

# Service Manual

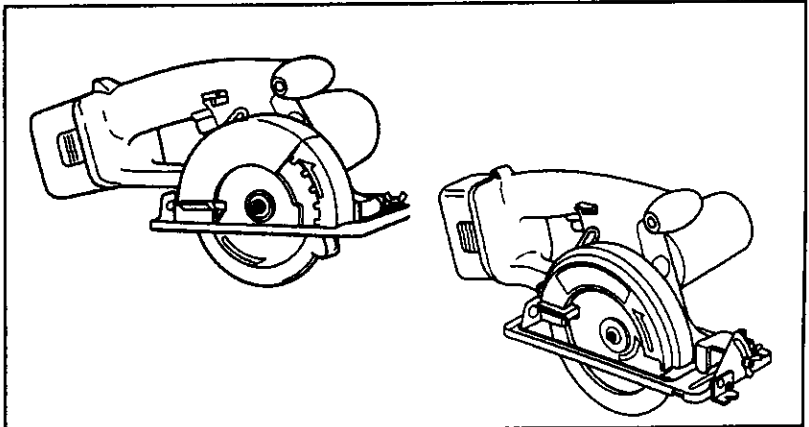
Cordless Metal Saw

Cordless Wood Saw

## EY3530 • EY3531

### CONTENTS

	Page
• Specifications .....	1
• Disassembly & Assembly Instructions .....	2 -6
• Schematic Diagram .....	7
• Wiring Connection Diagram ..	7
• Troubleshooting .....	8
• Exploded View .....	9 -10
• Replacement Parts List .....	11 -12



### SPECIFICATIONS

#### METAL CUTTER

Motor voltage	:	15.6V DC
Blade speed	:	3,100 min(RPM)
Blade size    Outside diameter	:	135mm, 5-5/16"
Mounting hole	:	20mm, 25/32"
Maximum cutting depth	:	3~46mm, 1/8"~1-13/16" (φ 135mm blade)
Dimensions    Length	:	350mm, 13-25/32"
Width	:	198mm, 7-51/64"
Height	:	181mm, 7-1/8"
Cutting Angle (only for EY3531)	:	0~45°
Weight	:	3.0kg, 6.6lbs. including battery pack

#### BATTERY PACK

Storage battery	:	Ni-Cd battery
Battery voltage	:	15.6V DC (1.2V×13 cells)
Battery life	:	Approx. 1,200 cycles (1 cycle = 1 charge / 1 discharge)

#### BATTERY CHARGER

Input	:	120V AC
Weight	:	1.32kg, 2.9lbs.
Charging time	:	Approx. 15/20 Minutes

#### STANDARD EQUIPMENT

Battery charger, Battery pack, Blade, Hex wrench, Tool case

#### ⚠WARNING

This service literature 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.

# Panasonic

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## DIASSEMBLY INSTRUCTIONS

### ■ BLADE REMOVAL.

Ref. No. 1A	Blade Removal or Installation.	Procedure 1A
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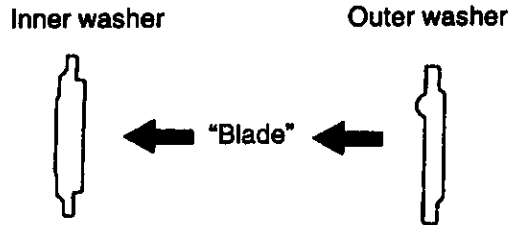
**Note : Make sure that battery pack is removed from the saw prior to servicing.**

**(Blade removal)**

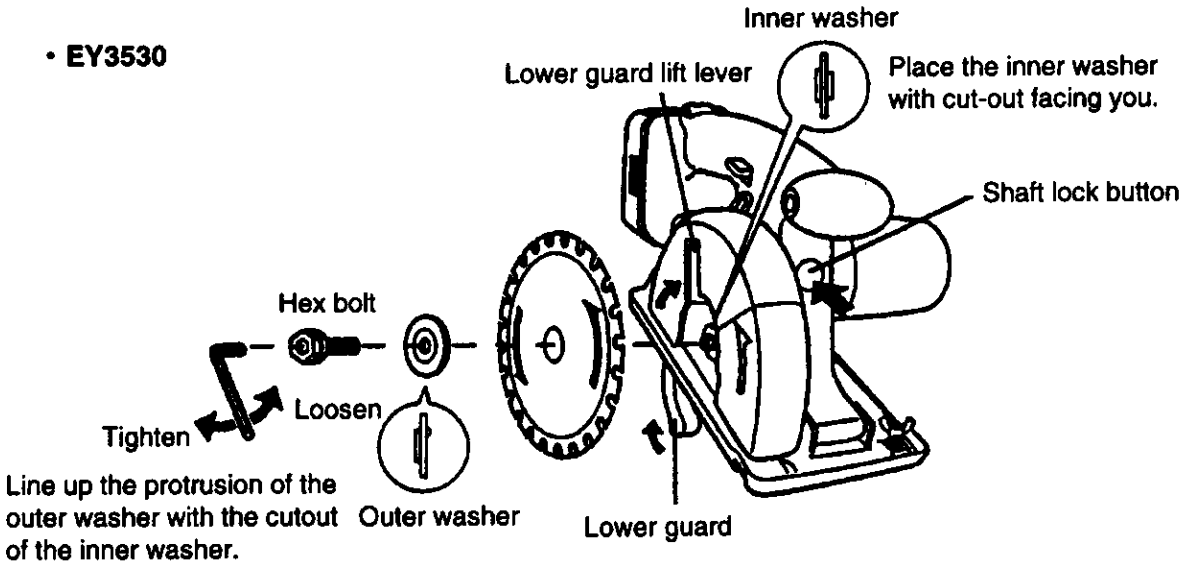
1. Hold the shaft lock button down.  
This prevents the blade from rotating.
2. Use the provided hex wrench to loosen the hex bolt.
3. Remove the hex bolt and outer washer.
4. Use the lower guard lift lever to retract the lower guard.
5. Carefully remove the blade.

**(Note for assembly)**

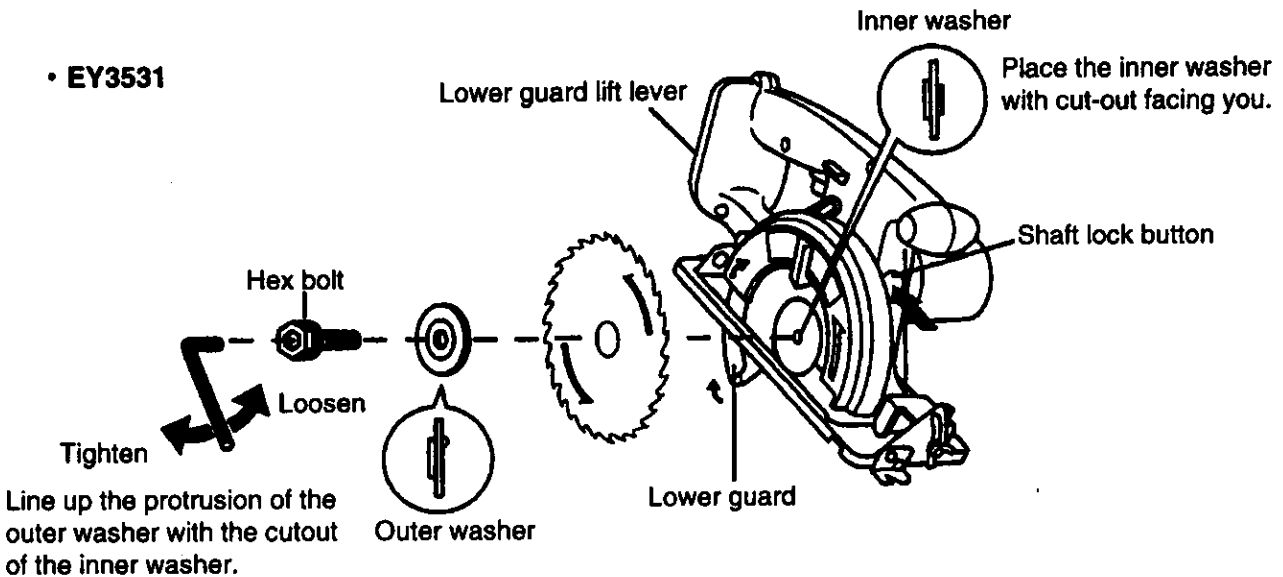
When assembling the inner washer and the outer washer, be sure to check the direction.



• **EY3530**



• **EY3531**

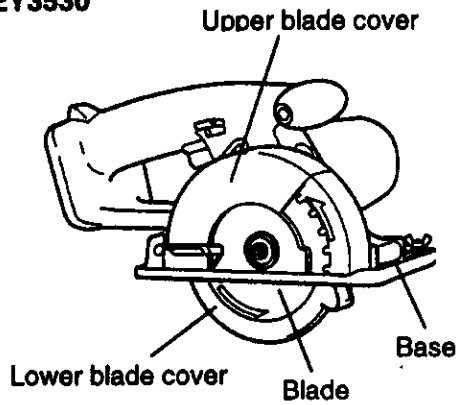


■ MAIN UNIT DISSASSEMBLY. (The main unit can be opened without removing the base.)

\* When disassembling the base, push out the spring pin with a rod having a diameter of 5mm.

Ref. No. 1B	Removal of the upper and lower blade guard.	Procedure 1A → 1B
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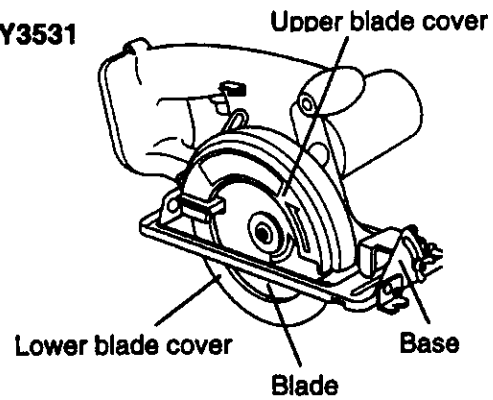
• EY3530



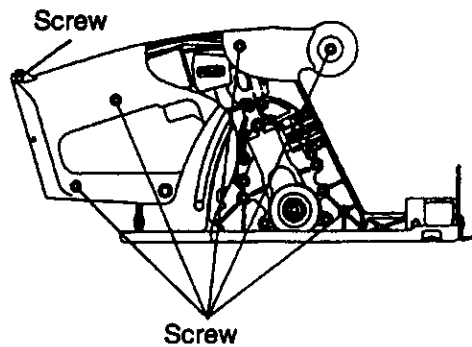
1. Loosen the base depth adjustment screw which is located under the grip of main unit and push base down
2. Remove two screws securing blade cover.
3. Remove stop ring.
4. Remove the lower and upper blade guard.

Note : When removing the lower blade guard from the housing, do not stretch the spring.

• EY3531



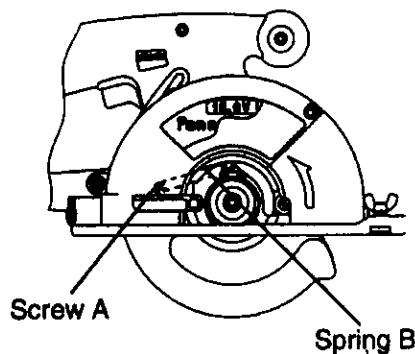
Ref. No. 1C	Housing Removal Procedure	1A → 1B → 1C
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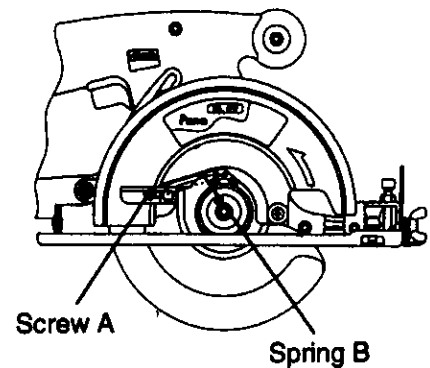
1. Remove the 6 housing screws (fearson type). It is then possible to disassemble the main unit or to check the switch block and motor.

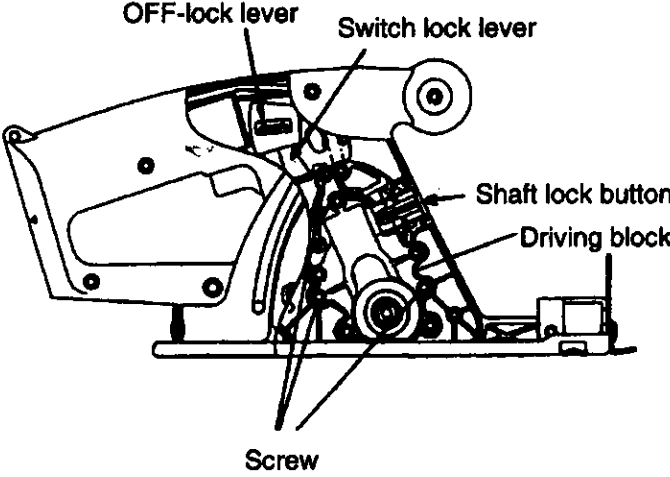
NOTE : Do not remove screw A that holds spring B except in the case of damage.

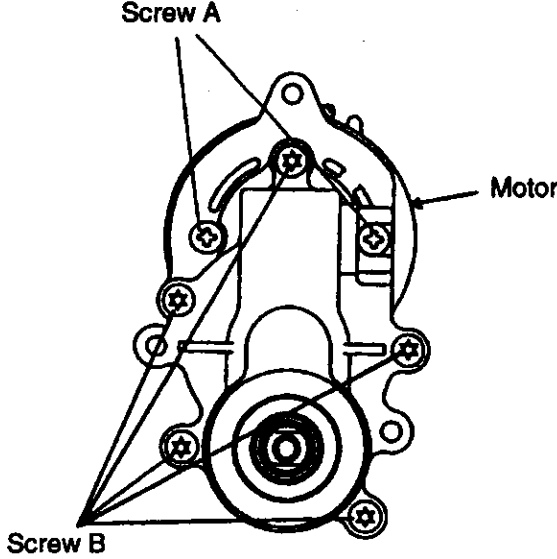
• EY3530



• EY3531



Ref. No. 1D	Removal of the driving block.	Procedure 1A → 1B → 1C → 1D
		<ol style="list-style-type: none"> <li>1. Remove the OFF-lock lever and the switch lock lever.</li> <li>2. Loosen the three screws which secure the driving block.</li> <li>3. Press the shaft lock button and carefully remove the drive block assembly.</li> </ol> <p>Note : The shaft lock button is spring loaded and will pop out if it is not pushed in while removing drive block.</p>

Ref. No. 1E	Removal of the gear box block.	Procedure 1A→1B→1C→1D→1E
		<ol style="list-style-type: none"> <li>1. Remove the two screws (A) which fasten the motor to the gear box block and remove gear box.</li> <li>2. To disassemble the gear box block, remove remaining 5 screws (B) and carefully separate housing</li> </ol>

## CAUTION FOR REASSEMBLY

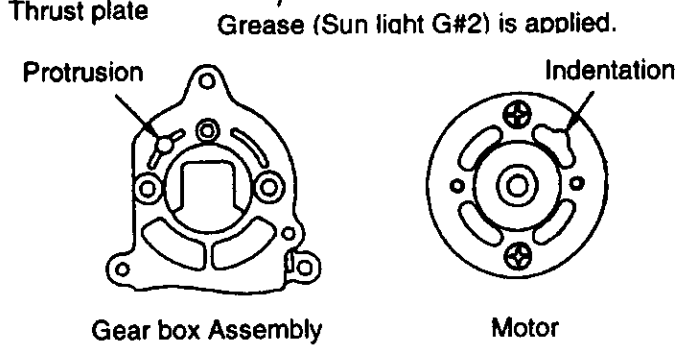
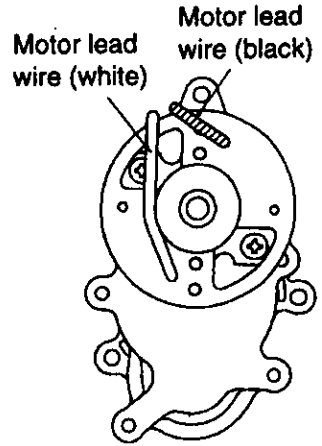
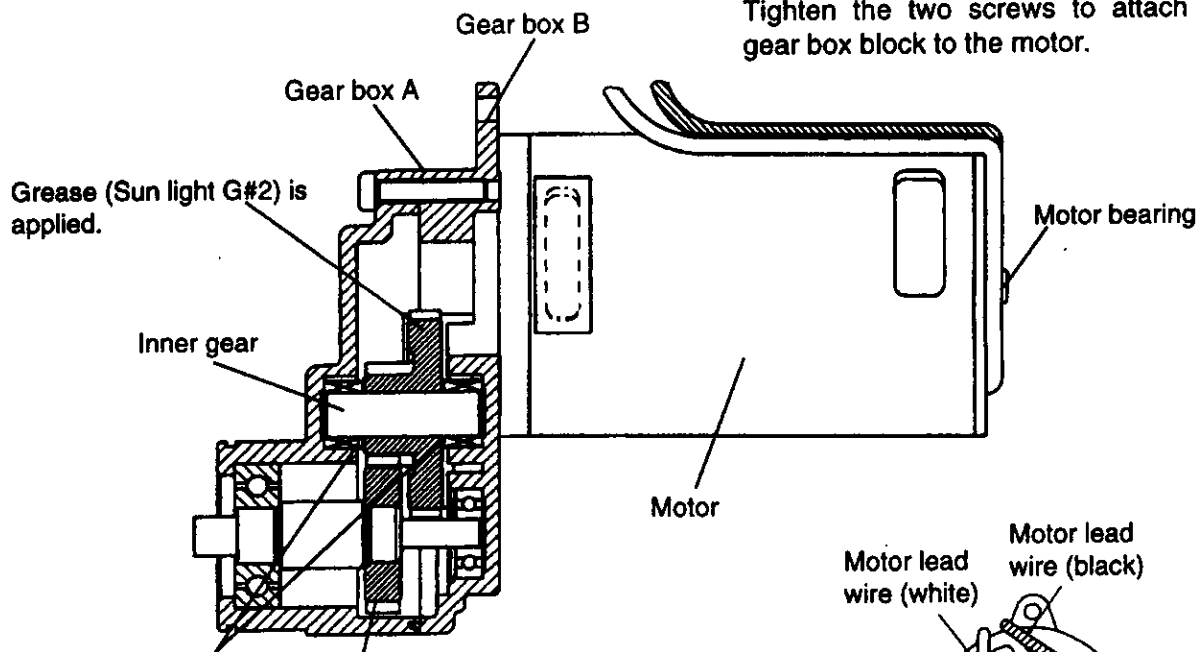
The proper operation of the "switch lock lever" is critical for the safe use and operation of the metal cutter. Be extra careful in re-assembling the unit and ensure that the "switch lock lever" and the "off lock lever" are properly positioned. Verify the operation of the "switch lock lever" upon completing the re-assembly procedure. Ensure that the power switch can only be activated after depressing the "switch lock lever".

## ASSEMBLY INSTRUCTIONS

■ HOW TO ASSEMBLE THE DRIVING BLOCK.

Ref. No. 2A	Assembly of the gear box block.	Procedure 2A
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1. The internal gear block has two thrust plates, note proper positioning for reassembly.  
If thrust plates are not properly set, abnormal operating sounds may occur.
2. Align the protrusion on the back of the gear box with the indentation on the motor.  
Tighten the two screws to attach the gear box block to the motor.



Ref. No. 2B

Assembly of the driving block.

Procedure 2A → 2B

When installing the drive block into the housing;

1. Make sure that the motor leads are not positioned over the motor bearing.
2. Push and hold the shaft lock button while inserting the drive block into the housing.  
Note: Confirm the direction of the shaft lock button.(See fig.1) Align D-cut up.
3. Attach the white and black lead wires to the switch block.
4. Put the switch lock lever into the OFF-lock lever, and insert it into the housing boss.
5. Attach the switch lock spring to the housing boss and the switch lock lever boss.

**(Check-Points)**

1. Check the lead wires, be certain they are mounted in the proper position.  
Note : If they are not mounted in the proper position, it is possible to sever the wires by pinching the lead wires in between housings.
2. Check the lead wires, make sure they are not set on the screw bosses or over the housing ribs.

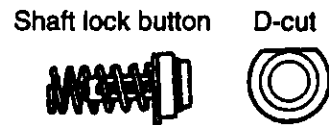
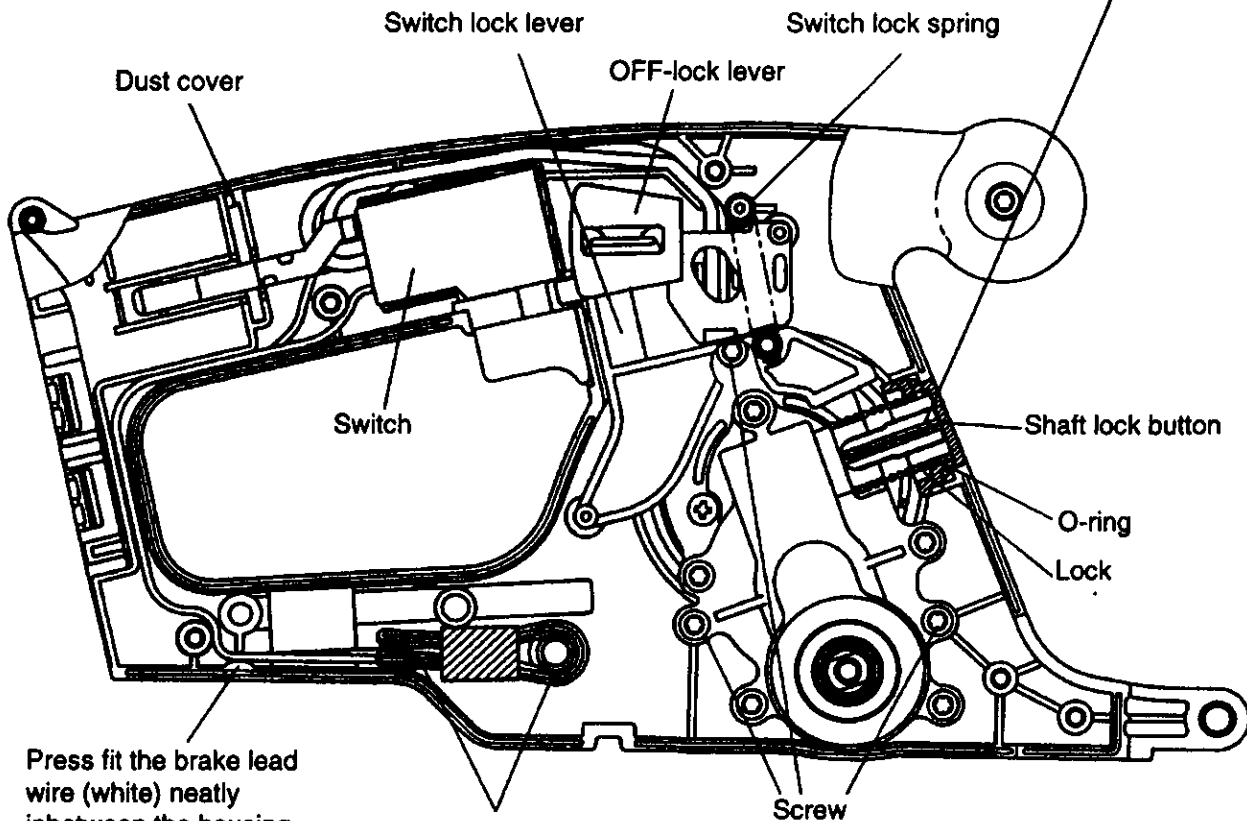


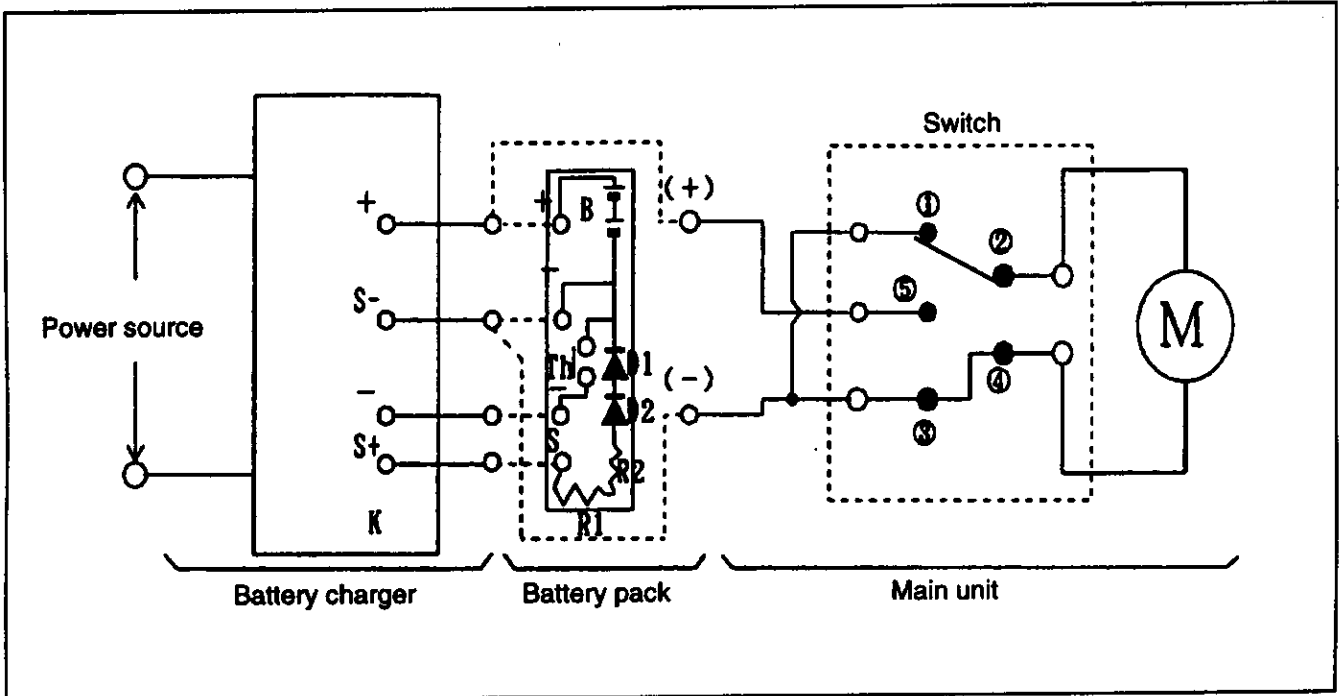
Fig. 1



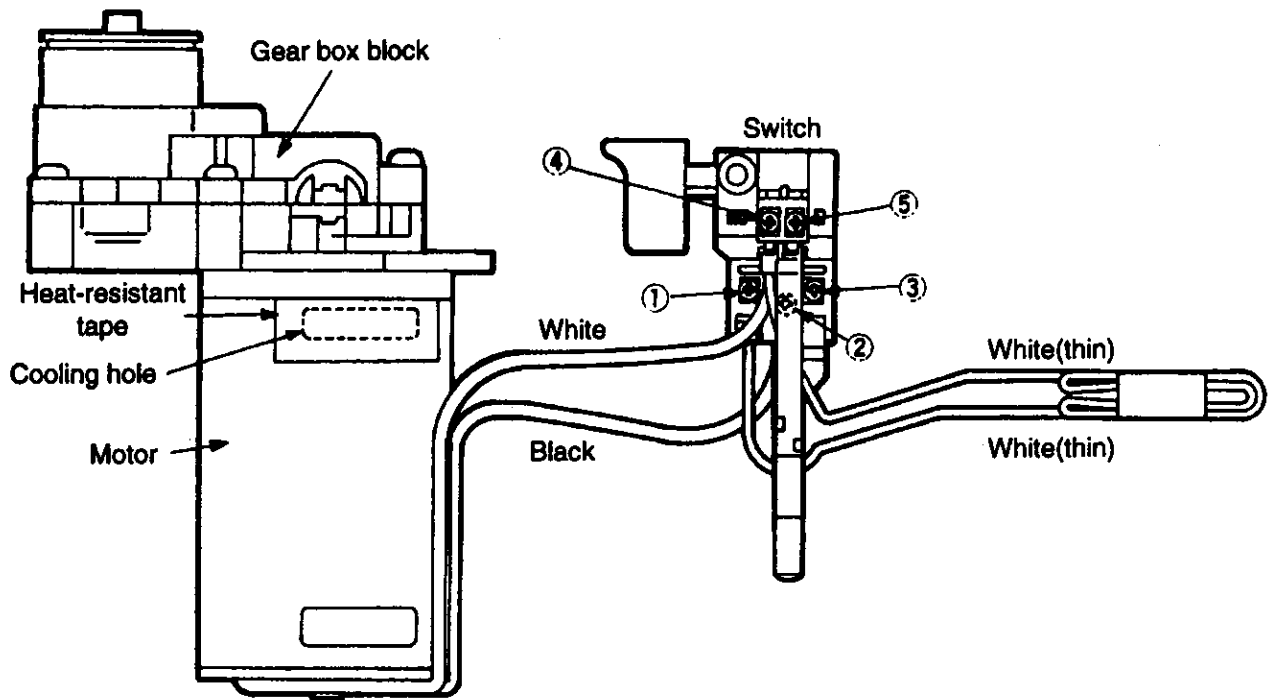
Press fit the brake lead wire (white) neatly inbetween the housing ribs.

Carefully position the brake lead bundle so that it will not be pinched in between the housing.

### SCHEMATIC DIAGRAM



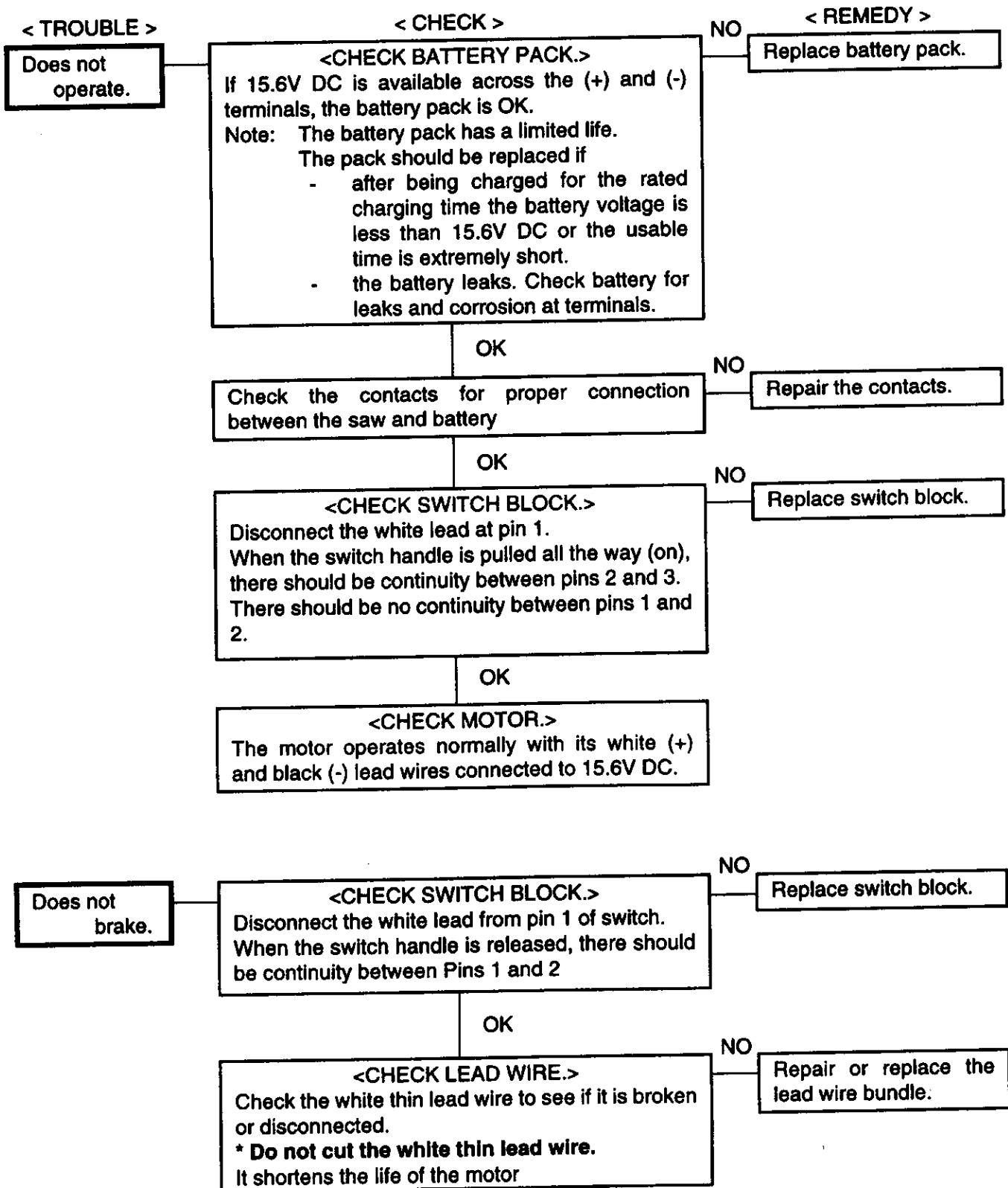
### WIRING CONNECTION DIAGRAM



\* Do not cut, remove or shorten the white thin lead wire.

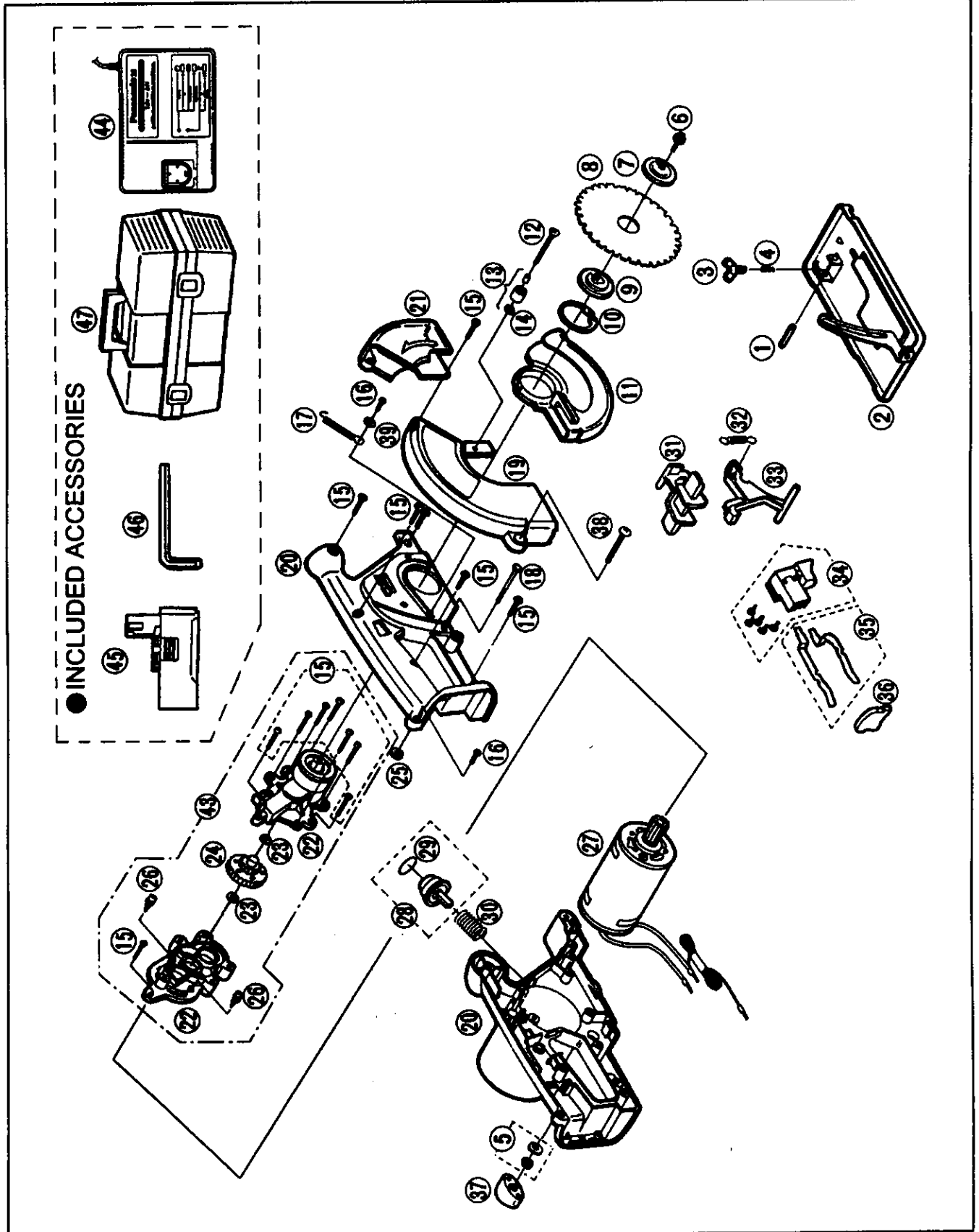
※ CAUTION ... Make sure that battery pack and blade are removed before trouble shooting or repair.

### TROUBLESHOOTING GUIDE (Refer to WIRING CONNECTION DIAGRAM)

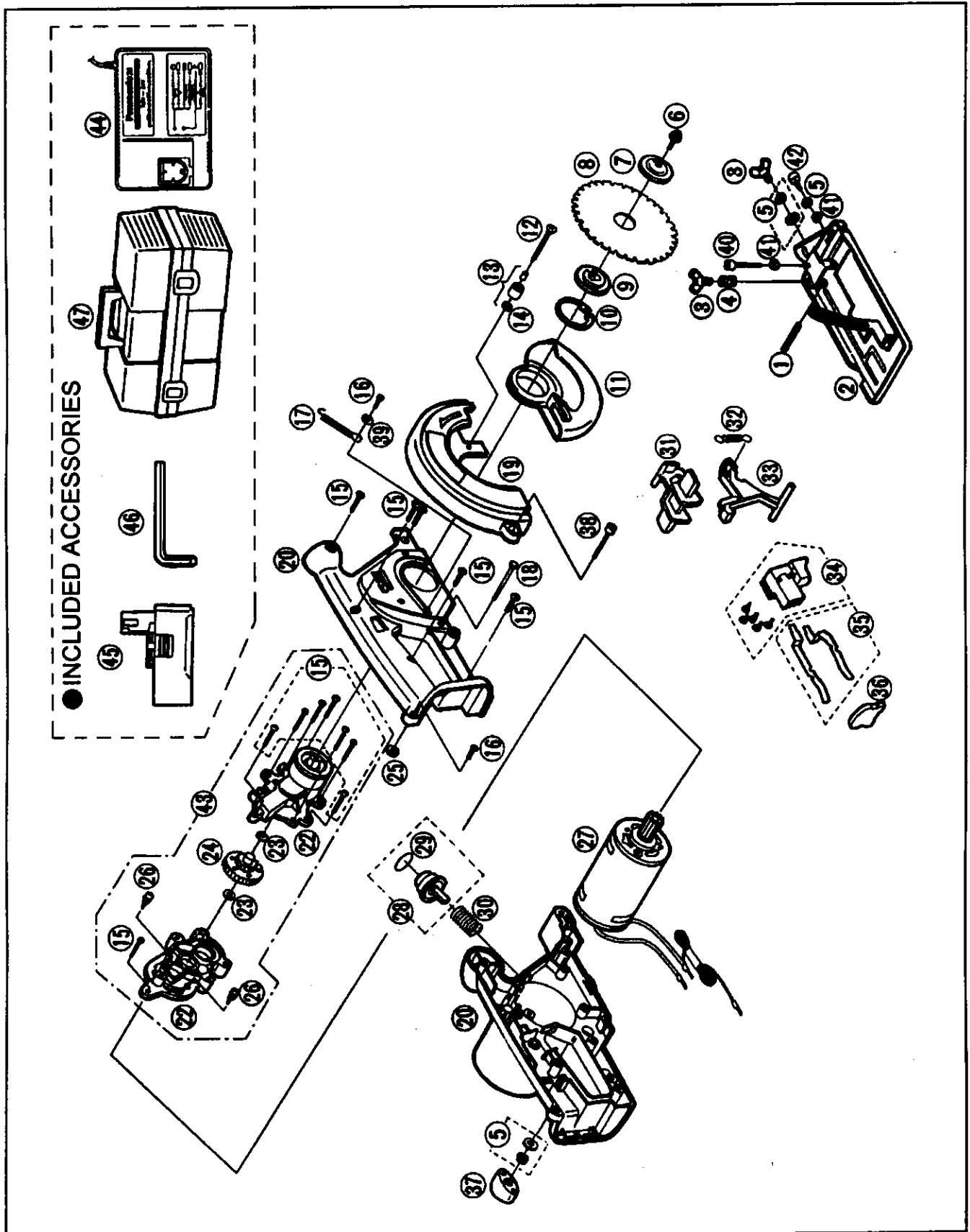




# EXPLODED VIEW FOR EY3530



### EXPLODED VIEW FOR EY3531



## REPLACEMENT PARTS LIST FOR EY3530

NOTE : \*A . . . available as an optional accessory  
 \*B . . . only available as set  
 \*C . . . available individually

Ref.No.	Part No.	Part Name & Descriptions	Per unit	Remarks
1	EY3500K0357	SPRING PIN	1	φ 6-45
▲ 2	EY3530S3428	BASE	1	
3	EY3530S6487	ADJUSTING BOLT	2	*C
4	EY3503K0197	SPRING	1	φ 7.6*15
5	EY3503S6387	WASHER	1 SET	*B φ 5/5*0.8
▲ 6	EY3530K6257	FLANGE SOCKET	1	M5-12
7	EY3501K1177	OUTER WASHER	1	
8	EY9PM13C	BLADE	1	*A
9	EY3503L1167	INNER WASHER	1	
10	EY3503L0427	STOP RING	1	
▲ 11	EY3530K1197	LOWER BLADE GUARD	1	
12	EY3503S9387	TAPPING SCREW	1	S4-40
13	EY3503K0397	LOWER GUARD STOPPER	1	
14	EY3500Y6457	WASHER	1	φ 4
15	EY3503K6208	TAPPING SCREW	14	*C K4-20
16	EY3503K6228	TAPPING SCREW	2	*C K3-12
17	EY3503L0927	SPRING	1	φ 5.45*47
18	EY3503L6537	SQUARE SCREW	1	
▲ 19	EY3530K3108	UPPER BLADE COVER	1	
▲ 20	EY3530K3078	HOUSING AB SET	1	
▲ 21	EY3530X3117	TRANSPARENT COVER	1	
▲ 22	EY3530L1767	GEAR BOX	1	
23	EY3503L0847	THRUST PLATE	2	
▲ 24	EY3530L1437	INTERNAL GEAR	1	
▲ 25	EY3530L0977	O-RING	1	
26	EY3503L6067	SEMS SCREW	2	*C K4-10
▲ 27	EY3530L1008	MOTOR	1	
▲ 28	EY3530Y0368	SHAFT LOCK BUTTON	1	
29	EY3500K0967	O-RING	1	
30	EY3500K0197	LOCK SPRING	1	φ 15.4*37
31	EY3503Y1588	SWITCH LOCK LEVER	1	
32	EY3500K0917	SWITCH LOCK SPRING	1	φ 5.7*28.2
33	EY3503Y3238	OFF LOCK LEVER	1	
34	EY3550Y2008	POWER SWITCH	1	
35	EY3500K0067	BATTERY CONTACTS	1	
36	EY3510L0207	DUST COVER	1	
37	EY3503K0897	DEPTH ADJUSTING NUT	1	
▲ 38	EY3530K6367	SCREW	1	M5*35
▲ 39	EY3530L6467	WASHER	1	φ 3
▲ 43	EY3530L1458	GEAR BOX BLOCK	1	
44	EY0213	BATTERY CHARGER	1	*A
45	EY9136	BATTERY PACK	1	*A
46	EY3542B7867	HEX WRENCH	1	
47	EY9593	TOOL CASE	1	*A
▲ -	EY3530K8008	INDIVIDUAL BOX	1	
▲ -	EY3530K8108	OPERATING INSTRUCTIONS	1	

## REPLACEMENT PARTS LIST FOR EY3531

NOTE : \*A . . . available as an optional accessory  
 \*B . . . only available as set  
 \*C . . . available individually

Ref.No.	Part No.	Part Name & Descriptions	Per unit	Remarks
1	EY3500K0357	SPRING PIN	1	φ 6-45
▲ 2	EY3531S3428	BASE	1	
3	EY3530S6487	ADJUSTING BOLT	2	*C
4	EY3503K0197	SPRING	1	φ 7.6*15
5	EY3503S6387	WASHER	3 SET	*B φ 5(3)/5*0.8(2)
▲ 6	EY3530K6257	FLANGE SOCKET	1	M5-12
7	EY3501K1177	OUTER WASHER	1	
8	EY9PW13A	BLADE	1	*A
9	EY3503L1167	INNER WASHER	1	
10	EY3503L0427	STOP RING	1	
▲ 11	EY3503H1197	LOWER BLADE GUARD	1	
12	EY3503S9387	TAPPING SCREW	1	S4-40
13	EY3503K0397	LOWER GUARD STOPPER	1	
14	EY3500Y6457	WASHER	1	φ 4
15	EY3503K6208	TAPPING SCREW	14	*C K4-20
16	EY3503K6228	TAPPING SCREW	2	*C K3-12
17	EY3503L0927	SPRING	1	φ 5.45*47
18	EY3503L6537	SQUARE SCREW	1	M5
▲ 19	EY3531K3108	UPPER BLADE COVER	1	
▲ 20	EY3531K3078	HOUSING AB SET	1	
▲ 22	EY3530L1767	GEAR BOX	1	
23	EY3503L0847	THRUST PLATE	2	
▲ 24	EY3530L1437	INTERNAL GEAR	1	
▲ 25	EY3530L0977	O-RING	1	
26	EY3503L6067	SEMS SCREW	2	*C K4-10
▲ 27	EY3530L1008	MOTOR	1	
▲ 28	EY3530Y0368	SHAFT LOCK BUTTON	1	
29	EY3500K0967	O-RING	1	
30	EY3500K0197	LOCK SPRING	1	φ 15.4*37
31	EY3503Y1588	SWITCH LOCK LEVER	1	
32	EY3500K0917	SWITCH LOCK SPRING	1	φ 5.7*28.2
33	EY3503Y3238	OFF LOCK LEVER	1	
34	EY3550Y2008	POWER SWITCH	1	
35	EY3500K0067	BATTERY CONTACTS	1	
36	EY3510L0207	DUST COVER	1	
37	EY3503K0897	DEPTH ADJUSTING NUT	1	
▲ 38	EY3530K6367	SCREW	1	M5*35
▲ 39	EY3530L6467	WASHER	1	φ 3
40	EY3503K6757	HEX HOLE BOLT	1	M5-35
41	EY3503S6547	HEX NUT	2	*C M5
42	EY3503K6708	SOCKET BUTTON HEAD CUP SCREW	1	M5*14
▲ 43	EY3530L1458	GEAR BOX BLOCK	1	
44	EY0213	BATTERY CHARGER	1	*A
45	EY9136	BATTERY PACK	1	*A
46	EY3542B7867	HEX WRENCH	1	
47	EY9593	TOOL CASE	1	*A
▲ -	EY3531K8008	INDIVIDUAL BOX	1	
▲ -	EY3531K8108	OPERATING INSTRUCTIONS	1	