

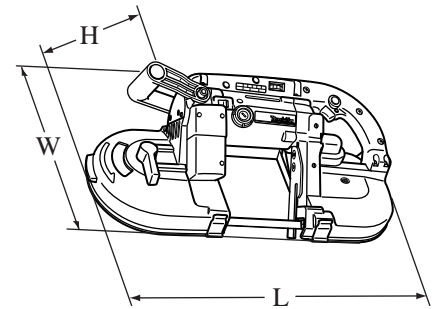
# T ECHNICAL INFORMATION

**Models No.** ▶ 2107F

**Description** ▶ Portable Band Saw

## CONCEPT AND MAIN APPLICATIONS

Model 2107F has been developed as an upgraded model of 2106. Weighs only 5.7 kg, yet with rigid bridge structure of tough aluminum wheel covers and cylindrical motor housing. Features built-in fluorescent job light for clear view of cut line even in dark places.



| Dimensions: mm (") |              |
|--------------------|--------------|
| Length (L)         | 508 (20)     |
| Width (W)          | 188 (7-3/8)  |
| Height (H)         | 256 (10-1/8) |

## ► Specification

| Voltage (V) | Current (A) | Cycle (Hz) | Continuous Rating (W) |        | Max. Output(W) |
|-------------|-------------|------------|-----------------------|--------|----------------|
|             |             |            | Input                 | Output |                |
| 110         | 6.8         | 50/ 60     | 710                   | 350    | 600            |
| 120         | 6.5         | 50/ 60     | 710                   | 350    | 850            |
| 220         | 3.4         | 50/ 60     | 710                   | 350    | 850            |
| 230         | 3.2         | 50/ 60     | 710                   | 350    | 850            |
| 240         | 3.1         | 50/ 60     | 710                   | 350    | 850            |

|                                     |                   |                           |
|-------------------------------------|-------------------|---------------------------|
| Power Input: W                      | 710               |                           |
| Rated amperage for North America: A | 6.5               |                           |
| Blade speed: m/s                    | 1.0 - 1.8         |                           |
| Cutting capacity:<br>mm (")         | Round pipe        | 120 (4-3/4) dia.          |
|                                     | Square pipe       | 120 x 120 (4-3/4 x 4-3/4) |
|                                     | Round bar         | 30 (1-3/16) dia.          |
| Protection against electric shock   | Double insulation |                           |
| Power supply cord: m (ft)           | 2.5 (8.2)         |                           |
| Net weight: Kg (lbs)                | 5.7 (12.6)        |                           |

## ► Standard equipment

Carbon steel band saw blade 13x1140 (18 teeth per inch)  
Hex wrench 4  
Wrench holder 3.4  
Plastic carrying case

**Note:** The standard equipment for the tool shown above may differ from country to country.

## ► Optional accessories

Assorted steel band saw blades  
Fluorescent light set  
Stand chain vise set  
Cutting wax

## ► Repair

**CAUTION: Remove the saw blade from the machine for safety before repair/ maintenance !**

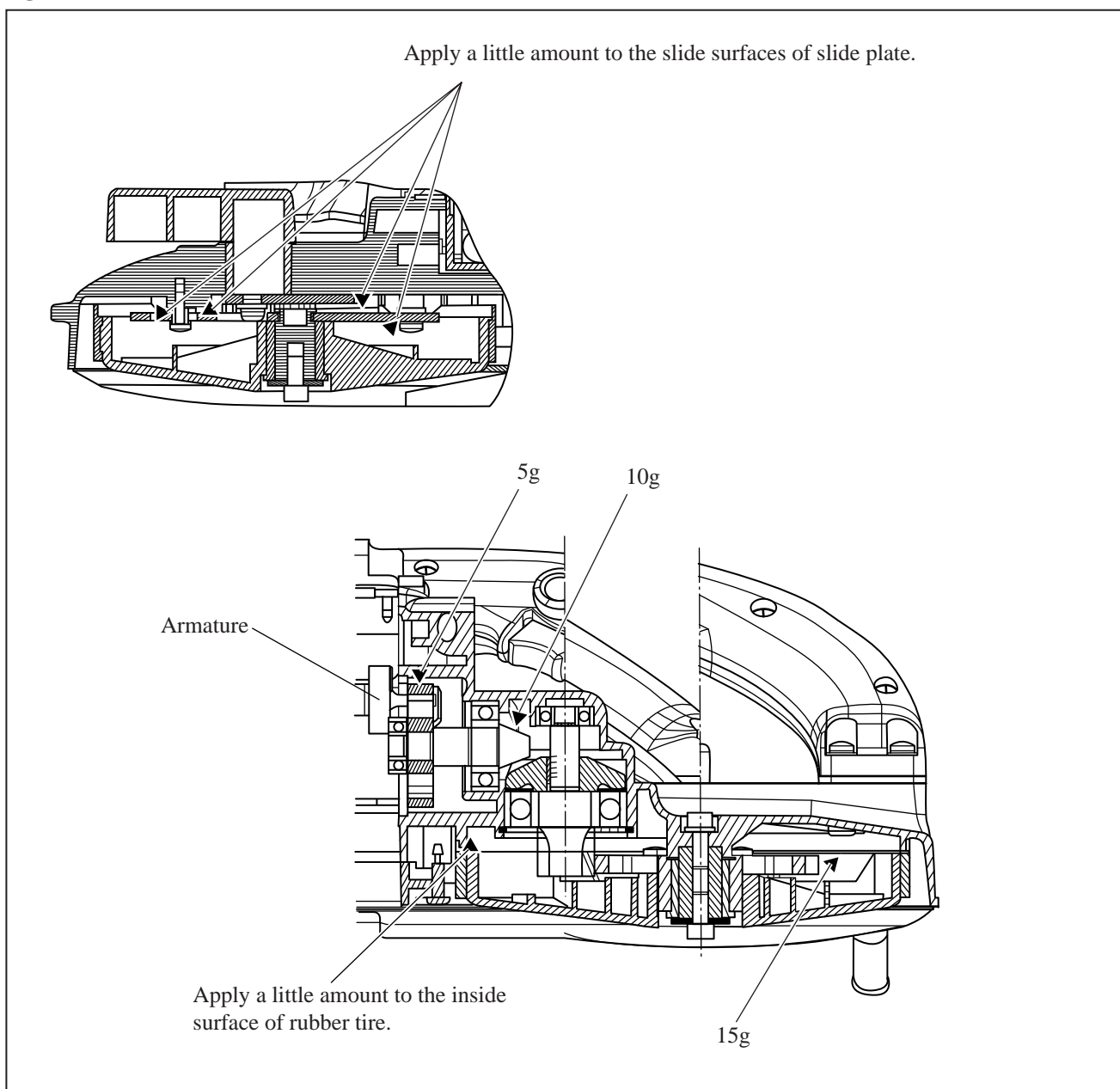
### [1] NECESSARY REPAIRING TOOLS

| Item No. | Description                   | Purpose                          |
|----------|-------------------------------|----------------------------------|
| 1R005    | Retaining ring R pliers       | For removing retaining ring R-47 |
| 1R217    | Drill chuck extractor         | For removing slide plate         |
| 1R139    | Drill chuck extractor         | For removing helical gear 64     |
| 1R237    | Round bar for arbor 8-100     |                                  |
| 1R263    | Bearing extractor             | For disassembling gear complete  |
| 1R269    | Bearing extractor             | For removing ball bearings       |
| 1R291    | Retaining ring R and S pliers | For removing retaining rings     |

### [2] LUBRICATION

Apply Makita grease N. No.1 to the following portions designated by black triangle to protect parts and product from unusual abrasion. (Fig. 1)

Fig. 1



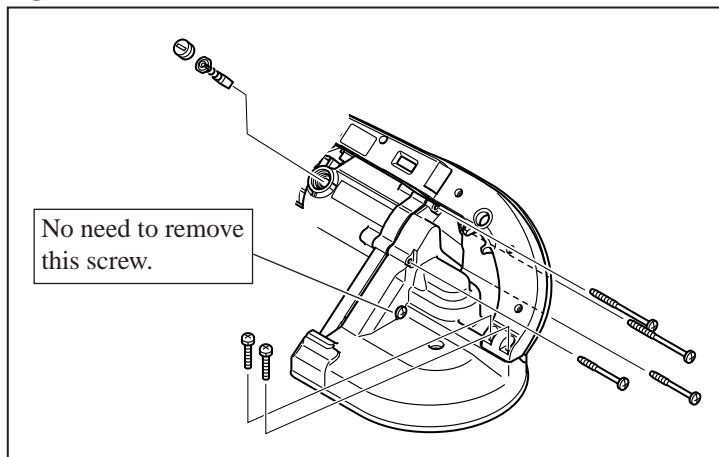
### [3] DISASSEMBLY/ASSEMBLY

#### [3] -1. Replacing Armature

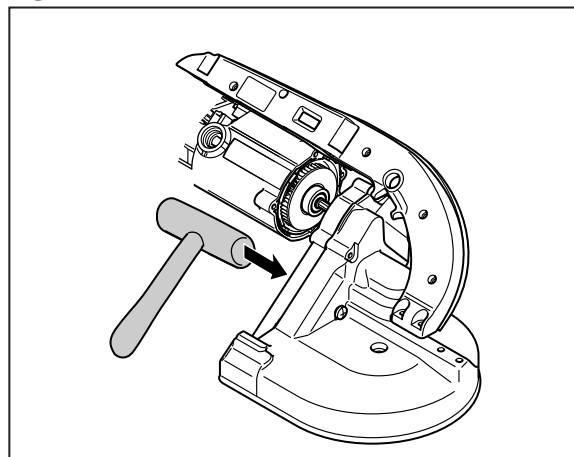
**Note:** Armature can be replaced without disassembling the handle section.

- 1) Remove carbon brushes.
- 2) Remove the six screws. (**Fig. 2**)
- 3) Remove rear wheel cover and gear housing by hitting the place designated by the black arrow with plastic hammer. (**Fig. 3**)
- 4) Now armature can be removed by hitting motor housing with plastic hammer.

**Fig. 2**



**Fig. 3**

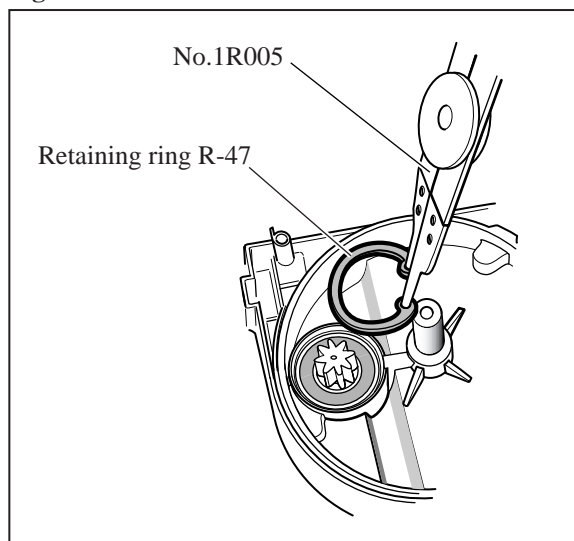


#### [3] -2. Repairing Gear section

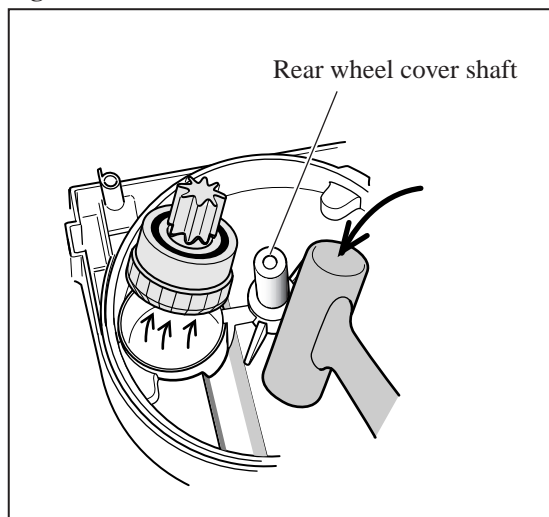
##### DISASSEMBLING

- 1) Remove rear wheel (the one positioned on the drive side).  
When replacing spiral bevel gear 29 only, remove retaining ring R-47 in this step using Retaining ring R pliers (No.1R005). (**Fig. 4**)
- 2) Remove the assembled unit of spiral bevel gear 29 and spur gear 8 by hitting the rear wheel cover shaft and around it evenly. (**Fig. 5**)
- 3) Separate spur gear 8 from ball bearing and spiral bevel gear 29 using arbor press. (**Fig. 6**)

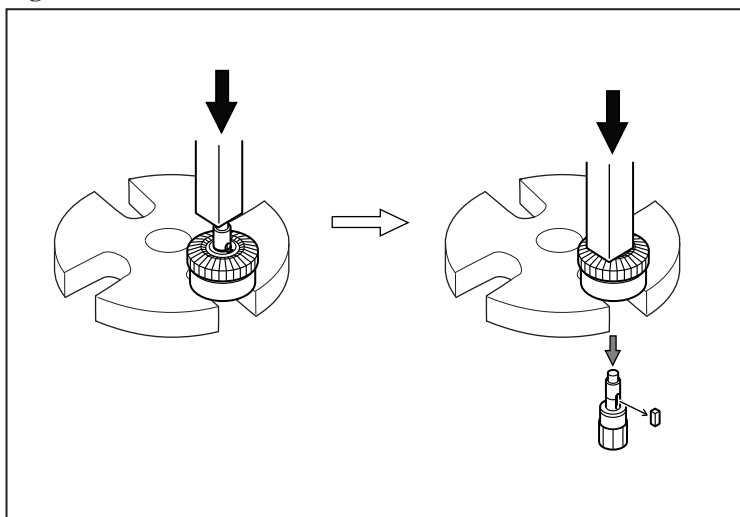
**Fig. 4**



**Fig. 5**

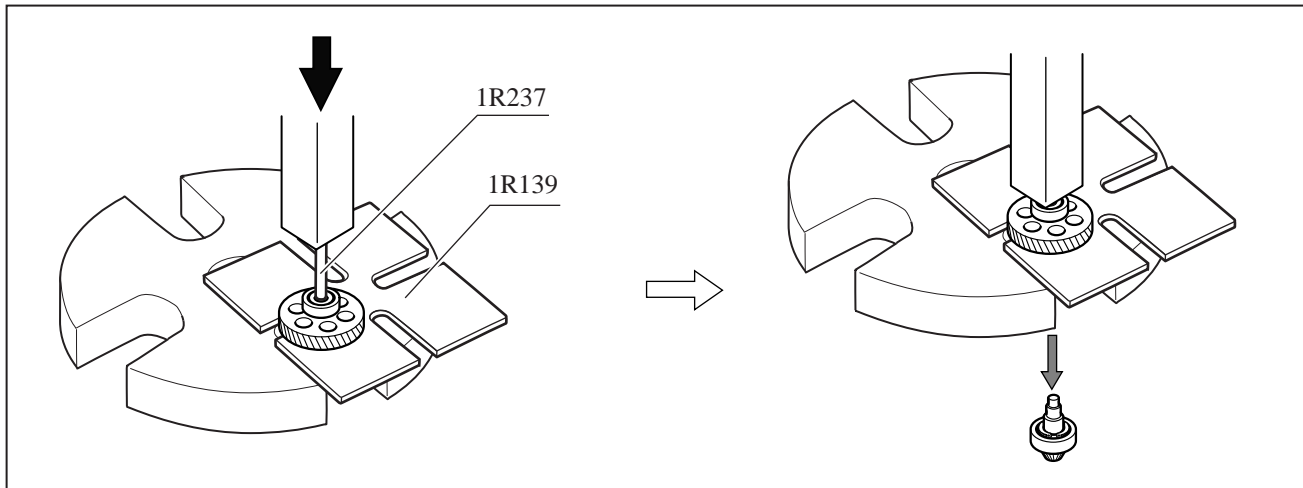


**Fig. 6**

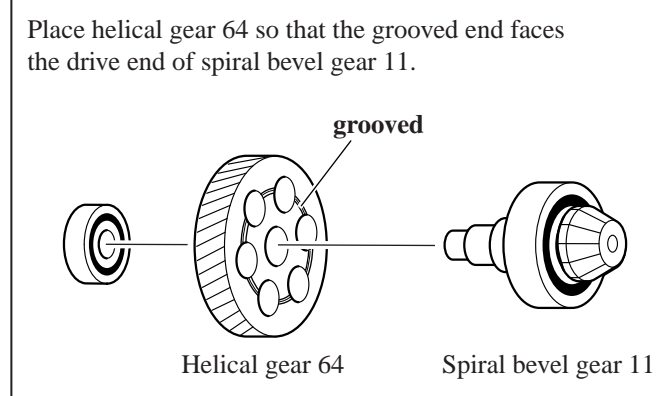


**[3] -2. Repairing Gear section (cont.)****REMOVING HELICAL GEAR 64**

- 1) Referring to "[3] -1. Replacing Armature", remove rear wheel cover.
- 2) Remove a tapping screw in the center of gear housing.
- 3) Remove gear housing and helical gear 64 by hitting rear wheel cover.
- 4) Separate helical gear 64 from spiral bevel gear 11 using arbor press, No.1R139 and No.1R237 as illustrated in **Fig. 7**.

**Fig. 7****PRESS-FITTING HELICAL GEAR 64**

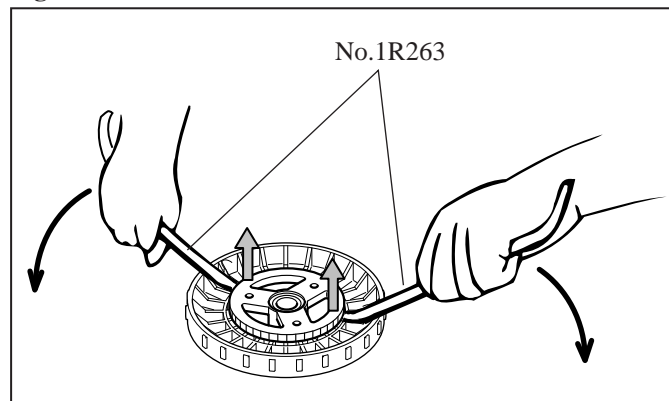
Helical gear 64 is not reversible when press-fit on spiral bevel gear 11. Place it as illustrated in **Fig. 8**.

**Fig. 8****[3] -3. Disassembling/Assembling Gear Complete on Rear Wheel****DISASSEMBLING**

- 1) Remove rear wheel (the one on the drive end).
- 2) Unscrew three tapping screws that fasten gear complete to rear wheel.
- 3) Remove gear complete by levering up with two Bearing extractors (No.1R263) as illustrated in **Fig. 7**.

**ASSEMBLING**

Align the holes of gear complete with the holes of the wheel, and temporarily tighten the three tapping screws in the holes. Then, taking care not to tilt gear complete, tighten the screws evenly by hand to fasten gear complete to rear wheel.

**Fig. 9**

### [3] -4. Disassembling/Assembling Lower Shaft

Lower shaft is lightly press-fit in rear wheel cover and fixed with an M6 hex socket head bolt.

#### DISASSEMBLING

Loosen M6 hex socket head bolt a little bit. (Do not remove the bolt.)

Now lower shaft can be removed by hitting the head of the bolt with plastic hammer.

#### ASSEMBLING

Tighten lower shaft with M6 hex socket head bolt, then press-fit in rear wheel cover.

### [3] -5. Disassembling/Assembling Tension Plate Section

#### DISASSEMBLING

1) Remove the wheel on the front side.

2) From slide plate, remove the three tapping screws that fasten slide plate and the pan head screw that fixes lever 60.

(Fig. 10)

At this time, lever 60 is removed from front wheel cover. Be careful with fall of the lever.

**Note:** Be careful not to confuse the two kinds of screws when assembling.

3) Put tension plate section on Ring 22 (No.1R217), and disassemble by hitting it as illustrated to left in Fig. 11.

**Note:** You may feel a small shock when the compressed springs are released.

Fig. 10

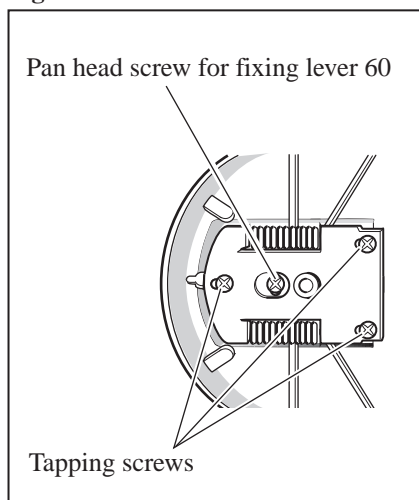
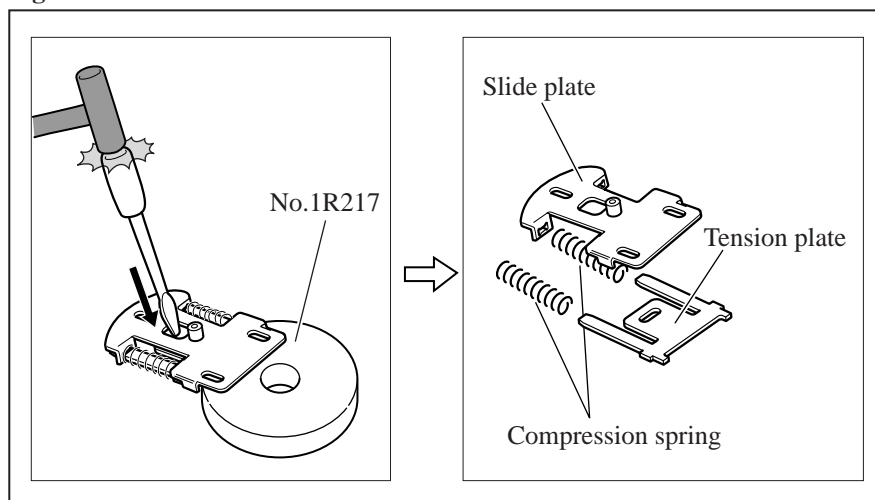


Fig. 11

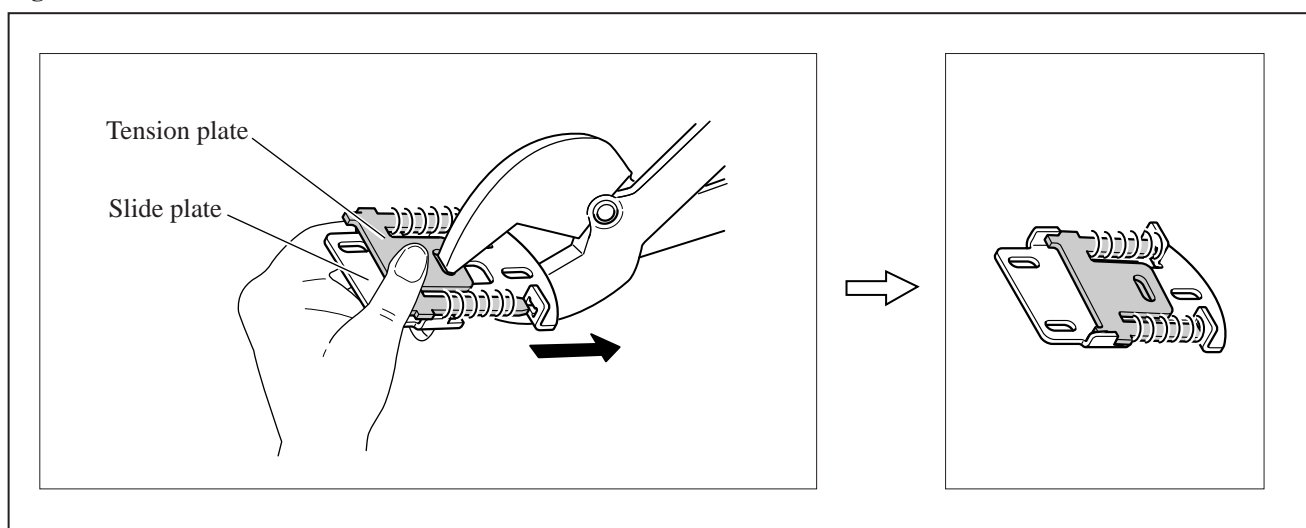


#### ASSEMBLING

1) Set compression springs in place, and align the hole of slide plate with the hole of tension plate.

2) As illustrated to left in Fig. 12, while pushing tension plate against slide plate, compress compression springs by pulling tension plate in the direction of the black arrow using water pump pliers or the like till tension plate is set in place as illustrated to right in Fig. 12.

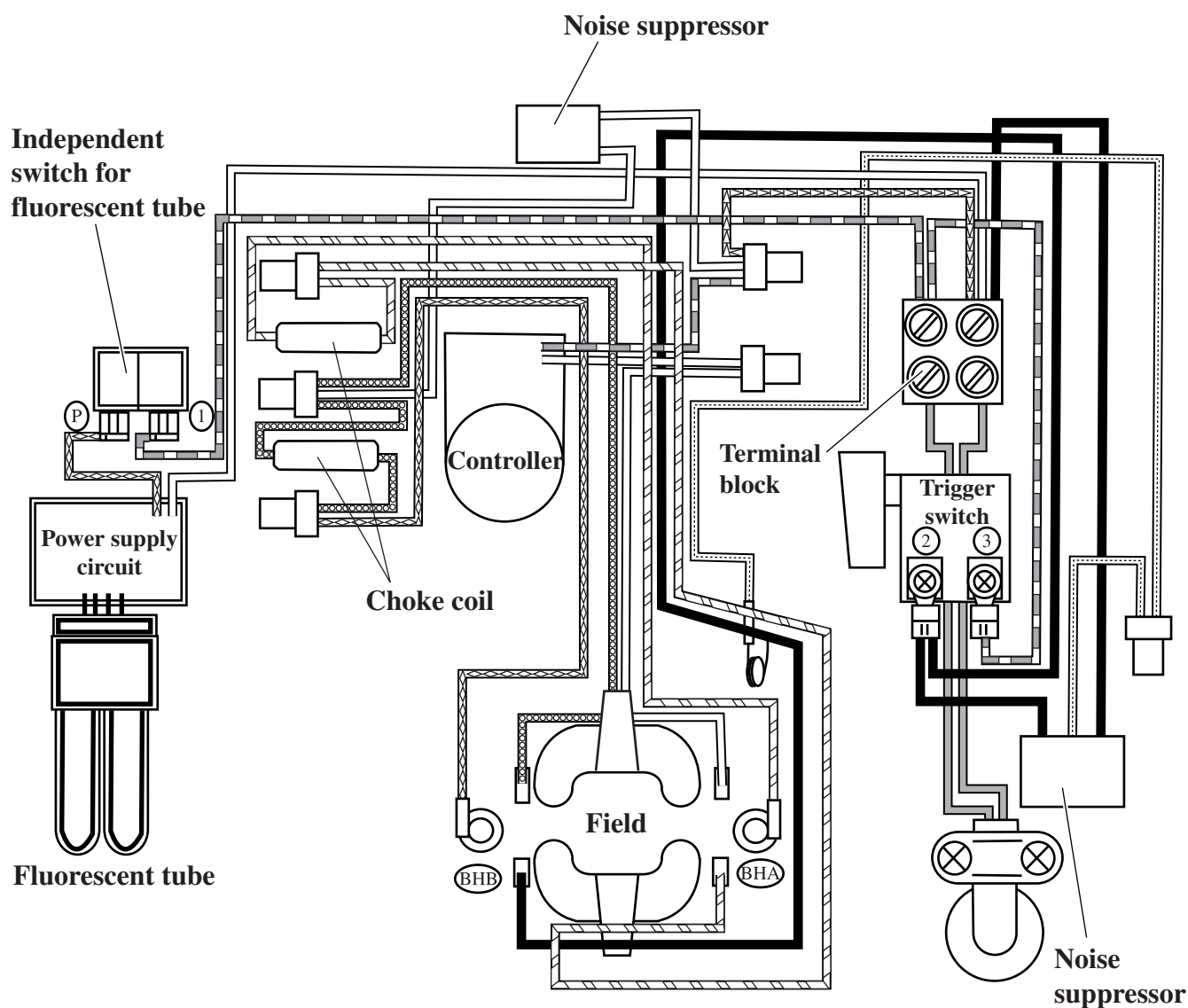
Fig. 12



► **Circuit diagram**

**[1] High Voltage with Noise Suppression Device**

| Color index of lead wires' sheath |  |
|-----------------------------------|--|
| Black                             |  |
| White                             |  |
| Red                               |  |
| Orange                            |  |
| Blue                              |  |
| Purple                            |  |
| Brown                             |  |
| Clear                             |  |

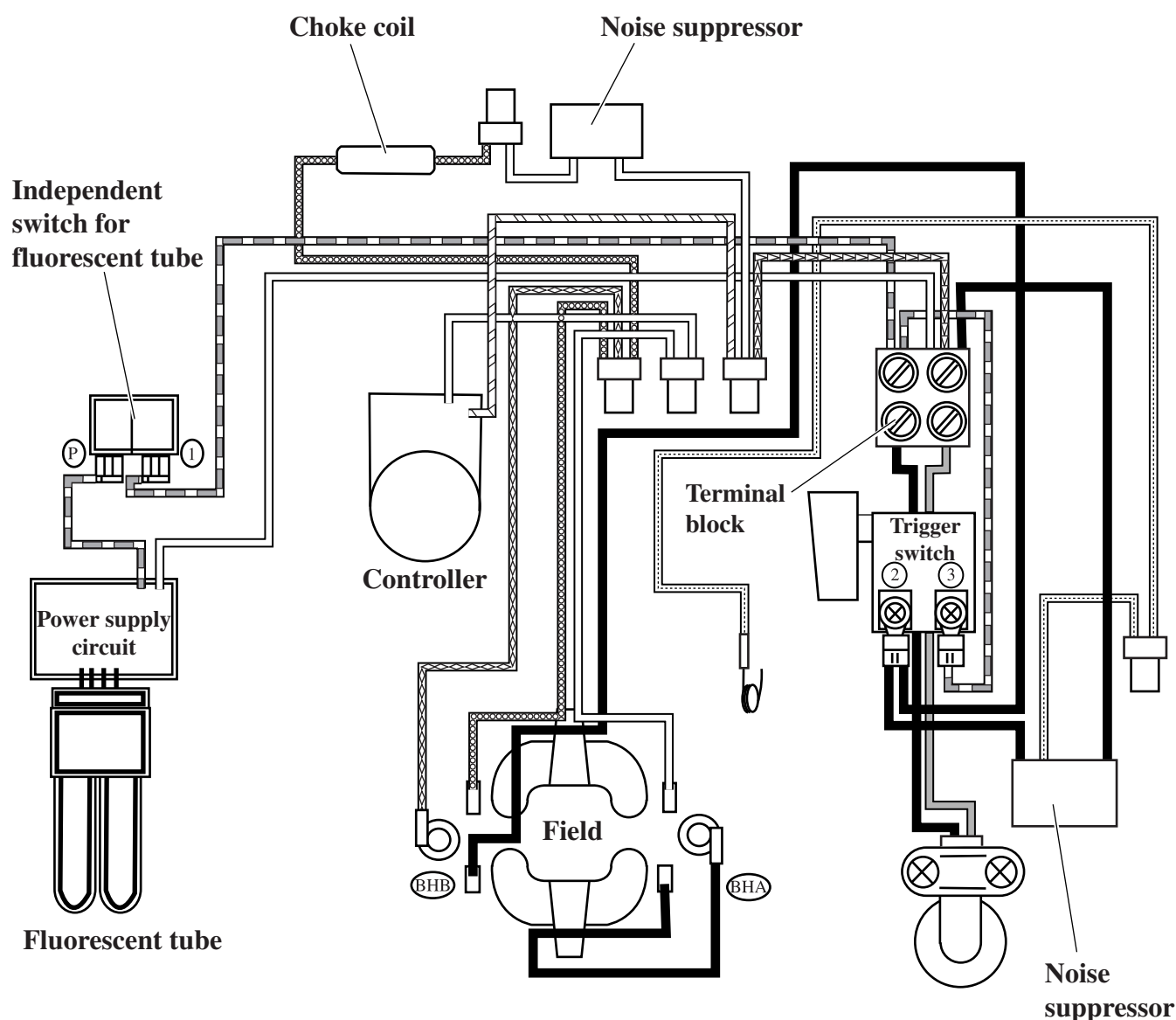


**Note:**  
 BHA= Independent switch installation side  
 BHB= Opposite side to the independent switch

► **Circuit diagram**

**[2] Low Voltage with Noise Suppression Device**




| Color index of lead wires' sheath |  |
|-----------------------------------|--|
| Black                             |  |
| White                             |  |
| Red                               |  |
| Orange                            |  |
| Blue                              |  |
| Purple                            |  |
| Brown                             |  |
| Clear                             |  |

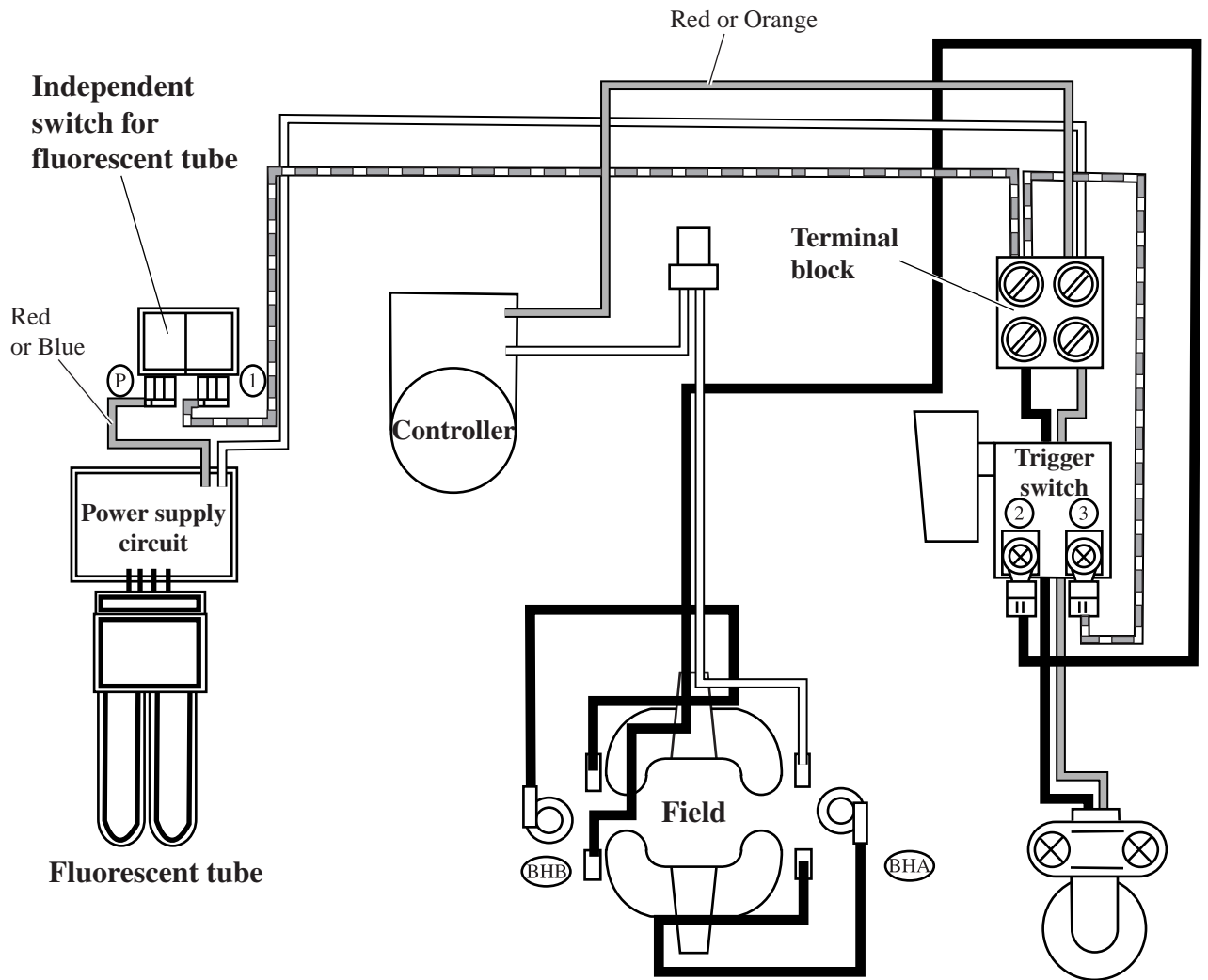


**Note:**  
 BHA= Independent switch installation side  
 BHB= Opposite side to the independent switch

► **Circuit diagram**

**[3] High/ Low Voltage Without Noise Suppression Device**

| Color index of lead wires' sheath |   |
|-----------------------------------|---|
| Black                             |  |
| White                             |  |
| Red                               |  |



**Note:**  
 BHA= Independent switch installation side  
 BHB= Opposite side to the independent switch



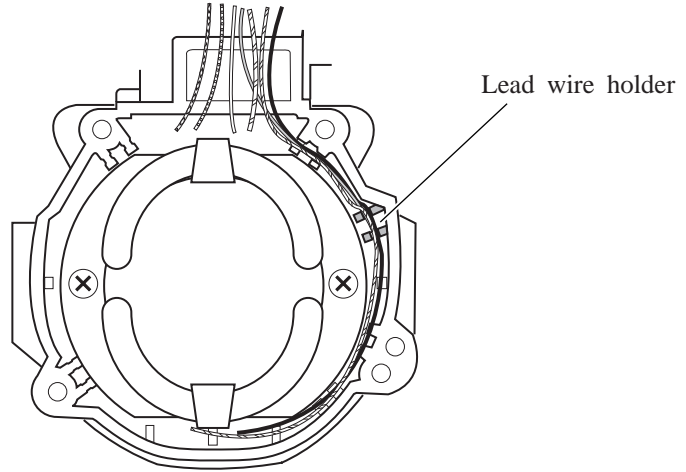
► **Wiring diagram**

**[1] High Voltage with Noise Suppression Device**

**1) On Field**

**Fig. 13**

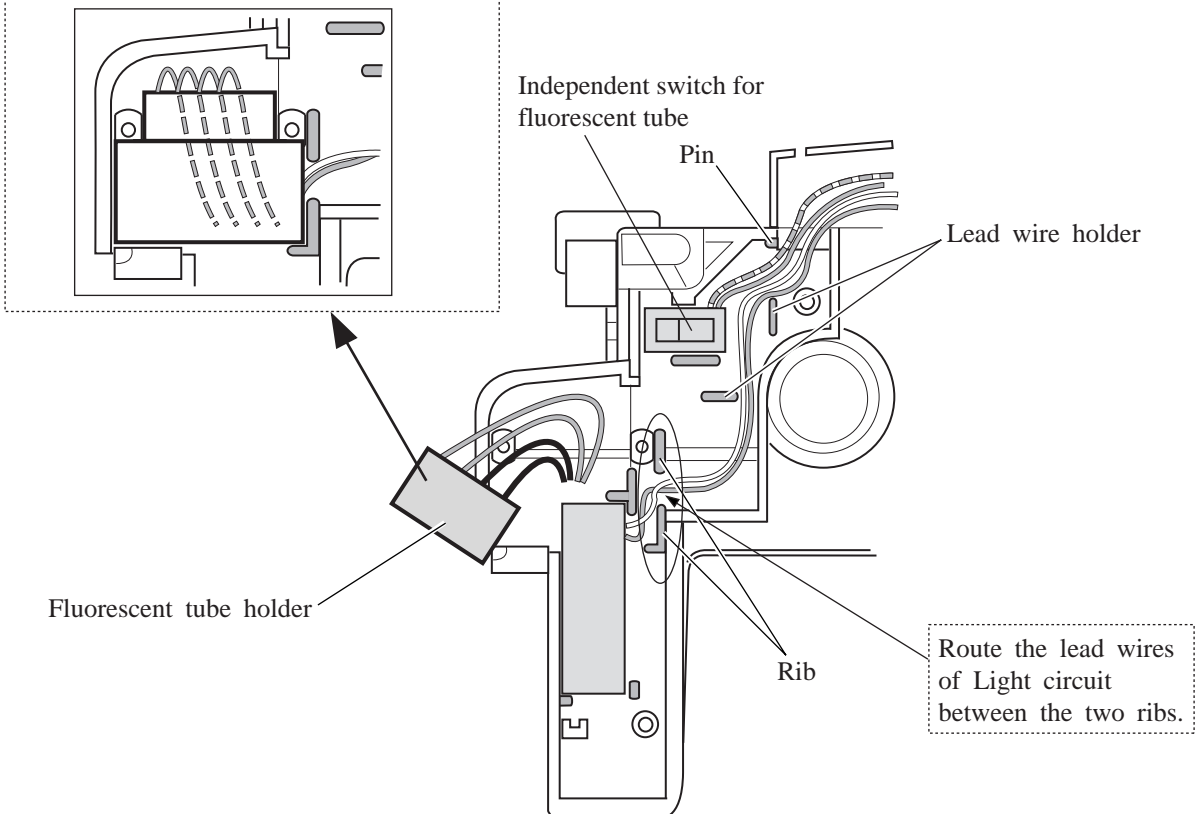
Route the lead wires (orange, black) of Field as illustrated to right. Do not forget to fix them with the lead wire holders.



**2) Around Light Circuit**

**Fig. 14**

As illustrated below, route the lead wires connected with Fluorescent tube holder so that they are placed under the holder.

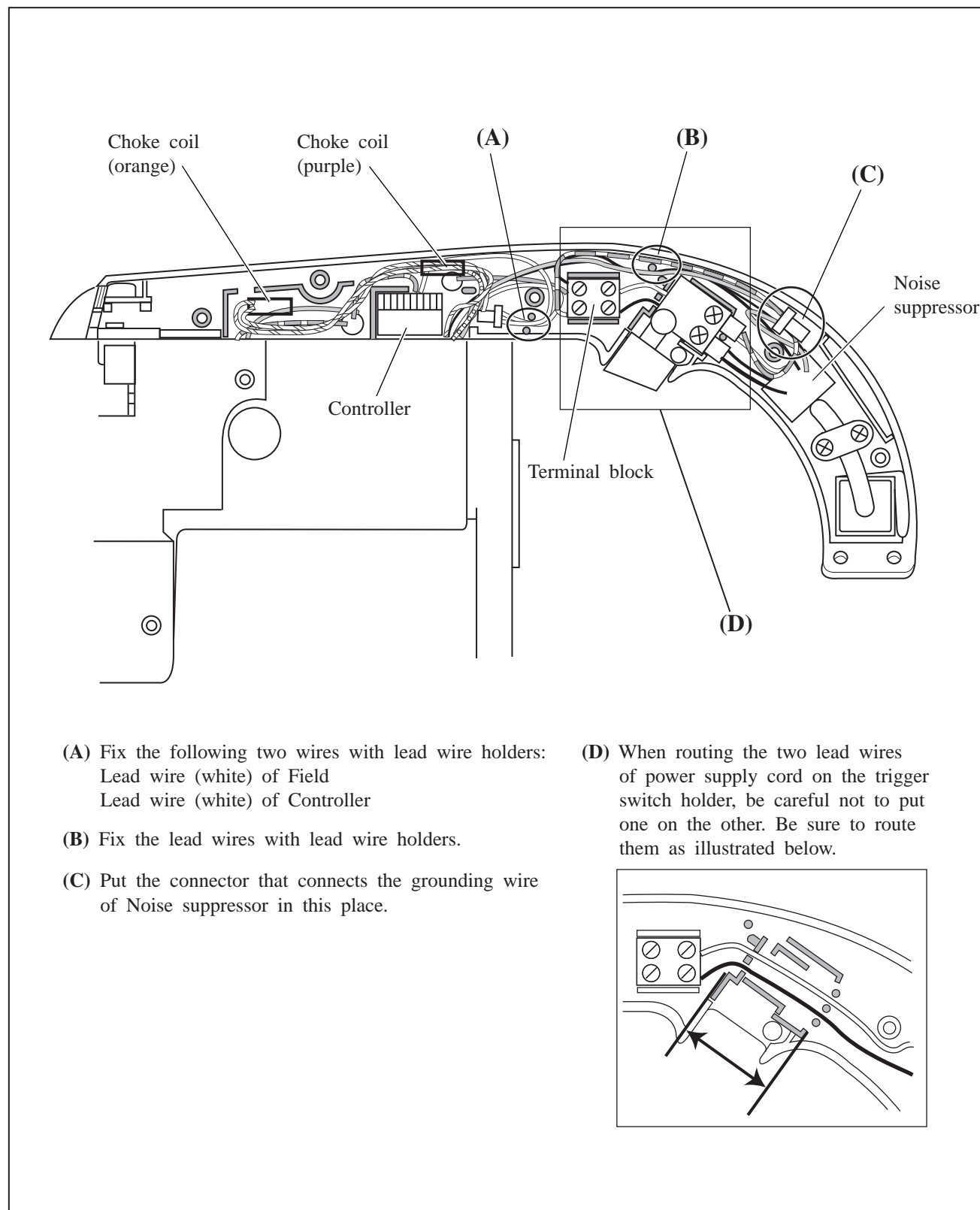


## ► Wiring diagram

### [1] High Voltage with Noise Suppression Device (cont.)

#### 3) In Handle

Fig. 15

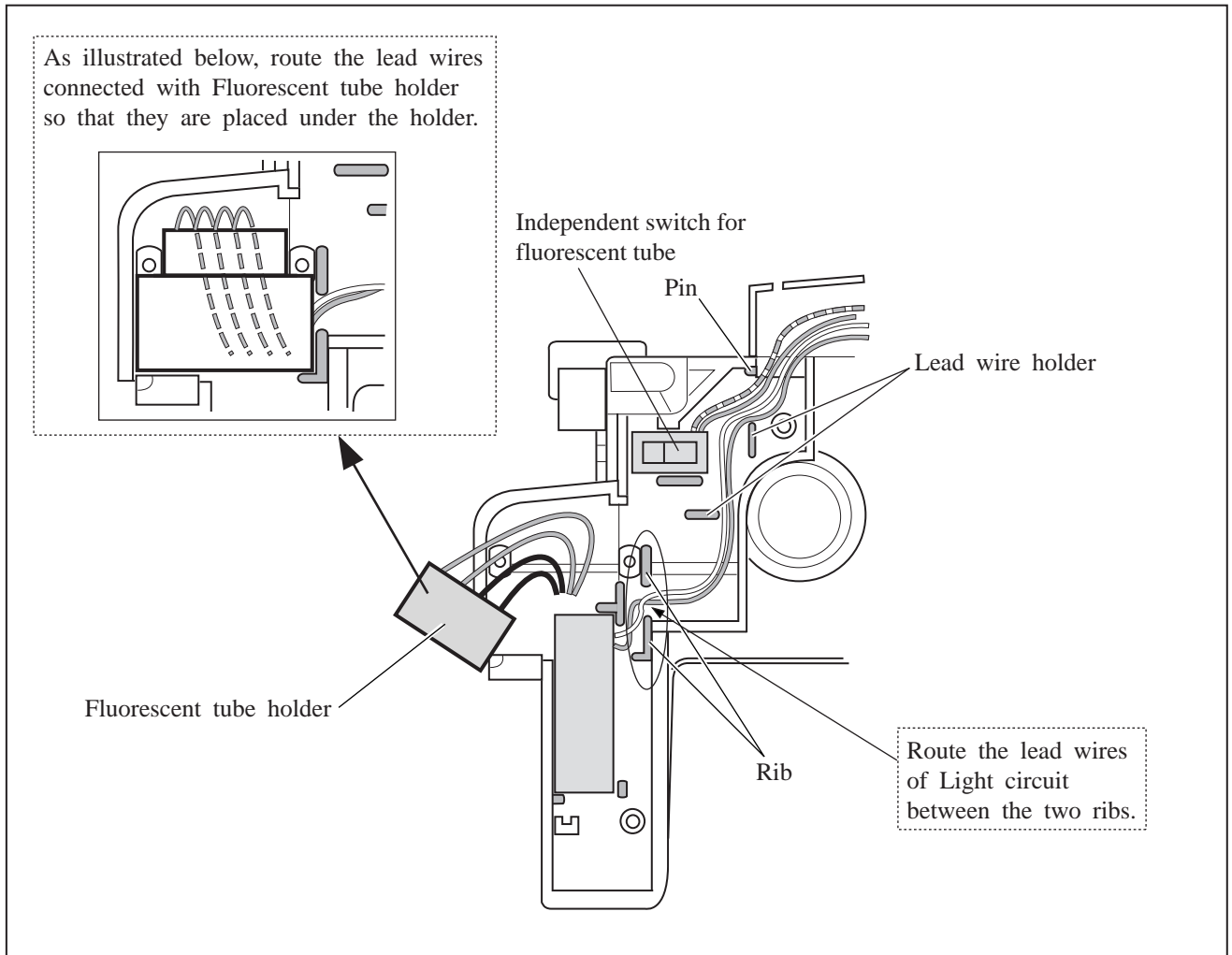


► **Wiring diagram**

**[2] Low Voltage with Noise Suppression Device**

**1) Around Light Circuit**

**Fig. 16**

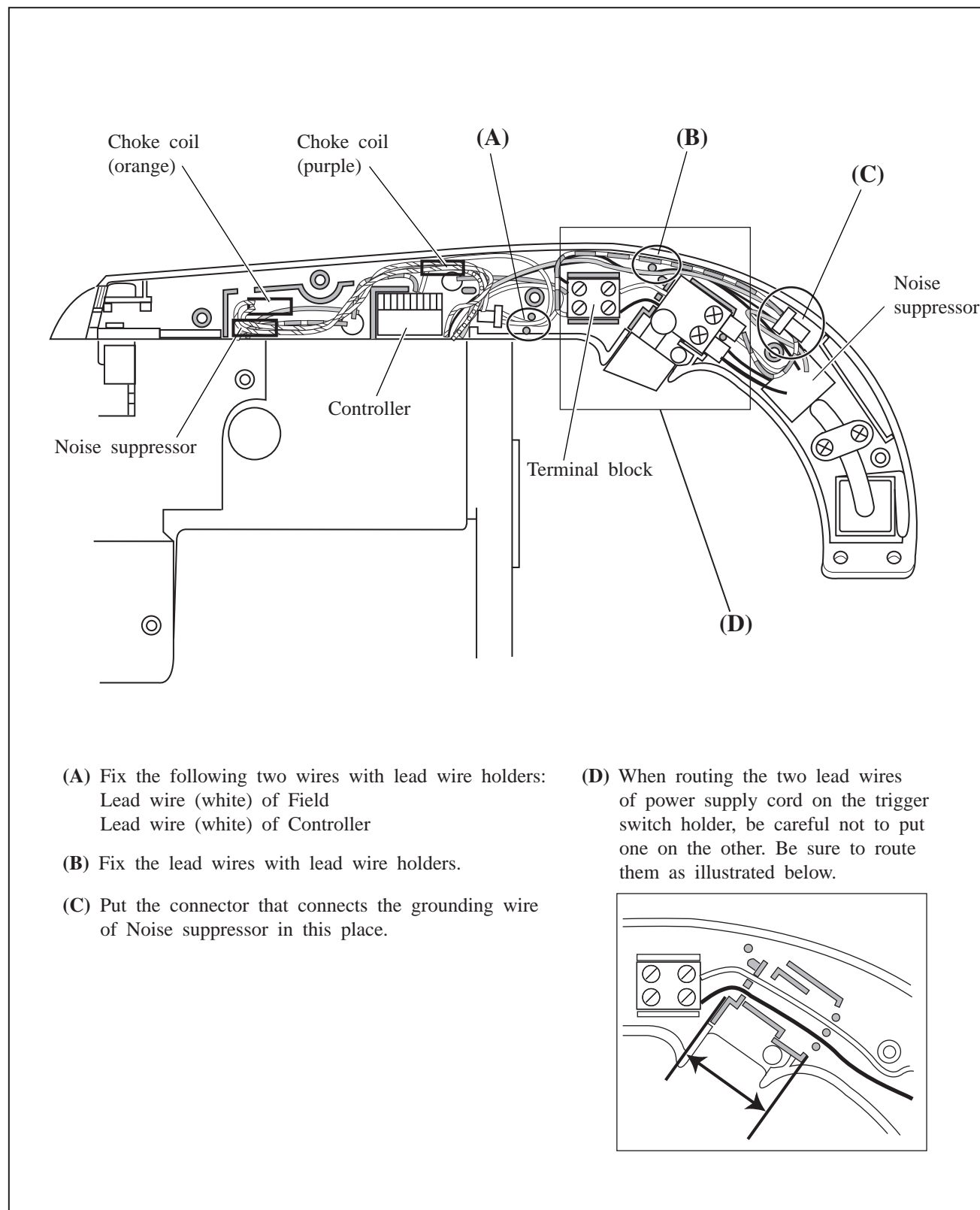


## ► Wiring diagram

### [2] Low Voltage with Noise Suppression Device (cont.)

#### 2) In Handle

Fig. 17

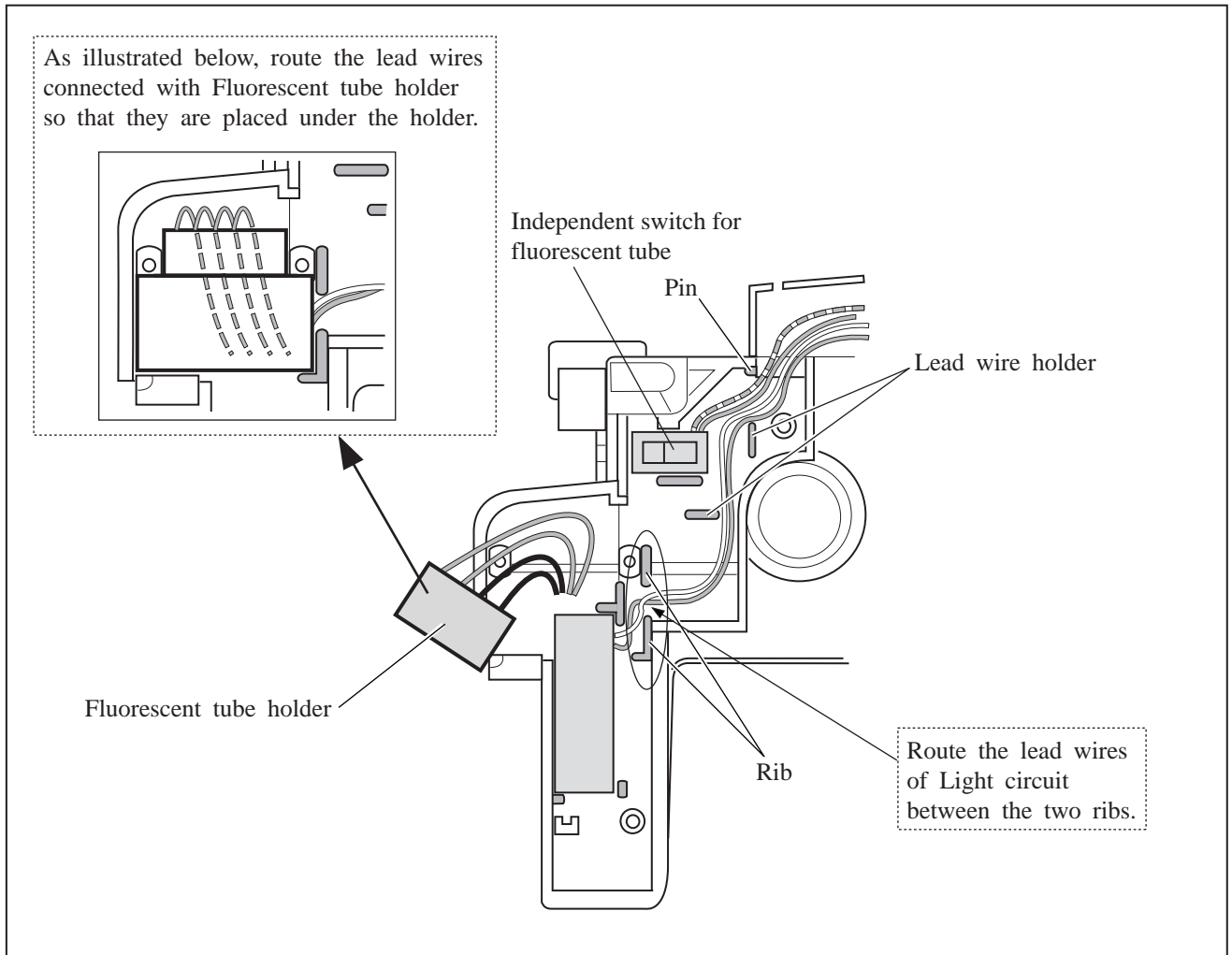


► **Wiring diagram**

**[3] Low/ High Voltage Without Noise Suppression Device**

**1) Around Light Circuit**

**Fig. 18**



## ► Wiring diagram

### [3] Low/ High Voltage Without Noise Suppression Device (cont.)

#### 2) In Handle

Fig. 19

