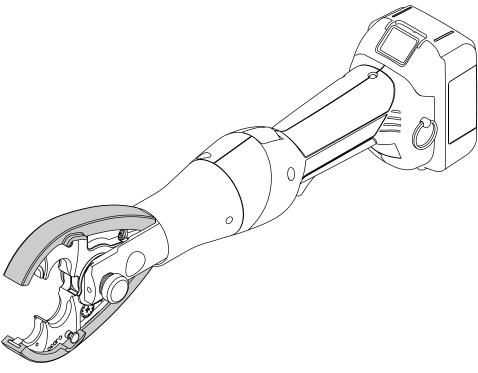
INSTRUCTION MANUAL



Serial Number



GATOR[®] EK425L Battery-powered Crimping Tool



Read and **understand** all of the instructions and safety information in this manual before operating or servicing this tool.



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Description

The EK425L Battery-powered Crimping Tool is a hand-held, self-contained crimping tool with removable crimping jaws.

This tool is protected by U.S. Patent No. 6,276,186, 6,401,515, 6,718,870, 7,086,979, 7,216,523, and 7,254,982.

Safety

Safety is essential in the use and maintenance of Greenlee Utility tools and equipment. This manual and any markings on the tool provide information for avoiding hazards and unsafe practices related to the use of this tool. Observe all of the safety information provided.

Purpose of this Manual

This manual is intended to familiarize all personnel with the safe operation and maintenance procedures for the following Greenlee Utility tool:

EK425L Battery-powered Crimping Tool

Keep this manual available to all personnel.

Replacement manuals are available upon request at no charge at www.greenlee.com.



Do not discard this product or throw away! For recycling information, go to www.greenlee.com.

All specifications are nominal and may change as design improvements occur. Greenlee Textron Inc. shall not be liable for damages resulting from misapplication or misuse of its products. GATOR is a registered trademark of Textron Innovations Inc. Blackburn is a registered trademark of Thomas & Betts.

KEEP THIS MANUAL



IMPORTANT SAFETY INFORMATION





This symbol is used to call your attention to hazards or unsafe practices which could result in an injury or property damage. The signal word, defined below, indicates the severity of the hazard. The message after the signal word provides information for preventing or avoiding the hazard.

Immediate hazards which, if not avoided, WILL result in severe injury or death.

Hazards which, if not avoided, COULD result in severe injury or death.

Hazards or unsafe practices which, if not avoided, MAY result in injury or property damage.



AWARNING

Read and understand all of the instructions and safety information in this manual before operating or servicing this tool.

Failure to observe this warning could result in severe injury or death.

AWARNING

Electric shock hazard:

This tool is not insulated. When using this unit on or near energized electrical lines, use proper personal protective equipment.

Failure to observe this warning could result in severe injury or death.



AWARNING

Wear eye protection when operating or servicing this tool.

Failure to wear eye protection could result in serious eye injury from flying debris or hydraulic oil.



AWARNING

Skin injection hazard:

Do not use hands to check for oil leaks. Oil under pressure easily punctures skin. If injured, seek medical attention immediately to remove oil.

Failure to observe this warning could result in serious injury, gangrene, or death.



AWARNING

Do not use solvents or flammable liquids to clean the tool body. Solvents or flammable liquids could ignite and cause serious injury or property damage.

AWARNING

An incomplete crimp can cause a fire.

- Use proper die, connector, and cable combinations. Improper combinations can result in an incomplete crimp.
- The relief valve sounds and the ram automatically retracts to indicate a completed crimp. If you do not hear the sound of the relieve valve or the ram does not automatically retract, the crimp is not complete.

Failure to observe these warnings could result in severe injury or death.



IMPORTANT SAFETY INFORMATION

Pinch points:

- Remove battery before changing dies, adapters, or jaws.
- Keep hands away from the crimping tool head when crimping.

Failure to observe these warnings could result in severe injury or death.

AWARNING

Do not dispose of batteries in a fire. They will vent fumes and may explode.

Failure to observe this warning could result in severe injury from harmful fumes or burns from flying debris.

- Inspect tool and dies before use. Replace any worn or damaged parts. A damaged or improperly assembled tool can break and strike nearby personnel.
- Carrying strap is for carrying only, not to be used to hang or suspend tool.

Failure to observe these warnings could result in severe injury or death.

ACAUTION

- Do not use this tool for continuous use. After 30 to 40 cycles, allow the tool to cool for 15 minutes.
- Do not secure this tool in a vise. This tool is designed for hand-held operation.
- This tool may be used in damp or wet environments; however, air-drying is recommended before use if the tool becomes soaked. Damage may result when the tool is operated prior to thorough drying when electrical components are soaked.
- · Use this tool for the manufacturer's intended purpose only.

Failure to observe these precautions may result in injury or property damage.

ACAUTION

Do not allow anything to contact the battery terminals.

- Do not immerse the batteries in liquid. Liquid may create a short circuit and damage the battery. If batteries are immersed, contact your service center for proper handling.
- Do not place the battery into a pocket, tool pouch. or tool box with conductive objects. Conductive objects may create a short circuit and damage the batterv.
- Do not place a battery on moist ground or grass. Moisture may create a short circuit and damage the battery.

Failure to observe these precautions may result in injury or property damage.

ACAUTION

- Do not store the battery at more than 122 °F (50 °C) or less than -4 °F (-20 °C). Damage to the batterv can result.
- Do not use another manufacturer's charger. Other manufacturers' chargers may overcharge and damage the battery.
- Do not attempt to open the battery. It contains no user-serviceable parts.

Failure to observe these precautions may result in injury or property damage.

ACAUTION

Do not perform any service or maintenance other than as described in this manual. Injury or damage to the tool may result.

Failure to observe this precaution may result in injury and property damage.

Note: Keep all decals clean and legible, and replace when necessary.



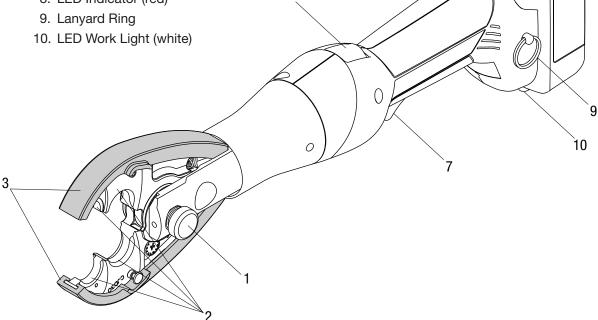
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Identification

- 1. Lock Pin
- 2. Crimping Jaws
- 3. Jaw Covers
- 4. Retract Button
- 5. Battery Lock
- 6. Battery Cartridge
- 7. Trigger
- 8. LED Indicator (red)



4

Specifications

Crimping Tool	
Length	18.50" (470 mm)
Width	2.87" (72.9 mm)
Depth	4.50" (114.3 mm)
Weight	6.5 lb (3 kg)
Crimping Force	6 tons (53 kN)
Hydraulic Oil	Biodegradable hydraulic fluid
Recommended Operating Temperature Range	5 °F to 122 °F (–15 °C to 50°C)
Battery Charger	Read the instructions supplied with the battery charger



Operation

- Inspect tool and dies before use. Replace any worn or damaged parts. A damaged or improperly assembled tool can break and strike nearby personnel.
- Carrying strap is for carrying only, not to be used to hang or suspend tool.

Failure to observe these warnings could result in severe injury or death.



AWARNING

Electric shock hazard: This tool is not insulated. When using this unit on or near energized electrical lines, use proper personal protective equipment.

Failure to observe this warning could result in severe injury or death.



AWARNING

Wear eye protection when operating or servicing this tool.

Failure to wear eye protection could result in serious eye injury from flying debris or hydraulic oil.

AWARNING

Pinch points:

- Remove battery before changing dies, adapters, or jaws.
- Keep hands away from the crimping tool head when crimping.

Failure to observe these warnings could result in severe injury or death.

- Do not use this tool for continuous use. After 30 to 40 cycles, allow the tool to cool for 15 minutes.
- Do not secure this tool in a vise. This tool is designed for hand-held operation.
- This tool may be used in damp or wet environments; however, air-drying is recommended before use if the tool becomes soaked. Damage may result when the tool is operated prior to thorough drying when electrical components are soaked.
- Use this tool for the manufacturer's intended purpose only.

Failure to observe these precautions may result in injury or property damage.

Charging the Battery

Read the instructions supplied with the battery charger.

LED Work Light (white)

This LED automatically turns on when the trigger is pulled. It remains on for 10 seconds after the trigger is released.

LED Indicator (red)

This tool is equipped with a special circuit board incorporating several important features to inform the user about the current status of the unit. The LED signals in the following cases:

What happens	Signal	What it means
Flashing light for 2 seconds	••	Battery is inserted in tool
Constant light for 20 seconds at end of cycle		Battery charge is below 17 V at beginning of cycle
Tool will not start, and constant light for 20 seconds when trigger is released		Battery charge is below 16 V at beginning of cycle
Tool will stop, and constant light for 20 seconds after trigger is released		Battery voltage drops below 13 V during cycle
Tool will stop, and flashing light for 20 seconds when	••••	Motor current exceeds 20 A during cycle
trigger is released		Circuit has become too hot

Pressure Sensor

This tool is equipped with a pressure sensor that alerts the user of an incomplete crimp.

- If the tool is manually retracted before completion of a crimp, the red LED and an audible beep will be active for 2 seconds.
- If the tool is unable to reach the required crimp force, the red LED, work light, and an audible beep will pulse until after the trigger is released.



Operation (cont'd)

Die Selection

Interchangeable dies may be used in the standard die opening. Dies that may be used include:

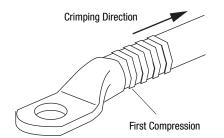
- Greenlee KD6 series
- Burndy W and X series
- ILSCO ND series
- Huskie HT58 series
- Panduit CD-2001 series
- Other industry W-type dies

Installing Dies

- 1. Select the proper dies for the connector to be crimped.
- 2. Install dies in jaws making certain that they are properly secured by the spring-loaded, positive lock, die buttons.

Preparing Cable

Follow the lug manufacturer's instructions for appropriate cable strip length.





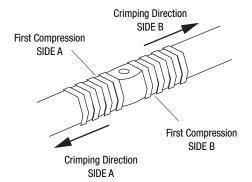
- 1. Insert conductor into the connector and align the tool and die on the connector. Start in the center for splices and "H" frames; and on the end, nearest the pad, for terminals.
- 2. Activate the tool by pulling the trigger. Continue to hold the trigger until the ram retracts. This is the signal that the crimp is complete.
- Continue crimping the connector until the correct number of crimps has been completed. Work from the center to the outer edges for splices and "H" frame connectors, alternating sides if possible, for the best compression connections.

AWARNING

An incomplete crimp can cause a fire.

- Use proper die, connector, and cable combinations. Improper combinations can result in an incomplete crimp.
- The relief valve sounds and the ram automatically retracts to indicate a completed crimp. If you do not hear the sound of the relieve valve or the ram does not automatically retract, the crimp is not complete.

Failure to observe these warnings could result in severe injury or death.





CJ22 Jaw and KA22/KC22-type Die Selection

Note: This tool will provide a cUL and UL classified crimp ONLY when used with the CJ22 jaws and KA22- or KC22-type dies.

Note: This tool will provide 53 kN (6 tons) of crimping force when used with the CJ22 jaws.

Crimps made on copper cable with Greenlee KC22-type dies and the copper connectors listed here are cUL and UL classified. Crimps made on copper or aluminum cable with Greenlee KA22-type dies and the dual-rated aluminum connectors listed here are cUL and UL classified.

Refer to "Connector Selection" for brand names and model numbers of appropriate lugs as well as crimping instructions.

Dies for Copper Connectors

Catalog Number	UPC Number	Cable Size	Color Code
KC22-8	03079	8 AWG	Red
KC22-6	03080	6 AWG	Blue
KC22-4	03081	4 AWG	Gray
KC22-2	03082	2 AWG	Brown
KC22-1	03083	1 AWG	Green
KC22-1/0	03084	1/0 AWG	Pink
KC22-2/0	03085	2/0 AWG	Black
KC22-3/0	03086	3/0 AWG	Orange
KC22-4/0	03087	4/0 AWG	Purple
KC22-250	03088	250 kcmil	Yellow
KC22-300	03089	300 kcmil	White
KC22-350	03090	350 kcmil	Red
KC22-400	03091	400 kcmil	Blue
KC22-500	03092	500 kcmil	Brown
KC22-600B	03094	600 kcmil	Green

Dies	for	Dual-rated	Aluminum	Connectors
DICS	101		Aluminum	001111001013

Catalog Number	UPC Number	Cable Size
KA22-8	06744	8 AWG
KA22-6	06745	6 AWG
KA22-4	06746	4 AWG
KA22-2	06747	2 AWG
KA22-1	06749	1 AWG
KA22-1/0	06750	1/0 AWG
KA22-2/0	06751	2/0 AWG
KA22-3/0	06752	3/0 AWG
KA22-4/0	06753	4/0 AWG
KA22-250	06754	250 kcmil
KA22-300	06755	300 kcmil
KA22-350	06756	350 kcmil

Connector Selection

CJ22 Crimping Jaw Range: Copper – 8 AWG to 600 kcmil[†]; Dual-rated Aluminum – 8 AWG to 350 kcmil When used with KC22-type dies, this tool is cUL and UL classified for use with the following connector brands:

Connector Type	Barrel Type	Anderson	Blackburn®	Burndy	ILSCO	Panduit	T&B	Penn- Union†	No. of Crimps*
Copper	Short	VHSS	CSP	YS-L▲	СТ	SCSS/SCS	54504-54518	BCU	
Splice	Long	VHS	CU	YS▲	CTL	SCL/SCH	54804-54818	BBCU]
Connor	Short	VHCS	CTL-2/CTL	YA-2LN/YA-L/YA-2L YA/YA-L-TC/YA-L-2TC	CSW CRA/CRB	LCAS/LCA LCD	54104-54118 54204-54218	BLU	A
Copper Lugs	Long	VHCL	CTL-L/LCN	YA-2N	CLN/CLW CRA-L/CRB-L CRA-2L/CRB-2L	LCB/LCC	54930BE-54918BE 54850BE-54876BE	BBLU	

When used with KA22-type dies, this tool is cUL and UL classified for use with the following connector brands:

Connector Type	Barrel Type	Anderson	Blackburn®	Burndy	ILSCO	Panduit**	T&B	Penn- Union	No. of Crimps*
Dual-rated Aluminum Splice	_	VACS	ASP	YS-A	AS ASN	SA	60501-60565	PIK	
Dual-rated Aluminum Lugs	_	VACL	ATL	ya-a ya-atn	ACL/ACN 2ACL/2ACN ALNS/ALNN/ALND	LAA/LAB	60101-60166 60230-60267	BLUA	В



* Use the number of crimps listed in the last column instead of the number provided with the connector:

A – 8 to 1/0 AWG: 1 crimp

2/0 AWG to 600 kcmil: 2 crimps

B - 8 to 2 AWG: 2 crimps 1 to 3/0 AWG: 3 crimps

4/0 AWG to 350 kcmil: 4 crimps

6 AWG to 350 kcmil

- † 500 kcmil maximum with Penn-Union connectors
 - 8 AWG to 350 kcmil with Burndy copper splices



Maintenance

AWARNING

Wear eye protection when operating or servicing this tool.

Failure to wear eye protection could result in serious eye injury from flying debris or hydraulic oil.

AWARNING

Skin injection hazard:

Do not use hands to check for oil leaks. Oil under pressure easily punctures skin. If injured. seek medical attention immediately to remove oil.

Failure to observe this warning could result in serious injury, gangrene, or death.



Do not use solvents or flammable liquids to clean the tool body. Solvents or flammable liquids could ignite and cause serious injury or property damage.

Pinch points:

- Remove battery before changing dies, adapters, or jaws.
- Keep hands away from the crimping tool head when crimping.

Failure to observe these warnings could result in severe injury or death.

IMPORTANT

Relief valve adjustments must be done by an authorized service center.

Daily

Before use:

- 1. Inspect the tool for wear or damage, such as cracks, gouges, or chips.
- 2. Inspect the tool for damage or leaks.
- 3. Inspect the rotation of the head assembly. Fully retract the ram. The head should rotate no more than 360°. If damage is detected, send the tool to a Greenlee Utility Authorized Service Center for inspection.

After use:

- 1. Use a damp cloth and mild detergent to clean the housing. Allow the housing to dry.
- 2. Fully retract the ram. Place the tool in the carrying case and store in a cool, dry place.
- If necessary, recharge the batteries. Refer to the 3. instructions supplied with the battery charger.

Monthly

- 1. Thoroughly clean all surfaces.
- 2. Check the oil level.

Annually or After 10,000 Crimps

- Replace the hydraulic oil. 1.
- 2. Send the tool to a Greenlee Utility Authorized Service Center for inspection.

Checking the Oil Level

- 1. Remove the screws holding the housing cover together.
- 2. Point the crimping head downward and remove the oil reservoir plug. Fill reservoir if necessary.
- 3. Replace the oil plug and housing cover.

Note: For Warranty Service or Repair, contact Greenlee customer service at 800-435-0786.



Troubleshooting

Before You Begin

- 1. Make sure that the battery is charged. Recheck the battery after several minutes to make sure the battery is holding its charge.
- 2. Use a **nonflammable** contact cleaner or pencil eraser to clean the electrical contacts on the battery and tool.
- 3. Reinstall the battery and check the tool again.

Problem	Possible Cause	Probable Remedy	
Tool is inoperative.	Dirt, contaminants, etc., in ram area of tool.	Clean tool.	
	Tool battery contacts damaged.	Reform contacts.	
	Tool components worn or damaged.	Return tool to a Greenlee Utility Authorized Service Center.	
Motor is inoperative.	Low or uncharged battery.	Try known charged battery. Inoperative battery may be discharged or may have reached life expectancy.	
	Broken switch components.	Return tool to a Greenlee Utility Authorized Service Center.	
Motor runs but tool will not complete a cycle.	Oil level low.	Return tool to a Greenlee Utility Authorized Service Center.	
	Air in hydraulic system.	Pull trigger and hold retract button simultaneously. Run for approximately 10 seconds, and then attempt to crimp. If unsuccessful, return tool to a Greenlee Utility Authorized Service Center.	
	Cold oil.	Pull trigger and hold retract button simultaneously to warm oil. Store tool in warm area.	
Dies stop during operation.	Oil level low.	Return tool to a Greenlee Utility Authorized Service Center.	
	Air in hydraulic system.	Pull trigger and hold retract button simultaneously. Hold for approximately 10 seconds.	
LED glows for 20 seconds.	Battery charge low.	Charge or replace battery.	
Tool loses oil.	Damaged internal seal.	Return tool to a Greenlee Utility Authorized Service Center.	

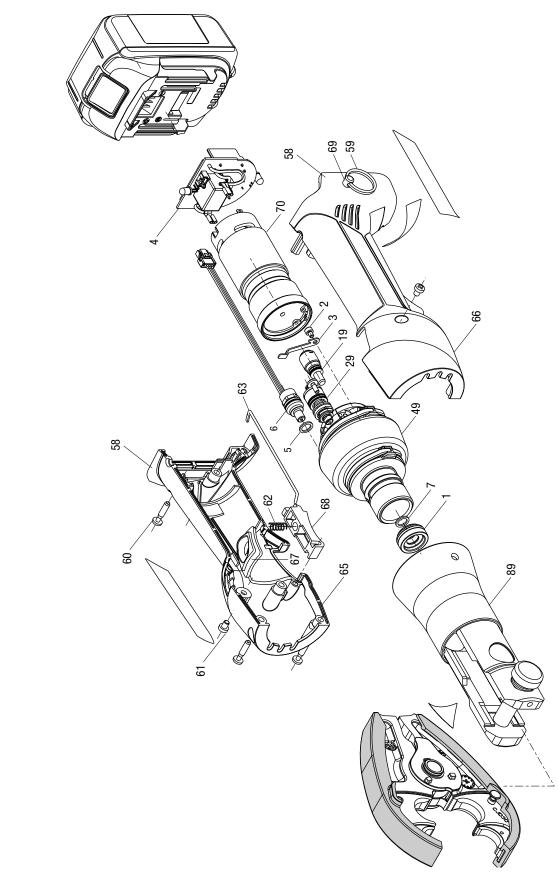
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Note: For Warranty Service or Repair, contact Greenlee customer service at 800-435-0786.



Illustrations

Main

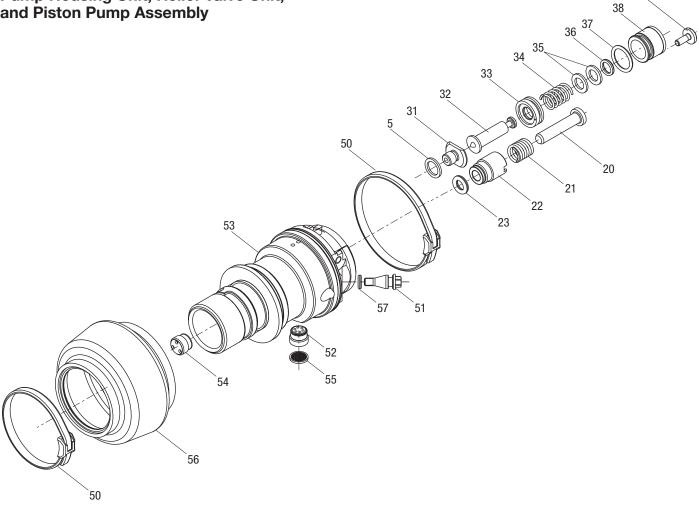


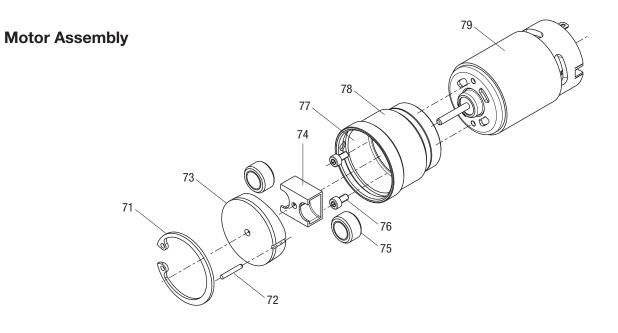


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Illustrations (cont'd)

Pump Housing Unit, Relief Valve Unit, and Piston Pump Assembly



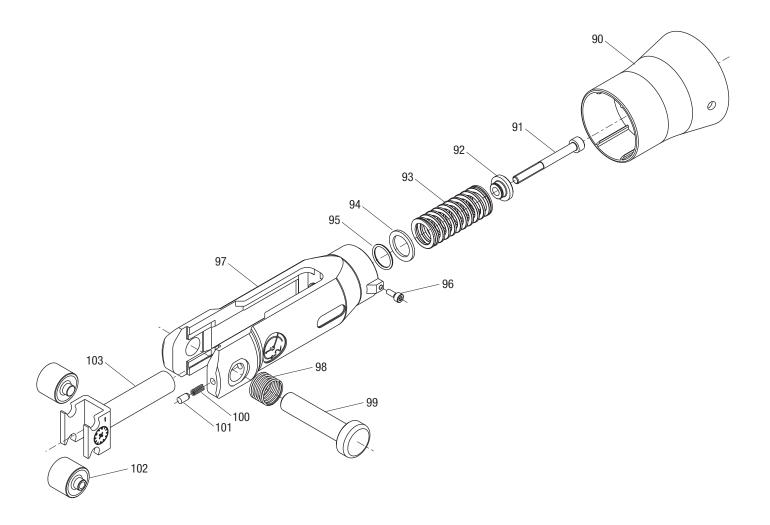




EK425L Battery-powered Crimping Tool

Illustrations (cont'd)

Ram Unit

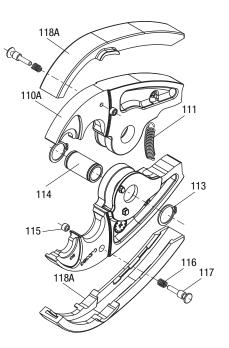


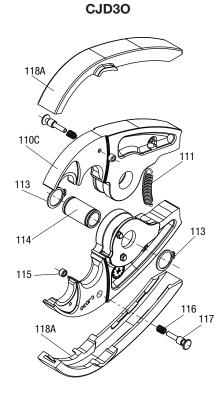


Illustrations (cont'd)

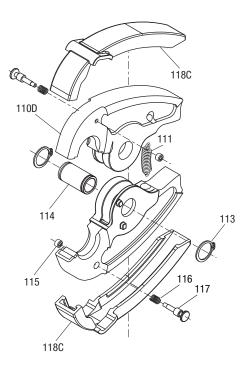
Crimping Jaw Units

CJD3BG

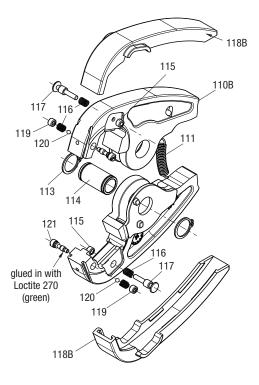




CJD3



CJK Kearney





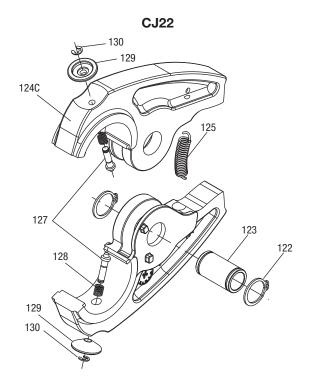
Parts List

Key	Part No.	Description Qty
1 2 3 4 5* 6	50120050 50019295 50019287 52056510 52049205	Bushing with seal1Screw.1Lever, relief valve1Control board1Seal.2Sensor1
7* 19	50018990	Bushing seal 1 Piston pump assembly
20 21 22 23*	50019309	(includes 20–23)1 Piston pump1 Spring1 Piston pump housing1 Piston seal1
29 31 32 33 34 35 36* 37* 38 39	50018922 50019554	Relief valve unit (includes 31–39) 1 Valve seat 1 Needle valve 1 Plunger 1 Spring 1 Lock washer 2 O-ring 1 Pressure relief 1 Screw. 1
49 50 50* 51 52 53 54 55 56	52048120 52055861 52049296	Pump housing unit (includes 50–56)1Clamp, 10 pack1Clamp2Screw1Threaded bushing1Pump block1Threaded bushing1Screen1Reservoir1
57* 58 59 60 61 62 63 65 66 67 68 69	52048131	O-ring 1 Housing unit (includes 59–69) 1 Ring 1 Screw. 4 Screw. 2 Compression spring, DA5.5 x L14.0) 1 Link, trigger. 1 Housing half 1 Housing half 1 Button, relief valve 1 Cover, trigger 1 Stud 1
70 71	52048132	Motor assembly (includes 71–79)
72 73 74 75 76 77 78 79	50019589	Peranning mig1Pin1Motor cap1Disc housing1Disc.2Screw2Gear lube, 1.5 g1Motor adapter1Motor, electric1
89 90	52048133 52049292 52049399	Ram unit (includes 90–103) 1 Sheath 1 Spring kit (includes 91–95) 1

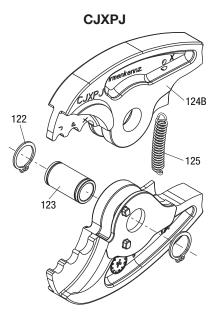
Key	Part No.	Description Qty
91		Bolt, shoulder 1
92		Disc 1
93		Compression spring 1
94		Washer1
95*		O-ring 1
	52057497	Jaw holder kit (includes 90, 96, 97)1
96 97	52057496	Screw1 Jaw holder1
97	52049400	Latch kit (includes 98–101)
98	52045400	Compression spring 1
99		Locking pin1
100		Compression spring 1
101		Pin 1
	52049401	Roller kit (includes 102 and 103)
102		Roller 2
103		Ram 1
	52027121	CJD3BG crimping jaw unit
		(includes 110–118)
	52027122	CJD3O crimping jaw unit
	50004000	(includes 110–118)
	52024068 52020114	CJD3 crimping jaw unit (includes 110–118) CJK Kearney crimping jaw unit
	52020114	(includes 110–118, 119-121)
110A		Jaw, CJD3BG
110B		Jaw, CJK 2
110C		Jaw, CJD3O2
110D		Jaw, CJD3 2
111	52022544	Extension spring 1
110	52049402	Jaw pivot kit (includes 113 and 114)
113		Retaining ring
114 115		Pin pivot1 Bushing2
116		Compression spring
117		Lock adapter
118A	52025125	Jaw covers, CJD3O/CJD3BG (set of 2) 1
118B	52022386	Jaw covers, CJK (set of 2) 1
118C	52021086	Jaw covers, CJD3 (set of 2) 1
119		Bushing2
120		Ball, 3 mm 2
121	50103750	Locking pin
	50103750	Die pin kit, "W"-style dies (includes 115–117)
	50105108	Die pin kit, Kearney-style dies
	00100100	(includes 116, 119–121)
*	50047957	Seal kit (includes items
	00047007	marked with an asterisk)
	52049206	Decal kit
	52025047	Carrying pouch
	50122746	Carrying strap
	52049189	18 V, 3 Ah battery
	52049201	18 V charger 120 VAC
	52049202	18 V charger 230 VAC
	52049204	18 V charger 12 VDC
	52047087	18 V corded adapter 120 VAC 18 V corded adapter 230 VAC
	52047088 52054992	Li (18 V) to NiCd, NiMH (12 V)
	5200-332	charger adapter
	52057878	Biodegradable hydraulic fluid (1 qt)
	52067054	Tag, connector chart 1

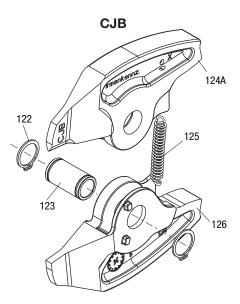


Illustration and Parts List-Optional Accessories



Key	Part No.	Description Qty	У
	52024683	CJ22 crimping jaw unit for cUL and UL classified crimps—refer to "Connector Selection" for details	-
	52025649	CJXPJ crimping jaw unit (includes 122-125)	
	52025648	CJB single-use lock cutter (includes 122-126)	
122 123 124A 124B 124C 125 126	}	Jaw pivot kit (includes 122 and 123) Retaining ring 2 Pivot pin 1 Jaw, sharp—CJB 1 Jaw, CJXPJ 2 Jaw, CJ22 2 Extension spring 1 Jaw, flat—CJB 1	
127 128 129 130	52023623	Die retaining pin kit (includes 127–130) Die retaining pin	2







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