

Operating Instructions

FOR HMC5630-LI

HYDRAULIC COMPRESSION TOOL

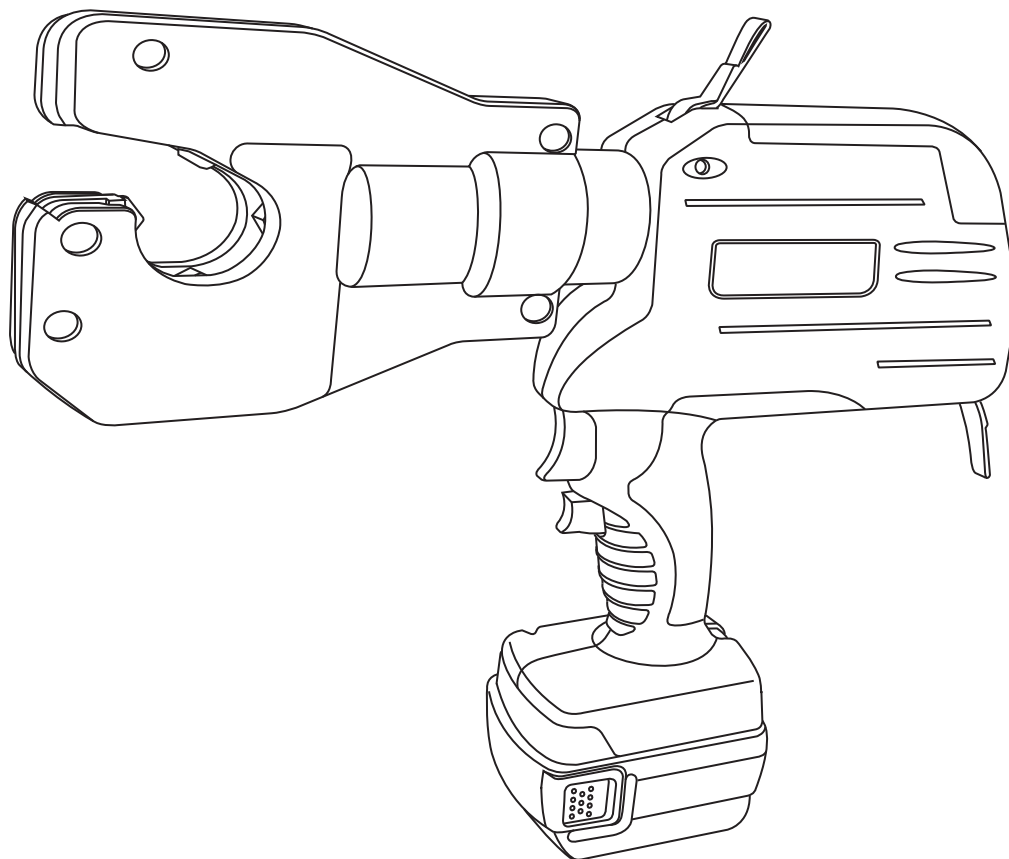


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IMPORTANT: Read and understand all of the instructions and safety information in this manual before operating or servicing this tool.

1.0

GENERAL INFORMATION

1.1 SAFETY RULES

1. BE FAMILIAR WITH YOUR TOOL.

Read the instruction manual. Become aware of its proper usage as well as the potential hazards.

2. KEEP WORK AREA CLEAN AND WELL LIGHTED.

Poor lighting and cluttered areas invite accidents.

3. USE SAFETY GLASSES.

4. MAINTAIN TOOL WITH CARE.

Keep tool in good condition at all times. Keep it clean for best and safest performance.

5. DON'T OVER-REACH.

Keep proper footing and balance at all times.

6. NEVER ATTEMPT TO MAKE A COMPRESSION ON A "HOT" LINE.

Never assume the power is OFF! Determine beforehand if any electrical hazards could exist when making a connection to a line or wire.

7. KEEP FINGERS AND OTHER BODY PARTS AWAY FROM INDENTING NIBS & MOVING PARTS.



⚠ WARNING ⚠

Tools are **NOT** insulated for use on or near energized conductors. Use of these tools near energized conductors may lead to electrical shock, causing severe injury or death. **DO NOT** use these tools near energized conductors without adequately insulating operator and surroundings.



⚠ WARNING ⚠

Pinch point hazard. Indenting Nibs at high force can cause severe personal injury. Keep all body parts away from moving parts of the tool during operation.

1.2 FEATURES

- Fully automatic, self-contained power tool.
- Removable battery cartridge - simply change the cartridge for continuous use.
- One handed operation - control ram advancement and retraction with one hand.
- Designed to crimp connectors manufactured to ANSI C119.4.
- 360° rotating head, no dies required.

1.3 SPECIFICATIONS

HYDRAULIC COMPRESSION TOOL:

HMC5630-LI

Drive Unit:	14.4V DC Motor
Dimensions:	14"L x 2.5"W x 13"H
Weight:	11.5 lbs. with battery
Output:	6 Tons
Capacities:	Up to 500 kcmil Cu
Jaw Opening:	0.90"
Center Opening:	1.25"

BATTERY:

144-BAT-LI

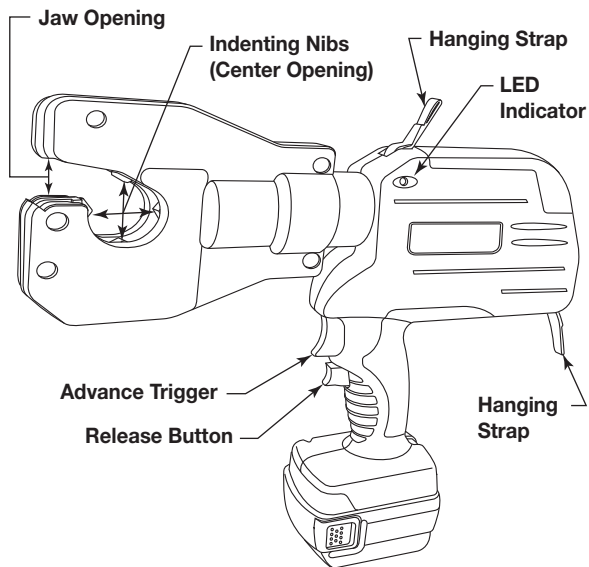
Battery Type:	Sealed Lithium Ion
Voltage:	14.4V DC
Dimensions:	4.2"L x 3.3W x 2.6H
Capacities:	3.0Ah
Weight:	1.2 lbs.
Charging time:	25 min. 80% Capacity 45 min. 100% Capacity

CHARGER:

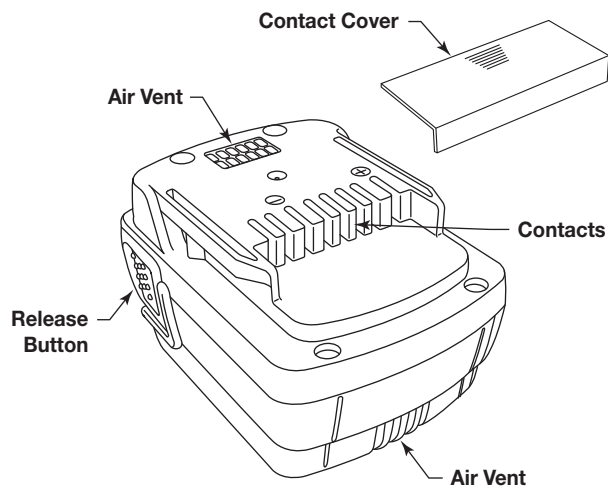
144-CHR-LI

Input Voltage:	120 - 240 V AC Single Phase
Dimensions:	9"L x 5.7W x 3.2H
Weight:	3.5 lbs.

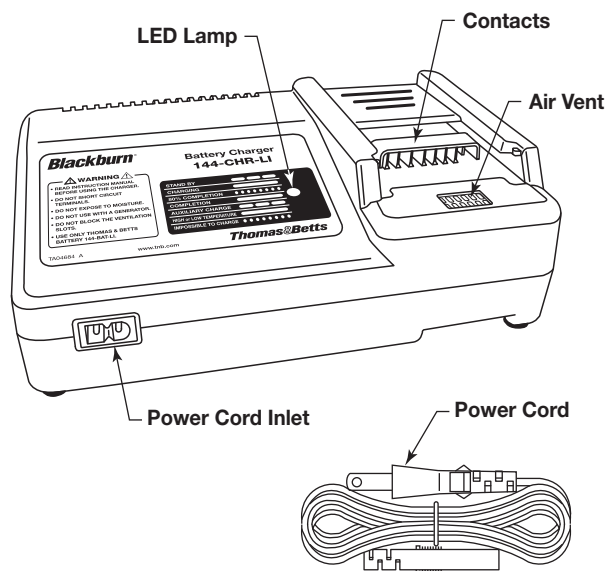
(HMC5630-LI)



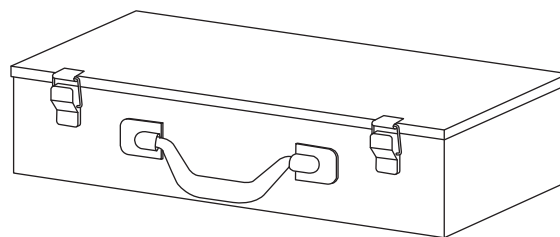
2.2 BATTERY (144-BAT-LI)



2.3 CHARGER (144-CHR-LI)



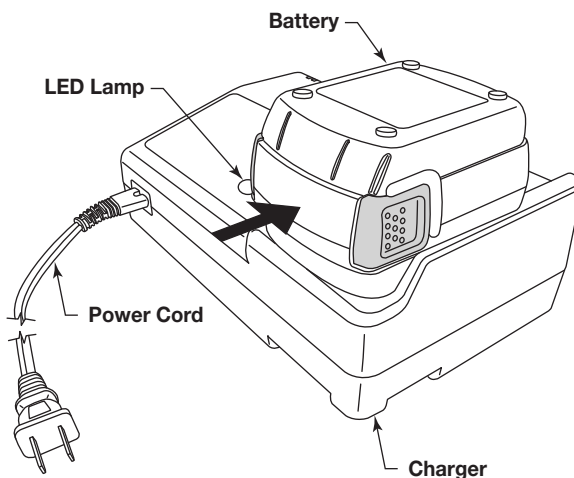
2.4 CARRYING CASE



3.1

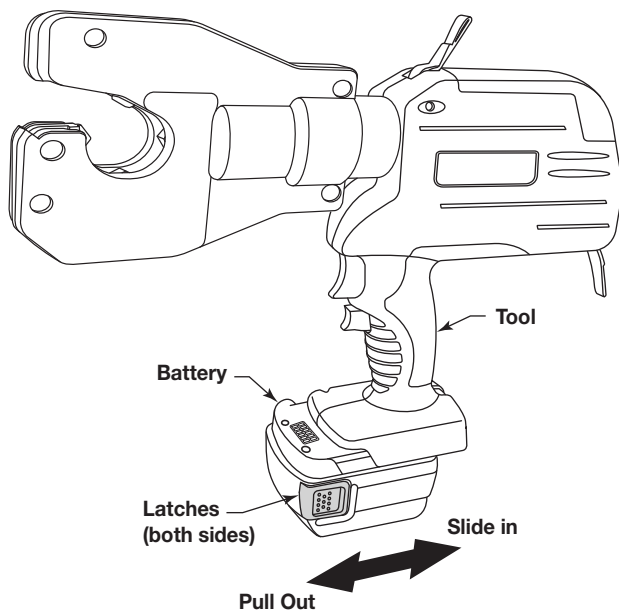
CHARGING THE BATTERY

1. Connect the power cord to the Charger 144-CHR-LI and to an AC outlet. The LED Lamp blinks in Red [STAND BY]
NOTE: The rated input voltage for this unit is 100V-240V. Use of voltages over 260V will result in damage to the charger.
2. Insert the Battery firmly into the charger.
The LED Lamp lights in green [CHARGING].
NOTE: Do not short-circuit the Charger by placing foreign materials in the contacts on Charger, as this will damage the Charger.
3. Charging takes approximately 25 minutes (80% capacity) and 45 minutes (100% capacity).
When charging is finished, the LED Lamp lights in orange [COMPLETION].
NOTE: If the LED Lamp displays solid red [HIGH TEMPERATURE], remove the Battery from the Charger and allow it to cool down before trying to charge it again.
4. When the battery will no longer charge or hold a charge, the LED Lamp blinks quickly in red [IMPOSSIBLE TO CHARGE].
5. When the charger is out of order, the LED Lamp does not light up even if AC power is supplied.
NOTE: Do not power the Charger with a portable generator.



3.2 ATTACHING & DETACHING THE BATTERY PACK

1. To attach the Battery, slide it into the base of the Tool until it stops and the Latches engage.
2. After inserting the Battery, check that it is securely in place by pulling it gently without pressing the Latches.
3. To detach the Battery, pull out the Battery while pressing the Latches.



3.3

COMPRESSION CYCLES

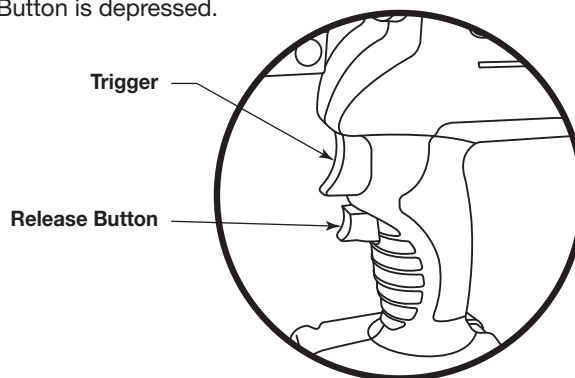
This guide indicates the number of compression cycles that the HMC5630-LI can be expected to perform when the battery is fully charged. These figures are approximate and will vary according to the charging and other operating conditions, such as temperature, humidity, and battery condition.

CONDUCTOR	AVERAGE COMPRESSIONS PER CHARGE 144-BAT-LI
1/0 Cu / Al	100 - Conductor size is not a major factor on this dieless tool. It performs approximately the same on all sizes.
4/0 Cu / Al	
500 kcmil	

3.4

SWITCH OPERATIONS

1. The indenting nibs extend when the Trigger is depressed and stops when the Trigger is released.
2. To retract the indenting nibs, depress the Release Button. The indenting nibs continue to retract while the Release Button is depressed.



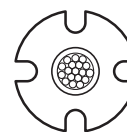
3.5

COMPRESSION OPERATION

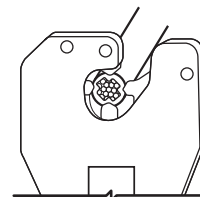
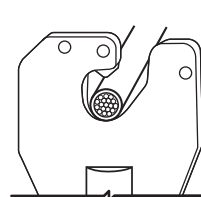
1. Not all connectors are suitable for dieless tool applications. Check your connector manufacturer recommendations on using a dieless compression tool with the connector and cable being used.
2. Retract the indenting nibs by pressing the release button.
3. Position the connector, and center it between the indenting nibs. Activate the trigger and advance the nibs so the connector is held in place, but not yet deformed. Check connector for correct positioning.
4. Insert the cable into the connector and activate the trigger until the compression is completed. The LED indicator (Step 2.1) on either side of the tool will show GREEN when a complete compression is made. A RED indicator light will show if the compression is incomplete, due to early release of the trigger or a low battery. An ORANGE indicator will show if the battery is getting low, but the compression is still completed.
5. Press release button to retract the indenting nibs and remove the connector from the tool.



WRONG



CORRECT



WARNING

Pinch point hazard. Compressing indenting nibs at high force can cause severe personal injury. Keep all body parts away from moving parts of the tool during operation.

3.6

MAINTENANCE & INSPECTION

1. Very little maintenance is required to ensure that the tool is kept in good working condition.
2. To ensure smooth operation and prevent rust, store the tool in a cool dry area. Ensure that moving parts are lubricated regularly.
3. When the plastic housing becomes dirty, clean it with a soft soaped cloth.
4. Dust, sand, and dirt are a danger for any hydraulic device. After each use, the tool should be wiped with a clean cloth taking care to remove any residue, especially close to the movable parts.
5. If the tool is maintained regularly, it should provide you with trouble free service.

NOTE: Always remove the battery pack from the unit before replacing parts or maintenance.

3.7

TROUBLE SHOOTING

Problem	Cause	Solution
Charger LED lamp indicates stand by while battery is inserted.	There is dust or foreign objects lodged at the battery contacts.	Remove foreign objects.
The charger LED lamp indicates high or low temperatures.	The battery is too hot or cold.	Allow the cartridge to reach room temperature before continuing.
The motor does not operate at all.	The battery is not charged.	Charge the battery.
	There is dust or foreign objects lodged at the battery contacts.	Remove foreign objects.
	The switch is misaligned.	Check to see if switch is aligned with trigger, consult tool service.
The motor runs but nibs will not extend or nibs extend but will not build pressure.	Insufficient hydraulic oil.	Consult tool service.
	Air in hydraulic system.	Hold the tool with head towards the floor to allow air to rise towards top of oil bladder.
	Defective hydraulic circuit.	Consult tool service.
The nibs will not retract	Tool did not complete a full cycle and bypass.	Depress trigger and allow tool to reach full pressure and bypass, then depress release button to retract the nibs.
	The connector is jammed in indenting nibs.	Depress and hold release button while prying indenting nibs apart.
	The release button is bent or misaligned.	Consult tool service.

4.1 PRECAUTIONS FOR COMPRESSION TOOL

1. Not all connectors are suitable for dieless tool applications. Check your connector manufacturer recommendations on using a dieless compression tool.
2. Never operate the tool without a connector and cable in place.
3. Always point the tool away from other people.
4. If the tool is stored for an extended period at a temperature of less than 25° F (-5° C), the tool should be allowed to return to room temperature to ensure smooth operation. Use the tool only after it has been at room temperature for 1 hour.
5. Do not drop the tool. Dropping the tool may damage the hydraulic circuit and cause malfunctions.
6. Keep the head and indenting nibs clean and free of debris. Solvents can be used to clean the head but should not be used on the plastic body. Use soap & water to clean the body.

4.2 PRECAUTIONS FOR THE BATTERY PACK

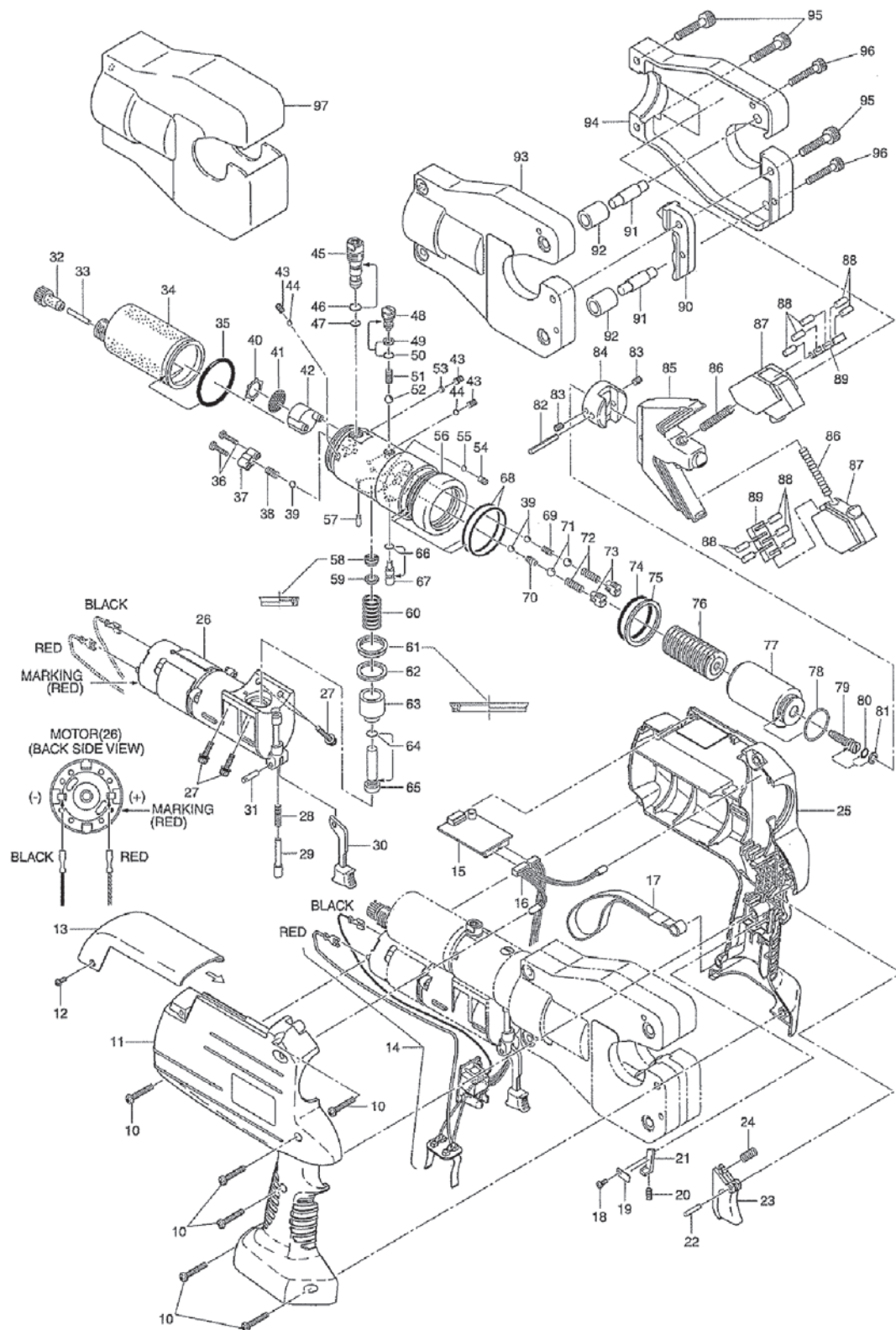
1. Do not short circuit the contacts or expose the battery to water, oil or solvents.
2. Do not disassemble or attempt to repair the battery or dispose of in a fire.
3. Do not drop or otherwise abuse the battery.
4. Do not leave the battery in locations where it will be exposed to a temperature greater than 104 degrees F (40 degrees C) for an extended period.
5. The battery has a limited life. When the capacity becomes about 1/2 that of the original capacity, the battery should be replaced.
6. If the battery is stored without being charged, natural drainage will cause the power to be reduced. The battery should be charged every 3 months if not in use regularly.

4.3 PRECAUTIONS FOR THE CHARGER

1. The LED lamp lights up green and remains lit when the unit starts charging a battery. The indicator turns orange when charging is completed.
2. This unit is for charging battery 144-BAT-LI only. Do not use the charger for any other devices.
3. Allow battery cartridges to cool before charging. Allow at least 15 minutes between charges when charging several batteries in succession.
4. Charge batteries at an ambient temperature of 50-95 degrees F (10-35 degrees C). Charging time is approximately 25 minutes for 80% capacity and 45 minutes for 100% capacity.
5. Never short circuit the output contacts.
6. Do not expose the charger to water, oil or solvents.
7. Do not disassemble, modify, drop or otherwise abuse the charger.

WARRANTY: Thomas & Betts sells this product with the understanding that the user will perform all necessary tests to determine the suitability of this product for the user's intended application. Thomas & Betts warrants that this product will be free from defects in materials and workmanship for the period stated on the enclosed warranty card. Upon prompt notification of any warranted defect, Thomas & Betts will, at its option, repair or replace the defective product. Misuse, misapplication or modification of Thomas & Betts products immediately voids all warranties.

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NO.	DESCRIPTION	CODE	QTY.
10	M4 X 20 SCREW	558-01	6
11	HOUSING (R)	558-02	1
12	M3 X 6 SCREW	R150-02	1
13	TOP COVER	558-03	1
14	SWITCH UNIT	558-04	1
15	CIRCUIT BOARD	558-06	1
16	LED HARNESS	558-05	1
17	STRAP	558-07	1
18	M3 X 5 SCREW (T.P.)	ROB-94	1
19	RETAINING PLATE	458-01	1
20	SPRING (639)	458-02	1
21	LEVER STOPPER	558-08	1
22	3 X 16 PARALLEL PIN	558-09	1
23	SWITCH KNOB	558-10	1
24	SPRING (599)	R150-09	1
25	HOUSING (L)	558-11	1
26	POWER UNIT	558-12	1
27	M4 X 14 SCREW (NI)	ROB-128B	4
28	SPRING (598)	R150-13	1
29	PUSH PIN	R150-14	1
30	RELEASE LEVER	558-13	1
31	4 X 16 DOWEL PIN (G)	24-01	1
32	RESERVOIR CAP	410-55	1
33	MAGNET	ROB-25	1
34	OIL RESERVOIR (36)	R4412-01	1
35	G-30 O-RING	75-26	1
36	M3 X 16 SCREW	R150-16	2
37	VALVE BLOCK	R150-17	1
38	SPRING (371)	51-17	1
39	3/16" BALL	16-49	3
40	SI-20 RING	410-74	1
41	FILTER SCREEN	410-73	1
42	STRAINER	R150-18	1
43	M4 X 4 SCREW (F.P.)	85-47	3
44	1/8" BALL	40-20	2
45	VALVE CARTRIDGE	R150-19E	1
46	S-8 O-RING	R510A-08	1
47	P-7 O-RING	16-60	1
48	PLUG	51-21	1
49	P-4 BACK-UP RING (B.C.)	410-47	1
50	P-4 O-RING	410-48	1
51	SPRING (341)	51-20	1
52	7/32" BALL	16-26	1
53	SEPN4 RETAINER	R150-21	1

NO.	DESCRIPTION	CODE	QTY.
54	M5 X 5 SCREW (F.P.)	510A-05	1
55	5/32" BALL	22-21	1
56	BODY	563-01	1
57	3 X 8 DOWEL PIN (D)	610F-11	1
58	PS-8 PENT SEAL	16-44	1
59	P-8 BACK-UP RING (B.C.)	85-33	1
60	SPRING (590)	R150-23	1
61	PS-20 PENT SEAL	R150-24	1
62	P-20 BACK-UP RING (B.C.)	35-18	1
63	PUMP PISTON (1)	R150-25	1
64	P-5 O-RING	5N-35	1
65	PUMP PISTON (2)	150GM-01	1
66	P-3 O-RING	16-36	1
67	RELEASE VALVE STEM	ROB-135	1
68	S-40 O-RING	C60-25	2
69	SPRING (678)	558-17	1
70	SPRING (66)	85-40	1
71	9/32" BALL	16-40	2
72	SPRING (67)	85-39	2
73	VALVE SCREW (10)	410-44	2
74	P-34 O-RING	85-23	1
75	P-34 BACK-UP RING (B.C.)	85-22	1
76	RAM SPRING (370)	UC-17	1
77	RAM	UC-16	1
78	SPRING (406)	UC-44	1
79	RETAINING SCREW	UC-12	1
80	P-6 O-RING	RB-70	1
81	P-6 BACK-UP RING (B.C.)	UC-28	1
82	4 X 30 DRIVE PIN (AW)	UC-14	1
83	M4 X 6 SCREW (F.P.)	16-42	2
84	CAM YOKE HOLDER	UC-32	1
85	CAM YOKE	6A-09	1
86	SIDE JAW SPRING (369)	UC-06	2
87	SIDE JAW	6A-07E	2
88	ROLLER	UC-07	10
89	ROLLER RETAINER	UC-08	2
90	FIXED JAW	UC-03	1
91	PIN (2)	6A-03	2
92	PIVOT ROLLER	UC-04	2
93	TOOL COVER (B)	6A-10	1
94	TOOL COVER (A)	6A-02	1
95	M6 X 30 SCREW	E3-49	3
96	M5 X 30 SCREW	EG-64	2
97	HEAD INSULATION	6A-01	1