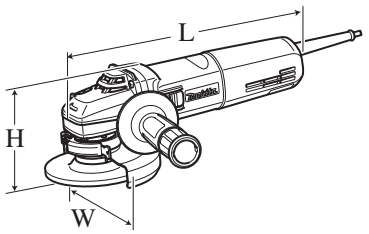
TECHNICAL INFORMATION

Model No. ► 9561CR/9561CVR, 9562CR/9562CVR

Description ► Angle Grinders 115mm (4-1/2"), 125mm (5")

CONCEPT AND MAIN APPLICATIONS

Models 9561CR/9561CVR, 9562CR/9562CVR are upgraded sister tools of 9561CH/9561CVH, 9562CV/9562CVH, featuring anti-restart function for added safety.



Dimensions: mm (")		
Model No.	**9561CR 9561CVR**	**9562CR 9562CVR**
Length (L)	289 (11-3/8)	
Width (W)	129 (5-1/8)	139 (5-1/2)
Height (H)	103 (4-1/16)	

► Specification

Voltage (V)	Current (A)	Cycle (Hz)	Continuous Rating (W)		Max. Output (W)
			Input	Output	
110	11.5	50/60	1,200	750	1,800
120	11.0	50/60	---	750	2,000
220	5.7	50/60	1,200	800	2,000
230	5.5	50/60	1,200	800	2,000
240	5.3	50/60	1,200	800	2,000

Model No.		**9561CR**	**9561CVR**	**9562CR**	**9562CVR**
Wheel size: mm (")	Diameter	115 (4-1/2)		125 (5)	
	Hole diameter	22.23 (7/8)			
No load speed: min.$^{-1}$ = rpm	North America	10,500	2,800 - 10,500	10,500	2,800 - 10,500
	Other countries	11,000	2,800 - 11,000	11,000	2,800 - 11,000
Super Joint System (SJS)		Yes			
Electronic control	Constant speed control	Yes			
	Soft start	Yes			
	Electronic current limiter	Yes			
	Anti-restart function	Yes			
	Variable speed control by dial	No	Yes	No	Yes
Protection against electric shock		Double insulation			
Power supply cord: m (ft)		Australia, Chile, Brazil : 2.0 (6.6), Other countries: 2.5 (8.2)			
Net weight: kg (lbs)		2.2 (4.8)			
Weight according EPTA-Procedure 01/2003*: kg		2.2			

* with Wheel cover, Inner flange, Lock nut, Side grip; without Power supply cord

► Standard equipment

Side grip (standard soft grip) ..... 1 (Anti-vibration grip instead if required)
Toolless wheel cover ..... 1 (Standard type instead if required)
Lock nut wrench 1
Depressed center wheel ..... 1 (115-24 for 9561CR/9561CVR, 125-24 for 9562CR/9562CVR)

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

► Optional accessories

9561CR/ 9561CVR: Same optional accessories as available for 9561CH/ 9561CVH
9562CR/ 9562CVR: Same optional accessories as available for 9562CH/ 9562CVH

► Repair

CAUTION: Unplug the tool and remove the wheel cover and grinding wheel from the machine for safety before repair/ maintenance in accordance with the instruction manual!

[1] NECESSARY REPAIRING TOOLS

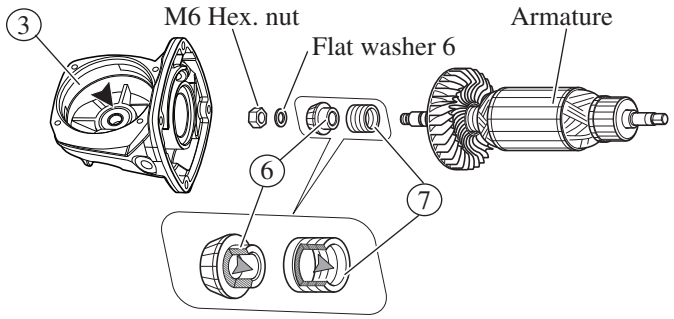
Code No.	Description	Use for
1R041	Vise plate	Use with Vise to protect the clamped part
1R217	Ring 22	Supporting Bearing box when Removing spindle from Spiral bevel gear 38
1R268	Spring pin extractor 3	Removing Pin for Shaft lock
1R269	Bearing extractor	Removing Ball bearing 627DDW from Armature of commutator end
1R291	Retaining ring S & R pliers	Removing / mounting Retaining ring S-12 from / to the drive end of Armature shaft
1R340	Bearing retainer wrench	Removing / mounting Bearing retainer
1R350	Ring 60	Supporting Gear housing when removing Pin for Shaft lock

[2] LUBRICATIONS

Apply Makita grease SG No.0 and Disulfied molybdenum to the following portions designated with triangles to protect parts and product from unusual abrasion.

Item No.	Description	Portion to lubricate	Lubricant	Amount
③	Gear housing complete	Gear room	Makita grease SG No.0.▼	15g
⑥	Spiral bevel gear 11	Cylindrical portion where armature shaft is inserted	Disulfied molybdenum▽	a little
⑦	Lock ring 12	Cylindrical portion which accepts ⑥'s drum portion		

Fig. 1



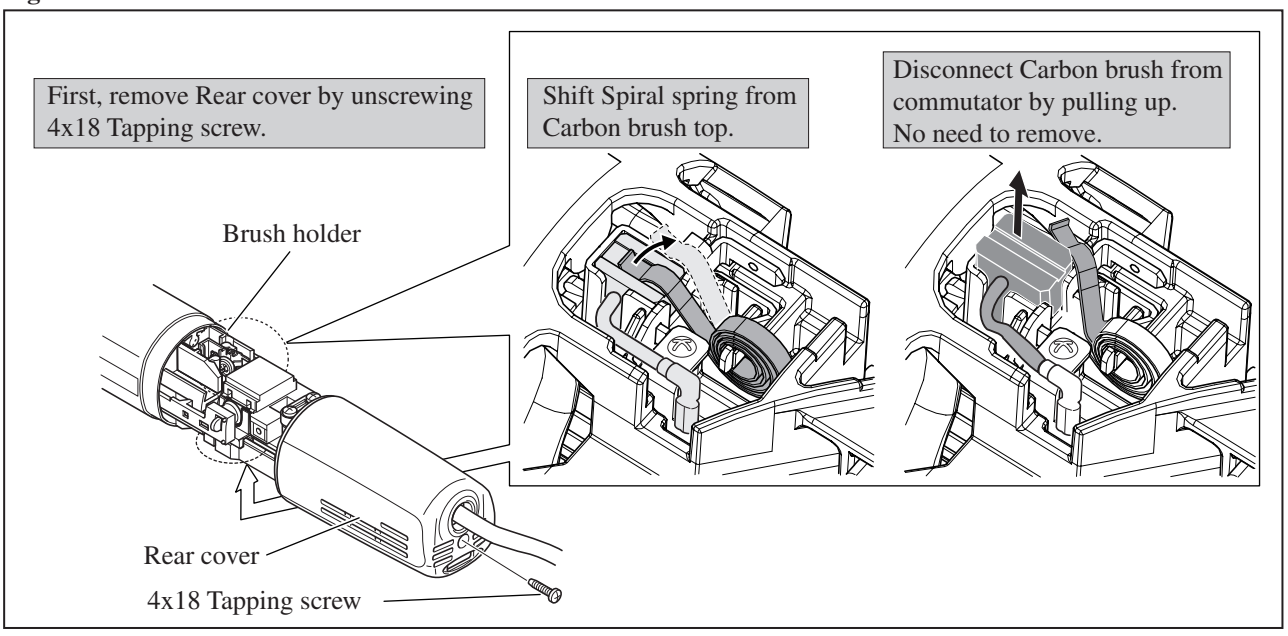
[3] DISASSEMBLY/ASSEMBLY

[3]-1. Armature, Spiral Bevel Gear 11 on Armature shaft

DISASSEMBLING

(1) In order to protect Armature's commutator, disconnect carbon brushes from the Commutator as illustrated in **Fig. 2**.

Fig. 2



Repair

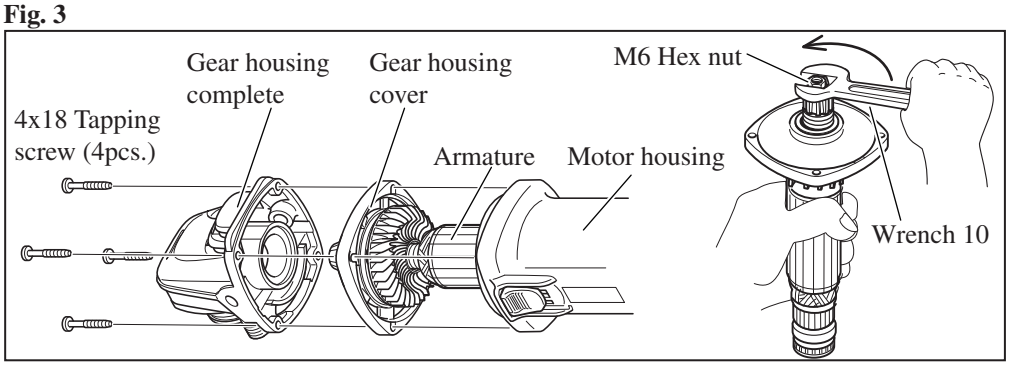
[3] DISASSEMBLY/ASSEMBLY

[3]-1. Armature, Spiral Bevel Gear 11 on Armature shaft (cont.)

DISASSEMBLING

(2) Remove Motor housing and Gear housing complete by loosening 4x18 Tapping screws (4pcs.). And then remove M6 Hex nut from Armature as illustrated in **Fig. 3**.

Fig. 3



(3) Armature's Drive end can be disassembled as illustrated in **Figs. 4, 5**.

Fig. 4

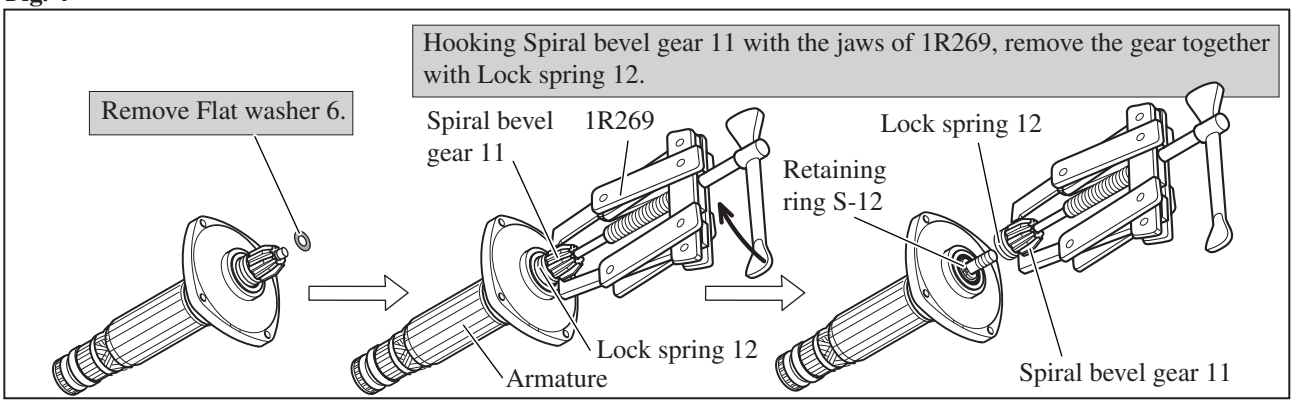
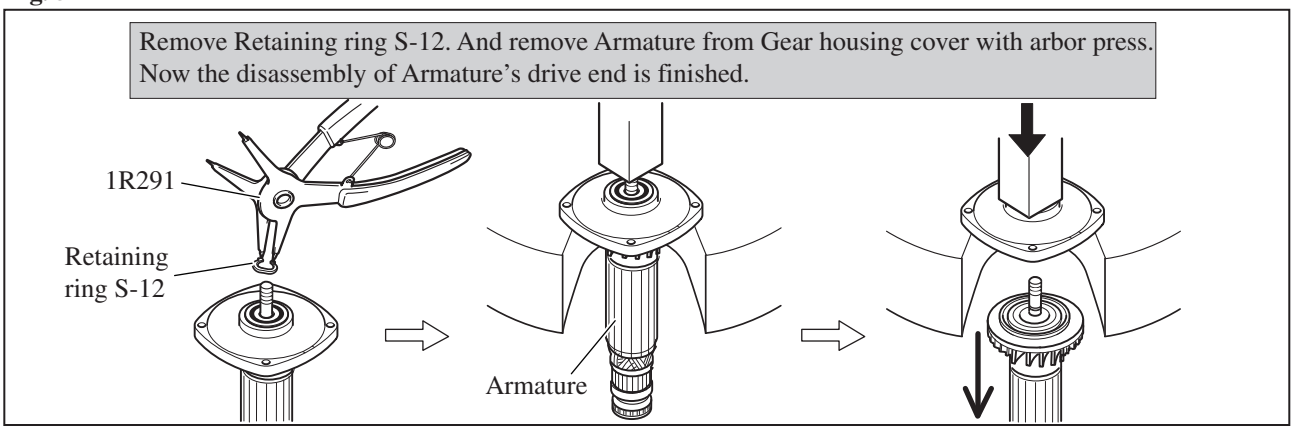
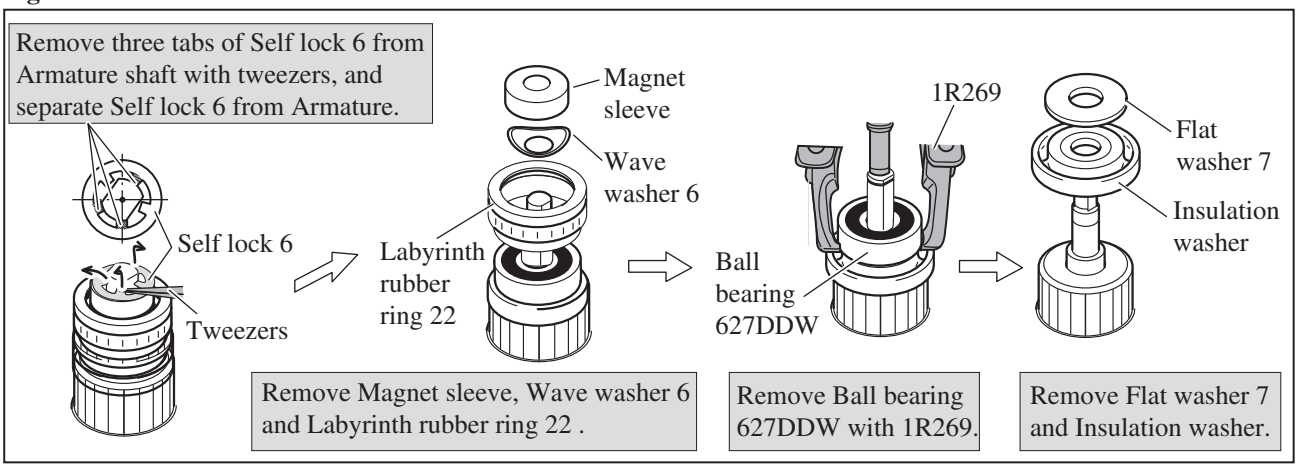


Fig. 5



(4) Armature's Commutator end can be disassembled as illustrated in **Fig. 6**.

Fig. 6



► Repair

[3] DISASSEMBLY/ASSEMBLY

[3]-1. Armature, Spiral Bevel Gear 11 on Armature shaft (cont.)

ASSEMBLING

(1) Assemble Armature to Gear housing cover. Refer to **Fig. 5**.
(2) Assemble Lock spring 12 and Spiral bevel gear (small). Refer to **Fig. 4**.
< Note> Lock spring 12 has to be replaced with the fresh one, when Spiral bevel gear (small) is replaced.
(3) Assemble M6 hex nut or Retaining ring. Refer to **Fig. 3**.
(4) Assemble the commutator end of Armature as illustrated in **Fig. 7R**.

Fig. 7F

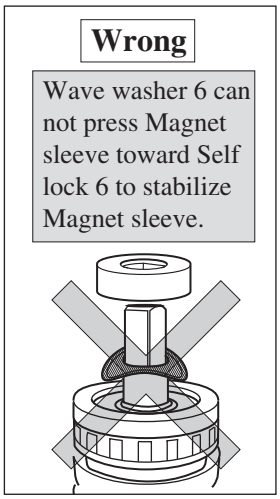
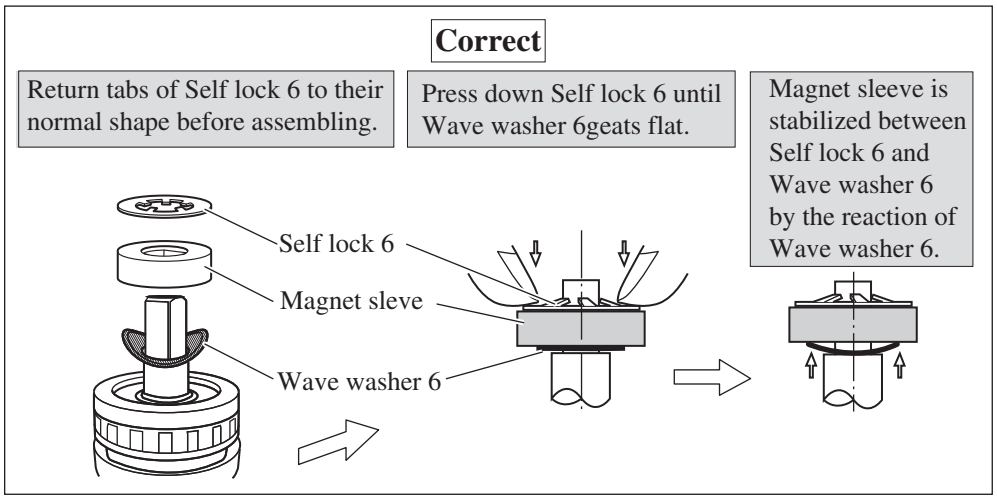
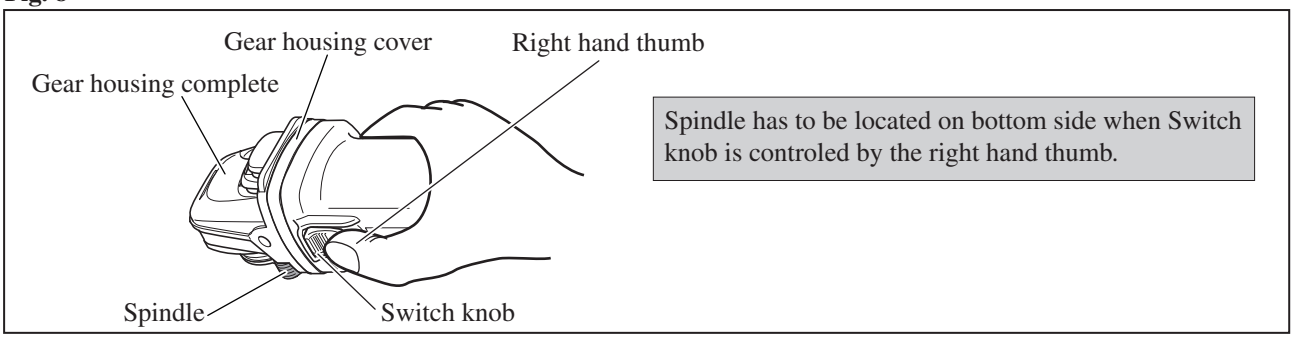


Fig. 7R



(5) Assemble Gear housing cover with Armature and Gear housing complete to Motor housing as illustrated in **Fig. 8**.

Fig. 8

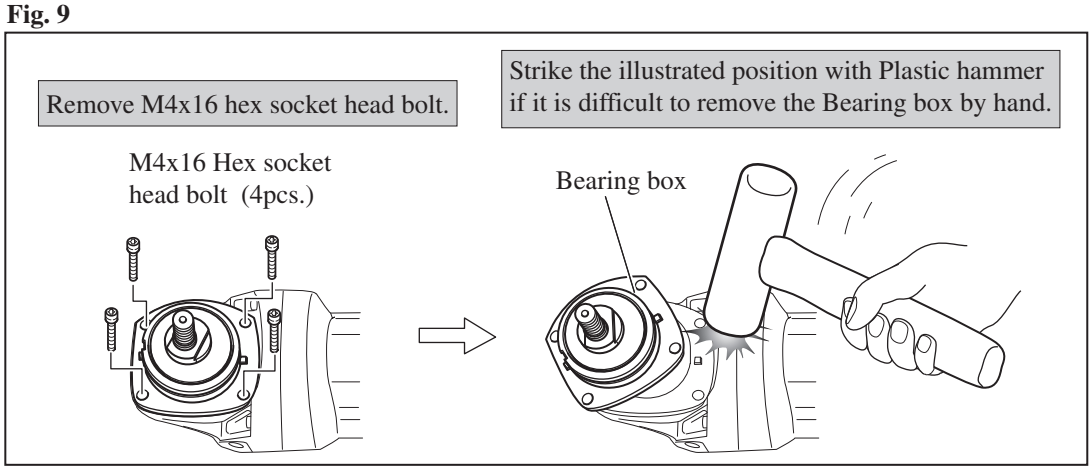


[3]-2 Spiral Bevel Gear 38 on Spindle and Ball Bearing 6201DDW

DISASSEMBLING

When disassembling the above mentioned parts from Bearing box, it is not necessary to disassemble Gear housing complete from Motor housing.
(1) Remove bearing box from Gear housing complete as illustrated in **Fig. 9**.

Fig. 9



Repair

[3] DISASSEMBLY/ASSEMBLY

[3]-2 Spiral Bevel Gear (large) on Spindle and Ball Bearing 6201DDW

DISASSEMBLING

(2) Spiral bevel gear (large), Spindle, Labyrinth ring, Ball bearing 6201DDW are disassemble from Bearing box in the order of **Figs. 10, 11, 12 or 12A**.

Fig. 10

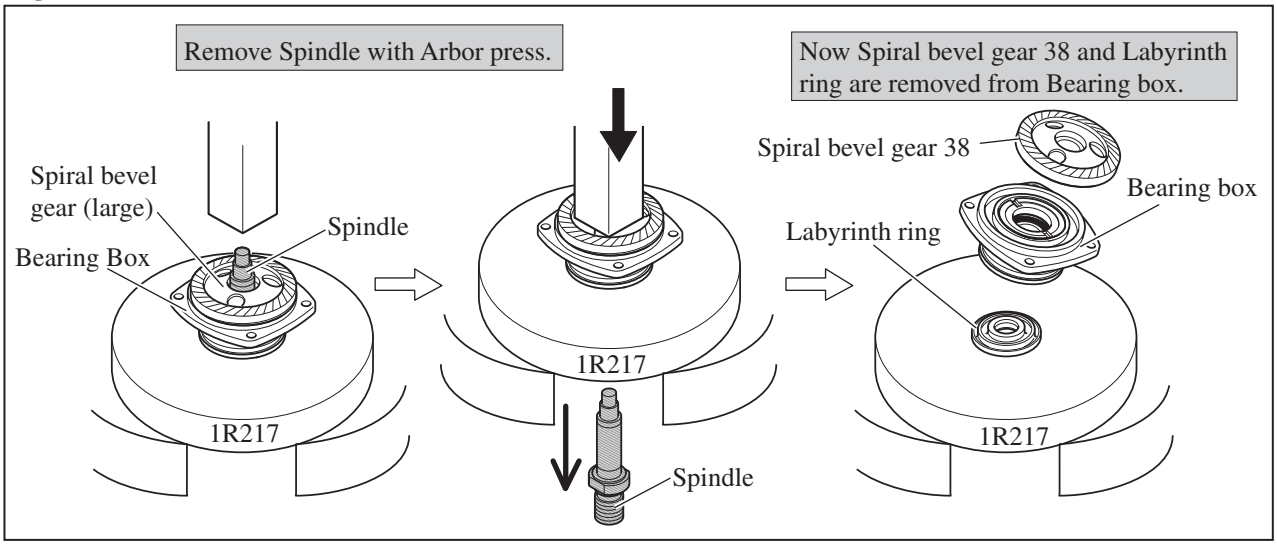


Fig. 11

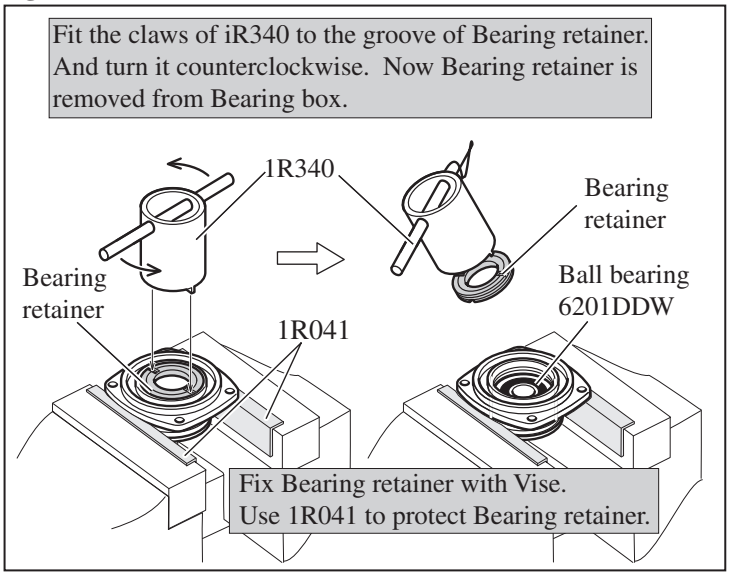
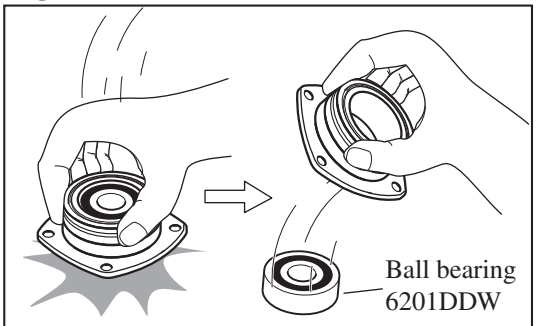


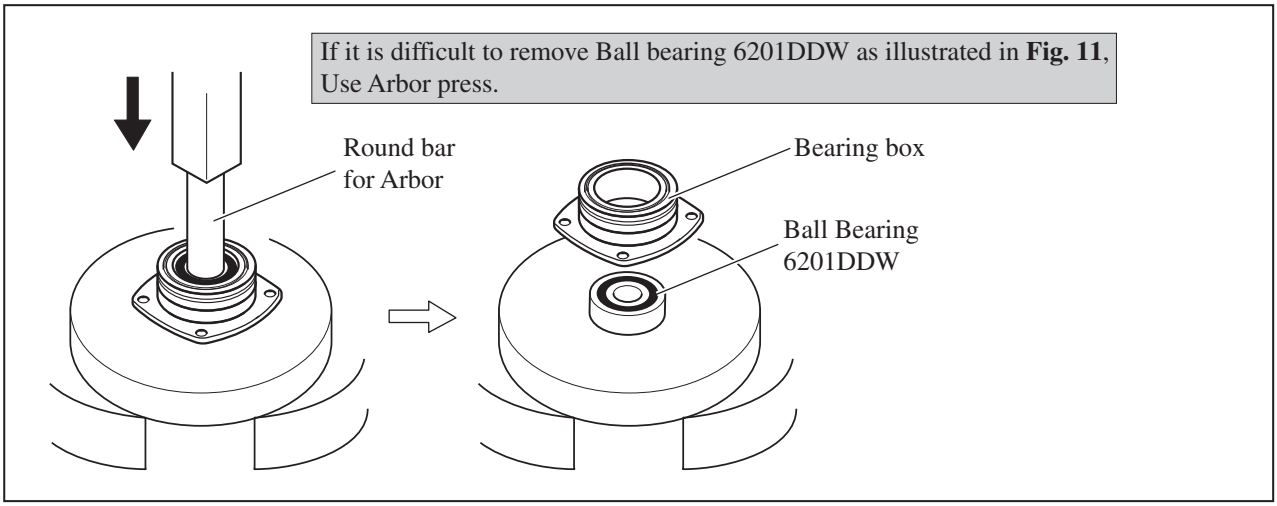
Fig. 12



Strike Gear housing gently with work table to remove Ball bearing 6201DDW.

Note: Cover the work table with something soft to avoid the damage on Gear housing before disassembling.

Fig. 12A



Repair

[3] DISASSEMBLY/ASSEMBLY
[3]-2 Spiral Bevel Gear (large) on Spindle and Ball Bearing 6201DDW (cont.)

ASSEMBLING

Take the disassembling step in reverse.

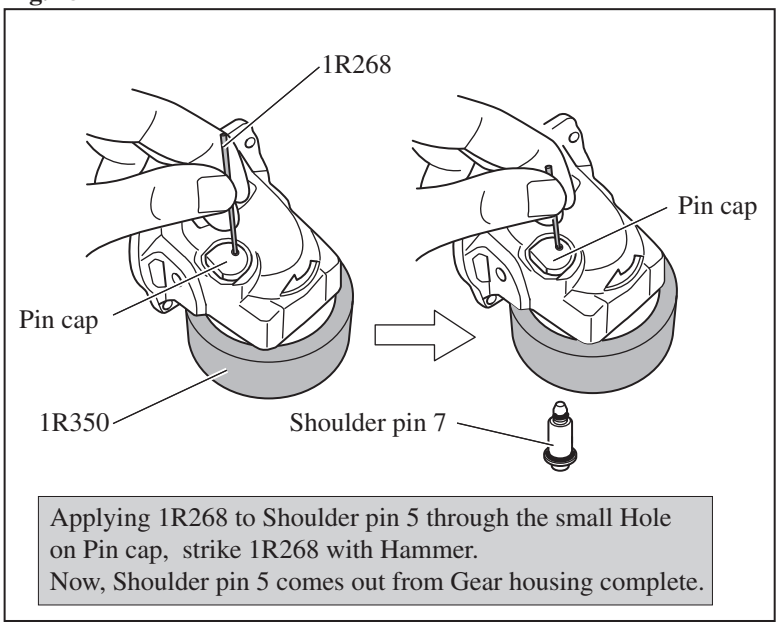
Note: Be sure to apply adhesive to the threads of M4x16 Hex. socket head bolts (4pcs.) for securing Bearing box to Gear housing complete when reusing the bolts.

[3] DISASSEMBLY/ASSEMBLY
[3]-3 Shaft Lock Mechanism

DISASSEMBLING

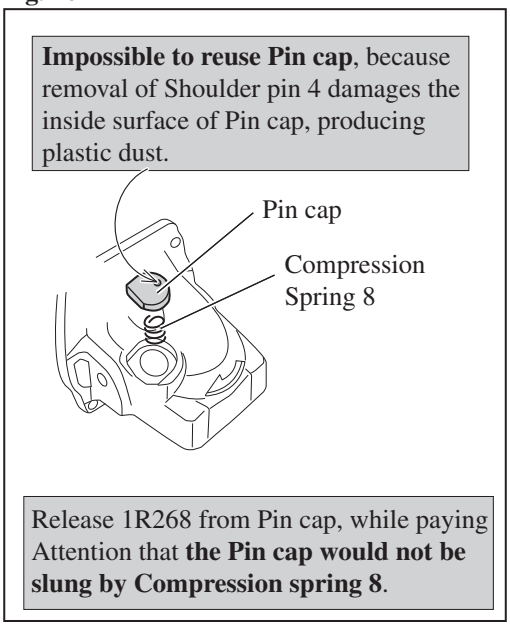
Disassemble Shaft lock mechanism as illustrated in **Fig. 15, 16**.

Fig. 15



Applying 1R268 to Shoulder pin 5 through the small Hole on Pin cap, strike 1R268 with Hammer.
Now, Shoulder pin 5 comes out from Gear housing complete.

Fig. 16



Release 1R268 from Pin cap, while paying Attention that **the Pin cap would not be slung by Compression spring 8**.

ASSEMBLING

(1) Be sure to use a new Pin cap for replacement and to remove all the plastic dust on Shoulder pin 5. (**Fig. 17**)
(2) Assemble the components for Shaft lock mechanism as illustrated in **Fig. 18**.

Fig. 17

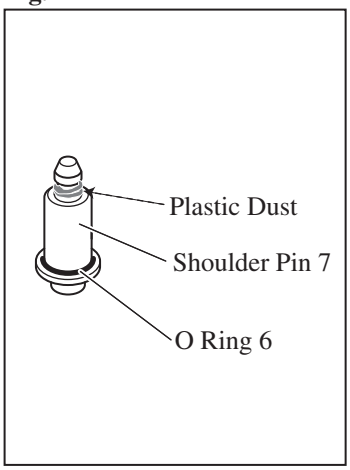
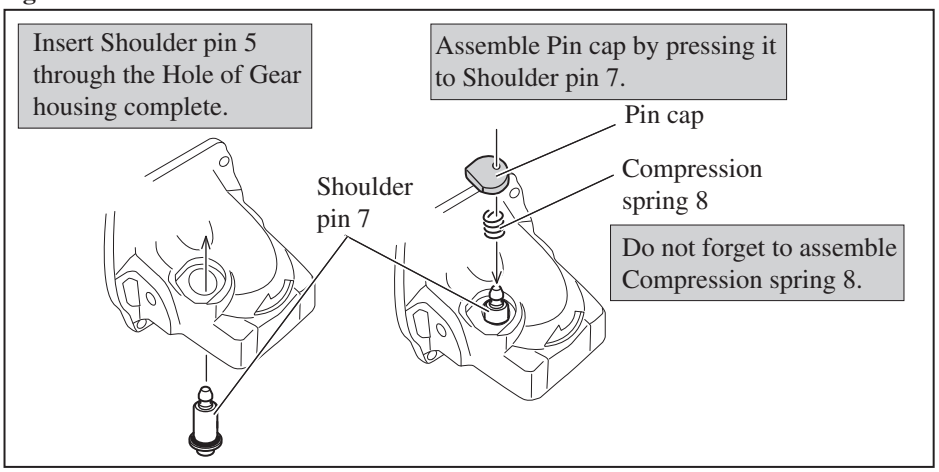
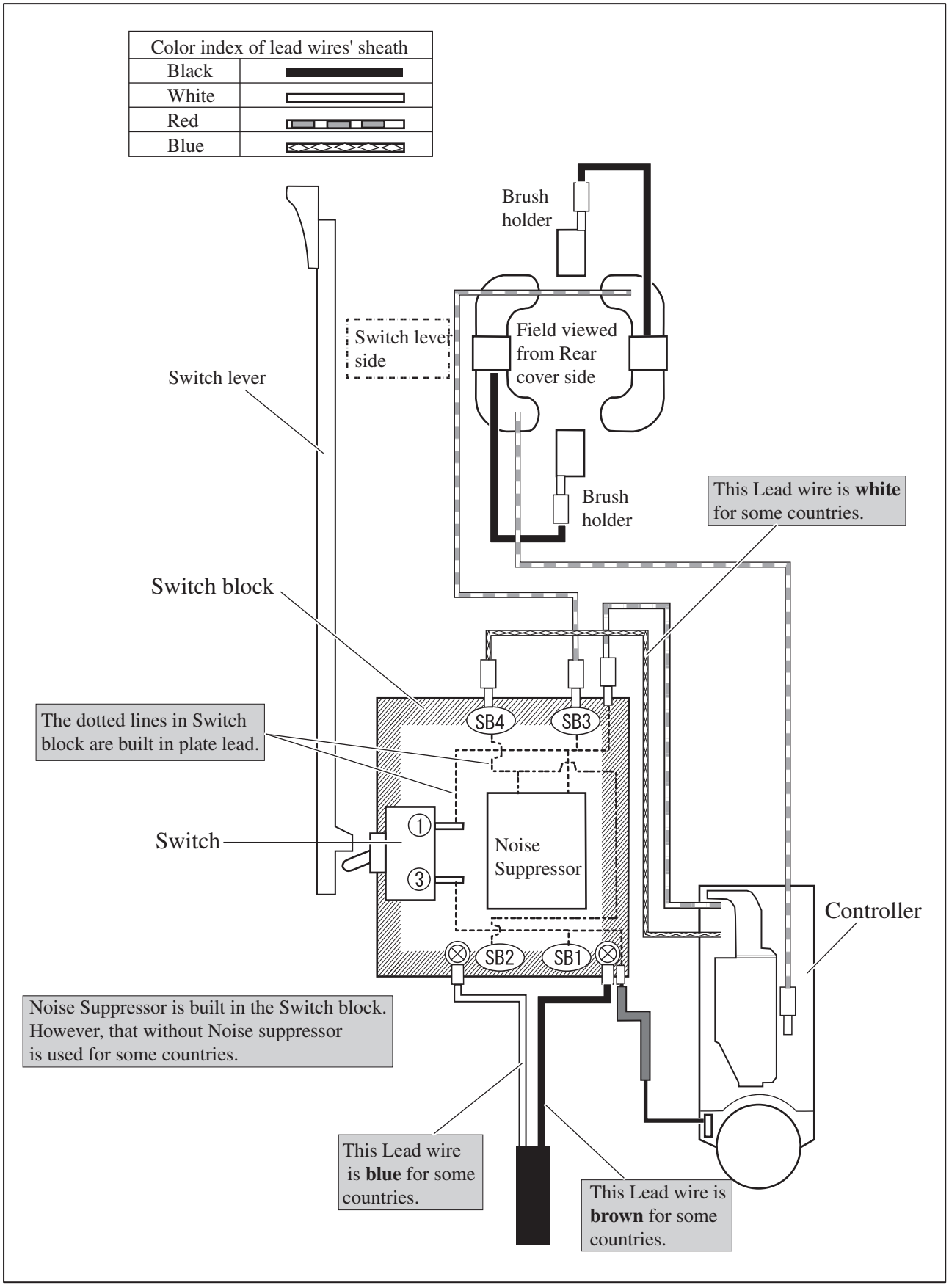


Fig. 18



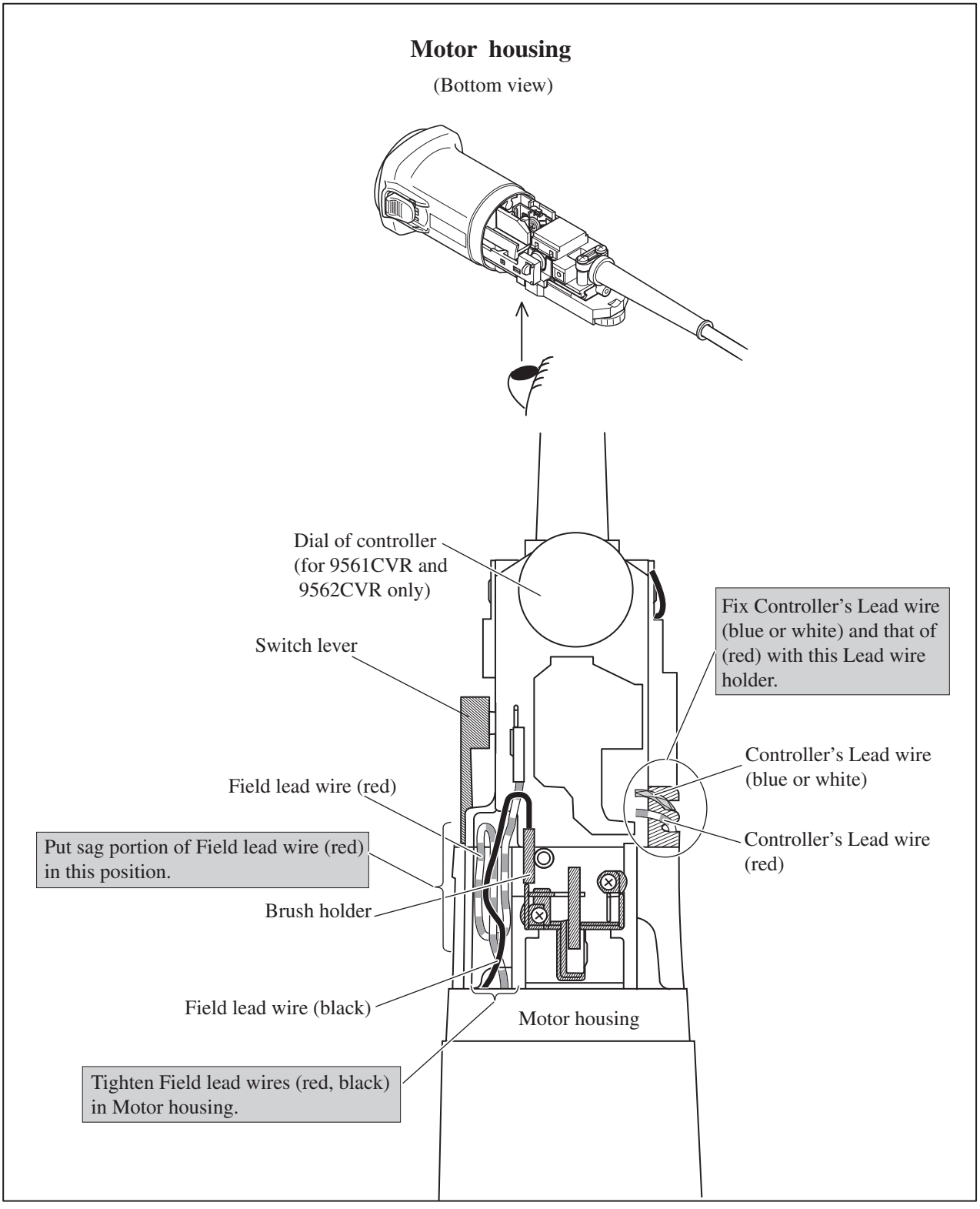
► Circuit diagram

Fig. D-1



► Wiring diagram

Fig. D-1



► Wiring diagram

Fig. D-3