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We reserve the right to make technical modifications without prior notice for all articles of this catalogue.



ESD PROFI-SET **TRENDY** 2280 AND 2285 The professionel kit for ESD-Specialists for local and mobile use





2280 (BERNSTEIN)

ESD Profi-Set TRENDY with tool set including ESD handling set

2285 (**BERNSTEIN**)

ESD Profi-Set TRENDY with tool set

Description:

Selected ESD-tools in handy plastic case made from conductive material. The tools are clearly arranged in accurate-sized cutouts in conductive hardfoam. For individual accessories are one resp. two cutouts available.

Outside dimensions: 350 x 310 x 65 mm (when closed)

Tool set:

No.	Description of individual tools	No.	Description of individual tools
2-620 3-133-13 3-651-15	PLCC extractor Side cutters, 120 mm, with conductive black hand-guard Mini side cutters EUROline-Conductive, 120 mm, without sideface, for soft wire up to 0.6 mm Ø, copper wire up to 1.2 mm Ø, box joint, double leaf spring, fine polished and bright burnished, conductive bicoloured hand-guard	4-623 5-049-13 5-055-13 5-059-13 6-661	Cross-recess screwdriver size 0, with conductive handle, blade from chrome vanadium, chrome-plated, with black tip SMD-tweezers, 110 mm, straight, very sharply pointed, ESD-coating SMD-tweezers, 120 mm, sickle-shaped, very sharply pointed, as above SMD-tweezers, 120 mm, flat, rounded tips, 2.0 mm width, as above TORX screwdriver T 5, with conductive handle, blade
3-682-15	Flat nose pliers EUROline-Conductive, 130 mm, as above		made from chrome vanadium, chrome-plated, with black tip
3-683-15 4-601	Snipe nose pliers EUROline-Conductive, 130 mm, short jaws, as above Screwdriver 50 x 0.8 mm, with conductive handle, blade	6-662	TORX screwdriver T 6 , with conductive handle, blade made from chrome vanadium, chrome-plated, with black tip
4-603	from chrome vanadium, chrome-plated, with black tip Screwdriver 50 x 1.5 mm, with conductive handle, blade	6-663 L	TORX screwdriver T 7 , with bore-hole in the tip, with conductive handle, blade made from chrome vanadium, chrome-plated, with black tip
	from chrome vanadium, chrome-plated, with black tip	7-422	ESD brush, bristles width 20 mm
4-605	Screwdriver 60 x 2.0 mm, with conductive handle, blade from chrome vanadium, chrome-plated, with black tip	9-354	ESD handling set (only in set 2280), consisting of: foldable, green workbench pad (surface resistance according
4-621	Cross-recess screwdriver size 000, with conductive handle, blade from chrome vanadium, chrome-plated, with black tip		to DIN 53482: approx. 10 ⁸ ohm), 500 x 400 x 0.35 mm, contact bracelet with spiral cord, earth wire 2500 mm long with 1 Mohm safety resistor including crocodile clip
4-622	Cross-recess screwdriver size 00, with conductive handle, blade from chrome vanadium, chrome-plated, with black tip		salety resistor including crocoulle clip



Weight : approx.1.650 / 1.500 kg



ANTISTATIC 2200 ELECTRONIC-SERVICE-SET

The tool set for mobile use at electrostatically endangered components



2200 (BERNSTEIN) SERVICE-SET ANTISTATIC with tool set

2201 Case with zip fastener, without tools

2220 (BERNSTEIN) SERVICE-SET ANTISTATIC with tool set in conductive case

2221 Conductive case with zip fastener, without tools

Description:

Elegant, black zipper case, with wine red lining and transparent pockets for 12 tools and a foldable antistatic workbench pad with accessories. Art. 2220 complete made from conductive black imitation leather.

Outside dimensions: 320 x 250 x 50 mm (when closed)

Tool set:

No.	Description of individual tools
2-620	PLCC extractor
3-601-13	Side cutters , 120 mm, for hard wire up to 0.4 mm Ø, for soft wire up to 1.0 mm Ø, bright steel-polished, box joint, double leaf spring, with conductive black hand-guard
3-632-13	Flat nose pliers, 120 mm, bright steel-polished, box joint, double leaf spring, with conductive black hand-guard
3-633-13	Snipe nose pliers, 120 mm, bright steel-polished, box joint, double leaf spring, with conductive black hand-guard
4-601	Screwdriver 50 x 0.8 mm, with conductive handle, blade from chrome vanadium, chrome-plated, with black tip
4-605	Screwdriver 60 x 2.0 mm, with conductive handle, blade from chrome vanadium, chrome-plated, with black tip
4-606	Screwdriver 60 x 2.5 mm, with conductive handle, blade from chrome vanadium, chrome-plated, with black tip
4-621	Cross-recess screwdriver size 000, with conductive handle, blade from chrome vanadium, chrome-plated, with black tip



2220 Weight with tools: approx. 0.950 kg

No. Description of individual tools

Cross-recess screwdriver size 00, with conductive handle, blade from chrome vanadium, chrome-plated, with black tip
Cross-recess screwdriver size 0, with conductive handle, blade from chrome vanadium, chrome-plated, with black tip
Tweezers, 120 mm, made from conductive plastic material, reinforced with glassfibre, with straight, rounded tips
Tweezers, 120 mm, made from conductive plastic material, reinforced with glassfibre, with straight, 3 mm flat-hand tips
ESD handling set, consisting of: foldable, green workbench pad (surface resistance according to DIN 53482: approx. 10 ⁸ ohm), 500 x 400 x 0.35 mm, contact bracelet 9-342, earth wire 2500 mm long with 1 Mohm safety resistor

ESD 2300 SERVICE SET

Special tool set for repair and maintenance of electrostatically endangered components





2300 (BERNSTEIN) ESD Service set with tools

Description:

The foldable green portfolio at the same time serves as an electrically **conductive** workbench pad of 680 x 680 x 0.35 mm. The surface resistance according to DIN 53482 is approx. 10⁸ ohm.

The workbench pad has 3 press-stud receptacles for connecting the contact bracelet and the earth wire. With 2 additional press-buttons the pad may be closed as a tool bag.

The 2 patch pockets carry the contact bracelet and the earth wire. Furthermore 16 conductive tools are placed in pockets, ready to hand.

Outside dimensions: 330 x 240 x 20 mm (when closed)

Weight with tools: approx. 0.850 kg

No.	Description of individual tools	No.	Description of individual tools
2-166	Glass fibre contact cleaner, with rotary mechanism, plastic casing	5-191	Tweezers, 120 mm, made from conductive, black plastic material, reinforced with glass fibre, with rounded tips
2-620	PLCC-extractor	5-194	Tweezers, 120 mm, made from conductive, black plastic material,
3-601-13	Side cutters , 120 mm, for hard wire up to 0.4 mm Ø, for soft wire up to 1.0 mm Ø, bright steel-polished, box joint, double leaf spring, with conductive black hand-guard	6-616	reinforced with glass fibre, with bent, pointed tips Socket wrench with conductive handle, blade made from chrome vanadium, nickel-plated, A/F 3.5 mm
3-633-13	Snipe nose pliers , 120 mm, bright steel-polished, box joint, double leaf spring, with conductive black hand-guard	6-661	TORX screwdriver T 5, with conductive handle, blade made from chrome vanadium, chrome-plated, with black tip
4-601	Screwdriver 50 x 0.8 mm, with conductive handle, blade made from chrome vanadium, chrome-plated, with black tip	6-664 L	TORX screwdriver T 8 , with bore-hole in the tip, with conductive handle, blade made from chrome vanadium,
4-605	Screwdriver 60 x 2.0 mm, with conductive handle, blade made from chrome vanadium, chrome-plated, with black tip	6-666 L	chrome-plated, with black tip TORX screwdriver T 10, with bore-hole in the tip, with
4-606	Screwdriver 60 x 2.5 mm, with conductive handle, blade made from chrome vanadium, chrome-plated, with black tip		conductive handle, blade made from chrome vanadium, chrome-plated, with black tip
4-621	Cross-recess screwdriver size 000, with conductive handle, blade made from chrome vanadium, chrome-plated, with black tip	9-342	Contact bracelet cloth armlet, allergy-free, edges and surface insulating, spiral
4-622	Cross-recess screwdriver size 00, with conductive handle, blade made from chrome vanadium, chrome-plated, with black tip		cord, 1 Mohm safety resistor, combined press-stud and terminal connection, to DIN EN 100 015/1
4-623	Cross-recess screwdriver size 0 , with conductive handle, blade made from chrome vanadium, chrome-plated, with black tip	9-346	Earth wire with 1 Mohm safety resistor, 2500 mm long, with terminal connection resp. press-stud, for connecting workbench pad and floor cover and connection to an earth potential



ELECTRONIC-SERVICE TOOL SETS

Special service sets for the maintenance and repairing of mobile phones and other high sensitive IT–Instruments

The tools are clearly arranged in cases made from **conductive** black imitation leather, with zip fastener. 2251 Case with zip fastener, without tools

Outside dimensions: 190 x 135 x 35 mm (when closed)

2250 (BERNSTEIN) CARAT with tool set

9-piece set **conductive** tools from the series EUROline-Conductive to meet highest quality standards.



2270 (BERNSTEIN) ACCENT with tool set

9-piece set conductive tools with bright steel polished pliers

Tool set:	
No.	Description of individual tools Weight: approx. 0.360 kg
3-601-13	Side cutters, 120 mm, for hard wire up to 0.4 mm Ø, for soft wire up to 1.0 mm Ø, bright steel-polished, box joint, double leaf spring, with conductive black hand-guard
3-633-13	Snipe nose pliers, 120 mm, plain jaws, bright steel-polished, box joint, double leaf spring, with conductive black hand-guard
4-601	Screwdriver with conductive handle, blade from chrome vanadium, chrome-plated, with black tip, 50 x 0.8 mm
4-603	Screwdriver with conductive handle, blade from chrome vanadium, chrome-plated, with black tip, 50 x 1.5 mm
4-621	Cross-recess screwdriver size 000, with conductive handle, blade from chrome vanadium, chrome-plated, with black tip
4-623	Cross-recess screwdriver size 0, with conductive handle, blade from chrome vanadium, chrome-plated, with black tip
5-191	Tweezers, made from conductive and acid-resistant black plastic material, reinforced with glassfibre, 120 mm, with straight, rounded tips
6-661	TORX-screwdriver T 5, with conductive handle, blade from chrome vanadium, chrome-plated, with black tip
6-663 L	TORX-screwdriver T 7, with bore-hole in the tip, with conductive handle, blade from chrome vanadium, chrome-plated, with black tip



663 L **TORX-screwdriver** T 7, with bore-hole in the tip, with conductive handle, blade from chrome vanadium, chrome-plated, with black tip



3-680 (BERNSTEIN) EUROline-Conductive set of pliers

4-piece set **conductive** pliers from the series EUROline-Conductive to meet highest quality standards

Tool set:		
No.	Description of individual tools	Weight: approx. 0.390 kg
3-651-15	Mini side cutters EUROline-Conducti for soft wire up to 0.6 mm Ø, copper wi double leaf spring, fine polished and b bicoloured hand-guard	re up to 1.2 mm Ø, box joint,
3-672-15	End cutters EUROline-Conductive, 1: 0.6 mm Ø, cutting edge 20° angular, bo polished and bright burnished, conduct	ox joint, double leaf spring, fine
3-682-15	Flat nose pliers EUROline-Conductiv finish as before	e, 130 mm, plain jaws,
3-683-15	Snipe nose pliers EUROline-Conduct finish as before	tive, 130 mm, plain jaws,



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EPA ELECTRONIC SERVICE CASE

The service case made from conductive material for maintenance and installation tasks in ESD protected areas with a full assortment of special ESD-tools. For use at electrostatically endangered components and plants.

6900 (BERNSTEIN) EPA with tool set

6915 (BERNSTEIN) EPA without tool set

Description:

The body of the case, the tool trays as well as the bottom tray with adjustable partitions are made from conductive material according to DIN EN IEC Norm 10 00 15 part 5. The tools of this set have been tested with good results by several testing laboratories adequate to DIN EN 61340-5-1, 61340-2-1, 61340-2-3 for work in ESD protected areas. The sturdy shells are pressed with the stable double aluminium frame.

32 tools are clearly arranged on two tool trays, one of it on both sides. The lid of the case has a pocket for documentations etc. The bottom tray allows with its partitions a clear arrangement of additional tools and instruments.

The case has two locks.

Outside dimensions: 460 x 310 x 165 mm

Weight without tools: approx. 5.400 kg

Weight with tools: approx. 6.280 kg

Tool set:

No.	Description of individual tools	No.	Description of individual tools
2-101	Tin knife with ceramic blade, 115 mm	4-632	Screwdriver with conductive special-square pattern handle, blade from chrome vanadium, chrome-plated, with black tip, 100 x 4.0 mm
2-265	2 Test prods, red and black, extremely slim, pointed and flexible, blade made from 1 mm steel wire	4-633	Screwdriver with conductive special-square pattern handle, blade
2-620	PLCC extractor	4 000	from chrome vanadium, chrome-plated, with black tip, 125 x 5.5 mm
3-654-15	Side cutters EUROline-Conductive, 125 mm, for hard wire up to 0.4 mm \emptyset , for copper wire up to 1.5 mm \emptyset ,	4-662	Cross-recess screwdriver Pozidriv size 1, with conductive special-square pattern handle, blade from chrome vanadium, chrome-plated, with black tip, blade length 80 mm
	slim rounded head, box joint, double leaf spring, fine polished and bright burnished, conductive bicoloured hand-guard	4-663	Cross-recess screwdriver Pozidriv size 2, with conductive
3-671-15	End cutters EUROline-Conductive, 130 mm, for copper		special-square pattern handle, blade from chrome vanadium, chrome-plated, with black tip, blade length 100 mm
	wire up to 0.6 mm Ø, extremely slim, straight, box joint, double leaf spring, fine polished and bright burnished, conductive bicoloured hand-guard	5-191	Tweezers, made from conductive and acid-resistant black plastic material, reinforced with glass fibre, 120 mm, with straight, rounded tips
3-682-15	Flat nose pliers EUROline-Conductive, 130 mm, extremely slim, box joint, double leaf spring, fine polished and bright burnished, conductive bicoloured hand-guard	5-192	Tweezers, made from conductive and acid-resistant black plastic material, reinforced with glass fibre, 120 mm, with straight, 3 mm flat-hand tips
3-133-13	Side cutters, 145 mm, for hard wire up to 1.25 mm Ø, for soft wire up to 2.5 mm Ø, chrome-plated, conductive black hand-guard	5-194	Tweezers, made from conductive and acid-resistant black plastic material, reinforced with glass fibre, 120 mm, with bent, pointed tips
3-245-13	Telephone pliers, 200 mm, snipe nose, with cutting edge for hard wire, chrome-plated, conductive black hand-guard	6-612	Socket wrench with conductive handle, blade from chrome vanadium, nickel-plated, A/F 2.0 mm
3-732-13	Combination pliers, 165 mm, chrome-plated, conductive black hand-guard	6-617	Socket wrench with conductive handle, blade from chrome vanadium, nickel-plated, A/F 4.0 mm
4-603	Screwdriver with conductive handle, blade from chrome vanadium, chrome-plated, with black tip, 50 x 1.5 mm	6-621	Socket wrench with conductive handle, blade from chrome vanadium, nickel-plated, A/F 5.5 mm
4-605	Screwdriver with conductive handle, blade from chrome vanadium, chrome-plated, with black tip, 60 x 2.0 mm	6-659	TORX-screwdriver T 4, with conductive handle, blade from chrome vanadium, chrome-plated, with black tip
4-606	Screwdriver with conductive handle, blade from chrome	6-661	TORX-screwdriver T 5, with conductive handle, blade from chrome vanadium, chrome-plated, with black tip
4-621	vanadium, chrome-plated, with black tip, 60 x 2.5 mm Cross-recess screwdriver size 000, with conductive handle,	6-662	TORX-screwdriver T 6, with conductive handle, blade from
4-021	blade from chrome vanadium, chrome-plated, with black tip	6-663 L	chrome vanadium, chrome-plated, with black tip TORX-screwdriver T 7 with hole, with conductive handle, blade
4-622	Cross-recess screwdriver size 00, with conductive handle,	0-000 L	from chrome vanadium, chrome-plated, with black tip
	blade from chrome vanadium, chrome-plated, with black tip	6-665 L	TORX-screwdriver T 9 with hole, with conductive handle, blade
4-623	Cross-recess screwdriver size 0, with conductive handle, blade from chrome vanadium, chrome-plated, with black tip	7-422	from chrome vanadium, chrome-plated, with black tip ESD brush, bristles width 20 mm
		1=422	

To complete the set we recommend:

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9-316/5	5 Chip-Container, conductive box with lid, black,
	internal dimensions: 118 x 32 x 14 mm
9-356	ESD-Handling-Set, foldable, with contact bracelet and earth wire
4-643	Extra long screwdriver with conductive special-square pattern
	handle, blade from chrome vanadium, chrome-plated, with black
	tip, 300 x 5.5 mm
4-656	Extra long cross-recess screwdriver PH size 1, with conductive special-square pattern handle, blade from chrome vanadium,
	chrome-plated, with black tip, blade length 300 mm
4-657	Extra long cross-recess screwdriver PH size 2, with conductive
	special-square pattern handle, blade from chrome vanadium,
	chrome-plated, with black tip, blade length 300 mm

7-422	ESD brush, bristles width 20 mm
6-675 L	Extra long TORX-screwdriver T 10 with hole, with conductive special-square pattern handle, blade from chrome vanadium, chrome-plated, with black tip, blade length 300 mm

- 6-676 L Extra long TORX-screwdriver T 15 with hole, with conductive special-square pattern handle, blade from chrome vanadium, chrome-plated, with black tip, blade length 300 mm
- 6-677 L Extra long TORX-screwdriver T 20 with hole, with conductive special-square pattern handle, blade from chrome vanadium, chrome-plated, with black tip, blade length 300 mm







EPA 6900 ELECTRONIC SERVICE CASE

The service case for maintenance and installation tasks in ESD protected areas







EUROline 2600 SERVICE SET

The high quality service equipment for the electronics engineer



2600 (BERNSTEIN) EUROline with tool set

2601 Case with zip fastener, without tools

Description:

Black imitation leather case with zip fastener and velvet grey lining.

22 tools are clearly arranged in pockets made from black imitation leather. For taking CD-ROM, or documents an elastic loop is fixed. The selected electronics pliers and screwdrivers are from the BERNSTEIN "EUROline"-range. The CD in the above picture is not included.

Outside dimensions: 320 x 250 x 50 mm (when closed)

Weight with tools: approx. 0.900 kg

No.	Description of individual tools	No.	Description of individual tools
1-735	Adjusting screwdriver handle, double-ended, for blades with 3 mm Ø	4-162	Electronics screwdriver with special handle and swivel top, blade made from chrome vanadium, chrome-
1-738	Special hard plastic bit, blade Ø 3 mm, tip 1.5 x 0.5 mm		plated, with black tip, 40 x 1.5 mm
1-739	Special hard plastic bit, blade Ø 3 mm, tip 3.0 x 0.5 mm	4-165	Electronics screwdriver as above, 50 x 3.0 mm
2-127	Tin knife with plastic handle, 115 mm	4-281	Electronics cross-recess screwdriver as above, size 000
2-166	Glass fibre contact cleaner	4-282	Electronics cross-recess screwdriver as above, size 00
2-265	2 test prods, red and black, extremely slim, pointed	4-283	Electronics cross-recess screwdriver as above, size 0
	and flexible, blade made from 1 mm steel wire	5-006	Component tweezers, with insulated jaws, 140 mm
2-620 3-655-14	PLCC extractor EUROline side cutters, 120 mm, with slim, rounded	5-051	SMD tweezers, anti-magnetic, non-reflective, straight, pointed, 115 mm
5-055-14	head, without side face, box joint, double leaf spring, fine-polished and bright-burnished,	5-052	SMD tweezers, anti-magnetic, non-reflective, bent, very sharply pointed, 110 mm
3-672-14	bicolour insulation EUROline end cutters, 130 mm, 20° angular	5-062	SMD tweezers, anti-magnetic, non-reflective, bent, flat tips, with gripping cavity, 115 mm
	without side face, box joint, double leaf spring, fine-polished and bright-burnished, bicolour insulation	6-681	TORX screwdriver with special handle and swivel top, blade made from chrome vanadium, chrome- plated, with black tip, size T 5
3-683-14	EUROline snipe nose pliers, 130 mm, plain jaws, box joint, double leaf spring, fine-polished and bright-burnished, bicolour insulation	6-683 L	TORX screwdriver with special handle and swivel top, blade made from chrome vanadium, chrome-plated, with black tip, size T 7 with bore-hole in the tip

NETWORK 2700 SERVICE SET

The set with all essential tools for the assembly and maintenance of networks



2700 (BERNSTEIN) NETWORK with tool set

2701 Case with zip fastener, without tools

Description:

In an elegant black nylon case with zip fastener and velvet grey lining 23 special tools are clearly arranged in pockets.

Outside dimensions: 320 x 250 x 100 mm (when closed)

Tool set:

No.	Description of individual tools
2-601	IC-tweezers, nickel-plated, 125 mm, for gripping, inserting and removing IC´s
3-125-1	Micro side cutters, 110 mm, for soft wire up to 0.8 mm and hard wire up to 0.3 mm, chrome-plated, with BERNSTEINIT-insulation
3-235-1	Telephon pliers, 160 mm, chrome-plated, with BERNSTEINIT-insulation
3-815-1	Wire strippers, 155 mm, with adjusting screw for all wire thicknesses, chrome-plated, with BERNSTEINIT-insulation
3-0605	Combination-crimping pliers for connector types, 6P/6C, 6P/4C, 6P/2C, 8P/8C
3-0611	Crimping pliers for BNC- and TNC-coaxial connectors
4-141	Screwdriver with special square BERNSTEIN handle, blade made from chrome vanadium, 75 x 3.5 mm, chrome-plated, with black tip
4-143	Screwdriver as above, 125 x 5.5 mm, chrome-plated, with black tip
4-255	Cross-recess screwdriver size 0, with special square BERNSTEIN handle, blade made from chrome vanadium, chrome-plated, with black tip , blade length 60 mm
4-256	Cross-recess screwdriver size 1, as above, blade length 80 mm
4-257	Cross-recess screwdriver size 2, as above, blade length 100 mm

No.	Description of individuel tools
4-775	Plastic sprung handle for socket wrenches
5-161	Clamping scissors, 130 mm, stainless, with serrated gripping jaws
5-0601	Rotary coaxial cable stripper for cable types RG 58, RG 59 and RG 62
6-203	Socket wrench, 6.0 mm, chrome vanadium, nickel plated, without handle
6-205	Socket wrench, 8.0 mm, chrome vanadium, nickel plated, without handle
6-207	Socket wrench, 10.0 mm, chrome vanadium, nickel plated, without handle
6-772	Adjustable wrench, chrome vanadium, 150 mm, jaw opening 0 - 18 mm
6-965 L	TORX-Screwdriver, size T 10, with bore-hole in the tip, with special square BERNSTEIN handle, blade made from chrome vanadium, chrome-plated, black tip
6-966 L	TORX-Screwdriver, size T 15, as above, with bore-hole in the tip
6-967 L	TORX-Screwdriver, size T 20, as above, with bore-hole in the tip
8-390	Desoldering pump, 195 mm long, 20 mm Ø
8-396	Gas-soldering-iron Portasol, 10 - 60 W, maximum temperature up to 450° C

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Weight with tools: 2.750 kg

MASTER 3000 SERVICE CASE The indispensable pouch-style service case for the discerning engineer





3015



- 3000 (BERNSTEIN) MASTER with tool set
- 3010 (BERNSTEIN) MASTER with tool set, without gas solder
- 3015 **BERNSTEIN** MASTER without tool set

Description:

Elegant black grained leather case with all-round zip fastener, inside equipped with black perforated plates.

22 BERNSTEIN tools are clearly arranged on these plates fixed by clips and elastic ribbons .

In the empty case No. 3015 elastic ribbon and clips as well as a clip fastening device are attached for individual arrangement.

Outside dimensions: 245 x 130 x 60 mm (when closed)

Weight with tools: approx. 1.100 kg

No.	Description of individual tools	No.	Description of individual tools
2-291	Plastic magnifying glass, 30 mm Ø; 5 x magnification	4-331	Assembly screwdriver with plastic handle, nickel-plated blade,
3-131-1	Side cutters, 120 mm, for hard wire up to 0.8 mm, for soft wire up to 1.5 mm, chrome-plated, with BERNSTEINIT insulation	4-391	45 x 6 mm, with special square pattern BERNSTEIN handle Watchmaker's screwdriver, nickel-plated, with 4 interchangeable blades 1.5, 2.0, 2.5 and 3.0 mm
3-482-1	Snipe nose pliers, 140 mm, angular, with long jaws, slim model,	5-107	Steel tweezers, with bent tips, 150 mm, nickel-plated
	with compression spring, chrome-plated, with BERNSTEINIT insulation	5-117	Steel tweezers, straight, flat and wide, 145 mm, nickel-plated
3-565	Water pump pliers, 130 mm, chrome-plated	5-261	Contact file, 150 mm
4-142	Screwdriver to DIN 5265, with special square pattern BERNSTEIN handle, blade made from chrome vanadium,	5-301	Special sheet-metal scissors, serrated, extremely slim, 110 mm, nickel-plated
	chrome-plated, with black tip, 100 x 4 mm	6-814	Wrench key, 2.0 A/F mm, angle-shaped, special steel, nickel-plated
4-271	Cross-recess screwdriver, Supadriv/Pozidriv, sice 0, with special	6-815	Wrench key, 2.5 A/F mm, as above
	square pattern BERNSTEIN handle, blade made from chrome vanadium, chrome-plated, with black tip, blade length 60 mm	6-816	Wrench key, 3.0 A/F mm, as above
4-273	Cross-recess screwdriver, Supadriv/Pozidriv, sice 2, with special	6-817	Wrench key, 3.5 A/F mm, as above
4-275	square pattern BERNSTEIN handle, blade made from chrome	6-995-10	Torx-wrench key, T 10, with bore hole, chrome vanadium, burnished
	vanadium, chrome-plated, with black tip, blade length 100 mm	6-995-15	Torx-wrench key, T 15, as above
4-311	Screwdriver for grub screws with plastic handle,	6-995-20	Torx-wrench key, T 20, as above
	blade made from chrome vanadium, nickel-plated, 80 x 2.8 mm	8-396	Gas-soldering-iron Portasol, 10 - 60 W, maximum temperature up to 450° C

SPRINTER 3100 SERVICE CASE

The handy tool case for service-inspection of the electronics engineer



3100 (BERNSTEIN) SPRINTER with tool set

3110 (BERNSTEIN) SPRINTER with tool set but without gas solder

3115 **BERNSTEIN** SPRINTER without tool set

Description:

Elegant black grained leather case with all-round zip fastener and red plastic lining. The set comprises 19 BERNSTEIN tools for service work. The BERNSTEIN Sprinter has a handy size for the pocket of the smock.

Outside dimensions: 205 x 120 x 50 mm (when closed)

Tool set:

No.	Description of individual tools	No.	Description of individual tools
1-151	Adjusting screwdriver, blade 40 x 3 mm	4-141	Screwdriver, with special square pattern BERNSTEIN handle,
1-305	Adjusting screwdriver, blade 80 x 2.4 mm with bronze insert 1.1 x 0.5 mm		blade made from chrome vanadium, chrome-plated, with black tip, 75 x 3.5 mm
1-307	Adjusting screwdriver, blade 80 x 2.4 mm, with bronze tip 2.0 x 0.5 mm	4-271	Cross-recess screwdriver, Supadriv/Pozidriv, size 0 with special square pattern BERNSTEIN handle, blade made from chrome vanadium, nickel-plated, with black tip
2-127	Tin knife with plastic handle, 115 mm		· · · · · · · · · · · · · · · · · · ·
2-166	Contact-cleaner, made from glass fibre	4-311	Screwdriver for headless screws, with plastic handle, blade made from chrome vanadium, nickel-plated, 80 x 2.8 mm
2-265-1	Test prod, red, especially thin, pointed and flexible, blade made from 1 mm steel wire	4-393	Watchmaker's screwdriver, with 5 interchangeable blades 1.5, 2.0, 2.5, cross-recess blades size 00 and 000
2-265-2	Test prod, black, especially thin, pointed and flexible, blade made from 1 mm steel wire	4-406	Screw holder, nickel-plated, blade 80 x 4 mm
0.075		5-049	Watchmaker's tweezers, 110 mm, stainless, sharply-pointed
2-275	Repair mirror, 21 mm Ø	5-107	Steel tweezers, with bent tips, 150 mm, nickel-plated
3-127-2	"Slimline" side cutters, 115 mm, for soft wire up to 1.0 mm,	6-771	Adjustable wrench, jaw opening 0-12 mm, total length 100 mm
	extremely slim head, box joint, compression spring, chrome-plated, with transparent insulation	8-396	
0.455.0		0-390	Gas-soldering-iron Portasol, 10 - 60 W, maximum temperature up to 450° C
3-455-2	Micro snipe-nose pliers, 120 mm, extremely light and slim, box joint, chrome-plated, with transparent insulation		

Weight with tools: approx. 0.750 kg



ELECTRONICA 2000 SERVICE SET The practical service case for the electronics engineer



2000 BERNSTEIN ELECTRONICA with tool set

2001 Case with zip fastener, without tools

Description:

Elegant case with zip fastener made from black imitation leather with pockets for tools and notes. The case, which contains 18 clearly arranged special tools, can also carry a soldering iron. In addition to writing materials, the writing case side has room in its 3 compartments for a writing block, leaflets and technical documents. There is also a transparent window for visiting cards or calendars and a pocket for small parts.

Outside dimensions: 330 x 235 x 50 mm (when closed)

Weight with tools: approx. 1.050 kg

No.	Description of individual tools	No.	Description of individual tools
1-303	Adjusting screwdriver, blade 155 x 2.8 mm, with bronze insert 2.5 x 0.5 mm	3-445-2	Micro flat nose pliers, 120 mm, box joint, extremely light and slim, chrome-plated, with transparent insulation
1-304	Adjusting screwdriver, blade 155 x 2.8 mm, with bronze insert 1.7 x 0.7 mm	3-455-2	Micro pointed pliers, 120 mm, snipe nose, box joint, extremely light and slim, chrome-plated, with transparent
1-305	Adjusting screwdriver, blade 80 x 2.5 mm, with bronze insert 1.1 x 0.5 mm	4-141	insulation Engineer's screwdriver with special square BERNSTEIN handle,
1-971	Adjusting screwdriver, blade 80 x 2.0 mm, blade made from hard special plastic		blade made from chrome vanadium, chrome-plated, 75 x 3.5 mm, with black tip
2-126	Desoldering bar, slotted at one end, nickel-plated, insulated, with plastic handle	4-301	Miniature screwdriver with plastic handle, blade nickel-plated, 40 x 1.8 mm
2-127	Tin knife with pointed, sharp blade, high quality steel, for cutting circuit paths and for burring	4-311	Screwdriver for grub screws, with plastic handle, blade made from chrome vanadium, nickel-plated, 80 x 2.8 mm
2-165	Contact cleaner, brush-shaped, with wire bristles	5-006	Transistor tweezers, nickel-plated, with insulated jaws; for easy removal and insertion of plug-in transistors of various
3-125-2	Micro side cutters, 110 mm, for soft wire up to 0.8 mm, slim, pointed head, box joint, compression spring, chrome-plated,		sizes, 140 mm
	with transparent insulation	5-107	Steel tweezers with bent tips, 150 mm, nickel-plated
3-165-2	End cutters for electronics, 160 mm, with angular tip and cutting edge for soft wire up to 1.0 mm, box joint, chrome-plated, with transparent insulation	5-115	Heat dissipating tweezers, made from steel, the flat, wide points of the tweezers are narrow and provided with copper jaws, for use when soldering transistors, gold-bonded diodes etc.,
3-435-2	Micro round nose pliers, 120 mm, box joint, extremely light and slim, chrome-plated, with transparent insulation		165 mm, nickel-plated



ERINSTEIN

LAPTOP 3200 ELECTRONIC SERVICE CASE The professional combination of Laptop Bag and Tool Case



3200 (BERNSTEIN) Laptop with tool tray, with tool set

3215 (BERNSTEIN) Laptop with tool tray, without tool set

3255 (BERNSTEIN) Laptop without tool tray, without tool set

Description:

Elegant Laptop and Tool Case made from black nylon, with inside pad and reinforced frame. The bag is divided in 2 zip-fastener bags and has loops on both sides for attaching the shoulder strap.

The tray in the upper zip-fastener bag is prepared for the arrangement of a Laptop, together with the necessary accessories, e.g. connector cable, power supply and mouse. The lid of this bag is provided with several pockets for CDs, USB-sticks, writing utensils and documentations. The design 3200 additionally is equipped with a tool tray accurately arranged with 28 special tools. This removable tray is fastened in the case as a

swivel-tool-tray with hook-and-loop tape. The bottom zip-fastener bag, with 3 partitions, is mainly provided for documents and literatures.

Outside dimensions: 480 x 380 x 140 mm (when closed)

Weight with tools: approx. 3.550 kg

No.	Description of individual tools	No.	Description of individual tools
1-552	Adjusting screwdriver, 2 x 0.4 x 120 mm	3-565	Water pump pliers, 130 mm, chrome-plated
2-126	Desoldering bar, slotted at one end, nickel-plated, insulated, with plastic handle	4-142	Screwdriver to DIN 5265, with special square pattern BERNSTEIN handle, blade made from chrome vanadium,
2-127	Tin knife with pointed, sharp blade, high quality steel, for cutting circuit paths and for burring	4-406	chrome-plated, with black tip, 100 x 4 mm Retaining screwdriver, 80 x 4 mm, vernickelt
2-166	Glass fibre contact cleaner brush with rotary		Interchangeable screwdriver set
	mechanism, plastic casing	4-901	ESD handle with brass clamping sleeve
2-265	2 Test prods, red and black, extremely slim, pointed and	4-905	Hexagon blade widths 1.5 / 3.0 mm, matt chrome-plated, black tip
	flexible, blade made from 1 mm steel wire	4-906	Hexagon blade as above, widths 2.0 / 3.5 mm
2-275	Repair mirror, 21 mm Ø, with handle, 180 mm long	4-907	Hexagon blade as above, widths 2.5 / 4.0 mm
2-601	IC tweezers, nickel-plated, 125 mm, for gripping,	4-911	Hexagon blade as above, cross-recess PH 000 / PH 00
	inserting and removing IC's	4-912	Hexagon blade as above, cross-recess PH 0 / PH 1
2-620 3-109-2	PLCC extractor for easy removal of plug-in PLCC's	4-921	Hexagon blade as above, TORX T 5 / T 6
3-109-2	Side cutters, 120 mm, with wide, rounded head, without side face, chrome-plated, with transparent insulation	4-922 L	Hexagon blade as above, TORX T 7 / T 8, with bore hole
3-127-2	Slimline side cutters, 115 mm, for soft wire up to 1 mm,	4-923 L	Hexagon blade as above, TORX T 9 / T 10, with bore hole
	extremely slim head, box joint, compression spring, chrome-plated, with transparent insulation	5-051	SMD-tweezers, 115 mm, straight, pointed, anti-magnetic, stainless, matt finish, acid-resisting
3-445-2	Micro flat nose pliers, 120 mm, extremely slim, box joint,	5-107	Steel tweezers with bent tips, 150 mm, nickel-plated
3-481-2	chrome-plated, with transparent insulation Snipe nose pliers, 120 mm, angular, box joint, compression spring, chrome-plated, with transparent insulation	5-301	Special scissors for cutting sheet-metal and wires, with serration, extremely slim, 110 mm, nickel-plated

PRAXIS 1750 ELECTRONIC SERVICE CASE

Flat tool case with special styling



1750 (BERNSTEIN) PRAXIS with tool set
1755 (BERNSTEIN) PRAXIS without tool set



Description:

Elegant briefcase in impact-resistant, double-walled grained black plastic. The tools are clearly arranged in 2 pivoting tool trays. A document compartment is provided on the back of one tool tray. The bottom of the case has a deep-drawn tray, 30 mm high, with dividers of differing sizes. The case has 2 locks.

Outside dimensions: 435 x 325 x 85 mm

Weight without tools: approx. 3.000 kg

Weight with tools: approx. 4.200 kg

Tool set:

No.	Description of individual tools
1-151	Adjusting screwdriver, blade 40x3 mm
2-126	Desoldering lever, slotted at one end, with plastic handle
2-132	Spring hook, nickel-plated and insulated, 175 mm
2-265	2 Test prods, red and black, extremely slim, pointed and flexible, blade made from 1 mm steel wire
3-127-2	Slimline side cutters, 115 mm, for soft wire up to 1 mm, extremely slim head, box joint, compression spring, chrome-plated, with transparent insulation
3-131-1	Side cutters, 120 mm, for hard wire up to 0.8 mm, for soft wire up to 1.5 mm, chrome-plated, with BERNSTEINIT insulation
3-445-2	Micro flat-nose pliers, 120 mm, box joint, chrome-plated, with transparent insulation
3-455-2	Micro snipe-nose pliers, 120 mm, oval-pointed design, box joint, chrome-plated, with transparent insulation
3-565	Miniature water-pump pliers, 120 mm, chrome-plated
4-141	Screwdriver to DIN 5265, with special square pattern BERNSTEIN handle, blade made from chrome vanadium, chrome-plated, with black tip, 75 x 3.5 mm
4-142	Screwdriver as above, blade 100 x 4 mm
4-143	Screwdriver as above, blade 125x 5.5 mm
4-271	Cross-recess screwdriver, Supadriv/Pozidriv, size 0, with special square pattern BERNSTEIN handle, blade made from chrome vanadium, nickel-plated, with black tip
4-272	Cross-recess screwdriver, Supadriv/Pozidriv, as above, size 1
4-301	Miniature screwdriver, with plastic handle, blade nickel-plated, 40 x 1.8 mm
4-311	Screwdriver for headless screws, with plastic handle, blade made from chrome vanadium, nickel-plated, 80x2.8 mm
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No.	Description of individual tools
4-343 VDE	Voltage tester, blade 60 x 3 mm
4-351	Offset screwdriver, chrome vanadium, nickel-plated, 100 x 5 mm
4-366	Cross-recess watchmaker's screwdriver, size 00
4-391	Watchmaker's screwdriver, nickel-plated, with 4 interchangeable blades, 1.5, 2.0, 2.5, 3.0 mm
4-407	Screw holder, 110 x 4 mm
4-775	Plastic handle, 6 mm, for socket-spanner
5-006	Component tweezers, nickel-plated, with insulated jaws, for easy insertion and removal of plug-in transistors of various sizes
5-107	Engineer's tweezers, made from steel, with bent tips, 150 mm, nickel-plated
5-115	Heat dissipating tweezers, 165 mm, nickel-plated, for use when soldering transistors, gold-bonded diodes etc.
5-117	Engineer's tweezers, made from steel, straight-flat-wide, 145 mm, nickel-plated
5-201/6	Needle files, set of 6 pieces
5-301	Special scissors for cutting sheet-metal and wires, with serration, extremely slim, 110 mm, nickel-plated
5-501	Cable knife
6-202	Socket spanner, without handle, 5.5 mm, made from chrome vanadium, nickel-plated
6-204	Socket spanner as above, 7.0 mm
6-820	Set of allen hex sockets, 8 pieces, in plastic wallet, 1.5, 2.0, 2.5, 3.0, 4.0, 5.0, 5.5, 6.0 mm
7-425	Dust brush
7-505	Roller tape measure, 1 m

To complete the set we recommend:

 $\ensuremath{\text{Plastic box}}$ with hinged lid and adjustable compartments, 200 x 130 x 30 mm

9-325



HANDY 1500 ELECTRONIC SERVICE CASE

The small and very handy service case with big space inside





1500 (BERNSTEIN) HANDY with tool set 1515 (BERNSTEIN) HANDY without tool set

Description:

Case-body made from deep-drawn, impact-resistant, grained black plastic shells, pressed on a stable alu-frame, dustproof and rainproof, acid- and scratch-resistant. It has loops at the sides for attaching a shoulder strap.

Fixed by stretch-ribbons, 41 special tools are clearly arranged on two swivel-tool-trays. A special pocket in the case-lid offers a lot of space for documents, pencils etc.. The bottom contains a stable plastic insert of 75 mm depth for spare parts, measuring instruments and soldering irons. 4 adjustable partitions allow a flexible division. For security purposes the case is equipped with 2 key-locks.

Outside dimensions: 340 x 360 x 180 mm

Weight without tools: approx. 3.300 kg

Weight with tools: approx. 4.300 kg

No.	Description of individual tools	No.	Description of individual tools
1-152 2-126	Adjusting screwdriver, blade 40 x 4 mm Desoldering lever, slotted at one end, with plastic handle	4-301	Miniature screwdriver, with plastic handle, blade nickel-plated 40 x 1.8 mm
2-127 2-132	Tin knife, with plastic handle, 115 mm Spring hook, nickel-plated and insulated, 175 mm	4-311	Screwdriver for headless screws, with plastic handle, blade made from chrome vanadium, nickel-plated, 80 x 2.8 mm
2-132	Contact cleaner, made from glass fibre	4-343 VDE	Voltage tester, blade 60 x 3 mm
2-166	2 Test prods, red and black, extremely slim, pointed and	4-366	Cross-recess watchmaker's screwdriver, size 00
	flexible, blade made from 1 mm steel wire	4-391	Watchmaker's screwdriver, nickel-plated, with 4 interchangeable blades, 1.5, 2.0, 2.5 and 3.0 mm
2-275	Repair mirror, 21 mm Ø	4-407	Retaining screwdriver, 110 x 4 mm
2-601	IC tweezers, nickel-plated, 125 mm, for gripping, inserting and removing IC's	4-775	Plastic handle, 6 mm, for socket wrenches
2-620	PLCC extractor, for easy removal of plug-in PLCC's	5-006	Component tweezers, nickel-plated, with insulated jaws, for easy
3-127-2	"Slimline" side cutters, 115 mm, for soft wire up to 1.0 mm, extremely slim head, box joint, compression spring, chrome-plated, with transparent insulation	5-107	insertion and removal of plug-in transistors of various sizes Engineer's tweezers made from steel, with bent tips, 150 mm, nickel-plated
3-131-1	Side cutters, 120 mm, chrome-plated, for hard wire up to 0.8 mm,	5-181	Wire scraper, for wires 0.6 mm Ø, interchangeable cutter
	for soft wire up to 1.5 mm, with BERNSTEINIT insulation	5-301	Special scissors, for cutting sheet-metal and wires, with
3-445-2	Micro flat nose pliers, 120 mm, extremely slim, box joint,		serrations, extremely slim, 110 mm, nickel-plated
	chrome-plated, with transparent insulation	5-515	Universal blade knife, with adjustable blade
3-481-2	Snipe nose pliers, 120 mm, angular, box joint, compression	6-202	Socket wrench, C.V. nickel-plated, 5.5 mm A/F, without handle
4 1 4 0	spring, chrome-plated, with transparent insulation	6-204	Socket wrench, C.V. nickel-plated, 7.0 mm A/F, without handle
4-142	Screwdriver, with special square pattern BERNSTEIN handle, blade made from chrome vanadium, chrome-plated,	6-771	Adjustable wrench, jaws opening 0 - 12 mm, total length 100 mm
	with black tip, 100 x 4 mm	6-820	Set of wrench keys, 8 pieces, in plastic wallet, 1.5, 2.0,
4-271	Cross-recess screwdriver, Supadriv/Pozidriv, size 0, with special square pattern BERNSTEIN handle, blade made from chrome vanadium, nickel-plated, with black tip	7-425	2.5, 3.0, 4.0, 5.0, 5.5 and 6.0 mm Dust brush
4-272	Cross-recess screwdriver, Supadriv/Pozidriv, size 1, with special square pattern BERNSTEIN handle, blade made from chrome vanadium, nickel-plated, with black tip		

ELECTRONIC SERVICE CASE DATA

The handy tool case for quick service in data systems engineering



Description:

Case made from deep-drawn, grained plastic, with a black aluminium frame, rainproof, impact-, acid- and scratch-resistant. The 34 tools are placed at hand on a pivoting tool tray. The lid of the case has a pocket for documents. In the bottom is a plastic-tray with adjustable partitions for measuring instruments, soldering tools and components to the height of 60 mm. The case has 2 locks.

Outside dimensions: 460 x 310 x 120 mm

Weight without tools: approx. 3.800 kg

Weight with tools: approx. 4.700 kg

Tool set:

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No.	Description of individual tools	No.	Description of individual tools
1-909	Engineer's mirror, with handle, made entirely from BERNSTEINIT	4-343 VDE 4-366	Voltage tester, blade 60 x 3 mm Cross-recess watchmaker's screwdriver, size 00
2-127 2-132	Tin knife, with plastic handle, 115 mm Spring hook, nickel-plated and insulated, 175 mm	4-391	Watchmaker's screwdriver, nickel-plated, with 4 interchangeable blades, 1.5, 2.0, 2.5, 3.0 mm
2-166 2-265-1	Contact cleaner, made from glass fibre, 115 mm Test prod, black, especially thin, pointed and flexible,	14-603 VDE	Screwdriver, with VDE safety insulation, blade made from chrome vanadium, 100 x 4.0 mm
2-265-2	blade made from 1 mm steel wire, 155 mm Test prod, black, especially thin, pointed and flexible,	5-107	Engineer's tweezers, made from steel, with bent tips, 150 mm, nickel-plated
2-291	blade made from 1 mm steel wire, 155 mm Plastic magnifying glass	5-117	Engineer's tweezers, made from steel, straight-flat-wide, 145 mm, nickel-plated
2-601	IC tweezers, nickel-plated, 125 mm, for gripping, inserting and removing IC's	5-121	Engineer's tweezers, made from steel, straight, with narrow pointed tips, 120 mm, nickel-plated
3-127-2	"Slimline" side cutters, 115 mm, for soft wire up to 1.0 mm, extremely slim head, box joint, compression spring,	5-301	Special scissors for cutting sheet-metal and wires, with serration, extremely slim, 110 mm, nickel-plated
	chrome-plated, with transparent insulation	6-771	Adjustable wrench, jaw opening 0-12 mm, total length 100 mm
3-131-1	Side cutters, 120 mm, chrome-plated, for hard wire up to 0.8 mm, for soft wire up to 1.5 mm, with BERNSTEINIT	6-820	Set of allen hex sockets, 8 pieces, in plastic wallet, 1.5, 2.0, 2.5, 3.0, 4.0, 5.0, 5.5, 6.0, mm
0 455 0	insulation	7-505	Roller tape measure, 1 m
3-455-2	Micro pointed pliers, 120 mm, extremely light and slim, box joint, chrome-plated, with transparent insulation	7-512	Miniature caliper square, stainless, measuring range 75 mm
4-141	Screwdriver to DIN 5265, with special square BERNSTEIN handle, blade made from chrome vanadium, chrome-plated, with black tip, 75 x 3.5 mm		
4-271	Cross-recess screwdriver, Supadriv/Pozidriv, size 0	To compl	ete the set we recommend:
	with special square pattern BERNSTEIN handle, blade made from chrome vanadium, nickel-plated, with black tip	9-325	Plastic box with hinged lid and adjustable compartments, 200 x 130 x 30 mm
4-272	Cross-recess screwdriver, Supadriv/Pozidriv, size 1, with special square pattern BERNSTEIN handle, blade made from chrome vanadium, nickel-plated, with black tip	8-390 8-135	Desoldering pump, length 195 mm, 20 mm Ø ERSA "Multitip" soldering iron, 15 W, 220 V
4-311	Screwdriver for headless screws, with plastic handle, blade made from chrome vanadium, nickel-plated, 80 x 2.8 mm		



ELECTRONIC SERVICE-CASE SECURITY 6750

A case with the basic equipment of special tools for the installation and maintenance of **complex protective devices and alarm systems**



6750 (BERNSTEIN) SECURITY with tool set

6755 (BERNSTEIN) SECURITY without tool set

5 - 12 mm, built-in side cutters for max. Ø 2 mm

Description:

Case made from deep-drawn, impact-resistant, grained black plastic, with sturdy aluminium frame, dustproof and rainproof, acid- and scratch-resistant. 64 tools are clearly arranged on two removable tool trays, one of it on both sides, and in the bottom tray with adjustable partitions. Further tools or accessories can be lodged in the tray until 60 mm height. The basic equipment for special operations at protective devices and alarm systems may efficiently be completed by special tools additionally recommended. The case has 2 locks.

Outside dimensions: 470 x 340 x 170 mm

Weight without tools: ca. 4.600 kg

Weight with tools: ca. 8.400 kg

Tool set:

No.	Description of individual tools	No.	Description of individual tools
2-265	2 Test prods, red and black, extremely slim, pointed and flexible,	5-535	Coax cable stripper for Coax cabel Ø 4.8 - 7.5 mm
	blade made from 1 mm steel wire	6-103	Socket wrench, with special BERNSTEIN square handle,
2-701	Insertion tool with sensor		blade made from CV, chrome-plated, SW 4,5 mm
	for connecting the wires and simultaneously cutting of the	6-104	Socket wrench, as above, AF 5.0 mm
	residual wire	6-105	Socket wrench, as above, AF 5.5 mm
2-705	Contactless voltage detector VOLTtester	6-600	Combination ring- and open-ended wrench, 7-piece set,
3-112-2	Side cutters, 120 mm, for soft wire up to 1.0 mm Ø; with rounded		CV, chrome-plated, 6,0, 7,0, 8,0, 9,0, 10,0, 11,0, 13,0 mm
	head, without side face, double leaf spring, chrome-plated, with	6-880	Hexagon wrench keys, 8-piece set in a wallet,
0.0011	dip insulation		1/16", 5/64", 3/32", 1/8", 5/32", 3/16", 7/32", 1/4"
3-0611	Crimping pliers, for BNC- and TNC-coaxial connectors	6-950	Ballpoint wrench keys, hexagon, 8-piece set in a wallet,
13-906 VDE		0.005	1.5, 2.0, 2.5, 3.0, 4.0, 5.0, 6.0, 8.0 mm
13-915 VDE	chrome-plated, VDE safty insulation	6-995	TORX srewdrivers with bore-hole in the tip,
13-915 VDE		7-116	8-piece set in a box, T 9, T 10, T 15, T 20, T 25, T 27, T 30, T 40
13-927 VDL	VDE safty insulation	7-425	Engineer's hammer to DIN 1041, 300 g Dust brush
13-936 VDE		7-425	Roller tape measure, 2 m
10 300 VDL	VDE safty insulation	7-535	Spirit level, 225 mm long
4-431	Retaining srewdriver , for inserting and tightening slotted screws,	7-616	Pocket hack saw PUK, with adjustable handle in a wallet
	blade made for CV, burnished, insulated, blade 100 x 3.0 mm	8-375	ERSA gas soldering iron, Independent 75
4-437	Retaining srewdriver, for inserting and tightening cross-recess	8-385	ERSA desoldering pump OVAC X
	screws size 1, blade made for CV, burnished, insulated		51. 1
14-651 VDE	Screwdriver, with VDE insulation, blade 75 x 2.5 mm		
14-652 VDE			
14-653 VDE		To comp	plete the set we recommend:
14-681 VDE		•	
14-682 VDE		2270 4-222	Service Set ACCENT, 9-piece set with ESD tools Srewdriver, blade 260 x 3.0 mm
14-683 VDE		4-222	Cross-recess srewdriver, size 1, blade length 300 mm
14-684 VDE		4-227	Cross-recess srewdriver, size 1, blade length 300 mm
5-505	Insulation stripping tool, with hook blade, for cable Ø 4 - 28 mm	4-920	Interchangeable srewdriver set with ESD-handle, 9-piece,
5-515	Universal blade knife	- 320	Slot 1.5/3.0 mm, 2.0/3.5 mm und 2.5/4.0 mm, KS Gr. 000/00, 0/1,
5-531	Automatic wire stripper Super, for all common stranded and solid conductors of 0.2 - 6.0 mm ² , adjustable length stop of		TORX T 5/T 6, T 7L/T 8L, T 9L/T 10L, ("L" with bore hole)

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PC-CONTACT ELECTRONIC SERVICE CASE

The clearly arranged tool case for the prompt and efficient servicing of computers

6100 **BERNSTEIN** PC-CONTACT with tool set

6115 (BERNSTEIN) PC-CONTACT without tool set

Description:

Elegant, hard-wearing case made from deep-drawn, impact-resistant, grained dark brown plastic with a continuous bronze anodised aluminium frame, dustproof and rainproof, acid-resistant, scratch-resistant and non-slip.

65 tools are clearly arranged in pockets on one swiveling and one removable tray. The back of the panel has elastic loops to take documents, pcb's, cd's, etc. The lid of the case is padded with foam rubber. The split plastic tray in the bottom of the case, which is intended to take spare parts, measuring instruments and soldering equipment, is 60 mm high.

The case has a lock strip with 2 locks and is centrally lockable. It has loops at the sides for attaching a carrying strap.

Outside dimensions: 460 x 350 x 170 mm

Weight without tools: approx. 3.700 kg

Weight with tools: approx. 5.400 kg

Tool set:

No.	Description of individual tools	No.	Description of individual tools
2-127	Tin knife, with plastic handle, 115 mm	4-272	Cross-recess screwdriver, Supadriv/Pozidriv as above, size 1
2-132	Spring hook, nickel-plated and insulated, 175 mm	4-281	Electronics cross-recess screwdriver with special black handle
2-161	Magnetic bar with double ball- and socket joint, slewable, 215 mm		and swivel top, size 000, blade chrome vanadium, chrome-plated, with black tip
2-166	Contact cleaner, made from glass fibre, 115 mm	4-282	Electronics cross-recess screwdriver as above, size 00
2-265	2 Test prods, red and black, extremely slim, pointed and flexible,	4-283	Electronics cross-recess screwdriver as above, size 0
	blade made from 1 mm steel wire, 155 mm	4-284	Electronics cross-recess screwdriver as above, size 1
2-275	Repair mirror, 21 mm Ø, with handle, 180 mm long	4-331	Assembly screwdriver with plastic handle, nickel-plated blade, 45 x 6 mm, with special square pattern BERNSTEIN handle
2-601	IC tweezers, nickel-plated, 125 mm, for gripping, inserting and removing IC's	4-343 VDE	Voltage tester, blade 60 x 3 mm
2-620	PLCC extractor for easy removal of plug-in PLCC's	4-407	Retaining screwdriver, 110 x 4 mm
3-901-12	Side cutters, 120 mm, for hard wire up to 0.4 mm, for soft wire up to	5-107	Engineer's tweezers, made from steel, with bent tips, 150 mm
	1.0 mm, burnished, with orange insulation	5-117	Engineer's tweezers, straight-flat-wide, 145 mm, nickel-plated
3-906-12	End cutters, 120 mm, for soft wire up to 0.8 mm, burnished, with orange insulation	5-210	Needle files, 6-piece set
3-932-12	Flat nose pliers, 120 mm, burnished, with orange insulation	5-305	Combination scissors, stainless, serrated, compression spring, plastic handles, 140 mm
3-933-12	Snipe nose pliers, 120 mm, burnished, with orange insulation	6-200	Socket spanner set, 8 pieces, in plastic case, 1 plastic handle,
3-945-12	Snipe nose pliers, 145 mm, angular long jaws, burnished with orange insualation	0 200	7 socket spanners 4.0, 5.5, 6.0, 7.0, 8.0, 9.0 and 10.0 mm
4-141	Screwdriver, with special square pattern BERNSTEIN handle, blade made from chrome vanadium, chrome-plated,	6-750	Special open-end wrenches, 6-piece set, nickel-plated, 3 x 3.5, 4 x 4.5, 5 x 5.5, 6 x 6.5, 7 x 8, 9 x 10 mm, material thickness 1.5 resp. 2.0 mm
	with black tip, 75 x 3.5 mm	6-771	Adjustable wrench, jaw opening 0 - 12 mm, total length 100 mm
4-142 4-161	Screwdriver as above, blade 100 x 4 mm Electronics screwdriver with special handle and swivel top,	6-880	Set of wrench keys, 8 pieces in plastic case, 1/16", 5/64", 3/32", 1/8", 5/32", 3/16", 7/32", 1/4"
	blade chrome vanadium, chrome-plated, with black tip, blade 40 x 1.0 mm	6-964 L	TORX screwdriver with special square BERNSTEIN handle, blade made from chrome vanadium, chrome-plated,
4-162	Electronics screwdriver as above, blade 40 x 1.5 mm		black tip, size T 9 with hole
4-163	Electronics screwdriver as above, blade 40 x 2.0 mm	6-965 L	TORX screwdriver as above, size T 10 with hole
4-165	Electronics screwdriver as above, blade 50 x 3.0 mm	6-966 L	TORX screwdriver as above, size T 15 with hole
4-271	Cross-recess screwdriver, Supadriv/Pozidriv, Size 0, with special square pattern BERNSTEIN handle, blade made from chrome vanadium, chrome-plated, with black tip	7-425	Dust brush

To complete the set we recommend:

8-135	ERSA"Multitip" soldering iron, 15 W , 220 V
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8-390	Desoldering pump.	length 195 mm, 20 mm Ø

9-325 **Plastic box**, with hinged lid and adjustable compartments, 200 x 130 x 30 mm



PC-CONTACT 6100 ELECTRONIC SERVICE CASE Elegant, modern tool case for the most exacting standards





The service case

for the computer technology with the current tool assortment



TECHNIK ELECTRONIC SERVICE CASE Service case with a comprehensive tool kit for data systems engineering

6400	(BERNSTEIN) TECHNIK with tool set
6415	(BERNSTEIN) TECHNIK without tool set
6400 Z	(BERNSTEIN) TECHNIK with central safety code and tool set
6415 Z	(BERNSTEIN) TECHNIK with central safety code without tool set

Description:

Case made from deep-drawn, impact-resistant, grained plastic, with a sturdy aluminium frame, dustproof and rainproof, acid- and scratch-resistant. Three rem[]

plastic tray, 60 mm high, with adjustable partitions for measuring instruments, soldering iron and various accessories. The case has 2 locks.

Outside dimensions: 470 x 360 x 180 mm

Weight without tools: approx. 4.700 kg

Weight with tools: approx. 7.600 kg

No.	Description of individual tools	No.	Description of individual tools
1-909	Engineer's mirror, with handle, made entirely from BERNSTEINIT	14-654 VDE	Screwdriver, as above, blade 125 x 5.5 mm
2-126	Desoldering lever, slotted at one end, with plastic handle	14-691 VDE	Cross-recess screwdriver, Pozidriv, size 0, with VDE safety
2-127	Tin knife, with plastic handle, 115 mm		insulation, blade chrome vanadium, 60 mm long
2-128	Tin scraper, with plastic handle, 115 mm		Cross-recess screwdriver, Pozidriv, as above, size 1, 80 mm long
2-132	Spring hook, nickel-plated and insulated, 175 mm	5-006	Component tweezers, nickel-plated, with insulated jaws, for easy
2-145	Screwdriver with guide sleeve for slotted axles up to 3.2 mm Ø	E 040	insertion and removal of plug-in transistors of various sizes
2-161	Magnetic bar with double ball- and socket joint, slewable, 215 mm	5-049 5-107	Watchmaker's tweezers, 110 mm, stainless, sharply-pointed Engineer's tweezers, made from steel, with bent tips, 150 mm,
2-265	2 Test prods, red and black, extremely slim, pointed and flexible, blade made from 1 mm steel wire		nickel-plated
2-601	IC tweezers, nickel-plated, 125 mm, for gripping, inserting and removing IC's	5-115	Heat dissipating tweezers, 165 mm, nickel-plated, for use when soldering transistors, gold-bonded diodes etc.
3-127-2	"Slimline" side cutters, 115 mm, for soft wire only up to 1.0 mm,	5-117	Engineer's tweezers, straight-flat-wide, 145 mm, nickel-plated
01212	extremely slim head, box joint, compression spring, chrome-plated,	5-161	Clamping scissors, 130 mm, stainless
	with transparent insulation	5-181	Wire scraper, for wires 0.6 mm \emptyset , interchangeable cutters
3-131-1	Side cutters, 120 mm, chrome-plated, for hard wire up to 0.8 mm,	5-210	Needle files, 6-piece set
3-461-2	for soft wire up to 1.5 mm, with BERNSTEINIT insulation Round nose pliers, 130 mm, slim, box joint, compression spring,	5-301	Special scissors for cutting sheet-metal and wires, with serration, extremely slim, 110 mm, nickel-plated
	chrome-plated, with transparent insulation	5-501	Cable knife
3-462-2	Flat nose pliers, 130 mm, slim, box joint, compression spring, chrome-plated, with transparent insulation	6-200	Socket spanner set, chrome vanadium, nickel-plated, 1 plastic handle, 7 socket spanners, 4.0, 5.5, 6.0, 7.0, 8.0, 9.0, 10.0 mm
3-481-2	Snipe nose pliers, 120 mm, angular, box joint, compression spring, chrome-plated, with transparent insulation	6-750	Special open-end wrenches, 6-piece set, nickel-plated, material thickness 1.5 or 2 mm, 3 x 3.5, 4 x 4.5, 5 x 5.5, 6 x 6.5, 7 x 8, 9 x 10 m
3-565 3-732-1	Miniature water pump pliers, 130 mm, chrome-plated Combination pliers, 160 mm, chrome-plated, with BERNSTEINIT	6-820	Set of allen hex sockets, 8 pieces, in plastic wallet, 1.5, 2.0, 2.5, 3.0, 4.0, 5.0, 5.5, 6.0, mm
	insulation	6-860	Electronic socket spanner set, in transparent box, 6 pieces,
3-761-10	Special assembly pliers for clamping rings, 1.5 mm – 2.8 mm, 140 mm, burnished, with adjusting screw	7-425	3.0, 3.5, 4.0, 4.5, 5.0 mm Dust brush
3-835-2	Wire strippers, 165 mm, narrow and slim, with adjusting screw and	7-425	Duster
0-000-2	compression spring, chrome-plated, with transparent insulation	7-420	Plastic-oiler, with screwcap made from brass
4-261	Cross-recess screwdriver, size 01, with plastic handle,	7-435	
	blade made from chrome vanadium, nickel-plated, 25 mm long	7-508 7-511	Steel tape measure, 30 cm, stainless Digital caliper square, stainless, measuring range 150 mm,
4-301	Miniature screwdriver, with plastic handle, blade nickel-plated, 40 x 1.8 mm		LCD-display mm/inches, depth-gauge, cross-points, in a wallet
4-311	Screwdriver for headless screws, with plastic handle, blade made from chrome vanadium, nickel-plated, 80 x 2.8 mm	7-616	Pocket saw, in a wallet
4-321	Chubby screwdriver, with plastik handle, blade made from chrome vanadium, nickel-plated, 25 x 4.0 mm		
4-343 VDE			
4-351	Offset screwdriver, chrome vanadium, nickel-plated, 100 x 5 mm	To compl	ete the set we recommend:
4-366 4-391	Cross-recess watchmaker's screwdriver, size 00 Watchmaker's screwdriver, nickel-plated, with 4 interchangeable	9-325	Plastic box with hinged lid and adjustable compartments, 200 x 130 x 30 mm
	blades, 1.5, 2.0, 2.5, 3.0 mm	8-390	Desoldering pump, length 195 mm, 20 mm Ø
4-407	Retaining screwdriver, 110 x 4 mm	8-135	ERSA "Multitip" soldering iron, 15 W, 220 V
14-651 VDE	Screwdriver, with VDE safety insulation, blade made from chrome vanadium, 75×2.5 mm		
14-653 VDF	Screwdriver, as above, blade 100 x 4.0 mm		



TECHNIK 6400 ELECTRONIC SERVICE CASE A toolcase as a bordcase for the travelling engineer





The service case

- for the computer technology

- with special tool assortment
- for the professional

Service case **Technik** 6400 Z with central safety code





BOSS ELECTRONIC SERVICE CASE

The actual multi-purpose tool case with the vast assortment

6500 (BERNSTEIN) BOSS with tool set

6515 (BERNSTEIN) BOSS without tool set

Description:

Body of case made from deep-drawn, impact-resistant, grained black plastic, with a sturdy aluminium frame, dustproof and rainproof, acid- and scratch-resistant.

The 106-piece tool set comprises all required conventional and special tools for the servicing of electronic equipment, also for difficult repairs. The tools are clearly arranged in partitions on tool trays which are removable and folding and the swiveling parts are securable: A variable tool chest in case-size!

A stable plastic tray, 90 mm high, with 6 partition walls for a variable arrangement of the divisions offers a lot of space to carry spare parts, measuring instruments and soldering irons. The lid of the case has a pocket for documents. The case has 2 locks.

Outside dimensions: 490 x 410 x 190 mm

Weight without tools: approx. 6.500 kg

Weight with tools: approx. 10.600 kg

Tool set:

No.	Description of individual tools	No.	Description of individual tools
1-151	Adjusting screwdriver, blade 40 x 3 mm	4-343 VDE	Voltage tester, blade 60 x 3 mm
1-153	Adjusting screwdriver, blade 130 x 2 mm	4-351	Offset screwdriver, chrome vanadium, nickel-plated, 100 x 5 mm
1-155	Adjusting screwdriver, blade 130 x 3.5 mm	4-391	Watchmaker's screwdriver, nickel-plated, with 4 interchangeable
1-909	Engineer's mirror, with handle, made entirely from BERNSTEINIT		blades, 1.5, 2.0, 2.5, 3.0 mm
2-126	Desoldering lever, slotted at one end, with plastic handle	4-407	Retaining screwdriver, 110 x 4 mm
2-127	Tin knife with plastic handle, 115 mm	5-006	Component tweezers, nickel-plated, with insulated jaws, for easy
2-128	Tin scraper with plastic handle, 115 mm		insertion and removal of plug-in transistors of various sizes
2-132	Spring hook, nickel-plated and insulated, 175 mm	5-049	Watchmaker's tweezers, 110 mm, stainless, sharply-pointed
2-152	Tool holder, nickel-plated brass, with collets at both ends for	5-107	Engineer's tweezers made from steel, with bent tips, 150 mm,
2 102	holding tools from 0 to 3 mm \emptyset	0 101	nickel-plated
2-155	Claw-type gripper, nickel-plated, with 3 wire claws,	5-107-6	Engineer's tweezers, as above, strong PVC-insulated
2-100	opening max. 12 mm, with clip	5-115	Heat dissipating tweezers, 165 mm, nickel-plated, for use when
2-161	Magnetic bar with double ball- and socket joint, slewable, 215 mm	5-115	soldering transistors, gold-bonded diodes etc.
2-166	Contact cleaner, made from glass fibre	5-117	Engineer's tweezers, straight-flat-wide, 145 mm, nickel-plated
		5-161	
2-265	2 Test prods, red and black, extremely slim, pointed and flexible,	5-181	Clamping scissors, 130 mm, stainless
0.005	blade made from 1 mm steel wire		Wire scraper, for wires 0.6 mm Ø, interchangeable cutter
2-295	Hand magnifier with light	5-191	ESD tweezers, 120 mm, conductive, with straight, rounded tips
2-601	IC tweezers, nickel-plated, 125 mm, for gripping,	5-194	ESD tweezers, 120 mm, conductive, with bent, pointed tips
0.000	inserting and removing IC's	5-210	Needle files, 6-piece set
2-620	PLCC extractor, for easy removal of plug-in PLCC'S	5-301	Special scissors, for cutting sheet-metal and wires, with serration,
3-127-2	"Slimline" side cutters, 115 mm, for soft wire up to 1.0 mm,		extremely slim, 110 mm, nickel-plated
	extremely slim head, box joint, compression spring, chrome-	5-305	Combination scissors, stainless, serrated, compression spring,
	plated, with transparent insulation		plastic handles, 140 mm
3-132-1	Side cutters, 130 mm, for hard wire, chrome-plated,	5-501	Electrician knife
	with BERNSTEINIT-insulation	6-200	Socket spanner set, chrome vanadium, nickel-plated, 8-piece set,
3-235-1	Telephone pliers with wire cutters, 160 mm, chrome-plated		1 plastic handle, 7 socket spanners, 4.0, 5.5, 6.0, 7.0, 8.0, 9.0,
	with BERNSTEINIT-insulation		10.0 mm
3-462-2	Flat nose pliers, 130 mm, slim, box joint, compression spring,	6-750	Special open-end wrench, 6-piece set, nickel-plated,
	chrome-plated, with transparent insulation		3 x 3.5, 4 x 4.5, 5 x 5.5, 6 x 6.5, 7 x 8, 9 x 10 mm,
3-463-2	Snipe nose pliers, 130 mm, slim, box joint, compression spring,		material thickness 1.5 or 2.0 mm,
	chrome-plated, with transparent insulation	6-771	Adjustable wrench, jaw opening 0 - 12 mm, total length 100 mm
3-482-2	Snipe nose pliers, 140 mm, angular, slim, box joint, compression	6-830	Set of wrench keys, 11 pieces in plastic case, 1 handle,
	spring, chrome-plated, with transparent insulation		10 wrench keys 1.0, 1.2, 1.5, 2.0, 2.5, 3.0, 4.0, 4.5, 5.0 and 6.0 mm
3-565	Water pump pliers, 130 mm, chrome-plated	6-880	Set of wrench keys, 8 pieces in plastic wallet, 1/16", 5/64", 3/32",
3-732-1	Combination pliers, 165 mm, chrome-plated,		1/8", 5/32", 3/16", 7/32", 1/4"
	with BERNSTEINIT-insulation	6-964 L	TORX screwdriver, with special square BERNSTEIN handle, blade
3-761-10	Special assembly pliers for clamping rings, 1.5 mm - 2.8 mm,		made from chrome vanadium, chrome-plated, black tip,
	140 mm, burnished, with adjusting screw		size T 9 with hole
3-815-1	Wire strippers, 155 mm, chrome-plated, with BERNSTEINIT-insulation	6-965 L	TORX screwdriver as above, size T 10 with bore-hole
3-871-6	Pressing pliers for multicore cable and for sleeves	6-966 L	TORX screwdriver as above, size T 15 with bore-hole
	from 0.25 - 2.5 mm ²	7-425	Dust brush
3-0856	Crimp tool for insulated and uninsulated terminals, 230 mm	7-428	Duster
4-142	Screwdriver to DIN 5265, special square BERNSTEIN handle,	7-438	Drip oiler for dropet oiling
	blade made from chrome vanadium, chrome-plated,	7-506	Roller tape measure 2 m
	with black tip, $100 \times 4.0 \text{ mm}$	7-508	Steel measure, 30 mm, stainless
4-143	Screwdriver as above, blade 125 x 5.5 mm	7-511	Digital caliper square, stainless, measuring range 150 mm,
4-161	Electronics screwdriver with special handle and swivel top,	7 011	LCD-display mm/inches, depth-gauge, cross-points, in a wallet
1 101	blade chrome vanadium, chrome-plated,	7-616	Pocket hack saw "Puk" with adjustable wooden handle, in a wallet
	with black tip, blade 40 x 1.0 mm	1 010	
4-162	Electronics screwdriver as above, blade 40 x 1.5 mm		
4-164	Electronics screwdriver as above, blade 40 x 1.5 mm		
4-165	Electronics screwdriver as above, blade 50 x 2.0 mm	To comple	ete the set we recommend:
4-105	Crosspoint-screwdriver, Pozidriv, size 1, with special square		
4-212		8-135	ERSA "Multitip" soldering iron, 15 W/230 V
	pattern BERNSTEIN handle, blade made from chrome vanadium,	8-390	Desoldering pump, length 195 mm, 20 mm Ø
1 201	nickel-plated, with black tip	9-325	Plastic box, with hinged lid and adjustable
4-281	Electronics cross-recess screwdriver with special grey handle		compartments, 200 x 130 x 30 mm
	and swivel top, blade chrome vanadium, chrome-plated,		· · · · · · · · · · · · · · · · · · ·
4 000	with black tip, 40 x 2.0 mm, size 000		
4-282	Electronics cross-recess screwdriver as above size 00		
4-283	Electronics cross-recess screwdriver as above,		
24	blade 50 x 3.0 mm, size 0		



BOSS 6500 ELECTRONIC SERVICE CASE A variable tool chest in case zise







TELECOM ELECTRONIC SERVICE CASE

The actual case with special tools and testing instruments for the installation

and maintenance of complex telecommunication systems

6600 (BERNSTEIN) TELECOM with tool set

6615 (BERNSTEIN) TELECOM without tool set

Description:

Case made from deep-drawn, impact-resistant, grained black plastic, with a sturdy aluminium frame, dustproof and rainproof, acid- and scratch-resistant. With 116 tools the case contains a complete equipment of tools especially for the electrical and electronical connecting and maintenance operations at distribution boards in the telecommunication technique.

The tools are clearly arranged in the case on 3 removable tool trays and in a stable plastic tray in the bottom of the case that grants by adjustable partitions additional place for further instruments.

The case has 2 locks.

Outside dimensions: 490 x 410 x 190 mm

Weight without tools: approx. 5.800 kg

Weight with tools: approx. 12.900 kg

Tool set

No.	Description of individual tools
2-265	2 test prods, red and black, extremely slim, pointed and flexible, blade made from 1 mm steel wire
2-275	Repair mirror, stainless, magnifying, concave mirror 21 mm Ø, with BERNSTEINIT handle
2-601	IC-tweezers, nickel-plated, 125 mm, for gripping, inserting and removing IC's
2-620	PLCC-extractor
2-655	Pocket inspection lamp, watertight, with pre-focused reflector
2-701	Insertion tool with sensor, for connecting the wires and simultaneously cutting off the residual wire
2-702	Insertion tool for system HVt 71, for connecting the cable conductors and jumper wires
2-751	Test headphones, 1 \times 600 ohm, switchable from 600 to 10.000 ohm, with fine control including test prods, maximum load 2 W
3-112-2	Side cutters, 120 mm, for soft wire up to 1.0 mm, with rounded head, double leaf spring, chrome-plated, with transparent insulation
3-134 VDE	Side cutters, 160 mm, for steel wire up to 1.6 mm \emptyset , chrome-plated, with VDE safety insulation
3-235-1	Telephon pliers, 160 mm, chrome-plated, with BERNSTEINIT-insulation
3-532-1	Flat nose pliers, 160 mm, with long jaws, chrome-plated, with BERNSTEINIT-insulation
3-574-1	Water pump pliers, 175 mm, made from chrome vanadium, with BERNSTEINIT-insulation
3-732-1	Combination pliers, 165 mm, chrome-plated, with BERNSTEINIT- insulation
3-0605	Combination crimping pliers, 200 mm, for connector types 6P/6C, 6P/4C, 6P/2C, 8P/8C
4-141	Screwdriver, with special square BERNSTEIN handle, blade made from chrome vanadium, chrome-plated, 75 x 3.5 mm, with black tip
4-142	Screwdriver , with special square BERNSTEIN handle, blade made from chrome vanadium, chrome-plated, 100 x 4.0 mm, with black tip
4-143	Screwdriver , with special square BERNSTEIN handle, blade made from chrome vanadium, chrome-plated, 125 x 5.5 mm, with black tip
4-222	Screwdriver , with special square BERNSTEIN handle, blade made from chrome vanadium, chrome-plated, 260 x 3.0 mm, with black tip
4-227	Cross-recess screwdriver, size 1, with special square BERNSTEIN handle, blade made from chrome vanadium, chrome-plated, blade length 300 mm, with black tip
4-228	Cross-recess screwdriver, size 2, as above, blade length 300 mm, with black tip
4-255	Cross-recess screwdriver, size 0, as above, blade length 60 mm, with black tip
4-256	Cross-recess screwdriver, size 1, as above, blade length 80 mm, with black tip
4-257	Cross-recess screwdriver, size 2, as above, blade length 100 mm, with black tip
4-258	Cross-recess screwdriver, size 3, as above, blade length 150 mm, with black tip
4-370	Watchmaker's screwdrivers from metal, 6-piece set, in metal box, 1.0, 1.5, 2.0, 2.5, 3.0, 3.5 mm 4-407 Retaining screwdriver, for inserting slotted screws, nickel-plated, blade 110 x 4.0 mm
4-437	Retaining screwdriver, for inserting and tightening cross-recess screws size 1, nickel-plated, insulated, blade length 150 mm

No. Description of individual tools

Description of Individual tools
Screwdriver, with VDE-insulation, blade 75 x 2.5 mm
Screwdriver, with VDE-insulation, blade 100 x 3.5 mm
Cross-recess screwdriver, size 1, with VDE-insulation, blade length 80 mm
Cross-recess screwdriver, size 2, with VDE-insulation,
blade length 100 mm Engineer's tweezers, made from steel, with bent tips, 150 mm, nickel-plated
Engineer's tweezers, made from steel, straight-flat-wide, 145 mm, nickel-plated
Engineer's tweezers, made from steel, straight, with narrow pointed tips, 155 mm, nickel-plated
Warding files, 6-piece set, with wooden handles, in plastic wallet
Insulation stripping tool, with hookblade, for cable 4 - 28 mm Ø
Socket wrench, 4.5 mm, chrome vanadium, chrome-plated, with square handle
Socket wrench, 5.0 mm, chrome vanadium, chrome-plated, with square handle
Socket wrench, 5.5 mm, chrome vanadium, chrome-plated, with square handle
Socket wrench-set, 1/4" square drive, chrome vanadium, chrome- plated, 16-piece set in a metal case, 11 sockets from 4.0 - 13.0 mm, holder, sliding tee bar, universal joint, reversible ratchet, rigid extension
Double open-ended wrench, 12 x 13 mm, chrome vanadium, chrome-plated
Double open-ended wrench, 18 x 19 mm, chrome-vanadium, chrome-plated
Combination ring-and open-ended wrench, 7-piece set, 6.0, 7.0, 8.0, 9.0, 10.0, 11.0, 13.0 mm, chrome vanadium, chrome-plated
Combination ring-and open-ended wrench, 12 mm, chrome vanadium, chrome-plated
Combination ring-and open-ended wrench, 17 mm, chrome vanadium, chrome plated
Combination ring-and open-ended wrench, 19 mm, chrome vanadium, chrome-plated
Hexagon wrench keys, 8-piece set, in a wallet, 1/16", 5/64", 3/32", 1/8", 5/32", 3/16", 7/32", 1/4"
Ballpoint wrench keys, hexagon, 8-piece set, in a wallet, 1.5, 2.0, 2.5, 3.0, 4.0, 5.0, 6.0, 8.0 mm
TORX-screwdrivers with bore hole in the tip, 8-piece set, in a box, T 9, T 10, T 15, T 20, T 25, T 27, T 30, T 40
Engineer´s hammer, 200 g
Duster
Insulating tape
Roller tape, 2 m
Pocket saw, with adjustable wooden handle, in a wallet
ERSA-fine soldering iron, Tip 260 BN/230 V/16 W
ERSA OVAC desoldering pump
Solder wire spool, 250 g, 0.8 mm Ø
5 Chip-Container, conductive box with lid, black, internal dimensions: 118 x 32 x 14 mm



TELECOM 6600 ELECTRONIC SERVICE CASE The professional toolcase for the telecommunication







TELEDATA ELECTRONIC SERVICE CASE

The case with a basic equipment of special tools for the installation and maintenance of complex telecommunication systems and data networks.

6700 (BERNSTEIN) TELEDATA with tool set

6715 (BERNSTEIN) TELEDATA without tool set

Description:

Case made from deep-drawn, impact-resistant, grained black plastic, with sturdy aluminium frame, dustproof and rainproof, acid- and scratch-resistant. 80 tools are clearly arranged on two removable tool trays, one of it on both sides, and in the plastic tray with adjustable partitions in the bottom of the case. The basic equipment for special operations at telecommunication systems and data networks may efficiently be completed by special tools additionally recommended.

The case has 2 locks.

Outside dimensions: 470 x 340 x 170 mm

Weight without tools: approx. 4.600 kg

Weight with tools: approx. 8.700 kg

No.	Description of individual tools	No.	Description of individual tools
2-265	2 test prods, red and black, extremely slim, pointed and flexible, blade made from 1 mm steel wire	5-107	Engineer's tweezers, with bent tips, 150 mm, made from steel, nickel-plated
2-601	IC-tweezers, nickel-plated, 125 mm, for gripping, inserting and removing IC's	5-117	Engineer's tweezers, straight-flat-wide, 145 mm, made from steel, nickel-plated
2-620	PLCC-extractor	5-240	Warding files, 6-piece set,
2-701	Insertion tool with sensor, for connecting the wires and simultaneously cutting off the residual wire	5-505	with wooden handles, in plastic wallet Insulation stripping tool, with hook blade,
3-112-2	Side cutters, 120 mm,	0 000	for cable diameter of 4 up to 28 mm
	for soft wire up to 1.0 mm, with rounded head, double leaf spring, chrome-plated, with transparent insulation	6-103	Socket wrench, 4.5 mm, chrome-plated, with square handle
	Side cutters, 160 mm, for steel wire up to 1.6 mm Ø, chrome-plated, with VDE safety insulation	6-104	Socket wrench, 5.0 mm, chrome vanadium, chrome vanadium, chrome-plated, with square handle
3-235-1	Telephon pliers, 160 mm, chrome-plated, with BERNSTEINIT-insulation	6-105	Socket wrench, 5.5 mm, chrome-vanadium, chrome-plated, with square handle
3-532-1	Flat nose pliers, 160 mm, with long jaws, chrome-plated, with BERNSTEINIT-insulation	6-500-12	Double open-ended wrench, 12 x 13 mm, chrome vanadium, chrome-plated
3-574-1	Water pump pliers, 175 mm, made from chrome vanadium, chrome-plated,	6-500-18	Double open-ended wrench, 18 x 19 mm, chrome vanadium, chrome-plated
3-732-1	with BERNSTEINIT-insulation Combination pliers, 165 mm,	6-600	Combination ring- and open-ended wrench, 7-piece set, chrome vanadium, chrome-plated, 6.0, 7.0, 8.0, 9.0, 10.0, 11.0, 13.0 mm
	chrome-plated, with BERNSTEINIT-insulation	6-600-12	Combination ring- and open-ended wrench, 12 mm,
3-0605	Combination crimping pliers, 200 mm, for connector types 6P/6C, 6P/4C, 6P/2C, 8P/8C	6-600-17	chrome vanadium, chrome-plated Combination ring- and open-ended wrench, 17 mm,
4-222	Screwdriver , with special square BERNSTEIN handle, blade made from chrome vanadium, chrome-plated, 260 x 3.0 mm, with black tip	6-600-19	chrome vanadium, chrome-plated Combination ring- and open-ended wrench, 19 mm,
4-227	Crosspoint-screwdriver, size 1,		chrome vanadium, chrome-plated
	with special square BERNSTEIN handle, blade made from chrome vanadium, chrome-plated, 300 mm, with black tip	6-880	Hexagon wrench keys, 8-piece set in a wallet, 1/16", 5/64", 3/32", 1/8", 5/32", 3/16", 7/32", 1/4"
4-228	Crosspoint-screwdriver, size 2, with special square BERNSTEIN handle, blade made from chrome	6-950	Ballpoint wrench keys, hexagon, 8-piece set in a wallet, 1.5, 2.0, 2.5, 3.0, 4.0, 5.0, 6.0, 8.0 mm
4-431	vanadium, chrome-plated, 300 mm, with black tip Retaining screwdrivers,	6-995	Torx screwdrivers with bore-hole in the tip, 8-piece set in a box, T 9, T 10, T 15, T 20, T 25, T 27, T 30, T 40
	for inserting and tightening slotted screws, blade made from chrome	7-425	Duster
4 407	vanadium, nickel-plated, insulated, blade 100 x 3.0 mm,	7-506	Roller tape measure, 2 m
4-437	Retaining screwdriver, for inserting and tightening cross-recess screws size 1, blade made	7-616	Pocket saw, with adjustable wooden handle, in a wallet
	from chrome vanadium, nickel-plated, insulated	9-316/5	5 Chip-Container, conductive box with lid, black,
14-651 VDE	Screwdriver, blade 75 x 2.5 mm, with VDE-insulation		internal dimensions: 118 x 32 x 14 mm
14-652 VDE	Screwdriver, blade 100 x 3.5 mm, with VDE-insulation		
14-653 VDE	Screwdriver, blade 100 x 4.0 mm, with VDE-insulation	To compl	lete the set we recommend:
14-681 VDE	Cross-recess screwdriver, size 0, with VDE-insulation, blade length 60 mm	. 2-751	Test headphones, 1 x 600 ohm, switchable from 600 to 10.000 ohm,
14-682 VDE	Cross-recess screwdriver, size 1, with VDE-insulation, blade length 80 mm	2-702	with fine control including test prods, maximum load 2 W Insertion tool for systems HVt 71,
14-683 VDF	Cross-recess screwdriver, size 2,	2-102	for connecting the cable conductors and jumper wires
	with VDE-insulation, blade length 100 mm	8-110	ERSA fine soldering iron, Tip 260 BN/230 V/16 W
14-684 VDE	Cross-recess screwdriver, size 3, with VDE-insulation, blade length 150 mm	8-385	ERSA OVAC X desoldering pump



TELEDATA 6700 ELECTRONIC SERVICE CASE The service case for the ambitious Telecommunication engineer





COMPACT-MOBIL ELECTRONIC SERVICE CASE

The trolley case with special tools for the assembly and maintenance of electronic devices

7000 (BERNSTEIN) COMPACT-MOBIL with tool assortment 7010, 7020 and 7030

7015 (BERNSTEIN) COMPACT-MOBIL without tools

7100 (BERNSTEIN) COMPACT-MOBIL with tool assortment 7010, 7020 and 7060

Description:

Elegant case made from deep-drawn, impact-resistant, grained dark brown plastic with a continuous bronze anodised aluminium frame, dustproof and rainproof, acid-resistant, scratch-resistant and non-slip. For energy saving transport stable rolls are installed and a telescopic handle is mounted.

The arrangement of the rolls results in a vibration absorbing locomotion. The tools are held in their partitions.

The case has 3 removable tool trays: No. 7010, 7020 and 7030. The trays contain 63 tools. On request the tray No. 7030 may be exchanged for No. 7060 (VDE-tools). The lid of the case has a pocket for documents etc.

The plastic tray with adjustable partitions in the bottom allows a clear arrangement of a soldering iron, measuring instruments and accessories of various sizes.

The case has two locks.

Outside dimensions: 500 x 400 x 200 mm

Weight without tools: approx. 8.000 kg

Weight with tools 7000: approx. 10.600 kg Weight with tools 7100: approx. 10.700 kg

No.	Description of individual tools	No.	Description of individual tools
	Tool tray No. 7010	2-295	Hand magnifier with light
2-155	Claw-type gripper with 3 wire claws and clip	3-565	Water pump pliers, 130 mm, chrome-plated
2-601	IC-tweezers, nickel-plated, 125 mm, for gripping, inserting and	3-715-1	Combination pliers, 115 mm, chrome-plated, BERNSTEINIT-insulation
2-001	removing IC's	4-141	Screwdriver, with special square BERNSTEIN handle, blade made
2-620	PLCC-extractor		from chrome vanadium, chrome-plated, 75 x 3.5 mm, with black tips
2-655	Pocket inspection lite with fibre optic adaptor for close inspection	4-142	Screwdriver, as above, 100 x 4.0 mm
2-000	of small, tight, hard-to-see areas	4-271	Cross-recess screwdriver, Pozidriv, size 0, with special
3-654-14	EUROline-side-cutters, 120 mm, for hard wire up to 0.4 mm Ø,		square BERNSTEIN handle, blade made from chrome vanadium,
3-034-14	for copper wire up to 1.5 mm Ø, with slim rounded head, box joint,		chrome-plated, with black tips
		4-272	Cross-recess screwdriver, Pozidriv, size 1, as above
0.070.14	double leaf spring, bright burnished, with bicoloured hand-guard	4-351	Offset screwdriver, 100 x 5 mm, nickel-plated, chrome vanadium
3-672-14	EUROline-end-cutters, 130 mm, for copper wire up to 0.6 mm Ø,	4-407	Retaining screwdriver, 110 x 4 mm
	cutting edge 20° angular, box joint, double leaf spring, bright	5-161	Clamping scissors, 130 mm, stainless
0 000 1 1	burnished, with bicoloured hand-guard	5-301	Special scissors, with serration, 110 mm, nickel-plated
3-682-14	EUROline-flat nose pliers, 130 mm, extremely slim, box joint,	6-771	Adjustable wrench, jaws opening 0 - 12 mm, total length 100 mm
	double leaf spring, bright burnished, with bicoloured hand-guard	6-964 L	TORX-Screwdriver, size T 9, with hole, with special square
3-683-14	EUROline-snip nose pliers, 130 mm, extremely slim, box joint,		BERNSTEIN handle, blade made from chrome vanadium,
	double leaf spring, bright burnished, with bicoloured hand-guard		chrome-plated, with black tip
4-161	Electronics screwdriver with special handle and swivel top, blade	6-965 L	TORX-Screwdriver, size T 10, with hole, as above
	chrome vanadium, chrome-plated, with black tip, 40 x 1.0 mm	6-966 L	TORX-Screwdriver, size T 15, with hole, as above
4-162	Electronics screwdriver as above, 40 x 1.5 mm	7-425	Dust brush
4-163	Electronics screwdriver as above, 40 x 2.0 mm		
4-164	Electronics screwdriver as above, 50 x 2.5 mm		Tool tray No. 7030
4-165	Electronics screwdriver as above, 50 x 3.0 mm		•
4-281	Electronics cross-recess screwdriver as above, size 000	3-133-1	Side cutters, 145 mm, for hard wire up to 1.25 mm Ø, for soft wire
4-282	Electronics cross-recess screwdriver as above, size 00		up to 2.5 mm Ø, chrome-plated, with BERNSTEINIT-insulation
4-283	Electronics cross-recess screwdriver as above, size 0	3-235-1	Telephone pliers, 160 mm, chrome-plated,
4-284	Electronics cross-recess screwdriver as above, size 1		with BERNSTEINIT-insulation
5-006	Component tweezers, 140 mm, with insulated jaws, for easy insertion	3-732-1	Combination pliers, 165 mm, chrome-plated,
	and removal of plug-in transistors of various sizes, nickel-plated		with BERNSTEINIT-insulation
5-049	Watchmaker's tweezers, sharply-pointed, 110 mm, stainless	4-143	Screwdriver, to DIN 5265, special square BERNSTEIN handle,
5-107	Engineer's tweezers, made from steel, with bent tips, 150 mm, nickel-plated		blade made from chrome vanadium, chrome-plated, with black tip 125 x 5.5 mm
5-115	Heat dissipating tweezers, for use when soldering transistors,	4-144	Screwdriver, as above, blade 150 x 6.5 mm
	gold-bonded diodes etc., 165 mm, nickel-plated	4-145	Screwdriver, as above, blade 150 x 8.0 mm
5-117	Engineer's tweezers, straight-flat-wide, 145 mm, nickel-plated	4-256	Cross-recess screwdriver, as above, size 1, with black tip
5-191	ESD tweezers, 120 mm, conductive, rounded tips	4-257	Cross-recess screwdriver, as above, size 2, with black tip
5-194	ESD tweezers, 120 mm, conductive, bent pointed tips	4-344 VDE	Voltage tester, for 220 - 250 V, blade 100 x 3.5 mm
		5-0605	Universal stripping tool
	Tool tray No. 7020	6-105	Socket wrench, with special square BERNSTEIN handle,
	1001 tray 10: 7020		blade made from chrome vanadium, chrome-plated, 5.5 mm A/F
1-735	Adjusting screwdriver handle, double-ended	6-107	Socket wrench, as above, 7.0 mm A/F
1-738	Special hard plastic bit, 1.5 x 0.5 mm		
1-739	Special hard plastic bit, 3.0 x 0.5 mm		
1-909	Engineer's mirror with handle, made entirely from BERNSTEINIT	To comple	ete the set we recommend for the bottom of the case:
2-126	Desoldering bar, slotted at one end, with plastic handle	•	
2-127	Tin knife with plastic handle, 115 mm	5-240	Warding file set, 6 pieces, with wooden handles, in a wallet
2-132	Spring hook, nickel-plated and insulated, 175 mm	6-820	Set of allen hex sockets, 8 pieces, 1.5 - 6.0 mm
2-161	Magnetic bar with double ball- and socket joint, 215 mm	7-512	Miniature caliper square, measuring range 75 mm, stainless
2-166	Glass fibre contact cleaner	8-135	ERSA Multitip soldering iron, 15 W/230 V
2-265	2 test prods, red and black, extremely slim, pointed and	8-390	Desoldering pump, length 195 mm, 20 mm Ø
-		0.005	
	flexible, blade made from 1 mm steel wire	9-325	Plastic box, with hinged lid and adjustable



COMPACT-MOBIL 7000 ELECTRONIC SERVICE CASE

The trolley case as bordcase for world-wide service





The service-case

- with high quality tools for electronics
- with telescopic handle, length up to 950 mm
- mobile on installed stable rolls





COMPACT-MOBIL ELECTRICIAN'S SERVICE CASE

The multi-purpose trolley case for the assembly and maintenance of electric devices

7200 (BERNSTEIN) COMPACT-MOBIL with tool assortment 7030, 7040 and 7050

7215 (BERNSTEIN) COMPACT-MOBIL without tools

7300 (BERNSTEIN) COMPACT-MOBIL with tool assortment 7040, 7050 and 7060

Description:

as service case 7000

This tool case is also equipped with 3 removable tool trays: No. 7030, 7040 and 7050. The trays contain all together 32 tools. On request the tray No. 7030 may be exchanged for No. 7060 (VDE-tools).

Outside dimensions: 500 x 400 x 200 mm

Weight without tools: approx. 7.900 kg

Weight with tools 7200: approx. 11.500 kg Weight with tools 7300: approx. 11.600 kg

Tool set:

No.	Description of individual tools	No.	Description of individual tools
	Tool tray No. 7030		Tool tray No. 7050
3-133-1	Side cutters, 145 mm, for hard wire up to 1.25 mm Ø, for soft wire up to 2.5 mm Ø, chrome-plated, BERNSTEINIT-insulation	5-107-6 5-117-6	Steel tweezers, bent, nickel-plated, safety-insulated, 150 mm Steel tweezers, straight-flat-wide, safety-insulated, 145 mm
3-235-1	Telephone pliers, 160 mm, chrome-plated, with BERNSTEINIT-insulation	5-505 7-114	Insulation stripping tool, with hook blade, for cable 4 - 28 mm Ø Engineer's hammer, 200 g
3-732-1	Combination pliers, 165 mm, chrome-plated, with BERNSTEINIT-insulation	7-202	Firmer chisel, blade width 16 mm
4-143	Screwdriver, to DIN 5265, special square BERNSTEIN handle, blade made from chrome vanadium, chrome-plated,	7-235 7-255	Flat chisel, 200 x 16 x 22 mm, chrome vanadium Electrician's chisel, 200 x 8 x 10 mm, chrome vanadium
	black tip, 125 x 5.5 mm	7-315	Drill rasp , bore-Ø 4 mm, length of blade 175 mm, with plastic handle
4-144	Screwdriver, as above, blade 150 x 6.5 mm	7-316 7-502	Punch, 6 mm Ø, with plastic handle Folding rule, 2 m
4-145 4-256	Screwdriver, as above, blade 150 x 8.0 mm Cross-recess screwdriver, as above, size 1, with black tip	7-616	Pocket saw "PUK" with adjustable wooden handle, in a wallet
4-257 4-344 VDE	Cross-recess screwdriver, as above, size 2, with black tip Voltage tester, for 220 - 250 V, blade 100 x 3.5 mm		Tool tray No. 7060 (VDE), alternatively to 7030
5-0605 6-105	Universal stripping tool Socket wrench, with special square BERNSTEIN handle.	3-134 VDE	Side cutters, 160 mm, for steel wire up to 1.6 mm Ø, chrome-plated, with VDE safety insulation
6-107	blade made from chrome vanadium, chrome-plated, 5.5 mm A/F Socket wrench, as above, 7.0 mm A/F	3-244 VDE	Telephone pliers, 165 mm, snipe nose, long straight jaws, with cutting edge for hard wire, chrome-plated, with VDE safety insulation
	Tool tray No. 7040	3-732 VDE	Combination pliers , 165 mm, with wire cutter, for hard wire up to 1.6 mm Ø, chrome-plated, with VDE safety insulation
3-575-6	Water pump pliers, 240 mm, chrome-plated, with insualtion	4-344 VDE	Voltage tester, 220 - 250 V, blade 100 x 3.5 mm
3-815-1	Wire strippers, 155 mm, chrome-plated,	14-652 VDE	Screwdriver, with VDE safety insulation, blade 100 x 3.5 mm
4.070	with BERNSTEINIT insulation Cross-recess screwdriver Pozidriv, size 1, blade made	14-654 VDE	Screwdriver, with VDE safety insulation, blade 125 x 5.5 mm
4-272	from chrome vanadium, chrome-plated,	14-656 VDE	Screwdriver, with VDE safety insulation, blade 150 x 6.5 mm
4 070	with special square BERNSTEIN handle	14-682 VDE	Cross-recess screwdriver, size 1, with VDE insulation, blade length 80 mm
4-273 5-304	Cross-recess screwdriver, Pozidriv, as above, size 2 Combination cutters, 190 mm, stainless	14-683 VDE	Cross-recess screwdriver, size 2, with VDE insulation, blade length 100 mm
5-309	Cable stripping shears, 190 mm, stainless, with plastic handles	15-522 VDE	Cable stripping knife, with blade protection, blade length 35 mm
5-501	Cable knife		Socket wrench, with VDE insulation, 5.5 mm A/F
7-410 7-535	Slicker trowel with round shank, blade width 16 mm Spirit level, length 220 mm, with 3 levels: horizontal, vertical and 45° angle		Socket wrench, with VDE insulation, 7.0 mm A/F

5-240 Warding file set, 6 pieces, with wooden handles, in a wallet
6-810 Set of allen hex sockets on a ring, 8 pieces
7-405 Trowel, 50 mm
7-415 Rubber beaker for plaster
8-145 ERSA soldering iron 30 S/330 KD/30 W/230 V



COMPACT-MOBIL 7200 ELECTRICIAN'S SERVICE CASE

The trolley case as bordcase for world-wide service



alternative with VDE-tools 7060



MULTI 5600 ELECTRICIAN'S CASE

The handy, spacious electrician's tool case



5600 (BERNSTEIN) MULTI with tool set

5615 (BERNSTEIN) MULTI without tool set

Description:

Stable case made from best, black, grained cowhide. The handle is slotted through the flap, thereby distributing the load over the entire area of the cover. When opening, the side flaps are held by bands. This enables the user to survey all the tools easily. 42 tools are held by compartments. In the bottom of the case is a metal tray which may carry additional tools. The case edges are especially reinforced by aluminium profiles. On both sides are loops for fasten a carrying strap. The case has 2 locks.

Outside dimensions: 435 x 340 x 210 mm

Weight without tools: approx. 4.300 kg

Weight with tools: approx. 8.350 kg

о.	Description of individual tools	No.	Description of individual tools
3-133-1	Side cutters, 145 mm, for hard wire, chrome-plated	5-271	Workshop file, 200 mm, flat and blunt, with wooden handle
	with BERNSTEINIT insulation	5-274	Workshop file, 200 mm, half-round, with wooden handle
3-235-1	Telephone pliers, 160 mm, chrome-plated, with BERNSTEINIT insulation	5-309	Cable-stripping scissors, 190 mm, stainless, with plastic handles
3-575-6	Water pump pliers, 240 mm, nickel-plated, with insulation	5-501	Cable knife
3-732-1	Combination pliers, 165 mm, chrome-plated, with BERNSTEINIT insulation	5-505	Wire-stripping knife, with hookblade, for cable 4 - 28 mm @
3-815-1	Wire strippers, 155 mm, chrome-plated, with BERNSTEINIT insulation	6-820	8-pieces set offset hexagon key wrenches, 1.5 to 6 mm A/F, in plastic case
-143	Screwdriver, with special square BERNSTEIN handle,	7-116	Engineer's hammer, 300 g
-140	chrome vanadium blade, chrome-plated, black tip,125 x 5.5 mm	7-202	Firmer chisel, blade width 16 mm
-145	Screwdriver as above. blade 150 x 8.0 mm	7-235	Flat chisel, chrome vanadium, 200 x 16 x 20 mm
-311	Screwdriver for grub screws with plastic handle, blade made	7-255	Electrician's chisel, chrome vanadium, 200 x 8 x 10 mm
011	from chrome vanadium, nickel-plated, 80 x 2.8 mm	7-303	Twist gimlet, 3 mm Ø
-344 VDE	Voltage tester, blade 100 x 3.5 mm	7-306	Twist gimlet, 6 mm Ø
-653 VDE	Safety insulated screwdriver, blade 100 x 4.0 mm,	7-316	Punch, with plastic handle, 6 mm Ø
	chrome vanadium, bicoloured multicomponent safety insulation	7-405	Trowel, with wooden handle, blade width 50 mm
-654 VDE	Safety insulated screwdriver as above, blade 125 x 5.5 mm	7-410	Slicker trowel, with round shank, blade width 16 mm
-656 VDE	Safety insulated screwdriver as above, blade 150 x 6.5 mm	7-415	Rubber beaker for plaster, round
	Safety insulated cross-recess screwdriver, as above, size 1	7-502	Folding rule, 2 m
1-683 VDE	Safety insulated cross-recess screwdriver as above, size 2	7-535	Spirit level, 220 mm, with 3 levels:
5-107-6	Steel tweezers with fine, bent tips, 150 mm,		horizontal, vertical and 45° angle
	nickel-plated, strong PVC-insulated	7-616	Pocket hack saw "Puk" with adjustable wooden handle,
5-117-6	Steel tweezers, straight, flat and wide, 145 mm, nickel-plated, strong PVC-insulated		saw blade and plastic wallet



VDE-ELEKTRO SERVICE-CASE **PROTECTION** 8200 A case with the basic equipment of common safety tools



8200 (BERNSTEIN) PROTECTION with tool set

8215 **BERNSTEIN PROTECTION** without tool set

Description:

Case made from deep-drawn, impact-resistant, grained red plastic, with sturdy aluminium frame, dustproof and rainproof, acid- and scratch-resistant. 23 tools, 15 of them piece-checked according to insulating specifications, are clearly arranged on two tool trays and in the bottom tray. If necessary the adjustable partitions in the 60 mm high bottom tray can be organized for taking further tools and accessories. On the back side of the removable upper tool tray there are free pouches for individual tools and documents.

BERNSTEIN safety tools are insulated in accordance with the specification EN 60.900, the guarantee for optimal safety.

Outside dimensinos: 480 x 350 x 170 mm

Weight with tools: approx. 4.000 kg

Weight without tools: approx. 7.150 kg

No.	Description of individual tools	No.	Description of individual tools
5-505 7-116 7-235 7-255 7-405 7-410 7-415 7-426 13-908 VD 13-917 VD 13-937 VD	Description of individual tools Insulation stripping tool, with hook blade, for cable Ø 4 - 28 mm Engineer's hammer to DIN 1041, 300 g Flat chisel , 200 x 27 mm Electrician's chisel chrome vanadium, 200 x 10 mm Towel, with conical forged blade and wooden handle, 50 mm width Slicker trowel, polished with round shank, 16 mm width Rubber beaker for plaster, Ø 130 mm wide brush, 40 mm, with wooden handle E VDE Side cutters, 180 mm, for steel wire up to 2.0 mm Ø; chrome-plated, VDE safty insulation E Telephon pliers, 200 mm, long straight jaws, with cutting edge for hard wire, chrome-plated, with VDE safty insulation E Combination pliers, 185 mm, with wire cutter for hard wire, chrome-plated, with VDE safty insulation E Screwdriver, blade 75 x 2.5 mm, bicoloured multicomponent insulation, VDE-tested	14-654 V 14-656 V 14-682 V 14-683 V 14-692 V 14-693 V 14-693 V 15-521 V	Description of individual tools /DE Screwdriver, blade 125 x 5.5 mm, bicoloured multicomponent insulation, VDE-tested /DE Screwdriver, blade 150 x 6.5 mm, bicoloured multicomponent insulation, VDE-tested /DE Cross-recess screwdriver, size 1, blade 80 mm bicoloured multicomponent insulation, VDE-tested /DE Cross-recess screwdriver, size 2, blade 100 mm bicoloured multicomponent insulation, VDE-tested /DE Cross-recess screwdriver, size 1 PZ, blade 80 mm bicoloured multicomponent insulation, VDE-tested /DE Cross-recess screwdriver, size 2 PZ, blade 100 mm bicoloured multicomponent insulation, VDE-tested /DE Cross-recess screwdriver, size 2 PZ, blade 100 mm bicoloured multicomponent insulation, VDE-tested /DE Cross-recess screwdriver, size 2 PZ, blade 100 mm bicoloured multicomponent insulation, VDE-tested /DE Cable knife with blade protection, blade length 50 mm /DE Cable knife with blade protection, blade length 50 mm /DE Cable knife with blade solid conductors of 0.2 - 6.0 mm², adjustable length stop of 5 - 12 mm, built-in side cutters for max. 2 mm Ø /DE Plastic clip, 170 mm, with internal spiral spring
14-653 VD	E Screwdriver , blade 100 x 4.0 mm, bicoloured multicomponent insulation, VDE-tested		(DE Pocket hack saw, insulated to IEC 60.900:2004, frame out of metal die cast, 150 mm saw blade

SAFETY 8100 VDE TOOL CASE A case full of safety for working under voltage up to 1000 V



8100 (BERNSTEIN) SAFETY with tool set

8115 (BERNSTEIN) SAFETY without tool set

Description:

Extremely stable case made from cowhide, red safety-colour. The hinged front plate allows to grip easily the 35 tools placed in partitions and in the tray in the bottom. Behind the tool set there is a partition for protective gloves, security grip etc.. Furthermore there is a separate pocket for connection diagrams and other documents. The case has two locks. At the side it has loops for attaching a carrying strap.

BERNSTEIN safety tools are produced in accordance with specification EN 60.900 of the Association of German Electrical Engineers (VDE) - the guarantee of optimal safety. The two-colour multilayered insulation (outside red - inside yellow) allows a simple safety-control, practicable at any time: damages of the external red insulation immediately become visible by the yellow layer below.

Outside dimensions: 440 x 175 x 310 mm

Weight without tools: approx. 3.000 kg

Weight with tools: approx. 7.500 kg

No.	Description of individual tools	No.	Description of individual tools
4-344 VD	E Voltage tester , blade 100 x 3.5 mm	16-444 VDE	Socket, as above, 13 mm A/F
13-106 VD	E Side cutter , 165 mm, for piano wire up to 1.6 mm Ø, chrome-plated, with two-colour multilayered insulation		E Socket , as above, 14 mm A/F E Socket , as above, 17 mm A/F
	E Telephone pliers , straight, 205 mm, chrome-plated, with wire cutter, two-colour multilayered insulation		Socket, as above, 19 mm A/F Socket, as above, 22 mm A/F
	E Telephone pliers , bent, 205 mm, chrome-plated, with wire cutter, two-colour multilayered insulation		Socket, as above, 24 mm A/F Reversible ratchet, 260 mm long,
	E Combination pliers, 190 mm, chrome-plated, with wire cutter, two-colour multilayered insulation		with two-colour multilayered insulation Rigid extension with locking device, length 125 mm,
	E Wire strippers, 165 mm, chrome-plated, with adjusting screw, two-colour multilayered insulation		with two-colour multilayered insulation Single-ended open-jaw wrench, 8 mm A/F, chrome vanadium
14-653 VD	E Screwdriver , blade 100 x 3.5 mm, safety insulated E Screwdriver , blade 100 x 4.0 mm, safety insulated		with two-colour multilayered insulation Single-ended open-jaw wrench, as above, 9 mm A/F
14-656 VD	E Screwdriver , blade 125 x 5.5 mm, safety insulated E Screwdriver , blade 150 x 6.5 mm, safety insulated		Single-ended open-jaw wrench, as above, 10 mm A/F Single-ended open-jaw wrench, as above, 11 mm A/F
	E Screwdriver , blade 175 x 8.0 mm, safety insulated E Cross-recess screwdriver , size 1, safety insulated	16-507 VDE	Single-ended open-jaw wrench, as above, 12 mm A/F Single-ended open-jaw wrench, as above, 13 mm A/F
	E Cross-recess screwdriver, size 2, safety insulated E Cable stripping knife with blade-protection, blade 35 mm	16-509 VDE	Single-ended open-jaw wrench, as above, 14 mm A/F Electrican's protective gloves, size 10
	E Socket , 10 mm A/F, with 1/2" square drive, chrome vanadium, two-colour multilayered insulation	17-521 VDE	E Plug-in grip with leather gauntlet for NH-fuses Plastic clip, 170 mm long, with internal spiral spring
	E Socket , as above, 11 mm A/F E Socket , as above, 12 mm A/F	17-525 VDL	

VDE TOOL SETS 8150 AND 8160

Safety tools at hand in a plastic case

Description:

Black plastic case made from polypropylen with elegant styled stable locks. The full length hinge ensures a very high sturdiness of the case. One case half is totally covered and secured by a firm installed rotatable middle plate with two slide locks.

All VDE-tools are clearly arranged in hard foam punches individually shaped for each tool.

Outside dimensions: 350 x 310 x 110 mm

BERNSTEIN safety tools are produced in accordance with specification EN 60.900 of the Association of German Electrical Engineers (VDE) - the guarantee of optimal safety. The two-colour multilayered insulation, outside red - inside yellow, allows a simple safety control, practicable at any time: damages of the external red insulation immediately become visible by the yellow layer below.

8150 (BERNSTEIN) 24-piece VDE tool set

Weight with tools: 3.900 kg

No. Description of individual tools

13-106 VDE	Side cutters for piano wire, 165 mm, chrome-plated, with two-colour multilayered insulation
13-708 VDE	Combination pliers, 205 mm, chrome-plated,
	with two-colour multilayered insulation
	Screwdriver, insulated, blade 75 x 2.5 mm
	Screwdriver, insulated, blade 150 x 6.5 mm
14-682 VDE	Cross-recess screwdriver, insulated, size 1
14-683 VDE	Cross-recess screwdriver, insulated, size 2
15-521 VDE	Cable knife with blade protection, blade length 50 mm
15-522 VDE	Cable stripping knife with blade protection, blade length 35 mm
16-441 VDE	
	multilayered insulation, with 1/2" square drive
	Socket, as above, 11 mm A/F
16-443 VDE	Socket, as above, 12 mm A/F
16-444 VDE	Socket, as above, 13 mm A/F
16-445 VDE	Socket, as above, 14 mm A/F
16-447 VDE	Socket, as above, 17 mm A/F
16-448 VDE	Socket, as above, 19 mm A/F
16-475 VDE	T-bar , 1/2" square drive, 200 mm,
	with two-colour multilayered insulation
16-505 VDE	Single-ended open-jaw wrench , 10 mm A/F, chrome vanadium with two-colour multilayered insulation
16-506 VDE	Single-ended open-jaw wrench, as above, 11 mm A/F
16-507 VDE	Single-ended open-jaw wrench, as above, 12 mm A/F
16-508 VDE	Single-ended open-jaw wrench, as above, 13 mm A/F
16-509 VDE	Single-ended open-jaw wrench, as above, 14 mm A/F
16-512 VDE	Single-ended open-jaw wrench, as above, 17 mm A/F
16-513 VDE	Single-ended open-jaw wrench, as above, 19 mm A/F
17-531 VDE	Voltage tester 'Steinel Volt Check 3'
	-

8160 (BERNSTEIN) 12-piece VDE tool set

Weight with tools: 2.800 kg

No. Description of individual tools

13-106 VDE	Side cutters for piano wire, 165 mm, chrome-plated, with two-colour multilayered insulation
13-207 VDE	Telephone pliers , straight, 210 mm, chrome-plated, with two-colour multilayered insulation
13-707 VDE	Combination pliers , 185 mm, chrome-plated, with two-colour multilayered insulation
13-806 VDE	Wire strippers, 165 mm, chrome-plated, with two-colour multilayered insulation
14-651 VDE	Screwdriver, insulated, blade 75 x 2.5 mm
14-652 VDE	Screwdriver, insulated, blade 100 x 3.5 mm
14-654 VDE	Screwdriver, insulated, blade 125 x 5.5 mm
14-656 VDE	Screwdriver, insulated, blade 150 x 6.5 mm
14-682 VDE	Cross-recess screwdriver, insulated, size 1
14-683 VDE	Cross-recess screwdriver, insulated, size 2
15-521 VDE	Cable knife with blade protection, blade length 50 mm
15-522 VDE	Cable stripping knife with blade protection, blade length 35 mm





SERVICE CASE 5115 A service case for an individual tool assortment

Description:

Case made from deep-drawn, impact-resistant, grained black plastic with sturdy aluminium frame, dustproof and rainproof, acid- and scratch-resistant. In the upper removable tray tools can be arranged on both sides in 15 pockets on the front side and 6 pockets on the back side including a partition for documents. 6 further pockets, e.g. for pliers with different sizes, are part of the firm installed rotatable middle tray. The bottom tray with variable partitions allows the storage of more tools, measuring instruments and other individual equipment. Height of the plastic tray: 55 mm

The case has 2 locks.

Outside dimensions: 470 x 340 x 170 mm

Weight: ca. 4.000 kg







ZIPPER CASE 2701 for an individual tool assortment

Description:

Zipper case made from black nylon with velvet grey lining. The case has 22 pockets made from black imitation leather and one flexible strap. So 23 tools can be arranged ready to hand on 3 tool plates.

Outside dimensions: 320 x 250 x 100 mm (when closed), Weight: 0.780 kg

TOOL CASE 5815 A case for an individual tool assortment

Description:

Tool case made from black grained imitation leather. The edges are reinforced with riveted ALU-profiles. The front side is variable closed with lateral press locks and can be turned off when the cover plate is opened.

The bottom of the case is strengthened by an metal-profile. The metal front ledge protect the bottom tools when the front side is opened. In front and back side are totally 17 pouches for arranging a tool assortment e. g. with pliers and screwdrivers. On both sides each one strap is riveted. The case is suitable for small individual tool sets e. g. for apprentices in mechanic professionals. The case has 2 locks.

Outside dimensions: 435 x 300 x 175 mm

Weight: ca. 2.750 kg





SERVICE TOOL ROLL 2401

The tool roll is made from a durable cotton canvas,

with separations for 24 tools Weight : approx. 0.350 kg



2400 (BERNSTEIN) TV Service tool roll with 24 piece tool set

Weight with tools: approx. 1.700 kg

No.	Description	of individual tools	

- 1-459Adjusting screwdriver, 200 mm long, blade widths 3.5 and 5.0 mm2-234High voltage mains tester, 190 mm long
- 2-236 Tapping hammer
- 3-132-1 Side cutter, 130 mm, for hard wire, chrome-plated, insulated
- 3-205-1 Engineer's flat pliers, 185 mm, box joint, chrome-plated, insulated
- 3-215-1 Engineer's pliers, 180 mm, bent snipe nose, chrome-plated, insulated
- 3-225-1 **Engineer's precision pliers,** 135 mm, snipe nose, chrome-plated, insulated 3-335-1 **Adjusting pliers,** 135 mm, straight, flat, wide, chrome-plated, insulated
- 3-565 Water pump pliers, 120 mm, chrome-plated
- 4-142 **Engineer's screwdriver to DIN 5265,** with special square BERNSTEIN handle, blade made from chrome vanadium, chrome-plated, 100 x 4 mm
- 4-143 Engineer's screwdriver as above, blade 125 x 5.5 mm

- _ _
- 4-144Engineer's screwdriver as above, blade 150 x 6.5 mm4-222Screwdriver extra long, blade 260 x 3 mm

Description of individual tools

- 4-311 Screwdriver for grub screws, blade C.V., 80 x 2.8 mm
- 4-408 Screw holder, nickel-plated, blade 200 x 4 mm
- 5-107-1 Steel tweezers with bent tips, 150 mm, nickel-plated
- 5-231 **Flat file** with handle
- 5-261 **Contact file**
- 5-301 Special sheet-metal scissors, serrated, extremly slim, 110 mm
- 6-105 Socket wrench, blade C.V., chrome-plated, 140 x 5.5 mm A/F
- 6-107 Socket wrench as above, blade 140 x 7 mm A/F
- 7-425 Dust brush

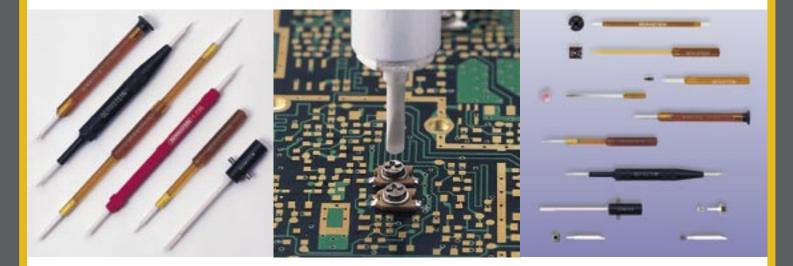
No.

- 8-145 Soldering iron, 30 W, 220 V
- 8-401 Carded solder, approx. 1 m



ADJUSTING AND SETTING IN ELECTRONICS

A large number of electrical and electronic appliances or assemblies must be adjusted and set after the production process. Even when servicing, when fitting new components or when electrical values have altered owing to age, adjustment is usually necessary in order to restore the optimum functioning of the appliance. Although this should be reduced to a minimum by design measures and technological processes, in order to save costs and to attain a high degree of reliability, adjustment cannot be eliminated completely.



BERNSTEIN use a high-quality, fully insulated plastic material with the trademark "BERNSTEINIT", which is hard and flexible, for adjusting screwdrivers and keys. A material made from hard special plastic is available to satisfy the stringent requirements with regard to torsional strength. BERNSTEIN supply adjusting screwdrivers and keys with inserts made from resilient hard bronze for cores which are especially difficult to remove. This material is true to size even with the smallest dimensions. Since it is only used as small cutting tips in conjuction with BERNSTEINIT material, detuning by the resilient hard bronze is virtually eliminated.

For the industrial adjustment and the work with electrostatically endangered components, BERNSTEIN manufacture a variety of high-grade ceramic bits as well as tweezers with ceramic tips. These ceramic bits made from zirconium oxide (ZrO_2) meet highest standards due to their excellent mechanical, thermic and electrical features. The hardness and breaking strength of the material allows the fabrication and use even in smallest dimensions with greatest possible resistance to wear.

BERNSTEIN ceramic bits are extremely resistant and merely show a low thermal conductivity. The blades are non-magnetic, anti-static and electrically insulating, the electric resistance is approx. $10^{10} \Omega$ /cm.

In addition to the types indicated in the catalogue, on request BERNSTEIN also manufacture special wanted dimensions or forms also in smaller quantities.



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TRIMMING WITH CERAMIC

Antistatic - antimagnetic - electrically insulating

1-750 (BERNSTEIN) Ceramic

adjusting screwdrivers set

13-pieces in a box with hinged lid

Contents: double-ended handle 1-735 and 12 ceramic bits Weight: 90 g

Measurements of the ceramic bits in box 1-750

No.	Blade length	Blade tip	Weight
110.	mm	mm	g
1-751	32	■ 0.90 × 0.30	1
1-752	32	■ 1.30 × 0.30	1
1-753	32	1.50 x 0.30	1
1-754	32	1.80 x 0.30	1
1-755	32	1.95 x 0.35	1
1-756	32	2.50 x 0.70	1
1-757	32	3.00 × 0.30	1
1-761	32	1.95 AF	1
1-762	32	2.45 AF	1
1-765	32	🕀 size 00	1
1-766	32	🕀 size 0	1
1-767	32	2.40 x 0.80	1
Measureme	nts of further ceramic	bits	

urements of further ceramic bi

1-758	32	3.00 × 0.70
1-763	32	2.60 AF
1-764	32	🕀 size 000
1-773	32	■ 0.70 × 1.40
1-774	32	3.00 × 1.00
1-775	32	1.20 x 1.20
1-776	32	1.30 x 0.40

Interchangeable blades made from special hard plastic

1-738	32	 1.5 x 0.5
1-739	32	 3.0 × 0.5

1-725 Adjusting screwdriver handle for interchangeable blades, made from BERNSTEINIT with swivel top, for 3 mm Ø blades

1-735 Adjusting screwdriver handle for interchangeable blades, double-ended, for 3 mm Ø blades

ADJUSTING SCREWDRIVERS

with blades from ceramic and conductive handle, non insulating, with centre top

0,	1	
Overall length mm	Blade tip mm	Weight g
		9
110	■ 0.90 × 0.30	10
110	1.30 × 0.30	10
110	1.50 x 0.30	10
110	1.80 x 0.30	10
110	1.95 x 0.35	10
110	2.50 x 0.70	10
110	3.00 × 0.30	10
110	3.00 x 0.70	10
110	1.95 AF	10
110	2.45 AF	10
110	2.60 AF	10
110	🕀 size 000	10
110	🕀 size 00	10
110	size 0	10
110	2.40 x 0.80	10
110	0.70 x 1.40	10
110	3.00 × 1.00	10
110	1.20 x 1.20	10
110		10
	Overall length mm 110 110 110 110 110 110 110 110 110	mm mm 110 \bullet 0.90 x 0.30 110 \bullet 1.30 x 0.30 110 \bullet 1.50 x 0.30 110 \bullet 1.80 x 0.30 110 \bullet 2.50 x 0.70 110 2.50×0.70 110 3.00×0.70 110 3.00×0.70 110 2.45 AF 110 2.60 AF 110 $5ize 000$ 110 $5ize 00$ 110 $5ize 00$ 110 $5ize 0$ 110 1.20×1.20





ADJUSTING SCREWDRIVERS For all adjusting work which requires a ground blade

Adjusting screwdrivers with blade-tip made from special hard plastic



Material:

1-150

NUMBER OF SMIT

INCOME. 1 AND

BERNSTEINIT with insert made from special plastic (German Federal Registered Pattern) The BERNSTEINIT blade makes the screwdriver flexible, and the hard

 special plastic insert at the tip gives the blade exceptional torsional strength.

 No.
 overall length
 blade length
 blade Ø
 blade width
 weight

 Mo.
 mm
 mm
 mm
 g

111111	111111	111111	11111	y
85	40	3.0	3.0	3
85	40	4.0	4.0	3
175	130	3.0	2.0	4
175	130	4.0	3.0	5
175	130	5.0	3.5	6
175	130	5.0	4.0	6
225	180	4.0	3.0	6
	85 85 175 175 175 175 175	85 40 85 40 175 130 175 130 175 130 175 130 175 130 175 130 175 130	85 40 3.0 85 40 4.0 175 130 3.0 175 130 4.0 175 130 5.0 175 130 5.0	85 40 3.0 3.0 85 40 4.0 4.0 175 130 3.0 2.0 175 130 4.0 3.0 175 130 5.0 3.5 175 130 5.0 4.0



(BERNSTEIN) Adjusting screwdrivers

7-piece set, as described above, clearly arranged in a plastic case $_{\text{Weight: 75 g}}$

 \bigcirc

Adjusting screwdrivers with metal inserts made from resilient hard bronze

For extremely firm cores or extremely small dimensions

Material: Handle made from BERNSTEINIT,

blades made from special plastic with bronze tips

					\sim
No.	overall length mm	blade length mm	blade Ø mm	bronze insert mm	weight g
1-301	200	155	2.7	1.4 x 0.5	4
1-302	200	155	2.7	2.0 x 0.5	4
1-303	200	155	2.7	2.5 x 0.5	4
1-304	200	155	2.7	1.7 x 0.7	4
1-305	125	80	2.4	1.1 x 0.5	3
1-306	125	80	2.4	1.7 x 0.7	3
1-307	125	80	2.4	2.0 x 0.5	3



7-piece set, as described above, clearly arranged in a plastic case $_{\text{Weight: 70 g}}$

1-180 (BERNSTEIN) Adjusting tools

7-piece set in a plastic case Weight: 70 g

No. Description of individual tools

NO.	Description of individual to	ois	
	Adjusting screwdrivers made with hard special plastic inse		INIT
1-151	Overall length85 mm,	blade	40 x 3.0 mm
1-152	Overall length85 mm,	blade	40 x 4.0 mm
1-153	Overall length175 mm,	blade	130 x 2.0 mm
1-155	Overall length175 mm,	blade	130 x 3.5 mm
1-181	Double-ended adjusting key with hard special plastic inse one end hexagonal 1.85 mm	rts, overall leng	th 180 mm,
1-182	Double-ended adjusting key with hard special plastic inse one end hexagonal 2.6 mm A	rts, overall lengt	th 180 mm,
1-306	Adjusting screwdriver made 125 mm, blade 80 x 2.4 mm,		, 0





ADJUSTINGTOOLSETS

1-250	BERNSTEIN	Special tools and adjusting tools
		15-piece set in a leather case Weight: 175 g

No. Description of individual tools

- 1-151 Adjusting screwdriver made from BERNSTEINIT, with blade made from hard special plastic, overall length 85 mm, blade 40 x 3.0 mm 1-153 Adjusting screwdriver made from BERNSTEINIT, with hard special plastic insert, overall length 175 mm, blade 130 x 2.0 mm Adjusting screwdriver made from BERNSTEINIT, with hard 1-154 special plastic insert, overall length 175 mm, blade 130 x 3.0 mm 1-181 Double-ended adjusting key made from BERNSTEINIT, with hard special plastic inserts, overall length 180 mm, one end hexagonal 1.85 mm A/F, other end square 1.5 mm A/F Double-ended adjusting key made from BERNSTEINIT, 1-182 with hard special plastic inserts, overall length 180 mm, one end hexagonal 2.6 mm A/F, other end square 3.0 mm A/F 1-305 Adjusting screwdriver made from special plastic, overall length 125 mm, blade 80 x 2.5 mm, with bronze insert 1.1 x 0.5 mm Adjusting screwdriver as above, 1-307 with bronze insert 2.0 x 0.5 mm Engineer's mirror with extension handle, 1-978 made entirely from BERNSTEINIT, handle ground as 6 mm screwdriver Desoldering lever, slotted at one end, nickel-plated 2-126 and insulated, with plastic handle 2-135 Core remover, for easy removal of damaged cores Pair of test prods, red and black, extremely slim, pointed 2-265 and flexible, 155 mm, blade made from 1 mm steel wire, with banana plug connection, fully insulated 4-301 Miniature screwdriver, overall length 85 mm,
- 4-311 blade 40 x 1.8 mm4-311 Screwdriver for grub screws, overall length 140 mm

1-200 (BERNSTEIN) Special tools and adjusting tools

12-piece set

in an imitation leather case Weight: 160 g

No.	Description of individual tools
1-153	Adjusting screwdriver made from BERNSTEINIT, with hard special plastic insert, overall length 175 mm, blade 130 x 2.0 mm
1-181	Double-ended adjusting key made from BERNSTEINIT, with hard special plastic inserts, overall length 180 mm, one end hexagonal 1.85 mm A/F, other end square 1.5 mm A/F
1-182	Double-ended adjusting key made from BERNSTEINIT, with hard special plastic inserts, overall length 180 mm, one end hexagonal 2.6 mm A/F, other end square 3.0 mm A/F
1-301	Adjusting screwdriver made from special plastic, overall length 200 mm, blade 155 x 2.7 mm, with bronze insert 1.4 x 0.5 mm
1-304	Adjusting screwdriver as above, bronze insert 1.7 x 0.7 mm
1-505	Slotted key made from special plastic, 120 x 3 mm Ø, 1 mm slot at both ends
1-978	Engineer's mirror with extension handle, made entirely from BERNSTEINIT, handle ground as screwdriver
2-265	Pair of test prods, red and black, extremely slim, pointed and flexible, 155 mm, blade made from 1 mm steel wire, with banana plug connection, fully insulated
4-301	Miniature screwdriver, overall length 85 mm, blade 40 x 1.8 mm
5-107	Steel tweezers with bent tips, 150 mm long
5 201	Special about motal acienary parrated 110 mm long

5-301 Special sheet-metal scissors, serrated, 110 mm long









SPECIALTOOLS

No.	Description	Length	Weight
2-265	Test prods, extremely slim, pointed and flexible, blade made from 1 mm steel wire, with banana plug connection, fully insulated, available in red (2-265-1) and black (2-265-2)	155 mm	9 g
2-125	Desoldering lever for lifting fixed components when desoldering, ends at different angles (40°/70°), slotted at both ends, nickel-plated, insulated	125 mm	7 g
2-126	Desoldering lever, slotted at one end, nickel-plated, round, insulated shank and hexagonal plastic handle	115 mm	10 g
2-127	Tin knife with pointed, sharp blade, for cutting circuit paths and working printed circuit boards, round, insulated shank and hexagonal plastic handle	115 mm	14 g
2-128	Tin scraper with blade of sharp parting tool shape for scraping off excess solder and solder bridges, round, insulated shank and hexagonal plastic handle	115 mm	14 g
2-101	Tin knife with ceramic blade for working printed circuit boards, handle from conductive black plastic	105 mm	9 g
2-135	Core remover for easy removal of damaged cores in coils etc., flexible metal tip 1.5 x 0.5 x 30 mm, nickel-plated blade, BERNSTEINIT handle	175 mm	8 g
2-145	Screwdriver with guide sleeve for easy and accurate setting of spindle resistors and potentiometers with slotted axles up to 3.2 mm Ø, nickel-plated blade, plastic-handle	140 mm	12 g
2-151	Triangular scraper in brass tool holder, nickel-plated, triangular blade made from hollow ground special steel (80 mm long), insertable at both ends and adjustable in holder	90 mm	26 g
2-152	Tool holder, nickel-plated brass, with collets at both ends for holding tools from 0 to 3 mm \emptyset	110 mm	32 g
2-155	Claw-type gripper, with 3 hardened wire claws, max. 12 mm opening, with clip	120 mm	49 g
2-157	Flexible claw-type grip with 4 sprung claws, to reach inaccessible areas with free play, nickel-plated,		
	long version	600 mm	75 g
2-161	Magnetic bar with double ball-and-socket joint, slewable into any position, diameter of bar 8 mm	215 mm	34 g
2-163	Brass contact cleaner brush, \emptyset 4 mm, with rotary mechanism, plastic casing	120 mm	10 g
2-164	Replacement brass brush for 2-163	40 mm	1 g
2-165	Contact cleaner, brush-type, with wire bristles, nickel-plated	35 mm	2 g
2-166	Glass fibre contact cleaner brush with rotary mechanism, plastic casing	115 mm	10 g
2-167/10	Replacement glass fibre for 2-166, 10 pieces	40 mm	12 g
2-168	Glass fibre contact cleaner brush, Ø 2 mm	135 mm	9 g
2-169	Replacement glass fibre for 2-168	110 mm	1 g



SPECIALTOOLS

No.	Description	Length	Weight
1-909	Engineer's mirror, magnifying, concave mirror 23 mm Ø, with extension handle, made entirely from BERNSTEINIT, fully insulated version		9 g
1-978	Engineer's mirror as above, but extension handle with ground 6 mm screwdriver blade, made from BERNSTEINIT	145/260 mm	9 g
2-275	Repair mirror, stainless, magnifying, concave mirror 21 mm Ø, with BERNSTEINIT handle	180 mm	7 g
2-281	Double-jointed mirror, slewable into any position, nickel-plated, with insulated handle and clip, mirror 30 mm Ø	195 mm	33 g
2-282	Telescopic mirror with double joint, slewable into any position, nickel-plated, pocket clip, mirror 23 mm \emptyset	150-460 mm	21 g
2-285	Inspection mirror with illuminated mirror area and double joint, slewable into any position, nickel-plated, pocket clip, for 2 batteries type Mignon 1.5 V	200 mm	43 g
2-291	Plastic magnifying glass with biconvex lens, 5 x magnification, 30 mm Ø, short, practical shape	70 mm	6 g
2-293	Hand magnifier, bikonvex PMX-light- weight lens with antistatic coating, 65 mm Ø, 3.0 x magnification	180 mm	52 g
2-295	Hand magnifier, illuminated with aspherical PMX-light-weight lens, 35 mm Ø, 7x magnification, 28.0 Dpt., with 2 batteries type Mignon 1.5 V	125 mm	80 g
2-297	Magnifying glasses Max Detail for easy and precise viewing, 2 x magnification (galilean system), large field of view: about Ø 15 cm, with 40 cm distance, large working distance: 40 cm,		
	magnifying glasses with +/- 3 diopter adjustment, independently adjustable		52 g
2-655	Pocket inspection lamp MITILITE LASER SPOT with bent fibre optic adaptor for close inspection of small, tight, hard-to-see areas. The most powerful pocket lite with pre-focused reflector, clip and magnet, handy, watertight and unbreakable incl. 2 Alkaline-batteries ea. 1.5 V	125 mm	52 g
2-655-8	0 Pocket inspection lamp as discriped above, with additional straight fibre optic adapter, 80 mm long	~	

SPECIALTOOLS

	No.	Description	Length	Weight
GERNSTEIN	2-130	Set of spring hooks, 6-piece, nickel-plated, for gripping and straightening, inserting and removing tension and compression springs of various kinds, hook screwing onto handle, in a plastic case hook with handle	205 mm	42 g
	2-131	Spring hook, nickel-plated and insulated, for inserting and removing tension and compression springs	205 mm	10 g
C5	2-132	Spring hook, nickel-plated and insulated, for inserting and removing tension springs	175 mm	8 g
	2-133	Spring hook with ring, nickel-plated, for inserting and removing strong tension springs	195 mm	13 g
	2-306	Extractor with self-centring extractor hook to remove small bearings and similar parts. Span 60 mm, grip depth 50 mm	105 mm	205 g
and and and	2-601	IC tweezers for gripping, inserting and removing, especially suitable for narrow components, nickel-plated	125 mm	20 g
and a second sec	2-601-13	3 IC-tweezers with ESD-coating description as before	125 mm	22 g
#F##1701# #-101	2-605	PLCC-puller for lifting out plug-in PLCC's	135 mm	6 g
	2-620	PLCC extractor for easy removal of plug-in PLCC's	100 mm	22 g



DEMAGNETIZING THROTTLES

Indispensable for the service

2-305 (BERNSTEIN) Demagnetizing throttle

complete with 2 m connecting cable and Euro-flat plug

The device removes unwanted magnetism from sound heads, which can cause disturbing extraneous noise and losses of high-frequency sound.

Also suitable for erasing magnetic tapes.

Technical data: Dimensio Voltage: Low volt

Dimensions: 105 mm x 40 mm Ø Voltage: 220 V = 50 Hz Low voltage on request

Weight: 340 g

2-505 (BERNSTEIN) Demagnetizing throttle for colour televisions and colour monitors complete with 4 m connecting cable and Euro-flat plug

> When servicing colour televisions, the most important requirement for setting the purity of colour and convergence accurately is the demagnetisation of the colour television tube.

There are colour televisions and colour monitors which are so strongly magnetized that the intern demagnetisation is not successful enough. For these cases the demagnetizing throttle 2-505 is used, which neutralizes even the strongest magnetic fields. An installed thermo-element interrupts as protection of overheating after approx. 1.5 min.

Technical data: Diameter: 350 mm Voltage: 220 V Current consumption: approx. 2 A Thermo-element Weight: approx. 1.000 g

INSERTION TOOLS

2-701	Krone Insertion tool with sensor, wire conr without soldering, screwing and stripping, cutting the remaining length, all in one operation	nection, 185 mm	63 g

2-702 **Insertion tool** for system 71 to connect cable and switch wire

165 mm 40 g

Test headphone

2-751 Test headphone

Usable for

- the check of switching circuitry
- the connection to the line without drawning loop current (monitor)
 verification the presence of DC current and permission to follow

a tone on different pairs Technical data:

1 x 600 ohm, changeable from 600 up to 10.000 ohm, with fine adjuster, cable length including test prods 1450 mm, maximum load 2 W

Weight: 240 g











BERNSTEIN-Pliers are made from specially selected top-quality special steels. The blanks are drop-forged and are then further processed in accordance with the latest production techniques.

BERNSTEIN pliers are oil-hardened and all cutting pliers additionaly undergo subsequent induction hardening. All pliers are carefully produced for the cutting capacities indicated, either with a side face for cutting hard and soft wire or without a side face for flush cutting soft wire only. The cutting capacities of all electronic pliers are indicated on the handles.

All BERNSTEIN pliers are guaranted tools. Defective pliers will be replaced if they contain material or production defects.

Special design features

Most BERNSTEIN pliers for electronic engineers are produced with a **box joint.**

As a result of this expensive design, optimum parallel guiding edges is obtained and the service lifes are long.

The production of a lap joint



or a lay-on joint

is made according to the type of pliers and the use.

Cutting shape and capacity

with side face (Semi Flush)

suitable for hard and soft steel wire as well as soft materials, e.g. copper wire. The result of the final cut is a pyramidical tip at the end of the wire

without side face (Flush)

nearly flush cut with finest cutting edges, only for soft steel wires and copper wires; cut slightly shock-resistant, the cut leaves a minimal rise at the end of the wire

fully without side face (Ultra Flush)

cut is absolutely flush due to extremely sharp cutting edges, only for soft steel and copper wires, being the ultimate in conformance to tough soldering and mechanical shock specification

special side face

for cutting glass fibre, e.g. Kevlar etc..

The lifetime of the cutting edges depends on the sharpness of the tips. The stronger the tips (fully without side face) the faster the wear. So far no flush and shock-resistant cut is required, it is better to take pliers with side face.



Finishes

BERNSTEIN-pliers are supplied as standard in the following finishes:

Bright-polished chrome-plated Fine-polished and bright-burnished Bright steel-polished Nickel-plated Burnished Stainless, fine polished

Additional insulation or other types of finish are indicated by a suffix after the article number

Finish	No.suffix
chrome-plated, polished with transparent hand-guard (=BERNSTEINIT-insulation) with transparent or coloured insulation with conductive black hand-guard	without -1 -2 -13
nickel-plated	4
with transparent hand-guard (=BERNSTEINIT-insulation) with coloured insulation	-4 -6
steel-polished	
with conductive black hand-guard burnished with conductive black hand-guard with coloured insulation	-13 -10 -7 -12
bright-burnished, and fine-polished with yellow-grey hand-guard with conductive black-yellow hand-guard	-14 -15
Safety insulation VDE-safety insulation two-colour multilayered safety insulation	-VDE -VDE
ESD-insulations conductive black coating conductive black hand-guard conductive black-yellow hand-guard	-7 -13 -15
Only the finishes indicated in the descriptions of the pliers are available from stock,	

all other finishes are available on request.

Packing

All pliers are supplied in skin packs as standard. Packing in plastic bags can also be selected if required. Both are for recycling. Quantities of 10 pairs of pliers per type are packed in a 3-coloured covered box and are clearly labelled.









SPECIAL ELECTRONIC PLIERS **EUROline–Conductive**

Box joint Double leaf spring

High quality steel

Fine polished and bright burnished, for dazzle free working Ergonomically formed bicoloured hand-guard from **conductive** anti-slide material

The pliers of this program have been tested with good results by several testing laboratories adequate to DINEN61340-5-1, 61340-2-1, 61340-2-3 for work in ESD protected areas

CUTTING PLIERS

No.	Le mm	ngth inches	Finish	cutti Copper- wire	ng capao Soft wire	city mm Ø Hard wire) Weigh g
			JROline-Condu	ictive	ļ		
3-651-15	120	4 ³ / ₄	without side face	1.2	0.6	-	65
3-651-15 DR	120	4 ³ / ₄	without side face, with retaining spring	1.2	0.6	-	65
			JROline-Condu	ictive	!		
3-652-15	120	4 ³ / ₄	without side face	1.0	0.6	-	60
3-653-15	120	4 ³ / ₄	without side face, with special flat cutti	1.0 ing edg	0.6 e	-	60
Side cutte with slim, round	-		ine-Conductive)			
3-654-15	125	5	with side face	1.5	1.0	0.4	70
3-655-15	125	5	without side face	1.5	1.0	-	70
with slim, point	ed he	ad,	ine-Conductive		10	0.4	70
			ine-Conductive with side face without side face) 1.2 1.2	1.0 1.0	0.4	70 70
with slim, point 3-656-15 3-657-15 End cutte	rs E witho	ad, 5 5 UROIi out side fa	with side face without side face ne-Conductive ice,for precision th straight cutting edge 20°	1.2 1.2			
with slim, point 3-656-15 3-657-15 End cutte extremely slim, work at points 3-671-15 3-672-15 Top cutte	rs E witho 130 rs E witho 130 rs E witho g direc	ad, 5 UROII out side fa It to reac 5 1/8 5 1/8 UROIII out side fa citly in from	with side face without side face ne-Conductive ice, for precision th straight cutting edge 20° angular ne-Conductive ice, head 45° angular,	1.2 1.2 0.6 0.6			70 65

cutting plane 29° angular, flush cutting for horizontal and vertical use

3-675-15	115	4 ¹ / ₂	without side face	1.2	1.0	0.4	65
0 0/ 0 / 0							

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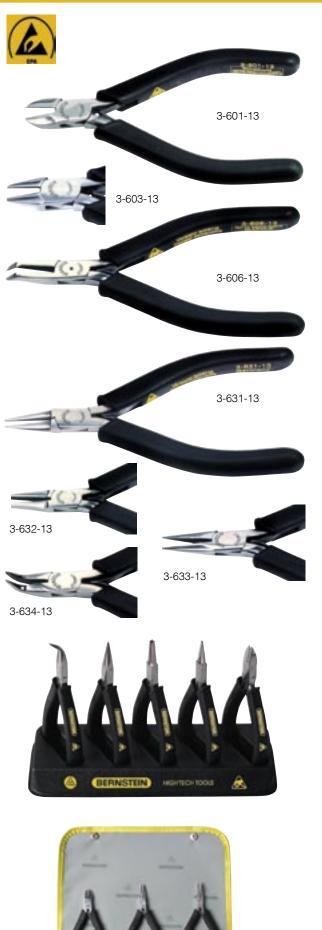
SPECIAL ELECTRONIC PLIERS EUROline–Conductive

ING PLIERS

No.	Ler mm	ngth inches	Finish		ng capao Hard wire	city mm Ø Piano- wire	Weight g		
	us heavy	work, wi	utters EURO th inserted carbide strode wires			tive			
3-661-15	120	4 ³ /4	with side face very slim rounded head	1.2	1.0	0.6	70	3	-661-1
3-663-15	120	4 ³ / ₄	with side face very slim pointed with special flat c		0.5	-	65	12	
for continuou	us heavy e 29° ang	work, wi jular, for	cutters EUR th inserted carbide horizontal and vertion trode wires	e cutting e		uctive			
3-667-15	115	4 ¹ / ₂	without side face	0.6	0.5	0.3	65	3	-667-1
ROUI	ND,	FL4	at, snipe	ENC	DSE	E PLI	ERS		
No.	Ler mm	ngth inches	Finish				Weight g		1
Round n extremely slin		liers l	EUROline-Co	nductiv	/e				
3-681-15	130	5 ¹ /8	short plain jaws				60	3	-682-1
Flat nos extremely slin		rs EUI	ROline-Cond	uctive			4		•
3-682-15	130	5 ¹ /8	short plain jaws				70		_
3-688-15	130	5 ¹ /8	short, ultra slim p	olain jaws			60		
Snipe no		iers E	UROline-Cor	ductive	e			3	-683-1
3-683-15	130	5 ¹ /8	short plain jaws				70		•
3-685-15	140	5 ¹ /2	long plain jaws				70	18	
3-686-15	140	5 ¹ /2	long serrated jaw	S			70		
3-687-15	130	5 ¹ /8	short plain jaws, (for precise handli				70	3	-687-1



3-685-15



SPECIAL ESD ECTRONIC PLIERS

Box joint Double leaf spring

Bright steel-polished

With conductive black hand-guard

CUTTING PLIERS

				Cutting cap	acity mm Ø	
No.	Ler mm	ngth inches	Finish	Soft wire	Hard wire	Weight g
Side cutte						
with slim, roun	ded he	ad, avai	lable with or without	side face		
3-601-13	120	4 ³ / ₄	with side face	1.0	0.4	70
3-602-13	120	4 ³ / ₄	without side face	1.0	-	70
Side cutte	ers					
with slim, point	ted hea	ad, availa	able with or without si	de face		
3-603-13	120	4 ³ / ₄	with side face	0.8	-	65
3-604-13	120	4 ³ /4	without side face	0.8	-	65
End cutte	rs					

with angular tips and oblique cutting edge, for flush cutting , for soft wire only

3-606-13	120	4 ³ / ₄	without side face	0.4	-	55

ROUND, FLAT AND SNIPE NOSE PI IFRS

No.	article	Le	ngth	Finish	Weight
		mm	inches		g
3-631-13	Round nose pliers	120	4 ³ / ₄	plain jaws	55
3-632-13 3-633-13	Flat nose pliers Snipe nose pliers	120 120	4 ³ /4 4 ³ /4	plain jaws plain jaws	60 60
3-634-13	Snipe nose pliers, angular	120	4 ³ /4	plain jaws	60

SETS OF ELECTRONIC PLIERS

3-650 (BERNSTEIN) Set of conductive pliers, 5 pieces

in a practical table support from antistatic material Tool oot

Tool set: No.	Description of individual tools	Weight: 350 g
3-601-13	Side cutters, 120 mm, for hard wire up to 0.4 mm,	
	for soft wire up to 1.0 mm	
3-631-13	Round nose pliers, 120 mm, plain jaws	
3-632-13	Flat nose pliers, 120 mm, plain jaws	
3-633-13	Snipe nose pliers, 120 mm, plain jaws	
3-634-13	Snipe nose pliers, angular, 120 mm, plain jaws	

3-630 (BERNSTEIN) Set of conductive pliers, 3 pieces

in a wallet of recycable nylon

Tool set: No.	Description of individual tools	Weight: 250 g
3-601-13	Side cutters, 120 mm, for hard wire up to 0.4 mm, for soft wire up to 1.0 mm	
3-632-13 3-633-13	Flat nose pliers, 120 mm, plain jaws Snipe nose pliers, 120 mm, plain jaws	

SPECIAL ESD ELECTRONIC PLIERS Lap joint

Double leaf spring

Bright polished - chrome-plated

With **conductive** black handguard

CUTTING PLIERS

No.	Ler mm	igth inches	Finish	Cutting cap Soft wire	acity mm Ø Hard wire	Weight g
Sido out						9
Side cut with slim, rou		ad				
3-901-13	125	5	with side face	1.0	0.4	75
Side cut	ters					
with slim, poi for soft wire c		ad and s	pecial flat cutting edge) ,		
3-902-13	125	5	without side face	0.8	-	75
Top cutt	ore					
	de cuttir		jaw length 20 mm,			
for flush cutti	•		-	0.9		05
3-905-13	135	5 ¹ /2	without side face	0.8	-	85
End cutt		oblique	cutting edge,			
for flush cutti						
3-906-13	135	5 ¹ /2	without side face	0.8		85
				יא ווריב		
	ND,	FL/	AT AND S	DINIPE		JSE
PLIER	S					
Round n	ose n	liers				
3-931-13	130	5 ¹ /8	plain jaws			80
Elet need	nlia					
Flat nose 3-932-13	2 pilei 130	5 5 ¹ /8	plain jaws			70
			plain jawo			10
Snipe no	-					=-
3-933-13	130	5 ¹ /8	plain jaws			70
SIDE (S, TELEPHC) NE A		
	BII V/	$\Delta \Pi C$				
	-	•	shed – chrome–j	plated		
	uucii		ck handguard			
Side cut						
swedish desi 3-133-13		5 ³ /4	anazial ataal	0.5	1 05	155
3-133-13	145	3 °/4	spezial-steel	2.5	1.25	155
			be nose, long straight ja	aws,		
with cutting e 3-245-13	dges foi 200	r hard wi 8	re serrated jaws			180
<u> </u>	200	0	Serraley Jaws			100
Combina						
with wire cutt 3-732-13	er, for ha 165	ard wire $6^{1/2}$	serrated jaws			185
5-152-15	105	0 /2	serrateu jaws			100







SPECIAL ESD ELECTRONIC PLIERS

Lap joint Black burnished, double leaf spring With **conductive** black handguard

CUTTING PLIERS

	Ler	ngth	Finish	Cutting car	Cutting capacity mm Ø	
No.	mm inches Soft wire Hard wire		g			
Side cut with slim, rou		ad				
3-901-7	120	4 ³ / ₄	with side face	1.0	0.4	65
Side cut with slim, poi for soft wire of	nted hea	ad, spec	ial flat cutting edge,			
3-902-7	120	4 ³ / ₄	without side face	0.8	-	65
Top cutto with 3 mm wi for flush cutti	de cuttir		jaw length 20 mm, only			
3-905-7	125	5	without side face	0.8	-	75
End cutt with angular for flush cutti	tips and		cutting edge, only			
3-906-7	125	5	without side face	0.8	-	75

FLAT–SNIPE NOSE PLIERS

No.	Le mm	ngth inches	Finish	Weight g
Round n	ose plie	rs with sho	rt jaws	
3-931-7	120	4 ³ / ₄	plain jaws	70
Flat nose	e pliers	with short jav	VS	
3-932-7	120	4 ³ / ₄	plain jaws	60
Snipe no	se plier	S with short	jaws	
3-933-7	125	5	plain jaws	60

angular, slim model

3-945-7 145 5 ³/₄ serrated jaws 85

SPECIAL ELECTRONIC PLIERS

Lap joint

3-945-12

145

5 ³/₄

serrated jaws

80

Black burnished, Double leaf spring with orange coloured insulation

CUTTING PLIERS

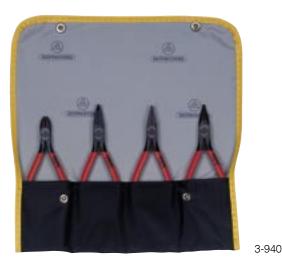
No.	Lei mm	ngth inches	Finish	Cutting ca Soft wire	pacity mm Ø Hard wire	Weight g
Side cut	ters					
with slim, rou	inded he	ead				
3-901-12	120	4 ³ / ₄	with side face	1.0	0.4	70
Side cut						
with slim, poi special flat c for soft wire o	utting ea					
3-902-12	120	4 ³ / ₄	with side face	0.8	-	65
Top cutt with 3 mm wi jaw length 20 cutting, for so	ide cuttir 0 mm, fo	or flush				
3-905-12	125	5	without side face	0.8	-	75
for soft wire of 3-906-12	only 125	5 F /	without side face $T = SNIPE$	0.8 N I () ()	- SE DI II	75 2DS
		ngth				_ICC Weight
	mm	inches				g
	-		with short jaws			
3-931-12	120	4 ³ /4	pla	in jaws		70
Flat nos	e plie	rs with s	hort jaws			
3-932-12	120	4 ³ /4	pla	in jaws		60
Flat nos	e plie	rs slim r	nodel, with long jaws			
3-942-12	145	5 ³ /4	ser	rated jaws		90
	neo nl	iers w	ith short jaws			
Snipe no	3 6 pi		ser	rated jaws		
Snipe no 3-933-12	125	5				60
3-933-12	125		im model, with long ja			60
3-933-12	125		im model, with long ja			60 80
3-933-12 Snipe no 3-943-12	125 DSE pl 145	iers sl 5 ³/4	im model, with long ja	aws rated jaws		











SETS OF ELECTRONICS PLIERS

3-680 (BERNSTEIN) EUROline-Conductive set of pliers

Description of individual tools



No.

4-piece set **conductive** pliers from the series EUROline-Conductive with **conductive** handguard in cases made from **conductive** black imitation leather, with zip fastener

Weight: 400 g

3-651-15 Mini side cutters EUROline-Conductive, 120 mm, without sideface, for soft wire up to 0.6 mm Ø, copper wire up to 1.2 mm Ø, box joint, double leaf spring, fine polished and bright burnished, conductive bicoloured hand-guard
3-672-15 End cutters EUROline-Conductive, 130 mm, for copper wire up to 0.0 mm, for co

0.6 mm Ø, cutting edge 20° angular, box joint, double leaf spring, fine polished and bright burnished, conductive bicoloured hand-guard
3-682-15 Flat nose pliers EUROline-Conductive, 130 mm, plain jaws,

finish as before 3-683-15 **Snipe nose pliers EUROline-Conductive**, 130 mm, plain jaws, finish as before



No.

61

3-630

0 (BERNSTEIN) Set of conductive pliers

3-piece set bright steel-polished pliers with **conductive** handguard in a wallet of nylon

Description of individual tools Weight: 250 g

3-601-13 Side cutters, 120 mm, for hard wire up to 0.4 mm, for soft wire up to 1.0 mm
3-632-13 Flat nose pliers, 120 mm, plain jaws
3-633-13 Snipe nose pliers, 120 mm, plain jaws

3-960 (BERNSTEIN) Set of conductive pliers

4-piece set black burnished pliers with **conductive** handguard in a wallet of nylon

No.Description of individual toolsWeight: 350 g3-901-7Side cutters, 120 mm,
for soft wire bis 1.0 mm, for hard wire up to 0.4 mm Ø3-906-7End cutters, 125 mm,
with angular tips and oblique cutting edge, without side face,
for flush cutting, for soft wire only3-932-7Flat nose pliers, 120 mm3-933-7Snipe nose pliers, 125 mm

3-940 (BERNSTEIN) Set of pliers

4-piece set black burnished pliers with
orange insulation in a wallet of nylonNo.Description of individual toolsWeight: 350 g3-901-12Side cutters, 120 mm,
for soft wire up to 1.0 mm, for hard wire up to 0.4 mm Ø3-906-12End cutters, 125 mm,
with angular tips and oblique cutting edge, without side face,
for flush cutting, for soft wire only up to 0.8 mm Ø3-932-12Flat nose pliers, 120 mm
3-933-12Snipe nose pliers, 125 mm

3-930 (BERNSTEIN) Set of pliers

3-piece set black burnished pliers with orange insulation in a wallet of nylon

Description of individual tools Weight: 275 g

- 3-901-12 Side cutters, 120 mm, for soft wire up to 1.0 mm, for hard wire up to 0.4 mm Ø
 3-932-12 Flat nose pliers, 120 mm
- 3-933-12 Snipe nose pliers, 125 mm

No.

56

SPECIAL ELECTRONIC PLIERS

EUROline

Box joint, Double leaf spring, High quality steel Fine polished and bright burnished For dazzle-free working, high corrosion protection

Ergonomically formed bicoloured hand-guard from anti-slide material

CUTTING PLIERS

				Cutting capacity mm Ø			ð
No.	Ler	ngth	Finish	Copper-	Soft	Hard	Weight
	mm	inches		wire	wire	wire	g
EUROIII with very slin for finest op	m, rounde erations	ed head	, ,				
3-651-14	120	4 ³ / ₄	without side face	1.2	0.6	-	55
3-651-14 [OR 120	4 ³ /4	without side face with wire retaining	1.2 spring	0.6	-	60

EUROline mini side cutters

with very slim, pointed head,

for linest ope	rations						
3-652-14	120	4 ³ / ₄	without side face	1.0	0.6	-	60
3-653-14	120	4 ³ / ₄	without side face, with special flat cut		0.6 je	-	60

EUROline side cutters

with slim rour	ided nea	a					
3-654-14	125	5	with side face	1.5	1.0	0.4	70
3-655-14	125	5	without side face	1.5	1.0	-	70

EUROline side cutters

with slim, poir	nted hea	d					
3-656-14	125	5	with side face	1.2	1.0	0.4	65
3-657-14	125	5	without side face	1.2	1.0	-	65

EUROline end cutters

extremely slim, cutting edge 20° angular, for precision work at points difficult to reach

3-672-14	130	5 ¹ /8	without side face	0.6	-	-	65



EUROline round nose pliers

extremely slim,	with shor	t jaws		
3-681-14	130	5 ¹ /8	plain jaws	65

65

65

EUROline flat nose pliers

extremely slim, with short jaws

3-682-14	130	5 ¹ /8	plain jaws	

EUROline snipe nose pliers

extremely slim	i, with shor	t jaws	
3-683-14	130	5 ¹ /8	plain jaws







SPECIAL ELECTRONIC PLIERS

Box joint Compression spring, Special steel, chrome-plated bright polished, especially light and slim With transparent insulation (-2)

CUTTING PLIERS

No.	Length mm inches	Finish		ing cap wire	acity mm Ø Hard wire	Weigh g
for continuou	ics side cu is heavy work, v for tough nicke	vith inserted ca				
3-067-2	125 5	with side fac	e	-	1.0	70
	e cutters ly narrow, pointe ng, for precisior					
3-068-2	110 4 ³ /8	without side	face	0.6	-	40
	e cutters ly narrow, rounc ng, for precisior					
3-069-2	110 4 ³ / ₈	without side	face	0.8	-	40
For bend	APONE ling, cutting ng wires or Length	and sque compone	ezing			Weigl
Crimpin	g and bend	inches				g
crimp the wir	e in one operati m of the ends o	on without cha				
3-172-2	130	5 ¹ /8	especially sli	n mod	lel	70
cut and sque	and sqeezi beze soft wire up be shortened up	o to 1.2 mm Ø ir				
3-175-2	125	5	cutting edge	width	4.0 mm	70
cut and bend wire ends are	and bendir d soft wire up to e shortened to 1	0.8 mm Ø in or	ne operation, it through 45°	,		
cutting edge	width 2.0 mm					

3-056-2 125 5 especially slim model	70
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SPECIAL ELECTRONIC PLIERS

Box joint

Compression spring, Special steel, chrome-plated bright polished, especially light and slim With transparent insulation (-2)

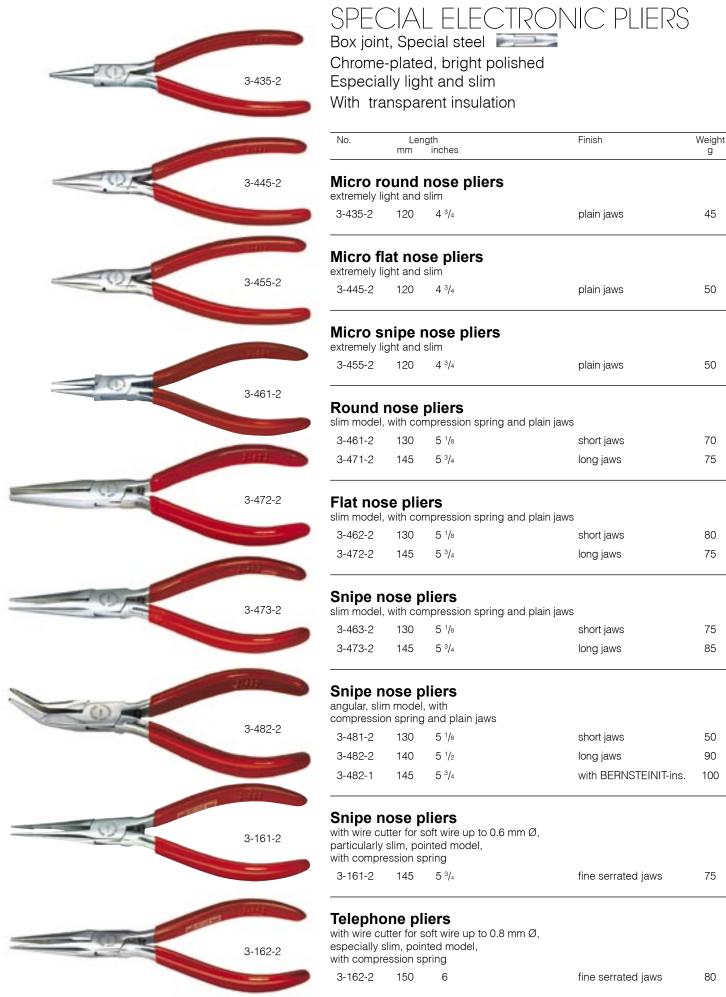
CUTTING PLIERS

No.	Ler mm	ngth inches		Cutting cap Soft wire	acity mm Ø Hard wire	Weigh g
Micro sic with slim, poi						
3-125-2	115	4 ¹ / ₂	fine side face	0.8	0.3	60
3-125-1	115	4 ¹ /2	with BERNSTEINIT-ins	s. 0.8	0.3	70
Slimline with slim, rou			S			
3-127-2	115	4 ¹ /2	fine side face	1.0	0.4	60
Slimline with slim, rou with wire ret	nded he	ad,	S o hold the wire clippings	6)		
3-127-2 DR	115	4 ¹ /2	fine side face	1.0	0.4	60
Slimline with slim hea for soft wire c	d, for flu					
3-128-2	120	4 ³ / ₄	without side face	0.8	0.3	70
IC top cu		tions onl	у			
3-130-2	120	4 ³ / ₄	without side face	-	-	70
Special s slim, pointed for soft wire c	head, b		for flush cutting,			
3-138-2	130	5 ¹ /8	without side face	1.25	-	90
3-138	130	5 ¹ /8	without insulation	1.25	-	85
Slimline with angular for flush cutti at points diffi	tip and c ng, for p	blique c recision	utting edge,			
3-164-2	140	5 ¹ /2	without side face	0.8	-	70
End cutt with angular without comp	tip and c		dge, for soft wire only,			
3-165-2	165	6 ¹ / ₂	fine side face	1.0	-	115
3-165-1	165	6 ¹ /2	with BERNSTEINIT-ins	s. 1.0	-	130

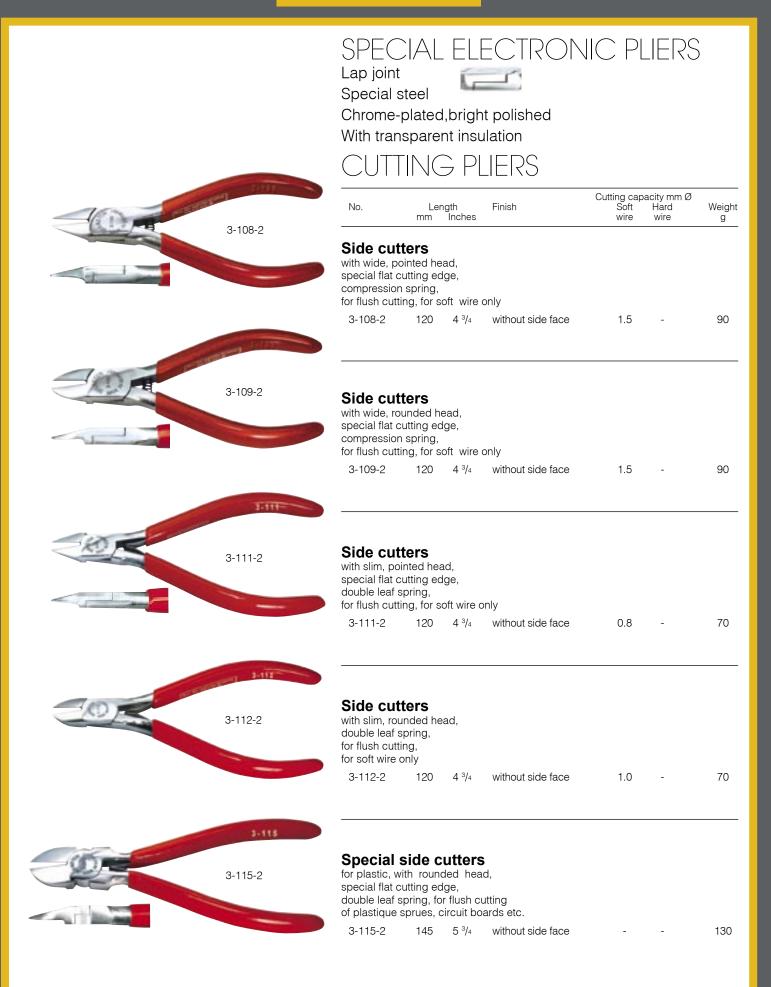








Box join	t	ER'S P	LIERS Special steel -plated, polished	
		EINIT-handg		
No.	Len mm	gth inches	Finish	Weight g
Long ng		iers flat, slim		
3-205-1	185	7 ¹ / ₂	fine serrated jaws	140
Snine Io	ona na	ose pliers ov	ral-pointed hent	
3-215-1	185	7 ¹ /2	fine serrated jaws	145
			····· , ····	
Snipe n	ose p	liers oval-point	ted	
3-225-1	130	5 ¹ /8	fine serrated jaws	95
		DNE PL		
Lap ioin	T II L t. Spe	DINE PL cial steel		
			with wire cutters	
		EINIT-handg		
		ers snipe nose ng edge for hard		
3-235-1	160	6 ¹ / ₄	with serrated jaws	145
Telepho	one pli	ers snipe nose	, long	
straight jaw	s, with cı	utting edge for ha	ard wire	
3-245-1	200	8	with serrated jaws	190
		ers snipe nose cutting edge for		
3-255-1	200	8	with serrated jaws	180
0 200 1	200	0	with contactor juwe	100
FI AT			JND NOSE PLI	FRS
		d, polished		
With BEI	RNSTE	EINIT-handg	uard (-1)	
Flat nos	se plie	FS with short jav	NS	
3-511-1	120	4 ³ / ₄	with serrated jaws	70
Round	n060 i	oliers with long	n jawe	
	-			
3-522-1	140	5 ¹ /2	with serrated jaws	130
Flat nos	se plie	rs with long jaw	/S	
3-531-1	140	5 ¹ /2	with serrated jaws	100
3-532-1	160	6 ¹ / ₄	with serrated jaws	125
0 002-1	100	U /4	with senated Jaws	120



CUTTING PLIERS, COMBINATON PLIERS, ADJUSTING PLIERS Special steel, Chrome-plated, bright polished

With BERNSTEINIT-handguard (-1)

No.	Ler mm	ngth inches		Cutting cap Soft wire	bacity mm Ø Hard wire	Weight g
Side cut			lap joint	(_	Γ	
3-131 3-131-1	120 120	4 ³ / ₄ 4 ³ / ₄	chrome-plated, polished with BERNSTEINIT-ins		0.8 0.8	90 110
3-132 3-132-1	130 130	5 ¹ /8 5 ¹ /8	chrome-plated, polished with BERNSTEINIT-ins		1.0 1.0	110 130
3-133 3-133-1	145 145	5 ³ /4 5 ³ /4	chrome-plated, polish with BERNSTEINIT-ins		1.25 1.25	120 160

Power side cutters lay-on joint

powerful, handy model, with excellent cutting capacity

for steel wire,	, special :	steel				
3-141	145	5 ³ /4	chrome-plated, polished with BERNSTEINIT-ins.	2.5	1.25	150
3-141-1	145	5 ³ /4		2.5	1.25	170
3-142	160	6 ¹ /4	chrome-plated, polished with BERNSTEINIT-ins.	3.0	1.5	210
3-142-1	160	6 ¹ /4		3.0	1.5	240

Combination pliers lap joint

with wire cutter, for hard v	vire

with wire cut	ter, for n	ard wire		
No.	Lei mm	ngth inches	Finish	Weight g
3-715	115	4 ¹ /2	chrome-plated, polished with BERNSTEINIT-insulation	70
3-715-1	115	4 ¹ /2		80
3-731	140	5 ¹ /2	chrome-plated, polished	135
3-731-1	140	5 ¹ /2	with BERNSTEINIT-insulation	140
3-732	165	6 ¹ / ₂	chrome-plated, polished	190
3-732-1	165	6 ¹ / ₂	with BERNSTEINIT-insulation	200
3-733	180	7	chrome-plated, polished	225
3-733-1	180	7	with BERNSTEINIT-insulation	240

Adjusting pliers straight, flat and wide

lap joint	

3-335 3-335-1	100	5 ¹ / ₂ 5 ¹ / ₂	chrome-plated, polished, with BERNSTEINIT-insulation

Adjusting pliers straight, pointed nose

lap joint



70

90

70

90

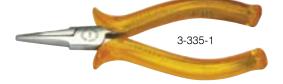
3-345 135 5^{1} 5 1/ 3-345-1 135

/2	chrome-plated, polished,
/2	with BERNSTEINIT-insulation

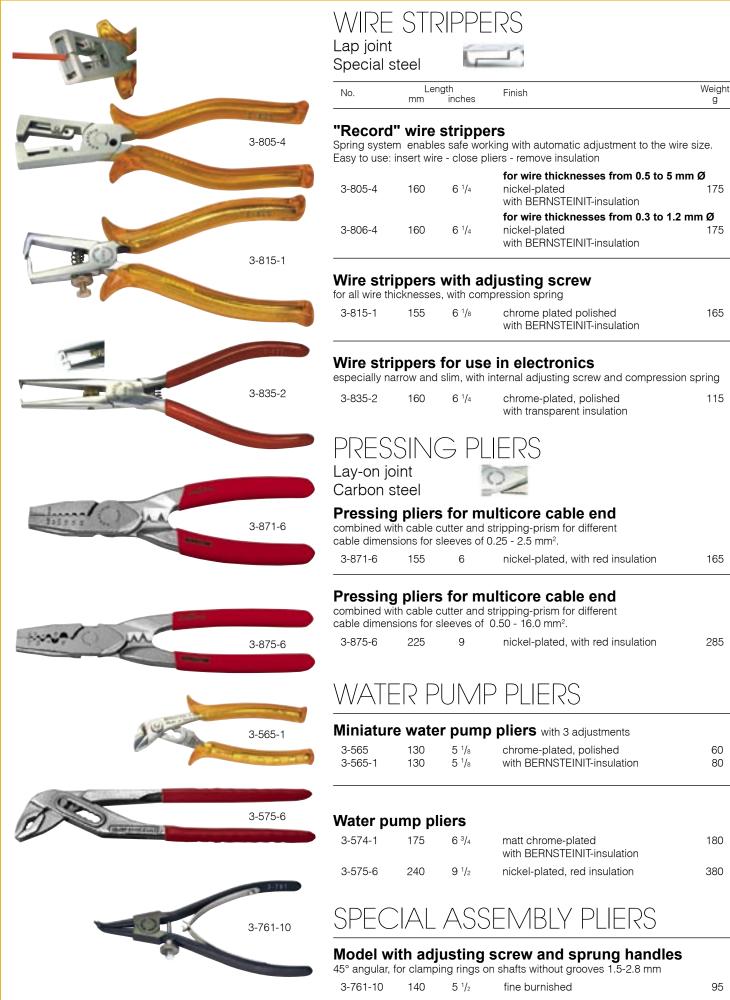














INOX HIGH–GRADE STEEL PLIERS

For use in cleanrooms (autoclavable) Antiseptic or in ESD protected areas

Stainless steel, Swaged, Box joint construction

With screwed stainless double leaf spring Extremely fine polished, abrasionproof, easy to clean

On request with inserted carbid cutting edges On request with ESD handguard

The perfect pliers for works in following industries: Aerospace - chemical - electonic-Medical and dental technique - food production-Shipbuilding - oil and gas production

CUTTING PLIERS

NI-			F inite h			city mm Ø	
No.	Le mm	ngth inches	Finish	Copper- wire	Soft wire	Hard wire	Weight g
Side cu	itters						
with very s		d head					
for finest of		4.27					
33-115	110	4 ³ /8	without side face	1.1	0.4	-	36
Side cu with very s		d head					
33-215	115	4 ¹ / ₂	with side face	1.1	0.6	0.2	53
TOP	CU^{T}	TTEI	RS				
Oblique straight head							
33-135	110	4 ³ /8	without side face	0.8	0.6	0.2	40
SNF Snipe n extremely s	ose pli	ers	E AND F jaws	LAT	PLI	ERS	$\hat{}$
33-255	120	4 ³ / ₄	with pla	ain jaws			43
Flat nos	se plier	s					
extremely s			jaws				
33-275	120	4 ³ / ₄	with pla	ain jaws			44
SET	OF I		CTRON	CS	PLIE	ERS	
33-100	BERN	STEIN) Set of INOX	steel p	liers		
:	3-piece se	et INOX h	igh grade steel plier	s in a wall	et of ny	lon	
No.	Descriptio	on of ind	ividual tools			Weight	: 220 g
33-215	Side cutte	ers , 115 r	mm, with side face				
33-255	Snipe nos	se pliers,	120 mm, plain jaws				

























SAFETY INSULATED PLIERS

Produced in accordance with specification EN 60.900 of the Association of German Electrical Engineers (VDE). Permissable voltage at which the VDE pliers can be used: 1000 V a.c. or 1500 V d.c.

Bicoloured VDE multicomponent safety insulation

	mm	ngth inches	Finish	Weig g
Side cutte	re			
		n Ø, swedish	design, special steel	
3-134 VDE	160	6 ¹ / ₄	chrome-plated, polished,	22
			with VDE safety insulation	
Power sid	le cutte	YS for stee	l wire up to 1.6 mm Ø, special steel	
3-142 VDE	165	6 ¹ /2	chrome-plated, polished,	25
			with VDE safety insulation	
Telephon	e pliers			
snipe nose, lor	ng, straigh	t jaws, with o	cutting edge for hard wire,	
serrated jaws,	•			
3-244 VDE	165	6 ¹ /2	chrome-plated, polished, with VDE safety insulation	15
3-245 VDE	205	8	chrome-plated, polished,	21
	-	-	with VDE safety insulation	
Tolonhon	o pliara			
Telephone snipe nose, lor			ing edge for hard wire,	
serrated jaws,				
3-254 VDE	165	6 ¹ / ₂	chrome-plated, polished,	15
	0.05		with VDE safety insulation	
				~ ~ ~
3-255 VDE	205	8 . rs	chrome-plated, polished, with VDE safety insulation	22
3-255 VDE Round no with long, roun 3-541 VDE	se plie	rs	with VDE safety insulation	22
Round no	se plie d, serrated	rs d jaws	with VDE safety insulation	
Round no	d, serrated	2 17S d jaws 6 ¹ /2	with VDE safety insulation chrome-plated, polished, with VDE safety insulation	
Round no with long, roun 3-541 VDE	d, serrated	2 17S d jaws 6 ¹ /2	with VDE safety insulation chrome-plated, polished, with VDE safety insulation , serrated jaws chrome-plated, polished,	20
Round no with long, roun 3-541 VDE Flat nose	pse plie d, serrated 165 pliers v	d jaws 6 ½ with long, flat	with VDE safety insulation chrome-plated, polished, with VDE safety insulation	
Round no with long, roun 3-541 VDE Flat nose 3-545 VDE	pse plie d, serrated 165 pliers v 165	e rs d jaws 6 ¹ / ₂ with long, flat 6 ¹ / ₂	with VDE safety insulation chrome-plated, polished, with VDE safety insulation , serrated jaws chrome-plated, polished,	20
Round no with long, roun 3-541 VDE Flat nose	pse plie d, serrated 165 pliers v 165	erS d jaws 6 1/2 with long, flat 6 1/2 erS	with VDE safety insulation chrome-plated, polished, with VDE safety insulation , serrated jaws chrome-plated, polished, with VDE safety insulation	20
Round no with long, roun 3-541 VDE Flat nose 3-545 VDE Combinat	pse plie d, serrated 165 pliers v 165	erS d jaws 6 1/2 with long, flat 6 1/2 erS	with VDE safety insulation chrome-plated, polished, with VDE safety insulation , serrated jaws chrome-plated, polished, with VDE safety insulation 6 mm Ø chrome-plated, polished,	20
Round no with long, roun 3-541 VDE Flat nose 3-545 VDE Combinat with wire cutter 3-732 VDE	Se plie d, serrated 165 pliers w 165 cion plie r, for hard w 165	ers with long, flat 6 1/2 ers wire up to 1. 6 1/2	with VDE safety insulation chrome-plated, polished, with VDE safety insulation , serrated jaws chrome-plated, polished, with VDE safety insulation 6 mm Ø chrome-plated, polished, with VDE safety insulation	20
Round no with long, roun 3-541 VDE Flat nose 3-545 VDE Combinat with wire cutter	pse plie d, serrated 165 pliers v 165 tion plie	of I /2 6 1/2 with long, flat 6 1/2 ers wire up to 1.	with VDE safety insulation chrome-plated, polished, with VDE safety insulation , serrated jaws chrome-plated, polished, with VDE safety insulation 6 mm Ø chrome-plated, polished,	20
Round no with long, roun 3-541 VDE Flat nose 3-545 VDE Combinat with wire cutter 3-732 VDE 3-733 VDE	pse plie d, serrated 165 pliers v 165 ion plie r, for hard v 165 185	ers d jaws 6 1/2 with long, flat 6 1/2 ers wire up to 1. 6 1/2 7 1/4	with VDE safety insulation chrome-plated, polished, with VDE safety insulation , serrated jaws chrome-plated, polished, with VDE safety insulation 6 mm Ø chrome-plated, polished, with VDE safety insulation chrome-plated, polished,	20
Round no with long, roun 3-541 VDE Flat nose 3-545 VDE Combinat with wire cutter 3-732 VDE 3-733 VDE 3-733 VDE	pse plie d, serrated 165 pliers v 165 ion plie f, for hard v 165 185 wire st adjusting	ers d jaws $6^{1/2}$ with long, flat $6^{1/2}$ ers wire up to 1. $6^{1/2}$ $7^{1/4}$ trippers to the wire s	with VDE safety insulation chrome-plated, polished, with VDE safety insulation , serrated jaws chrome-plated, polished, with VDE safety insulation 6 mm Ø chrome-plated, polished, with VDE safety insulation chrome-plated, polished, with VDE safety insulation chrome-plated, polished, with VDE safety insulation	20
Round no with long, roun 3-541 VDE Flat nose 3-545 VDE Combinat with wire cutter 3-732 VDE 3-733 VDE "Record"	pse plie d, serrated 165 pliers v 165 ion plie f, for hard v 165 185 wire st adjusting	ers d jaws $6^{1/2}$ with long, flat $6^{1/2}$ ers wire up to 1. $6^{1/2}$ $7^{1/4}$ trippers to the wire s	with VDE safety insulation chrome-plated, polished, with VDE safety insulation , serrated jaws chrome-plated, polished, with VDE safety insulation 6 mm Ø chrome-plated, polished, with VDE safety insulation chrome-plated, polished, with VDE safety insulation chrome-plated, polished, with VDE safety insulation	20

Wire strippers with adjusting screw

3-815 VDE	160	6 ¹ / ₄	chrome-plated, polished,
			with VDF safety insulation

190

66

SAFETY INSULATED PLIERS

Insulated and piece-checked in accordance with specification EN 60.900 of the Association of German Electrical Engineers (VDE) Permissable voltage at which the VDE pliers can be used: 1000 V a.c. or 1500 V d.c.

	No.	Length mm Zoll	Finish	Weight g
--	-----	-------------------	--------	-------------

Side cutters

Special steel,	cutting ca		906 VDE for steel wire up to 1.6 mm $Ø$ 908 VDE for steel wire up to 2.0 mm $Ø$	
13-906 VDE	160	6 1/4	chrome-plated, polished, with safety insulation	210
13-908 VDE	180	7	chrome-plated, polished, with safety insulation	290

Telephon pliers

snipe nose, long up to 1.6 mm Ø	g, straigl		itting edge for hard wire I steel	
13-915 VDE	160	6 1/4	chrome-plated, polished, with safety insulation	155
13-917 VDE	200	8	chrome-plated, polished, with safety insulation	220

Telephon pliers

snipe nose, long, bent jaws, with cutting edge for hard wire up to 1.6 mm Ø, serrated jaws, special steel

13-916 VDE	160	6 ¹ /4	chrome-plated, polished, with safety insulation	150
13-918 VDE	200	8	chrome-plated, polished, with safety insulation	220

Round nose pliers

with long, round,	serrated jav	VS		
13-926 VDE	160	6 ¹ / ₄	chrome-plated, polished, with safety insulation	140

Flat nose pliers

with long, flat, s	errated ja	WS		
13-927 VDE	160	6 1/4	chrome-plated, polished, with safety insulation	180
Combinat with wire cutter			6 mm Ø	
13-936 VDE	160	6 1/4	chrome-plated, polished, with safety insulation	220

205 8 chrome-plated, polished, with safety insulation

7 1/4

6¹/₄

Wire strippers

13-937 VDE

13-938 VDE

with adjusting screw

13-946 VDE 160

185

chrome-plated, polished, with safety insulation

chrome-plated, polished,

190

280

350







SAFETY INSULATED PLIERS

Insulated and piece-checked in accordance with specification EN 60.900 of the Association of German Electrical Engineers (VDE). Permissable voltage at which the safety pliers can be used: 1000 V a.c. or 1500 V d.c. Two-colour multilayered insulation, outside red - inside yellow. Damages of the external red insulation immediately become visible by the yellow layer below.

The advantage: simple safety control, practical at any time

	13-106 VDE	No.	Ler mm	ngth inches	Finish	Weight g
		Side cutte special steel, c		acity: 13	-106 VDE for steel wire up to 1.6 mm $arepsilon$	Ď
ALC: NOT	-				-108 VDE for steel wire up to 2.0 mm Q	Ď
		13-106 VDE	165	6 ¹ / ₄	chrome-plated, polished, with VDE safety insulation	200
		13-108 VDE	195	7 ³ /4	chrome-plated, polished, with VDE safety insulation	300
	13-207 VDE	Telephone snipe nose, lon up to 1.6 mm Ø	g, straight	i jaws, with o	cutting edge for hard wire	
		13-207 VDE	205	8	chrome-plated, polished, with VDE safety insulation	230
	13-506 VDE	Telephone snipe nose, lon up to 1.6 mm @	g, bent jav	ws, with cut	ing edge for hard wire al steel	
		13-208 VDE	205	8	chrome-plated, polished, with VDE safety insulation	230
-0		Round no				
	13-516 VDE	13-506 VDE	165	6 1/2	chrome-plated, polished, with safety insulation	200
		Flat nose with long, flat, s		WS		
An a series		13-516 VDE	165	6 1/2	chrome-plated, polished, with safety insulation	210
	- 100	Combinat with wire cutter			6 mm Ø	
	13-707 VDE	13-707 VDE	190	7 ¹ /2	chrome-plated, polished, with VDE safety insulation	210
2		13-708 VDE	210	8 1/4	chrome-plated, polished, with VDE safety insulation	340
		Wire strip				
		13-806 VDE	165	6 ¹ / ₂	chrome-plated, polished,	210
-	13-806 VDE		-	• -	with VDE safety insulation	





E

CRIMPING PLIERS FOR MODULAR CONNECTORS

No.	Length	for connector types	Weight
140.	mm inches	/ finish	g

Crimping pliers

solid metal type, with interchangeable blades, spring and closed lock, for cutting, cable stripping and crimping of the most current connector types

ior outling,	00010 00	ipping and		,
3-0601	190	7 ¹ /2	4P4C, 4P2C	215
3-0602	190	7 ¹ /2	6P6C / RJ-12, 6P4C / RJ-11, 6P/2C	220
3-0603	200	8	8P8C / RJ-45	260

Combination crimping pliers

solid metal pliers, with interchangeable blades, spring and closed lock, for cutting, cable stripping and crimping

		. le le	e	
3-0605	200	8	6P6C, 6P4C, 6P2C, 8P8C	320

Universal crimping pliers light execution, ergonomically formed plastic casing, for cutting, cable stripping and crimping

0,		11 0	0	
3-0609	200	8	4P4C, 4P2C, 7.65 mm 6P6C / RJ-12, 6P4C / RJ-11, 9.65 mm 8P8C / RJ-45, 11.68 mm, DEC 6P6C	570 ,
Donloo		thladaa		

Replacement blades

4 blades for stripper and 2 blades for cutter

3-0609-00 1 Set blades

Crimping pliers

for BNC- and TNC-coaxial connectors, with forced locking device and automatic release, for inner contacts and outside sleeves

_	Pressing rar	nge		Crimping length	Inner-Ø
	Small hexa	agon for l zed hexa	agon for RG 5	2.3 mm 10.0 mm 9/62 10.0 mm 10.0 mm	.068" 1.72 mm .213" 5.41 mm .256" 6.50 mm .319" 8.10 mm
	3-0611	220	8 ³ /4	burnished-insulated	530

Crimp tool

3-0645

125

5

for insulated and uninsulated terminals

3-0856	230	9 ¹ / ₄	black-insulated	295

CUTTING TOOLS

No.	Ler mm	gth inches	Finish	Weight g
, ,	for coaxia	al cable, robust e cable up to 10.8		
3-0648	160	6 1/4	burnished-insulated	150
Electro with spring for CU-wire	, without		i	
3-0641	130	5 ¹ /8	burnished-insulated	70
standard-e	xecution,	e cutters without side fac wires up to 0.8 m		



burnished-insulated





high precision tweezers from special steel stainless – matt finish – anti–magnetic – acid–resisting - alternative with ESD coating (-13) -

No.	Le mm	ngth inches	Finish	Weight
5-049	110	4 ³ /8''	straight, very sharply pointed	12 g
5-049-13	110	4 ³ /8''	as above, with ESD coating	12 g
5-051	115	4 ¹ /2''	straight pointed	15 g
5-051-13	115	4 ¹ /2''	as above, with ESD coating	15 g
5-052	110	4 ³ /8''	bent, very sharply pointed	13 g
5-052-13	110	4 ³/8''	as above, with ESD coating	13 g
5-059	120	4 ³ /4 ¹¹	flat, rounded tips, 2.0 mm width	15 g
5-059-13	120	4 ³ /4''	as above, with ESD coating	15 g
5-078	130	5 ¹ /8''	tapering, chisel, 1.0 mm width	16 g
5-078-13	130	5 ¹ /8''	as above, with ESD coating	16 g
5-053	110	4 ³/8''	obliquely angled, very sharply pointed	13 g
5-053-13	110	4 ³ /8''	as above, with ESD coating	13 g
5-054	120	4 ³ /4''	sickle-shape-curved, very sharply pointed	16 g
5-054-13	120	4 ³ /4 ¹¹	as above, with ESD coating	16 g
5-055	120	4 ³ /4''	sickle-shaped, very sharply pointed	15 g
5-055-13	120	4 ³ /4''	as above, with ESD coating	15 g
5-056	120	4 ³ /4''	slightly bent, very sharply pointed	15 g
5-056-13	120	4 ³ /4''	as above, with ESD coating	15 g
5-057	120	4 ³ /4''	self-locking, straight-pointed	13 g
5-058	120	4 ³ /4''	self-locking, bent, pointed	13 g



SPECIAL-TWEEZERS FOR THE SMD-TECHNIQUE

high precision tweezers from special steel stainless – matt finish – anti–magnetic – acid–resisting - alternative with ESD coating (-13) -

			3 ()	
No.	mm	Length inches	Finish	Weight
5-061	115	4 ¹ /2"	bent, flat rounded tips	16 g
5-062	115	4 ¹ /2 ¹¹	35° angled, 2.0 mm width, with gripping cavity Ø 0.8 mm	16 g
5-062-13	115	4 ¹ /2"	as above, with ESD coating	16 g
5-063	115	4 ¹ /2 ¹¹	35° angled, 3.5 mm width, with gripping cavity Ø 0.8 mm	16 g
5-063-13	115	4 ¹ /2"	as above, with ESD coating	16 g
5-065	120	4 ³ /4"	straight, 3.0 mm width with gripping cavity Ø 0.8 mm	16 g
5-065-13	120	4 ³ /4"	as above, with ESD coating	16 g
5-066	120	4 ³ / ₄ "	30° angled, 2.5 mm width	15 g
5-066-13	120	4 ³ /4"	as above, with ESD coating	15 g
5-067	120	4 ³ /4"	tip 45° angled, 2.0 mm width	15 g
5-067-13	120	4 ³ / ₄ "	as above, with ESD coating	15 g
5-068	120	4 ³ /4"	tip angled, 1.6 mm width	13 g
5-068-13	120	4 ³ /4"	as above, with ESD coating	13 g
5-071	85	3 ³ /8''	thin, straight-pointed	8 g
5-073	140	5 1/2"	long-thin, straight, very sharply pointed	13 g
5-073-13	140	5 ¹ /2''	as above, with ESD coating	13 g
5-075	140	5 1/2"	straight, very sharply pointed, grip surface offset	13 g
5-076	120	4 ³ / ₄ "	rigid, straight, pointed	19 g
5-076-13	120	4 ³ /4"	as above, with ESD coating	19 g
5-077	130	5 ¹ /8''	round, tapering, pointed	16 g
5-077-13	130	5 ¹ /8''	as above, with ESD coating	16 g





5-225

1-017

1-010



No.	mm	ength. inc	hes	Finish	W
Compor	nent t	weeze	rs		
made from s	steel, wi	th insulate	ed jaws,	a special tool for easy ir ⁄arious sizes	nsertion
5-006	140		/2''	nickel-plated	:
	steel, wi	th semi-ci	rcular ja	ws, 5 mm wide, to facilit d components of various	
5-007	140	5	/2''	nickel-plated	:
	steel, wi	th jaws be oval of rou	ent inwa	ds at right angles, 5 mm Ibe-shaped components nickel-plated	
Compor made from s components	steel, wi			5.5 mm wide, for grippir	ng flat
5-009	140	5	/2''	nickel-plated	
	steel, for	r use whe	n solder ezers a	' S ing transistors, gold-bor re narrow and provided I-plated	with copper ja
made from s the flat, wide 5-115 Jewelle I	teel, for points 165 rie's t	r use when of the twe 6 1/2" CWEEZE	n solder ezers a nicke rS	ing transistors, gold-bor re narrow and provided I-plated	with copper ja
made from s the flat, wide 5-115 Jewelle I	teel, for points 165 rie's t	r use when of the twe 6 1/2" WEEZE e-rounded	n solder ezers a nicke rs d tips, w	ing transistors, gold-bor re narrow and provided	with copper ja 3
made from s the flat, wide 5-115 Jeweller made from s	teel, for points 165 rie's t steel, fin 140	r use when of the twe 6 1/2" Weeze e-rounded 5 1/2"	n solder bezers a nicke rS d tips, w nicke	ing transistors, gold-bor re narrow and provided I-plated ith X-serration	with copper ja 3
made from s the flat, wide 5-115 Jeweller made from s 5-119 Sheet-m	teel, for points 165 rie's t steel, fin 140	r use when of the twe 6 1/2" Weeze e-rounded 5 1/2"	n solder eezers a nicke rs d tips, w nicke ers nicke polisł	ing transistors, gold-bor re narrow and provided I-plated I-plated	
made from s the flat, wide 5-115 Jewellen made from s 5-119 Sheet-m straight, flat 5-125 5-125-1 Sheet-m	teel, for points 165 rie's t iteel, fin 140 netal 1 and poi 110 110	r use when of the twe 6 1/2" Weeze e-rounded 5 1/2" tweeze inted 4 3/8" 4 3/8" 4 3/8"	n solder eezers a nicke rs d tips, w nicke polish with a	ing transistors, gold-bor re narrow and provided I-plated I-plated I-plated ned,	with copper ja 3: 1! 1: 1: 1:
made from s the flat, wide 5-115 Jewellen made from s 5-119 Sheet-m straight, flat 5-125 5-125-1 Sheet-m	teel, for points 165 rie's t iteel, fin 140 netal 1 and poi 110 110	r use when of the twe 6 1/2" Weeze e-rounded 5 1/2" tweeze inted 4 3/8" 4 3/8" 4 3/8"	n solder eezers a nicke rS d tips, w nicke polish with a grip, st	ing transistors, gold-bon re narrow and provided I-plated I-plated I-plated ned, untiallergical coating	with copper ja 3: 1! 1: 1: 1:
made from s the flat, wide 5-115 Jewellen made from s 5-119 Sheet-m straight, flat 5-125 5-125-1 Sheet-m with sliding s	teel, for points 165 rie's t steel, fin 140 netal t fastener 160 zers	r use when of the twe 6 1/2" Weeze e-rounded 5 1/2" tweeze inted 4 3/8" 4 3/8" 4 3/8" 6 1/4"	n solder eezers a nicke rS nicke polist with a erS grip, st nicke	ing transistors, gold-bor re narrow and provided I-plated I-plated I-plated ned, intiallergical coating raight, with narrow point I-plated	with copper ja 3: 1! 1: 1: 1: 1: 1: 1:

tips enabling optimal visibility e.g. for positioning of smallest components without additional light source.

Power supply: 2 x 3 Voltage Lithium Batteries when pressing the tweezers jaws the LED light will be switched on

5-171	120	4 ³ / ₄ "	straight, pointed, finely serrated	39 g
5-172	120	4 ³ / ₄ "	with fine bent tips	39 g



1.

11



ELECTRONIC-TWEEZERS

Finish	Weight
S int tips, finely serrated	
nickel-plated	20g
polished, with antiallergical coating	23 g
nickel-plated, strong PVC-insulated	27 g
with VDE insulation, 1000V	37 g
teflon-coated	22 g
	ent tips, finely serrated nickel-plated polished, with antiallergical coating nickel-plated, strong PVC-insulated with VDE insulation, 1000V



Engineer's tweezers

made from steel, heavy type, straight, flat and wide, tips with serration

5-117	145	5 ³ /4"	nickel-plated	25 g
5-117-1	145	5 ³ /4"	polished, with antiallergical coating	26 g
5-117-6	145	5 ³ /4"	nickel-plated, strong PVC insulated	31 g
5-117 VDE	E 145	5 ³ /4"	with VDE insulation, 1000V	39 g
5-117-9	145	5 ³ / ₄ "	teflon-coated	29 g

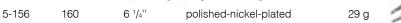
Engineer's tweezers made from steel, straight, with narrow pointed tips, finely serrated

5-121	120	4 ³ / ₄ "	nickel-plated	14 g
5-121-1	120	4 ³ / ₄ "	polished, with antiallergical coating	14 g
5-121-6	120	4 ³ / ₄ "	nickel-plated, strong PVC-insulated	17 g
5-121-9	120	4 ³ / ₄ "	teflon-coated	13 g
5-122	155	6 ¹ /8"	nickel-plated	24 g
5-122	155	6 ¹ /8"	nickel-plated	24 g

Crossed tweezers (self-locking tweezers)

made from steel, jaws 5 mm wide, finely serrated 5-155 160 6 ¹/4'' polished-nickel-plated 35 g 6 ¹/₄'' 5-155-1 160 polished, 36 g with antiallergical coating













SETS OF SPECIAL TWEEZERS

in wallets of recycable nylon

5-030 **3-piece set of electronic tweezers** from titan

matt-stainless - super-light - immunity to corrosion acid-resistant - solder-repellent - antibacterial especially conductive - non-reflective

Weight: 60 g

No.	Description of individual tools
5-031	Titan-tweezers, sharply pointed, 110 mm
5-036	Titan-tweezers, straight, round, wide, 145 mm, with serration
5-037	Titan-tweezers, fine bent tips, 150 mm

5-110 3-piece set of Engineer's Tweezers

made from steel - nickel-plated

Weight: 95 g

No.	Description of individual tools
5-107	Engineer's tweezers, fine, bent tips, finely serrated, 150 mm
5-121	Engineer's tweezers, narrow pointed tips, finely serrated, 120 mm
5-155	Crossed tweezers , (self-locking) jaws 5 mm wide, finely serrated, 160 mm

5-100 **12-piece set special tweezers** and tools

Weight: 360 g

No.	Description of individual tools
2-126	Desoldering lever, slotted at one end, with plastic handle, 115 mm
2-127	Tin knife with plastic handle, 115 mm
2-601	IC-tweezers, nickel-plated, 125 mm, for gripping, inserting and removing of IC,s
5-006	Component tweezers , nickel-plated, with insulated jaws, a special tool for easy insertion and removal of
F 107	plug-in transistors of various sizes, 140 mm
5-107	Engineer's tweezers, made from steel, with bent tips, nickel-plated, 150 mm
5-107-6	Engineer's tweezers, as above, strong PVC-insulation
5-115	Heat dissipating tweezers, nickel-plated, 165 mm, for soldering transistors, gold-bonded diodes etc.
5-117	Engineer's tweezers, straight, flat, wide, nickel-plated, 145 mm
5-117-6	Engineer's tweezers, as above, strong PVC-insulation
5-121	Engineer's tweezers, straight, with narrow pointed tips, 120 mm, nickel-plated
5-078	Anti-magnetic tweezers, tapering chisel, 1.0 mm width,
	matt finish, stainless and acid-resistant, 130 mm
5-156	Crossed soldering tweezers, (self-locking tweezers),
	made from steel, with bent tips and gripping well hand-guard, nickel-plated, 160 mm







SPECIAL-TWEEZERS FOR THE SMD-TECHNIQUE

high precision tweezers from special steel stainless - matt finish - anti-magnetic - acid-resisting

5-060 6-piece set ESD-Tweezers for the SMD-Technique with black ESD-coating, in a wallet made from conductive material

The tweezers have been tested with good results adequate to DIN EN 61340-5-1, 61340-2-1, 61340-2-3 for work in ESD-protected areas.

Weight: 155 g

No. Description of individual tools

5-049-13 SMD-tweezers, straight, very sharply pointed, 110 mm
5-055-13 SMD-tweezers, sickle-shaped, very sharply pointed, 120 mm
5-059-13 SMD-tweezers, flat, rounded tips, 2 mm width, 120 mm
5-067-13 SMD-tweezers, tip 45° angled, 2,0 mm width, 120 mm
5-068-13 SMD-tweezers, tip angled, 1,6 mm, 120 mm
5-078-13 SMD-tweezers, tapering, chisel, 1,0 mm width, 130 mm



5-050 6-piece set of special tweezers for the SMD-technique

matt finish - non-reflective -

Weight: 135 g

No.	Description of individual tools
5-051	SMD-tweezers, straight pointed, 115 mm
5-052	SMD-tweezers, bent, very sharply pointed, 110 mm
5-054	SMD-tweezers, sickle-shaped curved, very sharply pointed, 120 mm
5-058	SMD-tweezers, crossed, bent, pointed, 120 mm
5-061	SMD-tweezers, bent, flat tips 2 mm wide, 115 mm
5-062	SMD-tweezers, bent, flat tips, with gripping cavity, 115 mm











ESD TWEEZERS

made from **antistatic**, black plastic material, reinforced with glass fibre, conductive and acid-resistant

No.	Le	ngth	Finish	Weight
110.	mm	inches	1 111311	weight
5-191	120	4 ³ /4''	straight, rounded tips	5 g
5-192	120	4 ³ /4''	straight, 3 mm flat-hand tips, grip surface offset	4 g
5-193	120	4 ³ /4''	straight, 6 mm flat, and wide tips	5 g
5-194	120	4 ³ /4''	bent, pointed tips	5 g
5-195	120	4 ³ /4''	straight, pointed tips, grip surface offset	4 g

5-190 6-piece set of ESD tweezers

in a practical table support from **conductive** material

Contents: 5 tweezers made from conductive black plastic material, No. 5-191, 5-192, 5-193, 5-194, 5-195 1 tweezers with ceramic tips No. 5-095 Weight: 125 g

5-090 5-piece set of ESD tweezers

in a practical table support from **conductive** material

Contents: 5 tweezers made from conductive black plastic material, No. 5-191, 5-192, 5-193, 5-194, 5-195 Weight: 94 g

TWEEZERS FROM CERAMIC

Ceramic tweezers meet highest standards due to their excellent mechanical, thermic and electrical features, non magnetic, antistatic, acid-resistant and alkaliproof, solder-reppellent and heat-resistant.

Ceramic tweezers (each separately in a plastic case)

5-081	130	5 ¹ /8''	straight, pointed	15 g
5-082	130	5 ¹ /8''	straight, microscopic-pointed	16 g

Ceramic-tipped tweezers (each separately in a plastic case)

5-095	130	5 ¹ /8''	especially slim and pointed	6 g
5-096	130	5 ¹ /8''	slim, 2mm flat tips	6 g

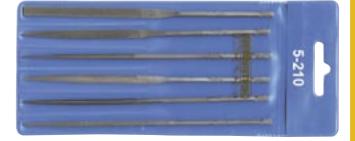
TITAN TWEEZERS

Tweezers made from Titan are for highest demands, have a light weight, immunity to corrosion, even to aggressive acids, they are antimagnetic, antibacterial, solder-repellent, and non-reflective. The melting point is 1677°C.

5-031	110	4 ³ /8''	matt-stainless, sharply pointed	9 g
5-035	120	4 ³ /8''	matt-stainless, sharply pointed	9 g
5-036	145	5 ³ /4"	matt-stainless, straight - round - wide tips with fine serration	15 g
5-037	150	6 ''	matt-stainless, fine bent tips	12 g

FILES – SCISSORS

No.	Len			
	mm	gtn inches	Finish	Weigh
		nout hand		
5-201	140	5 ¹ /2"	flat-hand	7 (
5-202	140	5 ¹ / ₂ ''	flat-entering	6 (
5-203	140	5 ¹ /2''	round	6 0
5-204	140	5 ¹ / ₂ ''	half round	6
5-205	140	5 ¹ /2"	three square	6 (
5-206	140	5 ¹ /2"	square	6 ថ្
			eedle files	50
	110. 5-201	– 5-206 in pl	astic wallet	50 g
			en handle	
5-231	th 175 mm - 100	4''	flat-hand	17 (
5-232	100	4"	flat-entering	14 (
5-233	100	4''	round	13 (
5-234	100	4''	half round	27 (
5-235	100	4''	three square	18 (
5-235 5-236	100	4 4''	square	15
5-240	6-nieco	sat of u	varding files	
			vooden handle,	
	in plastic wa	allet		115 <u>(</u>
Contact	filo			
vith fine cut				
5-261	150	6''	flat-hand	9 (
			oden handle 320 mm – 13 1/4"	
neavy type, 5-271	fine cut, ove 200	erall length 3 8''	320 mm – 13 ¼" flat-hand	
neavy type,	fine cut, ove	erall length 3	320 mm – 13 ¹ /4"	155 (155 (
5-271 5-274 5-274	fine cut, ove 200 200 ng sciss	erall length 3 8" 8" O rS	320 mm – 13 1/4" flat-hand half round	
5-271 5-274 Clampir nade from s	fine cut, over 200 200 ng sciss stainless ste	erall length 3 8" 8" Ors el, with serra	320 mm – 13 1/4" flat-hand half round	155 (
5-271 5-274 5-274	fine cut, ove 200 200 ng sciss	erall length 3 8" 8" O rS	320 mm – 13 1/4" flat-hand half round	155
5-271 5-274 Clampir nade from 5-161 Special	fine cut, ove 200 200 ng sciss stainless ste 130 -scissor	ors el, with serra 5 1/8" S for cutting	320 mm – 13 1/4" flat-hand half round ated gripping jaws polished	155 (
5-271 5-274 Clampir nade from s 5-161 Special aws extrem	fine cut, ove 200 200 ng sciss stainless ste 130 -scissor nely slim, ser	ors el, with serra 5 ¹ / ₈ " S for cutting rated, for pre	320 mm – 13 ¹ /4" flat-hand half round ated gripping jaws polished u sheet-metal and wires, ecision work	155 y
5-271 5-274 Clampir nade from 5-161 Special	fine cut, ove 200 200 ng sciss stainless ste 130 -scissor	ors el, with serra 5 1/8" S for cutting	320 mm – 13 1/4" flat-hand half round ated gripping jaws polished	155 g
neavy type, 5-271 5-274 Clampir nade from s 5-161 Special aws extrem 5-301 Univers	fine cut, ove 200 200 ng sciss stainless ste 130 -scissor nely slim, ser 110	ors el, with serra 5 1/8" S for cutting rated, for pre 4 3/8"	320 mm - 13 1/4" flat-hand half round ated gripping jaws polished sheet-metal and wires, ecision work nickel-plated	155 g
5-271 5-274 Clampir nade from s 5-161 Special- aws extrem 5-301 Jnivers or wires an	fine cut, ove 200 200 ng sciss stainless ste 130 -scissor ely slim, ser 110 al cuttir d thin sheet	ors el, with serra 5 ¹ / ₈ '' S for cutting rated, for pro 4 ³ / ₈ '' og shears materials	320 mm – 13 ¹ /4" flat-hand half round ated gripping jaws polished sheet-metal and wires, ecision work nickel-plated	20 g
heavy type, 5-271 5-274 Clampir nade from s 5-161 Special aws extrem 5-301 Univers	fine cut, ove 200 200 ng sciss stainless ste 130 -scissor hely slim, ser 110 al cuttir	ors el, with serra 5 1/8" S for cutting rated, for pre 4 3/8"	320 mm - 13 1/4" flat-hand half round ated gripping jaws polished sheet-metal and wires, ecision work nickel-plated	155 20 27
neavy type, 5-271 5-274 Clampir nade from s 5-161 Special aws extrem 5-301 Univers or wires an 5-306 Telepho	fine cut, over 200 200 ng sciss stainless ste 130 -scissor 110 al cuttir d thin sheet 180	ors el, with serra 5 ¹ / ₈ " S for cutting rated, for pre 4 ³ / ₈ " og shears materials 7" cable sh	320 mm – 13 ¹ /4" flat-hand half round ated gripping jaws polished sheet-metal and wires, ecision work nickel-plated S black-lacquered polished head	20 g
neavy type, 5-271 5-274 Clampin nade from s 5-161 Special aws extrem 5-301 Univers or wires an 5-306 Felepho	fine cut, ove 200 200 ng sciss stainless ste 130 -scissor ely slim, ser 110 al cuttir d thin sheet 180 ne and rrated blade	ors el, with serra 5 ¹ / ₈ " S for cutting rated, for pre 4 ³ / ₈ " og shears materials 7" cable sh	320 mm – 13 ¹ /4" flat-hand half round ated gripping jaws polished sheet-metal and wires, ecision work nickel-plated s black-lacquered polished head	20 g 27 g 85 g
neavy type, 5-271 5-274 Clampir nade from s 5-161 Special aws extrem 5-301 Jnivers or wires an 5-306	fine cut, over 200 200 ng sciss stainless ste 130 -scissor 110 al cuttir d thin sheet 180	ors el, with serra 5 ¹ / ₈ " S for cutting rated, for pre 4 ³ / ₈ " og shears materials 7" cable sh	320 mm – 13 ¹ /4" flat-hand half round ated gripping jaws polished sheet-metal and wires, ecision work nickel-plated S black-lacquered polished head	20 g 27 g 85 g
neavy type, 5-271 5-274 Clampir nade from s 5-161 Special aws extrem 5-301 Jnivers or wires an 5-306 Felepho vith one set 5-308 Domest	fine cut, ove 200 200 ng sciss stainless ste 130 -scissor ely slim, ser 110 al cuttir d thin sheet 180 one and rrated blade 125	ors el, with serra 5 ¹ / ₈ " S for cutting rated, for pre 4 ³ / ₈ " og shears 7" cable sh 5" ors	320 mm – 13 ¹ /4" flat-hand half round ated gripping jaws polished sheet-metal and wires, ecision work nickel-plated s black-lacquered polished head	155 (20 (27 (85 (67 (
beavy type, 5-271 5-274 Clampir nade from : 5-161 Special- aws extrem 5-301 Jnivers or wires an 5-306 Felepho vith one ser 5-308	fine cut, ove 200 200 ng sciss stainless ste 130 -scissor ely slim, ser 110 al cuttir d thin sheet 180 pne and rrated blade 125	ors el, with serra 5 ¹ /s" S for cutting rated, for pre 4 ³ /s" ng shears 7" cable sh 5"	320 mm – 13 ¹ /4" flat-hand half round ated gripping jaws polished sheet-metal and wires, ecision work nickel-plated s black-lacquered polished head	155 (20 (27 (85 (67 (
beavy type, 5-271 5-274 Clampir nade from : 5-161 Special: aws extrem 5-301 Univers or wires an 5-306 Felepho vith one set 5-308 Domest 5-311 Ceramic	fine cut, over 200 200 ng sciss stainless ster 130 -scissor ely slim, ser 110 al cuttir d thin sheet 180 ne and rrated blade 125 ic sciss 180 c blade s	ors el, with serra 5 ¹ / ₈ " S for cutting rated, for pro 4 ³ / ₈ " og shears 7" cable sh 5" ors 7" ors 7"	320 mm – 13 ¹ /4" flat-hand half round ated gripping jaws polished sheet-metal and wires, ecision work nickel-plated s black-lacquered polished head	155 (20 (27 (85 (67 (
beavy type, 5-271 5-274 Clampir nade from : 5-161 Special: aws extrem 5-301 Univers or wires an 5-306 Felepho vith one set 5-308 Domest 5-311 Ceramic	fine cut, over 200 200 ng sciss stainless ster 130 -scissor ely slim, ser 110 al cuttir d thin sheet 180 ne and rrated blade 125 ic sciss 180 c blade s	ors el, with serra 5 ¹ / ₈ " S for cutting rated, for pro 4 ³ / ₈ " og shears 7" cable sh 5" ors 7" ors 7"	320 mm – 13 ¹ /4" flat-hand half round ated gripping jaws polished sheet-metal and wires, ecision work nickel-plated s black-lacquered polished head ears nickel-plated nickel-plated for cutting e.g. aramid yarns	20 g 27 g 85 g











SHEARS – SCISSORS – STRIPPING TOOLS

No.	Ler	igth	Finish	Weight
	mm inches			0

Ribbon cable cutter

made from steel, with handy plastic handles, for special cutting of ribbon cable, also suitable for cutting of ledges and profiles from plastic, with interchangeable one-way blade and plastic support with straight stop

0				
5-307	220	8 ³ / ₄ ''	chrome-plated	300 g
			cutting length 55 mm	
5-307-1			spare blade	3 g

Cable stripping shears

made from stainless steel, with handy plastic handles, compression spring, selflocking. The sheating of round, flat and shield cables may be removed easily 5-309 190 7 ¹/₂" polished 125 g

Combination cutters (general purpose cutters)

made from stainless steel, with serrated cutting edge, handy plastic

handles and	compressi	on spring		
5-304	190	7 ¹ / ₂ ''	polished	120 g
5-305	140	5 ¹ /2"	polished	60 g

Wire scraper tweezers

for stripping varnish or any other material on wires 0.6 mm Ø made from steel, with interchangeable cutters

	lonangee			
5-181	130	5 ¹ /8"	burnished	33 g
5-182	cutters	(2 pieces)		2 g

Electrician's knife

with steel bl	ade, wire sc	raper and w	ooden handle	
5-501	200 110	8'' 4 ³ /8''	knife opened knife closed	77 g
	110	4 78	KIIIIE CIUSEU	

Pocket knife

with one blad	е			
5-511	180 100	7'' 4''	knife opened knife closed	44 g

Universal blade knife

made from plastic material with adjustable blade

5-515	140	5 ¹ /2"		10 g
5-516	set of bla	ades for 5-	515 (10 pieces)	25 g
5-517	150	6''	heavy type	46 g
5-518	set of bla	ades for 5-	517 (10 pieces)	73 g

Rotary coaxial cable stripper

Handy plastic tool with adjustable cutters, for cable types RG 58, RG 59 and RG 62

5-0601	100	4''	black	51 g
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Universal CUTTER stripping tool Handy plastic tool with adjustable cutters, very easy to use Weight: 47 g ADJUST TRIPPER 5-0605 100 4" STP SPT-1 FLAT WIRE SPT-2 2P/4P/6P/8P COMPUTER CABLE SPEAKER CABLE





78

STRIPPING TOOLS

No. Length Working range / Finish

Weight

Stripping and crimping tool

for easy stripping, crimping and cutting only with one tool, the special scanning system adjusts automatically to the wire diameter

5-532 160 6 ¹ /4" easy stripping from 0.5 to 6.0 mm ² 11: stripping length 5 mm crimping ranges for terminals: 0.5 to 2.5 and 4.0 to 6.0 mm ² cutting capacity of the side cutters max. 6.0 mm ² , solid conductors max. 4.0 mm ²	I5 g
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Coax cable stripper

for two-or-three-level stripping of all common coaxial cables (e.g. antenna- and transmission cables) and flexible cables

5-535	110	4 ³ / ₈ ''	coax cable from	
			4.8 to 7.5 mm outside-Ø	30 g
			for flexible cable $3 \times 0.75 \text{ mm}^2$,	
			10 mm ² and 16 mm ²	

Round cable stripper

with ergonomical handles

5-536	125	5''	round and continental type cable from 8 to 13 mm \emptyset	45 g
			e.g. NYM 3 x 1.5 mm ² up to 5 x 2.5 mm ²	

Swivel-blade cable strippers

for accurate, fast and safe stripping of all common round cables of 4 - 28 mm \emptyset , cutting depth and adjustment via adjusting screw at end of handle, moving inner blade automatically adjusts itself from circular to longitudinal cuts

5-503	130	5 ¹ /8''	without blade:	8 - 28 mm Ø	70 g
5-504	130	5 ¹ /8''	without blade:	4 - 16 mm Ø	70 g
5-505	170	6 ³ / ₄ ''	hook blade:	4 - 28 mm Ø	80 g
5-506	180	7''	straight blade:	4 - 28 mm Ø	80 g

Automatic wire stripper Super

fully insulated automatic wire stripper for all common stranded and solid conductors of 0.2 - 6.0 mm², adjustable length stop of 5 - 12 mm, removable if required

5-531	200	8''	built-in side cutters for max. $2 \text{ mm} \emptyset$	105 g
15-531 VDE	200	8''	fibreglass re-enforced polyamide, fully insulated, approved for works on "hot" lines up to 1000 Volt	105 g







C

TORQUE-SCREWDRIVER EUROLINE-POWER

Ergonomical formed two-coloured-components handle

Handle: impact-resistant, two-coloured plastic, with slip off protection and practical hanging up hole clear legible micrometer scale for a precise and perfect setting, torque adjusting without setting gauge

Torque mechanism:wear-resistant mechanism from hardened special
steel, audible and touchable release signalLock mechanism:secure locking device by lock mechanism
(lock point = vernier line)

Actuating mechanism: system with changeable blades, left tightening with more or less unlimited removing, right tightening with adjusted torque

Torque screwdrivers can be recalibrated and are in accordance with EN ISO $\mathbf{6789}{:}\mathbf{2003}$

Torque-Screwdriver

No.	measure range Nm	scale Nm	Fine scale mm	Drive inner hexagon mm	Length mm	Weight
4-561	0.5 - 1.5	0.25	0.05	4	153	137 g
4-562	1.5 - 4.0	0.50	0.10	4	153	137 g

TORQUE CHANGEABLE BLADES

Blade: chrome vanadium, hexagon material, A/F 4 mm, hardened over its full length, matt chrome-plated, black tip

Changeable Blades Slot

No.	Blade width mm	Blade thickness mm	Length mm	Weight
4-571 4-572 4-573	1.5 2.0 2.5	0.25 0.40 0.40	160 160 160	10 g 10 g 10 g
4-574	3.0	0.50	160	10 g

Changeable Blades Cross-recess

No.	Size	Length mm	Weight
4-582	PH 00	160	10 g
4-583	PH 0	160	10 g
4-584	PH 1	160	10 g

Changeable Blades Cross-recess Pozidriv PZ 🏶

-			
4-588	PZ 0	160	10 g
4-589	PZ 1	160	10 g

Changeable Blades Torx

TX 💠 苯

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PH 🕀

L = with bore-	hole in the tip			
No.	Size	for metric thread	Length mm	Weight
6-951 6-952 6-953 6-954 6-955 L	T 3 T 4 T 5 T 6 T 7 L	M 1.2 - 1.4 M 1.4 - 1.6 M 1.6 - 2.0 M 2.0 M 2.5	160 160 160 160 160	10 g 10 g 10 g 10 g 10 g
6-956 L	T 8 L	M 2.5	160	10 g

further shapes and sizes on request



ESD INTERCHANGEABLE SCREWDRIVER-SET for special service

Practical tool rolls made from conductive material are equipped with doubleended screwdriver-blades and ESD handle with brass clamping sleeve, suitable for hexagon blades of A / F 4 mm

Blade: chrome vanadium, hexagon material, A / F 4 x 120 mm, hardened over its full length, matt chrome-plated, black tip

4-920 (BERNSTEIN) 9-piece interchangeable screwdriver set with ESD-handle

Contents: ESD-interchangeable handle 3 blades widths 1.5 / 3.0 mm, 2.0 / 3.5 mm, 2.5 / 4.0 mm 2 cross-recess blades PH 000 / PH 00, PH 0 / PH 1 3 TORX blades T 5 / T 6, T 7 L / T 8 L, T 9 L / T 10 L ("L" with bore hole)

Weight: 170 g

4-960 (BERNSTEIN) 11-piece interchangeable screwdriver set with ESD-handle

Contents: ESD-interchangeable handle

	2 blades widths 1.5 / 3.0 mm, 2.0 / 4.0 mm,
	2 cross-recess blades PH 000 / PH 00, PH 0 / PH 1
	4 TORX blades T 3 / T 4, T 5 / T 6, T 7 L / T 8 L,
	T9L/T10L ("L" with bore hole)
	2 Tri Wing / Four Wing blades TW 1 / FW 1, TW 2 / FW 2
Weight:	170 g

ESD SCREWDRIVERS

with special-square pattern handle from impact-resistant, conductive black plastic

chrome vanadium, hardened over its full length, matt chrome-plated, Blade: with black tip Handle: impact-resistant, conductive, black plastic,

electrostatic discharge according to DIN EN 100015/1

Screw	/drivers				\ominus
No.	Blade length mm	Blade width mm	Blade thickness mm	Handle size mm	Weight
4-632 4-633 4-643	100 125 300	4.0 5.5 5.5	0.8 1.0 1.2	92 x 21 100 x 23 100 x 23	40 g 65 g 100 g
Cross	-recess s	crewdrive	ers		PH 🕀
No.	Size	Blade length mm	Blade Ø mm	Handle size mm	Weight
4-652 4-653	1 2	80 100	4.5 6.0	92 x 21 100 x 23	40 g 75 g
extra lon	g screwdriver	s			
4-656 4-657	1 2	300 300	4.5 6.0	100 x 23 100 x 23	80 g 115 g
Cross	-recess s	crewdrive	ers Pozidri	v	PZ 🏶
4-662 4-663	1 2	80 100	4.5 6.0	92 x 21 100 x 23	40 g 70 g
Tri Wi	ng screwe	drivers			S WT
6-641 6-642 6-643 6-644 6-645 6-646	TW 0 TW 1 TW 2 TW 3 TW 4 TW 5	70 70 70 70 70 70	4.5 4.5 4.5 4.5 6.0 6.0	92 x 21 92 x 21 92 x 21 92 x 21 92 x 21 92 x 21 92 x 21	42 g 42 g 42 g 42 g 53 g 54 g



4-960







ESD ELECTRONICS SCREWDRIVERS

with slim, ergonomically formed handles from black **conductive** plastic. The swivel top guarantees a precise working without exhaustion.

- Blade: chrome vanadium, hardened over its full length, chrome-plated, with black tip
- Handle: impact-resistant conductive, black plastic, electrostatic discharge according to DIN EN 100015/1

Screwdrivers

No. Blade length mm Blade width mm Blade thickness mm Blade Ø mm Handle length mm Weight 4-601 50 0.8 0.20 2.5 90 12 g 4-602 50 1.2 0.25 2.5 90 12 g 4-603 50 1.5 0.30 2.5 90 12 g 4-604 50 1.8 0.30 2.5 90 12 g 4-605 60 2.0 0.40 2.5 90 12 g 4-606 60 2.5 0.40 2.5 90 12 g 4-607 60 3.0 0.50 3.0 90 14 g								
4-602 50 1.2 0.25 2.5 90 12 g 4-603 50 1.5 0.30 2.5 90 12 g 4-604 50 1.8 0.30 2.5 90 12 g 4-605 60 2.0 0.40 2.5 90 12 g 4-606 60 2.5 0.40 2.5 90 12 g	No.					0	Weight	
	4-602 4-603 4-604 4-605 4-606	50 50 50 60 60	1.2 1.5 1.8 2.0 2.5	0.25 0.30 0.30 0.40 0.40	2.5 2.5 2.5 2.5 2.5	90 90 90 90 90	12 g 12 g 12 g 12 g 12 g	

Blade

Ømm

2.5

2.5 3.0

Cross-recess Screwdrivers

Size

000

00

No.

4-621

4-622 4-623 PH 🕀

Weight

12 g 12 g 14 g

Handle length

mm

90

90 90 \ominus





4-610 6-piece screwdriver set

in a practical table support from **conductive** material

Contents: 6 screwdrivers No. 4-601, 4-603, 4-604, 4-605, 4-606, 4-607 Weight: 145 g

Blade

length mm

50

50 50

4-620 6-piece screwdriver and cross-recess

screwdriver set in a practical table support from

conductive material

Contents: 3 screwdrivers No. 4-602, 4-605, 4-607 3 cross-recess screwdrivers No. 4-621, 4-622, 4-623 Weight: 145 g

Wrench keys

No.	A/F mm	Blade length mm	Handle length mm	Weight
6-631 6-632 6-633 6-634 6-635 6-636	0.7 0.9 1.3 1.5 2.0 2.5	50 50 50 50 60 60	90 90 90 90 90 90	12 g 12 g 12 g 12 g 12 g 14 g

6-630 6-piece wrench key set

in a practical table support from conductive material

Contents: 6 wrench keys No. 6-631, 6-632, 6-633, 6-634, 6-635, 6-636 Weight: 145 g

6-630





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ESD TORX SCREWDRIVERS AND SOCKET WRENCHES

with slim, ergonomically formed handles from black, conductive plastic. The swivel top guarantees a precise working without exhaustion.

chrome vanadium, hardened over its full length, chrome-plated, Blade: black tip, "L" with bore-hole in the tip

Handle: impact-resistant, conductive black plastic, electrostatic discharge according to DIN EN 100015/1

TORX-screwdrivers

-		-			-	
No.	S	Size	Blade length mm	for metric thread	Handle length mm	Weight
6-656	Т	1	50	M 0.9	90	12 g
6-657	Т	2	50	M 1.0-1.2	90	12 g
6-658	Т	3	50	M 1.2-1.4	90	12 g
6-659	Т	4	50	M 1.4-1.6	90	12 g
6-661	Т	5	50	M 1.6-2	90	12 g
6-662	Т	6	50	M 2	90	16 g
6-663 L	. Т	7	50	M 2.5	90	16 g
6-664 L	_ Т	8	60	M 2.5	90	16 g
6-665 L	_ Т	9	60	М З	90	19 g
6-666 L	. Т	10	60	M 3-3.5	90	21 g

extra long TORX screwdrivers with conductive special-square pattern handle

6-675 L	Т	10	300	M 3-3.5	92 x 21	60 g
6-676 L	Т	15	300	M 3.5-4	92 x 21	65 g
6-677 L	Т	20	300	M 4-5	100 x 21	75 g





6-660 6-piece TORX-screwdriver set,

in a practical table support from conductive material

Contents: 6 TORX-screwdrivers No. 6-661, 6-662, 6-663, 6-664, 6-665, 6-666 Weight: 163 g

SOCKEL WIEIICHES	Socket	wrenches
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OUCHUI	WI CHICHCS			
No.	A/F mm	Blade length mm	Handle length mm	Weight
6-611	1.5	70	90	15 g
6-612	2.0	70	90	15 g
6-613	2.5	70	90	18 g
6-614	3.0	70	90	18 g
6-615	3.2	70	90	18 g
6-616	3.5	70	90	18 g
6-617	4.0	70	90	18 g
6-618	4.5	70	90	19 g
6-619	5.0	70	90	19 g
6-621	5.5	70	90	20 g

6-610 6-piece socket wrench set

in a practical table support from **conductive** material

Contents: 6 Socket wrenches No. 6-612, 6-614, 6-617, 6-618, 6-619, 6-621 Weight: 180 g







4-255

4-256 4-257

4-258

4-227

4-228

4-229

SCREWDRIVERS

with special square pattern Bernstein handle

Blade: chrome vanadium, hardened over its full length, chrome-plated, with black tip Handle: from impact-resistant, transparent, amber coloured plastic

Screwdrivers to DIN 5265

No _.	Blade length mm	Blade width mm	Blade thicknes mm	s Handle size mm	Weight
4-141	75	3.5	0.6	86 x 19	35 g
4-142	100	4.0	0.8	92 x 21	46 g
4-143	125	5.5	1.0	100 x 23	75 g
4-144	150	6.5	1.2	110 x 25	105 g
4-145	150	8.0	1.2	110 x 25	140 g
Very long	screwdrivers				
4-222	260	3.0	0.5	92 x 21	50 g
4-223	260	4.5	1.0	92 x 21	70 g
4-224	300	5.5	1.2	100 x 23	108 g
Cross-	recess sc	rewdriver	S		PH 🕀
No.	Size B	lade length	Blade-Ø	Handle size	Weight

25 g

49 g

78 g

140 g

90 g

125 g

195 g

mm

86 x 19

92 x 21 100 x 23

110 x 25

100 x 23

100 x 23

110 x 25

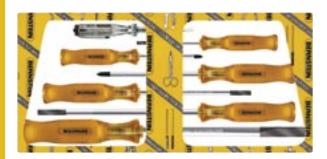
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wdrivoro Dozidriv

mm

60

80

100

150

300

300

300

Cross-r	ecess s	screwdriv	ers Pozid	riv	PZ 🏶
4-271	0	60	3.0	86 x 19	25 g
4-272	1	80	4.5	92 x 21	49 g
4-273	2	100	6.0	100 x 23	78 g
4-274	3	150	8.0	110 x 25	140 g

mm

3.0

4.5

6.0

8.0

4.5

6.0

8.0

TORX-screwdrivers

0

1 2 3

1

2

3

Very long cross-recess screwdrivers

"L" with bore-hole in the tip

No.	Size	Blade length mm	for metric thread	Handle size mm	Weight
6-961	Τ6	50	M 2	86 x 19	32 g
6-962	Τ7	50	M 2.5	86 x 19	32 g
6-963	T 8	60	M 2.5	86 x 19	34 g
6-964 L	Т9	60	М З	92 x 21	44 g
6-965 L	T 10	80	M 3-3.5	92 x 21	46 g
6-966 L	T 15	80	M 3.5-4	92 x 21	46 g
6-967 L	T 20	100	M 4-5	100 x 23	60 g
6-968 L	T 25	100	M 4.5-5	100 x 23	65 g
6-969 L	T 27	115	M 4.5-5-6	110 x 25	85 g
6-971 L	T 30	115	M 6-7	110 x 25	95 g
	-				
Very long	TORX-sci	rewdrivers			
o o= /	T 0		1405		

6-974	T 8	100	M 2.5	86 x 19	37 g
6-975 L	T 10	300	M 3-3.5	92 x 21	65 g
6-976 L	T 15	300	M 3.5-4	92 x 21	70 g
6-977 L	T 20	300	M 4-5	100 x 23	80 g

4-850 7-piece screwdriver set

with special square pattern Bernstein handles visible packed in a carton box

Contents: 4 screwdriver each to DIN 5265 No. 4-141, No. 4-142, No. 4-143, No. 4-144, 2 cross-recess screwdriver pozidriv No. 4-271, No. 4-272 and 1 voltage tester No. 4-343 VDE

Weight: 470 g

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SCREWDRIVERS EUROLINE-POWER

with ergonomical formed 2 component handles (yellow-black)

Blade: chrom vanadium, hardened over its full length, matt chrome-plated, with black tip

Handle: impact-resistant, two-coloured plastic, with slip off protection and practical hanging up hole

Workshop-Screwdrivers

No _.	Blade lenth mm	Blade length mm	Blade-Ø mm	Handle size mm	Weight
4-504 4-506 4-508 4-509	100 125 150 200	5.5 6.5 8.0 10.0	1.0 1.2 1.2 1.6	107 x 27 114 x 32 121 x 35 121 x 35	62 g 93 g 141 g 170 g

Electrician's Screwdrivers

No.	Blade lenth mm	Blade length mm	Blade-Ø mm	Handle size mm	Weight
4-521 4-522 4-523 4-524 4-525	75 100 100 150 200	2.5 3.0 4.0 5.5 5.5	0.4 0.5 0.8 1.0 1.0	100 x 21 100 x 21 100 x 21 100 x 21 107 x 27 107 x 27	26 g 27 g 36 g 74 g 80 g

Cross-recess screwdrivers

No.	Size	Size Blade length mm		e e e e e e e e e e e e e e e e e e e		Handle size mm	Weight
4-532	0	60	3.0	100 x 21	28 g		
4-533	1	80	4.5	107 x 27	55 g		
4-534	2	100	6.0	114 x 32	90 g		
4-535	3	150	8.0	121 x 35	160 g		

Cross-recess screwdrivers Pozidriv

No.	Size	Blade length mm	Blade-Ø mm	Handle size mm	Weight
4-542	0	60	3.0	100 x 21	28 g
4-543	1	80	4.5	107 x 27	55 g
4-544	2	100	6.0	114 x 32	90 g
4-545	3	150	8.0	121 x 35	162 g

TORX-Screwdrivers

from size T 9 with bore-hole in the tip

No.	Size Blade length mm		for metric Thread	Handle size mm	Weight
6-979	Τ5	55	M 1.6 - 2	100 x 21	25 g
6-981	Τ6	65	M 2	100 x 21	29 g
6-982 L	Τ7	65	M 2.5	100 x 21	29 g
6-983 L	T 8	75	M 2.5	100 x 21	29 g
6-984 L	Т9	75	М З	100 x 21	29 g
6-985 L	T 10	85	M 3-3.5	100 x 21	32 g
6-986 L	T 15	85	M 3.5-4	100 x 21	34 g
6-987 L	T 20	100	M 4-5	100 x 21	35 g
6-988 L	T 25	100	M 4.5-5	107 x 27	57 g
6-989 L	T 27	105	M 4.5-5-6	107 x 27	63 g
6-991 L	T 30	115	M 6-7	114 x 32	90 g

4-530 **7-piece screwdriver set** from the series EUROline-Power

visible packed in a carton box

Contents: 2 workshop-screwdriver No. 4-504, No. 4-506 2 electrician's-screwdriver No. 4-523, No. 4-524 2 cross-recess screwdriver PH No. 4-533, No. 4-534 and 1 voltage tester No. 4-343 VDE













ELECTRONICS SCREWDRIVERS

with slim, ergonomically formed handles and swivel top

Blade: chrome vanadium, hardened over its full length, chrome-plated, with black tip

Handle: impact-resistant, grey plastic material, swivel top, amber-coloured

Screwdrivers

No.	Blade length mm	Blade width mm	Blade thickness mm	Blade Ø mm	Handle length mm	Weight
4-161 4-162 4-163 4-164 4-165 4-166 4-167 4-169	40 40 50 50 100 100 150	1.0 1.5 2.0 2.5 3.0 2.0 2.5 3.0	0.20 0.30 0.40 0.50 0.40 0.40 0.40 0.50	2.5 2.5 2.5 3.0 2.5 3.0 2.5 3.0	100 100 100 100 100 100 100 100	11 g 11 g 11 g 11 g 13 g 11 g 13 g 18 g

Cross-recess screwdrivers

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No.	Size	Blade length mm	Blade Ø mm	Handle length mm	Weight
4-281	000	40	2.5	100	11 g
4-282	00	40	2.5	100	11 g
4-283	0	50	3.0	100	13 g
4-284	1	60	4.0	100	23 g
4-285	1	150	4.0	100	27 g

TORX-Screwdrivers

L = with bore-hole in the tip

No.	S	Size	Blade length mm	for metric thread	Handle length mm	Weight
6-687	Т	1	40	M 0,9	100	11 g
6-688	Т	2	40	M 1,0-1,2	100	11 g
6-689	Т	3	40	M 1,2-1,4	100	11 g
6-679	Т	4	40	M 1.4-1.6	100	11 g
6-681	Т	5	40	M 1.6-2	100	11 g
6-682	Т	6	40	M 2	100	15 g
6-683 L	Т	7	40	M 2.5	100	15 g
6-684 L	Т	8	40	M 2.5	100	15 g
6-685 L	Т	9	50	М З	100	17 g
6-686 L	Т	10	50	M 3-3.5	100	20 g

4-170 6-piece screwdriver and cross-recess screwdriver set

in a practical table support

Contents: 4 Screwdrivers No. 4-162, 4-163, 4-164 + 4-165 2 Cross-recess screwdrivers No. 4-282 + 4-283 Weight: 145 g

4-180 6-piece screwdriver and cross-recess screwdriver set

in a practical table support

Contents: 3 Screwdrivers No. 4-161, 4-162 + 4-163 3 Cross-recess screwdrivers No. 4-281, 4-282 + 4-283 Weight: 135 g

4-190 6-piece screwdriver and cross-recess screwdriver set

in a practical table support

Contents: 5 Screwdrivers No. 4-161, 4-162, 4-163, 4-164 + 4-165, 1 Cross-recess screwdriver No. 4-284 Weight: 150 g

6-680 6-piece TORX-Screwdriver set

in a practical table support Contents: 6 TORX-Screwdrivers No. 6-681, 6-682, 6-683, 6-684, 6-685 + 6-686 Weight: 165 g





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SCREWDRIVERS

Electrician's screwdrivers

Blade: chrome vanadium, plane-parallel, hardened over its full length, nickel-plated

Handle: impact-resistant, transparent yellow plastic \ominus Blade length Blade width Blade thickness Handle size No. Weight mm mm mm mm 4-201 4-202 4-203 4-204 21 g 23 g 31 g 34 g 49 g 58 g 66 g 75 100 150 3.0 0.4 80 x 16 80 x 16 90 x 18 90 x 18 98 x 21 98 x 21 3.0 3.0 4.0 0.4 0.4 0.5 100 4-205 150 4.0 0.6 4-206 150 5.0 0.8 98 x 21 4-207 200 5.0 0.8

Cross-recess screwdrivers

Blade: chrome vanadium, hardened over its full length, nickel-plated Handle: impact-resistant, transparent plastic

No.	Size	Blade length mm	Blade-Ø mm	Handle size mm	Weight		
4-251 4-252 4-253 4-254	0 1 2 3	60 80 100 150	3.0 4.5 6.0 8.0	80 x 16 90 x 18 98 x 21 103 x 24	20 g 36 g 60 g 125 g		
Chubby screwdrivers $\ominus \oplus$							

Blade: chrome vanadium, nickel-plated

Handle: impact-resistant, transparent plastic

Weight:

Handle:	impaci-resisiani,	transparent	plastic		
4-261 4-262	01 02	25 25	4.5 6.0	55 x 30 55 x 30	30 g 35 g
No.	Blade length mm	Blade width mm	Blade thickness mm	Handle size mm	Weight
4-321 4-322	25 25	4.0 6.5	0.8 1.2	55 x 30 55 x 30	30 g 35 g
Blade:	ture screwd special steel, nic transparent yello 40	kel-plated	0.5	45 x 9	⊖ 3 g
Blade:	vdriver for g chrome vanadium impact-resistant, 80	n, plane-para	allel, nickel-plate	ed 60 x 11	⊖ 12 g
Blade:	anic's screv special steel, nic impact-resistant, 45	kel-plated	plastic 1.0	80 x 16	↔ 38 g
No. 4-34 Blade:	vdrivers with 1 for 110 - 380 V, chrome vanadiuu transparent plast 40 95	No. 4-342 for m, nickel-plat	⁻ 100 - 500 V	-	dels) ⊖ 14 g 33 q
VDE-N to VD Blade:	voltage testo E regulation chrome vanadiuu transparent plas	ers, 220 · 1s 0426 m, nickel-plat	- 250 V,		S
4-343 \ 4-344 \	/DE 60	3.0 3.5	0.7 0.7	76 x 15 92 x 18	15 g 31 g
Offset Material	t screwdrive chrome vanad		lated, plastic ha	ndle	\ominus
No.	Total length mm	Blade width mm	Blade thickness mm	Blade-Ø mm	Weight
4-351 4-352	100 125	5.0 6.0	0.65 0.80	4.5 6.0	12 g 32 g
4-820	•		e screwdriv vith tool steel bla		



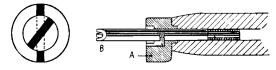




RETAINING SCREWDRIVERS

1RIC screw holders

for inserting slotted screws into places difficult to reach



"TRIC" is especially easy to use. Push lever A as far as the stop with your thumb; insert blade B into the screw slot and release lever A. The screw is tight and can now be inserted into the hole. Release the holder by pressing lever A lightly in the same direction.

Special advantage:

Projecting controls do not hamper vision

Blade: special steel, plane-parallel, nickel-plated **Handle:** impact-resistant, transparent yellow plastic

Do not use for tightening or loosen screws!



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No.	Blade length mm	Blade width mm	Blade-Ø mm	Handle size mm	Weight
4-401 4-402 4-403 4-404 4-405 4-406 4-407 4-408 4-409	40 140 295 40 80 110 200 295	6.0 6.0 4.0 4.0 4.0 4.0 4.0 4.0 6.0	6.0 6.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 6.0	98 x 19 98 x 19 98 x 19 70 x 15 70 x 15 70 x 15 70 x 15 70 x 15 70 x 15 98 x 19	44 g 65 g 76 g 42 g 18 g 22 g 25 g 35 g 98 g
					-

Retaining screwdrivers

for inserting and tightening slotted screws

Blade: chrome vanadium, burnished, insulated Handle: impact-resistant, transparent yellow plastic or black plastic for VDE-types

No.	Blade length mm	Blade width mm	Blade thickness mm	Handle size mm	Weight
4-431	125	3.0	0.5	90 x 18	35 g
4-432		4.0	0.6	100 x 22	65 g
4-433		5.0	0.8	105 x 24	93 g
4-441 VDE		3.0	0.5	90 x 18	34 g
4-442 VDE		4.0	0.6	100 x 22	58 g
4-443 VDE		5.0	0.8	105 x 24	88 g

Retaining screwdrivers

for inserting and tightening cross-recess screws

Blade: chrome vanadium, burnished, insulated Handle: impact-resistant, transparent yellow plastic or black plastic for VDE-types

No.	Size	Blade length mm	Blade-Ø mm	Handle size mm	Weight
4-436 4-437 4-438 4-446 VDE 4-447 VDE	0 1 2 0 1	125 150 175 125 150	4.0 5.0 6.0 4.0 5.0	100 x 22 105 x 24 105 x 24 100 x 22 105 x 24	63 g 93 g 117 g 58 g 88 g
4-448 VDE	2	175	6.0	105 x 24	110 g

Screwdriver with guide sleeve

for easy, reliable adjustment of screw-type resistors and potentiometers with slotted shanks of 3.2 mm Ø

Blade: chrome vanadium, nickel-plated

Handle: impact-resistant, transparent yellow plastic

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No.	Blade length mm	Blade width mm	Handle size mm	Weight
2-145	80	2.8	60 x 11	12 g



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WATCHMAKER'S SCREWDRIVERS

Watchmaker's screwdrivers

Blade: chrome vanadium, burnished **Handle:** metal, nickel-plated, with swivel top

No.	Blade length mm	Blade width mm	Total length mm	Weight
4-371	14	1.0	85	7 g
4-372	18	1.5	90	7 g
4-373	21	2.0	105	18 g
4-374	24	2.5	108	18 g
4-375	24	3.0	120	37 g
4-376	27	3.5	123	38 g

Cross-recess watchmaker's screwdrivers

Blade: chrome vanadium, burnished

Handle: metal, nickel-plated, with swivel top

No. Size		Blade length mm	Total length mm	Weight	
4-364 4-366 4-367 4-368	000 00 0	21 21 21 21	92 92 105 117	9 g 23 g 33 g 37 g	

4-360 3-piece watchmaker's screwdriver set

- in a plastic wallet
 - Contents: 2 watchmaker's screwdrivers No. 4-372 + 4-374 1 cross-recess watchmaker's screwdriver No. 4-367 Weight: 68 g

4-365 3-piece watchmaker's screwdriver set

in a plastic wallet

Contents: 3 cross-recess screwdrivers No. 4-366, 4-367 + 4-368 Weight: 100 g

4-370 **6-piece watchmaker's screwdriver set** in a metal case

Contents: 6 watchmaker's screwdrivers No. 4-371 - 4-376 Weight: 480 g

4-379 **6-piece watchmaker's screwdriver set** in a wallet of nylon Contents: 6 watchmaker's screwdrivers No. 4-371 -

Contents: 6 watchmaker's screwdrivers No. 4-371 - 4-376 Weight: 165 g

Watchmaker's screwdrivers

Blade: chrome vanadium, burnished Handle: black plastic, with swivel top and colour coding

manaioi	black plactic, with or	and colour	countg	
No.	Blade length mm	Blade width mm	Total length mm	Weight
4-381 4-382 4-383 4-384 4-385	18 18 18 18 18	1.0 1.5 2.0 2.5 3.0	104 104 104 104 104	5 g 6 g 6 g 6 g

4-380 5-piece watchmaker's screwdriver set

in a plastic box

Contents: 5 watchmaker's screwdrivers No. 4-381 - 4-385 Weight: 64 g

Watchmaker's storage screwdrivers with interchangeable blades

Blades: chrome vanadium, burnished **Handle:** metal magazine, nickel-plated, with swivel top

4-391 Watchmaker's screwdriver

with 4 bits 1.5 - 2.0 - 2.5 - 3.0 mm blade width, in magazine Weight: 31 g

4-392 Watchmaker's screwdriver with 4 bits 1.5 - 2.0 - 2.5 - 3.0 mm blade width

and 1 cross-recess blade size 0, in magazine Weight: 32 g

 4-393 Watchmaker's screwdriver magazine with 3 bits 1.5 - 2.0 - 2.5 mm blade width and 2 cross-recess blades Size 00 and 000, in magazine Weight: 32 g















6-205





SOCKET WRENCHES

Socket wrenches, long, with handle

Blade: chrome vanadium, hardened over its full length, chrome-plated **Handle:** special square pattern Bernstein handle, impact-resistant, transparent, amber coloured plastic

No.	A/F	Blade length	Handle size	Weight
	mm	mm	mm	
6-101 6-102 6-103 6-104 6-105 6-106 6-107	3.5 4.0 4.5 5.0 5.5 6.0 7.0	140 140 140 140 140 140 140 140	92 x 21 92 x 21	70 g 72 g 72 g 72 g 74 g 74 g 92 g
6-108	8.0	140	92 x 21	92 g

6-100 8-piece socket wrench set in a plastic wallet

Contents: 8 socket wrenches No. 6-101 – 6-108 Weight: 650 g

Socket wrenches without handles with tangs for interchangeability

Material: chrome vanadium nickel-plated

waterial. Chit	nie vanaulum, i	lickel-plated		
No.	A/F mm	Wrench length mm	Inches for No. 6-190	Weight
6-201 6-202 6-203 6-204 6-205 6-206 6-207	4.0 5.5 6.0 7.0 8.0 9.0 10.0	140 140 140 140 140 140 140 140	1/8" 5/32" 3/16" 7/32" 1/4" 5/16" 3/8"	30 g 35 g 35 g 40 g 40 g 43 g 45 g

6-200 8-piece socket wrench

in a plastic wallet

Contents: 7 socket wrenches No. 6-201 – 6-207 1 plastic spring handle. 4-775 Weight: 310 g

6-210 6-piece socket wrench set

in a plastic wallet Contents: 5 socket wrenches No. 6-201 – 6-205 1 plastic spring handle No. 4-775 Weight: 220 g

Sets of socket wrenches in metal cases

Typ: 1/4" square drive, chrome vanadium, chrome-plated

6-320 16-piece socket wrench set in metal case

Contents: 11 sockets: A / F 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 -9 - 10 - 11 - 13 mm, **ratchet**, rigid extension, socket wrench holder, sliding tee bar, universal joint Weight: 775 g

6-330 16-piece socket wrench set in metal case

Contents: 11 sockets: A / F 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 -9 - 10 - 11 - 13 mm, **reversible ratchet**, rigid extension, socket wrench holder, sliding tee bar, universal joint Weight: 870 g

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WRENCHES

Sets of wrenches

Material: chrome vanadium, chrome-plated

6-500 **5-piece double open-ended wrench set**

Contents: 5 double open-ended wrenches 6 x 7 – 8 x 9 – 10 x 11 – 12 x 13 and 14 x 17 mm Weight: 370 g

6-550 **5-piece ring wrench set**

double-offset Contents: 5 ring wrenches 6 x 7 – 8 x 9 – 10 x 11 – 12 x 13 and 14 x 17 mm Weight: 660 g

6-600 **7-piece combination wrench set**

Contents: 7 combination wrenches 6 – 7 – 8 – 9 – 10 – 11 -13 mm Weight: 290 g

6-650 **5-piece ring wrench set** Contents: 5 ring wrenches 6 x 7 – 8 x 9 – 10 x 11 – 12 x 13 and 14 x 15 mm

Weight: 160 g

SPECIAL WRENCHES

6-750 6-piece extra slim double open-ended wrench set, in plastic case Material: chrome vanadium, bright nickel-plated
Contents: 4 double open-ended wrenches 3.0 x 3.5 - 4.0 x 4.5 - 5.0 x 5.5 and 6.0 x 6.5 mm material thickness 1.5 mm, 120 mm long 2 double open-ended wrenches 7 x 8 and 9 x 10 mm material thickness 2 mm, 125 mm long
Weight: 85 g

Adjustable wrenches

Material: chrome vanadium, chrome-plated

No.	Jaw opening mm	Total length mm	Jaw length mm	Weight
6-771	0 – 12	100	12	55 g
6-772	0 – 18	150	22	135 g
6-773	0 – 23	200	25	265 g

SPECIAL TOOLS

6-950 **8-piece ballpoint wrench key set, in a plastic wallet Material:** chrome vanadium, burnished, offset model Contents: 8 wrench keys 1.5 - 2.0 - 2.5 - 3.0 - 4.0 - 5.0 - 6.0 - 8.0 mm Weight: 200 g

6-995 8-piece TORX-wrench keys with bore-hole in a plastic box Material: chrome vanadium, burnished, offset model Contents: 8 TORX-wrench keys T 9, T 10, T 15, T 20, T 25, T 27,

Contents: 8 TORX-wrench keys T 9, T 10, T 15, T 20, T 25, T 27 T 30, T 40 Weight: 205 g









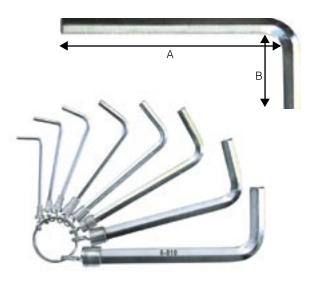
















SPECIAL WRENCHES

Wrench keys

angle-shaped screwdrivers for hex socket-head screws Material: special steel, nickel-plated

	A/F			A/F	Leg length	
No.	mm	No.	Inches	≈ mm	mm A B	Weight
6-811	0.89	-	-	-	30 x 10	1 g
6-812	1.0	6-851	3/64	1.19	46 x 10	1 g
6-813	1.5	6-852	1/16	1.59	50 x 12	1 g
6-814	2.0	6-853	5/64	1.98	55 x 15	2 g
6-815	2.5	6-854	3/32	2.38	60 x 18	Зg
6-816	3.0	6-855	1/8	3.18	65 x 20	5 g
6-817	3.5	6-856	9/64	3.56	68 x 22	8 g
6-818	4.0	6-857	5/32	3.97	72 x 25	11 g
6-819	4.5	6-858	3/16	4.76	75 x 27	13 g
6-821	5.0	-	-	-	80 x 28	19 g
6-822	5.5	6-859	7/32	5.56	85 x 30	22 g
6-823	6.0	6-861	1/4	6.35	90 x 32	28 g
6-825	7.0	6-862	9/32	7.14	95 x 34	41 g
6-826	8.0	6-863	5/16	7.94	100 x 36	60 g
6-827	9.0	6-864	11/32	8.73	105 x 38	81 g
6-828	10.0	6-865	3/8	9.53	112 x 40	105 g

6-810 8-piece wrench key set

offset model, on ring

Contents: 8 wrench keys 2.0 - 2.5 - 3.0 - 4.0 - 5.0 - 6.0 - 8.0 - 10.0 mm Weight: 255 g

6-820 8-piece wrench key set offset model, in a plastic wallet

Contents: 8 wrench keys 1.5 - 2.0 - 2.5 - 3.0 - 4.0 - 5.0 - 5.5 - 6.0 mm Weight: 100 g

Wrench keys without handles

with fitting tangs (figure 6-830)

Material: chrome vanadium, burnished, tangs nickel-plated

No. mm No. Inches ≈ mm mm 6-831 1.0 6-871 3/64 1.19 140 6-832 1.2 6-872 1/16 1.59 140 6-833 1.5 6-873 5/64 1.98 140			0				
6-8321.26-8721/161.591406-8331.56-8735/641.98140	yth Weight	Blade length mm			No.		No.
6-834 2.0 6-874 3/32 2.38 140 6-835 2.5 6-875 1/8 3.18 140 6-836 3.0 6-876 9/64 3.56 140 6-837 4.0 6-877 5/32 3.97 140 6-838 4.5 6-878 3/16 4.76 140 6-839 5.0 6-879 7/32 5.56 140 6-841 6.0 6-881 1/4 6.35 140	15 g 16 g 16 g 17 g 18 g 19 g 28 g 30 g 32 g 42 g	140 140 140 140 140 140 140 140 140	1.59 1.98 2.38 3.18 3.56 3.97 4.76 5.56	1/16 5/64 3/32 1/8 9/64 5/32 3/16 7/32	6-872 6-873 6-874 6-875 6-876 6-877 6-878 6-879	1.2 1.5 2.0 2.5 3.0 4.0 4.5 5.0	6-832 6-833 6-834 6-835 6-836 6-837 6-838 6-839

11-piece wrench key set in a plastic wallet Contents: 10 wrench keys 1.0 - 1.2 - 1.5 - 2.0 - 2.5 - 3.0 - 4.0 -6-830

- 4.5 5.0 6.0 mm
- 1 spring handle in impact-resistant, transparent yellow plastic No. 4-775

Weight: 280 g

Sets of wrench keys (imperial dimensions)

6-840	10-piece wrench key set on ring Contents: 10 wrench keys 1/16 – 5/64 – 3/32 – 1/8 – 5/32 – 3/16 – 7/32 – 1/4 – 5/16 – 3/8" Weight: 440 g
6-880	8-piece wrench key set in a plastic wallet Contents: 8 wrench keys 1/16 - 5/64 - 3/32 - 1/8 - 5/32 - 3/16 - 7/32 - 1/4" Weight: 100 g
6-890	11-piece wrench key set in a plastic wallet Contents: 10 wrench keys 3/64 – 1/16 – 5/64 – 3/32 – 1/8 – 9/64 –

- 5/32 3/16 7/32 1/4' 1 spring handle in impact-resistant, transparent
- yellow plastic No. 4-775
- Weight: 315 g



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SAFETY TOOLS

BERNSTEIN VDE screwdrivers and VDE cross-recess screwdrivers are monitored by the VDE Test Centre. Each screwdriver is piece-checked in accordance with specification EN 60.900, IEC 900 of the Association of German Electrical Engineers (VDE).

Permissible voltage at which the VDE screwdrivers can be used:

1000 V a.c. or 1500 V d.c.

- Blade: chrome vanadium, hardened over its full length, burnished
- **Handle:** Bicoloured VDE multicomponent safety insulation, impact-resistant, with slip off protection and practical hanging up hole.

Safety insulated screwdrivers

DIN EN 60.900, IEC 900

No.	Blade length	Blade width mm	Blade thickness mm	Handle size mm	Weight mm
14-651 VDE	75	2.5	0.4	100 x 21	26 g
14-652 VDE	100	3.5	0.6	100 x 21	34 g
14-653 VDE	100	4.0	0.8	100 x 21	37 g
14-654 VDE	125	5.5	1.0	107 x 27	75 g
14-656 VDE	150	6.5	1.2	114 x 32	112 g
14-658 VDE	175	8.0	1.2	121 x 35	171 g

Safety insulated cross-recess Phillips screwdrivers

DIN EN 60.900, IEC 900

No.	Size	Blade length mm	Blade Ø mm	Handle size mm	Weight
14-681 VDE	0	60	3.0	100 x 21	27 g
14-682 VDE	1	80	4.5	107 x 27	57 g
14-683 VDE	2	100	6.0	114 x 32	92 g
14-684 VDE	3	150	8.0	121 x 35	166 g

Safety insulated Pozidriv cross-recess

screwdrivers

DIN EN 60.900, IEC 900

No.	Size	Blade length	Blade Ø mm	Handle size mm	mm
14-691 VDE	0	60	3.0	100 x 21	27 g
14-692 VDE	1	80	4.5	107 x 27	57 g
14-693 VDE	2	100	6.0	114 x 32	92 g
14-694 VDE	3	150	8.0	121 x 35	166 g

14-600 VDE 7-piece VDE screwdriver set

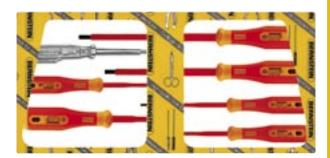
visibly pa	acked in a car	ton box
Contents	: 14-651 VDE	75 x 2.5 mm screwdriver
	14-652 VDE	100 x 3.5 mm screwdriver
	14-654 VDE	125 x 5.5 mm screwdriver
	14-656 VDE	150 x 6.5 mm screwdriver
	14-681 VDE	cross-recess screwdriver, size 0
	14-682 VDE	cross-recess screwdriver, size 1
	4-343 VDE	voltage tester, 150 V - 250 V
Weight:	350 g	













SAFETY TOOLS



Safety insulated socket wrenches DIN EN 60.900, IEC 900

Blade: chrome vanadium, hardenend over its full length Handle: impact-resistant, bicoloured VDE multicomponent safety insulation, with slip off protection and practical hanging up hole

No.	A/F	Blade length	Handle size	Weight
	mm	mm	mm	
16-302 VDE	5.5	125	107 x 21	85 g
16-303 VDE	6.0	125	107 x 21	90 g
16-304 VDE	7.0	125	114 x 30	125 g
16-305 VDE	8.0	125	114 x 30	125 g
16-306 VDE	9.0	125	114 x 32	130 g
16-307 VDE	10.0	125	114 x 32	130 g
16-308 VDE	11.0	125	121 x 35	170 g
16-309 VDE	12.0	125	121 x 35	175 g
16-311 VDE	13.0	125	121 x 35	175 g

Single-ended open-jaw wrenches

to DIN 7447, IEC 60900:2004, two-colour multilayered insulation, 1000 V, \mathcal{A} chrome vanadium, 15° open-end position

No.	A/F mm	Weight	No.	A/F mm	Weight
16-501 VDE 16-502 VDE 16-503 VDE 16-504 VDE 16-505 VDE 16-506 VDE 16-507 VDE	6.0 7.0 8.0 9.0 10.0 11.0 12.0	25 g 25 g 35 g 40 g 50 g 55 g 65 g	16-508 VDE 16-509 VDE 16-511 VDE 16-512 VDE 16-513 VDE 16-514 VDE 16-515 VDE	13.0 14.0 15.0 17.0 19.0 21.0 24.0	75 g 85 g 110 g 200 g 210 g 300 g

Single-ended ring wrenches to DIN 7447, IEC 60900:2004,

chrome vanadium, two-colour multilayered insulation, 1000 V

No.	A/F mm	Weight	No.	A/F mm	Weight		
16-531 VDE	6.0	50 g	16-541 VDE	15.0	140 g		
16-532 VDE	7.0	50 g	16-542 VDE	16.0	170 g		
16-533 VDE	8.0	65 g	16-543 VDE	17.0	195 g		
16-534 VDE	9.0	70 g	16-544 VDE	18.0	240 g		
16-535 VDE	10.0	80 g	16-545 VDE	19.0	245 g		
16-536 VDE	11.0	95 g	16-547 VDE	21.0	320 g		
16-537 VDE	12.0	110 g	16-551 VDE	24.0	365 g		
16-538 VDE	13.0	120 g					
16-539 VDE	14.0	130 g	- other dimension	s available o	on request –		

Adjustable wrenches

to DIN 3117, IEC 60900:2004 two-colour multilayered insulation, 1000 V, \mathcal{A} open-end position 15°, with graduation

No.	Length	Jaw opening	Weight
16-773 VDE 16-774 VDF	200 250	0 - 26 0 - 30	300 g 500 g
16-775 VDE	300	0 - 35	800 g

16-440 VDE 9-piece set of sockets

in red imitation leather case

Contents: 8 sockets with two-colour multilayered insulation A/F: 10.0 - 11.0 - 12.0 - 13.0 - 14.0 - 15.0 -17.0 - 19.0 mm

- 1 T-socket wrench, 1/2" square drive, 200 mm with two-colour multilayered insulation

Weight: 1.120 kg







SAFETY TOOLS

Sockets

two-colour multilayered insulation to IEC 60900:2004, 1000 V, DIN 7448, square drive, chrome vanadium

				2"-drive	
No.	A/F mm	Weight	No.	A/F mm	Weight
16-481 VDE	6.0	23 g	16-441 VDE	10.0	60 g
16-482 VDE	7.0	26 g	16-442 VDE	11.0	60 g
16-483 VDE	8.0	26 g	16-443 VDE	12.0	60 g
16-484 VDE	9.0	31 g	16-444 VDE	13.0	65 g
16-485 VDE	10.0	33 g	16-445 VDE	14.0	65 g
16-486 VDE	11.0	33 g	16-446 VDE	15.0	70 g
16-487 VDE	12.0	35 g	16-447 VDE	17.0	75 g
16-488 VDE	13.0	37 g	16-448 VDE	19.0	85 g
16-489 VDE	14.0	49 g	16-449 VDE	22.0	110 g
16-491 VDE	15.0	52 g	16-451 VDE	24.0	130 g
16-492 VDE	16.0	54 g	16-452 VDE	27.0	180 g
16-493 VDE	17.0	55 g	16-453 VDE	30.0	195 g
16-494 VDE	18.0	63 g	16-454 VDE	32.0	205 g
16-495 VDE	19.0	75 g			-
16-496 VDE	20.0	82 g			
16-497 VDE	21.0	87 g			
16-448 VDE	22.0	94 g			
for hexagonal	location:	with 3/8"-d	rive with 1/	2"-drive	•
16-559 VDE	4.0	60 g	16-461 VDE	5.0	95 g
16-561 VDE	5.0	65 g	16-462 VDE	6.0	95 g
16-562 VDE	6.0	65 g	16-463 VDE	8.0	100 g
16-563 VDE	8.0	75 g	16-464 VDE	10.0	110 g
16-564 VDE	10.0	90 g			-

4-Way Wrench

two-colour multilayered in 1000 V, 4 different sizes, e		
16-431 VDE	A/F 10 / 13 / 14 / 17	450 g

T-socket-wrench

with locking device, DIN 7436, two-colour multilayered insulation according to IEC 60900:2004, 1000 V

No.	Le mm	ngth inches	Finish	Weight g
16-474 VDE	200	8	³ /8" square drive	390 g
16-475 VDE	200	8	¹ /2" square drive	460 g

Reversible ratchet

DIN 7449, two-c IEC 60900:2004 the button, right	, 1000 V, fixi	ng and removi	ng of the inserts by pushing	\bigotimes
16-471 VDE	260	10 ²/8	1/2" square drive	680 g
16-472 VDE	200	8	³ /8" square drive	360 g

Rigid extension

DIN 7434, two-c IEC 60900:2004	olour multi , with locki	layered insulation ng device	on according to	
16-476 VDE	125	5 ¹ /2"	¹ /2" square drive	200 g
16-477 VDE	250	101/2"	¹ /2" square drive	415 g
16-478 VDE	125	5 ³ /8"	³ /8" square drive	155 g
16-479 VDE	250	10 ³ /8"	³ /8" square drive	280 g

















CABLE-CUTTING TOOLS

No.	Len mm	gth Zoll	Finish	Weight g
Cable knif with blade prote resistance plas	ection, har		pck	
15-521 VDE	180	7	straight blade, blade length 50 mm	65 g

Cable dismantling knife

with blade prote resistance plas			ock	
15-522 VDE	180	7	hook blade, blade length 35 mm	70 g
15-523 VDE	180	7	special blade, with cable guard shoe	65 g

Automatic wire stripper Super

fully insulated automatic wire stripper for all common stranded and solid conductors of 0.2 - 6.0 m², adjustable length stop of 5 - 12 mm, removable if required

15-531 VDE	200	8	fibreglass re-enforced polyamide, fully insulated, approved for works on "hot " lines up to 1000 Volt	110 g

Cable sheat forged of specia two-colour multil with re-adjustab	al steel, for c layered insu	opper and lation acco	l aluminium cable, ording to IEC 60900:2004,	
15-501 VDE	210	8 ¹ / ₄	max Ø 20 mm / 60 mm ²	360 g

Ratcheting cable cutters

150

6

easy cutting of big diameters, for copper and aluminium cable, two-colour multilayered insulation, fully insulated according to IEC 60900:2004,1000 V 15-506 VDE 250 9 ⁷/₈ max Ø 32 mm / 240 mm² 800 g

No.	Length mm Zoll	Finish	Weight g

Metal saw

7-617

with pistol handl two-colour multil IEC 60900:2004	ayered insu		lie cast, / insulated according to	\bigotimes	
17-541 VDE	265	10 ²/8	saw blade exchangeable		310 g

spare blade

3 g

SAFETY TOOLS

	Size	Weigh
Electrician	ís Glove	
inculating glove	a far wark under valtage up to 1000 Valt out of	\bigtriangleup
natural rubber, ł 17-499 VDE	nigh flexibility, each tested according to DIN EN 609 Size 9	03 △ 260 g
17-501 VDE	Size 10	200 g 260 g
17-502 VDE	Size 11	260 g
	ip with arm protection g and removing NH-fuses	\bigotimes
17-521 VDE	Siemens handle for NH-fuses 00-3.	
	arm protection when interrupting high current intensity (arc)	450
Rubber Co	over	
	part 1, thickness 1.6 mm, surface smooth, Albert is a second seco	
17-702 VDE	500 x 500 mm	590
17-703 VDE	1000 x 1000 mm	1936
Rubber Iso		1936
Rubber Iso	omat without picture g to DIN VDE 0303, thickness 4.5 mm	
Rubber Iso tested accordin one side smooth 17-707 VDE	Dmat without picture g to DIN VDE 0303, thickness 4.5 mm	6200
Rubber Isc tested accordin one side smooth 17-707 VDE Plastic Cli 17-523 VDE Self-Clamp	Omat without picture g to DIN VDE 0303, thickness 4.5 mm n, other side grooved 1000 x 1000 mm p for fixing covers	6200
Rubber Iso tested accordin one side smooth 17-707 VDE Plastic Cli 17-523 VDE Self-Clamp 1000V	 pmat without picture g to DIN VDE 0303, thickness 4.5 mm n, other side grooved 1000 x 1000 mm p for fixing covers 170 mm with covered spiral spring 	6200
Rubber Iso tested accordin one side smooth 17-707 VDE Plastic Cli 17-523 VDE Self-Clamp 1000V	pmat without picture g to DIN VDE 0303, thickness 4.5 mm h, other side grooved 1000 x 1000 mm p for fixing covers 170 mm with covered spiral spring bing Slip on Caps	6200
Rubber Isc tested accordin one side smooth 17-707 VDE Plastic Cli 17-523 VDE Self-Clamp 1000V protection agair	 pmat without picture g to DIN VDE 0303, thickness 4.5 mm n, other side grooved 1000 x 1000 mm p for fixing covers 170 mm with covered spiral spring ping Slip on Caps nst touching a cable-end under voltage 	6200 <u>A</u> 63 20
Rubber Iso tested accordin one side smooth 17-707 VDE Plastic Cli 17-523 VDE Self-Clamp 1000V protection agair 17-551 VDE	 pmat without picture g to DIN VDE 0303, thickness 4.5 mm n, other side grooved 1000 x 1000 mm p for fixing covers 170 mm with covered spiral spring ping Slip on Caps mst touching a cable-end under voltage Ø 10 mm 	1936 6200 63 20 30 60
Rubber Iso tested accordin one side smooth 17-707 VDE Plastic Cli 17-523 VDE Self-Clamp 1000V protection agair 17-551 VDE 17-552 VDE 17-553 VDE	pmat without picture g to DIN VDE 0303, thickness 4.5 mm A n, other side grooved 1000 x 1000 mm 1000 x 1000 mm 1000 x 1000 mm p for fixing covers 170 mm 170 mm with covered spiral spring bing Slip on Caps nst touching a cable-end under voltage A ∅ 10 mm ∅ 20 mm ∅ 30 mm	6200 20 30
Rubber Iso tested accordin one side smooth 17-707 VDE Plastic Cli 17-523 VDE Self-Clamp 1000V protection agair 17-551 VDE 17-552 VDE 17-553 VDE	p for fixing covers 170 mm with covered spiral spring bing Slip on Caps Mathematical spring a cable-end under voltage Ø 10 mm Ø 20 mm	6200 20 30

ab. BERNSTEIN 20



TWEEZERS

Engineer's tweezers with 1000 Voltage-insulation, VDE 0680 Part 2 $\,$

No.	mm	Length Zoll	Finish	Weight g
5-107 VDE	150	6	fine bent tips, finely serrated	35 g
5-117 VDE	145	5 ³ / ₄	straight-flat-wide, with serration	40 g

1-122



C BRANN / IN



DEPOSITE OF





TOOLS

Engineer's hammers with lacquered wooden handle

No.	Length mm	Head weight	Total weight
7-102 7-104 7-106 7-109	265 285 300 320	100 200 300 500	150 g 240 g 400 g 620 g

Engineer's hammers to DIN 1041 Swaged, accurately slided, stem and path finish grinded, lacquered and rustproof, with lacquered ash-handle

7-112 7-114	260 280	100 200	155 g 260 g
7-116	300	300	435 g
7-119	320	500	615 g

Plastic hammers

with impact-resistant, cellidor plastic tops, lacquered wooden handle

No.	Head-Ø mm	Length mm	Weight
7-121	22	255	130 g
7-122	27	265	225 g
7-123	32	285	330 g

Firmer chisels

with impact-resistant wooden handle

No.	Blade width mm	Blade length mm	Total length mm	Weight
7-201	10	120	235	90 g
7-202	16	130	240	130 g
7-203	20	140	250	155 g

Flat chisels

7-617

chrome vanadium, safety impact head

No.	Head width mm	Length mm	Ø mm	Weight
7-215	10	100	8	45 g
7-225	16	150	12	120 g
7-235	20	200	16	300 g

Electrician's chisels

chrome vanadiu	um, safety impac	ct head		
7-245	8	200	6	60 g
7-255	10	200	8	140 g

Centre-punch to DIN 7250,

chrome vana	dium, safety impac	t head		
No.	Head-Ø mm	Length mm	Ø mm	Weight
7-281	5.0	120	12	90 g

SAWS

No. Blade length mm Length mm Weight

Hack saw frame from flat steel for sawblades

of 300 mm len 7-605	gth, with saw blade 300	530	515 g
Hack saw 7-606	<i>I blade</i> both ends	toothed, from Wolfram-steel 300	44 g
	ack saw "Puk" e for wood and metal 150	with adjustable wooden handle, , in a plastic wallet 300	140 g
Hack saw	/ blade special for ack saw 7-620	r "Puk" hack saws	

150

3 g



TOOLS

Twist gimlets black lacquered, with knurled ring handle

No.	Bore-Ø mm	Blade length mm	Total length mm	Weight
7-303 7-304 7-306	3.0 4.0 6.0		125 140 170	10 g 20 g 30 g
Drill rasp				
with plastic ha	andle	ndle		
7-315	4.0	175	260	35 g
Punch with impact-re	esistant plastic hand	le		
No.	Blade-Ø mm	Blade length mm	Total length mm	Weight
7-316	6.0	100	185	80 g
Trowel				
with conical for	orged blade and wo	oden handle		
No.	Blade width mm		Total length mm	
7-405	50		200	
Slicker tr				
polisned with	round snank		220	
polished with 7-410	round shank 16		220	25 g
7-410 Rubber b			220	25 g
7-410 Rubber b	16 Deaker for plas		220 Height mm	25 g Weight
7-410 Rubber b (without pictu	16 Deaker for plast re) round, conical fo Ø		Height	
7-410 Rubber b (without pictu No.	16 Deaker for pla re) round, conical fo Ø mm 130		Height mm	Weight
7-410 Rubber k (without pictu No. 7-415	16 Deaker for pla re) round, conical fo Ø mm 130		Height mm	Weight
7-410 Rubber b (without pictu No. 7-415 Dust bru	16 Deaker for pla re) round, conical fo Ø mm 130 sh	rm Bristles width mm 25	Height mm 95 Total length	Weight 150 g



with conductive handle, natural bristles with conductive fibres

natural pristles with conductive libres					
7-421	round	6 Ø	150	9 g	
7-422	flat	20	150	26 g	



Oiler

made from transparent plastic with brass rotating seal

No.	Volume ml	Total length mm	Weight
7-435	40	150	15 g

Drip oiler

tor	arop	let o	lling	

7-438		5
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20 g

140











MEASURING TOOLS

Folding rule, with steel spring

7-502

...... 7-508

7-512

No.	Length m	Material	Width mm	Weight
7-502	2	wood	15.0	120 g
7-503	1	plastic	13.0	60 g

Tape measure

with impact-resistant plastic housing, steel tape for pulling out and in

eel lape loi pu	ning out and in		
7-505	1	6.5	18 g
7-506	2	13.0	71 g

Steel tape measure

stainless, lines and numbers etched and blank coloured

No.	Length mm	Cross section mm	Weight
7-508	300	13 x 0.5	20 g



004 144 1 4 8 447 4 94.04

7-505

7-503

Digital caliper, DIN 862

with cross points, depth gauge, fixing screw, stainless, hardened, capatitive sensor-technic, with digital LCD-display, in a wallet

	•	•			
_	No.	Measuring range mm	Nose mm	Display mm / inch	Weight
	7-511	150	40	0,01 / 0,001	350 g

Miniature digital caliper, DIN 862

with cross points, depth gauge, fixing screw, stainless, hardened, capatitive sensor-technic, with digital LCD-display, in a wallet

7-512 75 30 0,01 / 0,001 350 g

Feeler gauge with conical leaves

_	No.	leasuring range mm	Blade length mm	Blade quantity	Weight
	7-515	0.10 - 2.0	100	20	171 g

Scriber

with roughened nickeled handle, needles hardened and burnished, interchangeable

No.	Handle-Ø mm	Needles-Ø mm	Total length mm	Weight
7-521	6	2.5	200	26 g



1.404

Spirit level, made from plastic

with 3 levels: horizontal, vertical and 45° angle

No.	Length mm	Weight
7-535	220	58 g







CLAMPING VICE SPANNFIX

BERNSTEIN clamping vice SPANNFIX constructed on ball-and-socket joints are rotatable easily in all directions and capable of being set securely with maximum working capacity by simple operation. A set screw below the ball socket allows an individual adjusting of the ball power. Long life is guaranteed by highest powder-coated aluminium casting and surface-refined steel-parts.

SMALL VICE SPANNFIX

The Spannfix vice simplifies many jobs in precision engineering, in laboratories, in test rooms, in all mechanical and electronical workshops as well as in different medical areas.

9-205 (BERNSTEIN) SPANNFIX screw-on vice

for work benches with a max. table thickness of 80 mm.

The small vice with ball-and-socket joint can be mounted quickly and easily onto a work bench or table. Slight pressure on the lever is sufficient, and the clamped workpiece can be moved into any suitable position.

Technical data:

Clamping pressure	150 kp
Clamping capacity	70 mm
Clamping depth	38 mm
Jaw width	50 mm
Jaws (interchangeable) plastic	
aluminium-jaws on request	

Weight: 1.450 kg

9-215 (BERNSTEIN) SPANNFIX

for permanent mounting using bolts

Technical data as 9-205 Size of base: 150 x 105 mm

Weight: 1.350 kg

9-220 (BERNSTEIN) SPANNFIX VICE WITH VACUUM BASE for portable applications

(consisting of 9-211 and 9-215)

Technical data as 9-205 Size of base: 150 x 105 mm

Weight: 2.000 kg



9-205

9-220



CLAMPING EQUIPMENT SPANNFIX COMBINATIONS

Individual components

9-251 Universal clamp mounting ball joint base

with threaded stud M 12 x 1.5

for screwing onto work benches with a max. table thickness of 80 mm Weight: 0.950 kg

9-252 Screw-on mounting vice

Technical data:	Clamping pressure	150	kp
	Clamping capacity	70	mm
	Clamping depth	38	mm
	Jaw width	50	mm
Weight: 0.560 kg	Jaws (interchangea	ble) p	olastic

9-253 Circuit board holder

adjustable from 25 mm to 270 mm clamping capacity, correct setting by adjusting the centre position, firm clamping of the printed circuit by built-in resilience in the locating arms, height of locating arms 70 mm.

Weight: 0.280 kg

If the circuit board holder is to be used with universal ball joint base 9-251, we recommend that the combination is used with angular adapter 9-255 or with rapid turning device 9-257 in order to obtain a larger turning circle.

9-254 Universal screw-on plate

Slots made for commonly used standard bolts, for holding of e. g. tuner, line output transformer, small loudspeaker etc. or prototypes Weight: 0.120 kg

9-255 Angular adapter

to be used as an additional attachment with every work mount, permits an even larger turning circle. Weight: 0.095 kg

9-256 Clamping lid for circuit boards with components

covered with 20 mm thick foamed plastic. Components of different sizes are pressed in such a way that soldering can be carried out correctly after the circuit board holder has been turned.

Size of cover: 240 x 130 mm Use: in conjunction with circuit board holder 9-253 Weight: 0.260 kg

9-257 Rapid turning device

with permanently connected angular adapter, permits swift rotation of the circuit board holder with the PCB and clamping lid through 180°. Weight: 0.270 kg

9-250 (BERNSTEIN) SPANNFIX-VARIO assembly vice

5 piece set with following interchangeable screw-on work mounts 9-251, 9-252, 9-253, 9-254 and 9-255 Weight: 2.000 kg

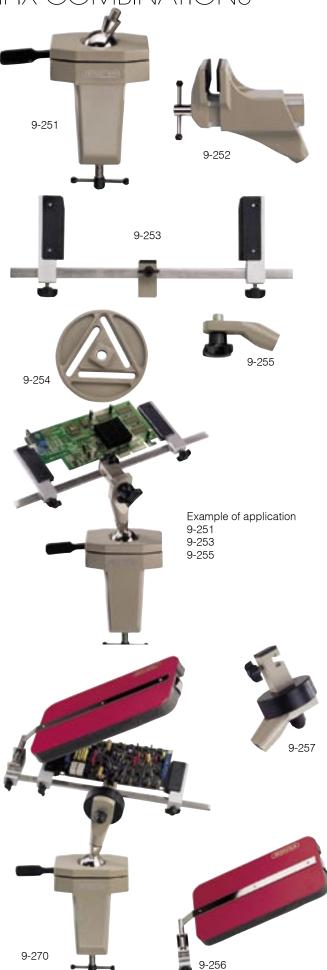
9-260 **BERNSTEIN** SPANNFIX-VARIO assembly vice

5-piece set

with following interchangeable screw-on work mounts 9-261, 9-252, 9-253, 9-254 and 9-255 Weight: 1.900 kg

9-270 (BERNSTEIN) SPANNFIX-VARIO-PLUS clamping combination

Tailor-made combination of the following individual components: 9-251, 9-257, 9-253, 9-256 Weight: 1.800 kg





SPANNFIX FOR SPECIAL POSITIONINGS

The universal Spannfix ball-and-socket joint base enables an exact and secure adjustment in all directions, e. g. of optoelectronic measuring instruments, of monitors and observation cameras.



for work benches with a max. table thickness of 80 mm Weight: 0.950 kg

9-261 **BERNSTEIN** SPANNFIX

bench mounted base with universal ball joint and threaded stud M 12 x 1.5 for permanent mounting using bolts

Size of base: 150 x 105 mm

Weight: 0.800 kg

9-262 (BERNSTEIN) SPANNFIX

bench mounted base with universal ball joint and threaded stud M 12 x 1.5 with an especially large assembly device of Ø 40 mm and extralong thread stud with 25 mm for permanent mounting using bolts

Size of base: 150 x 105 mm

Weight: 0.850 kg

9-281 (BERNSTEIN) SPANNFIX

bench mounted base with universal ball joint and threaded stud M 12 x 1.5 for permanent mounting using bolts

Size of base: $110 \times 72 \text{ mm}$ with 4 covered through holes for screws 6 mm Ø Weight: 0.650 kg

9-210 (BERNSTEIN) SPANNFIX VACUUM BASE with ball joint and threaded stud M 12 x 1.5

(consisting of 9-211 and 9-261) Weight: 1.500 kg

9-211 (BERNSTEIN) SPANNFIX VACUUM BASE

only to be used in conjunction with 9-215 or 9-261 Weight: 0.650 kg















CLAMPING VICES SPANNFIX MAXI

Heavy-duty vice SPANNFIX MAXI on ball-and-socket joint rotatable in any direction and capable of being set securely. The same operations, the same flexibility and the universal use as the Spannfix small vice also distinguish the large models.

Suitable for working on larger and heavier workpieces.

9-225 (BERNSTEIN) SPANNFIX VICE MAXI screw-on

for work benches with a max. table thickness of 85 mm.

Technical data:	Clamping pressure	300 kp
	Clamping capacity	100 mm
	Clamping depth	50 mm
	Jaw width	100 mm
	interchangeable steel	jaws
	smooth and fluted	
	Alu- and plastic jaws on request	
Weight: 4,000 kg		

Weight: 4.000 kg

9-226 (BERNSTEIN) SPANNFIX VICE MAXI for permanent mounting using bolts

Technical data: as 9-225 Size of base: 190 x 155 mm Weight: 3.600 kg

SPANNFIX MAXI FOR SPECIAL POSITIONINGS

The Spannfix MAXI ball-and-socket joint base enables an exact and secure adjustment e.g. for heavy instruments in all directions.

9-227 BERNSTEIN SPANNFIX MAXI UNIVERSAL CLAMP mounting ball joint base with threaded stud M 12 x 1.5 for screwing onto work benches with a max. table thickness of 85 mm

Weight: 2.220 kg

9-228 (BERNSTEIN) SPANNFIX MAXI

BENCH MOUNTED BASE with universal ball joint and threaded stud M 12 x 1.5 for permanent mounting using bolts

Size of base: 190 x 155 mm

Weight: 1.850 kg

9-229 (BERNSTEIN) SPANNFIX MAXI BENCH MOUNTED BASE

with universal ball joint and threaded stud M 12 x 1.5 with an especially large assembly device of Ø 40 mm and extralong thread stud with 25 mm, for permanent mounting using bolts

Size of base: 190 x 155 mm

Weight: 1.900 kg





9-342



9-343



9-356





ESD-COVERINGS AND ACCESSORIES



9-342 Contact bracelet with spiral cord

adjustable elastical bracelet with woven silvered synthetic fibres, allergy-free, with 3 mm press-stud; high elastical spiral cord, 2400 mm long, 2 x 1 Mohm safety resistor, press-stude 3 mm for bracelet and 10 mm for earth wire; additionally insulated crocodile clip No. 9-353. (Weight: 60 g)

9-342-1 Contact bracelet

adjustable elastical bracelet with woven silvered synthetic fibres, allergy-free, with 3 mm press-stud (Weight: 13 g)

9-342-2 Spiral cord

high elastical spiral cord, 2400 mm long, 2 x 1 Mohm safety resistor, press-studs 3 mm for bracelet and 10 mm for earth wire (Weight: 25 g)

9-343 Earth wire

with 1 Mohm safety resistor, 1500 mm long, with 2 press-studs 10/10 mm, for connecting workbench pad and floor cover and connection to an earth potential; additionally insulated crocodile clip No. 9-535. (Weight: 40 g)

9-345 Floor cover

2000 x 1200 x 2.2 mm, pebble grey, with homogeneous, electrostatic conductive rear, wheelchair-proof, with 2 press-studs 10/10 mm; earth wire No. 9-347-1, 4500 mm long, 1 Mohm safety resistance, with 2 press-studs 10/10 mm, (leakage resistance according to DIN IEC 61340-4-1 R_a: 10⁶ - 10⁷ ohm); additionally insulated crocodile clip No. 9-353. (Weight: 7850 g)

9-346 Earth wire

with 1 Mohm safety resistance, 2500 mm long, mit 2 press-studs 10/10 mm, for connecting workbench pad and floor cover and connection to an earth potential; additionally crocodile clip No. 9-353. (Weight: 50 g)

9-351 ESD-handling set consisting of:

workbench pad, 900 x 600 x 2.2 mm, pebble grey, with homogeneous, electrically conductive rear, (leakage resistance to DIN IEC 61340-4-1 R,: 106 - 107 ohm), with 2 press-studes 10/10 mm; contact bracelet No.9-342-1, spiral cord 9-342-2 and earth wire No. 9-343 including crocodile clip No. 9-353. (Weight: 1850 g)

9-353 Crocodile clip

insulated clip with banana plug connection socket and 10 mm press-stud. (Weight: 18 g)

9-354 ESD-handling set foldable - especially for mobile use consisting of:

workbench pad, 500 x 400 x 0.35 mm, green, electrically conductive, grained surface, (leakage resistance to DIN IEC 61340-4-1 $\rm R_{s}$: ca.10⁸ ohm), with 2 press-studs 10/10 mm; contact bracelet No. 9-342-1, spiral cord 9-342-2 and earth wire No. 9-346 including crocodile clip No. 9-353. (Weight: 170 g)

9-355 ESD-handling set foldable - especially for mobile use consisting of:

workbench pad, 800 x 600 x 0.2 mm, black, electrically conductive, (leakage resistance to DIN IEC 61340-4-1 R_A below 10⁶ ohm); contact bracelet No. 9-342, earth wire No. 9-346 including two crocodile clips No. 9-353. (Weight: 240 g)

9-356 ESD-handling set foldable - especially for mobile use consisting of:

workbench pad with 2 patch pockets, 680 x 680 x 0.35 mm, green, electrically conductive, grained surface, (leakage resistance to DIN IEC 61340-4-1 Rs: ca.108 ohm), with three press-studs 10/10/10 mm; contact bracelet No. 9-342-1, spiral cord 9-342-2 and earth wire No. 9-346 including crocodile clip No. 9-353. (Weight: 560 g)

9-357 Earthing module

earthing box with 2 x 10 mm press-stud inputs and 1 x 4 mm safety socket input, per input 1 Mohm safety resistance, earth wire 2000 mm, with dummy Schuko-plug. (Weight: 90 g)

9-359 Earth wire with dummy Schuko-plug

spiral cord 2400 mm long, 1 Mohm safety resistance, one side press-stud 10 mm, other side dummy Schuko-plug. (Weight: 50 g)

9-360 ESD-handling set

consisting of: workbench pad, resistant to soldering tin, 800 x 600 x 1.5 mm, black, from homogeneous, electrically conductive synthetic caoutchouc, slightly grained surface, (leakage resistance to DIN IEC 61340-4-1 R_A : 10³ - 10⁶ ohm), with 2 press-studs 10/10 mm; contact bracelet No. 9-342-1, spiral cord 9-342-2 and earth wire No. 9-343 including crocodile clip No. 9-353. (Weight: 1160 g)



ESD-SETS

especially for EDP and cash-register

The workbench pads consist of antistatic synthetic caoutchouc, with homogeneous, conductive, black rear. The surface is slightly grained. The synthetic caoutchouc material is very wear- and heat-resistant, nonskid and lies very flat.

Technical data: material thickness 2 mm leakage resistance (DIN IEC 61340-4-1) R_A : 10⁵ - 10⁷ ohm time of discharge from 5000 to 50 Volt: < 2 Sec.

Colour: platinum grey

9-361 ESD-handling set

consisting of: workbench pad, **resistant to soldering tin**, 800 × 600 × 2.0 mm platinum grey, from conductive synthetic caoutchouc, slightly grained, with homogeneous, electrically conductive black rear, (leakage resistance to DIN IEC 61340-4-1 R_A: 10^{5} - 10^{7} ohm), with 2 press-studs 10/10 mm; contact bracelet No. 9-342-1, spiral cord 9-342-2 and earth wire No. 9-343 including crocodile clip No. 9-353. (Weight: 1300 g)

- 9-348 ESD set / pad 800 x 600 mm especially for cash-register, EDV-terminals consisting of: workbench pad with 1 press-stud 10 mm for the earthing connection; earth wire No. 9-346 including crocodile clip No. 9-353. (Weight: 1300 g)
- 9-365 **ESD set** / pad 600 x 300 mm especially for keyboards consisting of: workbench pad with 2 press-studs 10/10 mm for connecting the earth wire and the junction to the mousepad; earth wire with dummy Schukoplug No. 9-359. (Weight: 570 g)
- 9-367 ESD set / pad 600 x 450 mm especially for CPU (central processing units), printer, scanner consisting of: workbench pad with 1 press-stud 10 mm for the earthing connection; earth wire with dummy Schuko-plug No. 9-359. (Weight: 800 g)
- 9-368 **ESD set** / pad 600 x 600 mm especially for CPU (central processing unit), printer, scanner consisting of: workbench pad with 1 press-stud 10 mm for the earthing connection; earth wire No. 9-346 including crocodile clip No. 9-353. (Weight: 930 g)

ESD ACCESSORIES

Grid mats made from solid rubber

repair support, in conductive execution, according to DIN 482

9-335	Grid mat size I, measure: 625 x 375 x 20 mm	Weight: 2500 g
9-336	Grid mat size II, measure: 700 x 450 x 20 mm	Weight: 3350 g

Boxes for SMD components

from black, conductive plastic, to be fit into one another at random, hinged cover, closed tightly by spring pull, in 3 different sizes

9-321	SMD box 16 x 12 x 15 mm (internal dimensions)	Weight: 5 g
9-322	SMD box 37 x 12 x 15 mm (internal dimensions)	Weight: 10 g
9-323	SMD box 41 x 37 x 15 mm (internal dimensions)	Weight: 15 g

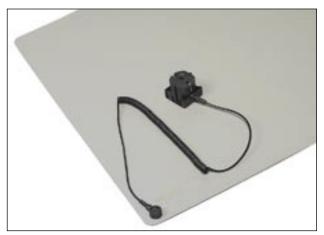
Chip-container

	ly conductive, black, with lid and pin-cushion lining 5 mm pins of electrostatically endangered components	
9-316	chip-container 118 x 32 x 14 mm (internal dimensions)	Weight: 30 g

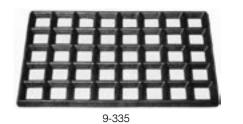
ESD/EGB tools please see the special pages in the article groups screwdriver, pliers, tweezers und socket wrenches resp. complete sets of conductive tools under service cases/service boxes.



9-361



9-365















MAGNIFYING LAMPS

LUXO Magnifying lamp with lens-cover and glare-protection

for 22 W fluorescent light source with ideal viewing conditions without excessive heat

Robust arm construction. Two spring-balanced arms with parallel movement. Springs and all moving mechanical parts built into the tubes and covered. The springs are of high-grade tempered steel calibrated to ensure perfect arm balance; with insulated parts in the joints for safety reasons. Qualified for vibrant working-places.

Technical data: Arm length: from bracket to center of lens 120 cm fully extended, reflector- \emptyset : 23 cm, lens- \emptyset : 125 mm, lens: fixed 3 diopter biconvex, magnification: 1 : 1 ³/₄ or 175 % at a working-distance of 25 cm, Schuko-contact-cable 1.5 m, protection class I. Through additional lens approx. magnification of 1 : 3 ³/₄ or 375 % possible. Colour: pearlgrey

9-101 LUXO Magnifying lamp with bracket (table) standard All lamps will be delivered without circular fluorescent tube.

Accessories:

- 9-106 5-feet-stand with trolley and sliding bracket
- 9-107 Additional lens 4 diopter, magnification 1 : 2 3/4
- 9-108 Additional lens 8 diopter, magnification 1 : 3 3/4
- 9-109 Fluorescent ring lamp 22 W, white

Magnifying lamp with plastic reflector

for 22 W fluorescent ring light

Good equilibrated arm construction enables maximal setting. It's easy to bring this lamp in the wanted position by the open spring-balanced arms.

Technical data: Total arm length: 105 cm, reflector-Ø 22 cm, lens-Ø 125 mm, lens: fixed 3.0 diopter bi-convex, magnification: 1 : 1 ³/₄ or 175 %, at a working-distance of 25 cm, Schuko-contact-cable 2.5 m, protection class I, fluorescent tube protected by prism cover. Colour: light grey

9-191 Magnifying lamp with bracket (table) standard

The lamp will be delivered without circular fluorescent tube.

9-109 Accessories:

Fluorescent ring lamp 22 W, white

Television service mirror

Finish: chrome-plated guide bar, arm and joints grey lacquered. The distortion-free mirror has a plastic back and is held in a rubber profiled frame. A broken mirror can be replaced in just a few minutes.

9-401 Control mirror with table bracket, weight 3.0 kg

9-402 Control mirror with flange, weight 2.9 kg

9-404 Control mirror with 5-feet-stand, weight 10.3 kg

Technical data: maximum height of guide bar 500 mm, maximum extension of arm 450 mm, mirror 395 x 290 mm



MAGNIFYING LAMPS

LUXO Professional illuminated magnifier

with compact fluorescent tubes 7 W (2 pieces)

This magnifier with rectangular lens permits viewing with both eyes. It is the ideal combination of light and magnifier because of two individual light sources and separate switches for individual operation. With single tube operation, three-dimensional viewing is possible. Shadow-free illumination is provided when both fluorescent tubes are operating.

A spring-balanced arm with parallel motion permits exact positioning of the magnifier making it flexible for every working situation.

Technical data: Arm length from bracket to center of lens 60 cm, reflector 15 x 29 cm, asymmetrical light distribution, lens 17 x 11 cm, 3 diopter, magnification 1 : $1^{3}/_{4}$ or 175 % at a working distance of 25 cm, Schuko-contact-cable 1.5 m, protection class I. Colour: light grey

9-121 LUXO Professional illuminated magnifier with table bracket, inclusive 2 tubes 7 W

Accessories:
9-127 Additional lens 4 diopter, magnification 1 : 2 ³/₄

9-127 Additional lens 8 diopter, magnification 1 : 2 '4 9-128 Additional lens 8 diopter, magnification 1 : 3 ³/₄

9-129 Fluorescent tubes 7 W (2 pieces)

LUXO ESD illuminated magnifier

with compact fluorescent tubes 7 W (2 pieces)

The ESD illuminated magnifier is especially manufactured as an optical assistance in ESD protected areas for working at electrostatically endangered components.

The magnifier head is treated with a special antistatical Polyurethan and the spring balanced arm is epoxyd-coated with a special conductive colour.

In order to avoid reflections and to grant an excellent eyesight, the lense is covered with a very special conductive layer.

The ESD magnifier has been tested with good results adequate to EN 100 015-1.

Construction: as 9-121

Technical data: Arm length from bracket to center of lens 94 cm, reflector 15×29 cm, asymmetrical light distribution, lens 17×11 cm, 3.5 diopter, magnification 185 % at a working distance of 25 cm, Schuko-contact-cable 1.75 m, protection class I. Colour: black

9-161 LUXO ESD illuminated magnifier with table bracket, inclusive 2 tubes 7 W

Accessories: 9-129 Fluorescent tubes 7 W (2 pieces)









MAGNIFYING LAMPS OFFICE LAMPS

Magnifying lamp with plastic reflector

for compact fluorescent tube 9 W

Four-tube spring balanced arm from lacquered steel pipe, open chrome-plated springs, twist protection, 1.5 m cable, protection class II.

Technical data: Total arm length 96 cm, table version 60 cm, lens $150 \times 60 \text{ mm}$, 3 diopter, magnification $1:1 \frac{3}{4}$ at a working-distance of 20 cm, reflector 220 x 160 mm. Colour: white

9-171 Magnifying lamp with table stand

9-172 Magnifying lamp with bracket

All lamps will be delivered without tubes. Accessories:

9-179 Fluorescent tube 9 W



Magnifying lamp with plastic reflector

for 40 W incandescent bulb

Four-tube spring balanced arm from lacquered steel pipe, open chrome-plated springs, twist protection, 1.5 m cable, protection class II.

Technical data: Total arm length 95 cm, lens-Ø 100 mm, 3 diopter, magnification 1 : 1 $^{3}/_{4}$ at a working-distance of 20 cm. Colour: white

9-181 **Magnifying lamp** with bracket (table) standard The lamp will be deliverd without incandescent bulb.



9-131

LUXO Office and industry lamp

for 15 W fluorescent tubes (2 pieces)

The reflector is designed to distribute a shadow-free light over a large area with a minimum of heat and glare. The two 15 W fluorescent tubes give a light output equivalent to that of a 150 W incandescent bulb. The lamp head is mounted on a heavy-duty arm with built-in springs and parts, with insulated parts in the joints, turnable into any position. Qualified for vibrant working-places, Schuko-contactcable 1.5 m, protection class I.

Technical data: Total arm length 120 cm, reflector 48 x 10 cm. Colour: white

- 9-131 LUXO Fluorescent lamp with bracket (table) standard The lamp will be delivered without fluorescent tubes. Accessories:
- 9-139 Fluorescent tubes 15 W (2 pieces), white



MAGNIFYING LAMPS SLIM LINE

High quality magnifying lamps, perfect for precise inspection work

9-701 Magnifying Lamp Deluxe

Glass lens 19 x 17,5 cm (magnification 1,75 X, 3 Diopter) 2 x 13 w energy saving tubes (140 w equiv.), to serve by 2 independent switches, flicker-free electronic ballast, total arm length 115 cm, incl. table bracket up to 65 mm, "Clip-on Lens System" for quick change of additonal lens

Accessories:

9-707 Additional Lens for 9-701, magnification 2,75 X, 7 Diopter, when combined with Magnifying Lamp Deluxe

9-711 Magnifying Lamp Ultra-Slim

Glass lens Ø 17,5 cm (magnification 1,75 X, 3 Diopter) 28 w energy saving circular tube (150 w equiv.), flicker-free electronic ballast, total arm length 115 cm, incl. table bracket up to 65 mm,

"Quick Lens Swap System" for quick lens change

- Accessories:
- 9-717 Lens for 9-711, magnification 2,25 X, 5 Diopter

9-721 Magnifying Lamp SLIM LINE

2 lenses each Ø 13 cm (magnification 1,75 X and 2,25 X, 3/5 diopt.), 22 w energy saving circular tube (100 w equiv.), flicker-free electronic ballast,

total arm length 95 cm, incl. table bracket up to 65 mm, "Quick Lens Swap System" for quick lens change

STEREO-MICROSCOPE

with light shadow-free illumination

The microscope is especially well suited for reliable monitoring details of materials and assemblies as well as precision work in SMD technology.

Technical details:

Stereo-Head:	45° oblique view, 360° rotating pupillary distance adjustable from 54 - 74 mm
Size of base: Magnification:	200 x 150 mm 10 x / 20 x
Ocular:	with attachment lens extensionable up to 40 x wide field 10 x
	eyepiece with diopter adjustment +- 5 dpt, eyepiece cup
Support:	stable metal support, length 245 mm, black-white plastic plate for illumination
Illumination:	LED ring light source with light shadow-free illumination, fitted at turret head, life time 20.000 h, with flicker-free LED light (light colour 5800 K), luminosity 0 - 15.000 lux continuously adjustable (with 80 mm work distance), voltage variable from 100 V - 240 V / 60 / 50 Hz, output voltage 18 V / 3,6 W
Work Distance: Visionfield:	83 mm at magnification 10 x / 20 x \emptyset 19 mm 10 x, \emptyset 9,5 mm 20 x

9-155 Stereo-Microscope with table stand

9-158 **Stereo-Microscope** as 9-155, however with stable hinge arm, 850 mm length

as 9-155, however with stable hinge arm, 850 mm length with 3 setscrews in the spring arms, optional adjustable, with table clamp as well as screw down table foot





SOLDERING IRONS AND ACCESSORIES

ERSA fine soldering iron Tip 260 / 16 W

Light and handy soldering iron (16 W) with PTC-heating element and internally heated ERSADUR long-life soldering tip. Short heating time (60 s). Tip temperature: 350° C; voltage: 230 V.

8-110 Tip 260 with ERSADUR long-life soldering tip 0162 BD and holder OA18 Accessories:

8-140	ERSADUR long-life soldering tip, angled face	0162 LD
8-142	ERSADUR long-life soldering tip, chisel-shaped	0162 KD
8-144	ERSADUR long-life soldering tip, pencil point	0162 BD

ERSA fine soldering iron Multitip C 15 / 15 W

Optimal soldering tool for printed circuit boards, small relay connections, wire connection works. Short heating time (60 s), PTC-heating element 154, internally heated ERSADUR long-life soldering tip. Soldering tip temperature: 350° C; voltage: 230 V.

Multitip 0910 BD with ERSADUR long-life soldering tip 0162BD and holder OA18 8-135 Accessories:

8-140	ERSADUR long-life soldering tip, angled face	0162 LD
8-142	ERSADUR long-life soldering tip, chisel-shaped	0162 KD

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8-144	ERSADUR long-life soldering tip, pencil point	0162 BD

ERSA fine soldering iron Multitip C 25 / 25 W

Powerful soldering tool for medium-sized soldering work on plugs, multiterminal strips and printed circuit boards. Short heating time (60 s), PTC-heating element, internally heated ERSADUR long-life soldering tip. Tip temperature: 450° C; voltage: 230 V.

Multitip 0920 BD with ERSADUR long-life soldering tip 0032KD and holder OA18 8-155 Accessories:

8-160	ERSADUR long-life soldering tip, angled face	0172 LD
8-162	ERSADUR long-life soldering tip, chisel-shaped	0172 KD
8-164	ERSADUR long-life soldering tip, pencil point	0172 BD

ERSA universal soldering iron 30 S / 30 (40) W

Universal soldering iron with practical supportable ring and ERSADUR long-life soldering tip tested a million times over. Rating: 30 (40) W; heating time: approx. 2 min; tip temperature: 380 (420)° C; voltage: 230 V.

- 8-145 ERSA 0330 KD with ERSADUR long-life soldering tip 0032KD and holder 3N194
- 8-147 ERSA 0340 KD with ERSADUR long-life soldering tip, 40 W Accessories:
- 8-150 ERSADUR long-life soldering tip, chisel-shaped 0032 KD 8-152 ERSADUR long-life soldering tip, angled face 0032 JD

ERSA electronic temperature-controlled soldering iron Multi-TC, 0760CD

8-170 Electronic temp.-controlled soldering iron, 75 W / 230 V, with ERSADUR long-life soldering tip 0842 CD and holder OA18

ERSA high-speed soldering gun Multi-Sprint, 0960 ED

Unusually light and transformer-independent soldering gun with internally heated ERSADUR long-life soldering tip. Extremely short warm-up and cooling-off time. Optimal soldering equipment for service and maintenance purpose. Cold rating: approx. 150 W - heated rating: approx. 75 W, heating time: approx. 20 s, voltage: 230 V

High-speed soldering gun Multi-Sprint 8-311 with ERSADUR long-life soldering tip 0832 ED LF



ERSA SMD-Vacuumpipette SMD-Vampir SVP 100

Vacuumpipette for easy, safety and precise handling of SMD components. Various antistatic vacuum cups (4, 6 and 9 mm) and the bent vacuum nozzle made from highgrade steel enable a large field of application.







GAS SOLDERING IRONS

The progressive gas soldering iron is suitable for laboratories, service and production.

8-375 ERSA gas soldering iron Independent 75, OGO 70KN with soldering tip OGO 72 KN

adjustable gas supply 15 - 75 W, heating up time ca. 46 sek. (280° C) max. temperature ca. 580 °C.

8-396 PORTASOL gas soldering iron

with soldering tip 8-396-2 adjustable gas supply 10 - 60 W, heating up time ca. 20 sek. max. temperature ca. 450 °C.

Accessories: 8-396-1 spare soldering tip 1.0 mm 8 396-2 spare soldering tip 2.4 mm 8-396-3 spare soldering tip 3.2 mm



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DESOLDERING PUMPS

ERSA desoldering device VAC 2, VAC 3 und VAC X are distinguished by their high suction power. The **antistatic design** of the device allows desoldering work on electrostatically endangered assemblies.

- 8-383 ERSA Desoldering pump OVAC 2, suction capacity 8.9 cm³
- 8-384 ERSA Desoldering pump OVAC 3, suction capacity 10 cm³
- 8-385 ERSA Desoldering pump OVAC X, suction capacity 11.3 cm³

Desoldering suction pumps PRAKTIK

Handy tools in an all-metal cabinet with interchangeable teflon bit, high suction capacity by dual-sealing of the bulb. Colour: gold

8-390 Desoldering pump

195 mm long, 20 mm Ø

VACUUM PUMPS

9-550 (BERNSTEIN) Vacuum pump SMD VAC

with suction hose, pipette, 4 different suction needles

This vacuum pump is distinguished by its low-noise and low-vibration running and is maintenance-free with a long service-life. The pump offers optimum conditions for manual application of SMD components. The vacuum pipette has a finger hole lower down which can be closed with the index finger in order to pick up the component. Technical data: output 5.0 l/min, vacuum 160 mbar, operating pressure 0.4 bar, power supply 220 V / 50 Hz, input 0.5 Amp., dimensions 210 x 150 x 100 mm.

Spare suction needles:

Technical data:

9-550-14 Suction needle, 1.60 mm Ø; 9-550-15 Suction needle, 1.37 mm Ø 9-550-18 Suction needle, 0.84 mm Ø; 9-550-21 Suction needle, 0.51 mm Ø

9-580 Vacuum pump, brand "Schwarzer"

Vacuum 250 mbar Power output 4,5 l/min Voltage 220 V / 50 Hz



INSTRIN) 8-300



