

Precision Tools, Devices & Instruments
For Telecom, Computer and Electronic Industries



OK Industries

Division of Jonard Industries Corp.

OK Industries. Connecting Technologies.

Catalog #104

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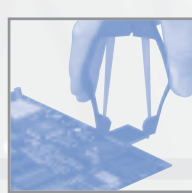
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DESIGN

TECHNOLOGY

PRECISION

QUALITY

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ENHANCING NETWORK RELIABILITY WITH OK INDUSTRIES

Founded in 1946, OK Industries is a major force in the telecommunications and electronics industries and is a division of Jonard Industries Corp. We are a global manufacturer of hand tools for the interconnection of communications networks. Our dependable products employ precision technologies for the preparation and connection of copper cables in applications including public and enterprise voice and data communications. Ask for OK Industries when you wish to build reliability into your networks.

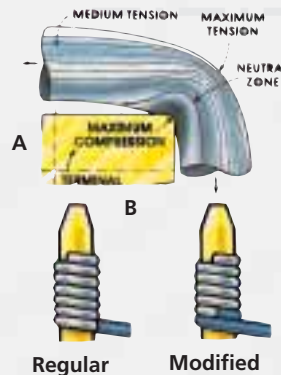


WIRE WRAPPING OVERVIEW

Wire Wrapping is a method of making a wire connection by coiling the bare wire around the sharp corners of a terminal under mechanical tension. The technology was developed as an alternative to soldering, which presents various safety and reliability problems in many applications. A principal advantage of wire wrapping is that it provides a high-reliability connection that is also easily removed to correct or modify a wiring layout. Wire wrapping subjects the wire to tremendous tension and compression forces, causing the oxide layer on both wire and terminal to be crushed or sheared, resulting in a clean, oxide-free metal-to-metal contact. A standard wrap is generally used for 24 AWG and larger diameter wires; a modified wrap is typically used for 24 AWG and smaller wires, and is used almost exclusively for 28 to 30 AWG wires. In either case, the wrap style affects only the connection's mechanical stability; both styles provide suitable electrical connections.

METAL-TO-METAL CONTACT

By bending the wire around the sharp corner of the terminal, the oxide layer on both wire and terminal is crushed or sheared, and a clean, oxide-free metal-to-metal contact is obtained.



STRIP FORCE CHART *

Wire Size AWG	Dia.		Min. number of turns (Bare Wire)	Min. strip force	
	inches	mm		lbs.	gms
16	.051	1.30	4	15	6800
18	.0403	1.00	4	15	6800
20	.032	0.80	5	8	3600
22	.0253	0.65	5	8	3600
24	.0201	0.50	6	7	3200
26	.0159	0.40	7	6	2700
28	.0126	0.32	7	5	2200
30	.0100	0.25	7	3.3	1500

*Conforms to MIL-STD-1130B

TYPES OF WRAP

A "Regular" bit wraps the bare wire around the terminal. A "Modified" bit wraps a portion of insulation around the terminal in addition to the bare wire. This greatly increases the ability to withstand vibration.

HOW TO MAKE WIRE WRAPPED CONNECTIONS

HOW TO MAKE WIRE WRAPPED CONNECTIONS

- Step 1: Bit, Sleeve and Pre-Stripped Wire**
- Step 2: Wire Insertion**
- Step 3: Wire Anchoring**
- Step 4: Terminal Insertion**
- Step 5: Finished Connection**

SOME HINTS ON MAKING WRAPPED CONNECTIONS

OVERWRAP
Do not press too hard. Let the OK tools do the work. Excessive pressure can lead to overwrapping. Backforce "BF" to prevent overwrapping is available on most power tools and is recommended for use with 26 through 30 AWG wire.

OPEN WRAP & SPIRAL WRAP
Just keep the OK tool on the terminal until the wrap is complete. Early removal can result in spiral and open wraps.

INSUFFICIENT TURNS
It's easy to feed wire into the slot in the OK bit correctly. Be sure the stripped end of the wire is "pushed-in" all the way.

PIGTAIL
Wire wrapping is a precision technique and the wrong bit and sleeve just cannot do the job. Improper selection can cause problems ranging from "Pigtails" to loose wraps.

TERMINAL DIAGONAL CHART

DIMENSION B

In.	.010	.015	.020	.025	.030	.035	.040	.045	.050	.055	.060	.065	.070	.075	.080	.085	.090	.095	.100
mm	0.25	0.38	0.51	0.64	0.76	0.89	1.02	1.14	1.27	1.40	1.52	1.65	1.78	1.91	2.03	2.16	2.29	2.41	2.54
.010	.014	.018	.022	.027	.032	.036	.041	.046	.051	.056	.061	.066	.071	.076	.081	.086	.091	.096	.101
.025	0.36	0.46	0.56	0.69	0.81	0.91	1.04	1.17	1.30	1.42	1.55	1.68	1.80	1.93	2.06	2.18	2.31	2.44	2.57
.015	.018	.021	.025	.029	.033	.038	.043	.047	.052	.057	.062	.067	.072	.077	.082	.087	.092	.097	.102
.038	0.46	0.53	0.64	0.74	0.84	0.97	1.09	1.19	1.32	1.45	1.58	1.70	1.83	1.96	2.08	2.21	2.34	2.46	2.59
.020	.022	.025	.028	.032	.036	.040	.045	.049	.053	.058	.063	.068	.073	.078	.083	.088	.093	.098	.103
.051	0.56	0.64	0.71	0.81	0.91	1.02	1.14	1.25	1.35	1.47	1.60	1.73	1.85	1.98	2.11	2.24	2.36	2.49	2.62
.025	.027	.029	.032	.035	.039	.043	.047	.050	.056	.060	.065	.069	.074	.079	.084	.089	.094	.099	.104
.064	0.69	0.74	0.81	0.89	0.99	1.09	1.19	1.27	1.42	1.52	1.65	1.75	1.88	2.01	2.13	2.26	2.39	2.52	2.64
.030	.032	.033	.036	.039	.042	.046	.050	.054	.058	.062	.067	.071	.076	.080	.085	.090	.095	.100	.105
.076	0.81	0.84	0.91	0.99	1.07	1.17	1.27	1.37	1.47	1.58	1.70	1.80	1.93	2.03	2.16	2.29	2.41	2.54	2.67
.035	.036	.038	.040	.043	.046	.049	.052	.056	.060	.064	.069	.073	.078	.082	.087	.091	.096	.101	.106
.089	0.91	0.97	1.02	1.09	1.17	1.25	1.32	1.42	1.52	1.63	1.75	1.85	1.98	2.08	2.21	2.31	2.44	2.57	2.69
.040	.041	.043	.045	.047	.050	.052	.056	.060	.064	.068	.072	.076	.080	.084	.089	.092	.097	.102	.107
1.02	1.04	1.09	1.14	1.19	1.27	1.32	1.42	1.52	1.63	1.73	1.83	1.93	2.03	2.13	2.26	2.34	2.46	2.59	2.72
.045	.046	.047	.049	.050	.054	.056	.060	.063	.067	.071	.074	.078	.083	.087	.091	.096	.101	.105	.109
1.14	1.17	1.19	1.25	1.27	1.37	1.42	1.52	1.60	1.70	1.80	1.88	1.98	2.11	2.21	2.31	2.44	2.57	2.67	2.77
.050	.051	.052	.053	.056	.058	.060	.064	.067	.071	.074	.078	.082	.086	.090	.094	.098	.103	.107	.111
1.27	1.30	1.32	1.35	1.42	1.47	1.52	1.63	1.70	1.80	1.88	1.98	2.08	2.18	2.29	2.39	2.49	2.62	2.72	2.82

Example: If "A"=.020". "B"=.060". The terminal diagonal is .063" as shown on chart.

PTX SERIES

WIRE WRAPPING & UNWRAPPING TOOLS



The PTX Series Wire Wrapping Tools from OK Industries bring revolutionary new benefits to installers, telecom technicians and other users. With worker safety in mind, we consulted a certified ergonomist and created an ergonomic tool, which includes a lightweight, well-balanced construction, dual-finger short-throw trigger, and a long handle to mitigate pressure on the palm. These features help to prevent repetitive stresses and result in an industry-leading design from a comfort and safety standpoint. Ask for the PTX Series Wire Wrapping Tools from OK Industries — and arm your workers with the tools that offer efficiency and worker safety in your interconnect activity.

KEY FEATURES

- Ergonomic Design — Minimizes Repetitive Stress
- Rugged Construction for Field Usage
- Battery and Electric Powered Versions Available
- Wraps and Unwraps 20 to 30 AWG Wire
- Rated Maximum Usage: 2,500 cycles/day
- For Bits & Sleeves: see Pages 7, 10-12

ORDERING INFORMATION AND PRODUCT SPECIFICATIONS

Part No.	Description	Weight	Voltage	RPM
PTX	Battery Wrap/Unwrap Tool (Battery not included)	1.2 lb.	3.6V*	3700
PTX-1	Electric Wrap/Unwrap Tool - 115V	0.86 lb.	115V	3700
PTX-1BF	Electric Wrap/Unwrap Tool w/Backforce - 115V	0.86 lb.	115V	3700
PTX-2	Electric Wrap/Unwrap Tool - 230V	1.0 lb.	230V	4200
PTX-2BF	Electric Wrap/Unwrap Tool w/Backforce - 230V	1.0 lb.	230V	4200
PTX-KIT1	115V battery tool kit (tool, charger, (2) batteries)	1.2 lb.	3.6V*	3700
PTX-KIT1DH	PTX-KIT1 w/DFB224 and H-1000	1.2 lb.	3.6V*	3700
PTX-KIT2	230V battery tool kit (tool, charger, (2) batteries)	1.2 lb.	3.6V*	4200

* Powered by long-life NiMH battery

ACCESSORIES

- **PTX-B** PTX Battery, 3.6V
- **PTX-BC1** 115V Battery Charger
- **PTX-BC2** 230V Battery Charger
- **H-1000** Cordura Tool Pouch



PTX-BC1



PTX-B



H-1000



OK Industries

Phone (914) 793-0700 • Fax (914) 793-4527 email: sales@jonard.com

PTX-KIT1DH

BATTERY WIRE WRAPPING & UNWRAPPING KIT

ERGONOMIC

**BATTERY POWERED BY
LONG-LIFE NIMH BATTERY**

KEY FEATURES

- Ergonomic Design—
Minimizes Repetitive Stress
- Rugged Construction for
Field use
- Wraps and Unwraps
18 to 30 AWG Wire
- Dual Finger Short-throw
Trigger
- Rated for 2,500 Cycles/Day



PRODUCT SPECIFICATIONS



PTX-B



H-1000



PTX-BC1



DFB 224

Part No.: PTX-Kit1DH

Kit Contains: PTX Battery wrap/unwrap tool
PTX-BC1 Charger
PTX-B 2 Batteries
DFB224 (dual function wrapping/unwrapping
bit/sleeve set, 22-24 AWG)
H-1000 Cordura Tool Pouch

Weight: 1.2 lbs.

Voltage: 3.6V (NiMH Battery)

RPM: 3,700

For a complete listing of bits and sleeves- see pages 7, 10-12

DUAL FUNCTION

WRAP/UNWRAP BIT & SLEEVE SETS



OK INDUSTRIES INTRODUCES THE DFB224 & DFB2426 DUAL FUNCTION BIT/SLEEVE SETS

This innovative product represents a truly revolutionary approach to wire wrapping, by combining both the wrap and the unwrap functions into one bit/sleeve set. The bit is precision machined for high quality wrapping in the clockwise direction, but also includes the removal mechanism that is used to unwrap when operated counterclockwise. The user can quickly and easily switch back and forth between wrap and unwrap mode by retracting or extending the retractable sleeve, and flipping the switch on a wrap/unwrap power tool (i.e., a power wire wrapping tool with reversible motor). This product, which can wrap or unwrap 22–26 AWG wire (depending on set), enables the user to maximize operating efficiency while eliminating the need to purchase and carry extra tools or bits for unwrapping. Also, to prevent pin-to-pin shorting, the retractable sleeve is coated with a durable 1000V dielectric material.

Part #	Description	Wire Size AWG MM	Min. Terminal Diagonal		Max. Terminal Diagonal		Terminal Hole Depth		Terminal Hole Diameter		Effective Radius	
			IN.	MM	IN.	MM	IN.	MM	IN.	MM	IN.	MM
DFB224	Wrap/Unwrap Bit/Sleeve Set 22-24 AWG	22/24 .50/.65	.054	1.37	.073	1.85	0.50	25.40	.075	1.90	.111	2.82
KB-DF224	Replacement bit for DFB224											
P-DF224	Replacement Sleeve for DFB224											
DFB2426	Wrap/Unwrap Bit/Sleeve Set 22-24 AWG	24/26 .40/.50	.054	1.37	.065	1.65	0.50	25.40	.066	1.67	.098	2.48
KB-DF2426	Replacement bit for DFB2426											
P-DF2426	Replacement Sleeve for DFB2426											

HOW TO USE THE DFB224 & DFB2426

The Wrap/Unwrap bit is shipped with the sleeve set in the wrap position. To change to the unwrap function simply pull the sleeve out approximately 1/4" (the sleeve is spring loaded and you should feel some tension while pulling forward), rotate the sleeve in either direction 180° and release. The sleeve should now be seated approximately 1/4" lower than in the wrap position. This will expose the unwrap feature on the bit.

To change back to the wrap position pull the sleeve out approximately 1/2" and rotate the sleeve in either direction 180° and release. The spout should be in the 12:00 position and the sleeve should be locked in position.

Note: If you cannot rotate the sleeve, you need to pull the sleeve out further before trying to rotate the sleeve.



OK Industries

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MANUAL WIRE

WRAPPING & UNWRAPPING TOOLS



G100/R3278INS Insulated



G200/R3278 Lexan™



G100/R3278 Aluminum

MANUAL WIRE WRAPPING TOOLS

- G200/R3278 : Lexan™
- G100/R3278 : Aluminum
- G100/R3278INS : Aluminum (insulated)
- For Bits & Sleeves : see pages 7, 10-12

For precise reliable wraps, choose the tool you want. We offer durability with our rugged aluminum tool, G100/R3278, added protection with our insulated version, G100/R3278INS, providing 1000V of dielectric strength across most of the housing, and the same reliability, light weight plus a lower cost with our Lexan® model, G200/R3278. These tools accommodate wire sizes from 22 AWG (0.65mm) thru 32 AWG (0.20mm).

MANUAL WIRE UNWRAPPING TOOL

The combination of the G100/R3394CT unwrap tool and the PUW unwrap bit & sleeve set gives you the best tool for high speed wire unwrapping. High production, long life, low maintenance. Use Unwrap Set PUW2226 for wire AWG 20 thru 26 (0.80 thru 0.40mm).

- G100/R3394CT : Manual Wire Unwrapping Tool
(See bit & sleeve listed below)



G100/R3394CT



Unwrap Bit Part No.	Unwrap Sleeve Part No.	Bit and Sleeve Set Set No.	Wire Size		Terminal Hole Diameter	
			AWG	mm	Inches	mm
2026-UB	SOK2230	PUW2226	20-26	0.80-0.40	.070	1.77

MANUAL WIRE

WRAPPING TOOL KITS

These are complete kits for technicians working at a Main Distributing Frame or for field service where wire wrapping is required. The WWK-1 Wire Wrap kit is our standard version for all 22-24 AWG applications. Our WWK-11NS Insulated Wire Wrap Kit provides the same AWG applications, plus the added safety of 1000V dielectric protection across most of the housing of the G100/R3278INS Insulated Wire Wrap Gun. Other components (P2224INS sleeve and UW4) also possess insulated properties. Both kits include our popular H-1000 cordura pouch for carrying convenience.

TELECOM WIRE WRAP KITS

Part No.: WWK-1: Wire Wrap Kit

Kit Contains: G200/R3278 Speed Wrap Tool
KB224 coilbite bit 22-24 AWG
P2224 coilbite sleeve 22-24 AWG
HW-UW-224 Wrap/unwrap tool
ST-100 wire stripper 22-24 AWG
H-1000 Cordura Pouch



Part No.: WWK-11NS: Insulated Wire Wrap Kit

Kit Contains: G100/R3278INS Insulated Speed Wrap tool
KB224 coilbite bit 22-24 AWG
P2224INS Insulated coilbite sleeve 22-24 AWG
UW4 sleeved unwrapping tool 20-26 AWG
ST-100 Wire stripper 22-24 AWG
H-1000 Cordura Pouch



BITS & SLEEVES WIRE WRAPPING



Fully compatible with any make or model wire wrapping tool.

3" BITS AND SLEEVES CHART (AWG) INCHES

Wire Gauge (AWG)	Regular	Modified	Bit Part No.	Sleeve Part No.	Maximum Insulation Diameter Inches	Minimum Terminal Diagonal Inches	Maximum Terminal Diagonal Inches	Terminal Hole Depth Inches	Effective Radius Inches	Terminal Hole Diameter Inches
20		●	WB20M	P194LN	.059	.042	.073	1.000	.150	.075
20-22	●		KB2075	P2224	-	.042	.073	1.000	.123	.075
22	●		KB22	P2224	-	.054	.073	.750	.117	.075
22		●	WB2275M	P2224	.052	.049	.074	1.000	.132	.075
22-24	●		KB224LH	P2224	-	.061	.085	1.000	.117	.086
22-24	●		KB224-1	P2224	-	.054	.073	1.000	.111	.075
22-24	●		KB224	P2224	-	.054	.073	.807	.111	.075
22-24		●	WB224M	P2224	.050	.049	.074	1.250	.121	.075
24		●	WB24DH	P2224	.046	.054	.073	1.750	.117	.075
24	●		KB24	P2426	-	.055	.074	.750	.100	.075
24		●	*WB24SM	P3032LN	.044	.024	.043	.750	.098	.044
24-26		●	WB2426M	P2224	.046	.054	.073	.750	.118	.075
26	●		KB26	P2426	-	.058	.073	1.000	.100	.075
26		●	*WB26SM	P26LN	.031	.023	.038	.750	.075	.040
26		●	WB26M	P2224	.046	.054	.073	1.000	.118	.075
26		●	*WB2644M	P3032LN	.046	.024	.043	.750	.098	.044
26		●	WB2669M	P2426	.041	.053	.068	1.000	.109	.069
28		●	WB2870M	P2426	.034	.053	.068	1.000	.103	.070
28		●	WB285HM	P3032	.030	.031	.035	.750	.066	.036
30		●	*SB30MSH-B	P3032	.027	.031	.035	.750	.064	.036
30		●	*SB30MMK	P3032	.023	.031	.035	.750	.064	.036
30-32		●	*WB3032M	P3032	.027	.034	.038	.750	.064	.040
30-32	●		KB3032	P3032	-	.034	.038	.750	.064	.040

*These tools are recommended for .025" square terminals on .100" centers

BITS & SLEEVES

WIRE WRAPPING BITS & SLEEVES



Fully compatible with any make or model wire wrapping tool.

3" BITS AND SLEEVES CHART METRIC

Wire Gauge mm	Regular	Modified	Bit Part No.	Sleeve Part No.	Maximum Insulation Diameter mm	Minimum Terminal Diagonal mm	Maximum Terminal Diagonal mm	Terminal Hole Depth mm	Effective Radius mm	Terminal Hole Diameter mm
0.80		●	WB20M	P194LN	1.50	1.07	1.85	25.40	3.81	1.90
0.65-0.80	●		KB2075	P2224	-	1.07	1.85	25.40	3.12	1.90
0.65	●		KB22	P2224	-	1.37	1.85	19.05	2.97	1.90
0.65		●	WB2275M	P2224	1.32	1.24	1.87	25.40	3.35	1.90
0.50-0.65	●		KB224LH	P2224	-	1.54	2.15	25.40	2.97	2.18
0.50-0.65	●		KB224-1	P2224	-	1.37	1.85	25.40	2.82	1.90
0.50-0.65	●		KB224	P2224	-	1.37	1.85	20.50	2.82	1.90
0.50-0.65		●	WB224M	P2224	1.27	1.24	1.87	31.75	3.07	1.90
0.50		●	WB24DH	P2224	1.17	1.37	1.85	44.50	2.97	1.90
0.50	●		KB24	P2426	-	1.39	1.87	19.05	2.54	1.90
0.50		●	*WB24SM	P3032LN	1.11	0.60	1.09	19.05	2.48	1.11
0.40-0.50		●	WB2426M	P2224	1.17	1.37	1.85	19.05	2.99	1.90
0.40	●		KB26	P2426	-	1.47	1.85	25.40	2.54	1.90
0.40		●	*WB26SM	P26LN	0.79	0.58	0.96	19.05	1.90	1.02
0.40		●	WB26M	P2224	1.17	1.37	1.85	25.40	2.99	1.90
0.40		●	*WB2644M	P3032LN	1.17	0.60	1.09	19.05	2.48	1.11
0.40		●	WB2669M	P2426	1.04	1.34	1.72	25.40	2.77	1.75
0.32		●	WB2870M	P2426	0.86	1.35	1.72	25.40	2.61	1.78
0.32		●	*WB285HM	P3032	0.76	0.79	0.89	19.05	1.67	0.91
0.25		●	*SB30MSH-B	P3032	0.69	0.79	0.89	19.05	1.62	0.91
0.25		●	*SB30MMK	P3032	0.58	0.79	0.89	19.05	1.62	0.91
0.20-0.25		●	*WB3032M	P3032	0.69	0.86	0.96	19.05	1.62	1.02
0.20-0.25	●		KB3032	P3032	-	0.86	0.96	19.05	1.62	1.02

*These tools are recommended for .025" square terminals on .100" centers

BITS & SLEEVES

SPECIALIZED BITS & SLEEVES

Bits and Insulated Sleeves

The insulated sleeves are covered with a material that provides 1000V dielectric strength which helps to prevent shorting between pins and enhances worker safety.



KB22



P2224INS

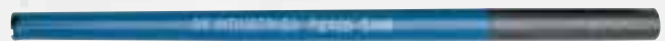
Bit Part No.	Sleeve Part No.	Wire Size		Regular	Modified	Maximum Insulation Diameter		Minimum Terminal Diagonal		Maximum Terminal Diagonal		Terminal Hole Depth		Effective Radius		Terminal Hole Diameter	
		AWG	mm			In.	mm	In.	mm	In.	mm	In.	mm	In.	mm		
KB22	P2224INS	22	0.65	●		-	-	.054	1.37	.073	1.85	.750	19.05	.117	2.97	.075	1.90
KB224	P2224INS	22-24	0.50-0.65	●		-	-	.054	1.37	.073	1.85	.807	20.50	.111	2.82	.075	1.90
KB24	P2426INS	26	0.50	●		-	-	.055	1.39	.074	1.87	.750	19.05	.100	2.54	.075	1.90
KB26	P2426INS	26	0.40	●		-	-	.058	1.47	.073	1.85	1.0	25.40	.100	2.54	.075	1.90
KB3032	P3032INS	30-32	0.32	●		-	-	0.034	0.86	0.038	0.96	0.75	19.05	0.064	1.62	0.04	1.02

2" (5cm) Longer than Standard Bits & Sleeves Extended Length (5") Bits Plus Insulated and Noninsulated Sleeves

These bits and sleeves are designed for wire wrapping in areas requiring deep penetration. Their 5" (127mm) length ensures "true" connections in hard-to-get-at locations. Available with or without insulation.



KB24-5

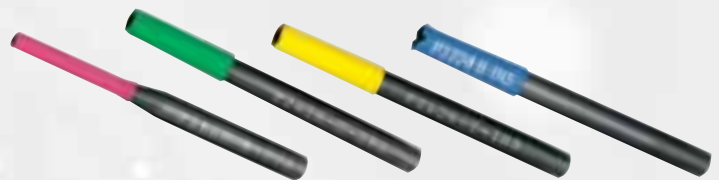


P2426-5INS

Bit Part No.	Insulated Sleeve Part No.	Uninsulated Sleeve Part No.	Wire Size		Regular	Maximum Insulation Diameter		Minimum Terminal Diagonal		Maximum Terminal Diagonal		Terminal Hole Depth		Effective Radius		Terminal Hole Diameter	
			AWG	mm		In.	mm	In.	mm	In.	mm	In.	mm	In.	mm		
KB22-5	P2224-5INS	P2224-5	22	0.65	●	-	-	.054	1.37	.073	1.85	.750	19.05	.117	2.97	.075	1.90
KB24-5	P2426-5INS	P2426-5	24	0.50	●	-	-	.055	1.39	.073	1.85	.750	19.05	.100	2.54	.075	1.90
KB26-5	P2426-5INS	P2426-5	26	0.40	●	-	-	.058	1.47	.073	1.85	.750	19.05	.100	2.54	.075	1.90

3" Bit & Sleeve Sets With Insulated Color Coded Sleeves

Enjoy the convenience of pre-assembled sets with insulated color-coded sleeves for easy identification of wire sizes based on color.

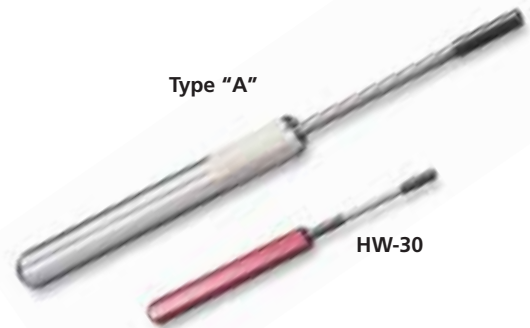


Kit Number	Bit Part No.	Sleeve Part No. Color	Wire Size		Regular	Modified	Maximum Insulation Diameter		Minimum Terminal Diagonal		Maximum Terminal Diagonal		Terminal Hole Depth		Effective Radius		Terminal Hole Diameter	
			AWG	mm			In.	mm	In.	mm	In.	mm	In.	mm	In.	mm		
KT22B	KB22	P2224-B-INS Blue	22	0.65	●		-	-	.054	1.37	.073	1.85	.750	19.05	.117	2.97	.075	1.90
KT224B	KB224	P2224-B-INS Blue	22-24	0.50-0.65	●		-	-	.054	1.37	.073	1.85	.807	20.05	.111	2.82	.075	1.90
KT24Y	KB24	P2426-Y-INS Yellow	24	0.50	●		-	-	.055	1.39	.074	1.87	.750	19.05	.100	2.54	.075	1.90
KT26G	KB26	P2426-G-INS Green	26	0.40	●		-	-	.058	1.47	.073	1.85	1.000	25.40	.100	2.54	.075	1.90
KT26R	WB26SM	P26LN-R-INS Red	26	0.40		●	.031	0.79	.023	0.58	.038	0.96	.750	19.05	.750	1.90	.040	1.02

HAND WRAPPING AND UNWRAPPING TOOLS

HAND WRAPPING TOOLS

These Hand Wrapping Tools are carefully designed to produce perfect wire wrapped connections. Precision, long-lasting tools for use where occasional wraps are required or where power wire-wrapping tools are not practical. Compact and convenient.



Part No.	Reg.	Mod.	Type	Wire Size		Max. Insulation Diameter		Terminal Hole Diameter		Terminal Hole Depth		Outside Diameter	
				AWG	mm	Inches	mm	Inches	mm	Inches	mm	Inches	mm
HW-20	●		A	20	0.80	-	-	.075	1.90	1.000	25.40	.218	5.53
HW-224	●		A	22-24	0.65-0.50	-	-	.075	1.90	.807	20.50	.218	5.53
HW-224LH	●		A	22-24	0.65-0.50	-	-	.086	2.18	1.000	25.40	.218	5.53
HW-26	●		A	26	0.40	-	-	.075	1.90	1.000	25.40	.218	5.53
*HW-30		●		30	0.25	.027	0.69	.036	0.91	.750	19.05	.125	3.17

*These tools are recommended for .025" (0.63mm) square terminals on .100" (2.54mm) centers

HAND UNWRAPPING TOOLS

These tools are used to remove wire connections using 18 thru 32 gauge wire.



Part No.	Type	Wire Size		Type of Unwrap	Terminal Hole Diameter		Terminal Hole Depth		Outside Diameter	
		AWG	mm		Inches	mm	Inches	mm	Inches	mm
UW1	D	20-26	0.80-0.40	Left Hand	.070	1.77	1.000	25.40	.156	3.96
UW2	C	20-26	0.80-0.40	Left and Right Hand	.070	1.77	1.000	25.40	.156	3.96
UW4	B	20-26	0.80-0.40	Left Hand	.070	1.77	2.360	60.00	.187	4.74
UW5	B	20-26	0.80-0.40	Left and Right Hand	.070	1.77	2.360	60.00	.187	4.74
UW093R	D	24-32	0.50-0.20	Left Hand	.038	0.96	1.000	25.40	.093	2.36
UWD93-93	C	24-32	0.50-0.20	Left and Right Hand	.038	0.96	1.000	25.40	.093	2.36
UW2832C	B	28-32	0.32-0.20	Left and Right Hand	.038	0.96	.750	19.05	.156	3.96

HAND WRAPPING AND UNWRAPPING TOOLS

HAND WRAPPING TOOLS

These Hand Wrapping Tools are carefully designed to produce perfect wire wrapped connections. Precision, long-lasting tools for use where occasional wraps are required or where power wire-wrapping tools are not practical. Compact and convenient.



HAND WRAPPING AND UNWRAPPING TOOLS

To switch from wire wrapping to unwrapping takes only seconds - just a quick change of the cap from one end to the other.

WRAPPING SIDE												UNWRAPPING SIDE								
Part Number	Reg	Mod	Wire Size		Max. Insulation Diameter		Terminal Hole Diameter		Terminal Hole Depth		Outside Diameter		Wire Size	Terminal Hole Diameter	Terminal Hole Depth	Outside Diameter				
			AWG	mm	In.	mm	In.	mm	In.	mm	AWG	mm					In.	mm		
HW-UW-18-19	●		18-19	1.00 0.91	-	-	.075	1.90	1.000	25.40	.250	6.35	18-19	1.00 0.91	.075	1.90	1.000	25.40	.187	4.74
HW-UW-20	●		20	0.80	-	-	.075	1.90	1.000	25.40	.218	5.53	20-26	0.80 0.40	.070	1.77	1.000	25.40	.156	3.96
HW-UW-224	●		22-24	0.50 0.65	-	-	.075	1.90	.807	20.50	.218	5.53	20-26	0.80 0.40	.070	1.77	1.000	25.40	.156	3.96
HW-UW-224-1	●		22-24	0.50 0.65	-	-	.075	1.90	1.000	25.40	.218	5.53	20-26	0.80 0.40	.070	1.77	1.000	25.40	.156	3.96
HW-UW-224LH	●		22-24	0.50 0.65	-	-	.086	2.18	1.000	25.40	.218	5.53	20-26	0.80 0.40	.086	2.18	.750	19.05	.156	3.96
HW-UW-2426	●		24-26	0.40 0.50	-	-	.075	1.90	.750	19.05	.218	5.53	20-26	0.80 0.40	.070	1.77	1.000	25.40	.156	3.96
HW-UW-26	●		26	0.40	-	-	.075	1.90	1.000	25.40	.218	5.53	20-26	0.80 0.40	.070	1.77	1.000	25.40	.156	3.96
*HW-UW-26SM		●	26	0.40	.031	0.79	.040	1.02	.750	19.05	.125	3.17	24-32	0.50 0.20	.038	0.96	1.000	25.40	.093	2.36
HW-UW-2829M		●	28-29	0.29 0.32	.036	0.91	.040	1.02	.750	19.05	.156	3.96	24-32	0.50 0.20	.038	0.96	1.000	25.40	.093	2.36
HW-UW-30		●	30	0.25	.027	0.69	.036	0.91	.750	19.05	.125	3.17	24-32	0.50 0.20	.038	0.96	1.000	25.40	.093	2.36

*These tools are recommended for .025" (0.63mm) square terminals on .100" (2.54mm) centers.

WRAP / STRIP / UNWRAP TOOLS

WSU-2224
(Regular Wrap)

WSU-24M
(Modified Wrap)

WSU-26M
(Modified Wrap)

WSU-30
(Regular Wrap)

WSU-30M
(Modified Wrap)



Wrap/Strip/Unwrap Tools

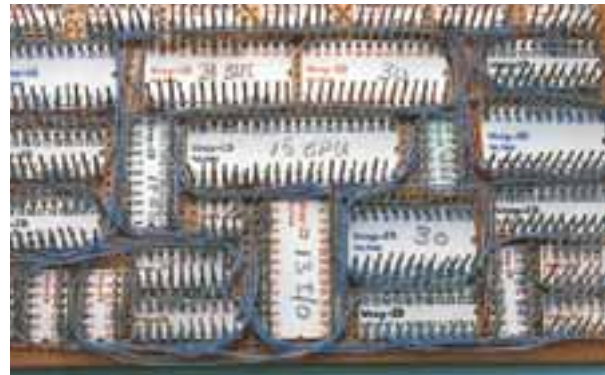
Each WSU tool wraps, unwraps and even strips the appropriate wire diameter with a unique built-in stripper blade. Ideal for bench use or tool kit in all service and repair applications. In addition to versatility, convenience, and reliability, the WSU Series offers exceptional value.

Part No.	Wire Size		Terminal Hole Diameter		Terminal Hole Depth		Outside Diameter		Square Post	
	AWG	mm	In.	mm	In.	mm	In.	mm	In.	mm
WSU-2224	22-24	0.65-0.50	.075	1.90	1.50	38.1	.213	5.4	.045	1.14
WSU-24M	24	0.50	.075	1.90	1.50	38.1	.213	5.4	.045	1.14
WSU-26M	26	0.40	.075	1.90	1.50	38.1	.213	5.4	.045	0.63
WSU-30	30	0.25	.036	0.91	1.50	38.1	.125	3.2	.025	0.63
WSU-30M	30	0.25	.036	0.91	1.50	38.1	.125	3.2	.025	0.63

SOCKET-WRAP I.D.™

Increase Wiring Speed and Reduce Errors.

Used to identify pin numbers on wire wrapping sockets. Consisting of a socket-sized plastic panel with numbered holes in the pin location, the Socket Wrap-ID is simply slipped onto the socket before wrapping. You can also write on them for easy identification of location, IC Part number, function, etc. These unique items greatly simplify both initial wire wrapping and subsequent troubleshooting or repair. A great help to technicians, and production facilities alike.



Part No.	Pins	Row Spacing	Qty./Pkg.
ID-8-100	8	.3" (7.5mm)	100
ID-14-100	14	.3" (7.5mm)	100
ID-16-100	16	.3" (7.5mm)	100
ID-18-50	18	.3" (7.5mm)	50
ID-20-50	20	.3" (7.5mm)	50
ID-22-50	22	.4" (10mm)	50
ID-24-50	24	.6" (15mm)	50
ID-28-50	28	.6" (15mm)	50
ID-40-25	40	.6" (15mm)	25
ID-96-25	96	.3" (7.5mm)	25



OK Industries

Phone (914) 793-0700 • Fax (914) 793-4527

email: sales@jonard.com

COPPER WIRE CUT & STRIP TOOLS

WIRE CUT-AND-STRIP TOOLS - ST-100 SERIES

A revolutionary concept for easy and clean stripping of wires for wire wrapping, electronic and appliance applications. Biomechanically designed for maximum efficiency.

Easy to operate... place wire (up to 4) in stripping slot with ends extending beyond cutter blades... press tool and pull... wire is cut and stripped to proper "wire wrapping" length. The hardened steel cutting blades and sturdy construction of the tool ensure long life. Strip length easily adjustable for your application. Blades are made from specially tempered spring steel for clean, nick-free wire stripping.



ST-100-30

Part No.	Wire Size		Adjustable Strip-Off Length		Replacement Blade
	AWG	mm	Inches	mm	
ST-100	22-24	0.65-0.50	1 5/16" to 1 9/16"	33.33 to 39.68	OK-3907B
ST-100-26	26	0.40	1 15/16" to 1 11/16"	33.33 to 42.86	OK-3907-26B
ST-100-28	28	.32	7/8" to 1 1/8"	22.22 to 28.57	OK-3907-28B
ST-100-30	30	.25	7/8" to 1 1/8"	22.22 to 28.57	OK-3907-30B

ADJUSTABLE PRECISION WIRE STRIPPERS OK-3907 SERIES

The OK-3907 Series from OK Industries is the industry's leading cut-and-strip tool for copper interconnect applications. Installers and telecom technicians enjoy its rugged construction, comfortable rubber grips, and high-leverage handle design, which allows time savings through the simultaneous cutting of multiple wires. Blades are made from specially tempered spring steel for clean, nick-free wire stripping.



OK-3907

Part No.	Wire Size		Adjustable Strip-Off Length		Replacement Blade
	AWG	mm	Inches	mm	
OK-3907	22-24	0.65	1-1/2" to 1-3/4"	38.10 to 44.45	OK-3907B
OK-3907-26	26	0.40	1-1/2" to 1-3/4"	38.10 to 44.45	OK-3907-26B
OK-3907-30	30	0.25	7/8" to 1 1/8"	22.22 to 28.57	OK-3907-30B

ADJUSTABLE PRECISION WIRE STRIPPERS ST-500 & ST-550

The ST-500 and ST-550 Adjustable Precision Wire Strippers feature an adjustment dial that allows the operator to select one of six different settings. A calibrated wire stop can then be adjusted for the desired insulation strip length. In a single motion, the operator squeezes and pulls the tool. This action engages four specially hardened blades to cleanly cut the wire insulation while the pulling motion breaks the insulation / conductor bond.

- Adjustable to six wire gauges:
ST-500 20 to 30 AWG
ST-550 18 to 28 AWG
- Calibrated Wire Stop
- Single action squeeze-pull motion
- Clean, precise strip of any insulation type
- Shirt-pocket size and light-weight (<1oz.)

Part No.	ST-500	ST-550
Wire Gauge	20-30 AWG	18-28 AWG
Calibrated Strip Length	Adjustable to 2" (50.8mm)	Adjustable to 2" (50.8mm)
Insulation Type	Any	Any
Dimensions (L x H x Thickness)	3.9" x 1.6" x 0.6" (99mm x 42mm x 14mm)	3.9" x 1.6" x 0.6" (99mm x 42mm x 14mm)
Housing Material	ABS	ABS
Blade	Hardened Steel (RC 58)	Hardened Steel (RC 58)



ST-500 & ST-550

WIRE WRAPPING ACCESSORIES



UL Listed

KYNAR™ Insulated, Silver Plated Copper Conductor

24 AWG (0.50mm) Insulation diameter .030" (0.76mm)

Roll Size	White	Yellow	Blue	Red	Black
100ft. (30.4m) roll	R24W-0100	R24Y-0100	R24B-0100	R24R-0100	R24BLK-0100

26 AWG (0.40mm) Insulation diameter .027" (0.69mm)

Roll Size	White	Yellow	Blue	Red	Black
100ft. (30.4m) roll	R26W-0100	R26Y-0100	R26B-0100	R26R-0100	R26BLK-0100

28 AWG (0.32mm) Insulation diameter .024" (0.60mm)

Roll Size	White	Yellow	Blue	Red	Black
100ft. (30.4m) roll	R28W-0100	R28Y-0100	R28B-0100	R28R-0100	R28BLK-0100

30 AWG (0.25mm) Insulation diameter .0195" (0.50mm)

Roll Size	White	Yellow	Blue	Red	Black
100ft. (30.4m) roll	R30W-0100	R30Y-0100	R30B-0100	R30R-0100	R30BLK-0100
1000ft. (304.0m) roll	R30W-1000	R30Y-1000	R30B-1000	R30R-1000	R30BLK-1000

KSW Wire Wrapping Wire Rolls for Cut/Strip/Wrap Applications

Low strip force Kynar™ insulated wire for use with CSW bits and sleeves

Wire Size		Insulation Dia.		Roll Size		Blue	Yellow	White	Black	Red
AWG	mm	In.	mm	Feet	Meters					
24	0.50	.030	0.76	100	30.4	KSW 24B-0100	KSW 24Y-0100	KSW 24W-0100	KSW 24BLK-0100	KSW 24R-0100
26	0.40	.027	0.69	100	30.4	KSW 26B-0100	KSW 26Y-0100	KSW 26W-0100	KSW 26BLK-0100	KSW 26R-0100
28	0.32	.0235	0.58	100	30.4	KSW 28B-0100	KSW 28Y-0100	KSW 28W-0100	KSW 28BLK-0100	KSW 28R-0100
30	0.25	.0195	0.50	100	30.4	KSW 30B-0100	KSW 30Y-0100	KSW 30W-0100	KSW 30BLK-0100	KSW 30R-0100
				1000	304.0	KSW 30B-1000	KSW 30Y-1000	KSW 30W-1000	KSW 30BLK-1000	KSW 30R-1000

Kynar™ Pennwalt

Wire Dispenser - WD-30 Series

- With 50ft. (15.2m) Roll of 30 AWG (0.25mm) Kynar™ wire-wrapping wire
- Built-in Plunger cuts wire to desired length
- Built-in Stripper strips 1" (25.4mm) of insulation
- Refillable



WD-30-B

Part No.	Description
WD-30-B	Dispenser with 50' of Blue wire
WD-30-Y	Dispenser with 50' of Yellow wire
WD-30-W	Dispenser with 50' of White wire
WD-30-R	Dispenser with 50' of Red wire
WD-30-TRI	Dispenser with 50' each Blue, White and Red wire

Replacement Rolls of Wire For WD-30 Series

Wire for wire-wrapping. 30 AWG (0.25mm) Kynar™ wire, 50ft. (15.2m) roll, silver plated, solid conductor easy stripping.



R-30R-0050

Pre-Cut and Pre-Stripped Wire Wrapping Wire

- 50 pieces per package
- Kynar™ insulated
- Silver plated copper conductor
- UL listed



30 AWG (0.25mm) Pre-Cut/Pre-Stripped Wire 50 Pieces/Pkg.

Part No.	Description
R-30B-0050	30 AWG (0.25mm) Blue 50ft. for WD-30-B
R-30Y-0050	30 AWG (0.25mm) Yellow 50ft. for WD-30-Y
R-30W-0050	30 AWG (0.25mm) White 50ft. for WD-30-W
R-30R-0050	30 AWG (0.25mm) Red 50ft. for WD-30-R
R-30-TRI	30 AWG (0.25mm) Red, White, Blue 50ft (15.2m) roll, each color for WD-30-TRI

Insulation Length	In. mm	White	Yellow	Blue	Red
1	25	30-W-50-010	30-Y-50-010	30-B-50-010	30-R-50-010
2	51	30-W-50-020	30-Y-50-020	30-B-50-020	30-R-50-020
3	76	30-W-50-030	30-Y-50-030	30-B-50-030	30-R-50-030
5	127	30-W-50-050	30-Y-50-050	30-B-50-050	30-R-50-050



OK Industries

Phone (914) 793-0700 • Fax (914) 793-4527 email: sales@jonard.com

The World's First Battery PUNCHDOWN TOOL

A REVOLUTIONARY ERGONOMIC DESIGN
GUARANTEEING OPERATOR SAFETY & EFFICIENCY

EPB - 1000 Battery Punchdown Tool

- Ergonomically designed for worker safety
- Over 1,000 impacts between charges
- Adjustable impact settings
- Durable Lexan® housing
- 90° Blade orientation adjustment
- Quick-easy blade lock and release
- Low battery indicator
- Lightweight– weighs only 1.3 lbs.
- Measures 7.50”L x 6.75”H x 1.37”W
- Patent Pending



EPB-1000 TOOLS AND KITS

ITEM	DESCRIPTION
EPB-1000	Battery Punchdown Tool (Battery Not Included)
EPB-1000KIT1	Battery Punchdown Tool Kit with 115V Charger & Battery
EPB-1000KIT2	Battery Punchdown Tool Kit with 230V Charger & Battery

EPB-1000 ACCESSORIES

PART NUMBER	DESCRIPTION
PTX-B	EPB-1000 Battery 3.6V
PTX-BC1	EPB-1000 115V Battery Charger
PTX-BC2	EPB-1000 230V Battery Charger
H-1000	Cordura Tool Pouch



PTX-B
BATTERY 3.6V

PTX-BC1
PTX-BC2
BATTERY CHARGER



H-1000
CORDURA POUCH

This revolutionary family of punchdown tools has been developed to satisfy the ergonomic requirements of the technician while providing the convenience of a battery tool. We consulted with certified ergonomists and created an ergonomic tool, which is lightweight, well-balanced and designed with a long handle to mitigate pressure on the palm (alleviating the risk of carpal tunnel syndrome and other related injuries.)

EPXI Manual Punchdown Tool

Weight 7.10 oz
Length 7.25"

EPXI TOOLS AND KITS

ITEM	DESCRIPTION
EPXI	Ergonomic Punchdown Tool
EPXI-KIT66	Ergonomic Punchdown Tool Plus 2 Blades (EP-66, EP-66C)
EPXI-KIT110	Ergonomic Punchdown Tool Plus 2 Blades (EP-110, EP-110C)
EPXI-KIT66110	Ergonomic Punchdown Tool Plus 4 Blades (EP-66, EP-66C, EP-110, EP-110C)



NOTE: THE EPXI AND THE EPB-1000 TOOLS ONLY OPERATE WITH BLADES PRODUCED BY OK INDUSTRIES.

EPXI BLADE SPECIFICATIONS

ITEM	DESCRIPTION	WEIGHT (OUNCES)	LENGTH (INCHES)	WIDTH (INCHES)	THICKNESS (INCHES)
EP-66	Punchdown Blade 66 Block	0.25	1.25"	.35"	.18"
EP-66C	Punchdown Blade 66 Block with Cutter	0.25	1.30"	.35"	.18"
EP-110	Punchdown Blade 110 Block	0.25	1.30"	.35"	.15"
EP-110C	Punchdown Blade 110 Block with Cutter	0.25	1.30"	.35"	.15"
EP-7889112	Punchdown Blade Central Office Block	0.33	1.40"	.35"	.25"
EP-BX	Punchdown Blade Bix Block	1.00	2.20"	.40"	.48"
EP-KR	Punchdown Blade Krone Block	1.00	2.40"	.40"	.60"

Whether you choose our Battery Punchdown Tool (EPB-1000) or our Manual Punchdown Tool (EPXI), you can be assured of receiving a 21st century designed product guaranteed to boost operator efficiency (All punchdown tools on the market today with the exception of the EPB-1000 & EPXI are based on a 20-year-old concept.)



DESOLDERING PUMPS

HIGH-VACUUM DESOLDERING PUMPS

A specially engineered desolder pump made to high specifications and providing precise repeatable operation. Fitted with a Teflon Tip. 13" long including tip

Features

- Durable corrosion resistant plastic construction.
- Precision metal plunger.
- Corrosion treated springs.
- Insulated vacuum pulse.
- Regulated return (1 millisecond $\pm 30\%$).
- Uniform reset pressure (11in. lbs. $\pm 20\%$).
- Cushioned shock reduction (pulse release to minimize board damage).



Part No.	Description
DP-100	High Vacuum Desoldering Pump
DP-200	High Vacuum Desoldering Pump, ESD Safe
DPT-100	1 Tip, DP-100/DP-140
DPT-200	1 Tip, DP-200

Features

- Precision regulated return.
- Replaceable tip.
- Compact, anti-corrosive plastic housing.
- Precision metal plunger.
- Sealed vacuum chamber.
- Easy cleaning.
- 8" Long including tip



Part No.	Description
DP-140	Desoldering Pump
DPT-100	1 Tip, DP-100/DP-140

BENCHTOP FUME ABSORBERS

SA-91/ SA-91-E

- Articulating arm allows optimized positioning and saves bench space.
- Bench mounting clamp and 3 filters come complete with unit.
- SA-91-E features a static-dissipative housing.



SA-91

Specifications		
Part No.	SA-9-115 SA-9-E-115	SA-91 SA-91-E
Input Voltage	115V 60Hz	115V 60Hz
Maximum Air Volume	105 to 126 CFM	105 to 126 CFM
Activated Carbon Wt.	12g	12g
Unit Weight	2.2 lbs. (1 kg)	4 lbs. (1.8 kg)
Arm Length	-	24" (607mm)



SAF-1



SA-9-115



SA-9-E-115

SA-9-115/ SA-9-E-115

- Aerodynamic hood design effectively draws irritating soldering fumes away from the work area.
- Carbon-impregnated filters trap a limited portion of the flux fumes.
- Compact size, low profile and adjustable stand allows convenient placement 6" to 8" (152 to 203mm) from work area.
- SA-9-E-115 feature static-dissipative housings.



Benchtop

Part No.	Description
SA-9-115	Benchtop fume absorber, 115V AC with 3 filters
SA-9-E-115	ESD-Safe benchtop fume absorber, 115V AC with 3 filters

Articulating Arm

Part No.	Description
SA-91	SA-9-115 with Articulating Arm, & Bracket
SA-91-E	SA-9-E-115 with Articulating Arm, & Bracket
SAK-90	Arm Assembly Kit Retro-fits SA-9/9-E to SA-91/SA-91-E
SAF-1	Replacement Filter Set, 3pcs.



PROTOTYPING AND REPAIR

PRODUCTS FROM OK INDUSTRIES

UNIVERSAL PLCC EXTRACTION TOOL EX-5/EX-6

Features

- Extracts a range of PLCC sizes from 20 pins through 84 pins from any socket without damage to the chip.
- Spring loaded one-hand design requires no pulling, just squeeze handles and chip is lifted from the socket.
- ESD safe handles for use on all static safe components (EX-5).
- Machined stainless steel for long-life (EX-5).
- EX-6 - ABS handles and stamped steel.



EX-6



EX-5

Part No.	Description
EX-5	ESD safe PLCC extraction tool
EX-6	Low cost PLCC extraction tool

INSERTION/EXTRACTION KIT WK-7

WK-7 kit includes DIP IC extractors and inserters to accommodate all IC's from 8 to 40 pins. All tools that engage conductive surfaces are CMOS safe and include grounding lugs where appropriate. The kit consists of extractors EX-1 for 14-16 pin devices, and EX-2 for 24-40 pin chips, plus inserters MOS-1416, MOS-2428, and MOS-40 for 14-16, 24-28 and 36-40 pin IC's respectively.

Kit Includes

- MOS-1416 Insertion Tool (14-16 Pins).
- MOS-2428 Insertion Tool (24-28 Pins).
- MOS-40 Insertion Tool (36-40 Pins).
- EX-2 Extraction Tool (24-40 Pins).
- EX-1 Extraction Tool (8-24 Pins).



INS-1416



MOS-1416
(.3" Pitch)

EX-2

MOS-40
(.6" Pitch)

MOS-2428
(.6" Pitch)

EX-1

Part No.	Description
WK-7	5 piece insertion/extraction kit
INS-1416	14-16 pin IC insertion tool (.3" pitch) with lead straightener

Note: WK-7 items may be purchased individually.