

TECHNICAL INFORMATION

Models No. ▶ HP2032, HP2033

P 1 / 7

Description ▶ 20mm 2-speed motor drill

CONCEPTION AND MAIN APPLICATIONS

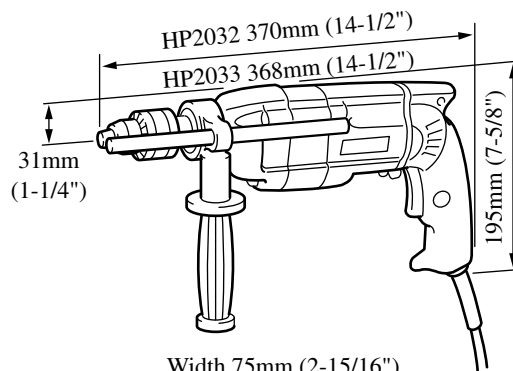
Model HP2032/HP2033 are sister versions of the existing model HP2030/HP2031.

And they are designed for more professional use than HP2030/HP2031. Their brief benefit is:

*More strong housing than HP2030/HP2031 by aluminum gear housing and Cam housing.

HP2032 ----- Drill chuck with key

HP2033 ----- Keyless drill chuck



Width 75mm (2-15/16")

► Specification

Voltage (V)	Current (A)	Cycle (Hz)	Continuous Rating (W)		Max. Output(W)
			Input	Output	
100	7.6	50/60	720	330	620
115	6.6	50/60	720	330	620
200	3.8	50/60	720	330	620
220	3.4	50/60	720	330	620
230	3.3	50/60	720	330	620
240	3.2	50/60	720	330	620

No load speed	Rotations per minute	Low speed	0-850 rpm
		High speed	0-2900 rpm
	Blows per minute	Low speed	0-9400 rpm
		High speed	0-3200 rpm
Chuck ability			1.5-13mm
Max. drilling capacities (L / H)	Concrete	L: N/A H: 20mm	
	Steel	L: 13mm H: 8mm	
	Wood	L: 40mm H: 25mm	
Net weight			2.5kg
Cord length			2.5m

► Standard equipment

Chuck key S13-----1 pc. (HP2032 only)

Key holder 12-----1 pc.(HP2032 only)

Depth gauge-----1 pc.

Plastic carrying case-----1 pc.

[Note] The standard equipment may differ from country to country.

< Note > The standard equipment for the tool shown may be differ from country to country.

► Optional accessories

T.C.T. Hammer Bit 5.0-70 ~19.0-220

Hole Saw Ass'y 79mm, 95mm

Blow out bulb 64

<1> Removing

[1] Removing armature section

- (1) Take off tapping screw 5x70 and remove gear housing section and cam housing complete from motor housing as illustrated in Fig.1.

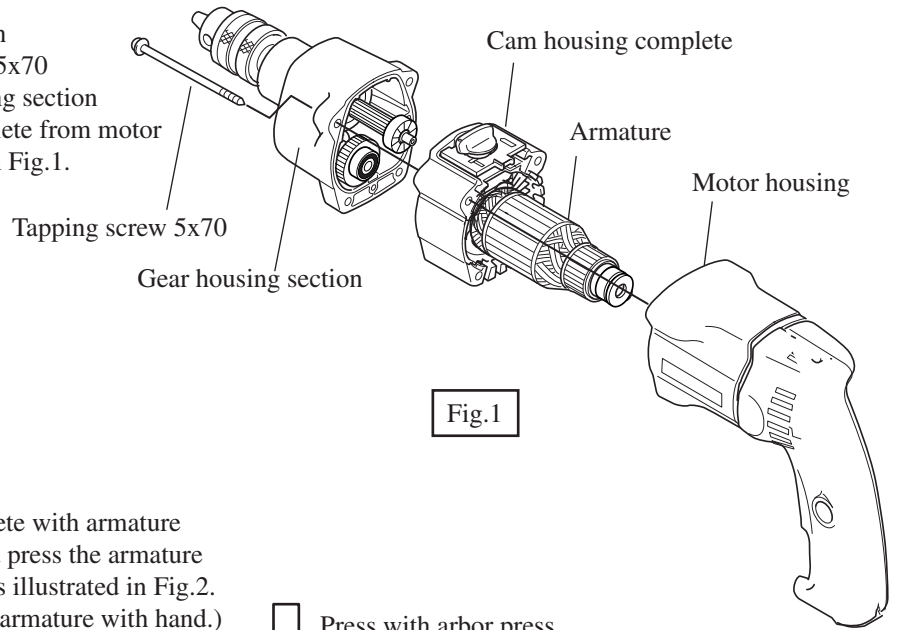


Fig.1

- (2) Set cam housing complete with armature on the cylindric jig, and press the armature shaft with arbor press as illustrated in Fig.2. (Impossible to remove armature with hand.)

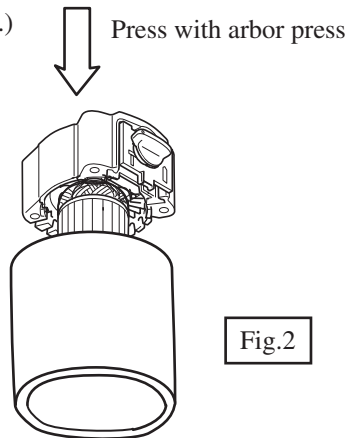


Fig.2

[2] Removing cam A

- (1) Grip cam A with 1R020 small bearing extractor, and fix the crow of bearing extractor with hex socket head bolt.
- (2) Remove cam A by turning the handle of bearing extractor as illustrated in Fig3.

If impossible to remove cam A with the above method,

- (1) Grip cam A with 1R020 small bearing extractor after taking off its hex socket head bolt.
- (2) Fix the above bearing extractor with vise.
- (3) Remove cam A by turning the handle.

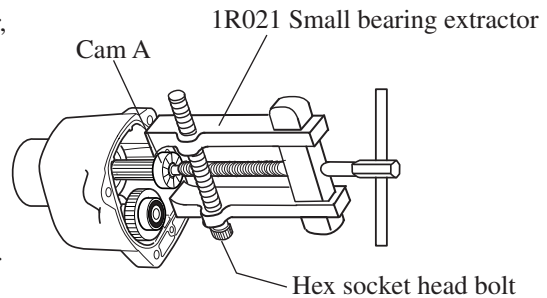


Fig.3

[3] Removing cam B

Cam B has to be replaced as a set of cam housing complete, because cam B has been already factory assembled to cam housing complete.

To take cam B from cam housing for the sake of recycle, etc., push the holes with the pin of approx. 3mm in diameter.

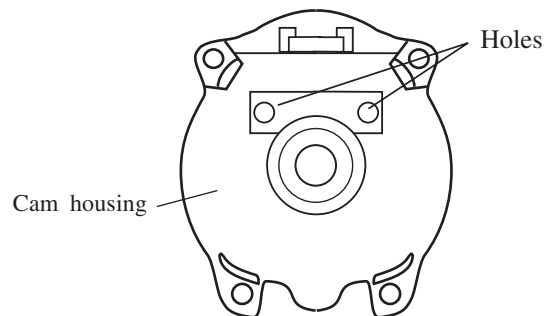


Fig.4

[4] Removing cam B

Open the jaws fully and take off flat head screw M6x22 by turning it clockwise.

Flat head screw M6x22

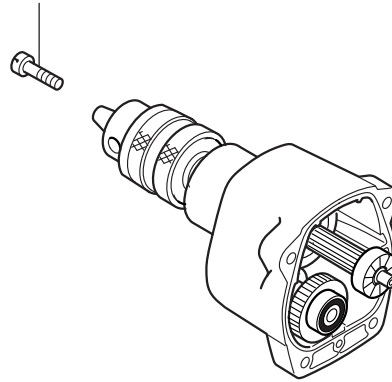


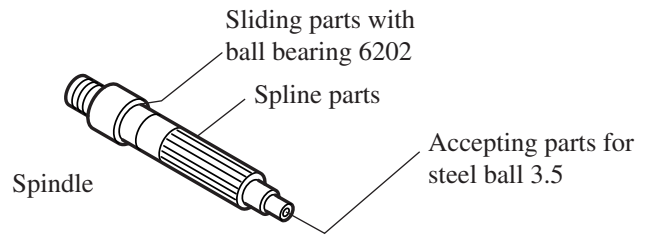
Fig.5

<1> Assembling

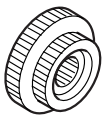
[1] Lubrication

Apply grease to the following parts

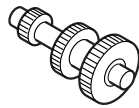
A. Spindle and oil seal 19



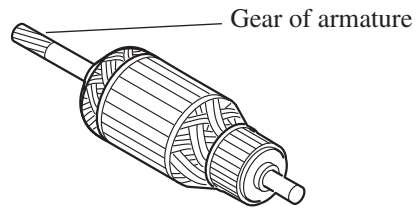
B. Spur gear 27-38, Gear complete 8-19-26,
Gear of armature



Spur gear 27-38



Gear complete 8-19-26



Gear of armature

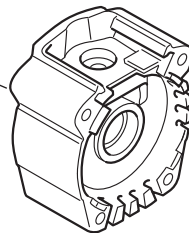
C. Cam A and Cam B



Cam A

Sliding parts with cam B

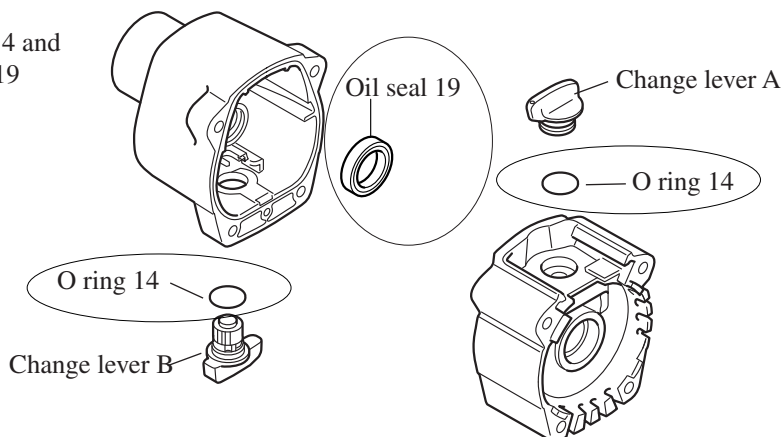
* Cam B (factory assembled to cam housing complete.)



D. Lack 12's teeth, contacting
change lever.



E. O ring 14 and
oil seal 19



[2] Assembling lock plate

A. Bent of lock plate has to be faced to change lever side as illustrated in Fig.6.

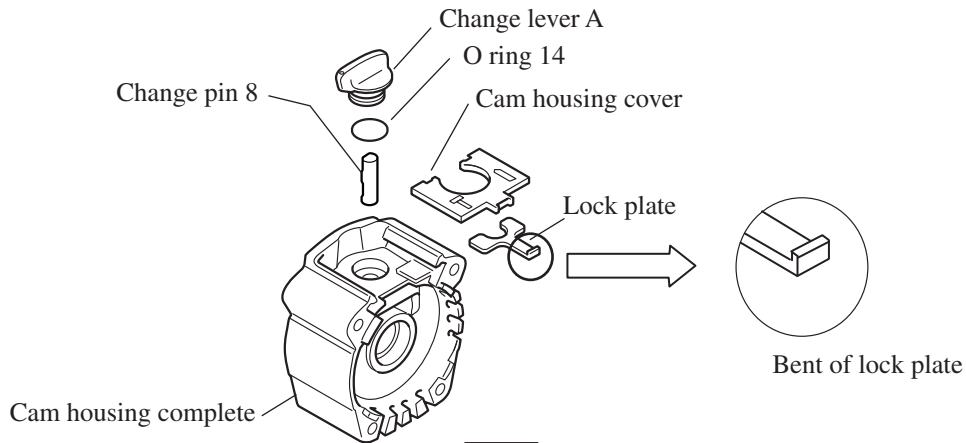


Fig.6

B. Bent of lock plate has to be faced to change lever side as illustrated in Fig.7. Bent of lock plate must not protrude from the edge of gear housing.

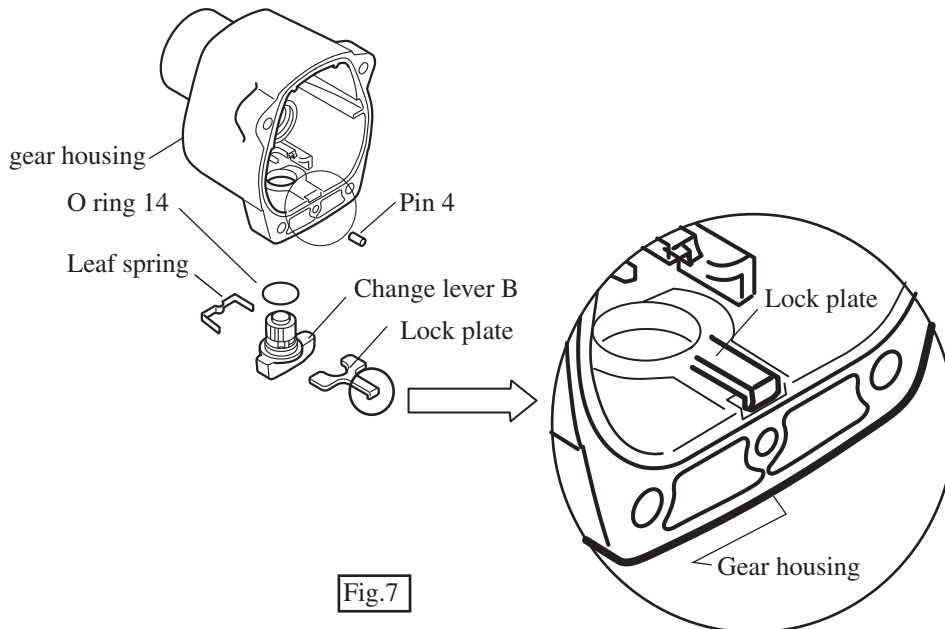


Fig.7

[3] Assembling lack 12

(1) Assemble oil seal 19, compression spring 16, ball bearing 6202LLB, retaining ring R25 and spindle to gear housing as illustrated in Fig.8.

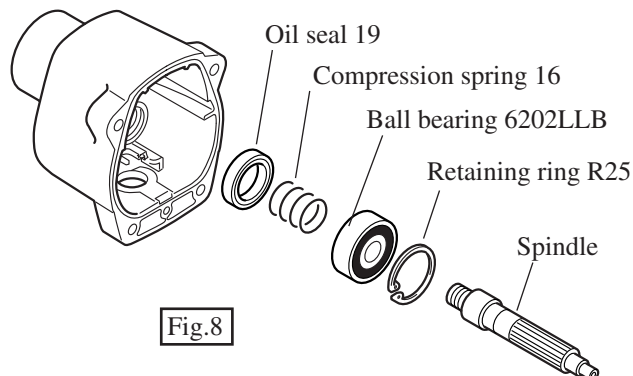


Fig.8

- (2) Assemble change plate to lack 12, and clip spur gear 27-38 with change plate as illustrated in Fig.9.
 Spur gear 38 clipped with lock plate is assembled to spindle, and lack 12 clipping spur gear 27-38 is assembled to gear housing. And then assemble retaining ring S-15 to spindle to fix spur gear 27-38.

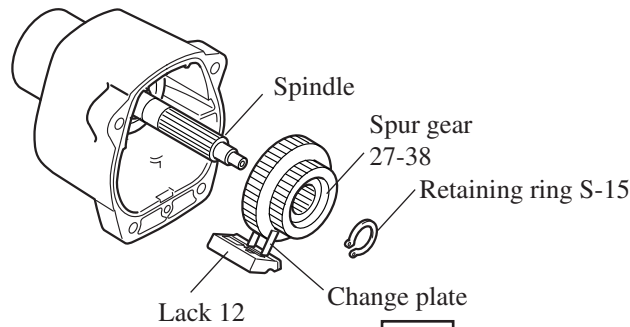


Fig.9

[4] Assembling change lever B

- (1) Push lack 12 into gear housing till it stops as illustrated in Fig.10.

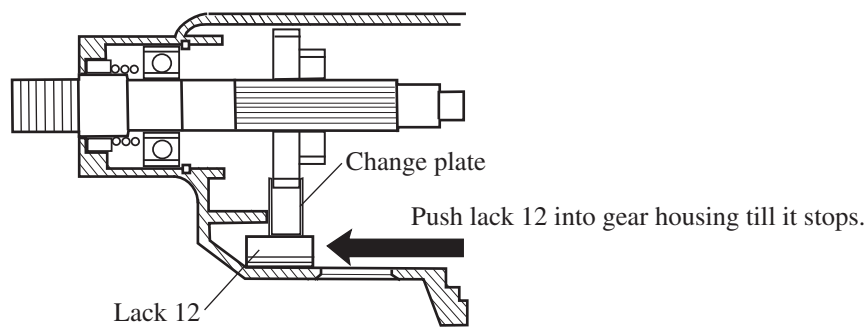


Fig.10

- (2) Insert change lever B into gear housing turning the arrow to "1" as illustrated in Fig.11.

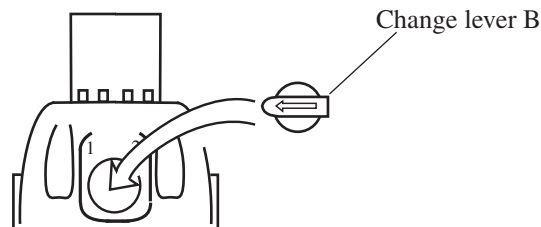


Fig.11

[5] Assembling leaf spring for change lever A

The above leaf spring is to be assembled between cam housing complete (aluminum) and cam housing cover (plastic).

Set leaf spring to the concaved part of cam housing complete, and then assemble cam housing cover to cam housing complete.

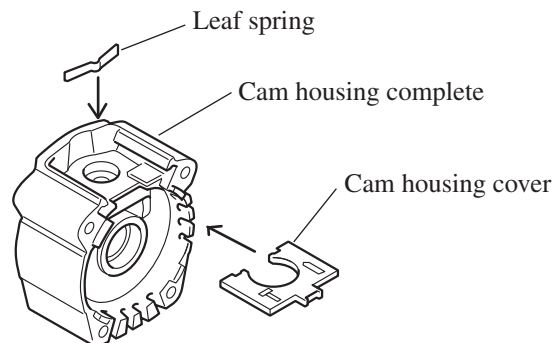


Fig.12

► Repair

[5] Assembling cushion rubber

Adjust cushion rubber to the form of motor housing after assembling.

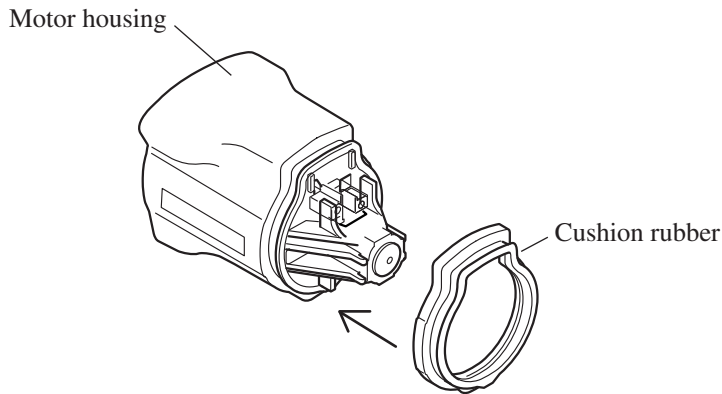


Fig.13

[6] Assembling drill chuck

Drive drill chuck to spindle with fastening torque 250 - 300 Kg-cm (18.1 - 21.7 ft.lbs), and then fasten flat head screw M6x22 as illustrated in Fig.14.

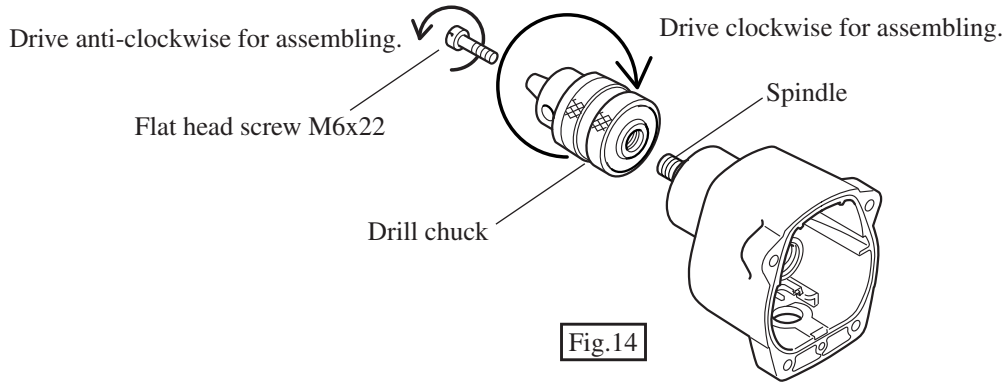
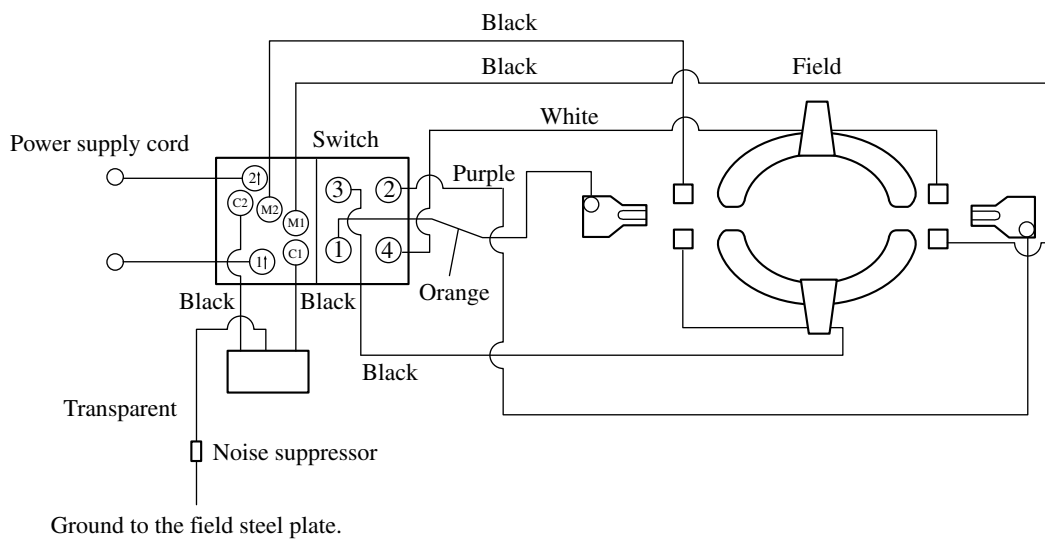
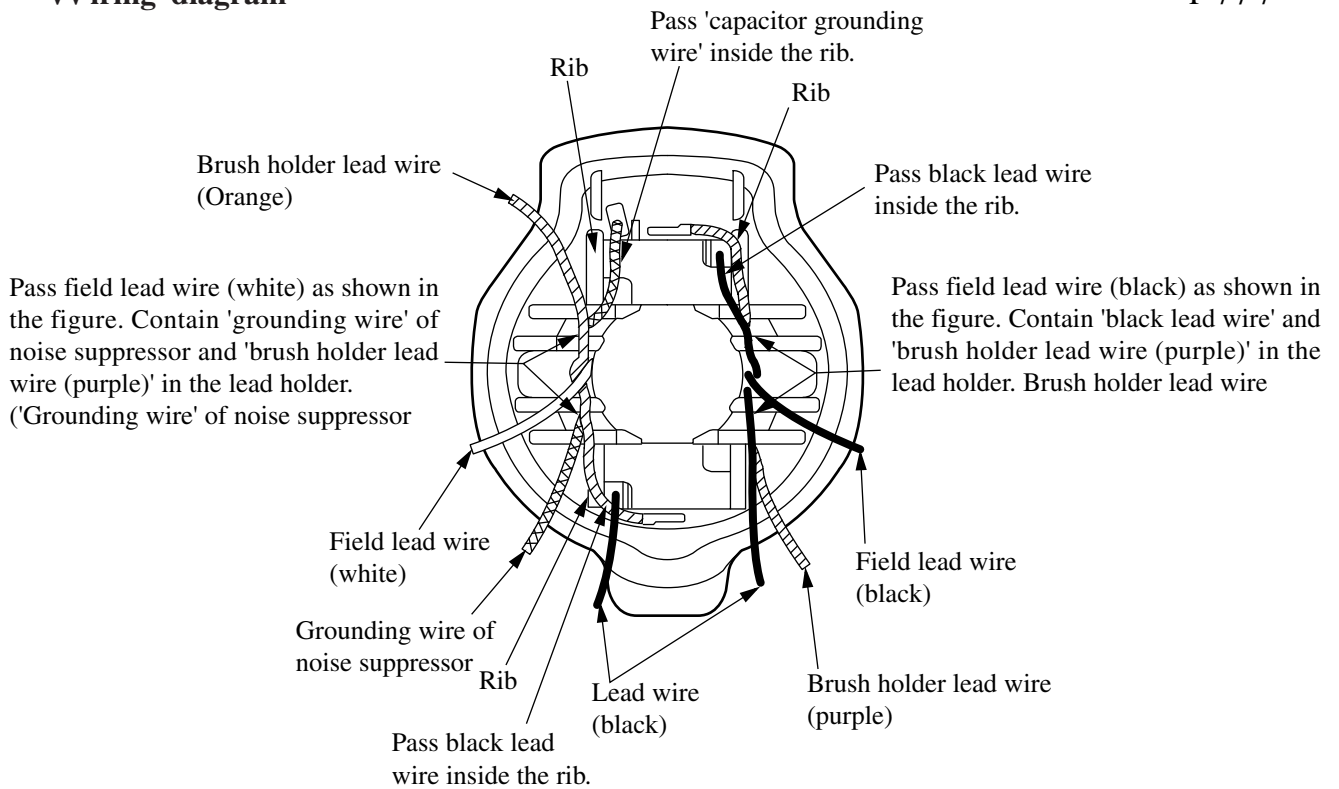


Fig.14

► Circuit diagram



*Noise suppressor or suppressor without earth wire will not be used for certain countries.
Noise suppressor may differ from country to country.



[Note] Connect wires as same as this description even if the noise suppressor is not used.

