

TECHNICAL INFORMATION

Makita

New Tool

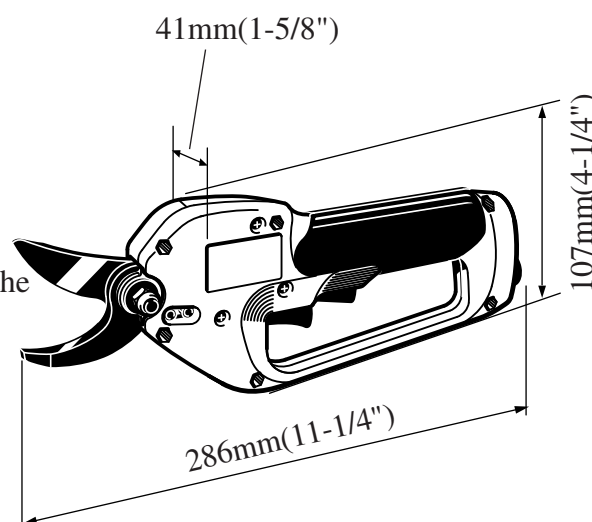
Models No. ▶ 4604D/4604DW**Description** ▶ Battery-Powered Pruning Shear

CONCEPTION AND MAIN APPLICATIONS

Improved version of the existing Model 4603D/DW.
The brief benefits are as follows.

- * The high capacity battery and new type DC motor provide double working capacity in comparison with the existing models.
- * The scissors' action can be controlled by the switch trigger. Namely the scissors stay in the closed position, if the operator press the switch trigger on, and the scissors stop always in the open position, if the operator releases switch trigger.
- * Easy to replace the blades, without removing whole of machine.

The version of this model : 4604DW with controller C4600, charger DC4600 and battery 4600
4604D without the above items



► Specifications

DC Magnet Motor 24 V	
Max. Cutting Capacity	30 mm (1-3/16\") in diameter
Charging time	1 hour
Net Weight	1.0 kg (2.2 lbs.)
Battery 4600	Ni Cd. 24V 3.0Ah

► Standard equipment (for 4604DW)

Battery 4600	Suspender	Shear blade (U)
Charger DC4600	Arm band	Plastic carrying case
Controller C4600	Holster	
Connection cord	Oil supply	
Battery support belt	Wrench assembly 3-13	

The standard equipment for the tools shown may differ from country to country.

► Optional accessories

Battery 4600	Shear Blade (L),
Connection cord	Diamond File 140-170
Shear Blade (U),	

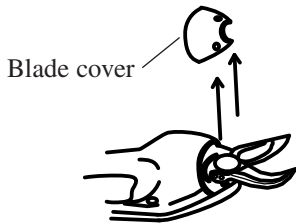
► Features and benefits

Easy to replace the blades

It is not necessary to remove the whole of machine for replacement of blades.

Remove the blade cover by loosening 2 screws. Then the blade can be replaced easily.

Wrench assembly 3-13 (hex wrench 3 and box wrench 13) can be used for replacement of blades. The wrench assembly 3-13 can be stored in the battery support belt.



Double capacity of the existing models

Capacity for cutting grape twigs of 10mm (3/8") - 25mm (1") in diameter

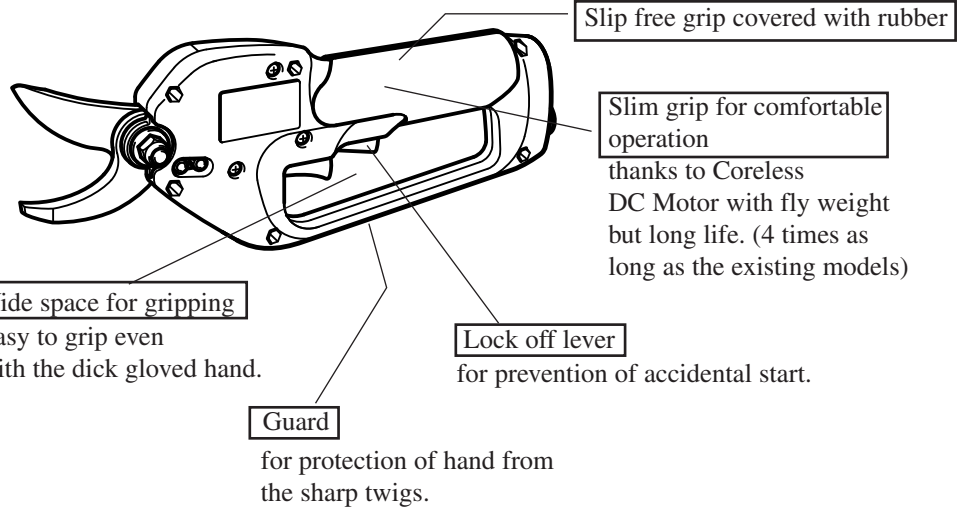
Makita Model 4604D : approx. 10,000 cuts

Makita Model 4603D : . 5,500 cuts

More rapid cutting speed (Grape twigs of 25mm in diameter)

Makita 4604D : 0.4 sec. per one cut

Makita 4603D : 0.8 sec. per one cut

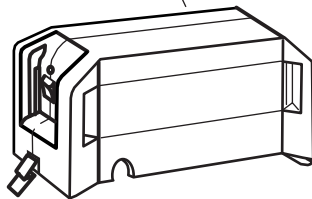


Controller C4600

to control the motor and scissors' action by receiving the signal from switch.

Equipped with motor protection

to cut the electric current automatically in case of accidental lock of scissors. (Switch off the controller and switch on again, so the work can be started again.)



Removable connection cord

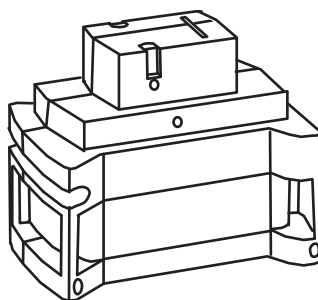
The connector is installed on both machine and controller side for removing the connection cord from both of them.

Slit for belt

Battery and controller can be set not only on the battery support belt but also on the conventional belt.

Battery 4600

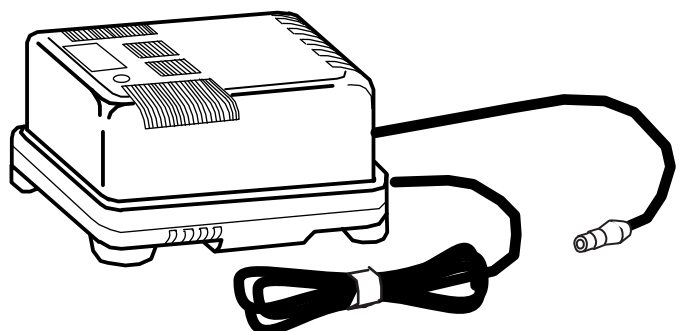
Ni-Cd 24V, 3A
Cell size : C



Charger DC4600

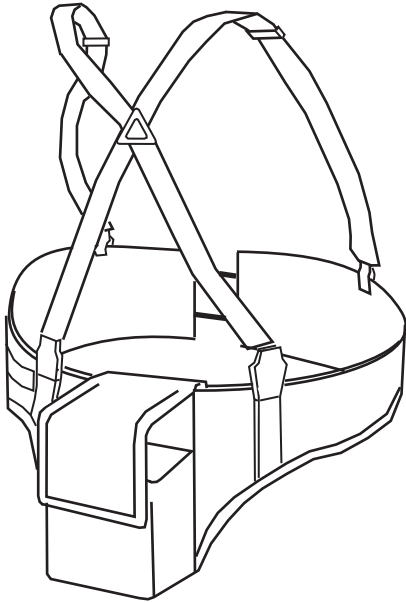
One hour charger.

Finish of your lunch time is finish of battery charge.



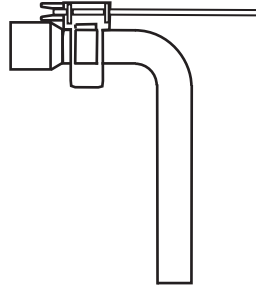
Standard equipments

Model 4604DW is supplied with the following standard equipments.



Battery support belt

Long time but painless work thanks to battery support belt for holding controller and battery.

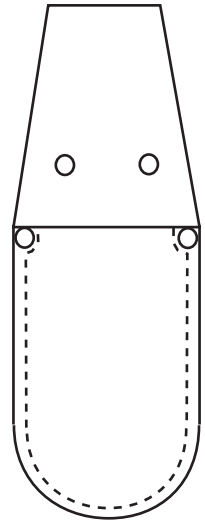


Wrench assembly 3-13

consisting of

- * Hex wrench 3 for removing of blade cover.
- and
- * Box wrench 13 for replacement of scissors.

They can be stored in the battery support belt.



Holster

can be set on the battery support belt in order to hold Mod.4604D.



Arm band

for guiding the connection cord through the operator's arm in order to prevent damage of it.

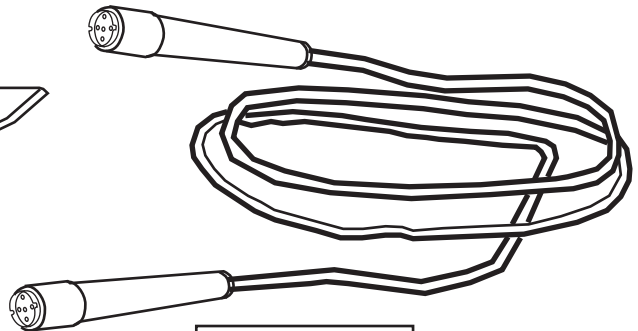


Oil supply

for application to the scissors.



Shear blade U



Connection cord

very strong against fatigue by frequent inflection.

Battery cover

to protect the battery's terminal from the damage or accidental short circuit.

Plastic carrying case

Model 4604D, Charger DC4600, Controller C4600, the above mentioned standard equipments and extra battery (optional accessory) can be stored in the plastic carrying case.

Also 3 batteries can be stored in it, if the charger would be excluded from the case.

► Comparison of products

Model		Makita	Makita	Competitor A
Specifications		4604D	4603D	Model A
Battery	Voltage (V)	24	14.4	24
	Capacity (Ah)	3.0	4.0	2.8
Energy (Wh)		72.0	57.6	67.2
Charging time		1hour	1hour	1hour
Max.cutting capacity in diameter (mm)		30.0 (1-3/16")	25.0 (1")	30.0 (1-3/16")
Max.cutting capacity in Q'ty of cuts (Work piece : twig of grape) (Diameter : 10 - 25 mm 3/8" - 1")		10,000 cuts	5,500 cuts	10,000 cuts
Lock off switch for safety use		Yes	Yes	No
Relation of scissors' and switch's action	Press the trigger on (Keep the switch on)	Stay in the closed position	Repeat the cutting action	Stay in the closed position
	Switch off on the way to the closed position of scissors	Stop in the open position	Stop on the way to the closed position	Stop on the way to the closed position
Diameter of grip (mm)		41.0 (1-5/8")	44.0 (1-3/4")	43.5 (1-11/16")
Slip free rubber on the grip		Yes	No	Yes
Over all length (mm)		286.0 (11-1/4")	293.0 (11-1/2")	282.0 (11-1/8")
Weight	Machine (Kg)	1.00 (2.2 lbs)	1.06 (2.2 lbs)	0.88 (2.0 lbs)
	Battery (Kg)	2.50 (5.5 lbs)	2.50 (5.5 lbs)	2.90 (6.4 lbs)
Standard equipments		Plastic carrying case Battery 4600 Charger DC4600 Controller 4600 Connection cord Battery support belt Suspender Arm band Holster Oil supply 30cc Wrench assembly 3-13 Shear blade (U)	Plastic carrying case Battery 1402 Charger DC1401 Connection cord Battery support belt Holster Diamond file Oil supply 30cc Box wrench 13 Hex wrench 3 Hex wrench 4 Shear blade (U) Carbon brush Torsion spring 25	Plastic carrying case Battery Charger Controller Connection cord Battery support belt Suspender Arm band File

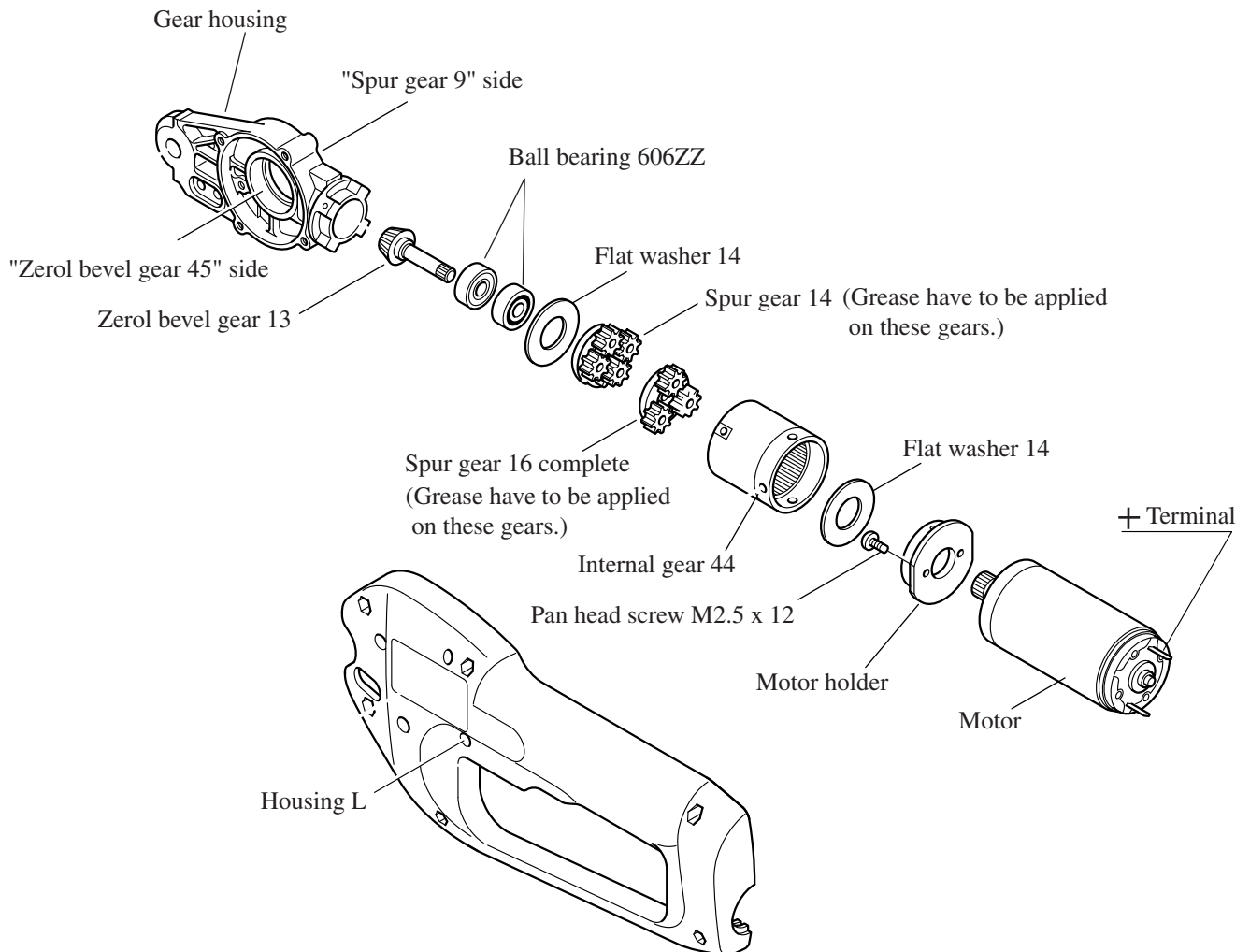
► Repair

< 1 > Apply Makita Grease No.2 to the following sections.

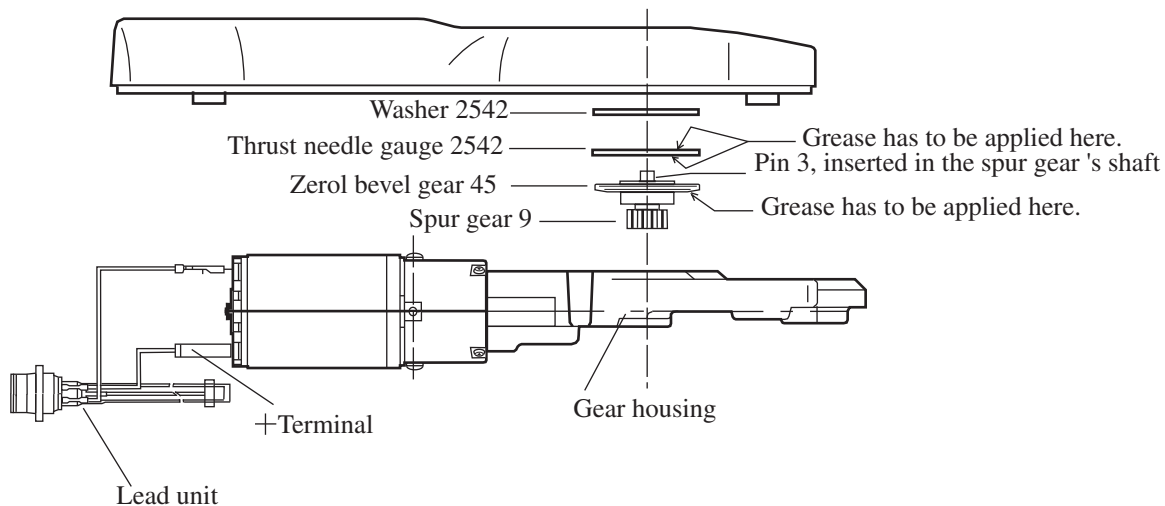
Parts' name	Volume to be applied
Spur gear 14 (Planet gears)	approx. 1.0 g
Zerol bevel gear 45	approx. 1.0 g
Thrust needle gauge 2542 (to both side)	approx. 1.0 g
Gear section of blade holder complete	approx. 0.6 g
Sliding section of shear blade (U)	approx. 0.2 g
Round bolt M8	approx. 0.2 g

< 2 > The spare parts have to be mounted as per the following illustration.

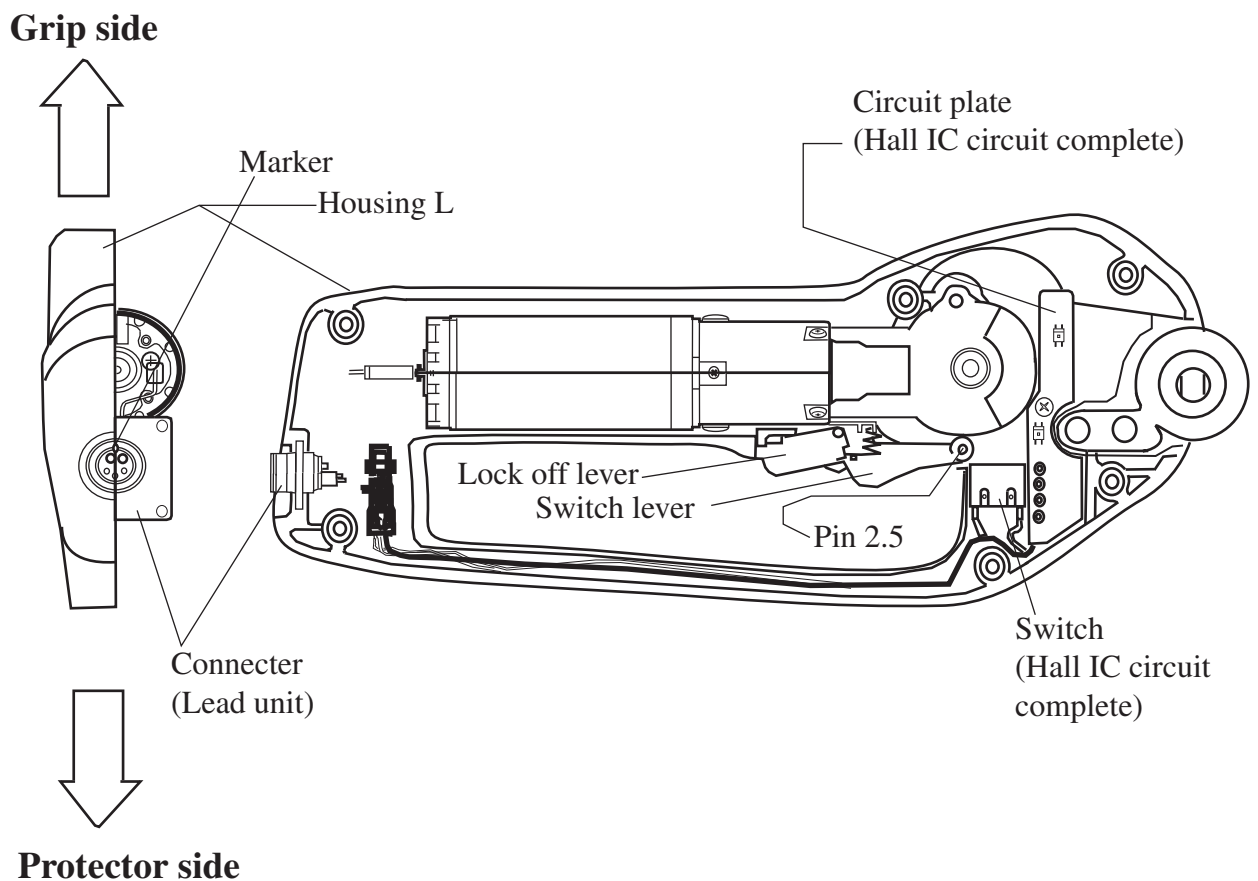
"Spur gear 9" side of the gear housing and " + terminal" side of the motor have to be faced to the same side as per the following illustration.



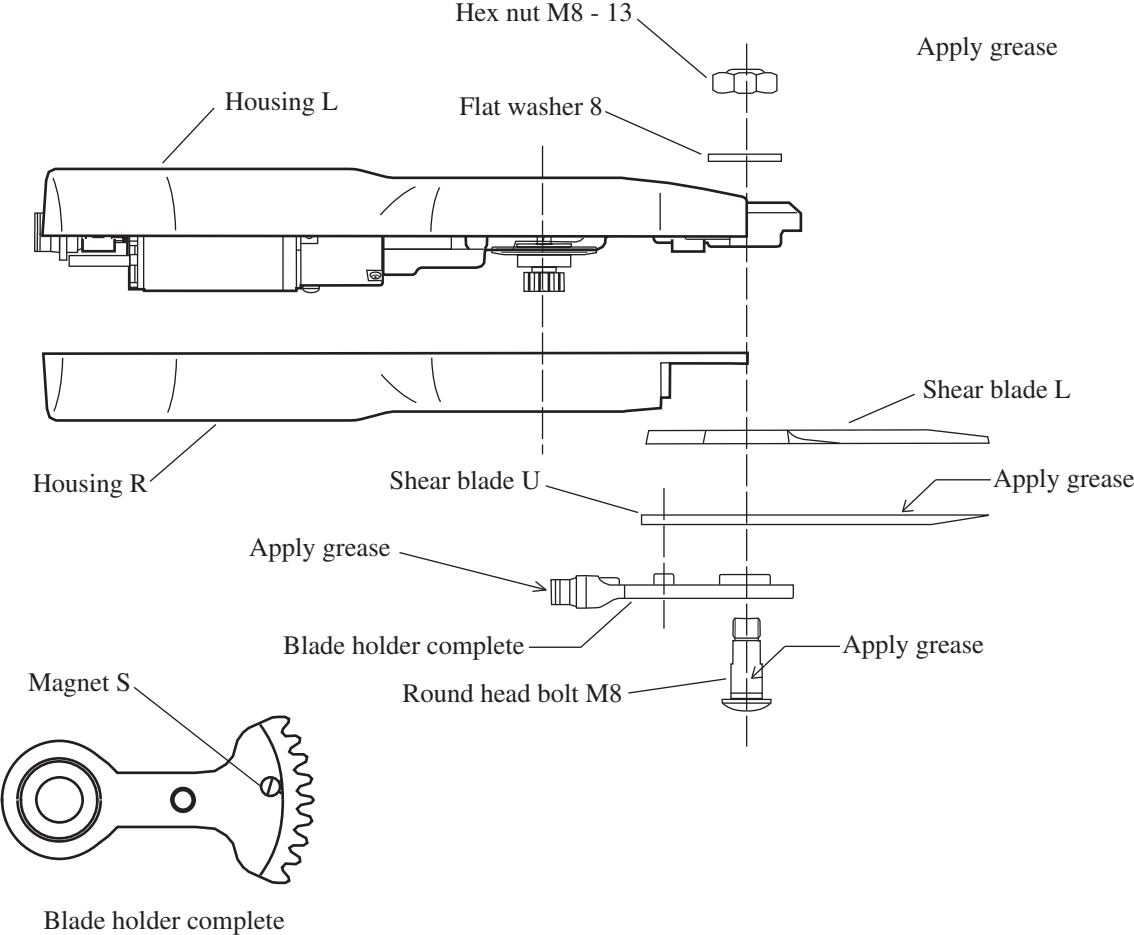
< 3 > +Terminal of motor and lead unit have to be connected before setting in the motor housing.



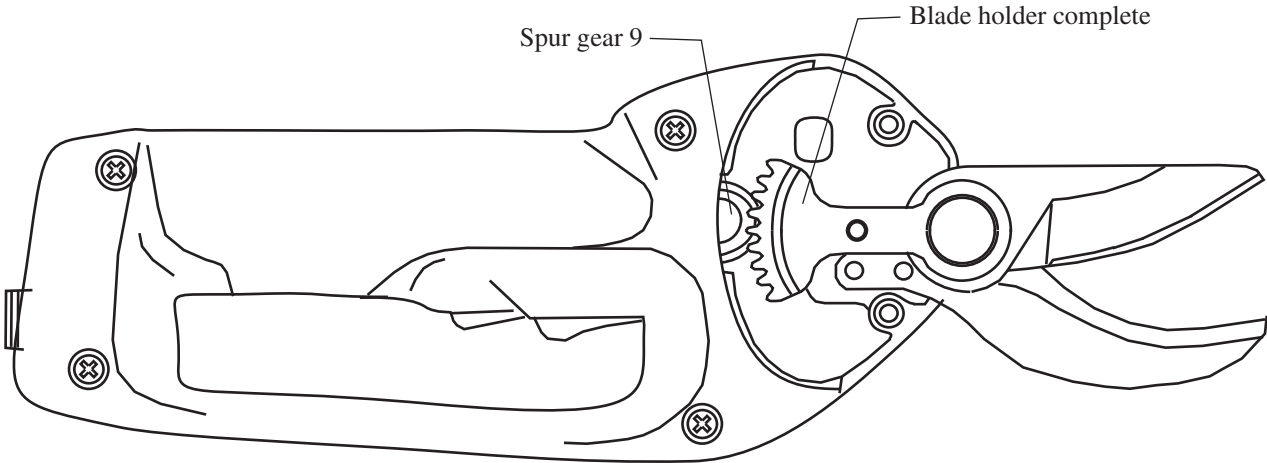
< 4 > Connect lead unit and hall IC circuit complete. And then set the spare parts in the housing L as per the following illustration. Connector's marker have to be faced to grip side.



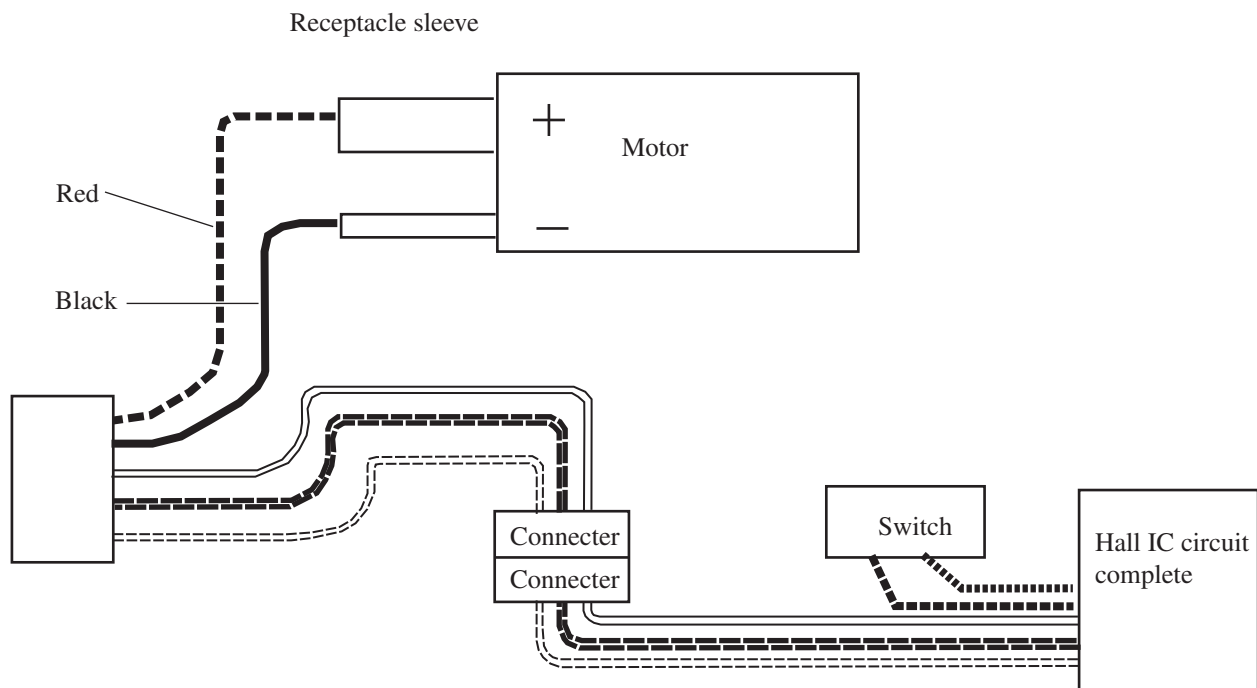
< 5 > Every parts have to be mounted as per the following illustration, making sure that there are no alien elements on the magnet of the blade holder.



< 6 > Mount blade holder complete and shear blade U, interlocking the gear section of blade holder complete with spur gear 9 each other. Spontaneous about the setting angle of the blade at this time.



► Circuit Diagram



Circuit plate
(Hall IC circuit complete)

