

T ECHNICAL INFORMATION



PRODUCT

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Models No. ▶ KP312, KP312S

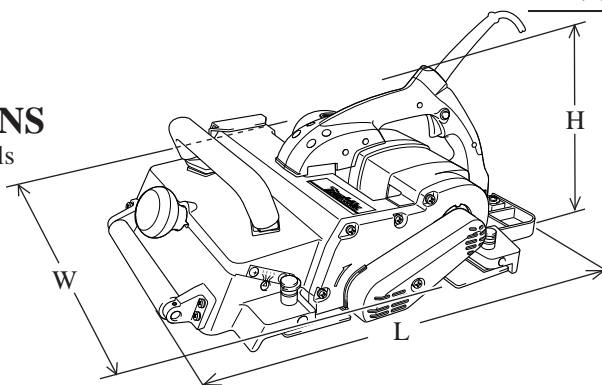
Description ▶ Planers 312mm (12-9/32")

CONCEPTION AND MAIN APPLICATIONS

These new Power Planers have been developed as sister tools to the existing Makita models KP301 or KP311, excelling predecessors both in power and convenience. Model KPS312S features soft start circuit and overload protector.

<Note>

Supply of Model KP312 is restricted to low voltage (110V - 120V) area.



Dimensions : mm (")	
Length (L)	551 (21-3/4)
Width (W)	425 (16-3/4)
Height (H)	219 (8-5/8)

► Specification

KP312					
Voltage (V)	Current (A)	Cycle (Hz)	Continuous Rating (W)		Max. Output(W)
			Input	Output	
120	15	50 / 60	1,700	690	2,450

KP312S					
Voltage (V)	Current (A)	Cycle (Hz)	Continuous Rating (W)		Max. Output(W)
			Input	Output	
230	10	50 / 60	2,200	820	3,000
220	11	50 / 60	2,200	1,040	3,850

Model No.	KP312	KP312S
No load speed (min -1= rpm)	12,000	
Planer Blade (mm [in])	312 [12-1/4]	
Soft Start	No	Yes
Overload Protector	No	Yes
Protection from Electric Shock	Double Insulation	
Cord Length : m (ft)	10 [32.8]	
Net Weight :Kg (lbs)	18 [39.7]	
Capacity		
Planing width : mm [in]	Planing depth : mm [in]	
0 - 150 [0 - 5-7/8]	3.5 [1/8]	
150 - 240 [5-7/8 - 9-1/2]	2.0 [1/16]	
240 - 312 [9-1/2 - 12-9/32]	1.5 [1/16]	

► Standard equipment

For Model KP312

- * Socket wrench 9 1 pc.
- * Triangular rule 1 pc.

For Model KP312S

- * Hex wrench 1 pc.
- * Nozzle assembly 1 pc.
- * Triangular rule 1 pc.
- * Joint 70 1 pc.

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

► Optional accessories

- * Nozzle set
- * Joint assembly
- * Planer blade 312mm

Free from Uneven Planing

Uneven planing can be avoided by shifting the tool's center of gravity to its center.

Overload Protector
(Model KP312S only)

Roller

Allows the tool to move smoothly in repeated planing.

Soft Start Feature
(Model KP312S only)

Prevents breakers from working unnecessarily in order not to interrupt operation; generally, breakers at job sites have a small capacity.

Increased Efficiency in Chip Ejection

Engineered in order not to be clogged even with wood chips of wet workpiece.

More Powerful Planing

Even hard wood can be easily planed.

10m Power Supply Cord

Best length for planing jobs

New Location for Power Supply Cord

Ideally located for preventing cord from being caught and rolled by the drum of the tool when the tool is taken back for another stroke.

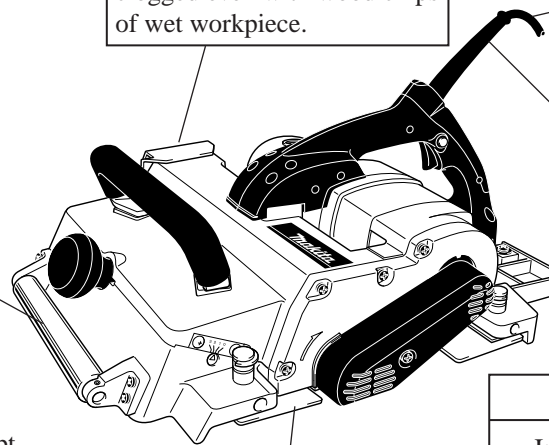
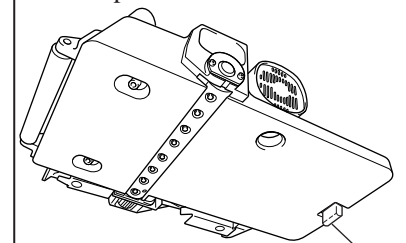


Plate Type Guide Rule

Foot

Installed on the rear of the tool for blades not to hit against workpiece or floor.



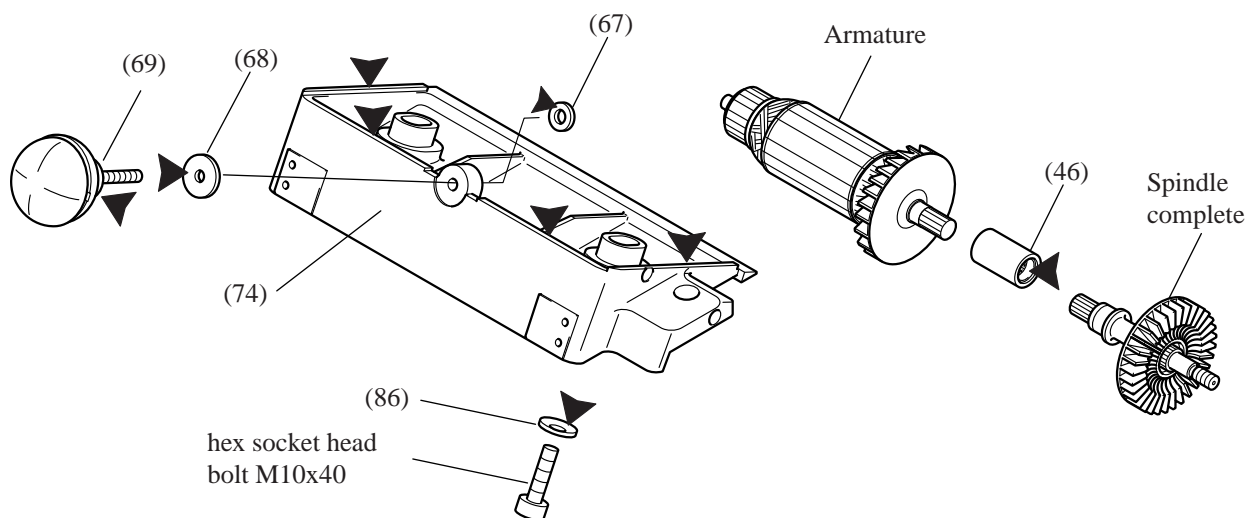
Foot

► Comparison of products

Model No.		High Voltage				Low Voltage	
		M A K I T A		Competitor A	Competitor B	M A K I T A	
		KP312S	KP301	A	B	KP312	Competitor B
Specifications							
Power input : W		2,200	2,100	2,700	2,100	1,700	1,460
Rated amperage with 120V		—	—	—	—	15A	—
No load speed : min -1= rpm		12,000	10,300	8,000	13,000	12,000	14,000
Max. planing depth : mm [in]		3.5 [1/8]	3.5 [1/8]	3.0 [1/8]	2.5 [3/32]	3.5 [1/8]	2.0 [1/16]
Planing width : mm [in]		312 [12-1/4]	300 [11-3/4]	320 [12-5/8]	318 [12-1/2]	312 [12-1/4]	312 [12-1/4]
Soft start feature		Yes	No	Yes	No	No	No
Overload protector		Yes	Yes	No	No	No	No
Double insulation		Yes	Yes	Yes	No	Yes	No
Cord length : m (ft)		10 (32.8)	10 (32.8)	10 (32.8)	10 (32.8)	10 (32.8)	8 (26.2)
Dimensions	Length (L) : mm [in]	551 (21-3/4)	510 (20)	558 (22)	528 (20-3/4)	551 (21-3/4)	528 (20-3/4)
	Width (W) : mm [in]	425 (16-3/4)	370 (14-1/2)	468 (18-1/2)	376 (14-3/4)	425 (16-3/4)	376 (14-3/4)
	Height (H) : mm [in]	219 (8-5/8)	270 (10-5/8)	182 (7-1/8)	194 (7-5/8)	219 (8-5/8)	194 (7-5/8)
Net weight : Kg (lbs)	Catalog	18 (39.7)	15.8 (34.8)	16 (35.3)	15 (33.1)	18 (39.7)	15 (33.1)
	Measured	18.2 (40.1)	17.4 (38.4)	14.2 (31.3)	14.7 (32.4)	18.2 (40.1)	14.7 (32.4)

< 1 > Lubrication

Apply MAKITA grease N. No.1 to the following portions marked with black triangle to protect parts and product from unusual abrasion.



Item No.	Descriptions	Portions to be lubricated	Amount to be applied
46	Coupling	Inner hole (spline portion) which accepts armature shaft and spindle	
67	Flat washer 8	Whole portion	
68	Flat washer 8	The portion where knob (69) contacts.	
69	Knob	The portion where flat washer 8 (68) contacts.	
74	Front base	The portion where main base contacts.	Approx. 4g (0.14 oz)
86	Leaf spring	The portion where front base contacts.	Approx. 1g (0.04 oz)

< 2 > Removing poly V belt

(1) Remove belt cover by unscrewing one pc. of pan head screw M5x65.

(2) Lifting up poly V belt with screwdriver, turn V pulley with your hand.
Then, V pulley can be removed as illustrated in Fig. 1.

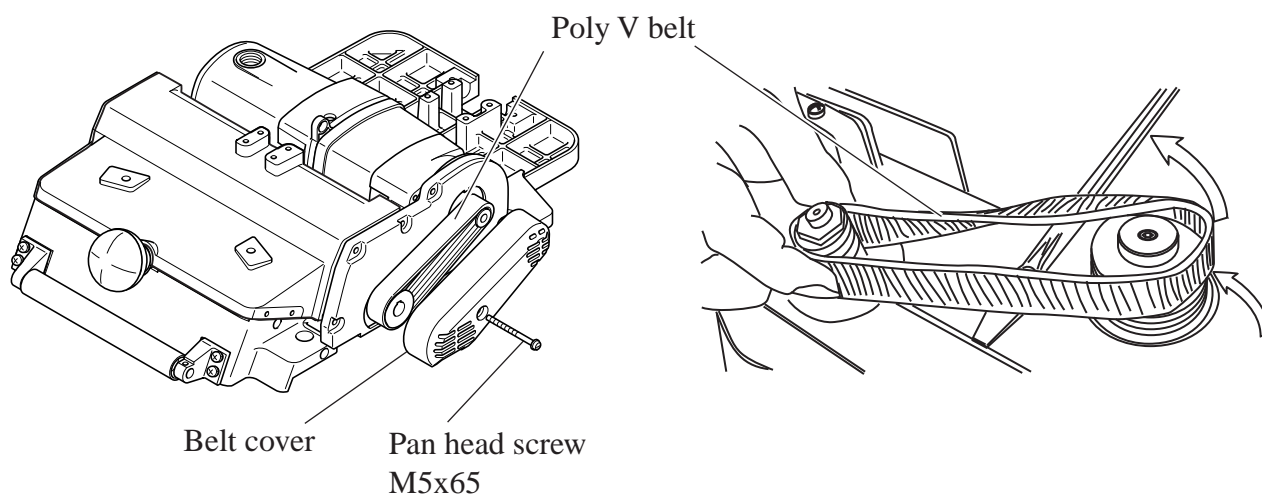


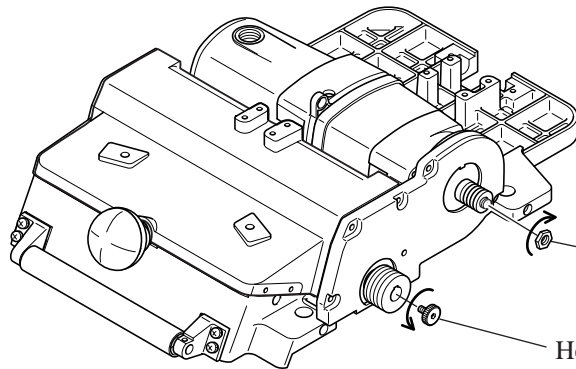
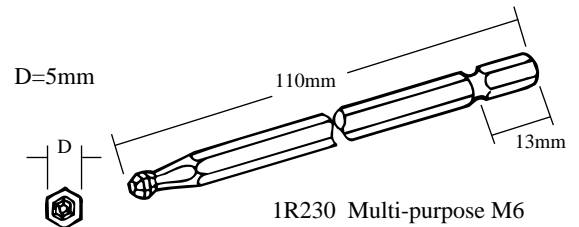
Fig. 1

< 3 > Removing V- Pulleys

(1) Attach the following bit to the impact driver.

- * 1R230 Multi-purpose M6 for hex socket head bolt M6x12
- * Socket bit 17 for hex nut M10x17.

And remove hex nut M10x17 and hex socket head bolt M6x12 with the impact driver.



< Note in Removing >

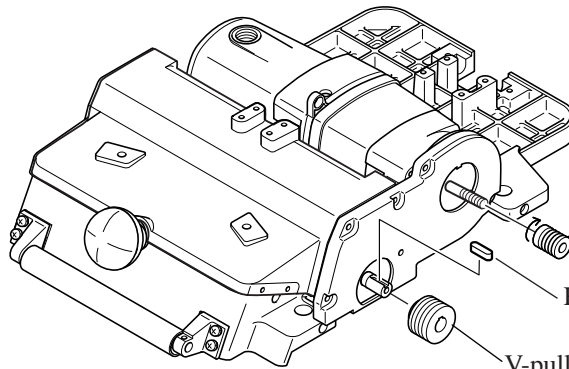
- * Turn hex nut M10x17 clockwise for loosening.
- * Adhesive has been applied on hex socket head bolt M6x12.

Hex nut M10x17

Hex socket head bolt M6x12

Fig. 2

(2) Remove V-pulley 9-39.7. And by turning clockwise, remove V-pulley 9-23L. See Fig. 3.



< Note in Removing >

- * Pay attention, not to lose key which is mounted to drum shaft.

V-pulley 9-23L

Key 4

V-pulley 9-39.7

Turn clockwise for loosening.

Fig. 3

< 4 > Mounting V-pulleys and poly V-belt

(1) Mount V-pulley 9-23L to the threaded portion of spindle by turning anti-clockwise with your hand.

But be careful, not to tight it too strong. And then, fix the V-pulley 9-23L with hex nut M10x17.

The hex nut M10x17 has to be turned anti-clockwise for fastening. **But fasten the hex nut not strong in this stage.** See Fig. 4.

(2) After inserting key 4 to the groove of drum shaft, mount V-pulley 9-39.7 to the drum shaft aligning its cut portion to the key 4. And then, fix the V-pulley 9-39.7 with hex socket head bolt M6x12.

The hex socket head bolt M6x12 has to be turned clockwise for fastening. **But fasten the hex socket head bolt not strong in this stage.** See Fig. 4.

<Note>

If you use the used hex socket head bolt M6x12, apply the adhesive to the threaded portion of the bolt, or use the fresh one.

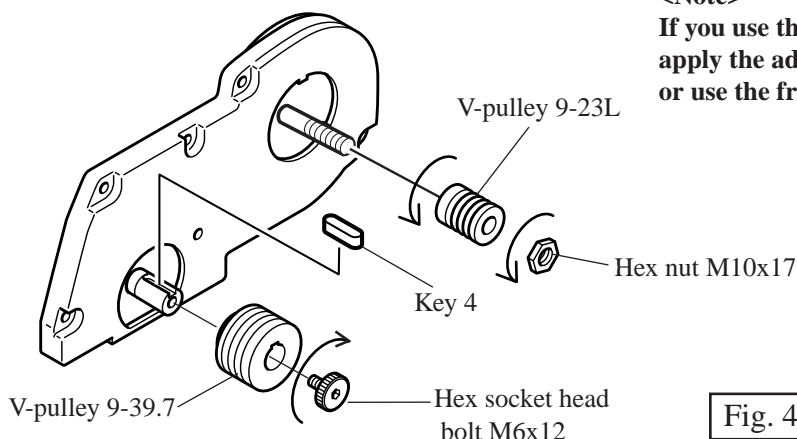
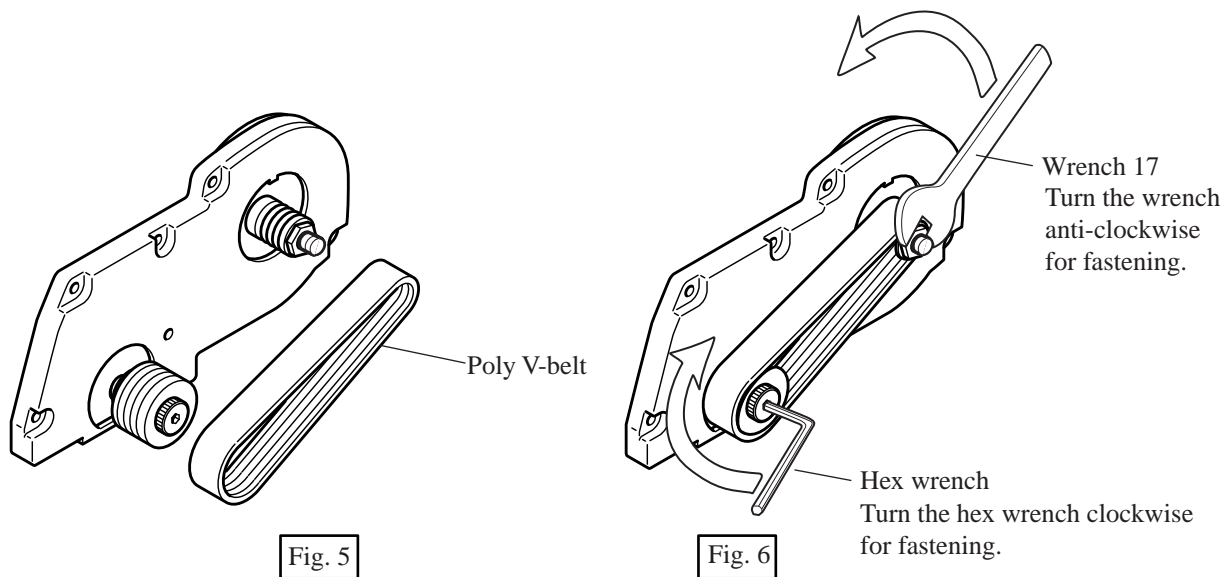


Fig. 4

(2) Mount poly V-belt. See Fig. 5.

(3) Fasten hex socket head bolt M6x12 and hex nut M10-17 firmly until both V-pulleys turn as illustrated in Fig. 6.

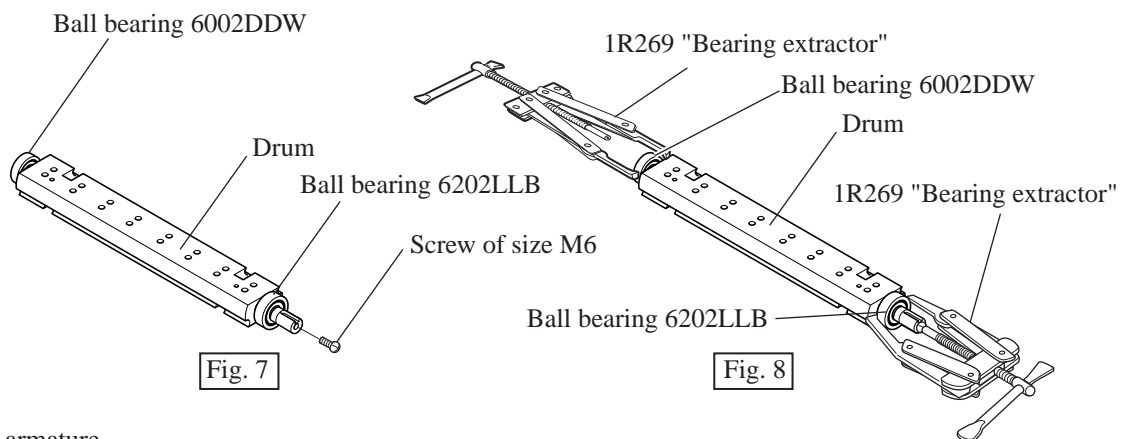


< 5 > Removing ball bearing 6002DDW and ball bearing 6202LLB on drum

(1) To protect the screw hole for hex socket head bolt M6x12, insert a screw of size M6 as illustrated in Fig. 7.

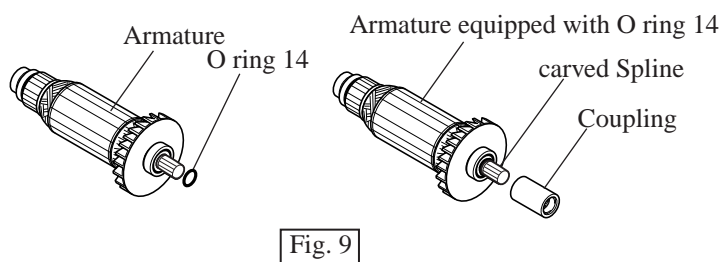
(2) Remove ball bearing 6202LLB with No.1R269 "Bearing extractor". See Fig. 8.

(3) Remove ball bearing 6002DDW with No.1R269 "Bearing extractor". See Fig. 8.

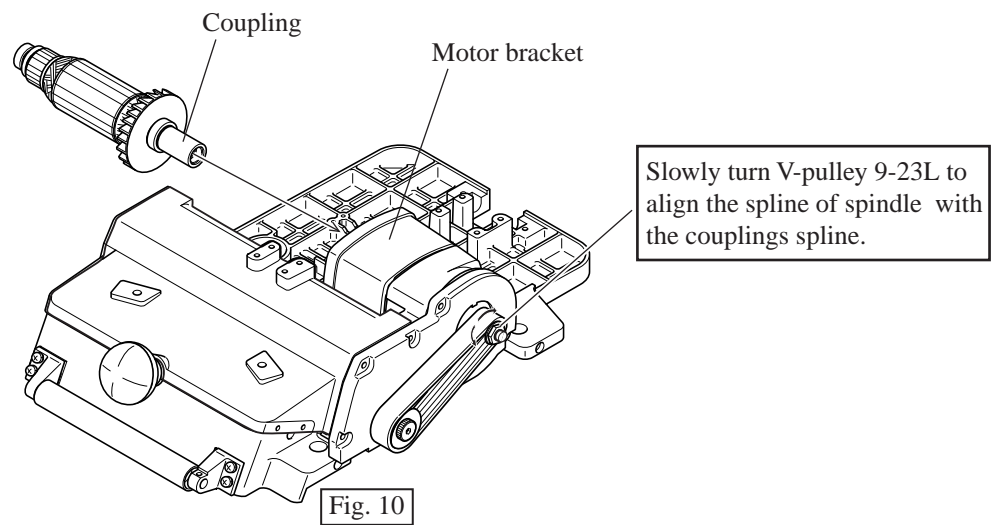


< 6 > Mounting armature

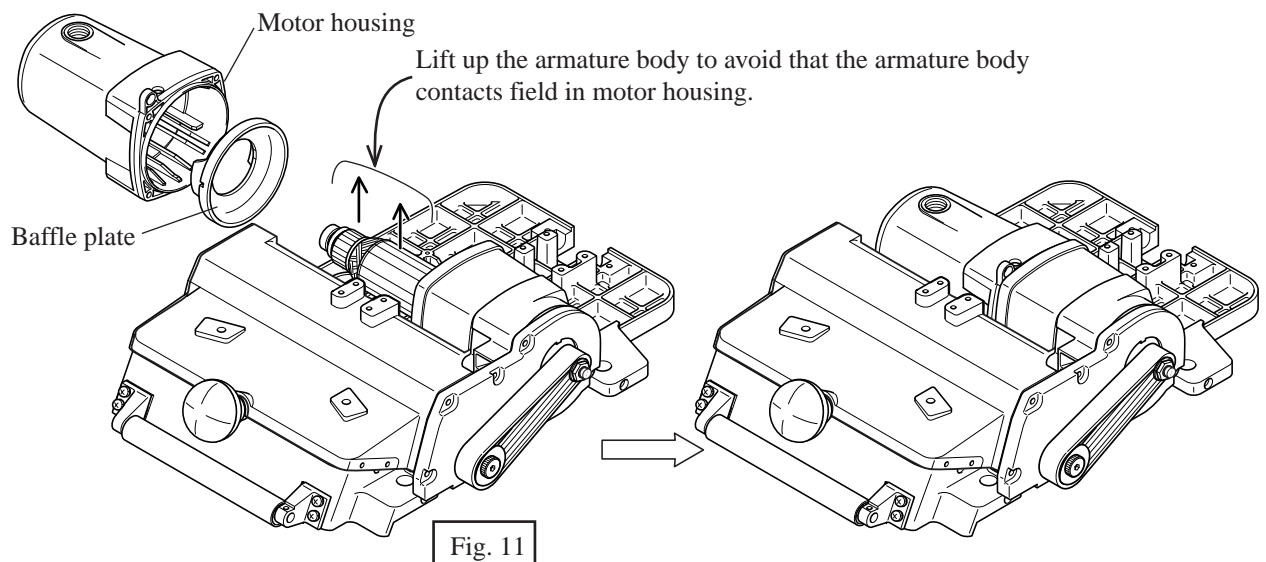
(1) Make sure that O ring 14 has been mounted to armature. If not, mount it. And then, mount coupling with aligning its spline with the armature's spline. See Fig. 9.



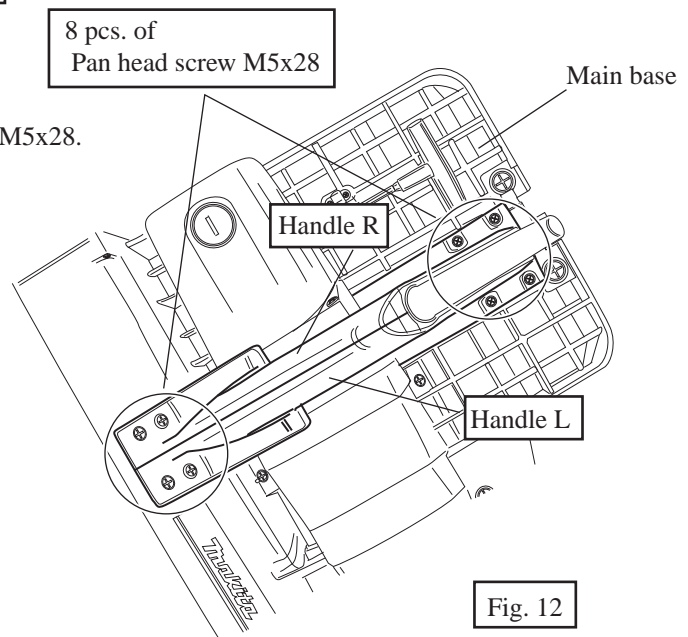
- (2) Mount the armature to motor bracket. When mounting armature to motor bracket, align the coupling's spline with the spline of spindle, by slowly turning V-pulley 9-23L.



- (3) Make sure that baffle plate has been assembled to motor housing. And mount motor housing to motor bracket with lifting up the armature body as illustrated in Fig. 11.



- < 7 > Mounting handle R and L to main base.
Joining handle R and L closely, fix them
on main base with 8 pcs. of pan head screws M5x28.
See Fig. 12.



< 8 > Replacement of the electrical parts in handle

(1) Remove the following screws.

1. Pan head screw M5x28 : 4 pcs.
2. Pan head screw M4x28 : 2 pcs.
3. Pan head screw M4x60 : 2 pcs.

See Fig. 13.

(2) Removed handle R. The electrical parts can be replaced.

See Fig.13.

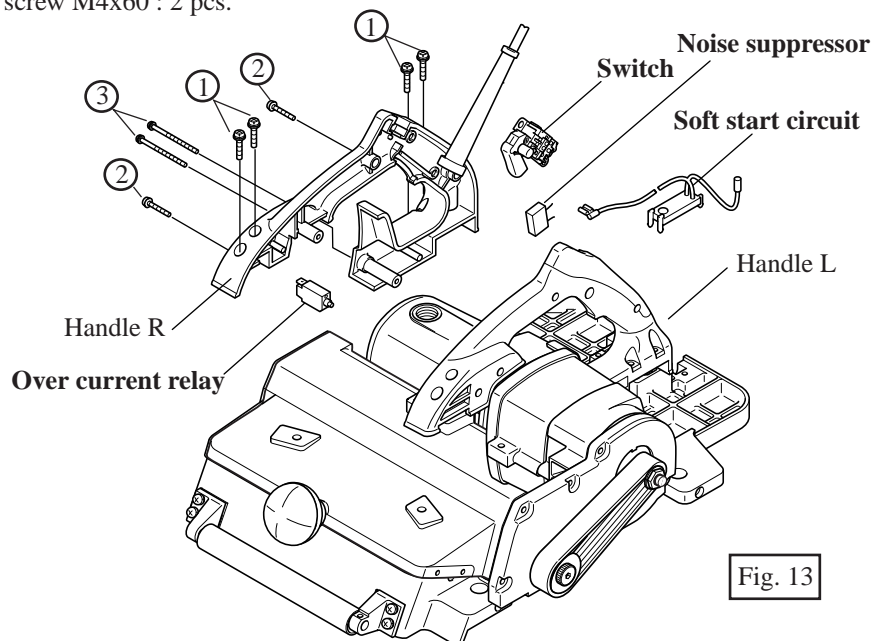


Fig. 13

< 9 > Mounting and adjustment of knob

Before mounting knob to front base, adjust it with hex lock nut M8-13, so that the knob can be turned smoothly, but without wobbling. See Fig. 14.

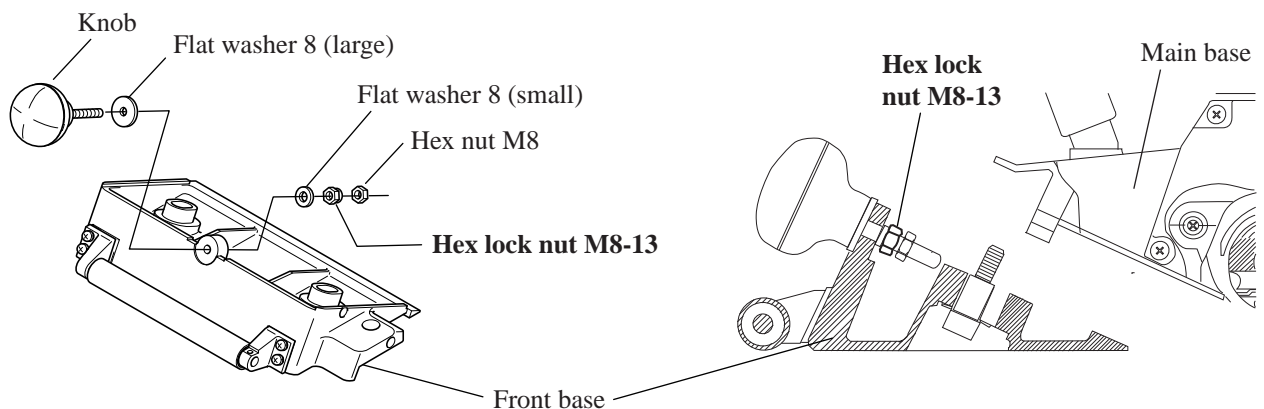


Fig. 14

< 10 > Mounting bracket cove and main bracket

Main bracket has to be closely mounted to bracket cover. And both of them has to be mounted to main base firmly and closely. See Fig. 15.

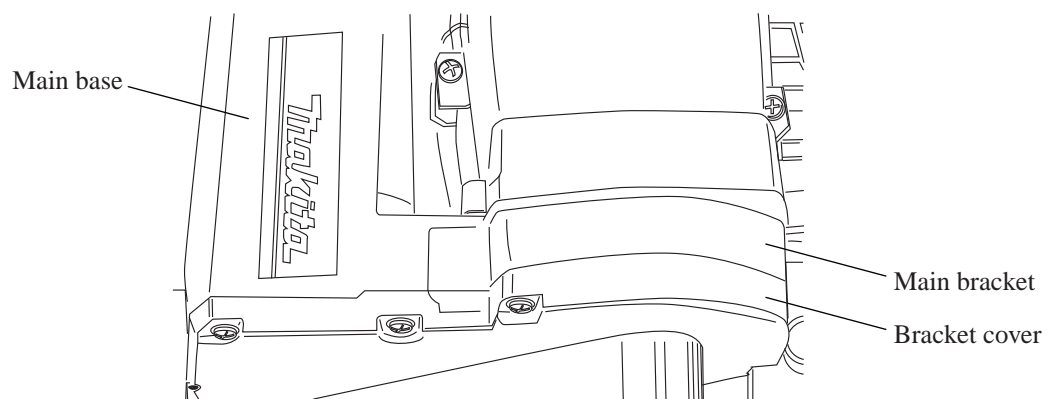





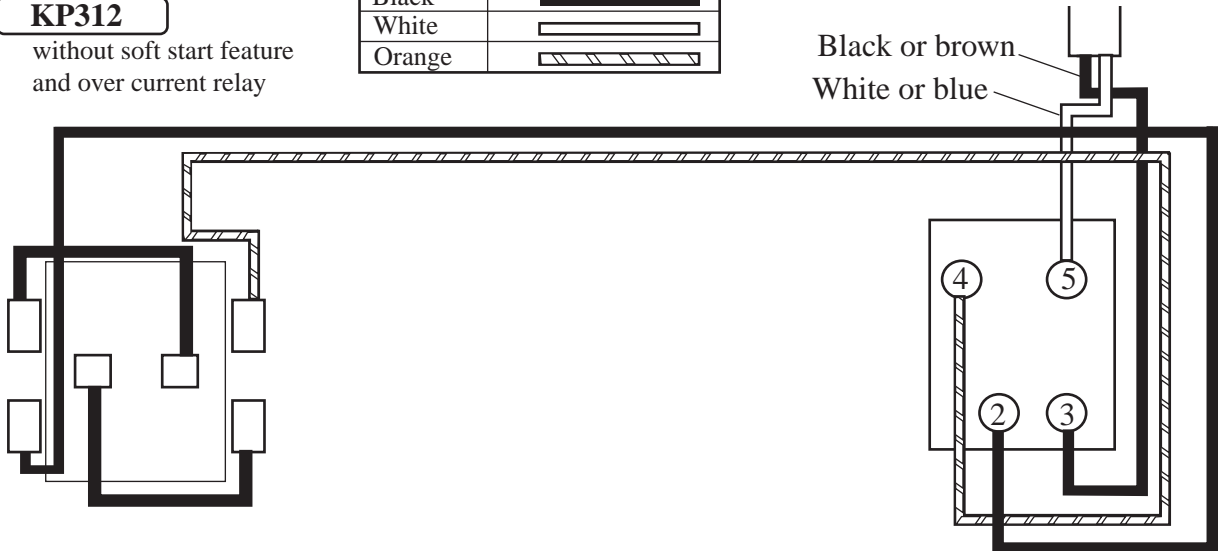
Fig. 15

► **Circuit diagram**

KP312

without soft start feature
and over current relay

Color index of lead wires	
Black	
White	
Orange	



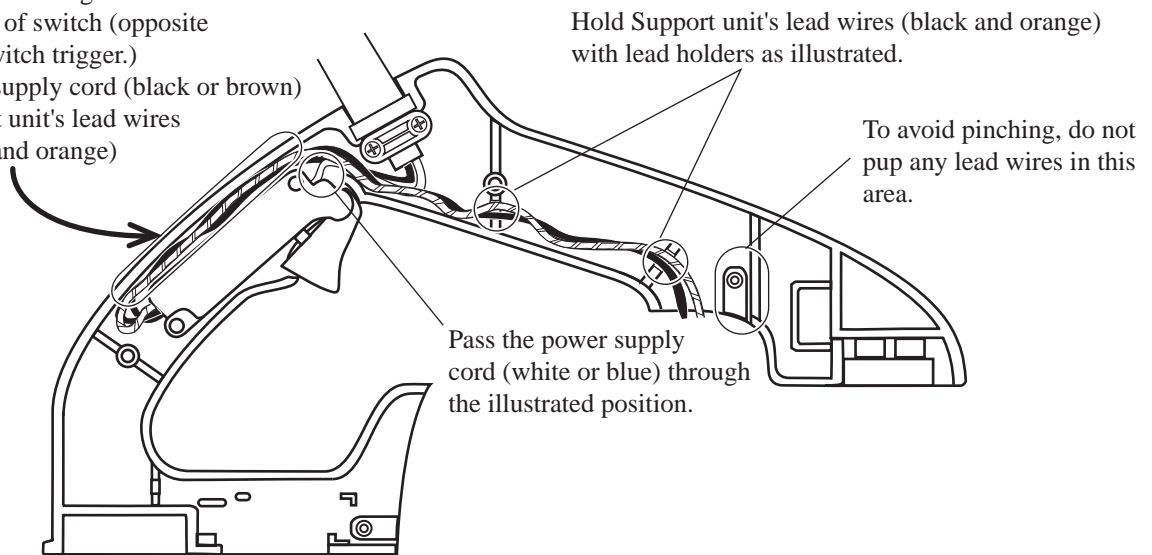
► **Wiring diagram**

KP312

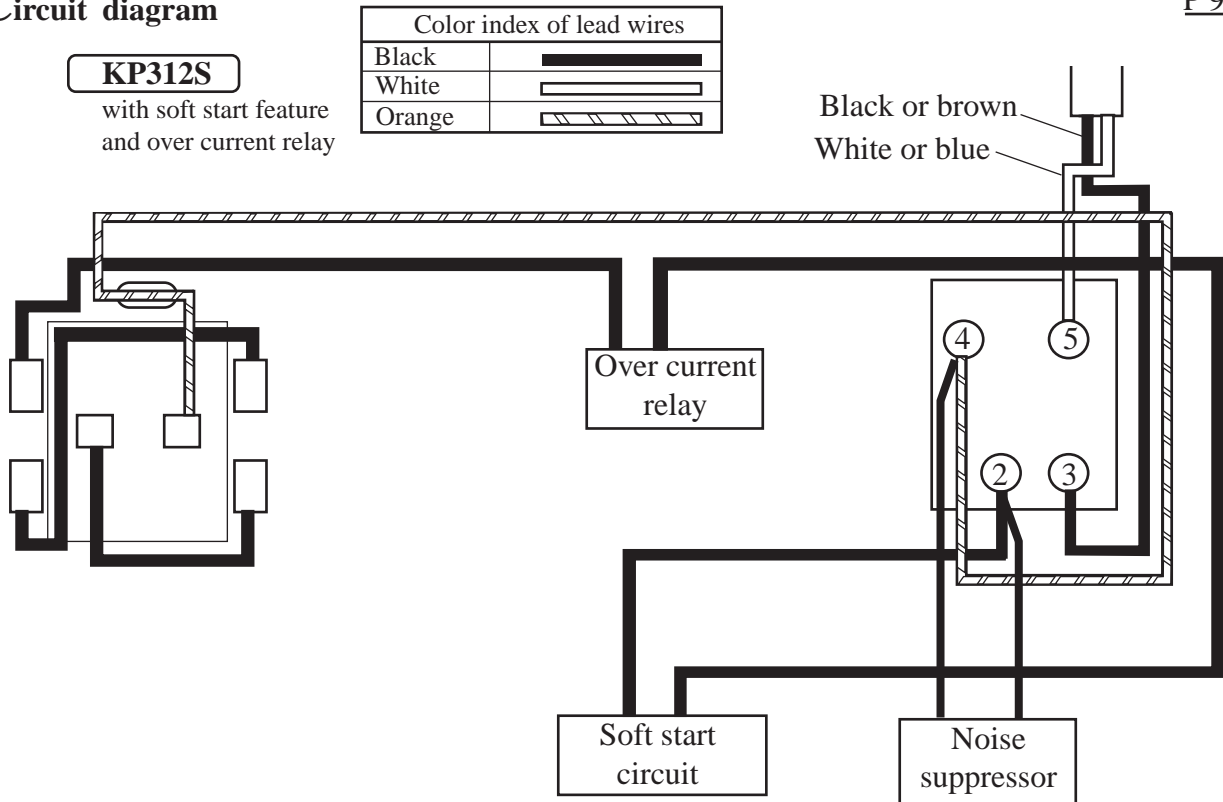
without soft start feature
and over current relay

Pass the following lead wires
back side of switch (opposite
side of switch trigger.)

- * Power supply cord (black or brown)
- * Support unit's lead wires
(black and orange)



▶ **Circuit diagram**



Connect noise suppressor
as per the circuit diagram,
if any.

▶ **Wiring diagram**

KP312S
with soft start feature
and over current relay

Pass the following lead wires
back side of switch (opposite
side of switch trigger.)

- * Power supply cord (black or brown)
- * Support unit's lead wires (orange)
- * Lead wire of soft start circuit

Hold the following lead wires
with lead holder as illustrated.

- * Support unit's lead wire (orange)
- * Lead wire of soft start circuit

Hold the following lead wires
with lead holders as illustrated.

- * Support unit's lead wire (black)
- * Lead wire of soft start circuit

To avoid pinching, do not
pup any lead wires in this
area.

