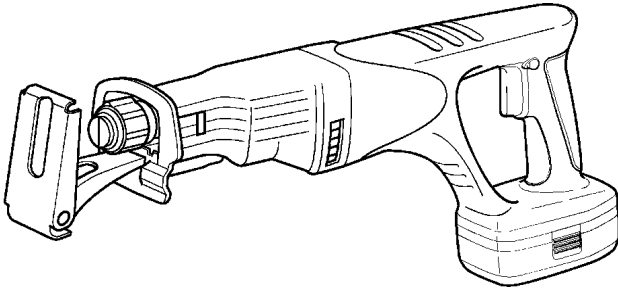


# Service Manual

Reciprocating Saw

**EY3544-X8**



## SPECIFICATIONS

### MAIN UNIT

|                            |   |
|----------------------------|---|
| Motor                      | DC Motor 18V                                  |
| Length of Strokes          | 23mm (7/8")                                   |
| Strokes per Minute         | 0-2700 spm                                    |
| Type of Blade shank        | 13mm (1/2") universal reciprocating saw blade |
| Overall length             | 491mm (19-5/16")                              |
| Weight (with battery pack) | 3.9kg (8.7lbs.)                               |

### **⚠ 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.

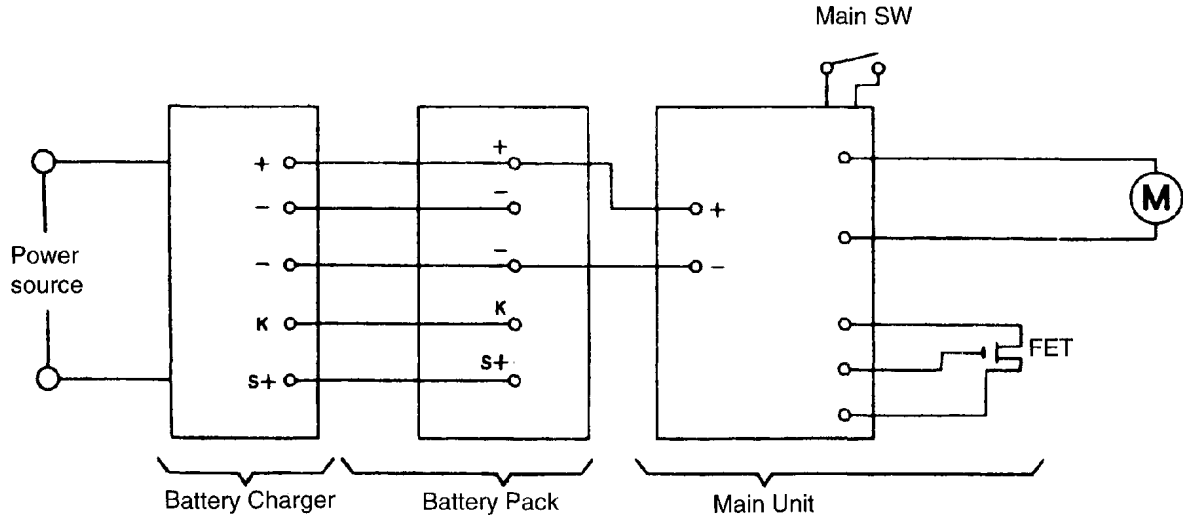
## CONTENTS

|                                  | Page |                                | Page |
|----------------------------------|------|--------------------------------|------|
| 1 SCHEMATIC DIAGRAM .....        | 2    | 4 TROUBLESHOOTING GUIDE .....  | 7    |
| 2 DISASSEMBLY INSTRUCTIONS ..... | 3    | 5 EXPLODED VIEW .....          | 8    |
| 3 ASSEMBLY INSTRUCTIONS .....    | 6    | 6 REPLACEMENT PARTS LIST ..... | 9    |

# Panasonic

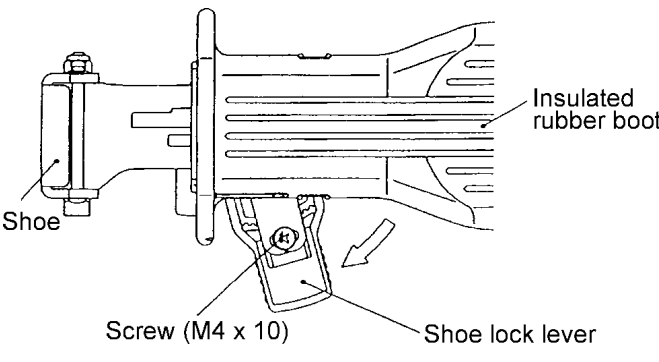
© 2003 Matsushita Electric Works Ltd. All rights reserved. Unauthorized copying and distribution is a violation of law.

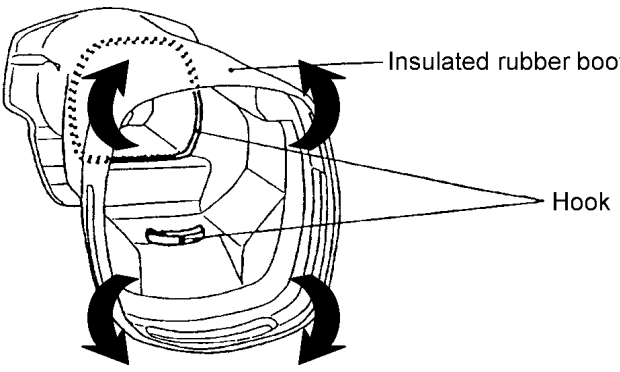
# 1 SCHEMATIC DIAGRAM

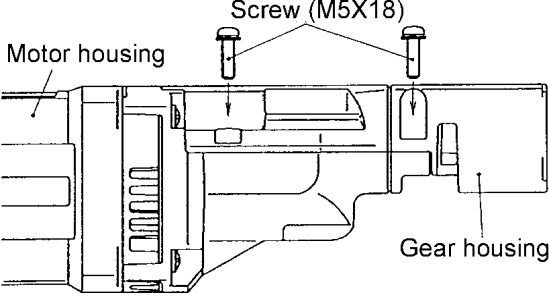


## 2 DISASSEMBLY INSTRUCTIONS

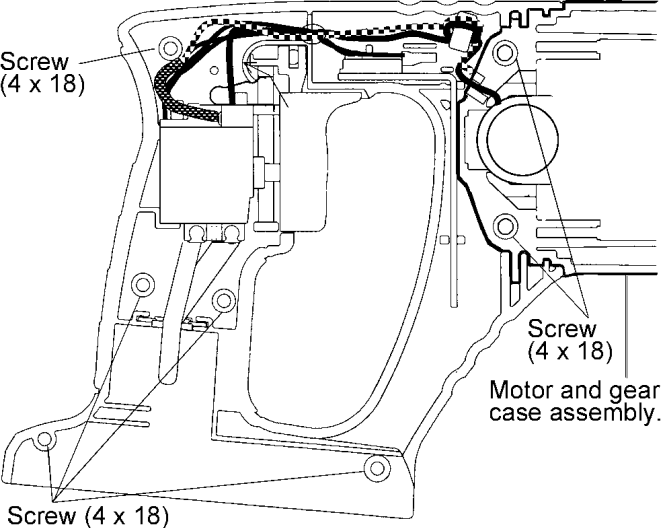
### ■HOW TO DISASSEMBLE BLADE CLAMP ASSEMBLY.

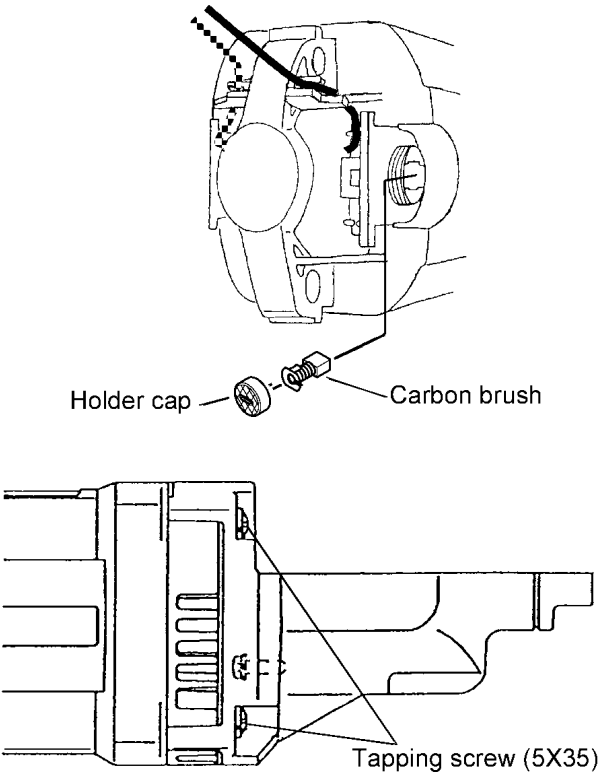
| Ref. No. 1A   | Procedure 1A                 | Removal of the shoe.   |
|---|------------------------------|--|
|  | <p>Insulated rubber boot</p> | <p>1. Loosen a screw (M4X10) with washer tightened on the rear side of shoe lock lever.<br/>2. Remove the shoe lock lever and loosen the hexagonal head bolt.</p> <p><b>NOTE :</b><br/>Make sure not to lose a hexagonal nut (M4) where located inside of the shoe lock lever.</p> |

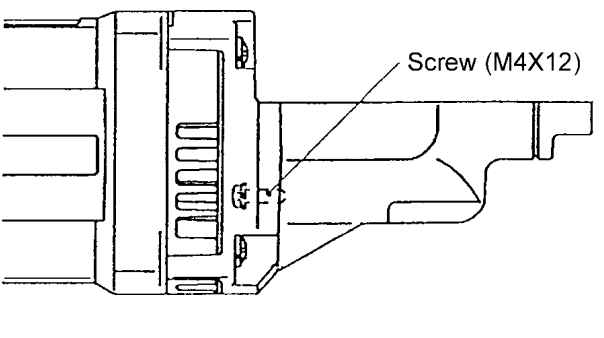
| Ref. No. 1B  | Procedure 1A → 1B            | Removal of the insulated rubber boot.   |
|--|------------------------------|---|
|  | <p>Insulated rubber boot</p> | <p>1. Wind the insulated rubber boot down started from the motor side.</p> <p><b>NOTE :</b><br/>The insulated rubber boot may not pull off due to scratched badly inside of the hook.</p> |

| Ref. No. 1C   | Procedure 1A → 1B → 1C | Removal of the blade clamp block.   |
|---|------------------------|---|
|  |                        | <ol style="list-style-type: none"> <li>1. Loosen four screws (M5X18) where tightening on the gear housing.</li> </ol> |

■ HOW TO DISASSEMBLE GEAR CASE or MOTOR ASSEMBLY.

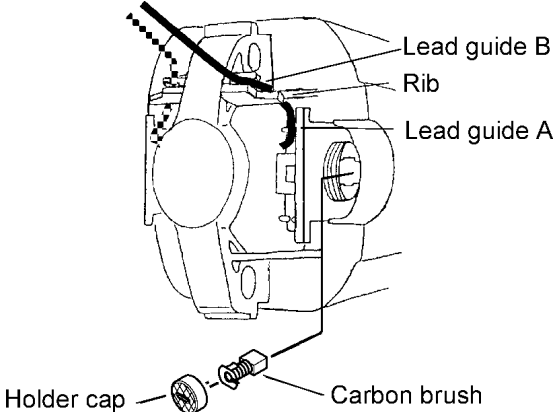
| Ref. No. 1D   | Procedure 1A → 1B → 1D | Removal of the housing.  |
|---|------------------------|--|
|  |                        | <ol style="list-style-type: none"> <li>1. Loose seven housing screws (4X18).</li> <li>2. Open the housing B.</li> <li>3. Take out the motor with gear case assembly from the housing A.</li> </ol> |

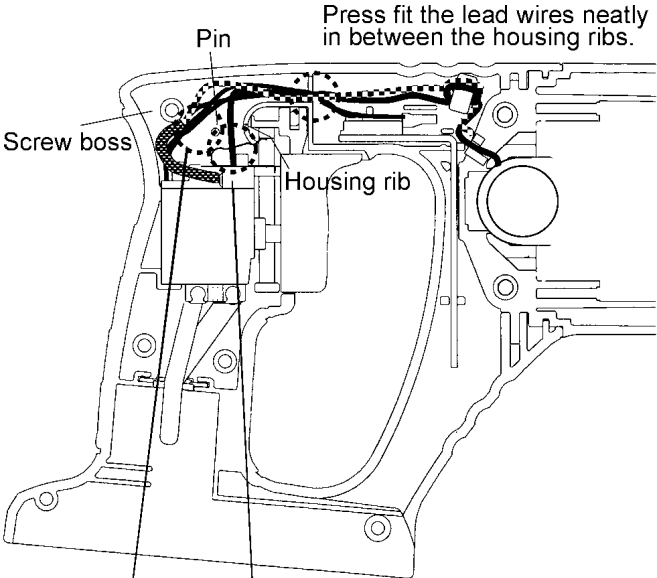
| Ref. No. 1E   | Procedure 1A → 1B → 1D → 1E | Removal of the motor housing.  |
|---|-----------------------------|--|
|  <p data-bbox="236 616 359 645">Holder cap</p> <p data-bbox="555 616 710 645">Carbon brush</p> <p data-bbox="518 974 766 1003">Tapping screw (5X35)</p> |                             | <ol data-bbox="829 206 1500 302" style="list-style-type: none"> <li>1. Remove the holder cap and take out the carbon brush on right and left side.</li> <li>2. Loosen four tapping screws (5X35) tighten the gear case.</li> <li>3. Pull out the gear case assembly from the motor housing.</li> </ol> |

| Ref. No. 1F  | Procedure 1A → 1B → 1D → 1E → 1F → 1C | Removal of the gear case block.   |
|--|---------------------------------------|---|
|  <p data-bbox="574 1198 750 1227">Screw (M4X12)</p> |                                       | <ol data-bbox="829 1097 1500 1176" style="list-style-type: none"> <li>1. Loosen two screws (M4X12) and pull out the rotor assembly.</li> <li>2. Follow the procedure 1C.</li> </ol> <p data-bbox="829 1176 901 1198"><b>NOTE:</b></p> <p data-bbox="869 1198 1476 1220">Greasing No. 1 grease about 10g into the gear for reassembly.</p> |

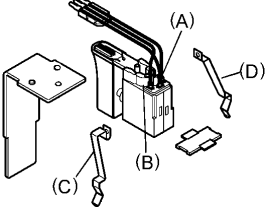
### 3 ASSEMBLY INSTRUCTIONS

#### ■ HOW TO ASSEMBLE SWITCH.

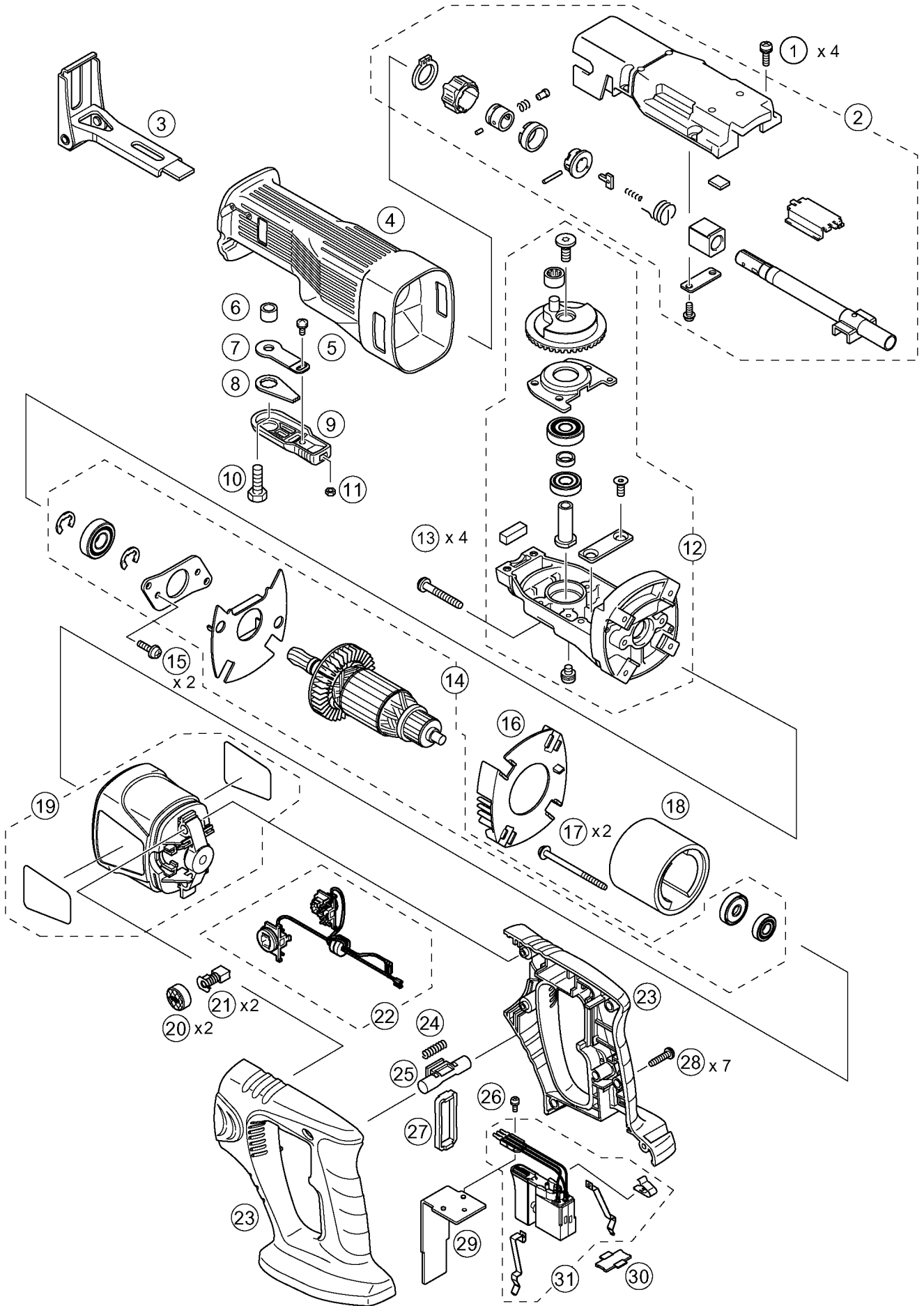
| Ref. No. 1A   | Procedure 1A | Attachment of the brush holder.  |
|---|--------------|--|
|  |              | <p><b>Attachment of the brush holder.</b></p> <ol style="list-style-type: none"> <li>1. Insert the brush holders on both right and left side.</li> <li>2. Press fit the lead wires into the lead guide A.</li> <li>3. Press fit the lead wires into the lead guide B.</li> <li>4. Insert the carbon brushes.</li> <li>5. Tighten the holder caps.</li> </ol> |

| Ref. No. 1B  | Procedure 1A → 1B  | Attachment of the switch.   |
|--|--|---|
|  | <p>Press fit the lead wires neatly in between the housing ribs.</p> <p>Carefully position the lead wires in between the pin and the screw boss.</p> <p>Carefully position the black lead wire connected the brush holder in between the pin and the housing rib.</p> | <p><b>Attachment of the switch.</b></p> <ol style="list-style-type: none"> <li>1. Check the lead wires whether they are mounted in the proper position.</li> </ol> <p><b>NOTE:</b><br/>Make sure they are not set on the screw bosses or over the housing ribs.</p> |

## 4 TROUBLESHOOTING GUIDE

| < TROUBLE >   | < CHECK >  | < REMEDY >   |  |
|---|--|--|--|
| Does not operate.   | <p align="center">&lt;CHECK BATTERY PACK.&gt;</p> <p>If no less than 18V DC is available across the (+) and (-) terminals after charging for the rated charging time (approx. 65 minutes for EY9250), the battery pack is OK.</p> <p><b>NOTE:</b> The battery pack is sold separately as an optional accessory. See the nearest sales dealer for details. The battery pack has a limited life.</p> <p>The pack should be replaced if;</p> <ul style="list-style-type: none"> <li>- after being charged for the rated charging time the voltage battery is less than 18V DC or the usable time is extremely short.</li> <li>- the battery leaks. Check battery for leaks and terminals for corrosion</li> </ul> | NO → Replace battery pack.                             |  |
| ↓OK   |  |  |  |
| <p align="center">&lt;CHECK TERMINAL CONNECTIONS BETWEEN MAIN UNIT AND BATTERY PACK.&gt;</p> <p>Check for proper terminal contacts.</p>   |  |  | NO → Repair contacts.  |
| ↓OK   |  |  |  |
| <p align="center">&lt;CHECK SWITCH BLOCK.&gt;</p> <p align="center">(See WIRING CONNECTION DIAGRAM.)</p> <p>Check continuity between following terminals.</p> <p>1) Inspection of the switch operated contact.</p> <p>When switch handle is depressed all the way:</p> <ul style="list-style-type: none"> <li>- There should be 0Ω between (A) - (D) , and between (B) - (C) ; when switch lever is set to forward side.</li> </ul> <p>2) Inspection of the brake.</p> <p>When switch handle is not depressed:</p> <ul style="list-style-type: none"> <li>- There should be 0Ω between (A) - (B)</li> </ul> |  |  | NO → Contacts in switch block are defective. Replace switch & FET block. |
|   |  |  |  |
| ↓OK   |  |  |  |
| <p align="center">&lt;CHECK CARBON BRUSH.&gt;</p> <p>1) The condition of carbon brush.</p> <ul style="list-style-type: none"> <li>- There should be more than 1mm from the line of the carbon brush.</li> </ul> <p>2) The continuity of carbon brush.</p> <ul style="list-style-type: none"> <li>- There should be 0Ω between the motor lead wire and the metal fitting of carbon brush.</li> </ul>   |  |  | NO → Replace carbon brushes.   |
| ↓OK   |  |  |  |
| <p align="center">&lt;CHECK MOTOR ROTOR.&gt;</p> <p>Check the condition of rotor if there is any wear, crack and deformation.</p>   |  |  | NO → Replace motor rotor assembly.                                       |
| ↓OK   |  |  |  |
| <p align="center">&lt;CHECK MOTOR STATOR.&gt;</p> <p>Check the condition of motor case if there is any crack and deformation.</p>   |  |  | NO → Replace motor stator.   |
| Does not speed-control.   | <p align="center">&lt;CHECK SWITCH.&gt;</p> <p>Follow the procedure above "CHECK SWITCH". Attach the battery pack and confirm the switch operation when depressing the switch handle little by little.</p>   | NO → Repair the contact or replace switch & FET block. |  |

# 5 EXPLODED VIEW



## 6 REPLACEMENT PARTS LIST

### NOTE:

\*B=only available as set

\*C=available individually

| Ref.No. | Part No.     | Part Name & Description | Remarks |             | Per Unit |
|---------|--------------|-------------------------|---------|-------------|----------|
| 1       | WEY3544K6708 | SCREW                   | *C      | M5*18       | 4        |
| 2       | WEY3544S1168 | BLADE CLAMP BLOCK       |         |             | 1        |
| 3       | WEY3544K0228 | SHOE                    |         |             | 1        |
| 4       | WEY3544H3648 | INSULATED RUBBER BOOT   |         |             | 1        |
| 5       | WEY3544K6278 | SCREW                   |         | M4*10       | 1        |
| 6       | WEY3544K0478 | SLEEVE                  |         |             | 1        |
| 7       | WEY3544K1168 | INNER PLATE             |         |             | 1        |
| 8       | WEY3544K1178 | LOCK PLATE              |         |             | 1        |
| 9       | WEY3544K1558 | SHOE LOCK LEVER         |         |             | 1        |
| 10      | WEY3544K6398 | HEXAGONAL HEAD BOLT     |         | M8*25       | 1        |
| 11      | WEY3544K6428 | HEXAGONAL NUT           |         | M4          | 1        |
| 12      | WEY3544S1768 | GEAR CASE BLOCK         |         |             | 1        |
| 13      | WEY3544L9388 | TAPPING SCREW           | *C      | 5*35        | 4        |
| 14      | WEY3544L4628 | MOTOR ROTOR ASSEMBLY    |         |             | 1        |
| 15      | WEY3544L6218 | SCREW                   | *C      | M4*12       | 2        |
| 16      | WEY3544L0478 | BAFFLE PLATE            |         |             | 1        |
| 17      | WEY3544L9668 | TAPPING SCREW           | *C      | 4*60        | 2        |
| 18      | WEY3544L1188 | STATOR                  |         |             | 1        |
| 19      | WEY3544K0539 | MOTOR HOUSING           |         | for EUROPE  | 1        |
| 19      | WEY3544K0530 | MOTOR HOUSING           |         | for OCEANIA | 1        |
| 20      | WEY3544K0558 | HOLDER CAP              | *B      | (2PCS/PK)   | 2        |
| 21      | WEY3544L4638 | CARBON BRUSH            | *B      | (2PCS/PK)   | 2        |
| 22      | WEY3544L4369 | BRUSH HOLDER            |         |             | 1ST      |
| 23      | WEY3544K3078 | HOUSING AB SET          |         |             | 1        |
| 24      | WEY3544L0178 | SPRING                  |         |             | 1        |
| 25      | WEY3544Y3568 | RELEASE LEVER           |         |             | 1        |
| 26      | WEY3544L6208 | SCREW                   |         | M3*8        | 1        |
| 27      | WEY3544L0088 | SWITCH FRAME            |         |             | 1        |
| 28      | WEY3544K9218 | TAPPING SCREW           | *C      | 4*18        | 7        |
| 29      | WEY3544L2568 | HEAT SINK               |         |             | 1        |
| 30      | WEY3544L0208 | HOLDER PLATE            |         |             | 1        |
| 31      | WEY3544Y2008 | SWITCH                  |         |             | 1        |
| -       | WEY9615K7018 | TOOL CASE               |         |             | ▲<br>1   |
| -       | WEY3544K8109 | OPERATING INSTRUCTIONS  |         |             | ▲<br>1   |

\*\*Battery Pack is available as an optional accessory. See the nearest sales dealer for details.

\*\*\*For replacement parts of charger, see the charger service manual.

Charger complete set is available as an optional accessory. See the nearest sales dealer for details.