

Service Manual

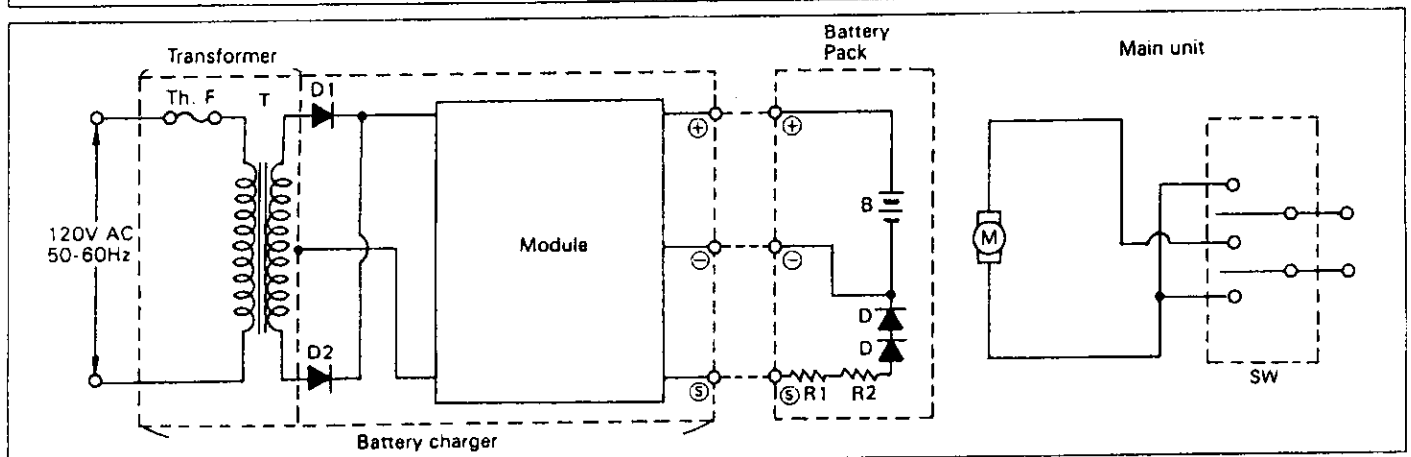
Cordless Drill & Driver
EY503B

Rated Specifications

Model No.	: EY503
Power source	: 120V AC 50-60Hz
Power consumption	: 12VA
Charging time	: Standard 1 hour
Motor voltage	: 2.4V DC
Max. rotation torque	: LOW position - 26 in. lbs. (30kg-cm)
Rotation speed	: HIGH position - 400r.p.m. LOW position - 200r.p.m.
Weight	: Main unit (with battery pack) - 0.9 lbs. (0.4kg) Battery charger - 1.5 lbs. (0.67kg)
Standard equipment	: Battery pack Battery charger #1 Phillips bit #2 Phillips bit Slotted head bit



SCHEMATIC DIAGRAM

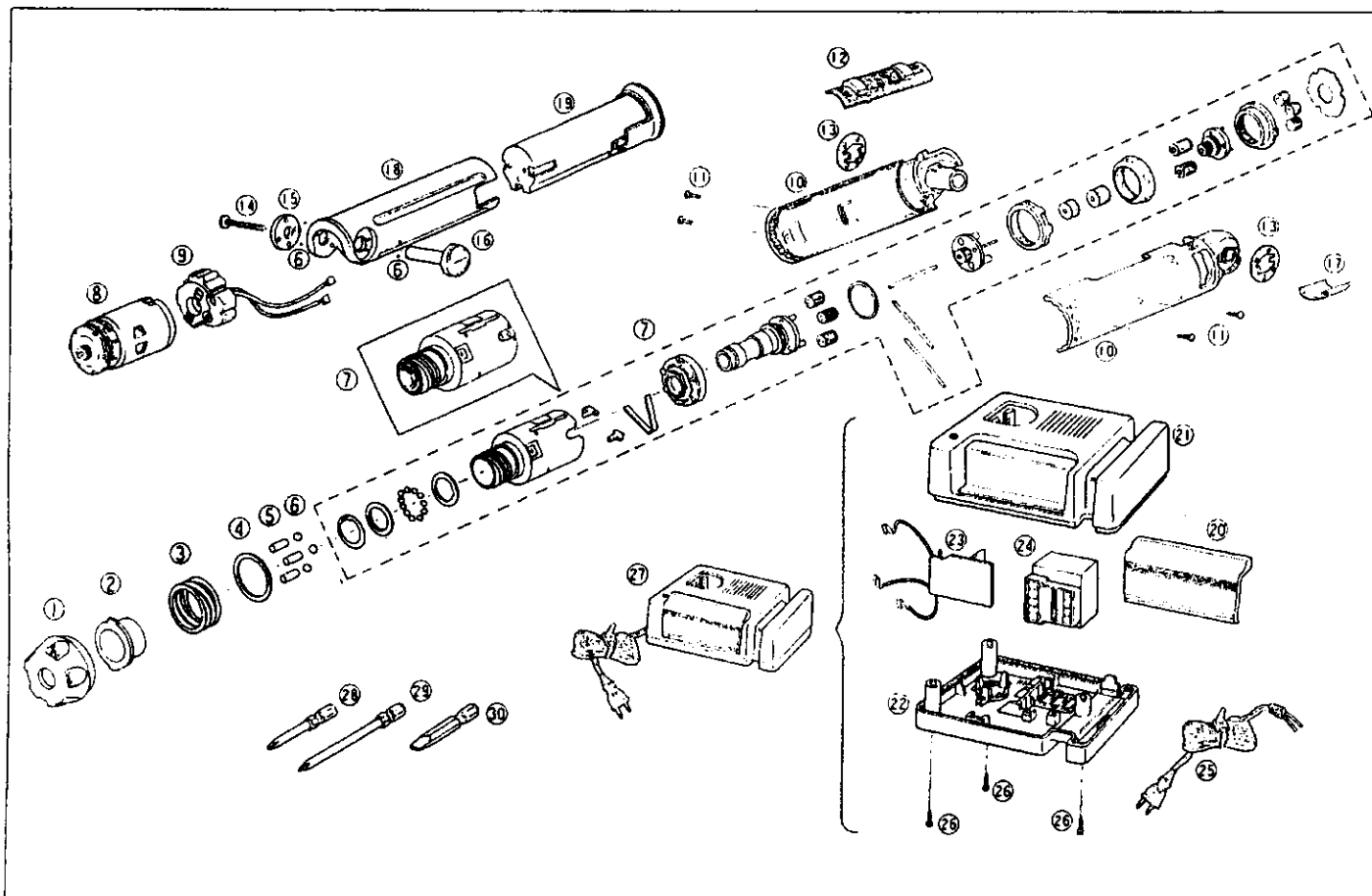


Panasonic

Panasonic Industrial Company
Division of Matsushita Electric
Corporation of America
Two Panasonic Way
Secaucus, New Jersey 07094

Panasonic Hawaii Inc.
91-238 Kauhū St Ewa Beach
P O Box 774
Honolulu, Hawaii 96808-0774

EXPLODED VIEW

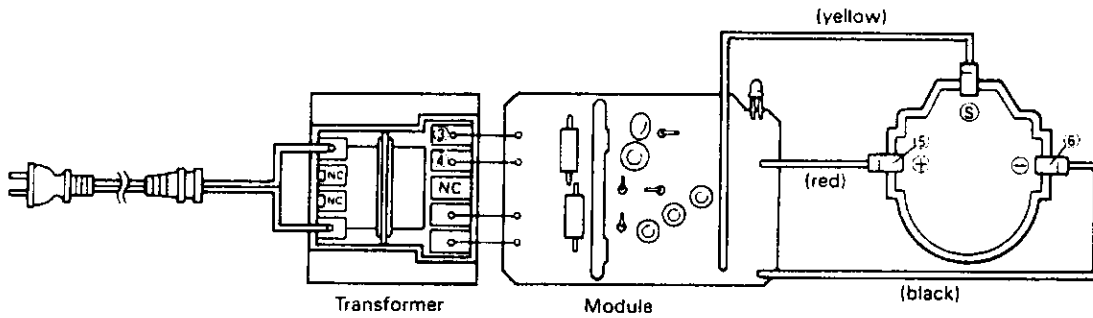


REPLACEMENT PARTS LIST

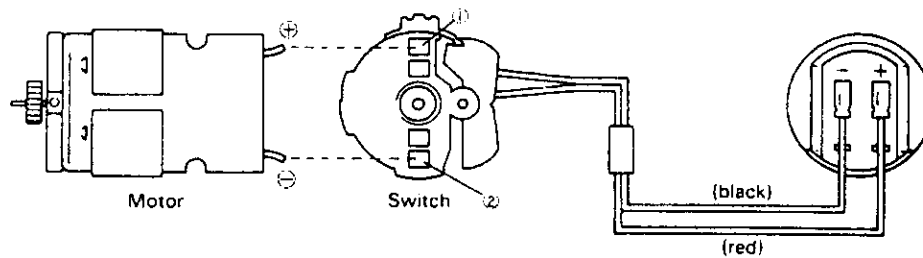
Ref. No.	Part No.	Part Name & Descriptions	Per set	Remarks
1	EY503H3228	Clutch handle	1	
2	EY503B0637	Adjust ring	1	
3	EY503B0167	Clutch spring	1	
4	EY503B0847	Thrust plate	1	
5	EY503B0397	Clutch pin	3	
6	EY503B1917	Ball bearing	7	
7	EY503B1458	Gear box	1	
8	EY503B1007	DC motor	1	
9	EY503Y2008	Switch	1	
10	EY503B3079	Housing AB set	1	
11	EY503B9167	Tapping screw for housing	4	
12	EY503H3238	Change-gear handle	1	
13	EY502B0187	Click spring	2	
14	EY502B6217	Tapping screw for grip	1	
15	EY503H6248	Decorative washer	1	
16	EY503H6348	Fastening nut	1	
17	EY502B0877	Hinge cover	1	
18	EY503B3938	Grip	1	
19	EY903B	Battery pack	1	available as an optional accessory
20	EY502B7907	Bit holder	1	
21	EY503B3098	Charger housing A	1	
22	EY503B3028	Charger housing B	1	
23	EY503B2128	Module (PC board with component)	1	
24	EY503B2238	Power transformer	1	
25	EY503B2058	Power cord	1	
26	EY78339067	Tapping screw for charger	3	
27	EY503B7658	Charging adaptor (Complete)	1	available as an optional accessory
28	EY502B7927	#1 Phillips bit	1	
29	EY502B7957	#2 Phillips bit	1	
30	EY502B7937	Slotted head bit	1	

WIRING CONNECTION DIAGRAM

Battery Charger

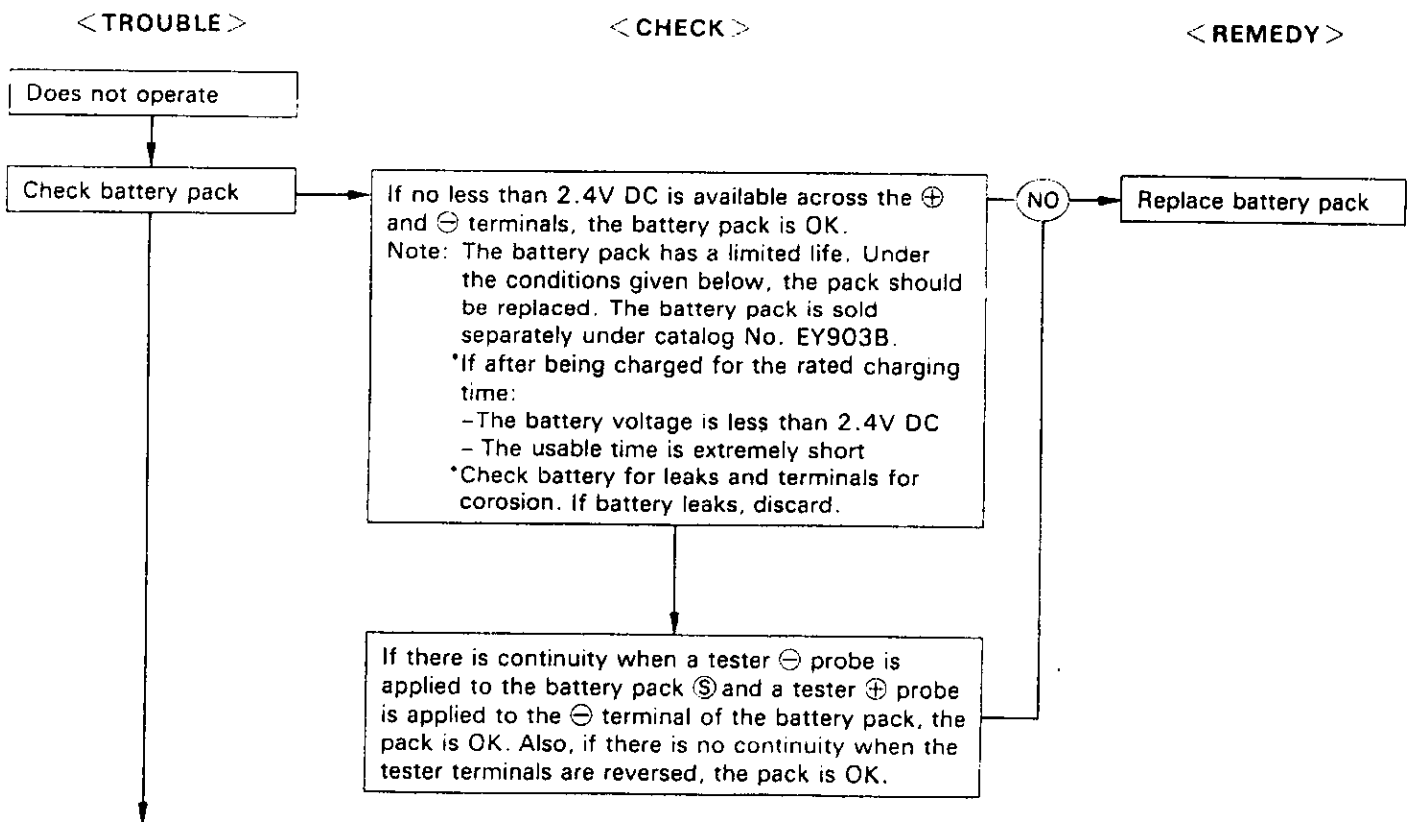


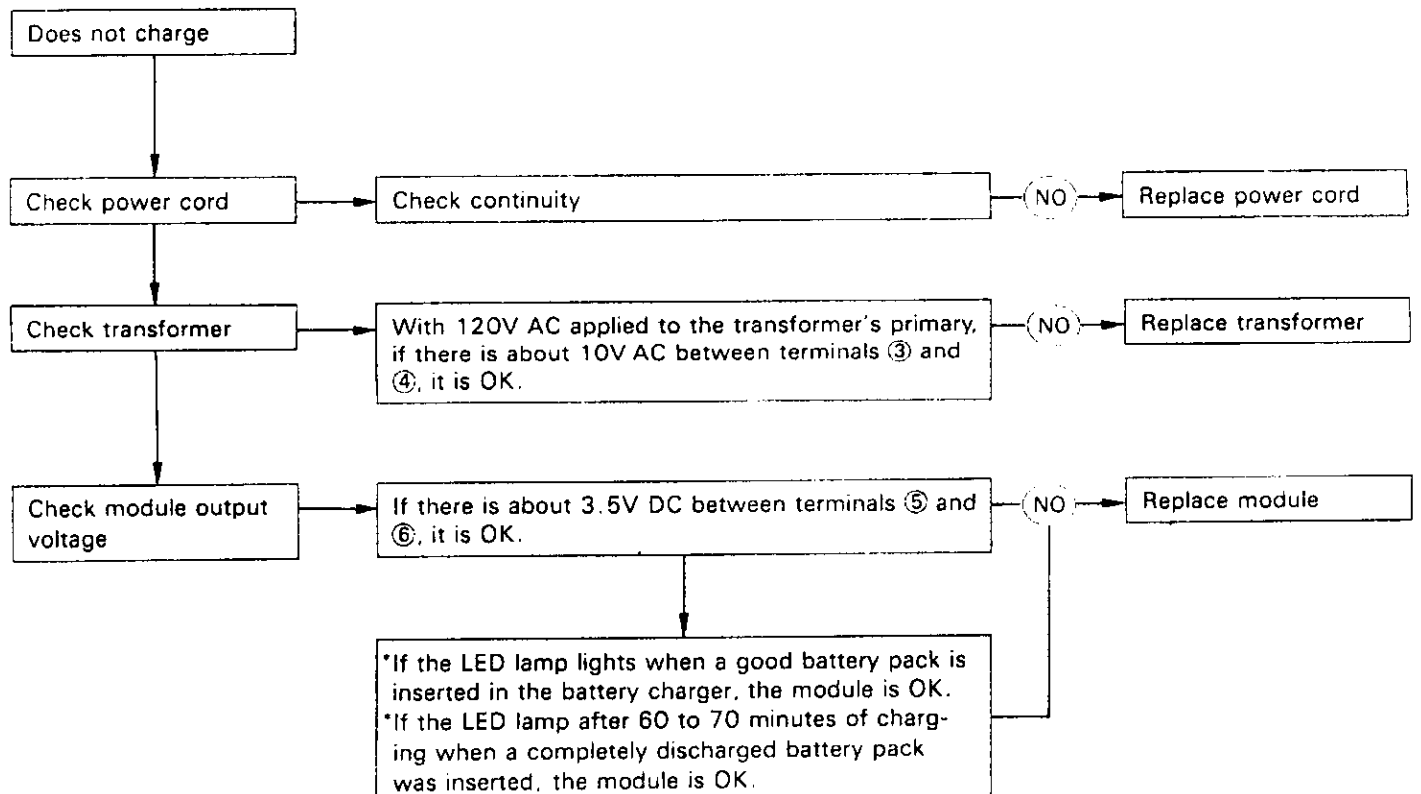
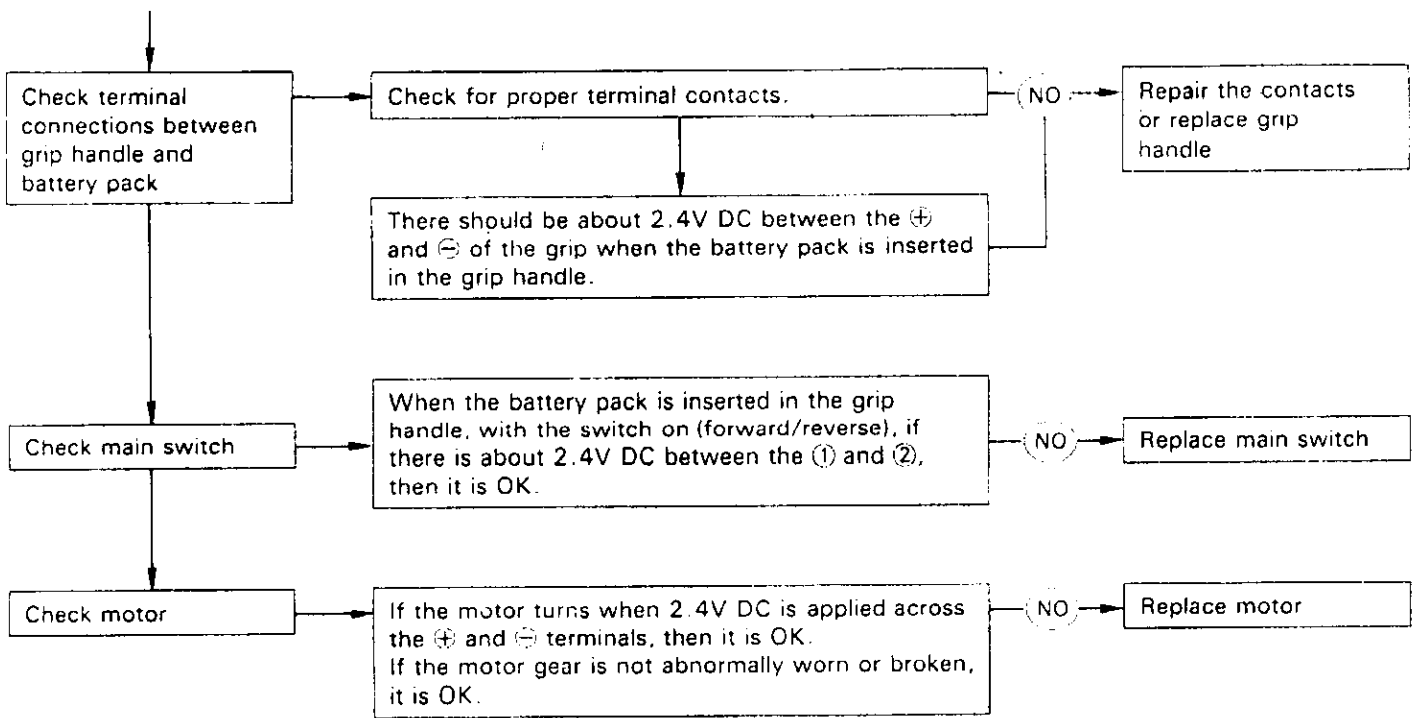
Main Unit



*The color of wires are subject to change without notice.

TROUBLESHOOTING GUIDE (Refer to WIRING CONNECTION DIAGRAM)



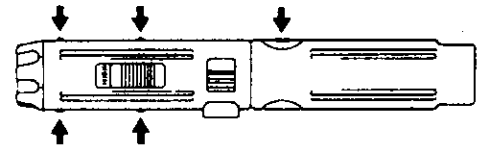


DISASSEMBLY/ASSEMBLY INSTRUCTIONS

Before disassembly, remove the battery pack from the main unit.

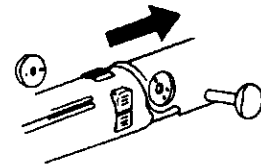
(Housing/Grip Handle Disassembly)

1. Remove the four housing screws and one grip fastening screw. (Fig. 1)



(Fig. 1)

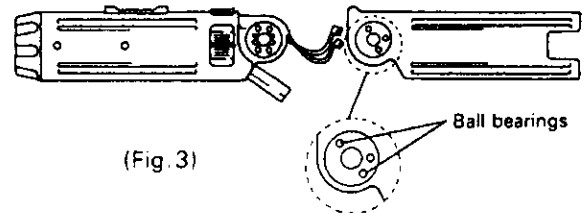
2. Remove the decorative washer and fastening nut to separate grip handle from housings A and B. (Fig. 2)



(Fig. 2)

Note: The ball bearings (four pieces for both sides of hinge) may fall out during disassembly and could be lost. Handle accordingly.

(Fig. 3)



(Fig. 3)

3. Separate housings A and B, and take out clutch, gear-box, motor, and switch.

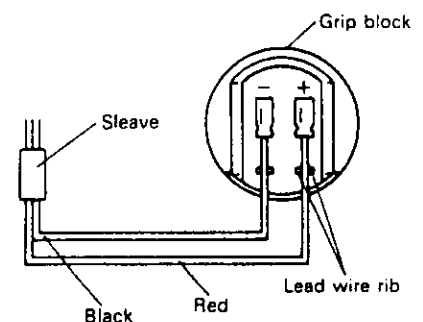
(Housing/Grip handle Assembly)

1. When reassembling, connect the black wire to \ominus terminal and red one to \oplus terminal of the grip handle. Also be sure to pinch the wires into small ribs. (Fig. 4)

Note: Do not twist or cross the wires to avoid pinching of wires.

Note: Once remove the wires from terminals, the contact may become loose. Reform the metal contact parts at the end of wires with pinchers. These contactors pivot on the terminals after snapped in place.

(Fig. 4)

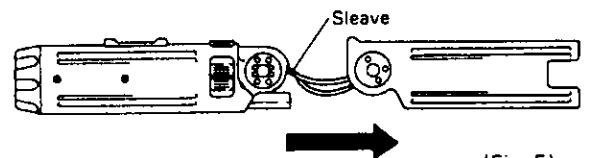


(Fig. 4)

2. Set the wire protection sleeve at the base of housings A and B, then couple grip handle to housings. (Fig. 5)

Note: Be sure to insert hinge cover into grip handle as shown.

(Fig. 5)



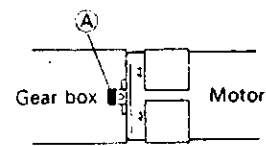
(Fig. 5)

(Motor Removal/Replacement)

1. Slowly remove motor with switch from gear-box block.

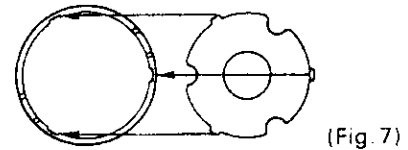
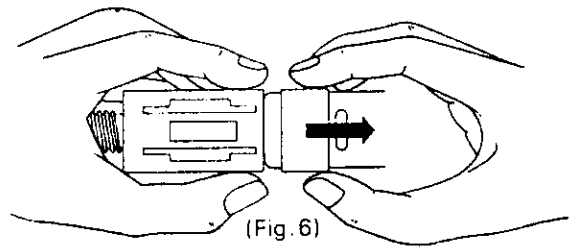
Note: When removing, the gears may come out. Grasp the both ends (A) of the motor to prevent this.

(Fig. 6)



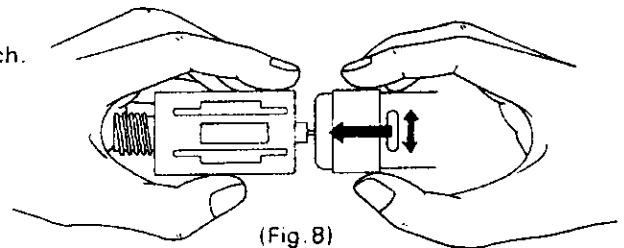
If the internal divider come off, replace it into gear-box block accordingly as shown to keep the gears from falling out.

(Fig. 7)



2. When connecting the motor to gear-box block, slowly insert the motor gear twisting slightly into the gear-box block for proper match.

(Fig. 8)



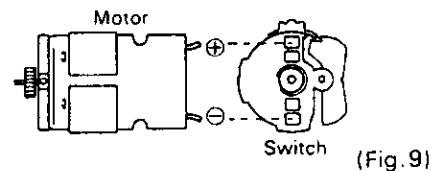
(Switch Removal/Replacement)

1. Remove switch from motor.

Note: When connecting the switch to the motor, be sure to check the direction as shown. If connect incorrectly, it is impossible to replace them into the housings.

Connect the switch firmly to the motor as far as it will go.

(Fig. 9)



(Clutch Assembly/Disassembly)

Note: To disassemble the clutch, first disassemble the housings and grip block.

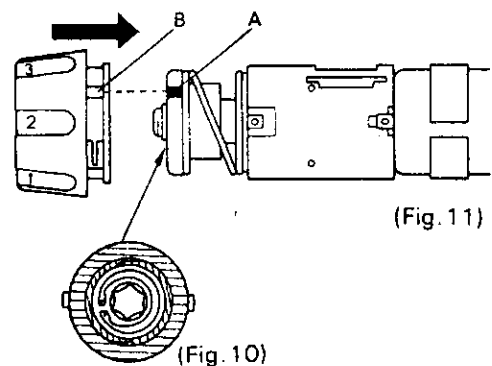
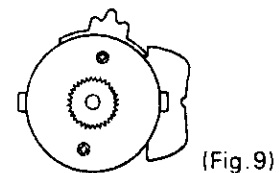
1. Remove the clutch handle.
2. Unscrew the adjust ring, and remove it.
3. When reassembling, screw the adjust ring so far as the surfaces of adjust ring and gear-box top come to the same surface level!

(Fig. 10)

By this, one of the projection (A) of adjust ring come to the position as shown.

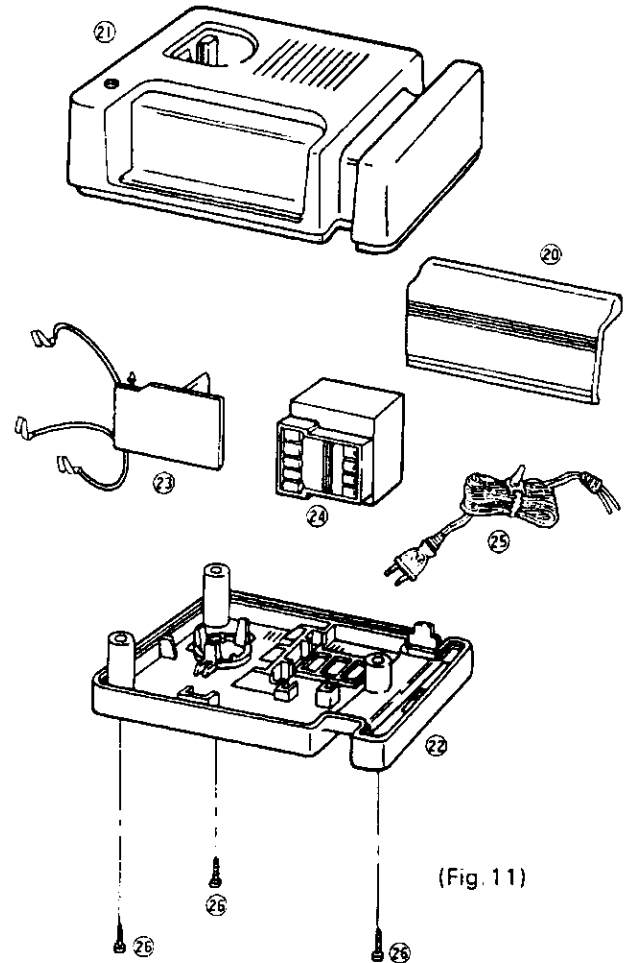
4. Replace the clutch handle fitting the groove B to the projection A.

(Fig. 11)



(Battery Charger Disassembly) (Fig. 11)

1. Remove the three holding screws and separate housings.
2. The bit holder is removed by pulling it up straight.



(Battery Charger Assembly)

1. Avoid pinching wires, dress into housing recess and around screw posts etc.

Note: When reassembling, be certain that LED appears through the hole in Housing A.

2. After reassembly, test for proper voltage at battery terminals (\oplus and \ominus for approx. 3.5V DC).

(Fig. 11)