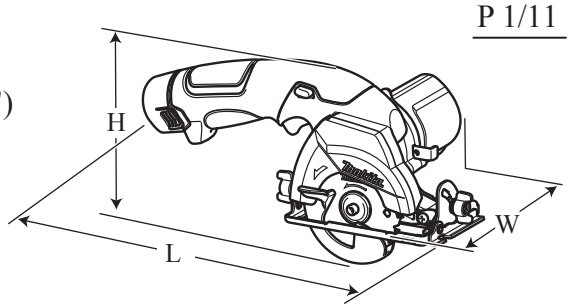
TECHNICAL INFORMATION

PRODUCT

Model No. ► HS300D

Description ► Cordless Circular Saw 85mm (3-3/8")



Dimensions: mm (")	
Length (L)	300 (11-3/4)
Width (W)	170 (6-11/16)
Height (H)	154 (6-1/16)

CONCEPT AND MAIN APPLICATIONS

Model HS300D is 85mm cordless circular saw powered by 10.8V Li-ion battery BL1013.
Its main features are:

- Compact and light weight design for high maneuverability and easy handling.
- Easy to trace cutting line with blower function that blows sawdust away from cutting line.

This product is available in the following variations.

Model No.	Charger	Battery		Plastic carrying case	Housing color	Offered to
		type	Quantity			
HS300DZ	No	No	No	No	Makita blue	All countries except North and Central American countries (Mexico and Guam are included.)
HS300DZW					white	
HS300DW	DC10WA	BL1013	1	Yes	Makita blue	
HS300DWE	DC10WA	BL1013	2	Yes	Makita blue	
---	No	No	No	No	Makita blue	North and Central American countries except Mexico and Guam
---					white	
---	DC10WB	BL1014	1	Yes	Makita blue	
---	DC10WB	BL1014	2	Yes	Makita blue	
---					white	

All models also include the accessories listed below in "Standard equipment".

► Specification

Battery	Voltage: V	10.8*2, (10.8V/12Vmax*3)
	Capacity: Ah	1.3
	Cell	Li-ion
	Charging time (approx.): min.	50 with DC10WA, (DW10WB*3)
No load speed: rpm= min.-1		1,400
Size of blade: mm (")	Diameter	85 (3-3/8)
	Hole diameter	15 (9/16)
Max. cutting capacities: mm (")	at 0 degree	25.5 (1)
	at 45 degrees	16.5 (5/8)
Electric current limiter		Yes
Blower function		Yes
Weight according to EPTA-Procedure 01/2003*4: kg (lbs)		1.5 (3.3)

*2 For all countries except North and Central American countries (Mexico and Guam are included.)
*3 For North and Central American countries except Mexico and Guam
*4 With battery, saw blade and dust nozzle

► Standard equipment

TCT Saw blade 85mm 1
Hex wrench 4 1
Dust nozzle (for European countries only) 1

Note: The standard equipment for the tool shown above may differ by country.

► Optional accessories

Guide rule, Saw blades, Charger DC10WA, Li-ion battery BL1013, Dust nozzle,
(Charger DC10WB and Li-ion battery BL1014 for North and Central American countries except Mexico and Guam)

► Repair

CAUTION: Repair the machine in accordance with “Instruction manual” or “Safety instructions”.

[1] NECESSARY REPAIRING TOOLS

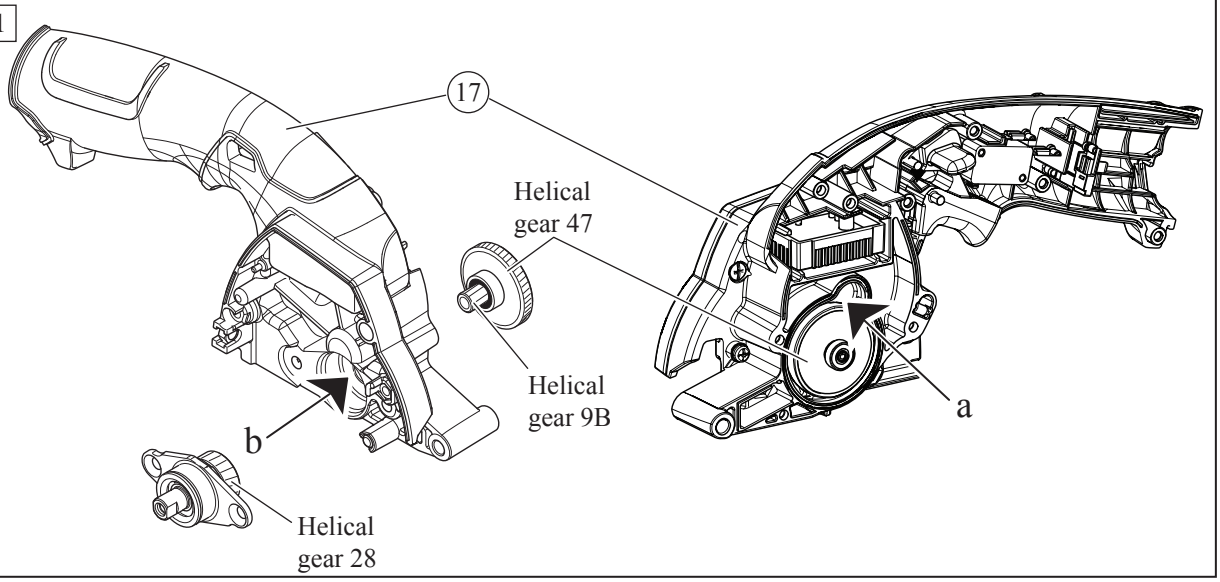
Code No.	Description	Use for
1R003	Retaining ring S pliers ST-2N	removing / mounting Retaining ring WR-26
1R027	Bearing setting pipe 18-10.2	assembling Ball bearing 606ZZ
1R028	Bearing setting pipe 20-12.2	assembling Helical gear 47
1R035	Bearing setting plate 10.2	holding Helical gear 28 when removing Spindle from the Gear
1R037	Bearing setting plate 20.2	holding Helical gear 47 when removing Helical gear 9B
1R212	Tip for Retaining ring pliers	attaching to R003 when removing Retaining ring WR-26
1R217	Ring 22	holding Bearing box when removing Spindle from Baring box
1R269	Bearing extractor	removing Ball bearing 606ZZ
1R278	Round bar for Arbor 4-50	removing Ball bearing 604ZZ and Helical gear 9B from Helical gear 47
1R282	Round bar for Arbor 8-50	removing Helical gear 28 together with Spindle from Bearing box
1R356	Bearing plate 10mm	holding Ball bearing 604ZZ when removing Helical gear 47
1R361	Bearing retainer wrench	removing / assembling Bearing retainer 14-23

[2] LUBRICATIONS

Apply the following lubricant to protect parts and product from unusual abrasion.

Item No.	Description	Portion to lubricate	Lubricant	Amount
⑰	Handle set (R)	a. Gear room for Helical gear 47	Makita grease N No.1 ▼	3g
		b. Gear room for Helical gear 28 and Helical gear 9B		1g

Fig. 1



► Repair

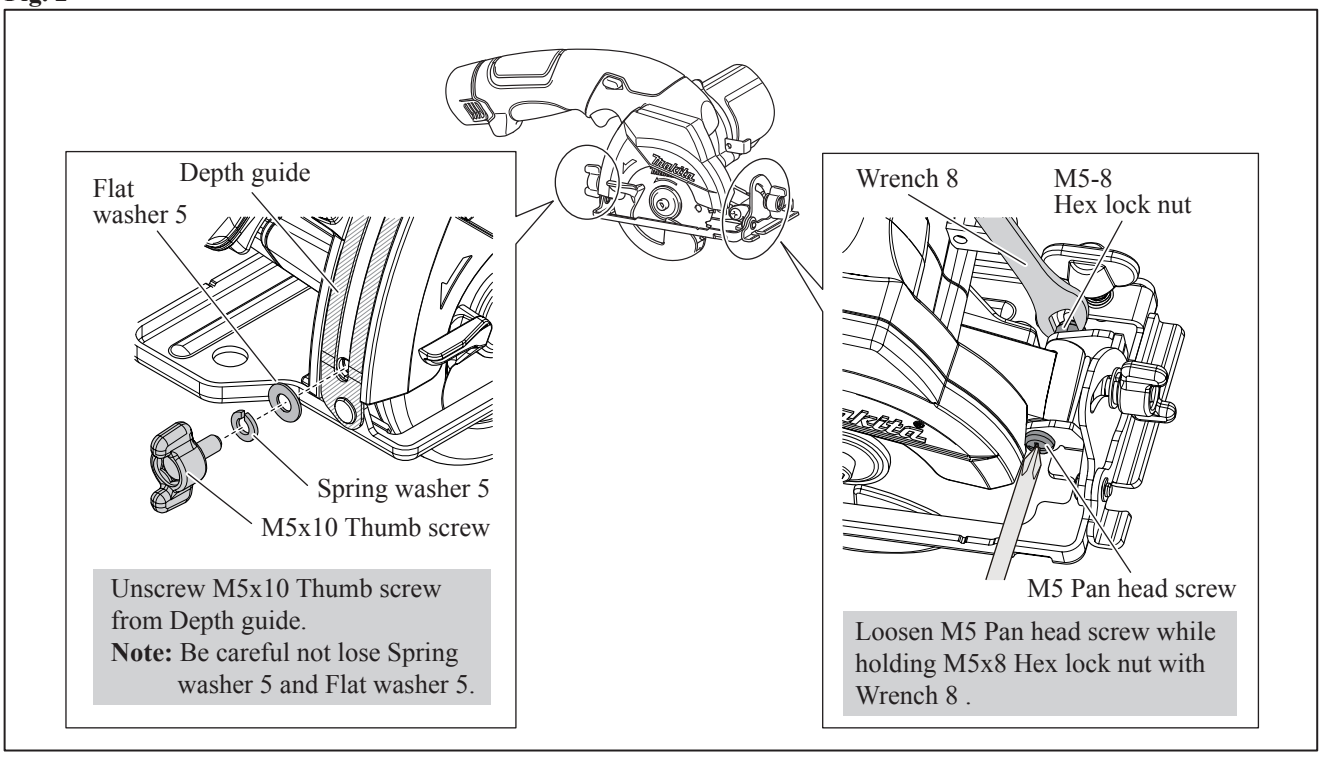
[3] DISASSEMBLY/ASSEMBLY

[3]-1. Base

DISASSEMBLING

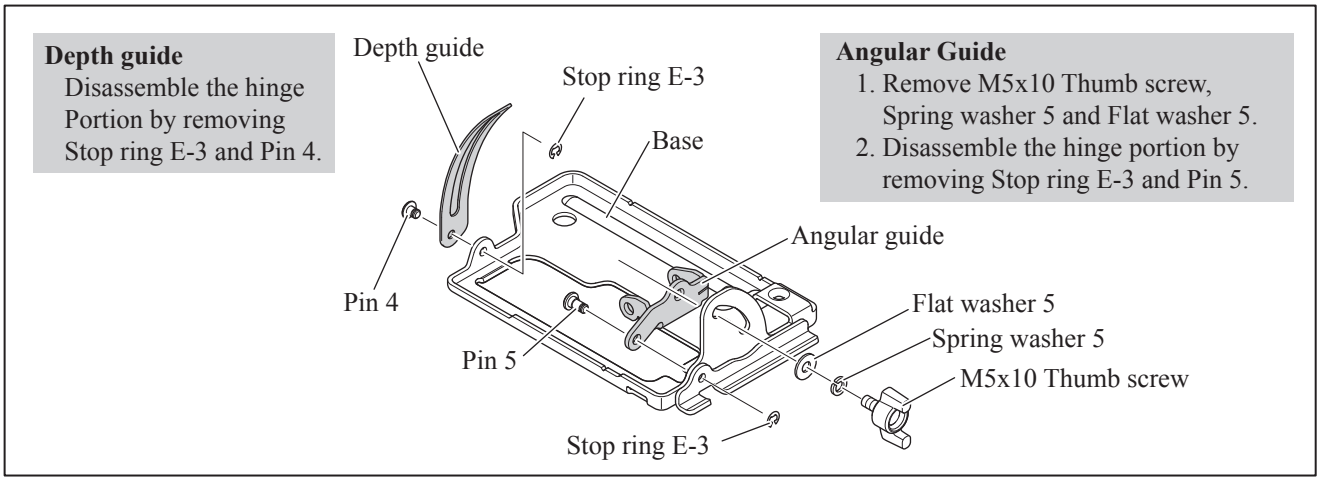
(1) The machine is fixed to Base assembly with M5x10 Thumb screw at the rear side, and with M5x8 Pan head screw and M5-8 Hex nut at the front side. Separate the machine from Base assembly. (**Fig. 2**)

Fig. 2



(2) Remove Angular guide and Depth guide. (**Fig. 3)** Then, Base can be replaced with the new one.

Fig. 3



ASSEMBLING

(1) Fix Depth guide to Base with Pin 4 through Depth guide and Base from the external side. Secure them with Stop ring E-3. (**Fig. 3**)
(2) Fix Angular guide to Base with Pin 5 through Angular guide and Base from the internal side. Secure them with Stop ring E-3. (**Fig. 3**)
(3) Fix M5x10 Thumb screw through Spring washer 5 and Flat washer 5 to Base and Angular guide. (**Fig. 3**)
(2) Assemble Base to the machine. (**Fig. 2**)

► Repair

[3] DISASSEMBLY/ASSEMBLY

[3]-2. Switch lever, Lock off lever

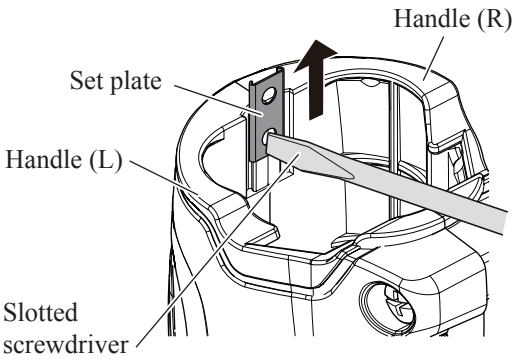
DISASSEMBLING

(1) Remove Base from the machine by unscrewing M5x10 Thumb screw at the rear side and M5x8 Pan head screw and M5-8 Hex nut at the front side. (**Fig. 2**)

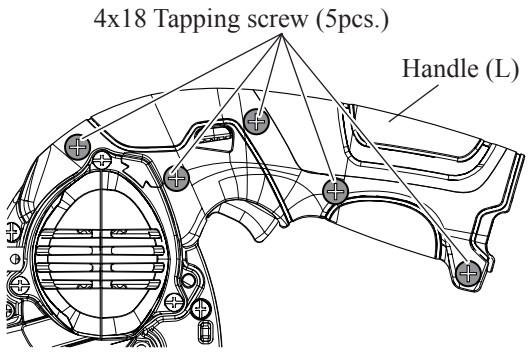
(2) Remove Set plate using Slotted screwdriver, then dismantle Handle (L) from Handle (R) by unscrewing five 4x18 Tapping screws. (**Fig. 4**)
Lock off lever and Switch lever can be removed after dismantling Housing (L).

Fig. 4

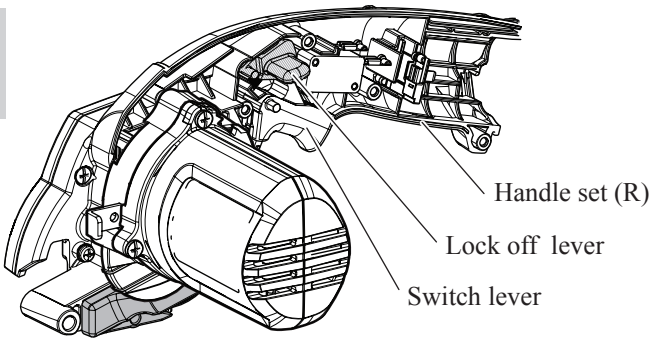
1. Remove Set plate with small slotted screwdriver.



2. Remove Handle (L) from Handle (R) by unscrewing five 4x18 Tapping screws.



3. Lock off lever, Switch lever, Switch and other components such as Springs can be removed.



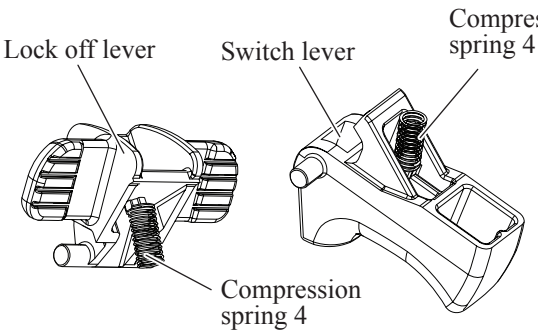
ASSEMBLING

(1) Assemble lock off lever and Switch lever to Handle (R). (**Fig. 5**)

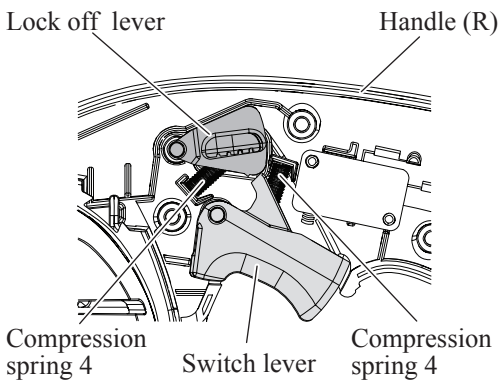
Fig. 5

1. Mount Compression springs on an each projection of those levers as illustrated below.
Be sure to seat the springs to the base of projection.

Note: Compression spring 4 for Lock off lever and for Switch lever are identical.



2. Set the Lock off lever and Switch lever to Handle (R) along with Compression spring 4.



(2) Fix Handle (L) to Handle (R) by screwing five 4x18 Tapping screws. (**Fig. 4**)

► Repair

[3] DISASSEMBLY/ASSEMBLY

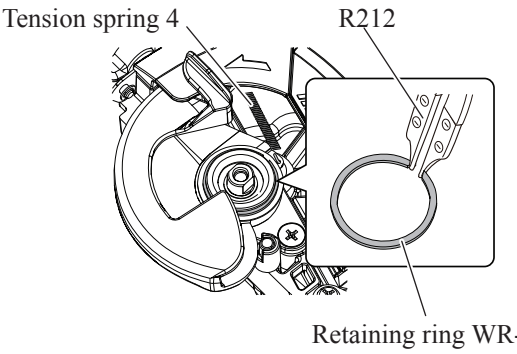
[3]-3. Safety cover, Bearing box

DISASSEMBLING

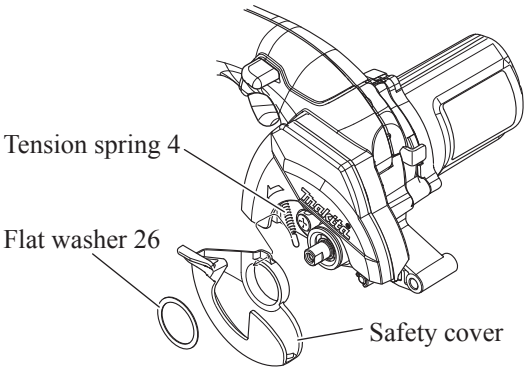
(1) Disassemble Safety cover. (**Fig. 6**)

Fig. 6

1. Change original tips of 1R003 to special tips 1R212 for removing Retaining ring WR-26 and remove it with 1R003.



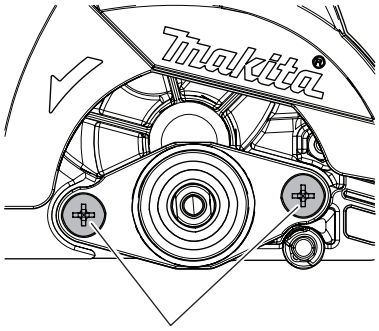
2. Remove Flat washer 26 and Tension spring 4 from Safety cover. Then, dismantle Safety cover.



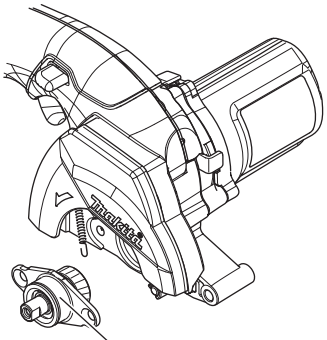
(2) Disassemble Bearing box section. (**Fig. 7**)

Fig. 7

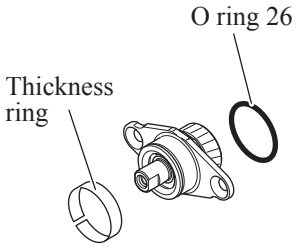
3. Remove M5x16 counter sunk head screws.



4. Remove Bearing box section.



5. Remove O ring 26 and Thickness ring from Bearing box.

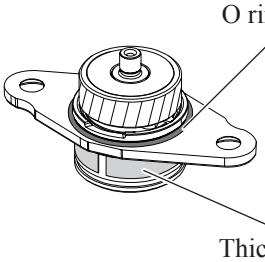


ASSEMBLING

(1) Assemble Bearing box section to Handle (R). (**Fig. 8**)

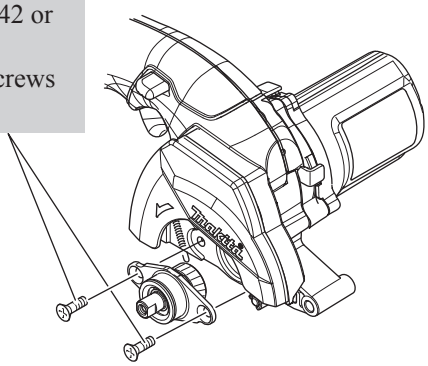
Fig. 8

Set O ring 26 to this position.



Set Thickness ring to this position.

Apply ThreeBond 1321B/1342 or Loctite 242 to the threads of M5x16 Counter sunk head screws before tightening.



Repair

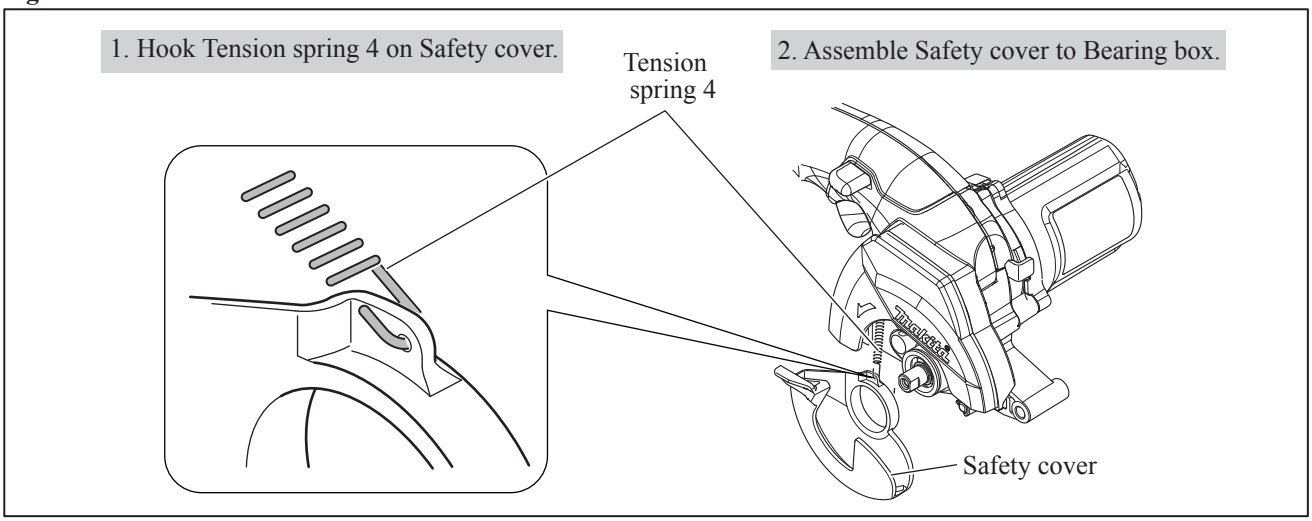
[3] DISASSEMBLY/ASSEMBLY

[3]-3. Safety cover, Bearing box (cont.)

ASSEMBLING

(2) Assemble Safety cover. (**Fig. 9**)

Fig. 9



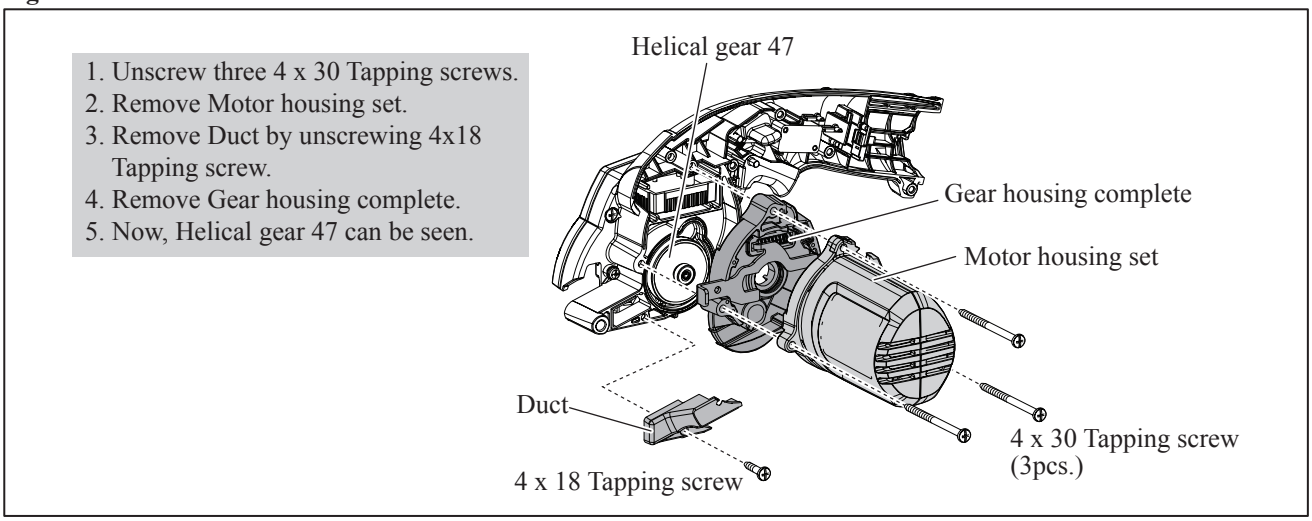
(3) Put Flat washer 26 in place and fix Retaining ring WR-26 with 1R003 as illustrated in **Fig. 6**.

[3]-4. Helical gear 47, Helical gear 9B, Ball bearings

DISASSEMBLING

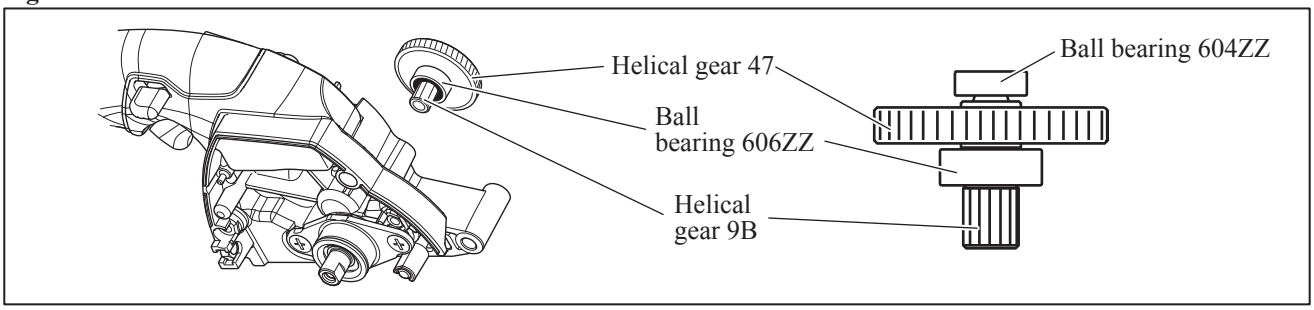
(1) Remove Handle (L). (**Fig. 4**)
(2) Remove Motor housing, Gear housing and Duct. (**Fig. 10**)

Fig. 10



(3) Remove Helical gear 47. (**Fig. 11**)

Fig. 11



► Repair

[3] DISASSEMBLY/ASSEMBLY

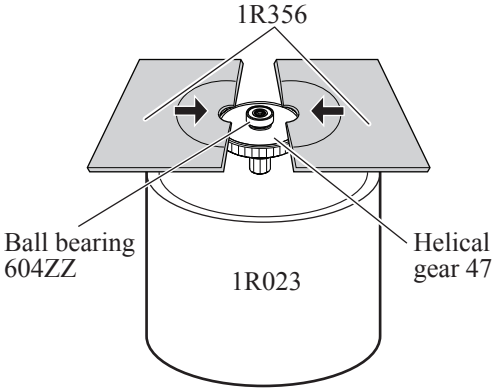
[3]-4. Helical gear 47, Helical gear 9B, Ball bearings (cont.)

DISASSEMBLING

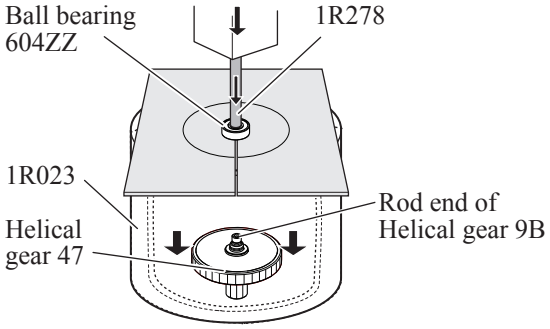
(4) Disassemble Ball bearing 604ZZ from Helical gear 47. (**Fig. 12**)

Fig. 12

1. Insert a set of 1R356 between Ball bearing 604ZZ and Helical gear 47, and put 1R356 on 1R023.



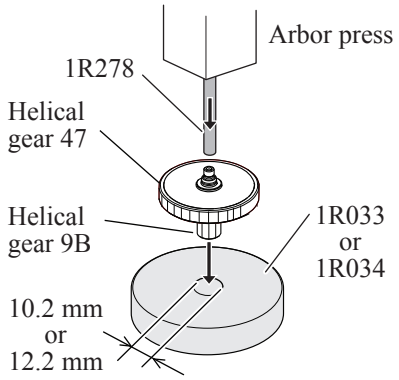
2. Push the rod end of Helical gear 9B using Arbor press and 1R278 carefully. Ball bearing 604ZZ can be removed.



(5) Helical gear 47 section can be disassembled. (**Fig. 13** or **Fig. 13A**)

Fig. 13

3. Remove Helical gear 9B from Helical gear 47 using Arbor press with 1R278 and 1R033 (10.2 mm hole diameter) or 1R034 (12.2 mm hole diameter).



4. Ball bearing 606ZZ and Helical gear 47 remain on 1R033 or 1R034 after Helical gear 9B is removed. The removed Ball bearing 606ZZ must be replaced to the new one as it is damaged after this removal process.

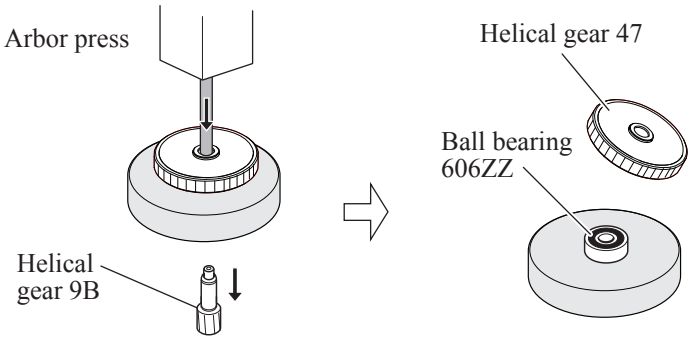
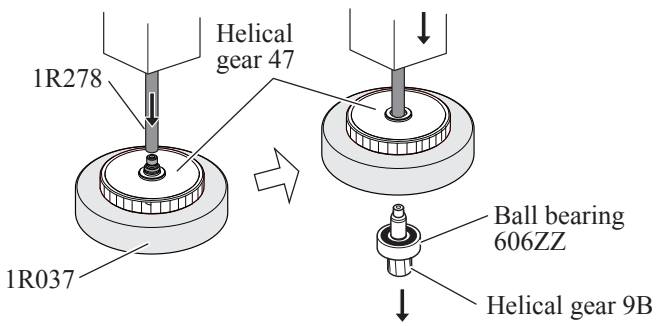
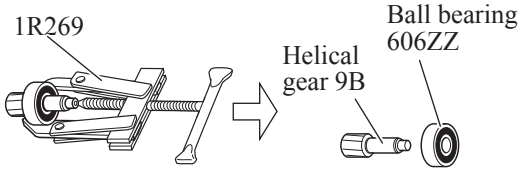


Fig. 13A

3. Remove Helical gear 47 from Helical gear 9B using 1R037 (20.2 mm hole diameter) and Arbor press with 1R278. Ball bearing 606ZZ remains on Helical gear 9B after this process.



4. Remove ball bearing 606ZZ from Helical gear 9B with 1R269.



Repair

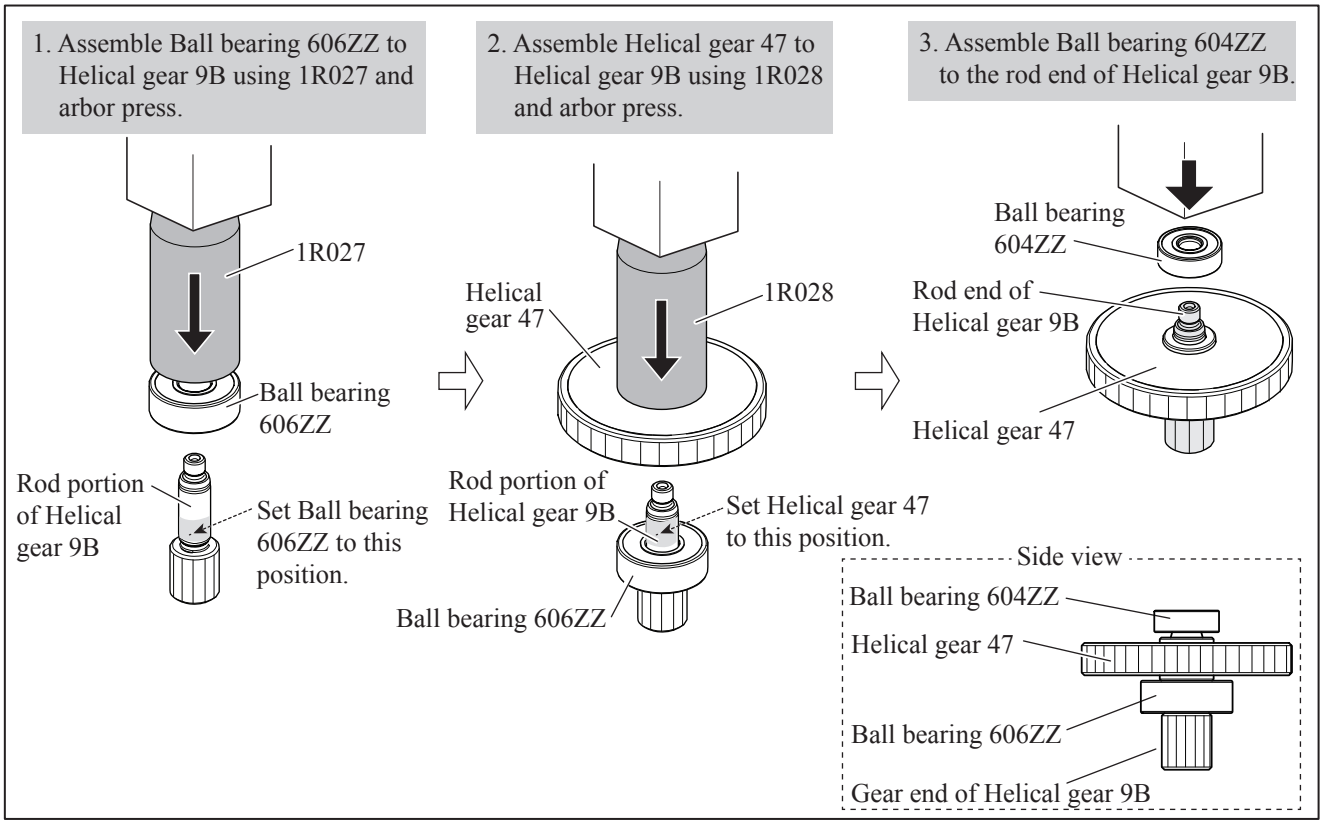
[3] DISASSEMBLY/ASSEMBLY

[3]-4. Helical gear 47, Helical gear 9B, Ball bearings (cont.)

ASSEMBLING

(1) Assemble Ball bearings and Helical gear 47 to Helical gear 9B. (**Fig. 14**)

Fig. 14



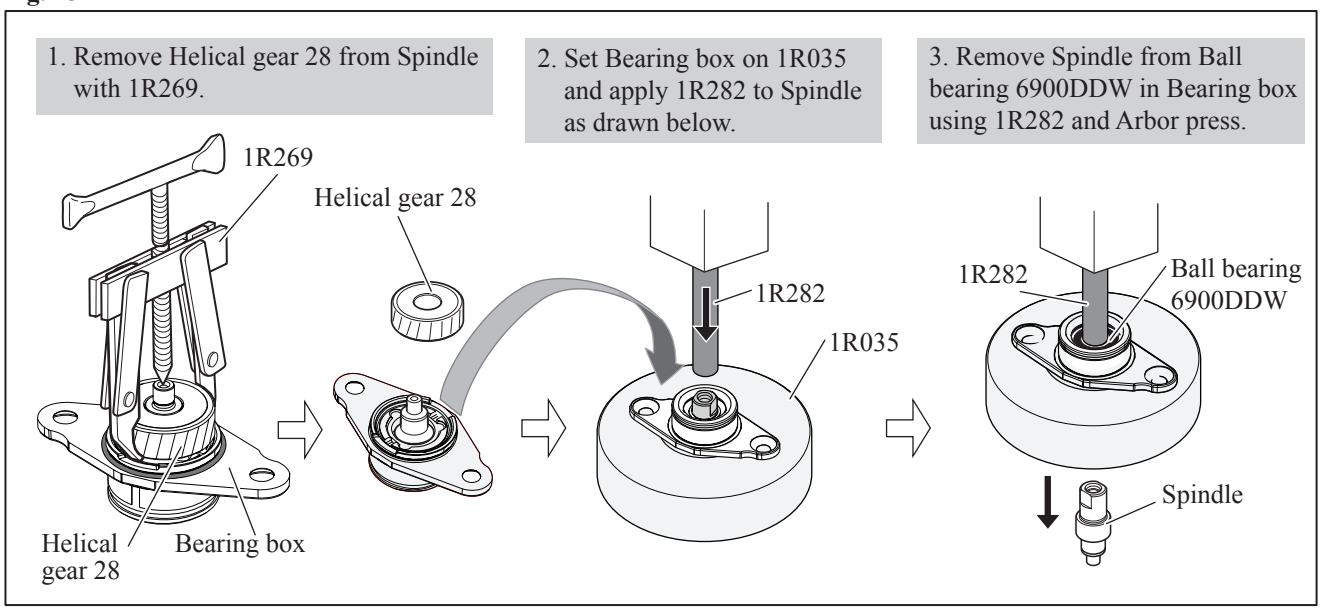
(2) Do the reverse step of Disassembling. (**Fig. 11**)

[3]-5. Helical gear 28, Ball bearing 6900DDW

DISASSEMBLING

(1) Disassemble Safety cover. (**Fig. 6**)
(2) Disassemble Bearing box section. (**Fig. 7**)
(3) Remove Helical gear 28 and Spindle from Bearing box. (**Fig. 15**)

Fig. 15



► Repair

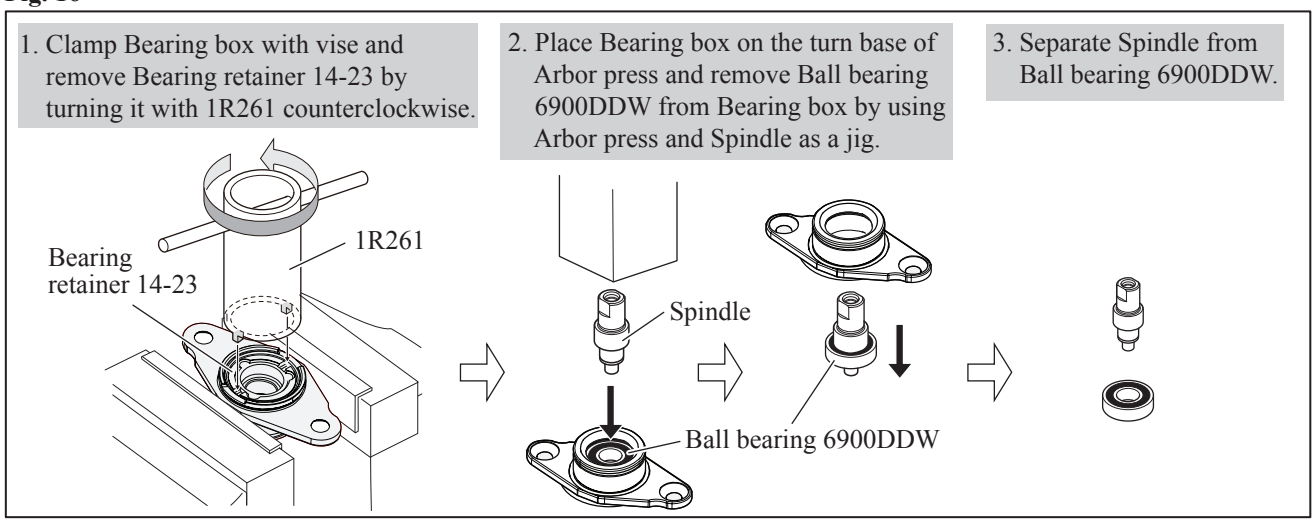
[3] DISASSEMBLY/ASSEMBLY

[3]-5. Helical gear 28, Ball bearing 6900DDW (cont.)

DISASSEMBLING

(4) Disassemble Bearing retainer 14-23 and Ball bearing 6900DDW. (**Fig. 16**)

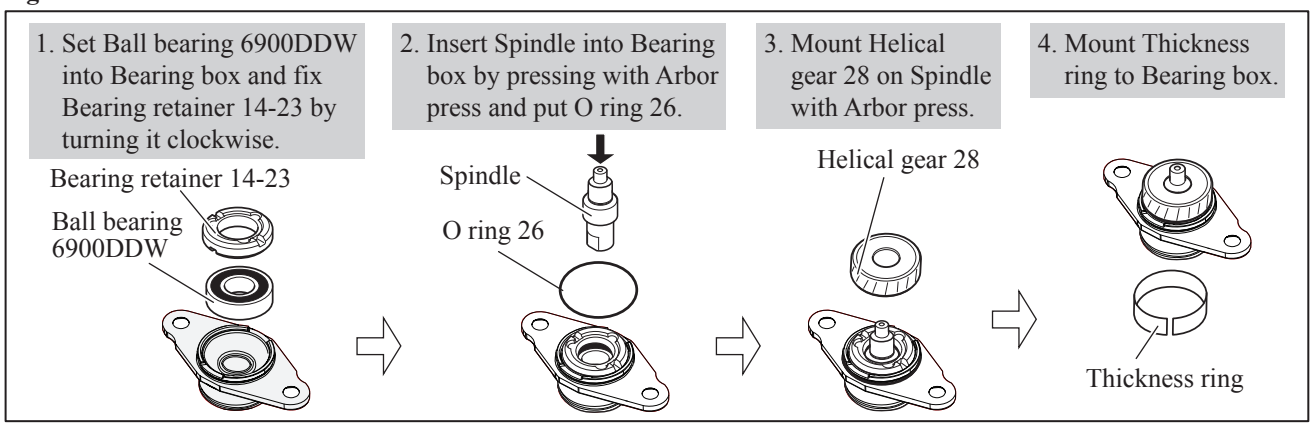
Fig. 16



ASSEMBLING

(1) Assemble Bearing retainer 14-23, Ball bearing 6900DDW, Spindle and Helical gear 28. (**Fig. 17**)

Fig. 17



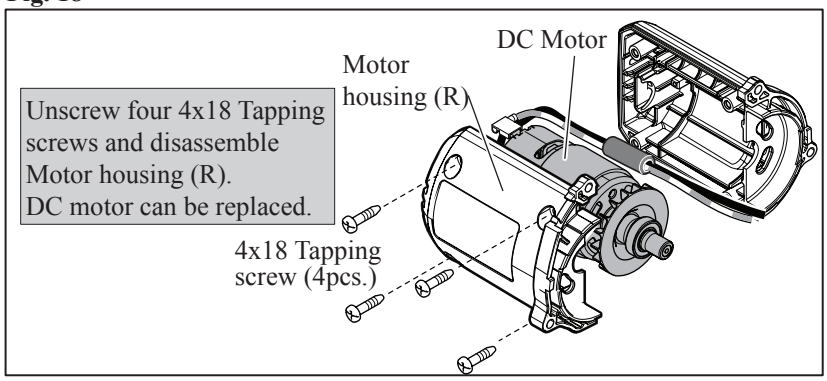
(2) Mount the Bearing box section to Housing (R) by fixing with M5x16 Counter sunk head screws. (**Fig. 7**)
(3) Assemble Safety cover. (**Fig. 6**)

[3]-6. DC motor

DISASSEMBLING

(1) Remove Motor housing set after disassembling of Handle (L). (**Fig. 10**)
(2) Remove DC motor from Motor housing set. (**Fig. 18**)

Fig. 18

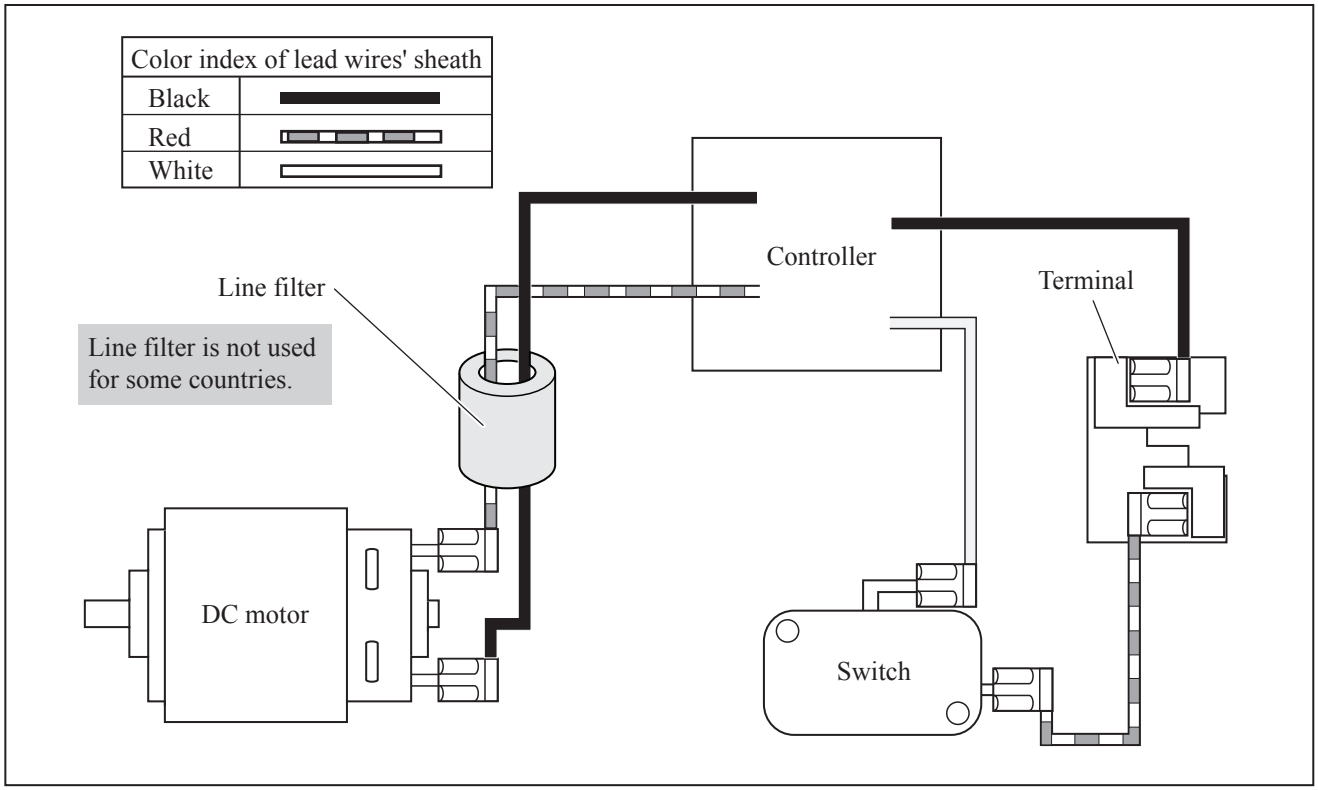


ASSEMBLING

Take the reverse step of Disassembling.

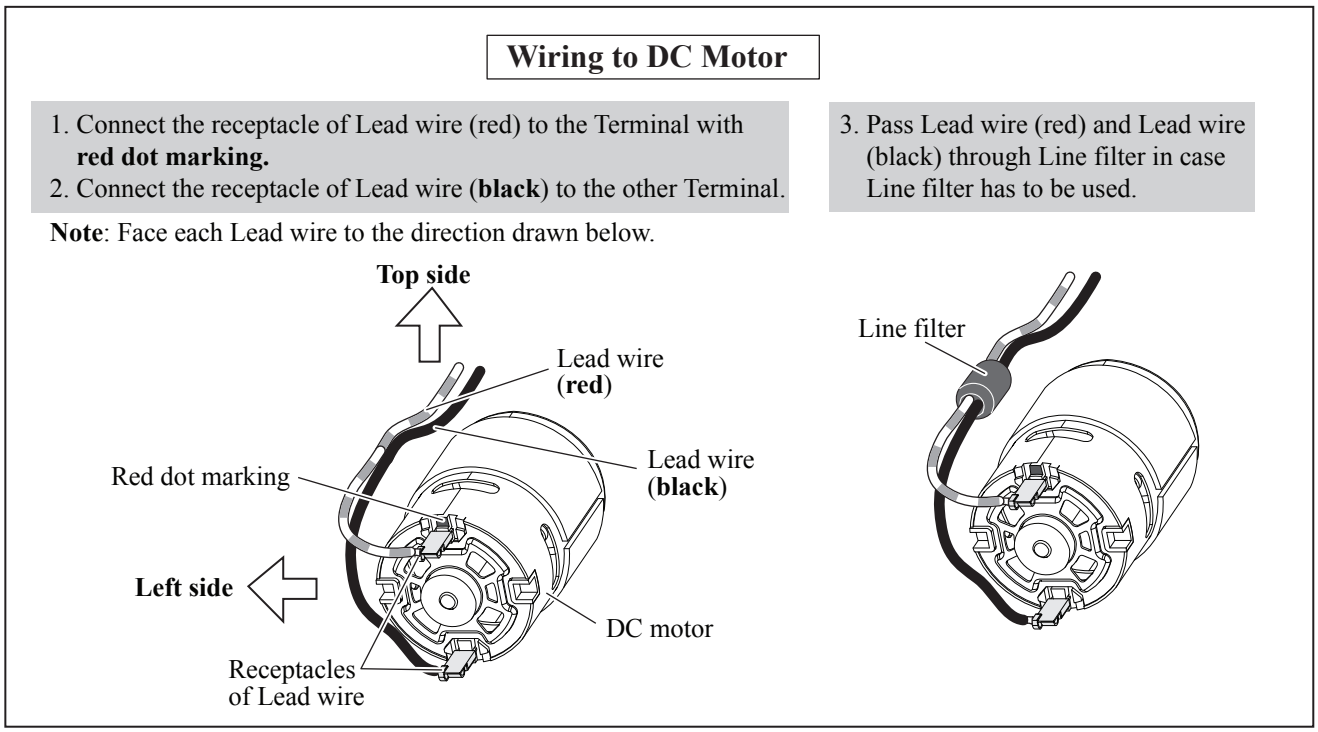
Circuit diagram

Fig.D-1



Wiring diagram

Fig.D-2



Wiring diagram (cont.)

Fig.D-3

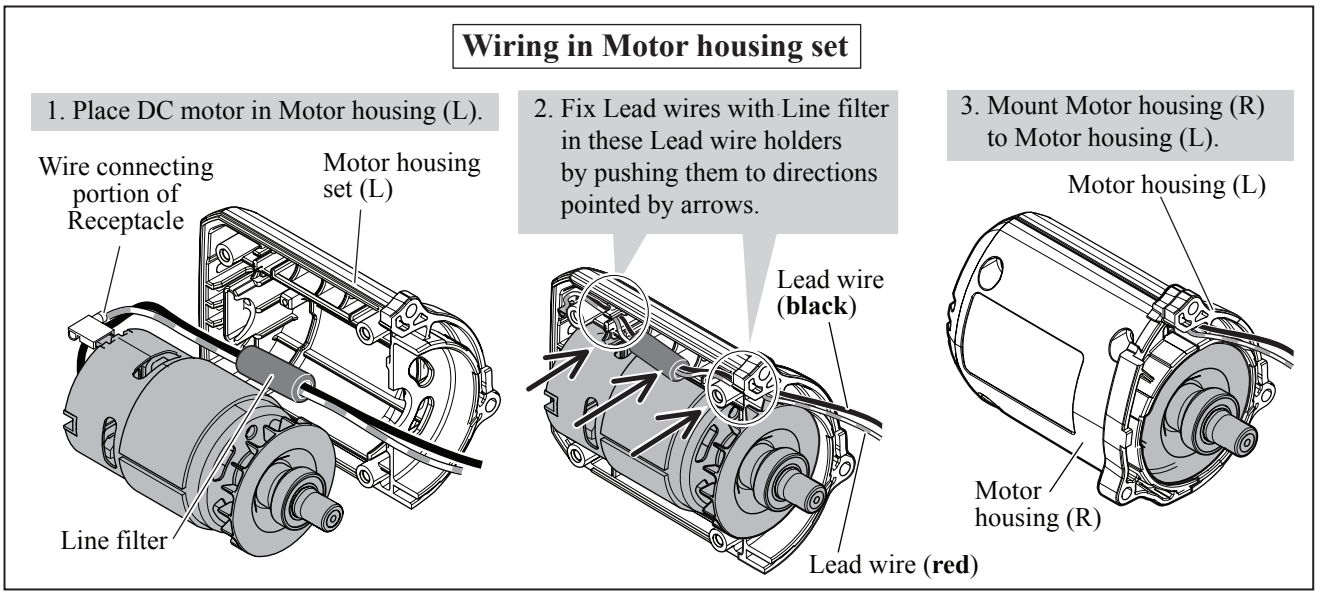


Fig.D-4

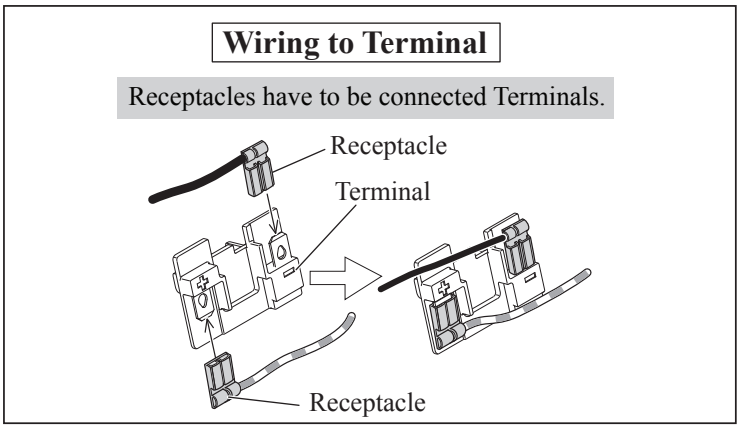


Fig.D-5

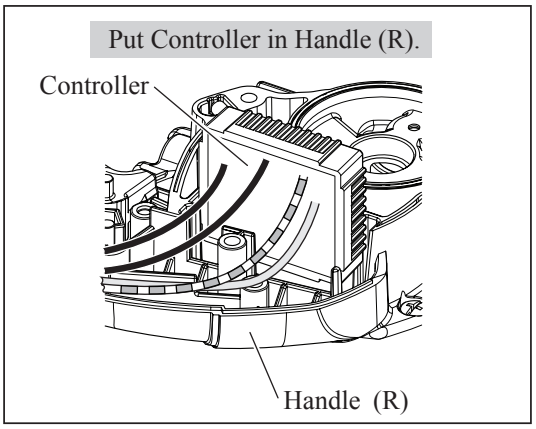


Fig.D-6