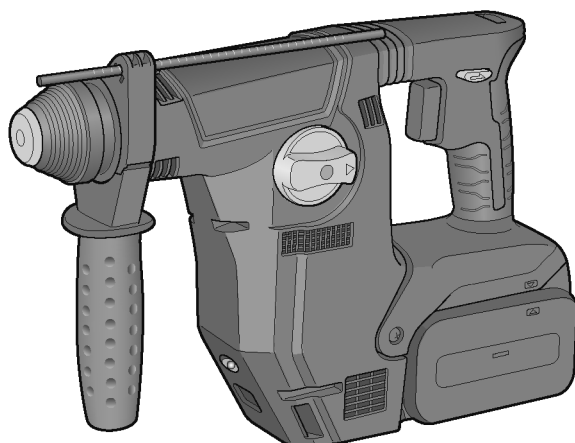


Service Manual

Cordless Rotary Hammer

Model No. EY7881

Europe



⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

IMPORTANT SAFETY NOTICE

There are special components used in this equipment which are important for safety. These parts are marked by ⚠ in the Schematic Diagrams, Circuit Board Diagrams, Exploded Views and Replacement Parts List. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent shock, fire or other hazards. Do not modify the original design without permission of manufacturer.

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Panasonic

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1 Warning

Caution:

- Pb free solder has a higher melting point than standard solder; Typically the melting point is 50 - 70 °F (30 - 40 °C) higher. Please use a soldering iron with temperature control and adjust it to 750 ± 20 °F (400 ± 10 °C). In case of using high temperature soldering iron, please be careful not to heat too long.
- Pb free solder will tend to splash when heated too high (about 1100°F / 600 °C).

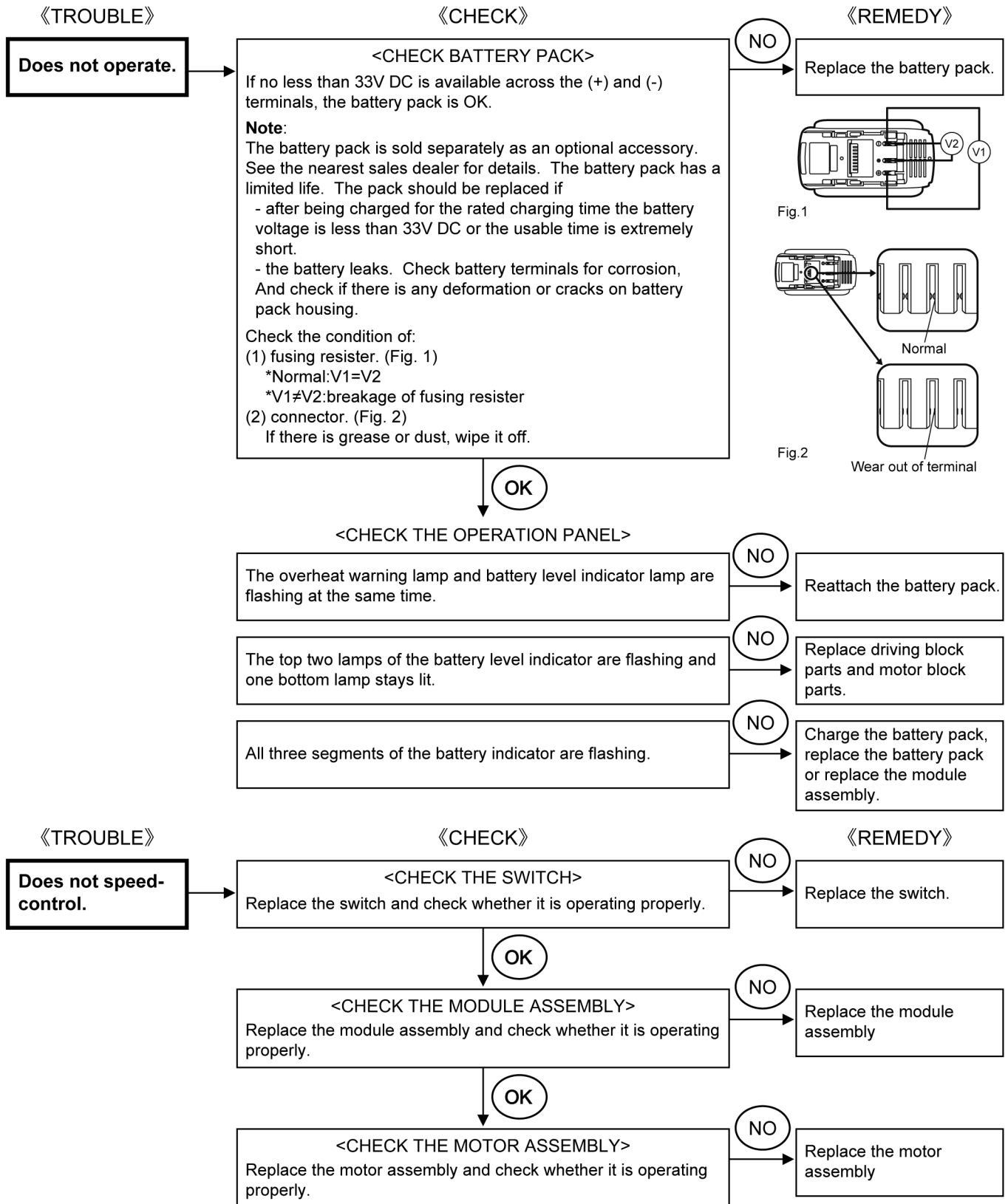
2 Specifications

MAIN UNIT

Maximum Drilling Diameter	Concrete	Ø28 mm
	Steel	Ø50 mm (Metal hole saw)
	Wood	Ø33 mm
Motor Voltage	28.8 V DC	
Speed At No Load (RPM)	Low Mode	0 – 560 min ⁻¹ (rpm)
	Middle Mode	0 – 680 min ⁻¹ (rpm)
	High Mode	0 – 840 min ⁻¹ (rpm)
Blows Rate Per Minute (BPM)	Low Mode	0 – 2950 min ⁻¹ (bpm)
	Middle Mode	0 – 3600 min ⁻¹ (bpm)
	High Mode	0 – 4400 min ⁻¹ (bpm)
Weight (with battery pack: EY9L84)	3.85 kg	
Overall length	368 mm	

3 Troubleshooting Guide

3.1. Troubleshooting Guide



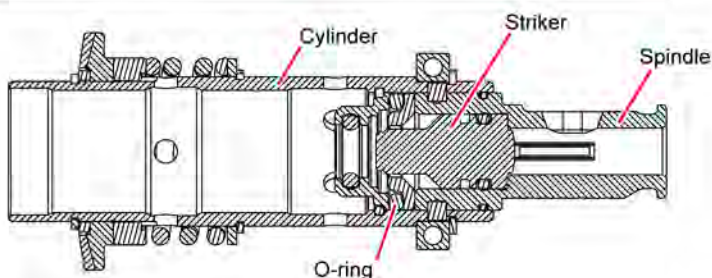
《TROUBLE》

《CHECK》

《REMEDY》

**Does not hammer
or weakness of
hammering**

Check the wear condition of hammer o-ring and inside of cylinder and spindle.



<CHECK THE STRIKER>

Check the smooth action of striker.

NO

Replace the spindle.

《TROUBLE》

《CHECK》

《REMEDY》

Oil (grease) leaks.

Check the gear case screws for tightness.
Conform if the O-ring is set proper position.

NO

Tighten the screws.
Replace the O-ring

《TROUBLE》

《CHECK》

《REMEDY》

**Dust collection
system does not
operate.**

Mount a properly functioning hammer and check for proper operation.
Check that there are no broken lead wires.
Confirm that the battery terminals of the dust collection system are not worn.

NO

Replace the housing and fan block or disconnected parts.

3.2. Trial Operation (after checking Troubleshooting Guide).

3.2.1. Hammer/Drill

- Confirm the action when setting the H/D handle to HAMMER mode.
Rotation with hammering may work when the drill bit touches something like concrete or hard type of wood block. And confirm the power.
It is OK, if it takes about 5 seconds by 20kgf to hole ($\Phi 6 \times 30$) on the concrete.
- Confirm the action when setting the H/D handle to DRILL mode.
No hammering when the drill bit touches something like concrete or hard type of wood block. And confirm the forward and reverse side of rotation.

3.2.2. Switch

- Change the rotation speed in proportion to the amount of pushing level on switch trigger.
Low mode: 0-560 min-1 (rpm)
Middle mode: 0-680 min-1 (rpm)
High mode: 0-840 min-1 (rpm)

3.2.3. Control PCB

- Press the light button on the operation panel to confirm that the LED light up.
- Check if the battery low warning lamp is lit properly.
- Disengage the lock lever and pull the battery pack to confirm that the battery level indicator lamp flashes.

3.2.4. Assembly

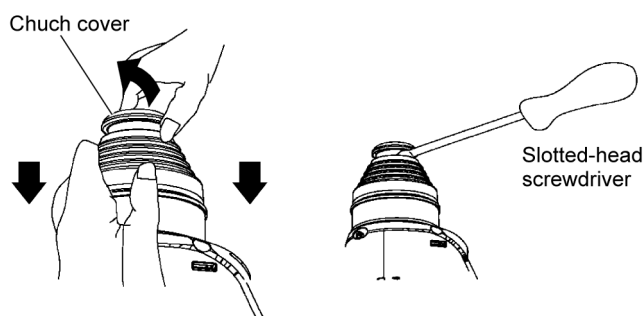
- Confirm if there is NO gap between Housing A and B by pinching the lead wires.
- Confirm all screws are tightened firmly.
- Confirm that the bellows contract smoothly.
- Install the dust collection system to the main unit and confirm proper operation.

4 Disassembly and Assembly Instructions

* To reduce the risk of injury, always remove battery pack before removing/attaching the tool.

* To assemble the tool, start with 4.6. and proceed to 4.1.

4.1. How to remove the Chuck handle.



1. Loosen the support handle and take it out from the unit.

2. Pluck the chuck cover depressing the chuck handle.

Note:

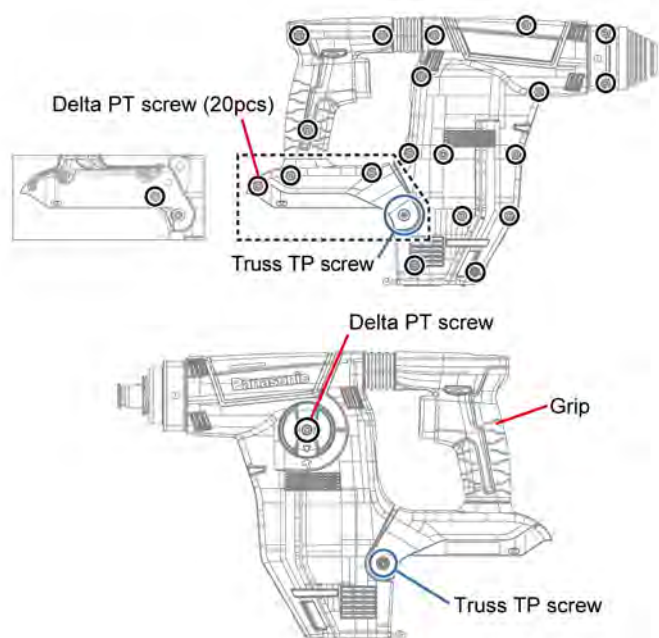
If it is hardly to take out, use the slotted-head screwdriver.

3. Remove the chuck handle.

4. Take out a steel ball pushing the chuck spring with the chuck spring plate.

5. Remove the chuck spring plate and chuck spring.

4.2. How to remove the Housing.



1. Remove 21pcs delta PT screws.

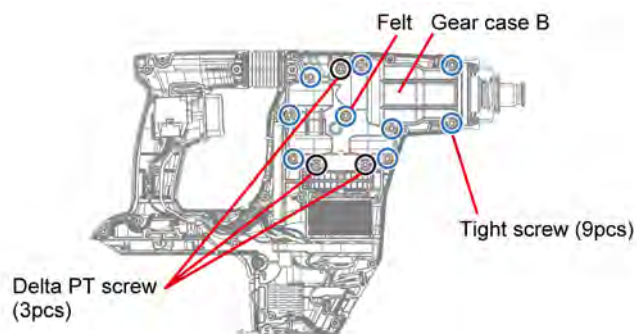
2. Remove 2pcs truss TP screwss.

3. Remove the H/D handle.

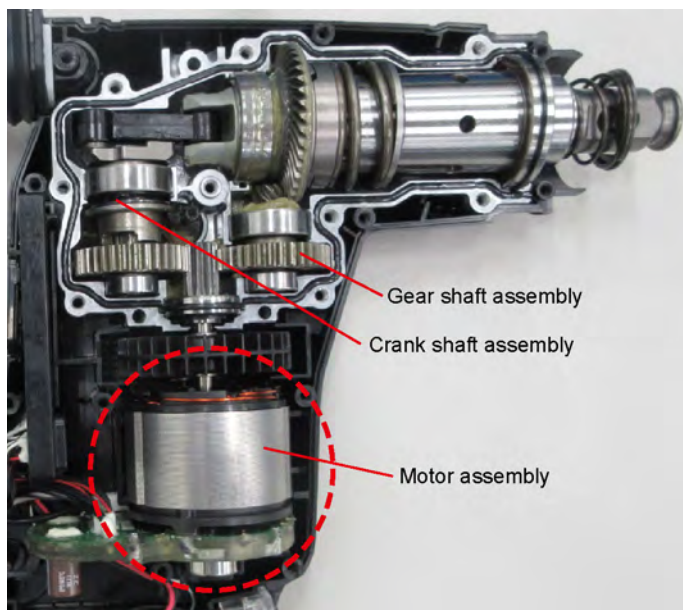
Note: (when assembling)

When reassembling, make sure that the elongated hole in the joint installed in the bellows is positioned on the grip side.

4.3. How to remove the Driving block



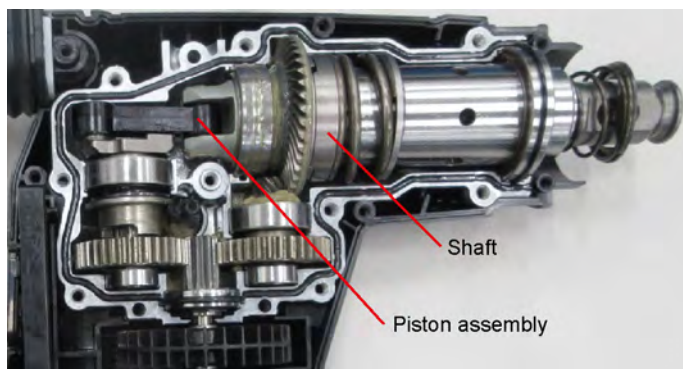
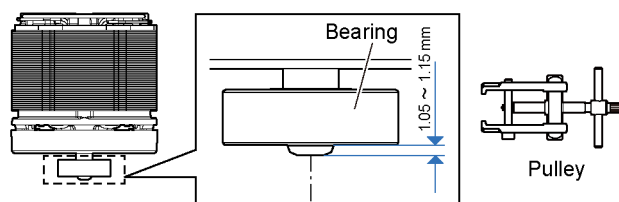
1. Remove the delta PT screws, tight screws and felt.
2. Remove the Gear case B.



3. Remove the motor assembly, switch and module assembly from the gear case A.
4. Remove the crank shaft assembly and gear shaft assembly.

Note: (when replacing the motor assembly's bearing)

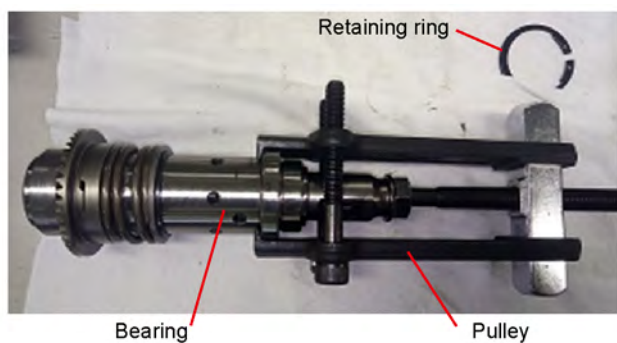
Use a pulley removal tool to dismount the bearing.



5. Remove the cylinder assembly from the gear case A.
6. Remove the shaft and piston assembly.

Note:

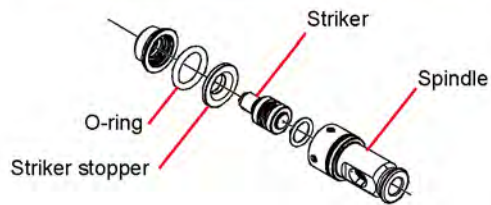
The o-ring cannot be reused after being repaired.



7. Detach the round S-type retaining ring by using a snap ring plier or the like, and then dismount the bearing by using a pulley removal tool.

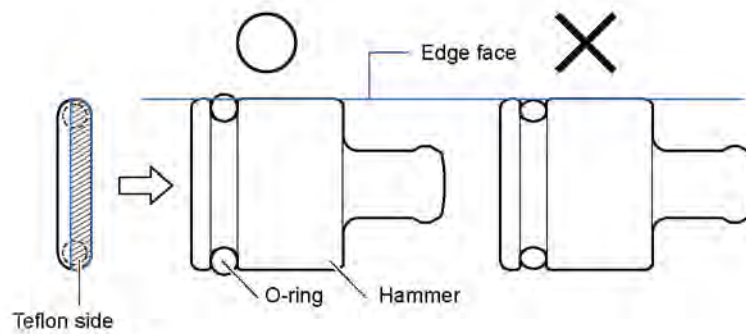


8. Remove the pins by using a magnet, and dismount the spindle, striker, striker stopper and O-ring.



4.4. Check the following when replacing the O-ring.

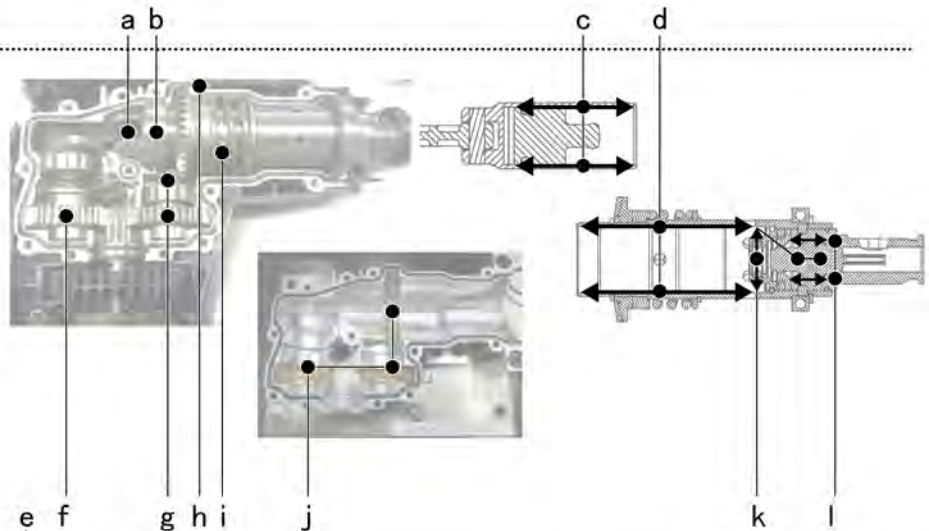
- The O-ring should extend slightly from the edge face of the hammer/striker.
- Make sure that the O-ring is not worn.
- Make sure that the installed O-ring is not twisted.



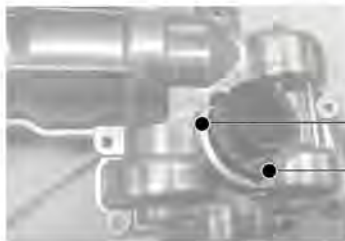
4.5. Apply grease

GREASE (WEY6811X5537)

- a. Piston block's pin
- b. Inside of shaft
- c. Inner circumference of piston assembly
- d. Inner circumference of cylinder



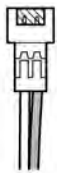
CALFOREX (WEY004X8987)



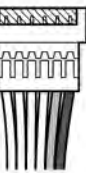
- e. Groove of change lever
- f. Upper half of gear teeth in crank shaft assembly
- g. Upper half of gear teeth at two locations in gear shaft assembly
- h. Bebel gear teeth
- i. Moving part and groove of bevel gear
- j. Fill the grooves (3 locations) on gear box
- k. O-ring sections (3 locations) in cylinder assembly
- l. Inner circumference of spindle

PERMALUB (WEY003W8957)

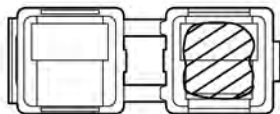
Apply grease (Permalub) to the indicated by the shaded area.



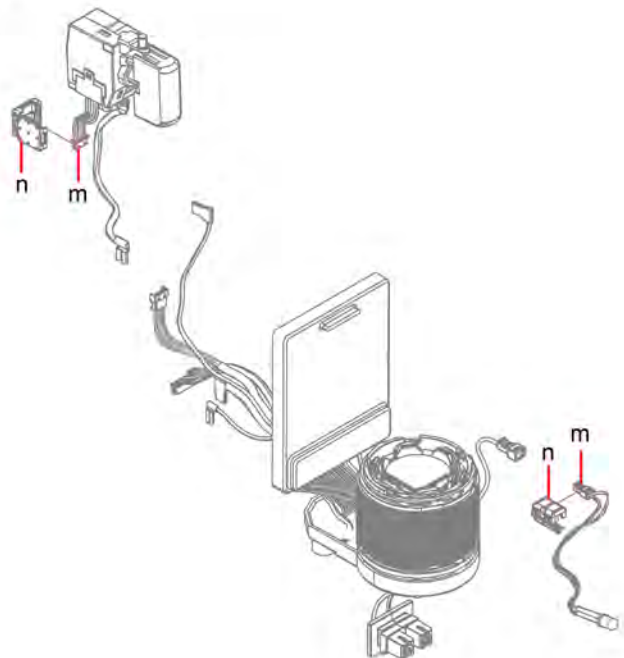
m. 2-pin connector



m. 6-pin connector

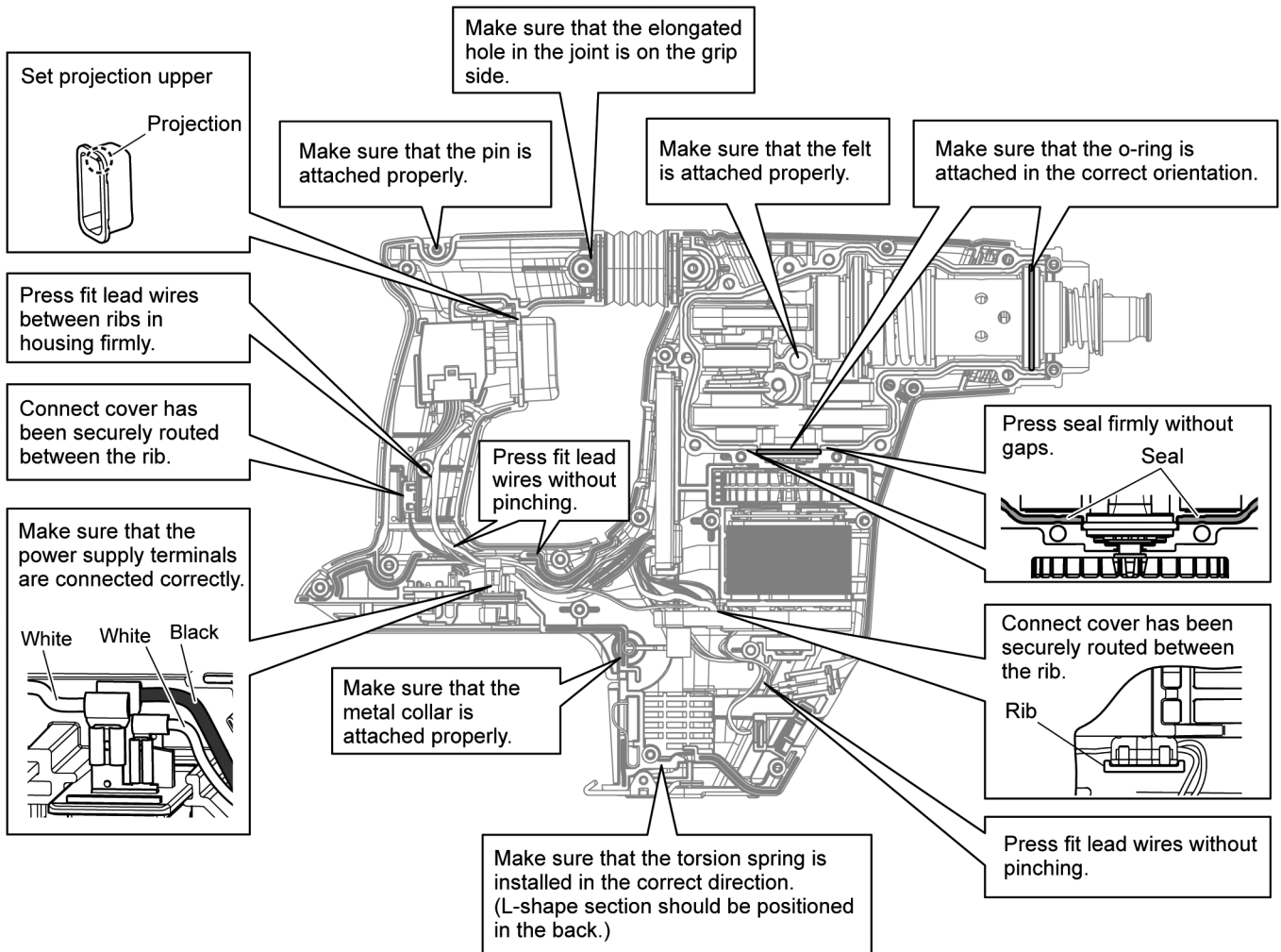


n. Inside of 2-pin/6-pin connect cover



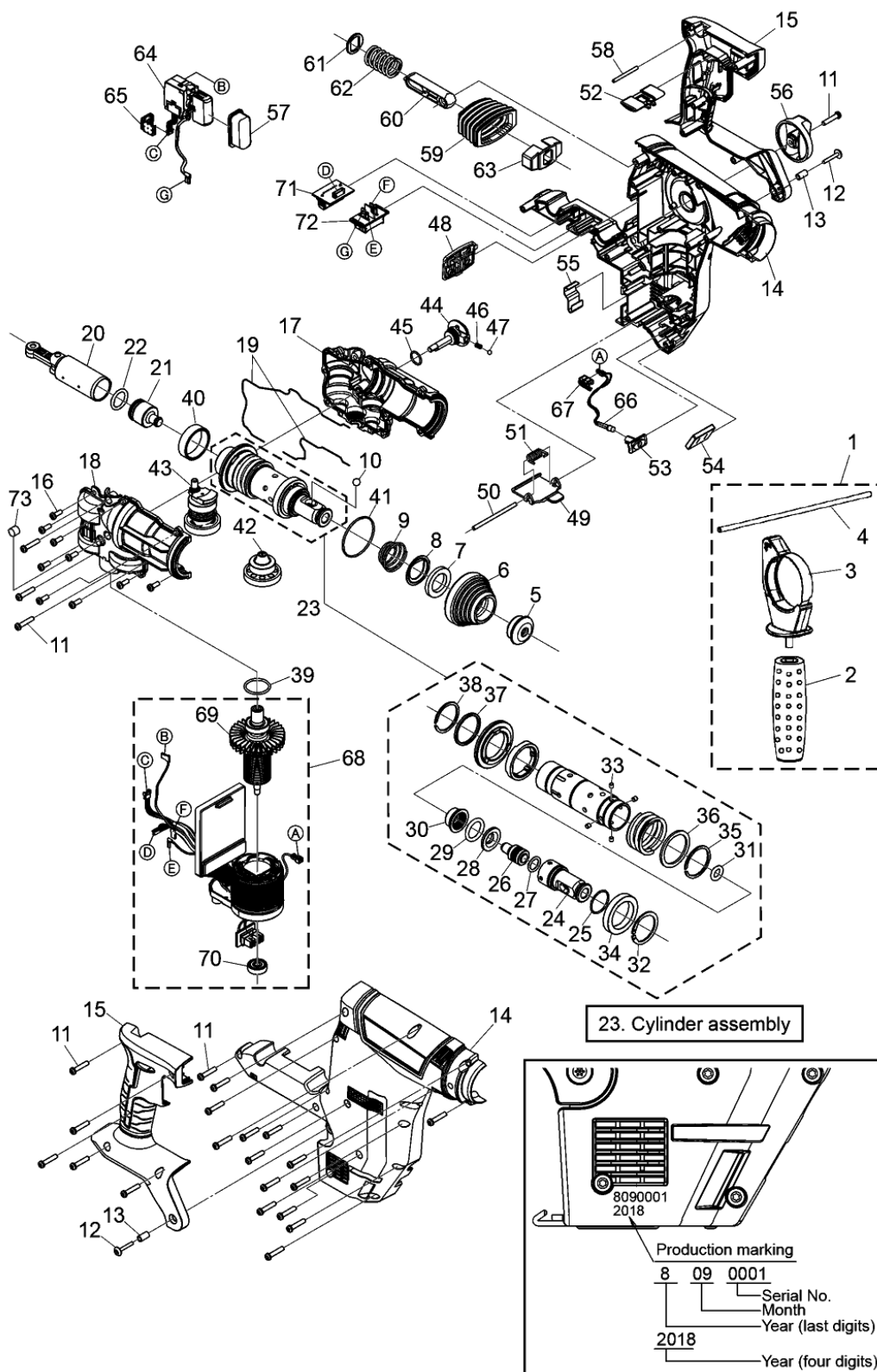
*Note: When assembling
The connect cover cannot be reused after being repaired.

4.6. Wiring and Assembly Points.



5 Exploded View and Replacement Parts List

Model No. : EY7881 Exploded View



Model No. : EY7881 Parts List

Change	Safety	Ref. No.	Part No.	Part Name & Description	Q'ty	Remarks
EY7881						
		1	WEY6813K4627	AUXILIARY HANDLE	1	
		2	WEY6813H3927	GRIP	1	
		3	WEY6813K4637	SUPPORT HANDLE	1	
		4	WEY6813H7727	DEPTH GAUGE	1	
		5	WEY6813H3117	CHUCK COVER	1	
		6	WEY6813K3127	CHUCK HANDLE	1	
		7	WEY6813L0427	BALL GUIDE	1	
		8	WEY6813L0437	CHUCK SPRING STRIKE PLATE	1	
		9	WEY6813L0916	CHUCK SPRING	1	
		10	WEY6813L1917	STEEL BALL	1	
		11	WEY7881K9567	DELTA PT SCREW	24	(4*20), (5PCS/PK)
		12	WEY7881S9567	TRUSS TP SCREW	2	(2PCS/PK)
		13	WEY7881S0837	METAL COLLAR	2	(2PCS/PK)
		14	WEY7881K3078	HOUSING AB SET	1	
		15	WEY7881K3937	GRIP AB SET	1	
		16	WEY7881S6067	TIGHT SCREW	9	(K4*10), (5PCS/PK)
		17	WEY7881S1847	GEAR CASE A	1	
		18	WEY7881S1857	GEAR CASE B	1	
		19	WEY7881K0957	SEAL LS SET	1	
		20	WEY7881L1987	PISTON ASSEMBLY	1	
		21	WEY7881S1617	HAMMER	1	
		22	WEY6812L0976	O-RING	1	
		23	WEY7881S1207	CYLINDER ASSEMBLY	1	
		24	WEY7881S1987	SPINDLE	1	
		25	WEY7881K0937	O-RING	1	(22.5*1.5)
		26	WEY7881L1237	STRIKER	1	
		27	WEY7881K0947	O-RING	1	(11.8*2.4)
		28	WEY7881L0497	STRIKER STOPPER	1	
		29	WEY7881K0997	O-RING	1	(18*3.55)
		30	WEY7881L3717	RUBBER HOLDER	1	
		31	WEY7881K0967	O-RING	1	(9.12*3.53)
		32	WEY7881K0417	RETAINING RING	1	
		33	WEY7881S0507	PIN	1	(4PCS/PK)
		34	WEY7881S4957	BEARING	1	
		35	WEY7881K0427	RETAINING RING	1	
		36	WEY7881L0487	THRUST PLATE	1	
		37	WEY7881L0367	BEVEL GEAR SLEEVE	1	
		38	WEY7881L0647	RETAINING RING	1	
		39	WEY6813L0367	O-RING	1	
		40	WEY6812L0386	SHAFT	1	
		41	WEY7881K0977	O-RING	1	
		42	WEY7881S1527	GEAR SHAFT ASSEMBLY	1	
		43	WEY7881S1537	CRANK SHAFT ASSEMBLY	1	
		44	WEY7881K1587	CHANGE LEVER	1	
		45	WEY7881K0987	O-RING	1	
		46	WEY7881K0187	CLICK SPRING	1	
		47	WEY7880B6967	STEEL BALL	1	
		48	WEY74A2K3959	OPERATION PANEL	1	
		49	WEY7880L0257	LOCK LEVER	1	
		50	WEY7880L0287	PIN	1	
		51	WEY7880L0187	SPRING	1	
		52	WEY7880L3147	F/R HANDLE	1	
		53	WEY6803L2337	LED COVER	1	
		54	WEY7881K3127	DUST TERMINAL COVER	1	
		55	WEY7880L0167	PLATE SPRING	1	
		56	WEY7881H3237	H/D HANDLE	1	
		57	WEY7880L3137	TRIGGER COVER	1	
		58	WEY7880L0507	PIN	1	(3*34)
		59	WEY7881K3107	BELLOWS	1	
		60	WEY7881K1447	JOINT	1	
		61	WEY7881W0297	SPRING RECIEVER A	1	

Model No. : EY7881 Parts List

Change	Safety	Ref. No.	Part No.	Part Name & Description	Q'ty	Remarks
		62	WEY7881L3537	ANTI-VIBRATION SPRING	1	
		63	WEY7881W0487	SPRING RECIEVER B	1	
		64	WEY7881L2007	SWITCH	1	
		65	WEY75A8W3127	CONNECTOR COVER 6P	1	
		66	WEY7881L2887	LED HARNESS	1	
		67	WEY75A8W3117	CONNECTOR COVER 2P	1	
		68	WEY7881L1007	MOTOR ASSEMBLY	1	
		69	WEY7881S4377	ROTOR BEARING ASSEMBLY	1	
		70	WEY7881S1127	BEARING	1	
		71	WEY7881L2087	8-PIN CONNECTOR	1	
		72	WEY7880L2157	BATTERY TERMINAL BASE	1	
		73	WEY7881F0247	FELT	1	
		-	WEY7881K8108	OPERATING INSTRUCTIONS	1	
		-	WEY004X8987	GREASE	1	
		-	WEY003W8957	GREASE (PERMALUB)	1	
		-	WEY6811X5537	GREASE (ASG-22)	1	