

# TECHNICAL INFORMATION

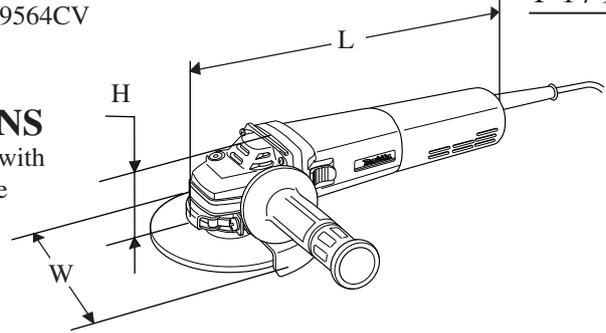


PRODUCT

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**Models No.** ▶ 9561, 9564, 9561C, 9561CV, 9564C, 9564CV

**Description** ▶ Angle grinder 115mm(4-1/2")



## CONCEPTION AND MAIN APPLICATIONS

New series of 115mm (4-1/2") angle grinders are equipped with "Super Joint System-SJS" for protection of user and machine from the shock by accidental spindle lock.

9561C and 9564C are equipped with electronic feature for constant speed, current limiting and soft start, beside "Super Joint System-SJS".

9561CV and 9564CV are equipped with electronic speed control, in addition to the features of 9561C and 9564C.

Dimensions : mm ( " )		
Model No.	9561, C, CV	9564, C, CV
Width ( W )	129 (5-1/16)	129 (5-1/16)
Height ( H )	103 (4)	103 (4)
Length ( L )	289 (11-3/8)	299 (11-3/4)

## ► Specification

Model No.	Current (A)					Cycle (Hz)	Continuous Rating (W)		Max. Output(W)
	110V	120V	220V	230V	240V		Input	Output	
9561	—	7.0	3.8	3.7	3.5	50 / 60	800	480	1,000
9564	8.6	7.9	4.3	4.1	3.9	50 / 60	900	540	1,300
9561C/CV	—	9.6	5.3	5.0	4.8	50 / 60	1,100	660	1,600 (120V) 1,800 (220 - 240V)
9564C/CV	—	12.0	6.7	6.4	6.1	50 / 60	1,400	840	2,000 (120V) 2,400 (220 - 240V)

Specifications		Model No.	9561	9561C	9561CV	9564	9564C	9564CV
Wheel size : mm ( " )	Diameter	115 ( 4-1/2 )						
	Hole diameter	22.23 ( 7/8 )						
	Thickness	6 ( 1/4 )						
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	Current limiter	No	Yes	Yes	No	Yes	Yes	
	Speed control dial	No	No	Yes	No	No	Yes	
	Soft starter	No	Yes	Yes	No	Yes	Yes	
	Constant speed	No	Yes	Yes	No	Yes	Yes	
Cord length : m ( ft )		2.5 (8.2)						
Net weight :Kg (lbs )		1.7 (3.7)			1.8 (4.0)			

## ► Standard equipment

- \* Grip 36 complete ..... 1 pc.
- \* Lock nut wrench 20 ..... 1 pc.
- \* Depressed center wheel 115-36..... 1 pc.

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

## ► Optional accessories

- \* Depressed center wheel 115-36
- \* Rubber pad 100
- \* Lock nut 14-48
- \* Dust collection wheel guard
- \* Abrasive disc 115-24,30,50,80,120
- \* Wire cup brush set 90 mm
- \* Wheel cover for wire cup brush 90 mm set
- \* Inner flange 47 assembly
- \* Diamond wheel 115
- \* Head cover

► **Features and benefits**

**Electronic limiter for 9561C/CV, 9564C/CV**

stops the electric current when accidental over load on the machine, and protects motor from burning. And when the machine will be freed from the load, restart the motor automatically. At this time, the soft starter functions for suppression of starting shock.

**Electronic controller for 9561C/CV, 9564C/CV**

for keeping constant rpm. even under loaded condition, and for suppressing starting shock.

**High sealed gear housing**

to prevent leaking of grease

**Tough Cord guard**

excellent in flexibility to protect power supply cord from disconnection.

**Adjustable wheel cover's position**

Wheel cover's position can be adjusted without any tool.

**Speed control dial for 9561CV and 9564CV**

for getting optimum rotating speed to suit various work piece.

**High power and tough motor**

**9564C/CV: 1,400W**  
**9561C/CV: 1,100W**  
**9564 : 900W**  
**9561 : 800W**

**"Super Join System - SJS"**

Lock spring joining spiral bevel gear and armature shaft provides following benefits.

- \* Smooth and comfortable grinding work.
- \* Suppression of shock by accidental wheel lock during work.
- \* Prevention of damage on gear coming from accidental wheel lock.

High power from slim and compact body thanks to new S60 type motor and electronic control system.(only Model 9564C/CV and 9561C/CV) Jig zag, and powdered varnish coating on armature and field ensure effective protection from sharp grinding dust.

**Protection from dust**

	Dust proof bearing	Labyrinth structure	Dust proof washer
Fan side of armature	X	○ Double Labyrinth	○
Commutator side of armature	○	○	○
Wheel side of spindle	**○	○	X

\*\*○: The spindle portion is protected from not only dust but also intruding water firmly.

► **Comparison of products** (Angle grinders 115mm)

		Products without speed control				Products with speed control		
Manufacturer		MAKITA				A	MAKITA	
Model No.		9561	9561C	9564	9564C	A-2	9561CV	9564CV
Wheel diameter: mm (")		115 (4-1/2)				115 (4-1/2)	115 (4-1/2)	
Power input (W)		800	1,100	900	1,400	750	1,100	1,400
No load speed : (min -) rpm		11,000 *(10,500)				11,000	2,800 - 11,000 ***(2,800 - 10,500)	
Motor size		S60-45		S60-55		—	S60-45	S60-55
Clutch		*Yes	*Yes	*Yes	*Yes	No	Yes	Yes
Electronic features	Soft start	No	Yes	No	Yes	No	Yes	Yes
	Constant speed	No	Yes	No	Yes	No	Yes	Yes
	Current limiter	No	Yes	No	Yes	No	Yes	Yes
	Speed control dial	No	No	No	No	No	Yes	Yes
Auto break carbon brush		Yes	Yes	Yes	Yes	Yes	Yes	Yes
Net weight : Kg (lbs)		1.7 (3.7)	1.7 (3.7)	1.8 (4.0)	1.8 (4.0)	1.55 (3.4)	1.7 (3.7)	1.8 (4.0)

\*(10,500), \*\*\*(2,800 - 10,500) : for North America  
 \*Yes : equipped with "Super joint system-SJS"

<1> Replacing spiral bevel gear 11

- (1) Remove tapping screw 4x18 and detach rear cover from motor housing.  
And remove carbon brush as illustrated in Fig. 1.
- (2) Remove tapping screw 4x28 and detach gear housing from motor housing.  
And remove armature with gear housing cover as illustrated in Fig. 1.

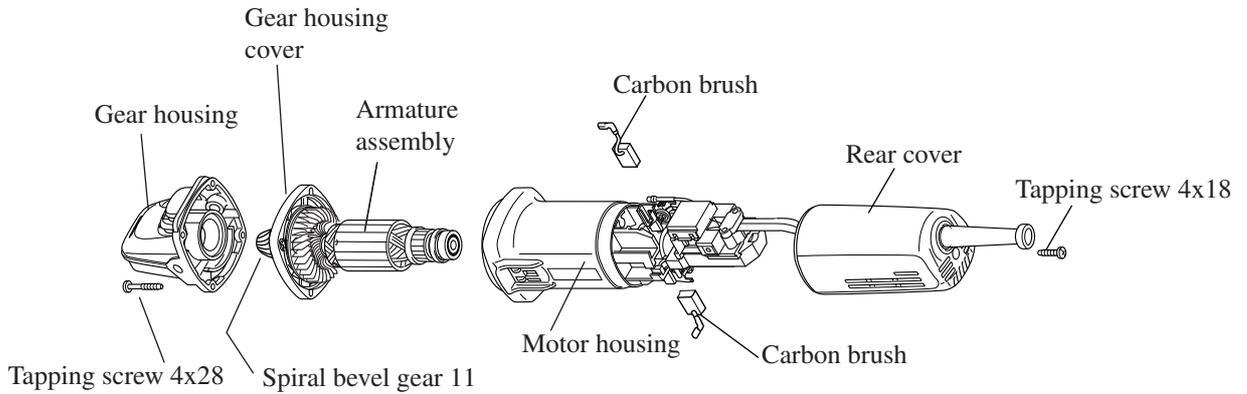


Fig. 1

- (3) Detach hex nut M6 and flat washer 6 from armature as illustrated in Fig.2.

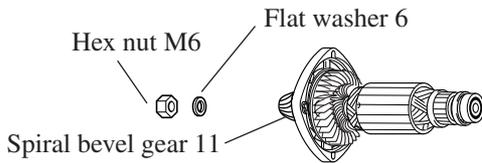


Fig. 2

- (4) Remove spiral bevel gear 11 with bearing extractor No.1R269. And remove lock spring 12 by turning it anti-clockwise. When removing, grip lock spring 12 with gloved hand for anti-skid.

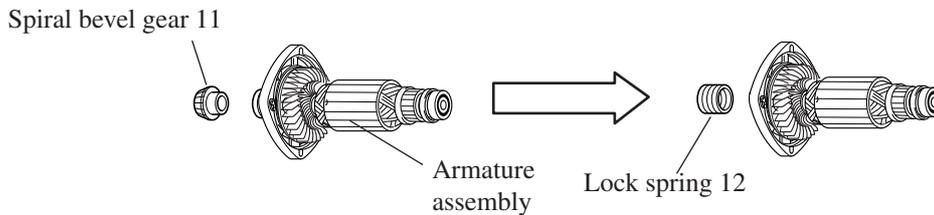


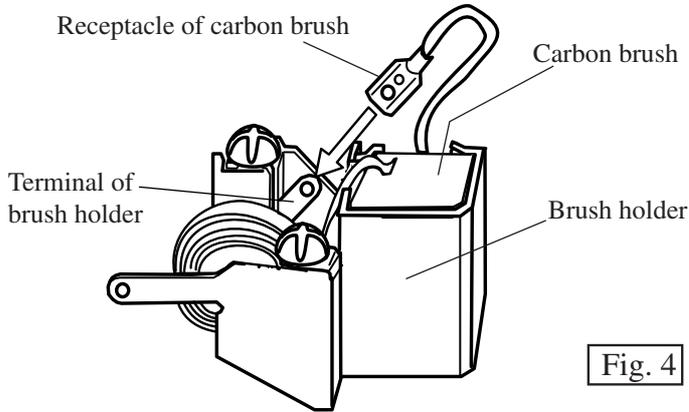
Fig. 3

< Note > Replace lock spring 12 together, when replacing spiral bevel gear 11.

- (5) When assembling spiral bevel gear 11 to armature, take the reverse step.

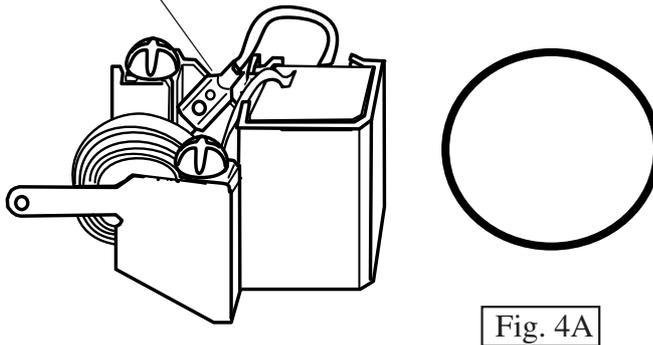
Attaching carbon brush

Connect the receptacle of carbon brush with the terminal of brush holder by pushing in the direction of the arrow, as illustrated in Fig. 4.

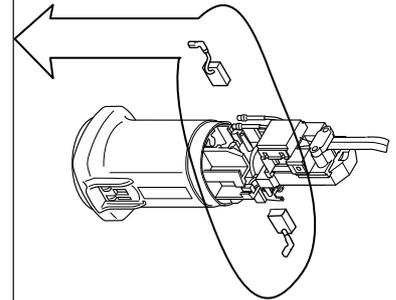
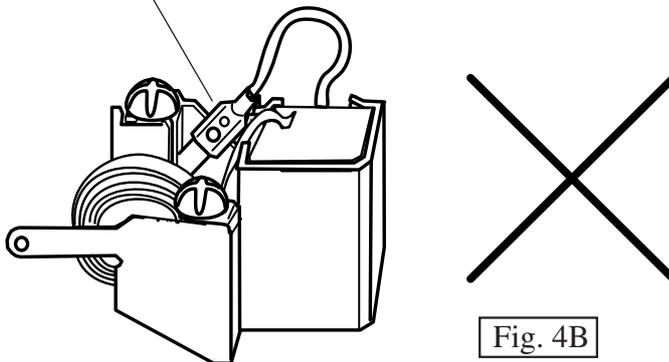


Push the receptacle of carbon brush until it stops as illustrated in Fig. 4A.

Completely attached receptacle of carbon brush



Incompletely attached receptacle of carbon brush

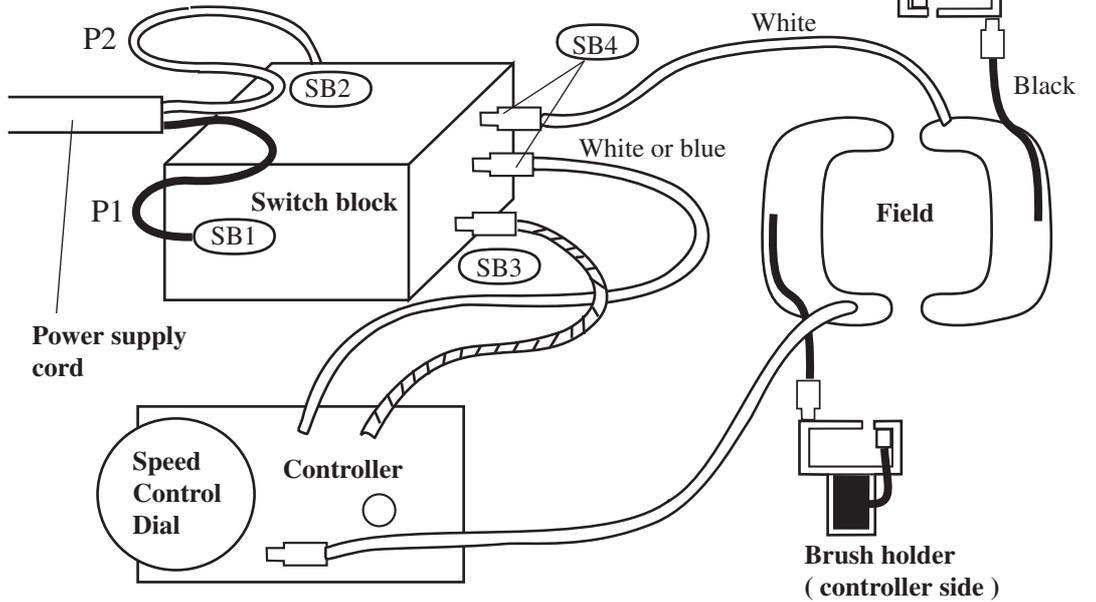


Model 9561C,CV / Model 9564C,CV

with electronic features

Model 9561C and 9564C : without speed control dial

Model 9561CV and 9564CV : with speed control dial



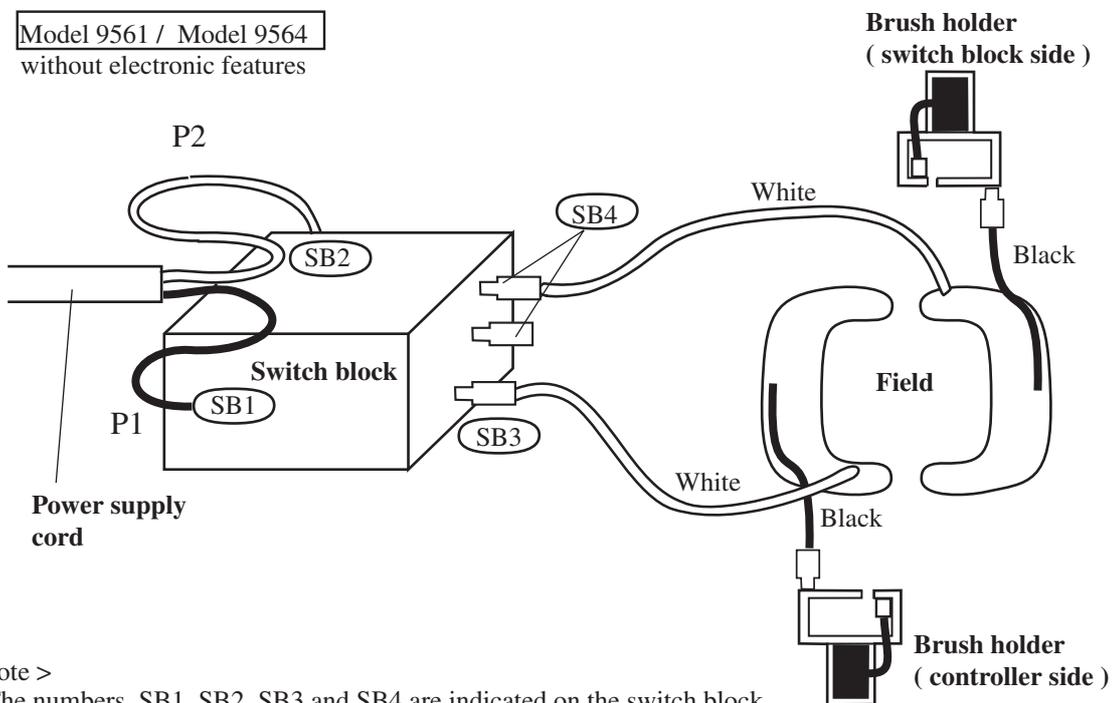
< Note >

The numbers, SB1, SB2, SB3 and SB4 are indicated on the switch block.

Fig. 5

Model 9561 / Model 9564

without electronic features



< Note >

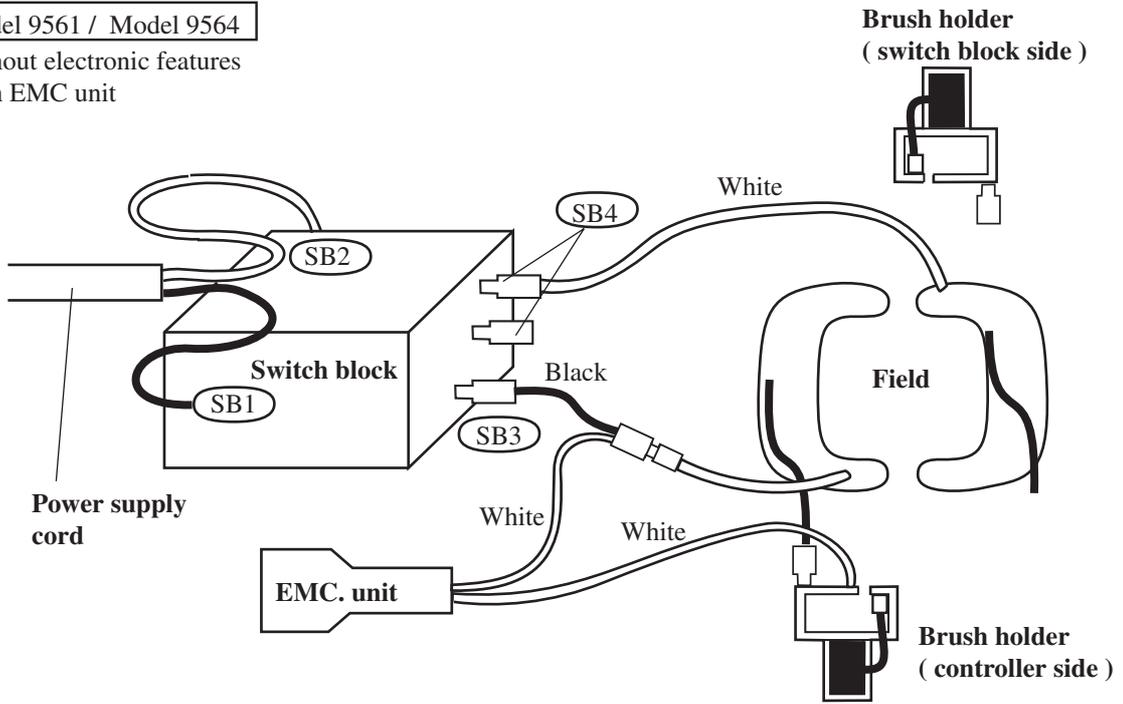
The numbers, SB1, SB2, SB3 and SB4 are indicated on the switch block.

Fig. 6

# ▶ Circuit diagram

Model 9561 / Model 9564

without electronic features  
with EMC unit



## ▶ Wiring diagram

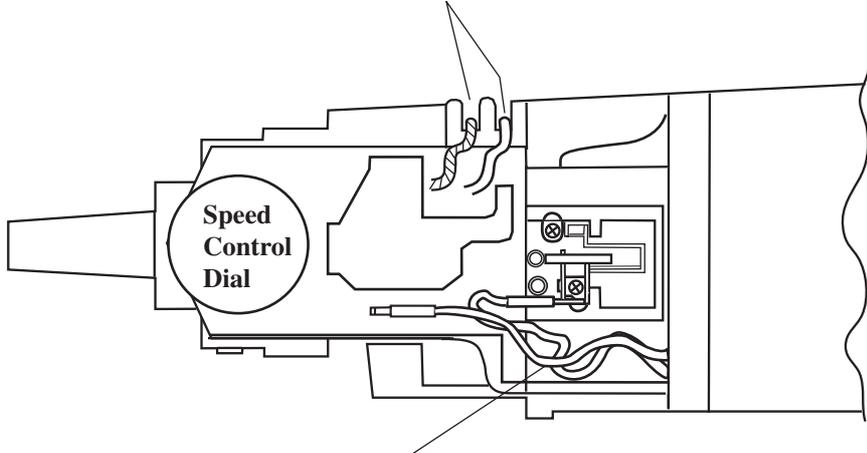
Model 9561C,CV / Model 9564C,CV

with electronic features

Model 9561C and 9564C : without speed control dial

Model 9561CV and 9564CV : with speed control dial

Put the lead wires of controller in the lead holder so that they are not slacken.



Be careful not to loosen the lead wires of field in motor housing  
Put the loosened lead wires in the above place.

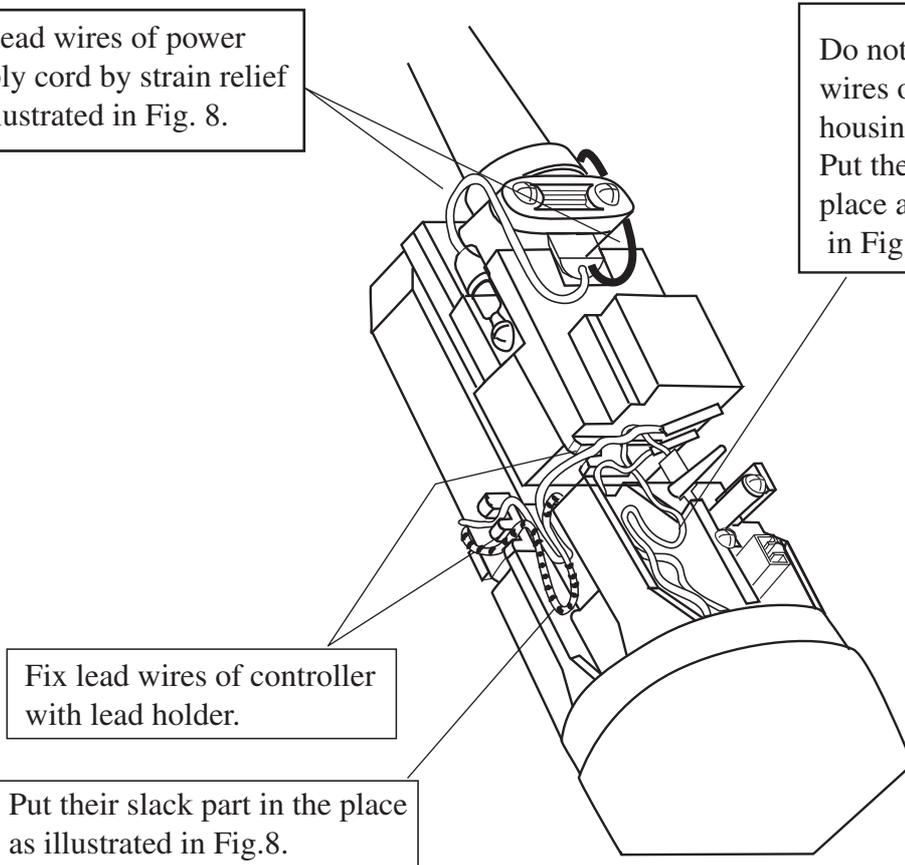
Fig. 7

Model 9561C,CV / Model 9564C,CV

with electronic features

Put lead wires of power supply cord by strain relief as illustrated in Fig. 8.

Do not loosen the lead wires of filed in motor housing.  
Put the loosened ones in the place as illustrated in Fig.8.



Fix lead wires of controller with lead holder.

Put their slack part in the place as illustrated in Fig.8.

Fig. 8

Model 9561 / Model 9564  
without electronic features

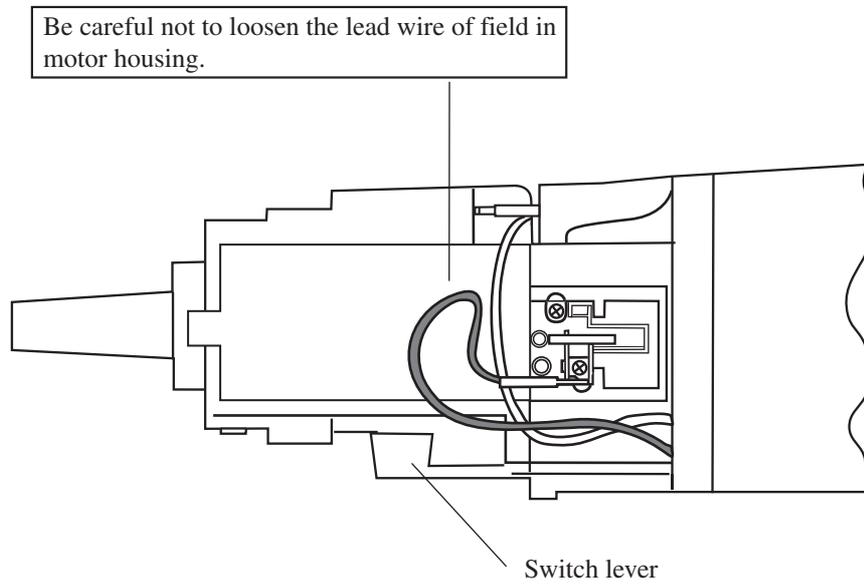


Fig. 9

Model 9561/ Model 9564  
without electronic features

Put lead wires of power supply cord by strain relief as illustrated in Fig. 10.

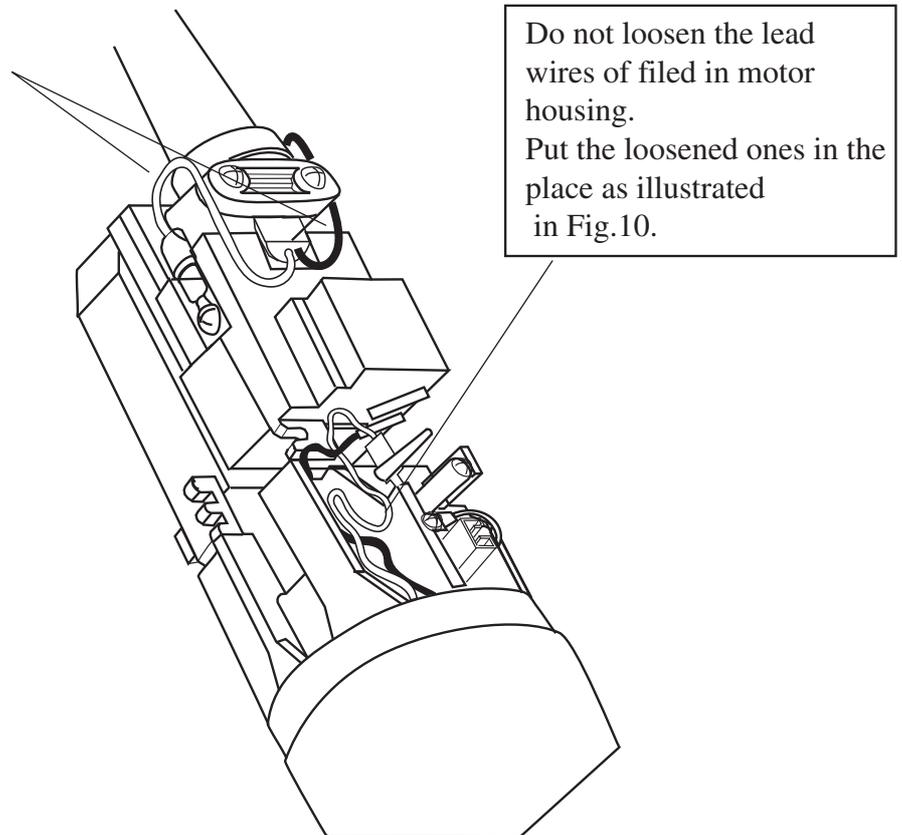


Fig. 10

Model 9561 / Model 9564

without electronic features  
with EMC unit

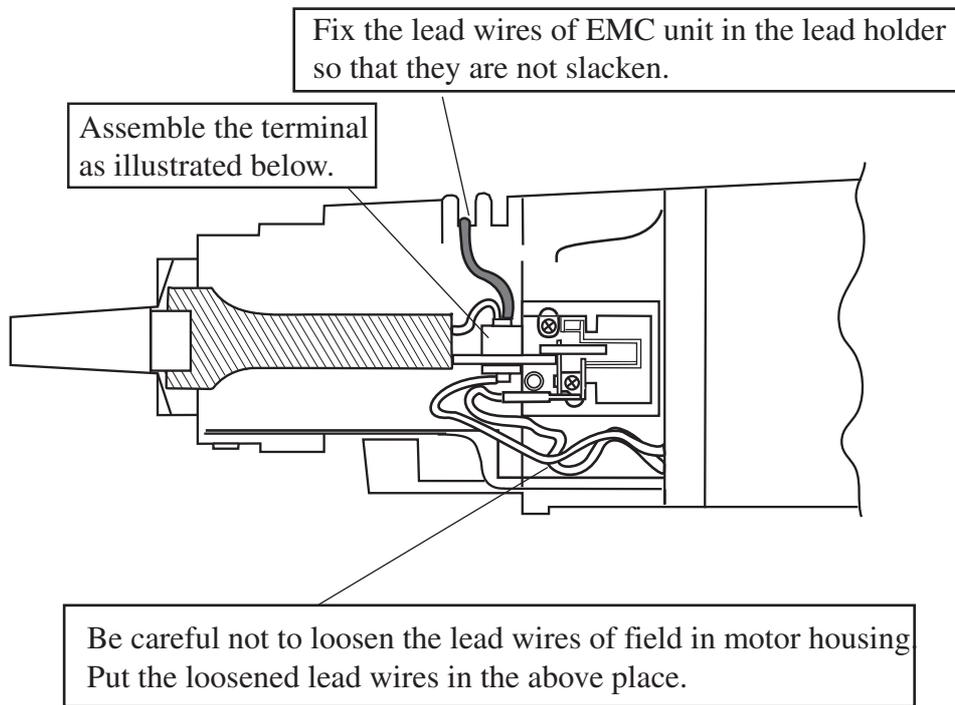


Fig. 11

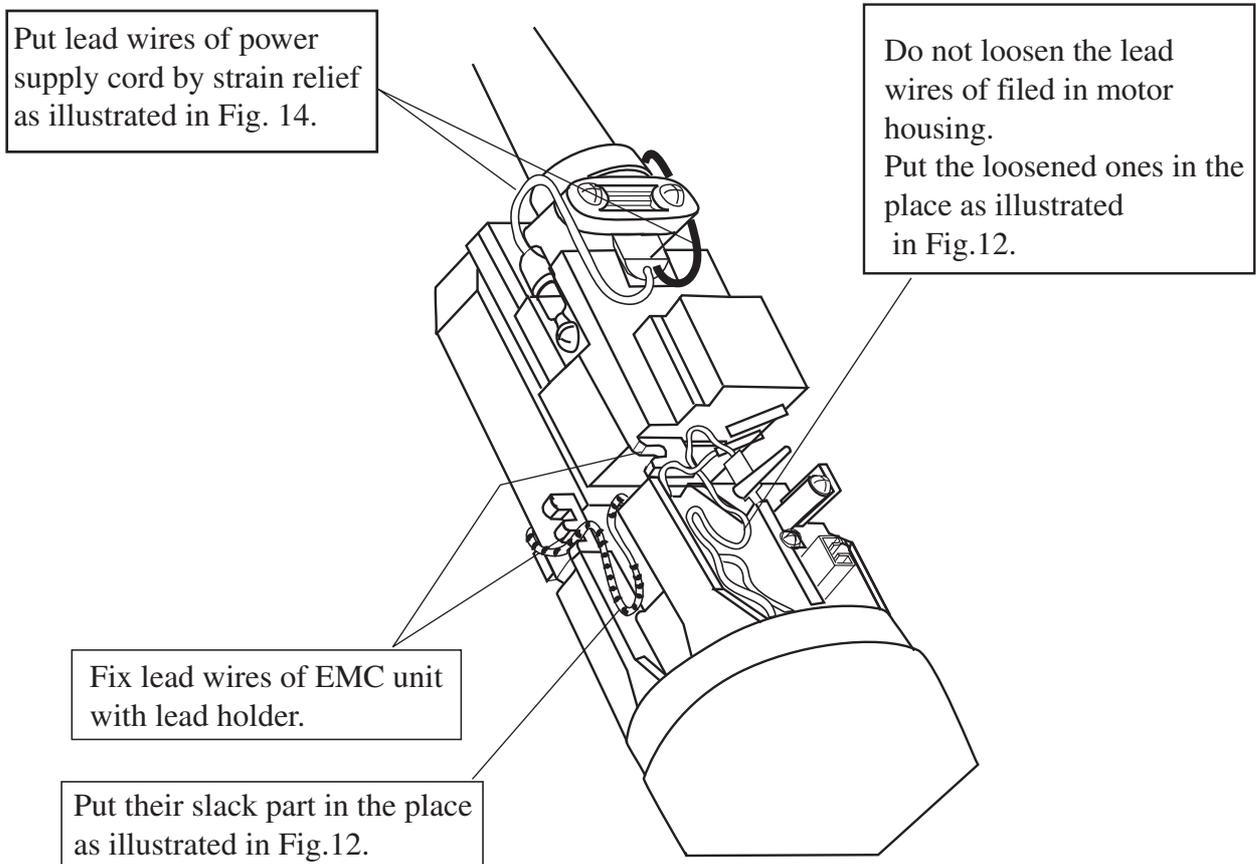


Fig. 12