms

Specifications



	62 MAX+	62 MAX	59 MAX+	59 MAX
Temperature range	-30 °C to 650 °C (-22 °F to 1202 °F)	-30 °C to 500 °C (-22 °F to 932 °F)	-30 °C to 500 °C (-22 °F to 932 °F)	-30 °C to 350 °C (-22 °F to 662 °F)
Accuracy	\pm 1.0 °C or \pm 1.0 % of reading, whichever is greater -10 °C to 0 °C: \pm 2.0 -30 °C to -10 °C: \pm 3.0	± 1.5 °C or ± 1.5 % of reading, whichever is greater -10 °C to 0 °C: ± 2.0 -30 °C to -10 °C: ± 3.0	0° C: ± 1.5 °C or ± 1.5 % of reading, whichever is greater	≥ 0 °C: ± 2.0 °C or ± 2.0 % of reading, whichever is greater
Emissivity			0.10 to 1.00	0.10 to 1.00
Power	AA battery			
Compliance	EN/IEC 61010-1: 2001			
Laser safety	FDA and EN 60825-1 Class II			

Fluke 572-2 Thermometer

Extremely wide measurement range from -30 °C to 900 °C (-22 °F to 1652 °F) 60:1 distance to spot ratio with dual laser sighting



Fluke 50 Series II Thermometers

Lab accuracy in a field thermometer

Laboratory accuracy: \pm (0.05 % + 0.3 °C) Large backlit dual display, in °C, °F, or Kelvin (K)

Min/Max/Avg

Supports a wide range of thermocouple types

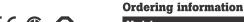
Powerful data logging capabilities

The Fluke 53 II B and 54 II B can log up to 500 points of data to internal memory.

User-adjustable recording intervals

Real-time clock captures the exact event

Download data to optional FlukeView® PC software





Models	Included accessories
FLUKE-62 MAX+ Infrared Thermometer, Dual Lasers	
FLUKE-62 MAX Infrared Thermometer, Single Laser	Instruction sheet, battery
FLUKE-59 MAX Infrared Thermometer	
FLUKE 572-2 High Temperature Infrared Thermometer	K-type thermocouple bead probe, durable hard case, USB 2.0 computer interface cable
FLUKE-54-2-B Datalogging Thermometer, Dual Input	Bead thermocouple(s), batteries, overview manual, instructional guide on CD
FLUKE-53-2-B Datalogging Thermometer, Single Input	
FLUKE-52-2 Digital Thermometer, Dual Input	Bead thermocouple(s), batteries, overview manual, instructional quide on CD
FLUKE-51-2 Digital Thermometer, Single Input	mistractional galace on ob





VISUAL IR THERMOMETERS

Fluke 560 Series Infrared Thermometers

Stand up to tough industrial, electrical, HVAC, and mechanical environments

With a straight-forward user interface and soft-key menus, the Fluke 560 Series IR Thermometers make even complex measurements easy. With just a few pushes of a button you can easily adjust emissivity, record data, or turn on and off alarms.

Measure up to 800 °C (1470 °F)

Easily access advanced features with the soft-key buttons and graphical display

Scan large areas or small objects; measure smaller objects from further away

Compatibility with most type K thermocouples

Confidently measure more surfaces, with adjustable emissivity and built-in materials table Log and download measurements for reporting (568)

Audible and visual alarms alert you to measurements outside of set limits

Pipe probe for superheat and sub-cooling; other contact and ambient measurements (561)

Min/Max/Avg/Dif functions

Includes KTC bead probe

1 % measurement accuracy

Specifications

specifications			
	Fluke 561	Fluke 566	Fluke 568
Infrared temperature range	-40 °C to 535 °C (-40 °F to 995 °F)	-40 °C to 650 °C (-40 °F to 1202 °F)	-40 °C to 800 °C (-40 °F to 1472 °F)
Accuracy		Greater of ± 1 % or ± 1 °C (2 °F)	
Distance to Spot (D:S)	12:1	30:1	50:1
Sighting		Laser p	oint
Typical distance to target	Up to 2.5 m (7 ft)	Up to 4.5 m (15 ft)	Up to 7.5 m (25 ft)
Probe type		Thermoco	uple K
Contact temperature range	-40 °C to 550 °C (-40 °F to 1022 °F)		-270 °C to 1372 °C (-454 °F to 2501 °F)
Number of on-board memory locations		20	99
PC download and software			Yes, with FlukeView® Forms
Soft-key feature menu navigation			
Min/Max/Avg/Dif	Min/Max/Dif		Min/Max/Avg/Dif
Material type adjustment (emissivity)	Hi/Med/Lo	Material	table or 0.1 to 1.00 by 0.01
High and low alarms		High and low alarms	
Hands-free logging			
Battery	2 AA Two-year		
Warranty			





Ordering information		
Models	Included accessories	
FLUKE-568 Infrared Thermometer	USB cable, FlukeView® Forms software, thermocouple type K bead probe, carrying case, two AA batteries, users manual, quickstart guide	
FLUKE-566 Infrared Thermometer	Thermocouple type K bead probe, carrying case, two AA batteries, users manual and quickstart guide	
FLUKE-561 Infrared Thermometer	Thermocouple type K pipe probe, carrying case, two AA batteries, users manual	
FLUKE-61 Infrared Thermometer	9 V battery, instruction sheet	
FLUKE-63 Infrared Thermometer	Wrist strap, carrying case, 9 V battery, users manual	

The 568 allows for temperature measurement of small components.









ANTISTATIC AIDS/ESD



ABOUT ESD

The electronic industry has placed a growing emphasis on reliability and quality assurance. ESD damage to ESDs and assemblies can be minimized by using ESD control measures.

- Handle electrostatic discharge sensitive devices (ESDs) only in an ESD protected area (EPA)
- Avoid electrostatic potential differences and electrostatic discharges
- Use wrist straps, approved footwear and floor combination for personnel grounding
- Wear properly fastened dissipative garments
- No electrostatic generating materials (normal PE, PVC, PS, etc.) are allowed inside an EPA
- Do not expose ESDs to electrostatic fields > 100V / cm!
- Use only approved ESD protective packaging materials
- Awareness, personnel training, continuous monitoring are essential for maintaining a static control program

FLOOR MAT. ITEM: 1308.47002,

1308.47001, 1308.47055.

- Two layer PVC flooring
- · Electrostatic dissipative flooring
- Insulation resistance for personnel safety acc. to DIN VDE 0100-410
- Matt, silky surface Easy maintenance
- Thickness 2 mm
- Typical resistance to ground RG = 106 108 ohm
- · High abrasion resistance · Conductive backing
- No conductive glue needed, gives better adhesion
- Suitable for forklift traffic when installed accordingly
- Available on rolls

ITEM	SIZE	DESCRIPTION
1308.47002	1,5 M X 16 - 25 M	GREY
1308.47001	1,5 M X 16 - 25 M	LIGHT GREY
1308.47055	1,5 M X 16 - 25 M	BLUE

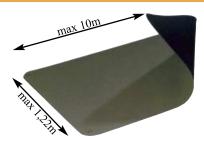


TABLE MATS. ITEM: 1402.662.Z

- Two layer material
- Rugged synthetic rubber
- · Resistant to solder and heat
- Abrasion resistant
- Halogen free
- Elastic
- · Volume conductive
- Thickness: 2 mm
- Includes 2x10 mm snaps and rounded edges
 Typical resistance to ground RG = 106 107 ohm

ITEM	DESCRIPTION
1402.662.Z	Custom sizes available on request
	Available in grey & beige

COMFORT CHAIR. ITEM: 1700.KS.B

The COMFORT CHAIR provides an exceptional sitting comfort due to its high resilient foam contoured seat. It drains static charges safely, continuously and passively from seated personnel when used in conjunction with conductive flooring or floor mats.







ANTISTATIC AIDS

ESD CHAIRS



- 5 star base made of chromed aluminium with 5 conductive, soft castors
- Safety gas lift
- Gas lift height adjustment, 430 570 mm
- Asynchronous mechanism
- Seat and dynamic back rest mechanism, individually adjustable
- Upholstered with a conductive blue or grey fabric
- Conductive plastic back seat shell with ESD symbol
- Standard self-breaking conductive castors
- · GS certified

Typical resistance to ground RG = 105 - 107 ohm

Part Nr.	Colour	Accessories
1700.KS.B	blue	without armrests
1700.KS.D	grey	without armrests

DUST COATS





Part Nr.	Colour	Size
2610.AM160	white	S/M/L/XL/XXL/XXXL
2630.AM160	blue	S/M/L/XL/XXL/XXXL

ESD GLOVES. ITEM: 8745.0401.

Non-allergenic polyester fabric

- Anti-slip grid side
- Size, colour coded cuffs

Typical wearer overall resistance RG < 1 x 108 Ohm

ITEM	QTY	DESCRIPTION
8745.0401	10 pairs	S / M / L / XL



ESD GLOVES. ITEM: 8745.0404.

- •Non-allergenic polyester fabric
- Anti-slip PU coating

Typical wearer overall resistance RG < 1 x 108 Ohm

ITEM	QTY	DESCRIPTION
8745.0404	10 pairs	S / M / L / XL



MENS SHOES. ITEM: 2590.32923

- Slip resistant rubber sole
- Complies with DIN 4843/part 100
- Complies with DIN EN 347-1

ITEM	SIZE	DESCRIPTION
2590.32923	39-47	black (calf leather)





Metriso® B530 - test kit includes: digital high resistance tester, 2 probes model 870 with extension, a hand-held probe with connecting cable, users instructions in German, English and French, calibration certificate, conductive carrying case fitted with dissipative pink foam.

Suitable for resistance point-to-point and resistance to ground measurements

Test voltage / Test current:

Ohmic range: 1 mA \leq I \leq 1,3 mA

High ohmic range: DC 10 volts,100 volts and 500 volts

Test range:

Low ohmic range: 1 to 10 kOhm High ohmic range: 1 kOhm to 199 GOhm

Operation: Battery operate

Probes: 2 x Model 870 (weight: 2,27 kg / Ø 63,5 mm) with conductive rubber (grey) and extension, 1 x hand-held probe

Model 45







ANTISTATIC AIDS

MENS HEEL GROUNDER. ITEM: SCS 2560.890

- For normal heel shoes
- Durable
- · Hook and loop heel grounder
- 1 Mohm safety resistor







WRIST-STRAPS. ITEM: SCS 2050.750

Adjustable, elastic, with silver impregnated threads interwoven on the inside, hypoallergenic.

ITEM	COLOUR	CONNECTION
2050.750.3 *	light blue	3 mm snap
2050.750.7 *	light blue	7 mm snap



STAINLESS STEEL BAND. ITEM: SCS 2052.750

Expandable, adjustable band with an insulated shock resistant exterior, protects the wearer from electrical shocks, hypoallergenic.

ITEM	COLOUR	CONNECTION
2052.750.5.3	black	3 mm snap
2052.750.5.10	black	10 mm snap

COIL CORDS. ITEM: SCS 2100.752

Lightweight 2,4 m coil cords, include 2 x 1 Mohm resistors and 10 mm snaps.



ITEM	COLOUR	CONNECTION
2100.752.3.10	light blue	3/10 mm snap
2100.752.7.10	light blue	7/10 mm snap
2100.752.10.10	light blue	10/10 mm snap
2101.752.3.10	black	3/10 mm snap
2101.752.10.10	black	10/10 mm snap



EARTH CONNECTING BOX. ITEM: SCS 2200.121.10

Earth Bonding Point (EBP) includes 2,0 m earthing cable with a 4 mm ring terminal (1 Mohm resistor for every input).

ITEM	CONNECTION
2200.121.10	2 x 10 mm snaps and 1 x 4 mm
banana plug socket	
2200.121.10.1	with 3 x 10 mm snaps
2200.121.10.2	with 1 x 10 mm snap and 2 x 4 mm
banana plug sockets	



GROUNDING CORD. ITEM: SCS 2250.758

Earth Bonding Point (EBP) includes 2,0 m earthing cable with a 4 mm ring terminal (1 Mohm resistor for every input).

ITEM	LENGTH	CONNECTION
2250.758	1,5 m	10 mm snap/4 mm ring terminal
2250.758.2	3 m	10 mm snap/4 mm ring terminal
2250.756	1,5 m	10 mm snap/banana plug
2250.765	3 m	10 mm snap/banana plug
2250.762	1,5 m	10 mm snap/10 mm snap



AEROSTAT * **XC** - **BENCHTOP IONIZER**

ITEM: SCS 7500.XC

- Rapid static charge decay time
- Effective area 90 x 180 cm
 Integrated heater and 3-speed fan
- Patented emitter point cleanIonization status light
- Inherently balanced to ± 5 V
- AC technology, Ozone production: 0,005 PPM, measured 15 cm in front of the unit

Size: 39 cm x 20,7 cm x 11,5 cm (W x H x D)

ITEM	
7500.XC	







ANTISTATIC AIDS



BRUSHES. ITEM: SCS 6100

Our range of conductive brushes allows thorough cleaning of ESD sensitive assemblies without the danger of high charges generated by conventional brushes. They consist of a conductive plastic handle and bristles made of highly conductive fibers which will dissipate any charges by corona discharge, due to their small diameter. Natural hair is mixed with the conductive fibers to provide the desired stiffness. Includes the ESD Symbol.



BRUSHES. ITEM: SCS 6100 HIGHSHIELD. ITEM: SCS 3310.HS

- Shielding bag, "metal in" construction
- Outer layer dissipative Polyester Surface resistance RS = 1010 -1011 ohm
- Aluminium metallized Electrostatic Shielding < 15 nJ (Energy Test)
- Inner layer dissipative Polyethylene
 Surface resistance RS = 1010 1011 ohm
- Heat sealable
- Standard print: Product name, ESD symbol, Recycling symbol and Lot Nr.

TOTE BOXES - CONDUCTIVE. ITEM: SCS 5310.10

- Permanent, carbon loaded, conductive Polypropylene
- Stackable
- · Pallet modular size
- With ESD Symbol

Typical surface resistance RS = 104 - 105 ohm





SERVICE KIT. ITEM: SCS 2400.673

Portable static controlled station for mobile personnel

- · Rugged, dissipative Vinyl material
- Includes a 610 x 610 mm mat with two pockets
- Carrying wallet with a snap fastener
- Includes a coil cord with an adjustable wrist strap, a 3 m grounding cord and a large alligator clip (VDE)
- Typical resistance to ground RG = 107 108 ohm

ESD WIPES. ITEM: SCS 6200.20

Portable static controlled station for mobile personnel

- Static dissipative ESD wipes for all Electronic manufacturing and optical cleaning Applications
- 100% knitted polyester
- · No carbon or metal fibers
- Good solvent resistance, lint free
- · For use with normal cleaning fluids
- Size: 230 x 230 mm
- Colour: pink



ITEM	QTY
6200.20	50pcs./bag



ESD CLEANER. ITEM: SCS 2900.570

Special cleaner for dissipative and conductive surfaces

- Protects against deterioration of the static dissipative properties
- · Removes liquid spill stains, flux, residues, grease and dirt
- Trigger-spray bottle for easy application

ITEM	QTY
2900.570	1 litre spray bottle
2900.571.	1 5 litres







GAS SOLDERING IRONS



SUPER PRO. ITEM: ORX SUPER PRO

- Adjustable 25-125 Watts of power
- 580°C tip temparature
- · Refill with butane lighter gas
- 10 second refill time
- Heats up in 40 seconds
- 90 minute run time
- · Piezo self Igniting
- 12 assorted spare tips
- Safety cut-off switch
- Safety stand
- User Repairable



SUPER PRO TIPS & ACCESSORIES.

ITEM	DESCRIPTION	SIZE INCHES	SIZE MM
SP-1	butane soldering iron	-	-
SPT-9	hot air blower tip	_	-
SPT-12	hot air deflector	-	-
SPT-2	single flat tip	3/32	2.4mm
SPT-5	double flat tip	1/32	1.0mm
SPT-6	double flat tip	3/32	2.4mm
SPT-7	double flat tip	1/8	3.2mm
SPT-8	double flat tip	3/18	4.8mm
SPT-10hot knife tip		-	-
SPT-14operating instructions		-	-
SPT-15wire stand		-	-
SPT-19 cleaning sponge & cup		-	-





PROFESSIONAL. ITEM: ORX PORT-PROF

- Adjustable 10-60 Watts of power
- Ergonomic handle grip
- · Refill with butane lighter gas
- 10 second refill time
- Heats up in 40 seconds
- 60 minute run time
- Flint Igniting
- 7 assorted spare tips
- Safety cut-off switch



PROFESSIONAL TIPS

ITEM	DESCRIPTION	SIZE INCHES	SIZE MM
PCX	single flat solder tip	1/32"	1.0mm
PCX	single flat solder tip	3/32"	2.4mm
PCX	single flat solder tip	1/8″	3.2mm
PCX	single flat solder tip	3/6"	4.8mm
PCX	hot air blower tip	-	-
PCX	hot knife tip	-	-
PCX	flame tip	-	-



CORDLESS BUTANE GAS POWERED TORCH. ITEM: GT 220







GAS SOLDERING IRONS



PRO PIEZO. ITEM: ORX PRO-PIEZO

•Adjustable 10-75 Watts of power

- 580°C Tip Tempartaure
- · Refill with butane lighter gas
- 10 second refill time
- Heats up in 40 seconds
- 45 minute run time
- Piezo self Igniting
- 12 assorted spare tips
- Safety cut-off switch
- Available as kit

TECHNIC. ITEM: ORX PORT-TECH

- •Adjustable 10-60 Watts of power
- Ergonomic handle grip
- Refill with butane lighter gas
- 10 second refill time
- Heats up in 40 seconds
- 60 minute run time
- Flint Igniting
- 5 assorted spare tips
- Safety cut-off switch

Plastic Welding Kit

Cordless kit for plastic welding featuring an ultrasonically welded gas tank for better strenght and reliability.

- · Short distance from tip to grip gets you closer to your work.
- Click to ignite.
- · Cordless.
- · No special training required.
- · Transfers heat through contact versus hot air.
- · Welding can be carried out next to heat sensitive parts eg cables, foams and textiles.
- · Thin plastic parts and sheets can be welded, No uncontrolled heat transfer which means less wrinkles in parts to be welded.
- · No Oxidation of parts by hot air.
- Ploblematic plastics that absorb water are easier to Weld, eg ABS, PC and PA plastics.
- · Reininforcement grid for extra strength or where a hole needs to be filled.

Contents of Plastic Welding Kit

- · Pro Piezo Soldering Iron
- · Plastic welding tip
- · Brass brush
- · Allen key
- · Cleaning piston
- · Reinforcement grid
- · 5 20cm Polyethylen (PE) welding rods
- · 5 20cm Polystyrol (PS) welding rods
- · 5 20cm Polypropylen (PP) welding rods
- · instruction leaflet

Everything comes as a complete kit in a robust carry and transport case









SOLDERING IRONS

MAGNUM®



MAGNUM 2004 STATION

The 2004 soldering station gives total temperature control with digital read-out. It comes standard with the 1002 /50W soldering iron.



MAGNUM 2002 STATION

The 2002 soldering station with total temperature control comes standard with 1002/50W soldering iron. An 80W version of the above station is also available.



MAGNUM 2000 STATION

The 2000 Station comes standard with the 1000SP soldering iron. They are designed to operate together. Temperature control in the iron.



ORYX 50 TEMPERATURE CONTROLLED SOLDERING IRON 50-Watt at 24, 50, 115, 220-240 Volt AC versions

- Temperature range 240-420 degrees. Adjustable to 2% tolerance
- Iron plated tips, burn proof lead
- Length 205mm, weight 75g

A general purpose temperature controlled iron for use in electronic production. Offers the benefit of utilising any one tip over the whole temperature range.

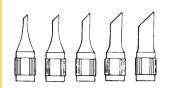


SUPER 30 THERMALLY BALANCED SOLDERING IRON

- 27 Watt at 12, 24, 50, AC/DC. 115, 220-240 Volt AC versions
- Temperature 370 degrees typical
- Iron plated tips
- Stainless steel storage hook, stainless shaft
- Illuminated indicator
- Length 204mm, weight 115g

Compact shape plus high quality construction for general purpose soldering

IRON PLATED LONG LIFE TIPS SERIES 50/30



SINGLE FLAT

ORX LLSF16 1.6mm
ORX LLSF24 2.4mm
ORX LLSF32 3.2mm
ORX LLSF48 4.8mm
ORX LLSF64 6.4mm



DOUBLE FLAT

ORX LLDF08 0.8mm
ORX LLDF16 1.6mm
ORX LLDF24 2.4mm
ORX LLDF32 3.2mm
ORX LLDF48 4.8mm
ORX LLDF64 6.4mm
ORX LLDF24 Special

VARIOUS SOLDERING ITEMS







KESTER SOLDER PASTE

CHEMTRONICS SOLDERWICK







WT 1H Soldering Station

THIS IS SOLDERING TODAY

If you need even more performance than 90 watts, then the high power version with 150 watts is the right solution.



TECHNICAL DATA

Channels	1
Dimensions W x D x H (inch)	5.87 x 5.43 x 3.98
Dimensions W x D x H (mm)	149 x 138 x 101
Weight (ca) in kg	3
Voltage	230 V, 50 Hz
Heating output	150 W
Protection class	
Fuse	T2A
Temperature range (depends on tool) °C	50 - 550
Temperature range (depends on tool) °F	150 - 999
Temperature accuracy °C	±9
Temperature accuracy °F	±17
Temperature stability °C	±2
Temperature stability °F	±4
Equipotential balance	\checkmark
Interface	RS232
ESD-safe	✓
Intelligent tool detection	✓
Display	Backlit LCD
Equipotential bonding	Via 3,5 mm pawl socket on front of device



Front-mounted main switch

The front-mounted main switch ensures easy access at all times.



Multi-functional LC display

Unique LC display with a detailed overview of all functions. Adjustable background illumination. Power bar graph allows visual monitoring of the easily-readable output power from the station to the soldering iron tip.



New menu button

Provides ultimate user friendly access to and navigation in the menu structure.



Stackable units

The WT1/WT1H soldering stations can be stacked on the WTHA1 hot-air station, or on each other, saving space on the workbench.



2-in-1 WSR safety rest

The soldering iron holder can be rotated 180°. The user can choose between wet and dry cleaning.





WT 1 Soldering Station

THIS IS SOLDERING TODAY

The detailed LC display enables an unprecedented overview of all functions, quick and easy to reach via the new user-friendly menu button. The lightning quick change process of the heating element during operation allows efficient work with several different tip types in quick succession. The choice between wet and dry tip cleaning is handled by an innovative 2-in-1 safety rest for the rotatable iron holder.



TECHNICAL DATA

Channels	1
Dimensions W x D x H (inch)	5,87 x 5,44 x 3,98
Dimensions W x D x H (mm)	149 x 138 x 101
Weight (ca) in kg	1.9
Voltage	230 V, 50/60 Hz
Heating output	90 W (95 W)
Protection class	
Fuse	0,5 A
Temperature range (depends on tool) °C	50 - 550
Temperature range (depends on tool) °F	150 - 999
Temperature accuracy °C	±9
Temperature accuracy °F	±17
Temperature stability °C	±2
Temperature stability °F	±4
Equipotential balance	✓
Interface	RS232
ESD-safe	✓
Intelligent tool detection	✓
Display	Backlit LCD
Equipotential bonding	Via 3,5 mm pawl socket on front of device



Front-mounted main switch

The front-mounted main switch ensures easy access at all times.



Multi-functional LC display

Unique LC display with a detailed overview of all functions. Adjustable background illumination. Power bar graph allows visual monitoring of the easily-readable output power from the station to the soldering iron tip.



New menu button

Provides ultimate user friendly access to and navigation in the menu structure.



Stackable units

The WT1/WT1H soldering stations can be stacked on the WTHA1 hot air station, or on each other, saving space on the workbench.



2-in-1 WSR safety rest

The soldering iron holder can be rotated 180°. The user can choose between wet and dry cleaning.





WTHA 1 Hot-Air station

MORE THAN JUST A LOT OF HOT AIR.

One compact, easy-operating station with a smart controller. Temperature-adjustable for diverse rework applications, assuring fast, safe performance.



TECHNICAL DATA

Channels	1
Dimensions W x D x H (inch)	8,35 x 6,77 x 4,80 Inch
Dimensions W x D x H (mm)	212 x 172 x 122 mm
Weight (ca) in kg	1,95 kg
Voltage	230 V
Heating output	900 W
Protection class	
Fuse	T 4A
Temperature range (depends on tool) °C	50 - 600
Temperature range (depends on tool) °F	100 - 1000
Temperature accuracy °C	± 30
Temperature accuracy °F	± 54
Temperature accuracy hot air °C	± 30
Temperature accuracy hot air °F	± 54
Equipotential balance	
Interface	-
ESD-safe	✓
Max. air flow rate I/min (depends on tool)	50
Control accuracy	± 30°C (± 54°F)
Capacity I/min	5 - 60 / 20°C 5 - 110 / 300°C
Compressed air connection	
Equipotential bonding	-
Display	Graphical backlit LC-Display



Front-mounted main switch

The front-mounted main switch ensures easy access at all times.



Multi-function LCD screen

Unique LC display with a detailed overview of all functions. Adjustable background illumination. Power bar graph allows visual monitoring of the output power from the station to the hot air pencil.



New menu button

Provides ultimate user friendly access to and navigation in the menu structure.



Stackable units

The WT1/WT1H soldering stations can be stacked on the WTHA1 hot air station, or on each other, saving space on the workbench.



5 Pre-sets / temperature profile

Up to 5 pre-sets are available to define volume, temperature and time settings. With the profile mode activated, the presets can be run in a selected sequential order.





WTCP 51 Magnastat station



TECHNICAL DATA

Channels	1
Dimensions W x D x H (inch)	6,69 x 4,65 x 4,02
Dimensions W x D x H (mm)	170 x 118 x 102
Weight (ca) in kg	1.46
Voltage	230 V
Heating output	50 W
Protection class	
Fuse	T315mA
Temperature range (depends on tool) °C	260 - 480 °C
Temperature range (depends on tool) °F	500 - 900 °F
Interface	No
ESD-safe	✓
Control	2-level controller with temperature sensor

WTCP 51 Set



Soldering station, 1 channel, 50 W







Order No. T005 32 206 99

6 Power unit, 1 channel with soldering iron TCPS



Scope of supply

Order No.	Model	Description
T005 15 020 99	KH 20	Safety Rest for FE 75, TCPS, W 101, LR 21
T005 32 105 99	TCPS	Magnastat Soldering iron 50 W
T005 32 249 9	P 51	Power unit switchable, 50 W, 120 V / 240 V with US plug
T005 44 415 99	LT M	Soldering tip, chisel tip long, Ø 3,2 mm





WST Wire Stripper

THERMAL STRIPPPING TOOL

Temperature controlled thermal stripping tool is suitable for all 80 W Weller stations.

Thermal stripping tool WST 82 KIT1

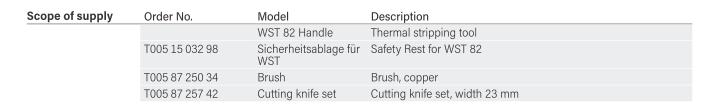
Thermal stripping tool 80 W, 24 V





Order No. T005 25 032 99

- 6 Suitable for all 80 W Weller stations
- 6 For ribbon cable and round wire









Thermal stripping tool WST 82 KIT2

Thermal stripping tool 80 W, 24 V with flexcord for wider operation range





Order No. T005 25 031 99

- Suitable for all 80 W Weller stations
- 6 Flex cord for 1,5 3,5 m working distance
- 6 For ribbon cable and round wire



Scope of supply	Order No.	Model	Description
		WST 82 Handle	Thermal stripping tool
	T005 15 032 98	Sicherheitsablage für WST	Safety Rest for WST 82
	T005 87 250 34	Brush	Brush, copper

Accessories WST 82

	Order No.	Description		Order No.	Description
	T005 87 257 22	Universal knife set 9 mm x 2 mm	14 18 22 26 71 81 ZZ 9Z	T005 87 257 32	Knife set AWG 14, 18, 22, 26 (1,6, 1,02, 0,64, 0,4 mm)
16 12 24 91 Z1 7Z	T005 87 257 26	Knife set AWG AWG 12, 16, 24 (2,0, 1,3, 0,51 mm)		T005 87 257 36	V Knife set 4,25 mm x 2 mm
26 24 14 12 9Z 7Z 71 ZI	T005 87 257 29	Knife set AWG 12, 14, 24, 26 (2,0, 1,6, 0,51, 0,4 mm) for WST 82		T005 87 257 42	Cutting knife set, width 23 mm



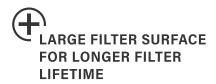




Filtration











Volume extraction

More suitable for applications involving, for example hand soldering, solder baths, hot-air soldering, microsoldering as well as gluing and cleaning work. Weller offers various mobile systems that purify the air for up to 8 workstations.

- Large areas can be covered
- Low maintenance
- Economic for 1 to 8 workstations
- Extraction cabinets
- Remote control



Tip extraction

Weller FE (fume extraction) soldering irons have a smoke tube integrated into the handle. When soldering, the tube is positioned directly above the tip and collects any fumes produced. Fume extraction attachments can be retrofitted to non-fume extraction Weller soldering irons.

- Low investment per workstation
- Extract pollution right at the source
- Up to 20 soldering points with one system (max. 200 m apart)
- Ergonomic with easy access to workpiece
- Minimal air movement







MAGNIFIERS

Boasts super bright white light from new technology LEd's. Illuminated magnification giving you light where you need magnification. Those once hard to see items are now clearly visible.

Perfect for:

- Electronics assembly, repair, manufacture
- Hobbyists Model building, trains etc
- Nail parlours / manicures
- Fine needle work
- Stamp and coin collecting
- Watch makers / repairs
- Jewellery design / repair / manufacture
- DIY projects

Long LED bulb lifespan, low energy consumption.







FZ1090TL 3.5"Dia, 2xpower Magnifier with 2LED lights



AEROSOL SPRAYS

CONFORMAL COATING.

ALL PURPOSE WATER
REPELLING PENETRATING
SPRAY.







F40 FREEZER.



DB300 DUST BUSTER.



LR350 LABEL REMOVER.









TORCHES & LAMPS



3 CELL LED MAGLITE ITEM: MGL ML0603



HEADLAMP 12 LED KAR DK 9301



2AA MAGLITE IN PRESENTATION BOX ITEM: MGL ML1221



KAR POCKY



RECHARGABLE MAGLITE ITEM: MGL ML1701







LED LENSER LED LENSER P7 Product Code: LED P7



LED LENSER LED LENSER X21.2 Product Code: LED x21.2













www.drapertools.co.za For current ZAR pricing

































An Arc Flash suit consists of the following products

- *ARC Flash Hood
- *ARC Flash Jacket
- *ARC Trousers
- *ARC Flash gloves
- *Protective boots

The ARC Flash categories range from *8 CAL to 100 CAL

Safety is always a first priority in electrical engineering. The preservation of life is imperative. Arc Flash suits are a small cost in comparison to the loss in quality of life if a worker is exposed to an electric arc event. Electrical technicians, by law should always wear and be properly trained in the safe use and application of Arc Flash suits and appropriate personal protective equipment such as insulated rescue sticks for the possible electrical hazard with which they may face.























HellermannTyton

*Instruments * Crimping Terminals **Tools**

*Cable Securing Systemistentification Systems

























THE CHRISTENSEN A-Z DIRECTORY OF PRODUCTS WE STOCK OR SOURCE

(All of which may not necessarily be featured in this catalogue)

A	ADJUSTABLE SHIFTERS AEROSOLS - CLEANING, LUBRICATING ALIGNMENT TOOLS ALLEN SCREWDRIVERS ALUMINIUM TOOL CASES ANGLE GRINDERS ANTI-STATIC PRODUCTS	E • • • • • • • • • • • • • • • • • • •	ELECTRICIANS PLIERS ENGINEERS PLIERS EXTRACTION TOOLS EXTENSION REELS ENGINEERS FILES ESD SCREWDRIVERS/TOOLS ENGINEERS VICES		INSULATION TESTERS INSULATION TAPE INTER-LOCKING STORAGE BOXES JUMPER LEAD KITS JEWELLERS SCREWDRIVERS
•	ASSEMBLY JIGS AUTOMATIC WIRE STRIPPERS	F •	FEELER GAUGES FENCING PLIERS	К •	KNIVES - CABLE
B • • • • • • • • • • • • • • • • • • •	BAGS - TOOL BALLPOINT ALLEN DRIVERS BASE LAMPS BENCH POWER SUPPLIES BLOWERS BIO-KLEEN BEARING PULLERS BOLT CUTTERS		FISH TAPE FIELD SERVICE KITS FIBRE OPTIC TOOLS FLOOR MAT - ANTISTATIC FLUXES GAS SOLDERING IRONS GLOVES - ANTISTATIC	L	- CARPET - ELECTRICIAN'S - POCKET KEYS - HEXAGON LABELS - ESD LAN METERS LEADS - TEST
C .	CABINETS - STORAGE CABLE CUTTERS CABLE STRIPPERS CALLIPERS - INSIDE/OUTSIDE	•	GLUE GUNS GRAPHICAL MULTIMETERS GRINDERS - ANGLE GROUND CORDS GUILLOTINES		LEAD FORMING TOOLS LEVELS LOBSTER CRIMPERS LIQUID DISPENSERS
	CELLULAR TECHNICIAN TOOLKITS CIRCLIP PLIERS CLAMP METERS CORDLESS DRILLS DEGAUSING COILS DESOLDER BRAIDS	H	HEATGUNS HOOKS - SPRING HAMMERS HEAVY DUTY CUTTERS HEEL GROUNDERS HEXAGON KEYS HOT GAS GUNS	M	MAGNETISERS, DEMAGNETISERS MAGNIFYING GLASSES MASONRY DRILLS MICROSCOPES MINIATURE DRIVERS MINIATURE SPANNERS MULTIMETERS MIRRORS - INSPECTION
•	DIGITAL MULTIMETERS DRILLS - ELECTRIC DRILL BITS DIAGONAL CUTTERS	•	IC DESOLDERING TOOLS IC EXTRACTORS ILLUMINATED MAGNIFIERS INFRARED TEMPERATURE METERS INSPECTION MIRRORS	N	NEEDLE FILES NUTDRIVERS NOZZLES - DESOLDERING NO CLEAN FLUX







0		•	SIGNAL GENERATORS	W	
•	OBLIQUE CUTTERS	•	SMD TOOLS, STATIONS	•	WATERPUMP PLIERS
•	OFFSET SCREWDRIVERS	•	SOCKET SETS	•	WAVE SOLDER MACHINES
•	ORYX SOLDERING IRONS	•	SOLDER FUME EXTRACTORS	•	WELLER PRODUCTS
•	OSCILLOSCOPES	•	SOLDER POTS	•	WIRE STRIPPERS
		•	SOLDER SUCKERS	•	WRISTSTRAPS - ANTISTATIC
Р		•	SPANNERS		
•	PASTE - SOLDER	•	STORAGE BINS	Χ	
•	PCB - CLEANERS, CUTTERS,	•	STRIPPERS	•	XCELITE PRODUCTS
	HOLDERS			•	XURON MICROSHEARS
•	PHASE ROTATION METERS	Т			
•	PIN PUNCHES	•	TAPE MEASURES	Z	
•	PIPE WRENCHES	•	T-HANDLE ALLEN KEYS	•	ZERO SMOG
•	PLCC EXTRACTORS	•	TINNING OIL	•	ZIPCASES - KITS
•	PLIERS	•	TIN SNIPS		
•	PNEUMATIC CUTTERS	•	TOOL		
•	POCKET LEVELS		- BAGS		
•	PRECISION WIRE STRIPPERS		- BELTS		
•	POWER SUPPLIES		- CASES		
			- KITS		
Q		•	TONER VACUUM CLEANER		
•	QFP DESOLDERING	•	TORQUE		
			- SCREWDRIVERS		
R			- WRENCHES		
•	RADIAL COMPONENT	•	TORX - KEYS, SCREWDRIVERS		
	PREPARATION MACHINES	•	TWEEZERS		
•	RATCHET DRIVERS	•	TRANSFORMERS		
•	REFLOW OVENS	•	TUBE SPANNERS		
•	REWORK STATIONS	•	TRIMMING TOOLS		
•	RIVETING PLIERS				
		U			
S	CAFE BLOCK ALABAS	• \	ULTRASONIC CLEANERS		
•	SAFE BLOCK MAINS	•	UNISPANN VICES		
	CONNECTOR		UNIVERSAL SNIPS		
	SAWS	-			
•	SCISSORS	٧			



SCREWDRIVERS

- ENGINEERS

- ELECTRICAL SCREW STARTERS

SHOES - ANTISTATIC

SHIFTERS



VDE - 1000 VOLT PLIERS

VERNIERS

VICEGRIPS

VICES