

T ECHNICAL INFORMATION



New Tool

For Models ▶ 6204D

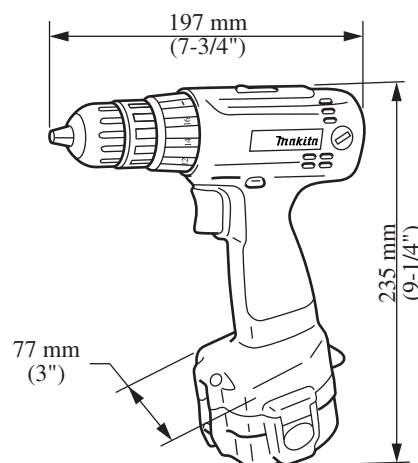
Description ▶ Cordless Driver Drill

CONCEPTION AND MAIN APPLICATIONS

Model 6204D is 9.6V 10mm cordless driver drill, which is efficient for driving approx. 40mm wood screw and drilling approx. Ø9mm hole in wood.

Its brief benefits are ;

- *Compact design
- *Light weight
- *Equipped with electric brake
- *Longer life motor by replacing carbon brushes



Model	Battery	Fast Charger	Plastic Carrying Case
6204DA	9122(Ni-Cd)	No	No
6204DWAE	9122(Ni-Cd)X2	DC1411	Yes
6204DWBE	9133(Ni-MH)X2	DC1411	Yes

► Specifications

Model		DC9.6V magnet motor
Battery		Battery 9122 (Ni-Cd, 9.6V, 2.0Ah) Battery 9133 (Ni-MH, 9.6V, 2.2Ah)
No load speed		High : 0~1100rpm Low : 0~350rpm
Chuck capacity		0.8mm (1/32") ~10mm (3/8")
Max. drilling capacities	Steel	10mm (3/8")
	Wood	21mm (13/16")
Max. driving capacities	Wood screw	6.1mm (1/4") X55mm (2-3/16")
	Machine screw, Nut	6mm (1/4")
Setting of fastening torque		16 stages + drill-mode
Declutching torque		0.5~5N.m (0.4~3.6ft.lbs) (5~50kgf.cm)
Max. fastening torque (drill-mode)	High speed	6.5N.m (4.7ft.lbs) (65kgf.cm)
	Low speed	20N.m (14.5ft.lbs) (200kgf.cm)
Net weight		1.5kg (3.3lbs)

► Standard equipment

Philips Bit 2-651pc.
 Battery Cover.....1pc.
 Set Plate1pc.
 Plastic Carrying Case.....1pc.(except Model 6204DA)

(NOTE) The standard equipment may differ from country to country.

► Optional accessories

Drill Bit 1.5,2,3,4,5,6 Drill Bit for wood 9,12,15
 Philips Bit 1-65,2-45,2-65,2-110,2-150,2-250,3-45,3-65,3-110
 Slotted Bit 5-45,5-82,6-70,6.35-45,8-45,8-70
 Socket Bit 7-55,8-55,10-55
 Foam Polishing Pad 125 Rubber Pad Assembly Wool Bonnet 100
 Battery 9100,9102,9102A,9120,9122,9133
 Fast Charger DC1411,DC1209 (European countries only)
 Fast Automotive Charger DC1412 Holster

► Features and benefits

See the attached for more information.

Length : 197mm

40mm shorter than Model 6201D

Makita	6201D	237mm
	6203D	233mm
Competitor A	Model A	199mm
Competitor B	Model B	199mm
Competitor C	Model C	249mm

Highest driving capacity among same class tools (at driving Ø4.1X38 screw)

*120% of Makita 6201D
 *110% of Model A
 *140% of Model B

10mm keyless drill chuck

16 stages of clutch + drill-mode
 Fastening torque can be set every 0.3N.m (3kgf.cm) from 0.5N.m (5kgf.cm) to 5N.m (50kgf.cm)

Variable speed control switch easy to control speed

Light weight : 1.5kg
 *0.2kg lighter than Model 6201D

Electric brake

Longer life motor by replacing carbon brushes

Push button for reversing direction of rotation

High capacity battery 9122 (2.0Ah)
 *can be removed easily by push buttons
 *Battery without push buttons can be used with set plate (standard equipment).

Max. fastening torque : 20N.m (200kgf.cm)

Competitor A	Model A	18N.m (180kgf.cm)
Competitor B	Model B	16.5N.m (165kgf.cm)
Competitor C	Model C	18N.m (180kgf.cm)

► Comparison chart

Model No.		6204D	6201D	6203D
Voltage		9.6V	9.6V	9.6V
No load speed (rpm)	High	0~1100	0~1100	0~1200
	Low	0~350	0~350	0~400
Max. fastening torque		20N.m (200kgf.cm)	20N.m (200kgf.cm)	23N.m (230kgf.cm)
Setting of fastening torque		16 stages + drill-mode	5 stages + drill-mode	17 stages + drill-mode
Declutching torque		Every 0.3N.m (3kgf.cm) from 0.5N.m (5kgf.cm) to 5N.m (50kgf.cm)	1,1.5,3,4,5N.m (10,15,30,40,50kgf.cm)	Every 0.28N.m (2.8kgf.cm) from 0.5N.m (5kgf.cm) to 5N.m (50kgf.cm)
Chuck capacity		10mm (3/8")	10mm (3/8")	10mm (3/8")
Tool length		197mm (7-3/4")	237mm (9-3/8")	233mm (9-1/8")
Net weight		1.5kg (3.3lbs)	1.7kg (3.7lbs)	1.7kg (3.7lbs)

► Comparison of driving/drilling efficiency

*Numbers in chart below show relative value as competitor A's model A=100.

*Battery.....2.0Ah

		Driving/drilling capacity from a single charge	Driving/drilling time
Driving screw Ø4.1X38mm in melapi at high speed		(207pcs.)	(1.8sec.)
	6204D	110	95
	6201D	90	105
	Model A	100	100
	Model B	75	90
Driving screw Ø5.5X50mm in melapi at low speed		(79pcs.)	(5.2sec.)
	6204D	115	95
	6201D	95	90
	Model A	100	100
	Model B	80	90
Driving Ø12mm hole in melapi (t=25mm) at high speed		(202pcs.)	(2.2sec.)
	6204D	105	95
	6201D	80	95
	Model A	100	100
	Model B	80	85

► Fastening torque by setting cance ring

Fastening torque

(ft-lbs)(kgf-cm)[N-m]

(15.9)(22.0)21.6

(14.5)(200)19.6

(13.0)(180)17.6

(11.6)(160)15.7

(10.1)(140)13.7

(8.7)(120)11.8

(7.2)(100) 9.8

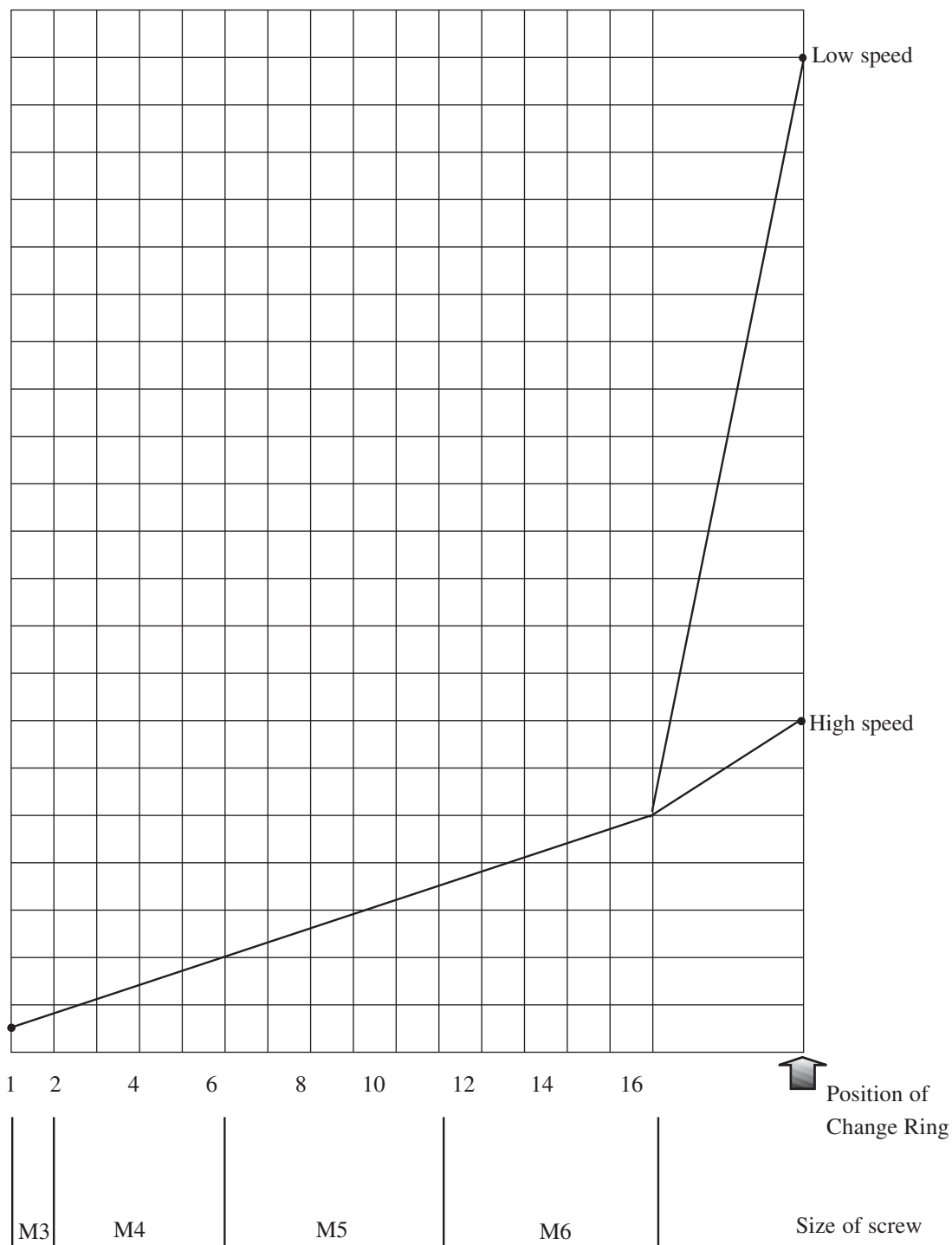
(5.8)(80) 7.8

(4.3)(60)5.9

(2.9)(40)3.9

(1.4)(20)2.0

(0) (0) 0



16 stages of clutch

Proper festening torque for machine screw M3 - M6 can set.

Matching surface can be secured for various wood screws and woods.

► Repair

(1) Removing gear assembly

Take off drill chuck first.

Be careful that compression spring 4 does not go out from speed change lever, when removing gear assembly from housing.

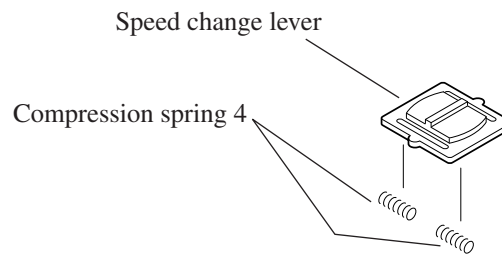


Fig. 1

(2) Assembling

1. Assembling motor and gear assembly

1) Motor bracket is, in advance, assembled to gear assembly for spare parts.

Remove the motor bracket from gear assembly by turning anti-clockwise.

And fasten motor bracket to motor with screw. See Fig.2.

2) Assemble motor equipped with motor bracket to gear assembly by turning clockwise. See Fig.2.

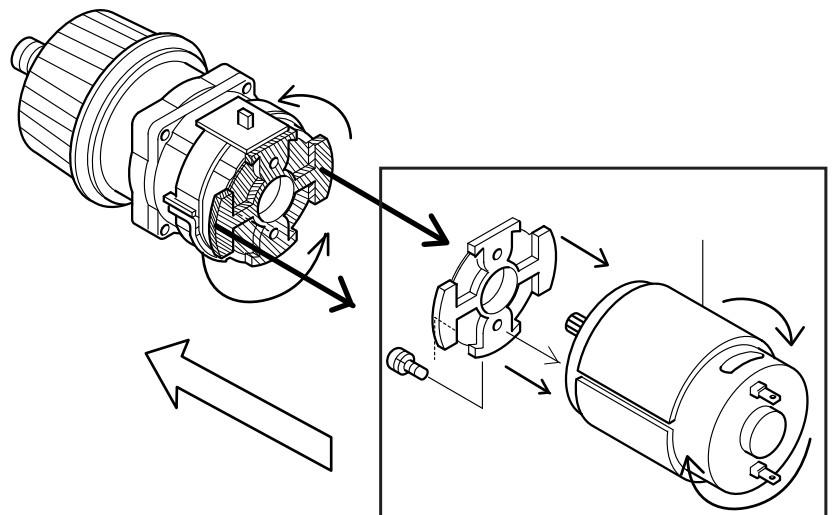


Fig. 2

2. Assembling leaf spring

Assemble leaf spring to housing L as illustrated in Fig.3.

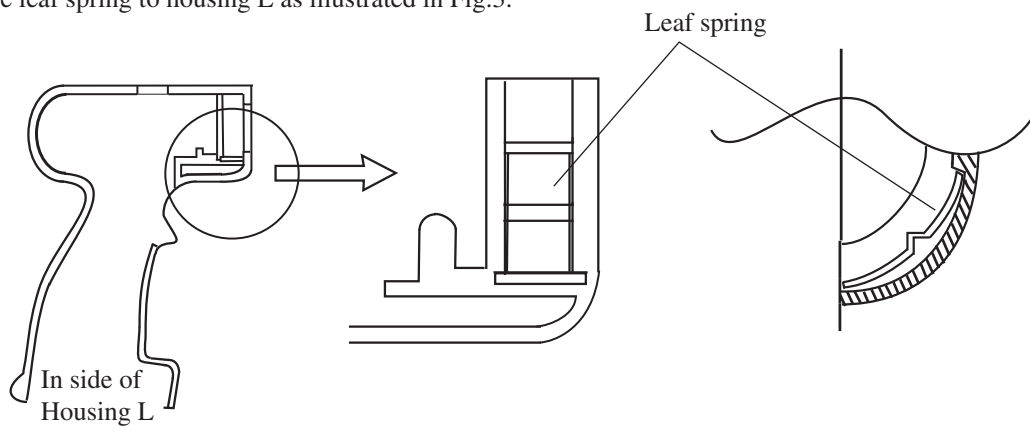


Fig. 3

► Repair

2. Installing of Speed change lever

- 1) Place two Compression spring 4s into Speed change lever as illustrated in Fig4.

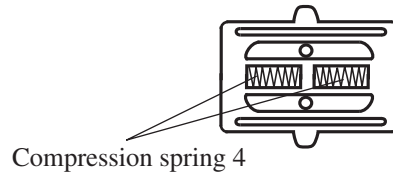


Fig. 4

- 2) Being careful that compression spring 4 may not comes out , install speed change lever assembly on the projection of change lever as shown in Fig. 5.

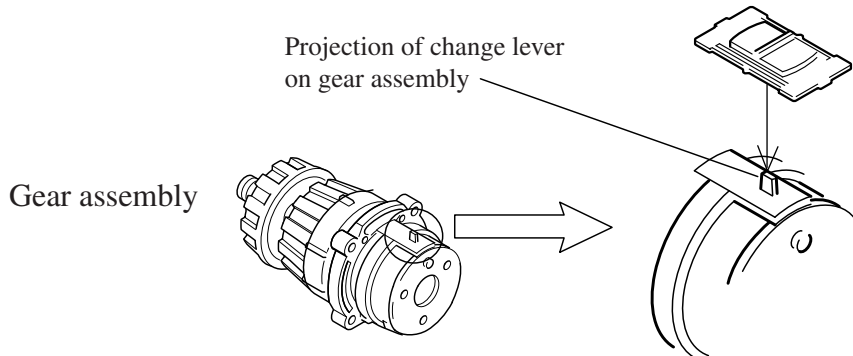


Fig. 5

3 Assembling to Housing

- 1) When attaching a unit of gear assembly and motor, etc. to housing L, place speed change lever in the position as shown in Fig. 6.

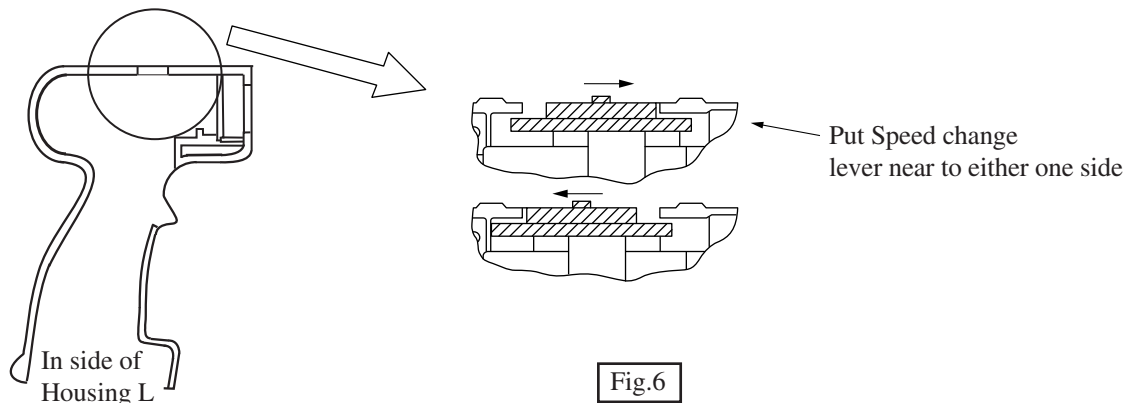



Fig.6

4 Assembling drill chuck

- 1) Set drill chuck on spindle, and fasten a hex bar with chuck.
- 2) Hold the machine with vise as illustrated in Fig.7.
- 3) Adjust the switch or lever as follows.
 Speed change lever : Low speed **I**
 Reversible switch : Clockwise rotation
 Adjusting ring : Drill mode 
- 4) Attach full charged battery to the machine, and hold the grip firmly.
- 5) Operate the machine adjusted as 1) - 4) with full speed for approx. one second. At this time you have to hold the machine so strong that you can withstand the shock by spindle lock.
- 6) Open the three jaws of chuck fully, and fasten pan head screw M5x22 anti-clockwise firmly.

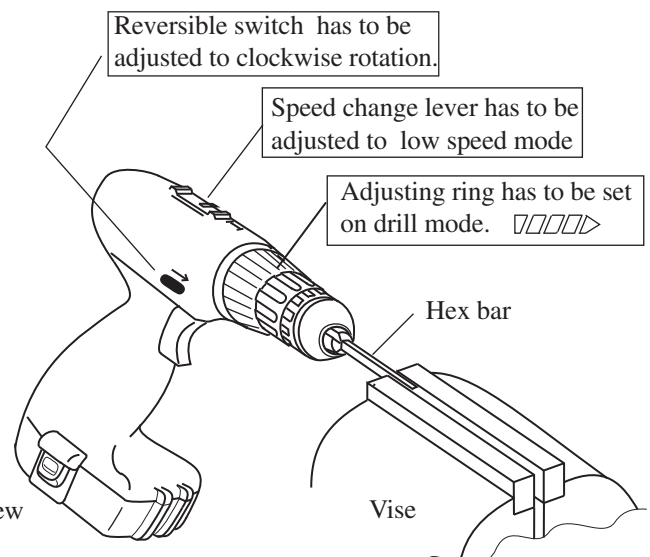
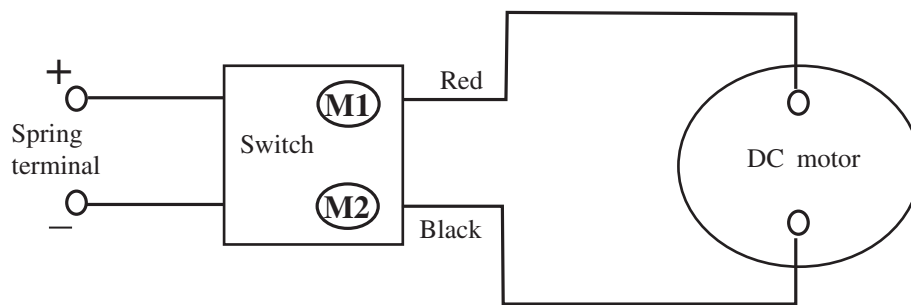


Fig.7

► Circuit diagram



► Wiring diagram

Lead wires have to be set as illustrated in Fig.C, paying attention to the following matters.

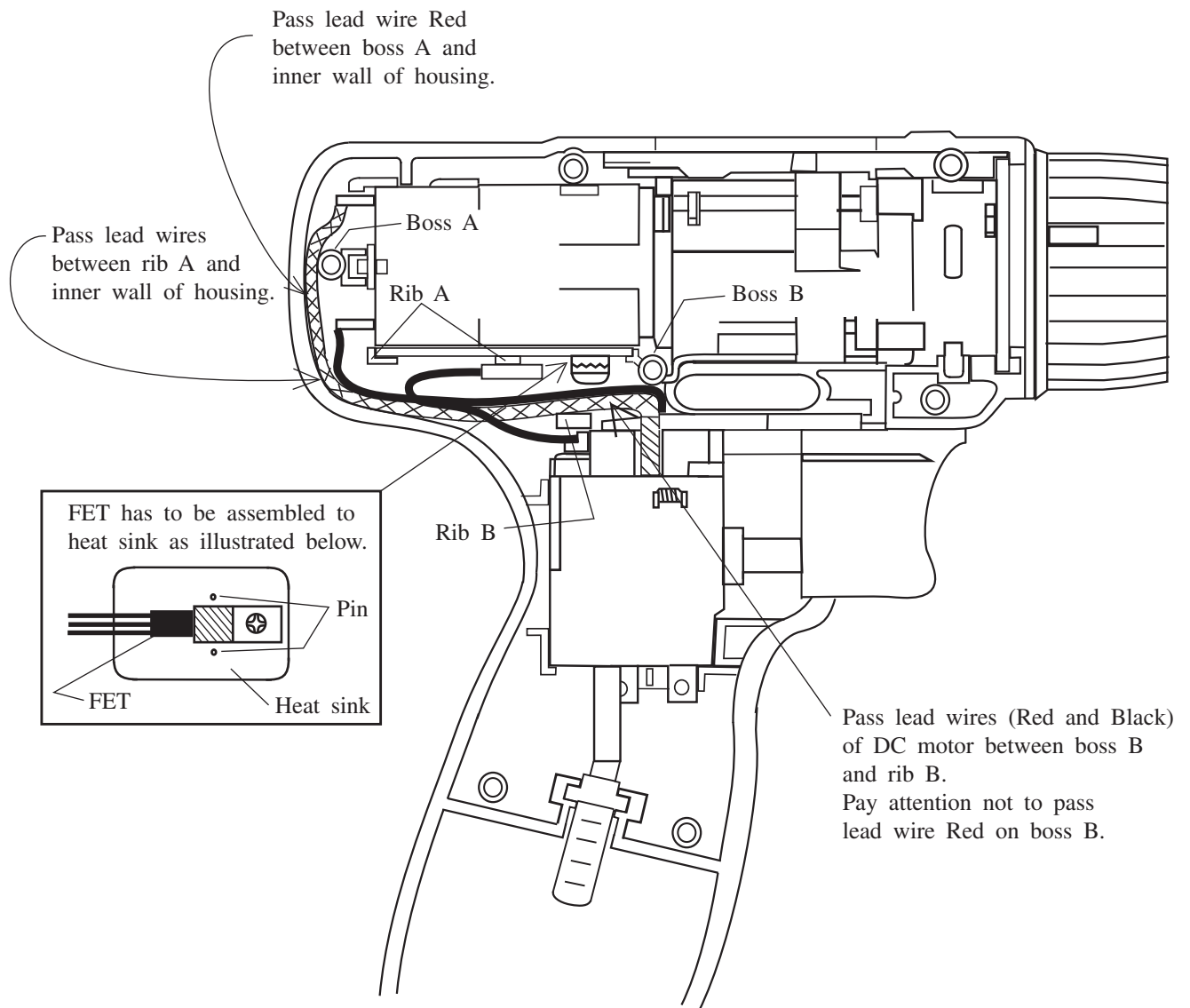


Fig.C