

CO₂ /MAG /MIG/TIG

Wire Feeding Unit

Wire Feeder

AFF-4001, AFAF-4001
AFTF-4201, AFUF-4201

Instruction Manual
= Safety and Operation = Instruction Manual No.1L10904-E-1
Wire Feeding unit (AFF-4001, AFAF-4001, AFTF-4201, AFUF-4201)

First thoroughly read this manual to operate the unit correctly.

- Installation, maintenance, and repair of this wire feeder should be made by qualified persons or persons who fully understand welding machines for extra safety.
- Operation of this wire feeder should be made by persons who have knowledge and technical skill to understand the contents of this manual well and handle the machine safely for extra safety.
- Regarding safety education, utilize courses and classes held by head /branch offices of the Welding Society /Association and the related societies /associations and qualifying examinations for welding experts /consultant engineers.
- After thoroughly reading this manual first, store it with the warranty in the place where the persons concerned can read at any time. Read it again as occasion demands.
- If incomprehensible, contact our offices. For servicing, contact our local distributor or sales representatives in your country.
- Our addresses and telephone numbers are listed in the back cover of this Instruction Manual.

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Note on Safety

1. Note on Safety

Before operating, thoroughly read this instruction manual, and operate this unit correctly.

Caution note mentioned in this manual is to use the equipment safely and prevent danger and damage from occurring.

This wire feeding unit is designed and manufactured upon due consideration of safety. However, be sure to follow the instructions and cautions described in this manual when using it. Otherwise, there may occur an accident resulting in death or a serious injury.

Mishandling of equipment may cause various levels of accidents and damage. In order to draw attention to mishandling, three levels of safety alert symbols; "DANGER", "WARNING" and "CAUTION" are adopted throughout this manual. See below for the details.



DANGER

Mishandling may cause death or a serious injury to an operator. Also, the level of urgency to alert is high when a danger occurs. Limited situation of great urgency.




WARNING

Mishandling may cause death or a serious injury to an operator.



CAUTION

Mishandling may cause a medium or slight injury to an operator or property damage.

Even if the matters mentioned in  **CAUTION** may occasionally cause a serious injury depending on a condition. Be sure to comply with the notes and instructions.

"Serious injury", "Medium or slight injury" and "Property damage" mentioned above give the meanings as follows.

Serious injury : Injury that leaves sequelae caused by a loss of eyesight, injury, burn (high/low temperature), electric shock, bone fracture, poisoning etc.,
Or, injury that requires hospitalization or long-term treatment as an outpatient.


Medium or slight injury : Damage including injury, burn (high/low temperature), electric shock and others that does not require either hospitalization or long-term treatment.

Property damage : Damage to property and direct/indirect damage to equipment.

Caution Note on Safety



2. Requirements on Safety

- 2.1 Before starting welding operation, thoroughly read and understand the related safety rules and caution note below in addition to the instruction manual for welding power supply.
Be sure to follow the instructions.

 WARNING	To avoid a fatal physical accident, follow the notes below.
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- 1) This wire feeding unit is designed and manufactured upon due consideration of safety, however be sure to follow the notes described in this instruction manual. If operating this unit without following the instructions, a fatal accident such as death or a serious injury may occur.
- 2) For selecting the installation area, handling/storing/piping high pressure gas, storing the welded manufactures and disposal of waste, comply with rules and regulations in your company.
- 3) Keep away from the welding power supply and the welding operation area.
- 4) A person with a pacemaker must not approach the welding power supply turned ON and the welding operation area without getting the permission by his/her doctor. The welding power supply turned ON generates the magnetic field, which adversely affects on a pacemaker.
- 5) To ensure safety, only the qualified personnel or those who fully understand this wire feeding unit must perform the maintenance and repair work of the unit. (1)
- 6) To ensure safety, only the personnel who fully understand this instruction manual and have sufficient knowledge and skill must operate this wire feeding unit. (1)
- 7) Do not use this wire feeding unit for other than welding.


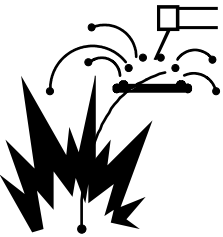
- 2.2 To avoid the electric shock hazard, follow the note below.

 WARNING	Do not touch the live electric parts.
	Touching live electric parts may cause a fatal shock or a severe burn.

- 1) Only the qualified personnel must perform the grounding work for the welding power supply, workpiece and jigs electrically connected with workpiece according to the regulations (Technical Standard of Electrical Facilities).
- 2) Do not touch live electric parts.
- 3) Be sure to always wear a dry pair of insulating gloves and fatigue uniform. Never wear torn or wet gloves and fatigue uniform.
- 4) Before performing installation, inspection, maintenance and other works, be sure to turn off all the input-side power. Even if the input-side power is OFF, a capacitor and other components may be still electrically charged. To start operating, therefore, wait for a few minutes after the power was turned OFF until no charged voltage is detected.
- 5) Do not use connection cables with insufficient capacity, with damage or with naked conductors.
- 6) Be sure to secure the cable connection and insulate them to prevent personnel from easily touching those parts.
- 7) Do not use the welding power supply without its case or cover.
- 8) Before starting operation, secure a firm footing. Also, do not perform operation at unstable footing or at higher place (2m or higher).
- 9) Carry out maintenance and inspection periodically, and repair the damaged parts before using the equipment.
- 10) Be sure to turn off the input-side power of equipment if not in use.



Caution Notes on Safety (continued)

2.3 To avoid a fire and explosion caused by the heated workpiece right after welding, spatter, slag or arc spark, and to avoid injury, follow the notes below.

 WARNING	<p>Do not perform welding near inflammables or combustibles. Watch out for a fire and know where a fire extinguisher is placed. Never perform welding on flammable materials such as wood or cloth. Do not perform welding on workpiece that makes it an airproof container.</p>
	<p>Heated workpiece right after welding, spatter, slag and arc spark cause a fire. Improper cable connection or improper contact in the workpiece-side current circuit such as steel frames may cause an exothermic fire. An explosion may occur if generating arc on the container for flammables or combustibles such as gasoline. If welding on an airproof tank or pipe, they may burst. Heated workpiece right after welding, spatter, slag and arc spark cause a serious burn.</p>

- 1) Do not perform welding near inflammables or combustibles.
- 2) To avoid getting a burn by the heated workpiece right after welding, spatter, slag and arc spark, an operator must wear a pair of flameproof leather gloves, a long-sleeve fatigue uniform, a leg cover, a flameproof leather apron and other protective clothes.
- 3) Always watch out for a fire and other danger.
- 4) Place a fire extinguisher near the welding work area. Also, each operator must fully know how to use.
- 5) Do not bring the heated workpiece or the jigs into contact with flammable materials such as wood or cloth. Otherwise, not only a fire may occur but you may also get a burn.
- 6) Do not bring the heated workpiece right after welding into contact with combustibles.
- 7) Keep inflammables and combustibles away from the welding work area to avoid spatters.
- 8) Never use inflammable gas near the welding work area.
- 9) Firmly secure the cable connection, and insulate them.
- 10) Connect the workpiece-side cable as nearer to the welding spot as possible.
- 11) Do not perform welding on gas-filled pipes, airproof tanks and pipes etc. because they may burst.
- 12) Do not perform welding on flammable materials such as wood or cloth.
- 13) To perform welding on ceiling, floor, wall etc., be sure to carefully check behind and clear away the combustibles and inflammables.

2.4 If you carelessly touch the rotating part, you may get entangled and injured. Be sure to follow the notes below.

 WARNING	<p>Do not bring your hands, fingers, hair, clothes etc. close to the rotating part.</p>
	<p>Keep your hands, fingers, hair, clothes etc. away from the rotating part of wire feeding unit such as a feeding roll. You may get entangled and injured. Be sure to turn off the welding power supply and assist feeder or input the emergency stop signal of the robot (Teach pendant, Operation box, External controller etc.) before connecting the torch or replacing the wire and other consumable parts such as the feeding roll.</p>

- 1) When using a welding power supply, be sure that its case and cover are fixed on.
- 2) When required to unfix the cover of welding power supply for maintenance, inspection and repair work, only the personnel who has taken the specified course and fully understands the welding power supply must perform the operation. During the operation, keep other people away from the work area by enclosing it.
- 3) Keep your hands, fingers, hair, clothes etc. away from the feeding roll on rotating.

Caution Notes on Safety (continued)

Reference

< PRINCIPAL SAFETY STANDARDS >

Arc welding equipment ? Installation and use, Technical Specification IEC 62081, from International Electrotechnical Commission

Safety in Welding and Cutting, ANSI Standard Z49.1, from American Welding Society.

Safety and Health Standards, OSHA 29 CFR 1910, from Superintendent of Documents, U.S. Government Printing Office.

Recommended Practices for Plasma Arc Cutting, American Welding Society Standard AWS C5.2, from American Welding Society.

Recommended Safe Practices for the Preparation for Welding and Cutting of Containers That Have Held Hazardous Substances, American Welding Society Standard AWS F4.1, from American Welding Society.

National Electrical Code, NFPA Standard 70, from National Fire Protection Association.

Safe Handling of Compressed Gases in Cylinders, CGA Pamphlet P-1, from Compressed Gas Association.

Code for Safety in Welding and Cutting, CSA Standard W117.2, from Canadian Standards Association, Standards Sales.

Safe Practices For Occupation And Educational Eye And Face Protection, ANSI Standard Z87.1, from American National Standards Institute.





Cutting And Welding Processes, NFPA Standard 51B, from National Fire Protection Association.

Caution Notes on Safety (continued)

3. Transport and Installation


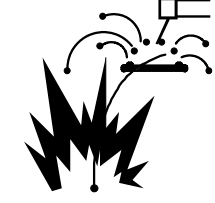

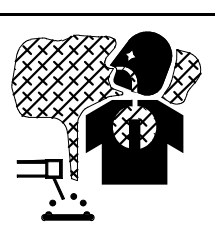
3.1 Transportation

To avoid an accident and damage to the wire feeding unit in transportation, observe the followings.

 WARNING	Do not touch live electrical parts.
	Before transporting and transferring the wire feeding unit, be sure to turn off the input power by switching in the switch box.
 WARNING	For transporting and hanging of this unit, follow the specified procedures. To fix the unit and other peripheral equipment, use the prescribed tightening torque.
	Falling objects harm personnel and equipment. Use the prescribed tightening torque when fixing the unit. Otherwise, a fatal physical injury may be caused because of turnover of the unit, flying or falling of the tool and some other reasons. For transporting the wire feeding unit by craning to high, be sure to unset the wire from the unit.

3.2 Installation

For installing the wire feeding unit, observe the following notes to protect operator's health from a fire, an explosion, fumes and gas caused or produced by welding performance.

 WARNING	Do not place the unit near inflammables. Watch out for a fire and know where a fire extinguisher is placed.
	Do not install the welding power supply near inflammables or flammable gas. Keep inflammables away from the welding area so that they will not be exposed to spatter. If not possible, cover them with the fireproof cover.
 WARNING	Do not breathe in fumes. Ventilate the area enough and wear a protection face guard and other protective equipment as needed.
	To avoid gas poisoning or asphyxia, use a respirator or adopt a ventilation system prescribed by the laws in your country. When performing welding in a tight space, be sure to ventilate the area enough or wear a respirator, and operate in control of the trained observer.

< Installation location >

Install the wire feeding unit in a place meeting the following conditions.

- Indoor place in which no direct sunlight, wind and weather is exposed, and with little moisture and dust
- The ambient temperature is within the range of -10 ~ 40 .
- No wind is blown to the arc part.

(Wind may cause a welding failure. Avoid a wind with a windshield or other items.)

Caution Notes on Safety (continued)

4. Connection

**WARNING**

To avoid electric shock, be sure to turn off all the input powers by switching in the switch box before performing the connection work.

**CAUTION**

Secure the cable connection firmly.

5. Directions

**DANGER**


Do not alter or remodel our products.
You may get injured or have your equipment damaged because of fire, failure or malfunction caused by altering or remodeling the product.
The warranty does not cover any altered or remodeled products.

Thank you for purchasing our DAIHEN CO₂/MAG/MIG/TIG filler wire feeding unit AFF-4001/AFAF-4001/AFTF-4201/AFUF-4201.

Please read this instruction manual thoroughly for correct use before using the unit.

[Note]

1. The contents in this instruction manual are subject to change without notice.
2. We have carefully created this instruction manual to avoid as many errors. Even if any errors are found in the contents, we are not responsible for any damage caused by them.
3. No part of this instruction manual shall be reproduced or stored in any form without the express written permission.

 DANGER	<ul style="list-style-type: none">● Do not alter or remodel our products.● You may get injured or have your equipment damaged because of fire, failure or malfunction caused by altering or remodeling the product.● The warranty does not cover any altered or remodeled products.
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1. Specification

1.1 AFF-4001

AFF-4001 is the robot-dedicated wire feeding unit used for CO₂/MAG welding. The specification is as shown in Table 1.1. For the external diagram, refer to Fig. 1.1.

Table 1.1 Specification of AFF-4001

Model	AFF-4001
Welding process	CO ₂ /MAG welding
Rolling system	4-roll system
Applicable wire diameter	(ϕ 0.8), ϕ 0.9, ϕ 1.0, ϕ 1.2, (ϕ 1.4), (ϕ 1.6)
Wire feed rate	1.5 ~ 22m/min.
Applicable wire spool	Shaft dia. Φ 50 * Outer dia. Φ 300 * Width Φ 103
Allowable wire weight	Max. 25kg
External dimension (W*D*H)	215(W) × 560(D) × 350(H)
Total weight	13kg (including cables)
Applicable welding power supply	DM series (DP series with use of steel)

Note)

The standard of this wire feeding unit builds in the components that support steel wires; ϕ 0.9, ϕ 1.0, and ϕ 1.2. The applicable wire diameter indicated in () is an option.

1.2 AFAF-4001

AFAF-4001 is the robot-dedicated wire feeding unit used for aluminum MIG welding. The specification is as shown in Table 1.2. For the external diagram, refer to Fig. 1.2.

Table 1.2 Specification of AFAF-4001

Model	AFAF-4001
Welding process	MIG welding
Rolling system	4-roll system
Applicable wire diameter	Aluminum wire : ϕ 1.0, ϕ 1.2, (ϕ 1.6)
Wire feed rate	1.5 ~ 22m/min.
Applicable wire spool	Shaft dia. ϕ 50 * Outer dia. ϕ 300 * Width ϕ 103
Allowable wire weight	Max. 5kg
External dimension (W*D*H)	261(W) \times 743(D) \times 406(H)
Total weight	15kg (including cables)
Applicable welding power supply	DP series (DM series with use of aluminum)

Note)

The standard of this wire feeding unit builds in the components that support aluminum wires; both ϕ 1.0 and ϕ 1.2. The applicable wire diameter indicated in () is an option.

1.3 AFTF-4201

AFTF-4201 is the robot-dedicated wire feeding unit used for mild steel/ stainless TIG filler welding. The specification is as shown in Table 1.3. For the external diagram, refer to Fig. 1.3.

Table 1.3 Specification of AFTF-4201

Model	AFTF-4201
Welding process	TIG filler (mild steel/ SUS) welding
Rolling system	4-roll system
Applicable wire diameter	Mild steel : (ϕ 0.8), ϕ 0.9, ϕ 1.0, ϕ 1.2, (ϕ 1.6) Stainless : (ϕ 0.8), ϕ 1.2, (ϕ 1.6)
Wire feed rate	0.25 ~ 5m/min.
Applicable wire spool	Shaft dia. ϕ 50 * Outer dia. ϕ 300 * Width ϕ 103
Allowable wire weight	Max. 25kg
External dimension (W*D*H)	215(W) \times 560(D) \times 350(H)
Total weight	13kg (including cables)
Applicable welding power supply	DA series

Note)

The standard of this wire feeding unit builds in the components that support steel wires; ϕ 0.9, ϕ 1.0, and ϕ 1.2. The applicable wire diameter indicated in () is an option.

1.4 AFUF-4201

AFUF-4201 is the robot-dedicated wire feeding unit used for aluminum TIG filler welding. The specification is as shown in Table 1.4. For the external diagram, refer to Fig. 1.4.

Table 1.4 Specification of AFUF-4201

Model	AFUF-4201
Welding process	TIG filler (Aluminum) welding
Rolling system	4-roll system
Applicable wire diameter	Aluminum wire : ϕ 1.0, ϕ 1.2, (ϕ 1.6)
Wire feed rate	0.25 ~ 5m/min.
Applicable wire spool	Shaft dia. ϕ 50 * Outer dia. ϕ 300 * Width ϕ 103
Allowable wire weight	Max. 5kg
External dimension (W*D*H)	261(W) \times 743(D) \times 406(H)
Total weight	15kg (including cables)
Applicable welding power supply	DA series

Note)

The standard of this wire feeding unit builds in the components that support aluminum wires; both ϕ 1.0 and ϕ 1.2. The applicable wire diameter indicated in () is an option.

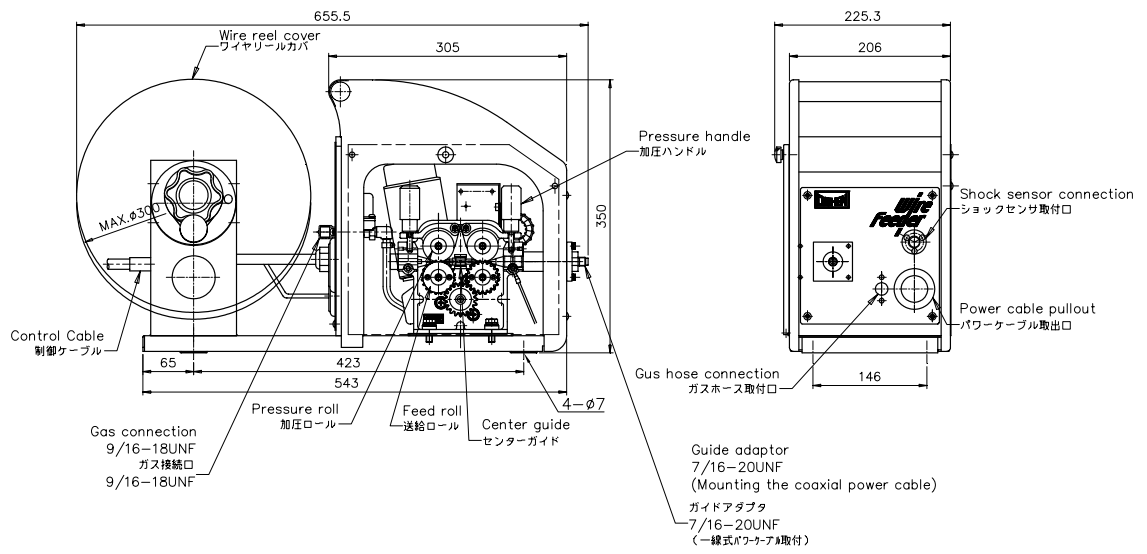


Fig. 1.1 Wire feeding unit AFF-4001 (Unit: mm)

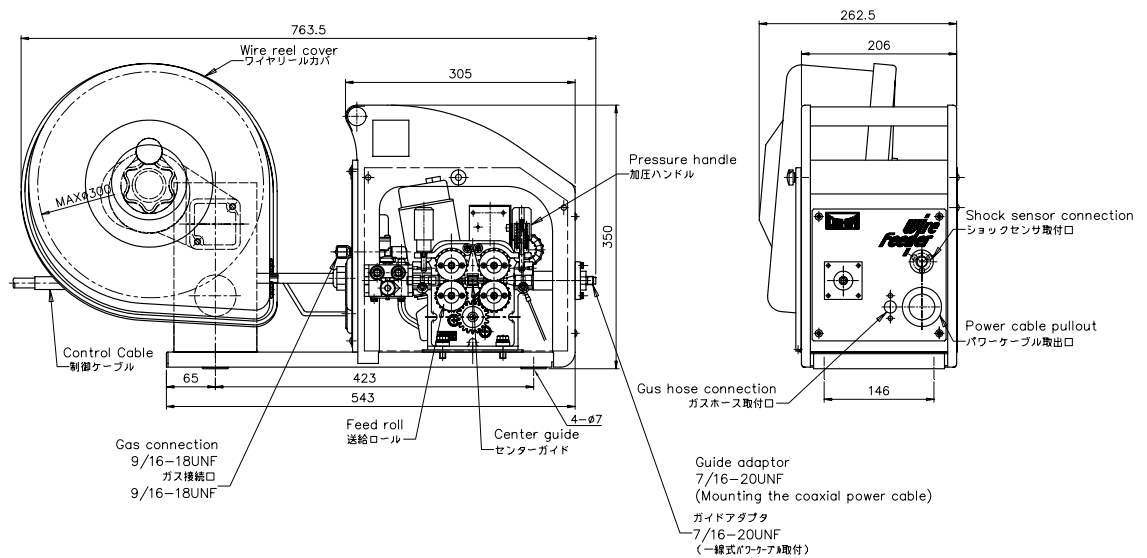


Fig. 1.2 Wire feeding unit AFAF-4001 (Unit: mm)

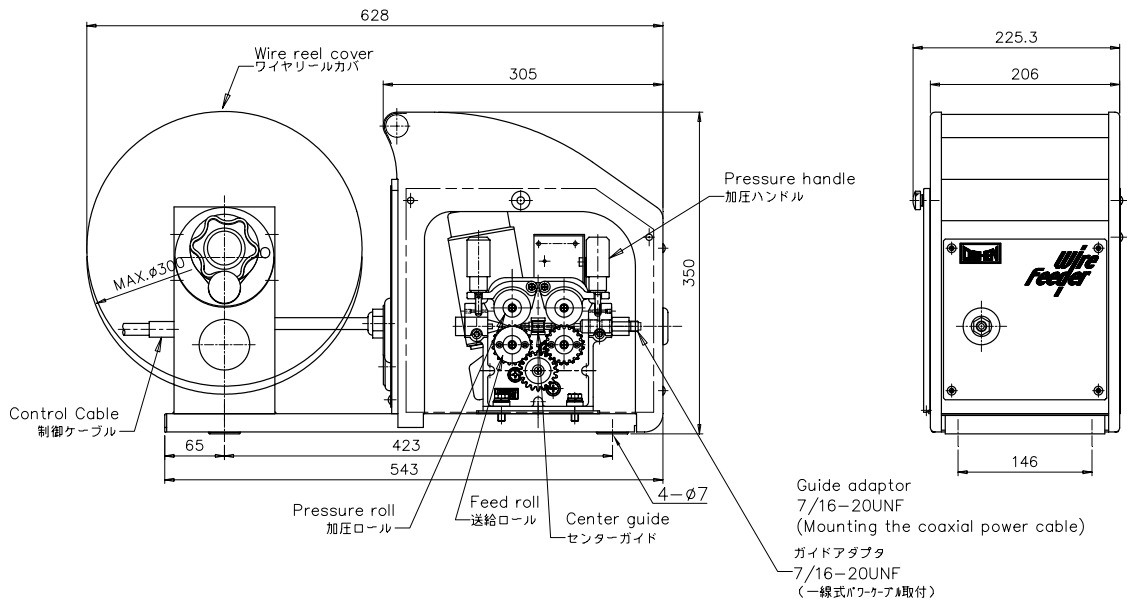


Fig. 1.3 Wire feeding unit AFTF-4201 (Unit: mm)

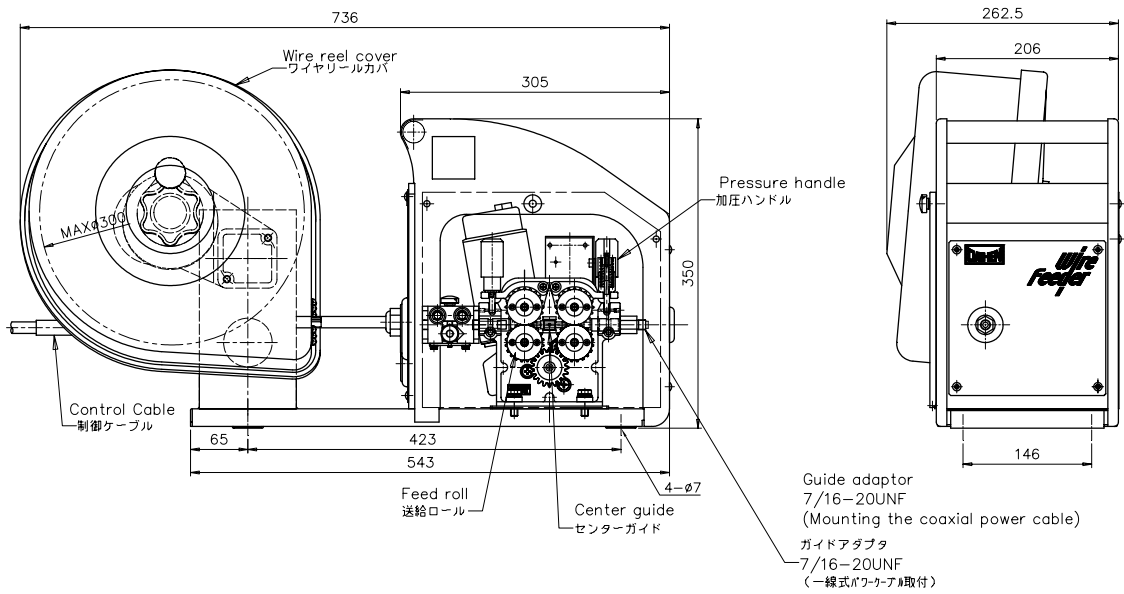


Fig. 1.4 Wire feeding unit AFUF-4201 (Unit: mm)

2. Connection between Manipulator (*Almega AX-MS / AX-MH / A II-NH*) and Welding Power Supply

2.1 Procedures for Connection

After installing the workpiece, connect each device by the following procedures in reference to Fig.2.1 and Fig.2.2.

【For DM/DP-series welding power supply】

- ① Connect the workpiece to the output terminal “Workpiece (-)” of welding power supply using the workpiece cable.
- ② Connect one side of the coaxial power cable (including the shock sensor cable) to the front panel of the wire feeding unit, and the other side to the welding torch. About the front panel, see the external diagram shown in the previous section. At this time, replace the guide adaptor attached to the coaxial power cable in reference to Fig.2.3.
- ③ Connect the coaxial power cable to the output terminal “Torch (+)” of the welding power supply using the torch-side cable.
- ④ Plug in the control cable (10P) of wire feeding unit to the “Feeding unit” socket of welding power supply.
- ⑤ Joint the gas hose to the gas connection port at the rear of the wire feeding unit.
- ⑥ Joint the shock sensor cable attached to the wire feeding unit to the connector at the rear of the manipulator.

【For DA-series welding power supply】

- ① Connect the workpiece to the output terminal “Workpiece (+)” of the welding power supply using the workpiece cable.
- ② Joint the conduit to the front of the wire feeding unit. At this time, replace the guide adaptor attached to the conduit in reference to Fig.2.3.
- ③ Joint the power cable hose to the output terminal “Torch (-)”, gas connection port, and cooling water port of the welding power supply to connect it with the TIG torch.
- ④ Connect the control cable (10P) of the welding power supply to the TIG filler wire controller (HC-71D), and the gas hose to the welding power supply.
- ⑤ Make a direct connection between the AX(II) robot controller and TIG torch.

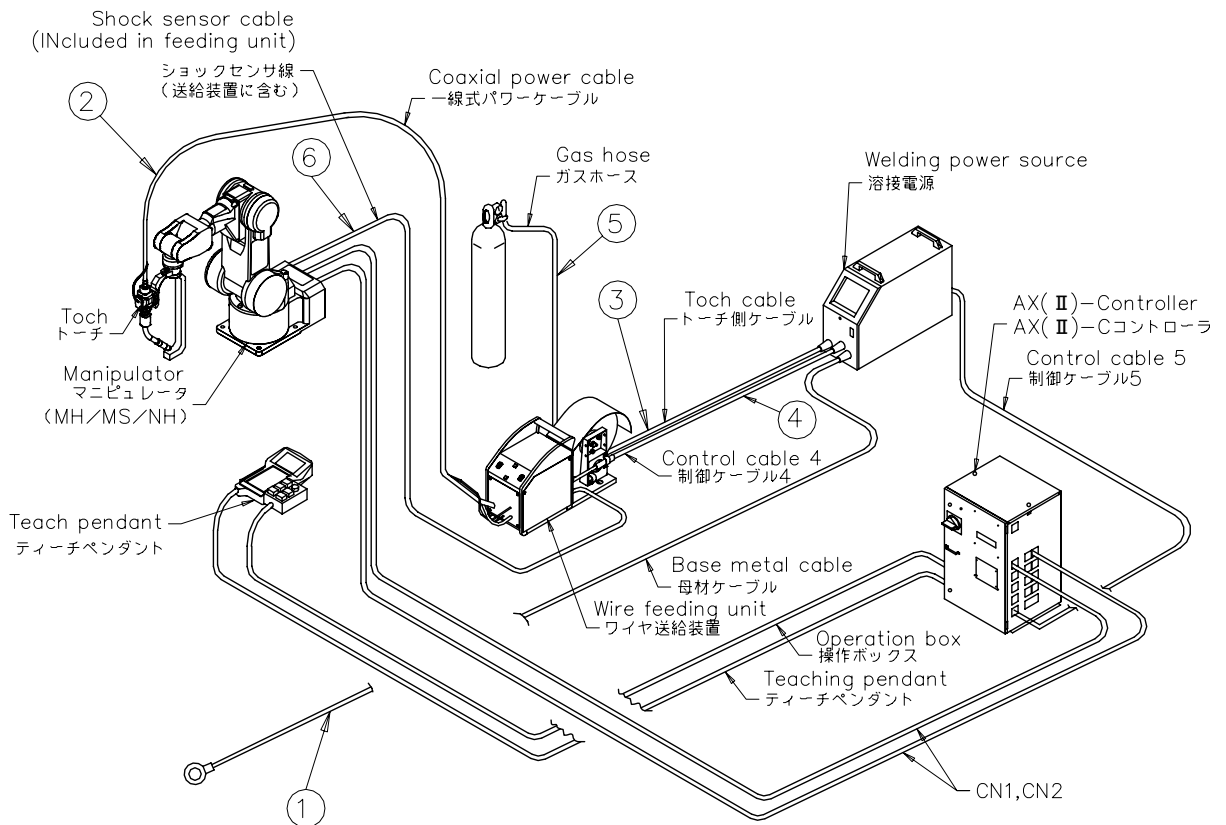


Fig. 2.1 Connection between the manipulator and welding power supply (for DM/DP series)

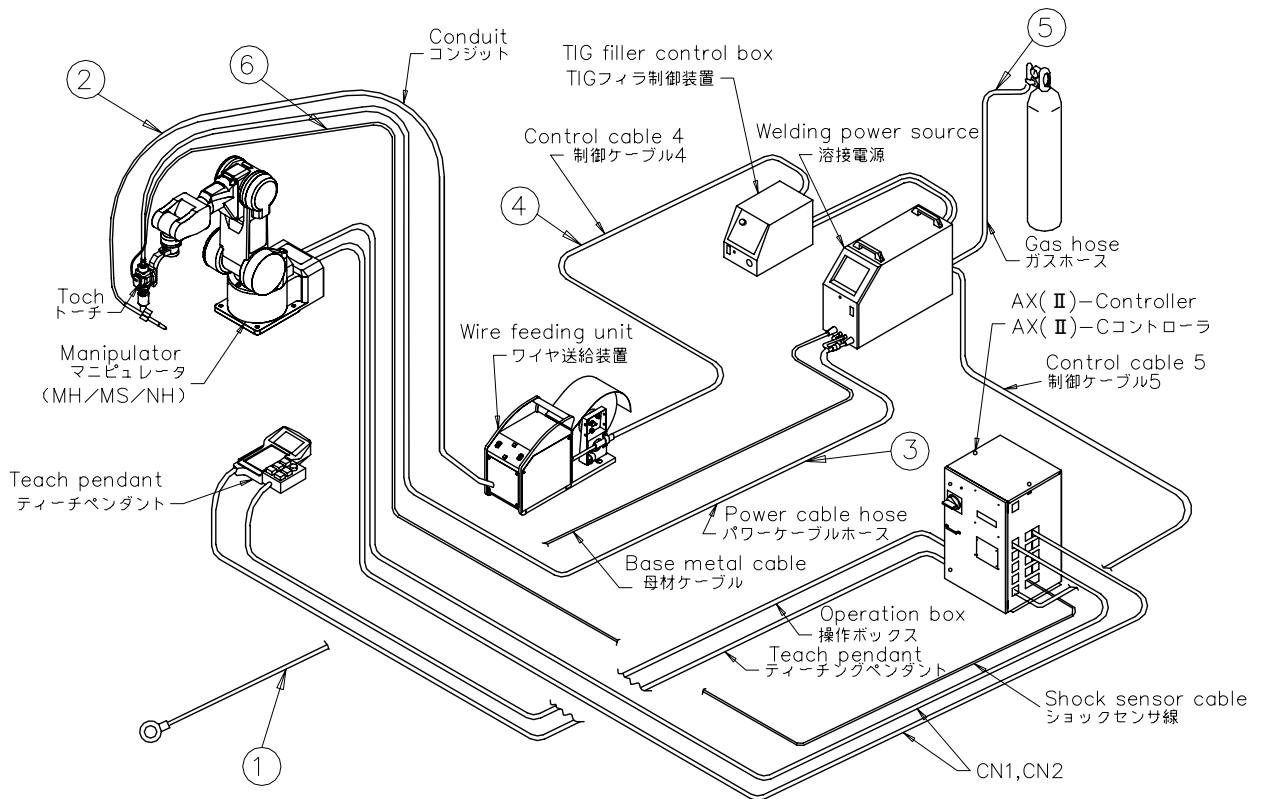


Fig. 2.2 Connection between the manipulator and welding power supply (for DA series)

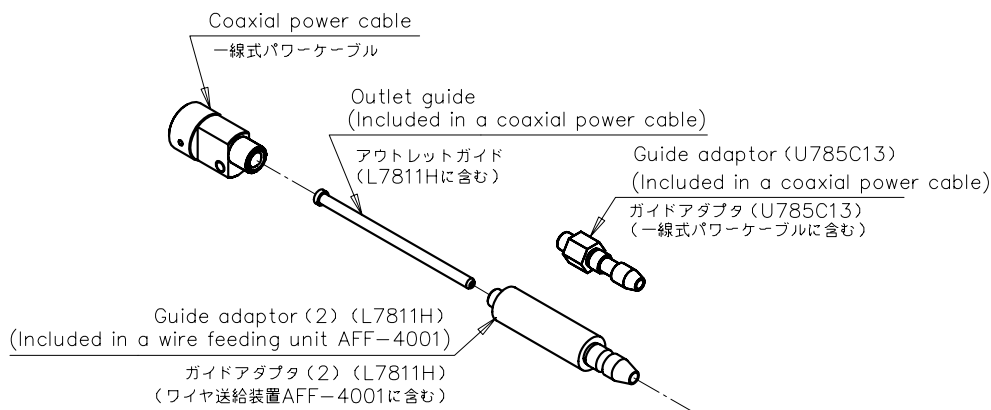




Fig. 2.3 Replacement of the guide adaptor

3. Preparation for Welding

 WARNING	<ul style="list-style-type: none"> ● If you carelessly touch the rotating part, you may get entangled and injured. Be sure to follow the note below.
	<ul style="list-style-type: none"> ● Keep your hands, fingers, hair, clothes etc. away from a rotating part such as the feeding roll of wire feeding unit or assist feeder. Otherwise, you may get entangled and injured. ● Do not use the wire feeding unit and assist feeder with their case or cover opened. ● When required to unfix the cover of welding power supply for maintenance, inspection, or repair work, only the personnel who has taken the specified course and fully understands the welding power supply must perform the operation. Also, during the operation, keep other people away from the work area by enclosing it. ● Be sure to turn off the welding power supply and assist feeder or input the emergency stop signal of the robot (Teach pendant, Operation box, External controller etc.) before connecting the torch or replacing the wire and other consumable parts such as the feeding roll.

3.1 Mounting Wire Reel

Mount the wire reel, referring to Fig. 3.1 below.

- ① Loosen the holding screw for the cap knob.
- ② Take off the cap knob from the wire reel shaft.
- ③ Mount wires on the wire reel shaft.

Note) Take enough care about the positions of the detent hole of wire reel and detent pin of wire reel shaft.

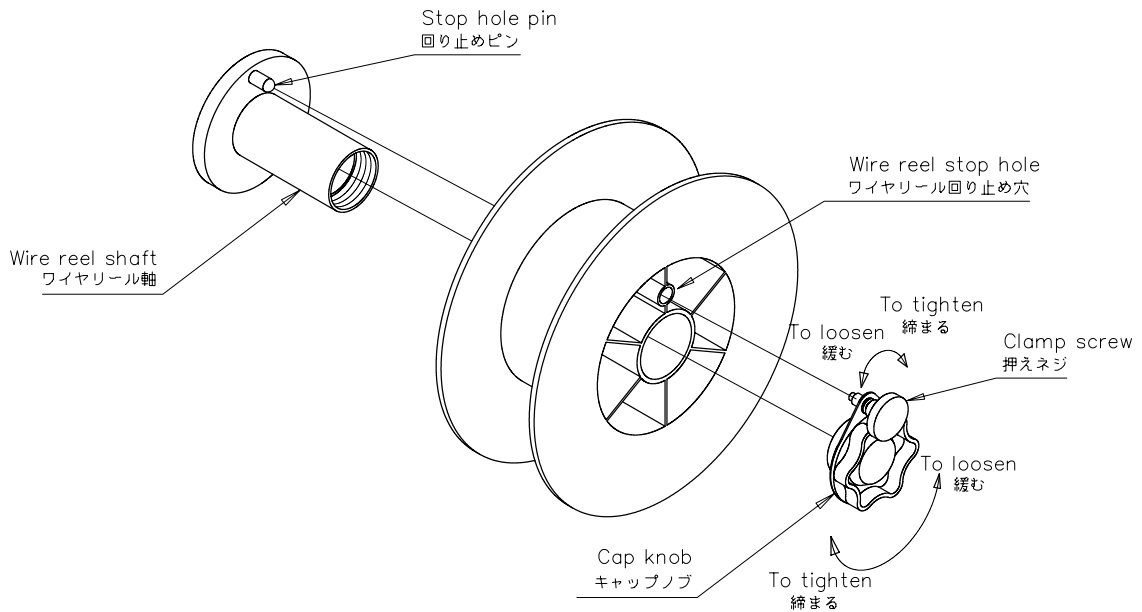


Fig. 3.1 Mounting the wire reel

- ④ Firmly tighten the cap knob.
- ⑤ To prevent the cap knob from falling off, align the holding screw to the position of detent hole of the wire reel as shown on the above diagram, and firmly tighten it.

3.2 Pressure Release Operation

To let the wire into the wire feeding unit or replace the feeding roll, follow the procedures below in reference to Fig.3.2.

- ① Push down on the pressure handle short, and lift up the pressure holder.
- ② Pass through a wire into the pilot (or straightener) ~ center guide ~ coaxial power cable (conduit)-side adaptor in this order.
- ③ When replacing the feeding roll, refer to the following section.
- ④ Restore the pressure holder and pressure handle.

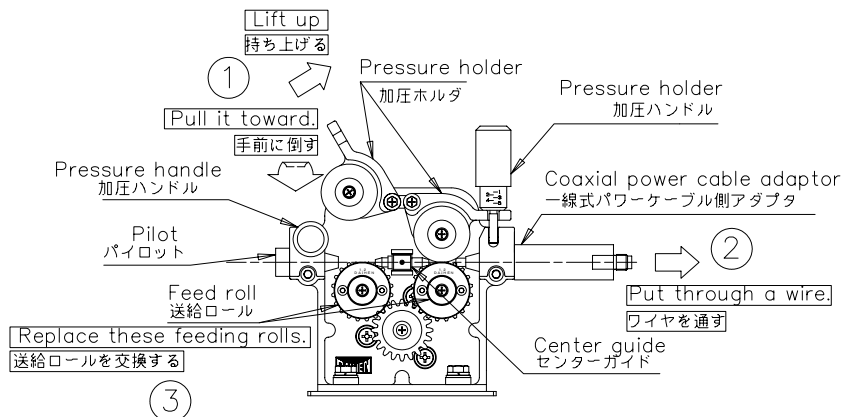


Fig. 3.2 Pressure release operation

3.3 Mounting the Feeding Roll

The feeding roll as specified in Chapter 1 is incorporated in the wire feeding unit at shipment, however, replace it with an appropriate one if applying the wire of different diameter. To replace the feeding roll, follow the procedures below referring to Fig.3.3.

- ① Release the pressure. (Refer to the section 3.2.)
- ② Remove two setscrews that fix the feeding roll.
- ③ Pull the feeding roll toward you.
- ④ Replace the feeding roll so that the mark as the same as that on the wire will come within sight.

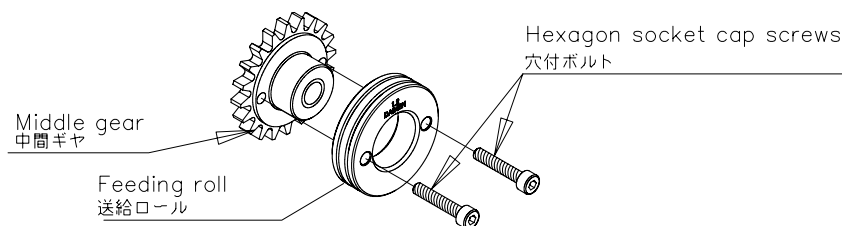


Fig. 3.3 Mounting the feeding roll

[Note]

When using the aluminum wire (for AFAF-4001 and AFUF-4201), prepare four feeding rolls. Adopt an appropriate one in accordance with each case. For the variety of feeding rolls, refer to the parts list.

3.4 Pressure Adjustment

Referring to Fig.3.4 in the following section, turn the pressure handle and set the pressure value according to the wire diameter. A target set value is as shown in Table 3.1.

Table 3.1 Target for pressure value

Wire diameter	Flux-cored solid wire	Hard aluminum	Mild aluminum
φ 1.6	3~4	2~3	2~3
φ 1.4			
φ 1.2	2~3	1~2	1~2
φ 1.0			
φ 0.9	1~2		
φ 0.8			

[Note]

1. The values in the above table are just rough targets, which may depend on the welding conditions and types of wire.
2. The scale on the pressure handle shall be set equally on the right and left.

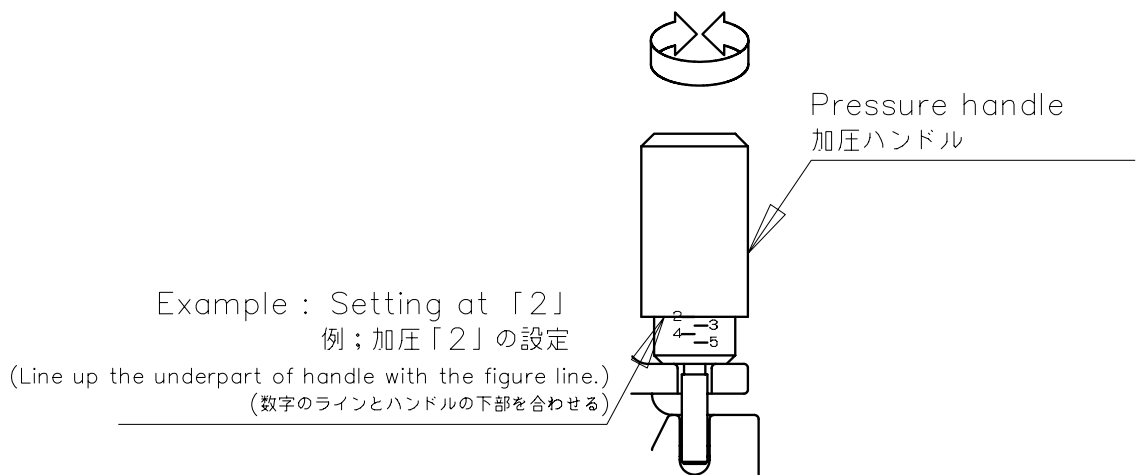


Fig. 3.4 Pressure adjustment

3.5 Pressure Adjustment for Wire Straightener

A wire straightener, standardized in AFAF-4001 and AFUF-4201, is a component to correct wire deflection. For AFAF-4001 and AFUF-4201, pressure for not only the pressure handle but also the wire straightener shall be adjusted. Set the pressure referring to Table 3.2 and Fig. 3.5 below.

Table 3.2 Pressure values for the wire straightener

Wire diameter	Flux-cored solid wire	Hard aluminum	Mild aluminum
ϕ 1.6	2~3	2~3	2~3
ϕ 1.4	3~4		
ϕ 1.2	4~5	3~4	4~5
ϕ 1.0		4~5	
ϕ 0.9			
ϕ 0.8			

[Note]

The values in the above table are just rough targets, which may depend on the welding conditions and types of wire.

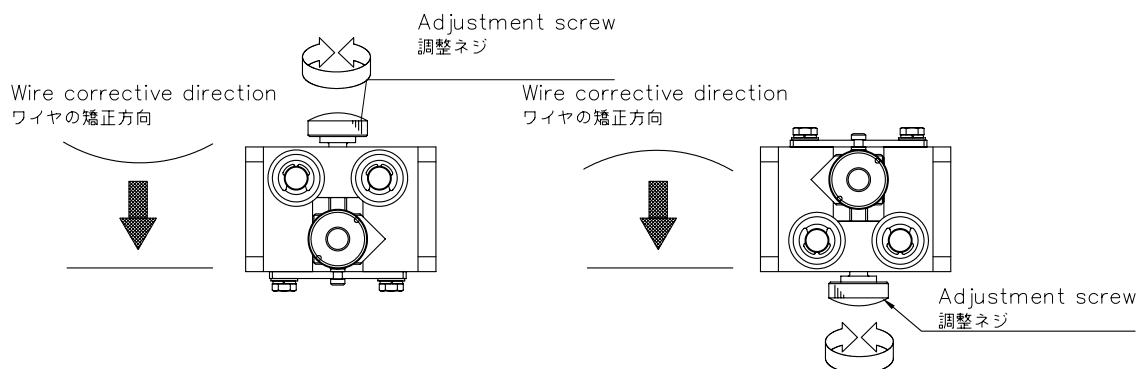


Fig. 3.5 Pressure adjustment for wire straightener

[Note]

Depending on the direction of wire deflection, a wire straightener may be installed upside down as shown in Fig. 3.5 at right.

3.6 Adjustment of Wire Reel Hub

As adjusted at shipment, there is no need for readjusting the brake under the standard welding conditions. But if a wire is too loose or hard to be fed at the time of inching operation, then adjust the brake for the wire reel hub. Follow the procedures below for adjustment.

- ① Take off the cap knob from the wire reel shaft.
- ② Turn the bolt inside the wire reel shaft for adjusting the brake.

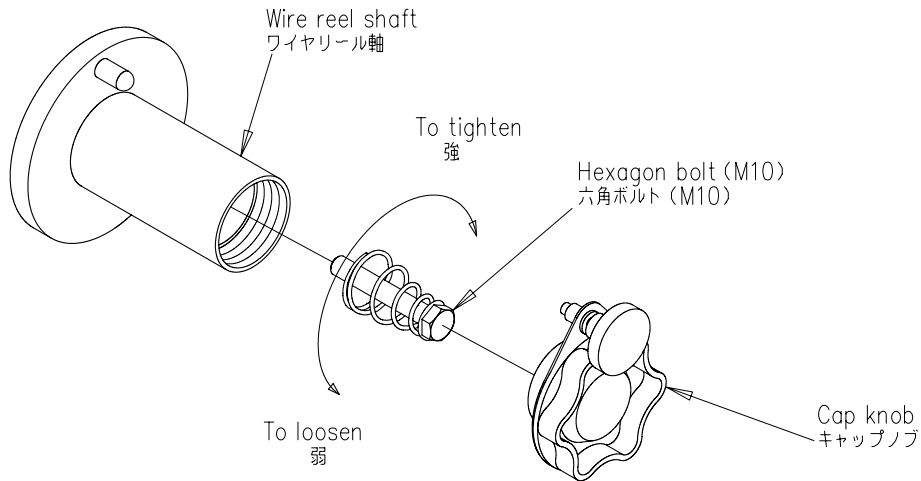


Fig. 3.6 Adjustment of Wire Reel Hub

3.7 When Using Conduit

In the case of using a conduit with the pail pack but not the wire reel, see the following diagrams to make a connection.

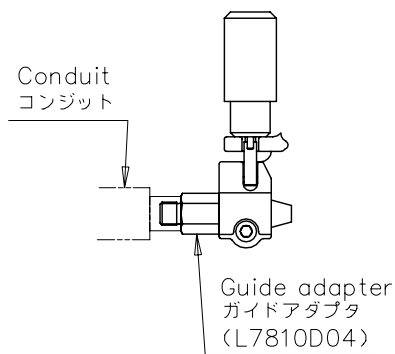


Fig. 3.7 Connection of conduit (for steel)

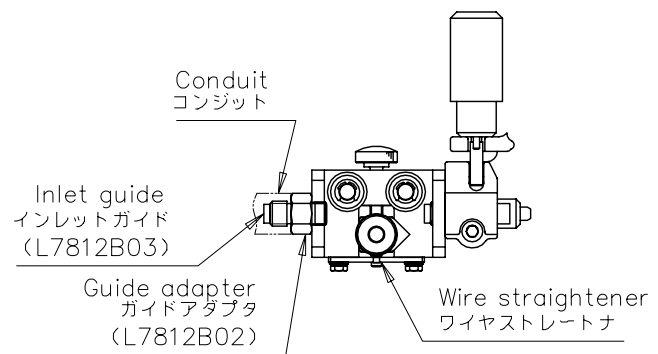









Fig. 3.8 Connection of conduit (for aluminum)

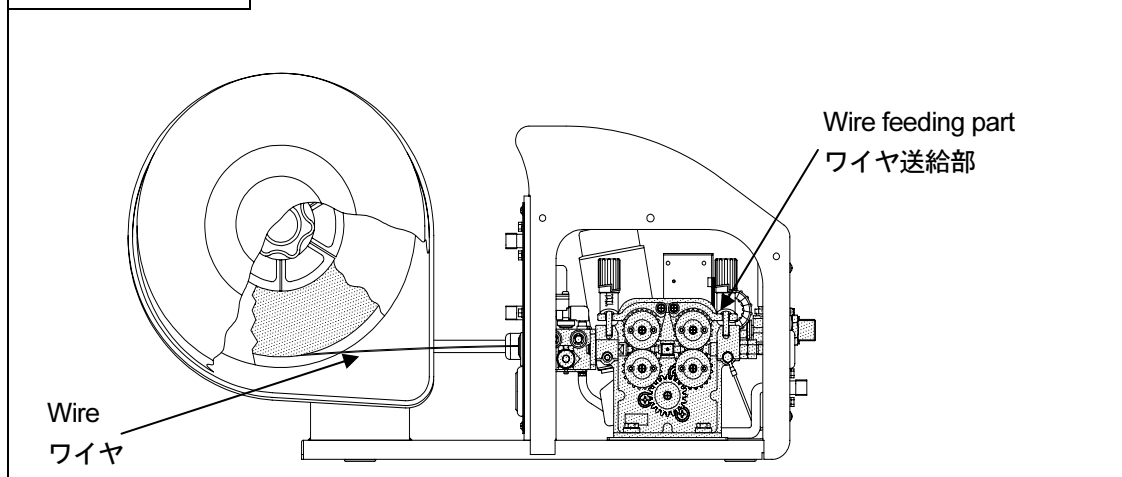
3.8 Wire Feeding by Inching Operation

Read the following cautions thoroughly and take enough care when feeding the wire.

 WARNING	
	● Do not bring your face, eyes, body, etc. close to the welding torch tip while inching. Otherwise, wires may protrude and stick in them, resulting in an injury.


 CAUTION	
	● Do not bring your hands, fingers, hair, clothes, etc. close to the rotation part of wire feeding roll while inching. Otherwise, you may be caught and get injured.

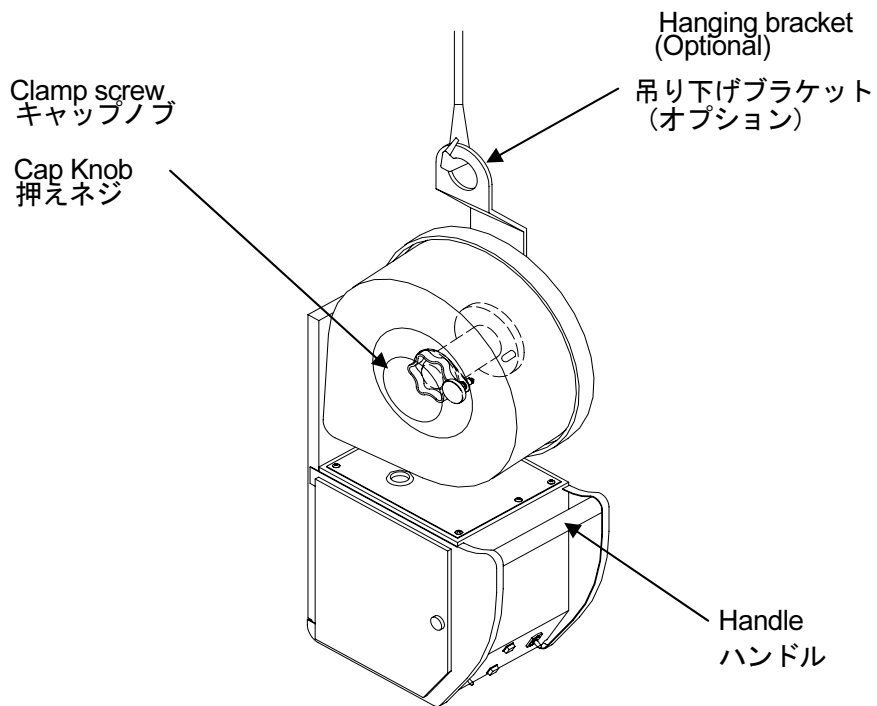
 WARNING	
	※ You may get a fatal electric shock or a severe burn if touching the live electric parts. Do not touch the live electric parts such as a wire or a wire feeding part during welding performance. The shadowed part  is electrified during welding performance. (Inside the clear cover)



3.9 Hanging the Wire Feeding Unit

When hanging the wire feeding unit, mind the following points.

 CAUTION	<ul style="list-style-type: none">● When hanging the wire feeding unit, be sure to firmly tighten the cap knob and holding screws to prevent it from falling.● Do not use the handle of wire feeding unit for the purpose of hanging.
--	--



4. Operation Inspection and Maintenance


4.1 Operation Inspection

Carry out the inspection on the following points.

Location	Check point	Possible phenomena	Measures
Pressure scale	● Is the pressure appropriate for the wire diameter?	Wire deformation or feeding defect.	Adjust the pressure, referring to the section 3.4 "Pressure Adjustment".
Guide adaptor Center guide	● Are there any wire sludge or dust accumulated in the guide adaptor or center guide?	Wire feeding defect.	Remove the wire sludge or dust.
Feeding roll	● Does the mark on the feeding roll accord with the wire diameter?	Wire deformation or wire feeding defect.	Replace the feeding roll with an appropriate one in accordance with the wire diameter.
	● Is not the groove worn away or anything?		Replace it with a new one.
Pressure roll	● Is the wire straightener smoothly rotating?	Wire feeding defect Abnormal noise.	Replace it with a new one.
Encoder cable	● Is the cable coating in a good condition?	Wire feeding defect or wire feeding impossible.	Replace an encoder cable with a new one.
	● Is the connector cap OK?		Remove the dust in the connection part, and cover it with a cap.
Motor cable	● Is the cable coating in a good condition?	Wire feeding defect or wire feeding impossible.	Replace a motor cable with a new one.
Voltage detection cable	● Is the cable coating in a good condition?	Wire feeding defect or wire feeding impossible.	Replace a cable with a new one.
Motor	● Is motor replacement carried out periodically for the sake of the life duration of brush?	Wire feeding impossible.	Replace a motor with a new one. The life duration of motor is approx. 4000 hours (almost 2 years).
Gas solenoid	● Do you hear the noise of the gas solenoid in operation when gas flows?	Gas does not turn on. Or, gas flow does not stop.	Replace a gas solenoid with a new one.
Wire reel	● Is the brake well adjusted?	Wire is not being smoothly fed.	Adjust the wire reel hub.
Bottom of the wire feeding unit	● Is not the wire sludge accumulated?	Wire feeding defect, broken gear, etc.	Clean it up periodically.

4.2. Replacement of Feeding Motor

The life duration of the brush embedded in the wire feeding motor, although depending on the load conditions, the ambient temperature, etc. is approx. 4,000 hours. (It is about 2 years assuming the 6-hour operation a day.) Replace a feeding motor periodically with a new one.

 CAUTION	Do not disassemble the feeding motor.
	<ul style="list-style-type: none">● Disassembling the feeding motor will cause a failure.● Do not inspect the condition of the brush worn-out. Do not replace the brush.● It is impossible to replace the encoder alone or gear box alone.

5. Parts List for AFF-4001

- If the parts are getting worn out or damaged while using the wire feeding unit, see Fig. 5.1 ~ 5.6 and Table 5.1 ~ 5.7 to place an order with our sales office or agent. When ordering, be sure to provide the item name and part No. Note that the component indicated by () for its quantity is an optional item.

5.1 Parts List for Wire Feeding Unit (AFF-4001)

Table 5.1 Parts List for Wire Feeding Unit (AFF-4001)

Ref.No.	Part No.	Item	Qty	Remarks
1	U5185B00	Wire feeding unit	1set	Refer to 5.2 for the details.
2	L10904B00	Case	1set	Refer to 5.3 for the details.
3	L7811D00	Gas hose	1set	
4	U5185E00	Control cable	1	Refer to 9.1 for the electrical wiring diagram.
5	U5185F00	Motor cable	1	Refer to 9.1 for the electrical wiring diagram.
6	U5185G00	Gas pipe	1	Refer to 5.4 for the details.
7	L10904C	Assembly (2)	1set	Refer to 5.5 for the details.
8	U5185X00	Encoder wire	1	Refer to 9.1 for the electrical wiring diagram.
9	L10904D	Optional accessory	(1set)	Refer to 5.7 for the details Option.
10	L10271G00	Common mode coil	1	
11	L10271H00	Adapter cable	1	
12	L7811G00	Guide adaptor (1)	(1set)	(ϕ 0.6-0.8) Option
13	L7811H00	Guide adaptor (2)	1set	Standard component (ϕ 0.9-1.2)
14	L7811J00	Guide adaptor (3)	(1set)	(ϕ 1.2-1.6) Option
15	L7810G	Feeding roll	1set	Refer to 5.6 for the details.
16	L6699F00	Shock sensor cable (1)	(1set)	Cable length: 1m Option
17	L6699G00	Shock sensor cable (2)	(1set)	Cable length: 2m Option
18	L6699H00	Shock sensor cable (3)	1set	Cable length: 3m Standard component
19	L6699J00	Shock sensor cable (4)	(1set)	Cable length: 4m Option
20	L6699K00	Shock sensor cable (5)	(1set)	Cable length: 5m Option

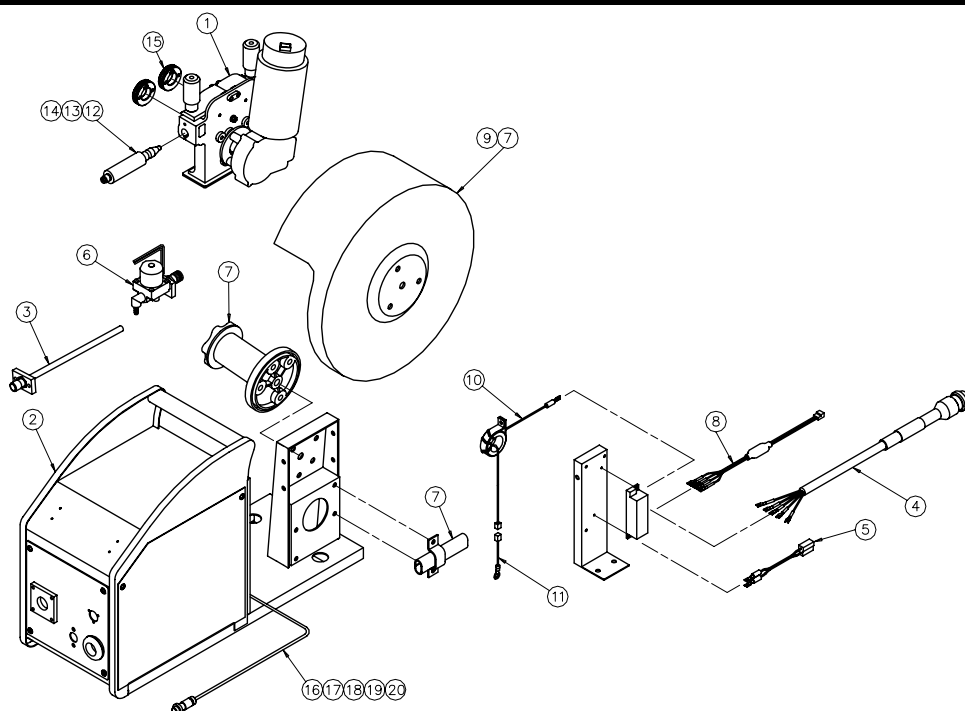


Fig. 5.1 Exploded diagram of wire feeding unit (AFF-4001)

5.2 Parts List for Wire Feeding Unit (U5185B00)

Table 5.2 Parts list for wire feeding unit (U5185B00)

Ref. No.	Part No.	Item	Qty	Remarks
1	U5185B01	Bracket	1	
1-1		Setscrew	2	M6x30
2	U5185B08	Coil spring	1	
3	U5185B02	Pressure holder pin	2	
4	U5185S00	Pressure holder (R)	1	Assembly
5	U5185T00	Pressure holder (L)	1	Assembly
6	U5185B03	Drive roll shaft	2	
7	U5185B04	Guide block	1	
8	4802-206	Feed motor	1	
9	U5185B06	Insulation board	1	
10	U3971B04	Insulating bush	3	
10-1		P flat screw	3	M6x20
11	U5185Q00	Drive gear	1	
12	U5185B09	Pressure screw holder	2	
13	U5185B12	Compression spring	2	
14	U5185B10	Pressure handle	2	
15	U5185B11	Pressure bolt	2	
15-1		Spring pin	2	2.5x15
16	U5185B13	Insulating bush	2	
16-1		Hexagon head bolt	(2)	M8x25
17	U5185B14	Insulation board	1	
18	U5185B15	Insulation cover	2	

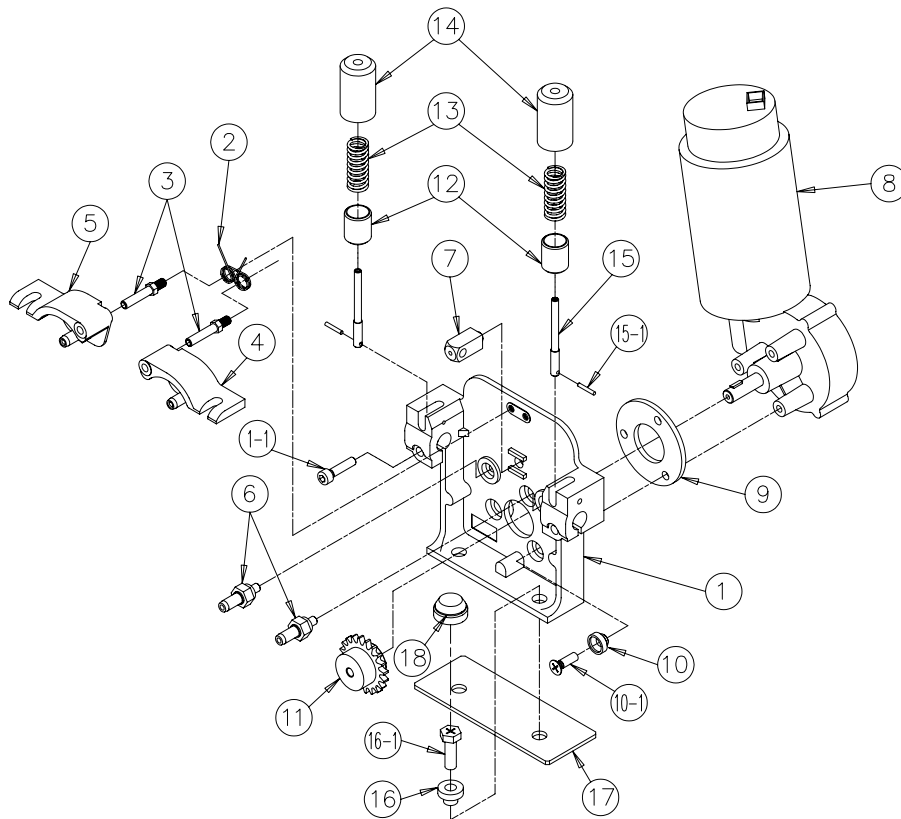


Fig. 5.2 Exploded diagram of wire feeding unit (U5185B00)

5.3 Parts List for Case (L10904B00)

Table 5.3 Parts List for Case (L10904B00)

Ref. No.	Parts No.	Item	Q'ty	Remarks
1	U30000U00	Frame	1set	
2	U30000C01	Cover	1	
3	U5185C02	Handle knob screw	1	
3-1	3361-219	Slip joint washer	2	
4	U30000C03	Side panel	1	
5	U30000C04	Rear cover	1	
6	L10904B01	Panel	1	

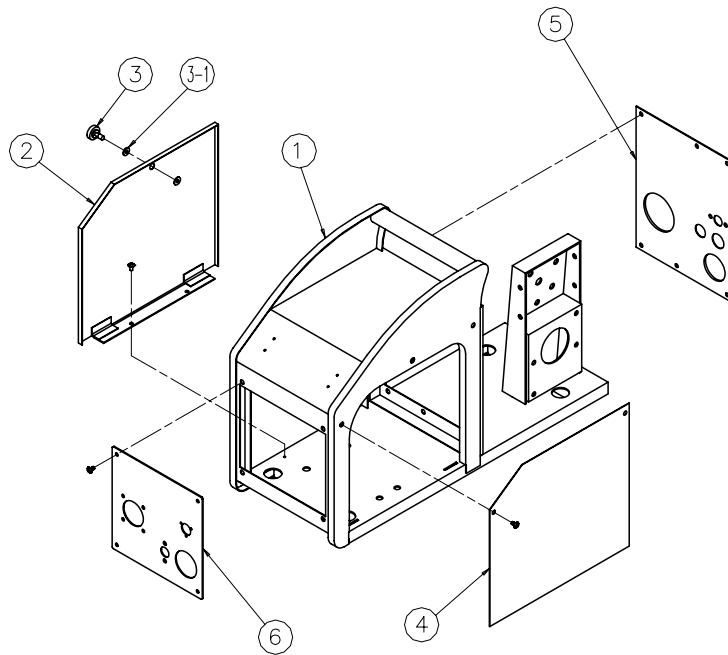


Fig. 5.3 Exploded diagram of case (L10904B00)

5.4 Parts List for Gas Pipe (U5185G00)

Table 5.4 Parts list for gas pipe (U5185G00)

Ref. No.	Part No.	Item	Qty	Remarks
1	4813-001	Solenoid valve	1	W-31156
2	U4179D01	Hose elbow	1	
3	U1997D01	Gas connection fitting	1	
4	U1997D02	Flange	1	

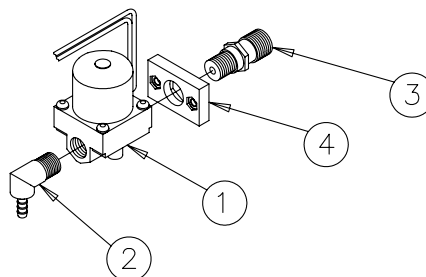


Fig. 5.4 Exploded diagram of gas pipe (U5185G00)

5.5 List for Assembly Parts (2) (L10904C)

Table 5.5 List for assembly parts (2) (L10904C)

Ref. No.	Part No.	Item	Qty	Remarks
1	4739-494	Wire reel hub	1	
2	U5185J01	Cable clamp	1	
3	U1997C02	Hose clamp	1	
4	U1997C03	Hose cover	1	
5	4739-492	Terminal block	1	RTK-10M-10P
6	U5374J01	Membrane grommet	1	
7	U5374J02	Membrane grommet	1	
8	4739-489	Membrane grommet	1	C-30-SG-20A-UL
9	C-20-SG-42A	Membrane grommet	1	
10	U30000J04	Terminal block bracket	1	
11	U5191E00	Wire reel cover (Simplified type)	1	Half cover
12	U5185J06	Pilot	1	
13	U5185J07	Plate	1	
14	U5185J08	Holding screw	1	
14-1	3361-405	E-type snap ring	1	E-4
15	U5185B05	Center guide	1	
16	U5185P00	Intermediate gear	2	
17	K5439C00	Pressure roll	2	
18	L7811E01	Insulation board	1	

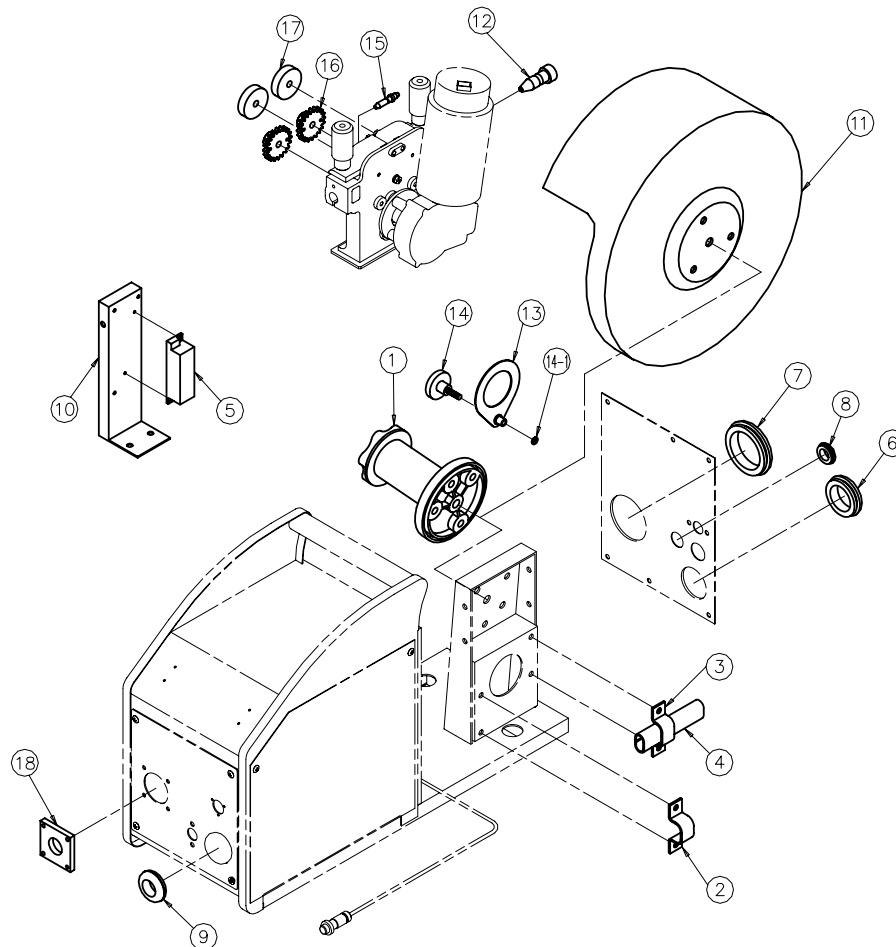


Fig. 5.5 Exploded diagram of assembly (2) (L10904C)

5.6 Parts List for Feeding Roll (L7810G)

Table 5.6.1 Parts list for feeding roll (L7810G)

Ref. No.	Part No.	Item	Qty	Remarks
1	K5439B01	Feeding roll (1.4/1.6)	(2)	Option
2	K5439B12	Feeding roll (0.9-1.0/1.2)	2	Standard assembly
3	K5439B13	Feeding roll (0.8/0.9-1.0)	(2)	Option
4	K5439B04	Feeding roll (1.2/1.4)	(2)	Option
5	K5439B05	Feeding roll (1.2/1.2)	(2)	Option
6	K5439B06	Feeding roll (1.4/1.4)	(2)	Option
7	K5439B07	Feeding roll (1.6/1.6)	(2)	Option
8	K5439B09	Feeding roll (0.6/0.8)	(2)	Option
9	K5439B11	Feeding roll (1.2/1.6)	(2)	Option
10		Setscrew	4	M4x16

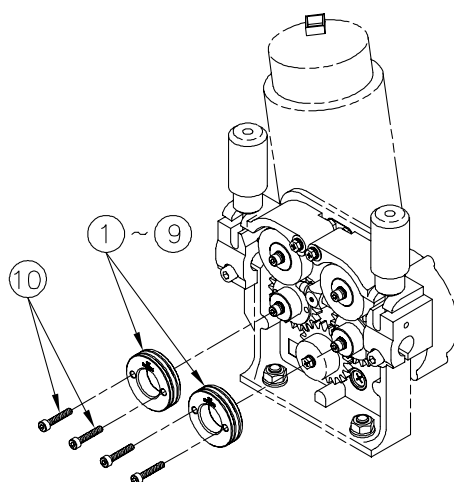


Fig. 5.6 Exploded diagram of feeding roll (L7810G)

Table 5.6.2 Combination list for every wire diameter
(* See the section 3.3 for recombination.)

Wire diameter	Feeding roll	Outlet guide (Included in the guide adaptor)
ϕ 0.8	K5439B13 K5439B09	Incorporating L7811G02 in L7811G01
ϕ 0.9-1.0	K5439B12 K5439B13	L7811H01
ϕ 1.2	K5439B12 K5439B04 K5439B05 K5439B11	L7811H01 L7811J01
ϕ 1.4	K5439B01 K5439B04 K5439B06	L7811J01
ϕ 1.6	K5439B01 K5439B07 K5439B11	

5.7 List of Optional Accessories (L10904D)

Table 5.7 List of optional accessories (L10904D)

Ref. No.	Part No.	Item	Qty	Remarks
1	K5439E00	Wire reel cover (Full cover)	(1set)	Parts for conversion to the Full cover
2	U5191F00	Reel adaptor	(1)	
3	K5439F00	Caster	(1set)	
4	U5191G00	Hanging bracket	(1set)	
5	L7810D04	Guide adaptor	(1)	When the conduit is directly connected (packed wire).

※ L10904D is not a parts # to be ordered as an assembly. Please order separately in each parts as needed.

6. Parts List for AFAF-4001

- If the parts are getting worn out or damaged while using the wire feeding unit, see Fig. 6.1 ~ 6.4 and Table 6.1 ~ 6.7 to place an order with our sales office or agent. When ordering, be sure to provide the item name and part No. Note that the component indicated by () for its quantity is an optional item.

6.1 Parts List for Wire Feeding Unit (AFAF-4001)

Table 6.1 Parts list for wire feeding unit (AFAF-4001)

Ref. No.	Part No.	Item	Qty	Remarks
1	U5185B00	Wire feeding unit	1set	Refer to 5.2 for the details.
2	L10905B	Case	1set	Refer to 6.2 for the details.
3	L7811D00	Gas hose	1set	
4	U5185E00	Control cable	1	Refer to 9.1 for the electrical wiring diagram.
5	U5185F00	Motor cable	1	Refer to 9.1 for the electrical wiring diagram.
6	U5185G00	Gas pipe	1	Refer to 5.4 for the details.
7	L10905C	Assembly	1set	Refer to 6.3 for the details.
8	U5185X00	Encoder wire	1	Refer to 9.1 for the electrical wiring diagram.
9	L10905D	Optional accessory	(1set)	Refer to 6.5 for the details. Option
10	L10271G00	Common mode coil	1	
11	L10271H00	Adapter cable	1	
12	L7813D	Guide adaptor	1set	Refer to 6.6 for the details.
13	L7812C	Feeding roll	1set	Refer to 6.4 for the details.
14	U5204H00	Wire straightener	1set	
15	L6699F00	Shock sensor cable (1)	(1set)	Cable length: 1m Option
16	L6699G00	Shock sensor cable (2)	(1set)	Cable length: 2m Option
17	L6699H00	Shock sensor cable (3)	1set	Cable length: 3m Standard component
18	L6699J00	Shock sensor cable (4)	(1set)	Cable length: 4m Option
19	L6699K00	Shock sensor cable (5)	(1set)	Cable length: 5m Option

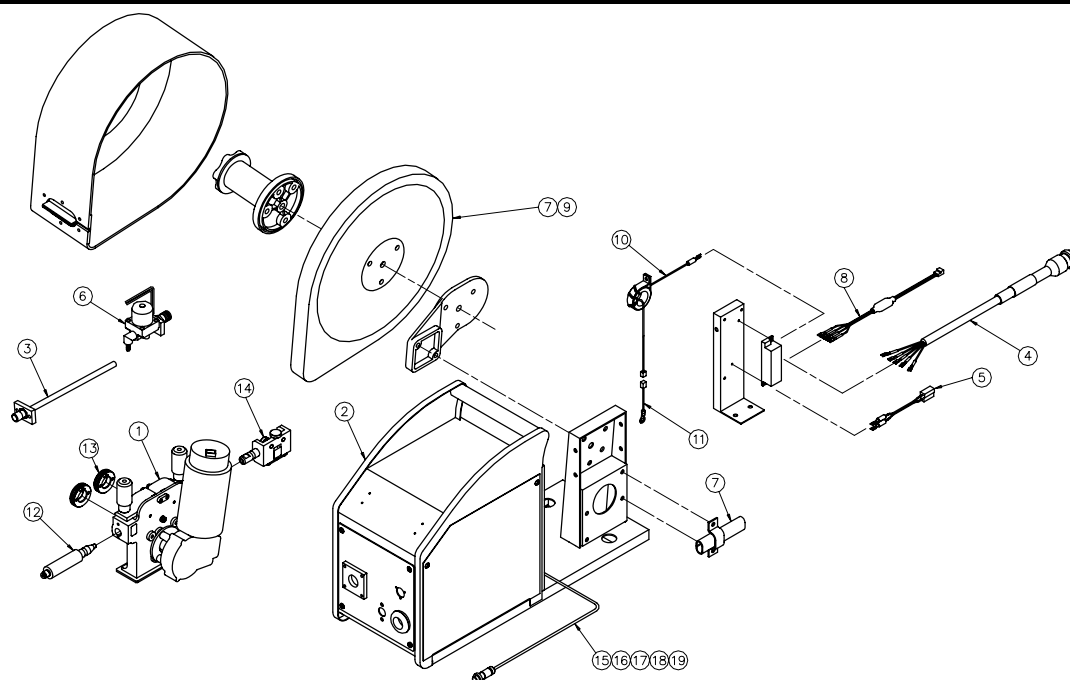


Fig. 6.1 Exploded diagram of wire feeding unit (AFAF-4001)

6.2 Parts List for Case (L10905B)

Table 6.2 Parts list for case (L10905B)

Ref. No.	Part No.	Item	Qty	Remarks
1	U30000U00	Frame	1set	
2	U30000C01	Cover	1	
3	U5185C02	Handle knob screw	1	
3-1	3361-219	Slip joint washer	2	
4	U30000C03	Side plate	1	
5	U30002C04	Rear cover	1	
6	L10904B01	Panel	1	

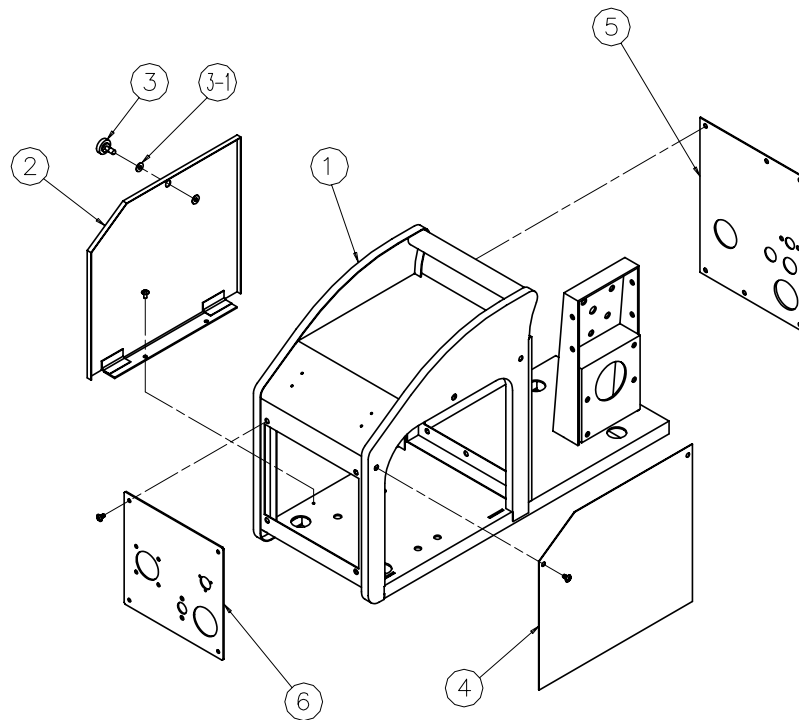


Fig. 6.2 Exploded diagram of case (L10905B)

6.3 List of Assembly (L10905C)

Table 6.3 List of assembly (L10905C)

Ref. No.	Part No.	Item	Qty	Remarks
1	4739-494	Wire reel hub	1	
2	U5185J01	Cable clamp	1	
3	U1997C02	Hose clamp	1	
4	U1997C03	Hose cover	1	
5	4739-492	Terminal block	1	RTK-10M-10P
6	U5374J01	Membrane grommet	1	
7	4739-506	Membrane grommet	1	C-30-SG-60A-UL
8	4739-489	Membrane grommet	1	C-30-SG-20A-UL
9	C-20-SG-42A	Membrane grommet	1	
10	U30000J04	Terminal block bracket	1	
11	K5439E00	Wire reel cover (Full cover)	1	
12	U5185J07	Plate	1	
13	U5185J08	Holding screw	1	
13-1	3361-405	E-type snap ring	1	E-4
14	U5204B03	Center guide (1.0-1.6)	1	For aluminum, Wire dia. ϕ 1.0~1.6
15	U5185P00	Intermediate gear	2	
16	U5191F00	Reel adaptor	1	
17	U5204J07	Inlet guide	1	For the wire straightener
18	U2344C08	Pilot	1	For the wire straightener
19	L7811E01	Insulation board	1	

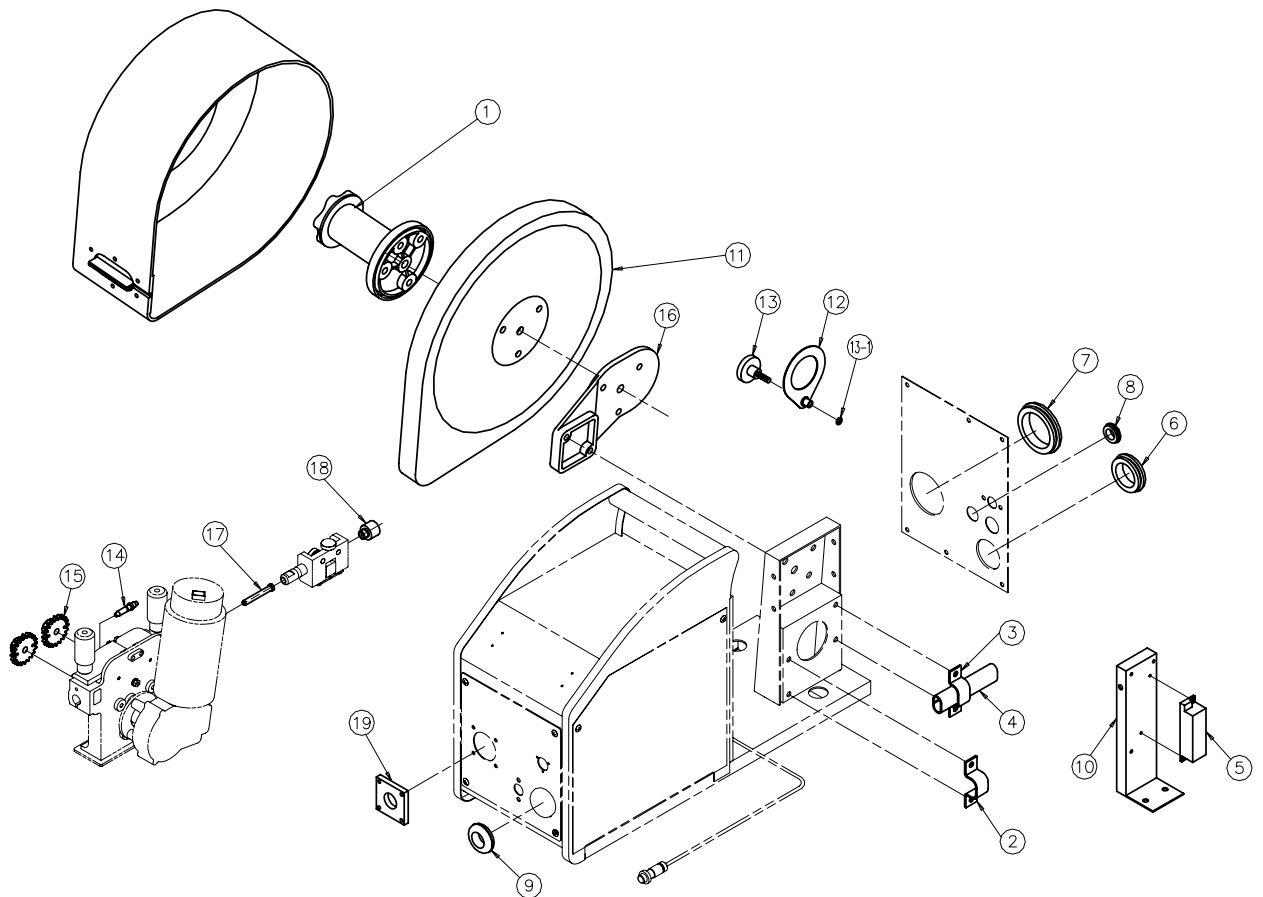


Fig. 6.3 Exploded diagram of assembly (L10905C)

6.4 Parts List for Feeding Roll (L7812C)

Table 6.4.1 Parts list for feeding roll (L7812C)

Ref. No.	Part No.	Item	Qty	Remarks
1	K5463R02	Feeding roll (1.0/1.2)	4	Standard assembly
2	K5463R03	Feeding roll (1.2/1.6)	(4)	Option
3	K5463R06	Feeding roll (0.8/0.9)	(4)	Option
4		Setscrew	8	M4x16

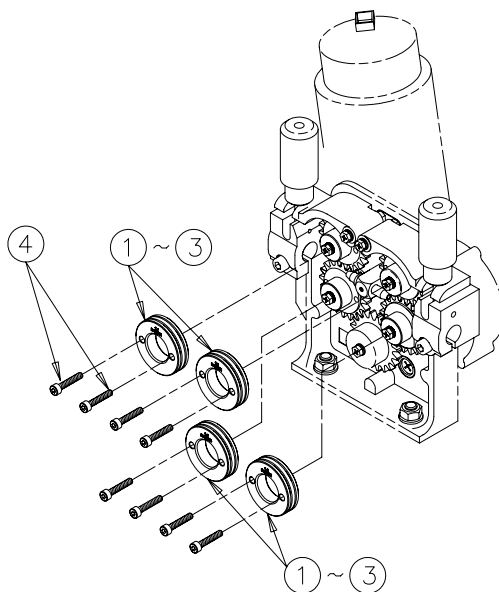


Fig. 6.4 Exploded diagram of feeding roll (L7812C)

Table 6.4.2 Combination list for every wire diameter

Wire diameter	Feeding roll	Outlet guide (Included in the guide adaptor)
ϕ 1.0	K5463R02	L7813D01
ϕ 1.2	K5463R02 K5463R03	L7813D02
ϕ 1.6	K5463R03	L7813D03

[Note]

The standard AFAF-4001 is the aluminum specification. If using it for the mild steel/stainless, change the wire feeding unit to the mild steel/stainless specification by replacing the following components and also replacing the feeding roll in reference to the previous section 5.6.

Part No.	Item	Qty	Remarks
L7813E	Assembly (Fe)	1set	Component for converting to the mild steel/stainless specification.

6.5 List of Optional Accessories (L10905D)

Table 6.5 List of optional accessories (L10905D)

Ref. No.	Part No.	Item	Qty	Remarks
1	U5185M01	Wire reel cover (Simplified)	(1)	Half cover
2	K5439F00	Caster	(1set)	
3	U5191G00	Hanging bracket	(1set)	
4	U5204B02	Center guide (0.8-1.0)	(1)	For aluminum, Wire dia. ϕ 0.8~1.0
5	L7812B02	Guide adaptor	(1)	When the conduit is directly connected (packed wire).
6	L7812B03	Inlet guide	(1)	

※ L10905D is not a parts # to be ordered as an assembly. Please order separately in each parts as needed.

6.6 Parts List for Guide Adaptor (L7813D)

Table 6.6 Parts list for guide adaptor (L7813D)

Ref. No.	Part No.	Item	Qty	Remarks
1	L7811G03	Guide adaptor	1	
2	L7813D02	Outlet guide (1.2)	1	White
3	L7813D01	Outlet guide (1.0)	(1)	Black
4	L7813D03	Outlet guide (1.6)	(1)	Black

※ Parts for ϕ 1.2 is in standard configuration. Please order separately in each parts for different diameters.

7. Parts List for AFTF-4201

- If the parts are getting worn out or damaged while using the wire feeding unit, see Fig. 7.1 ~ 7.4 and Table 7.1 ~ 7.5 to place an order with our sales office or agent. When ordering, be sure to provide the item name and part No. Note that the component indicated by () for its quantity is an optional item.

7.1 Parts List for Wire Feeding Unit (AFTF-4201)

Table 7.1 Parts list for wire feeding unit (AFTF-4201)

Ref. No.	Part No.	Item	Qty	Remarks
1	U5281B00	Wire feeding unit	1set	Refer to 7.2 for the details.
2	U30005C00	Case	1set	Refer to 7.3 for the details.
3	U5185E00	Control cable	1	Refer to 9.2 for the electrical wiring diagram.
4	U5185F00	Motor cable	1	Refer to 9.2 for the electrical wiring diagram.
5	L10906B	Assembly	1set	Refer to 7.4 for the details.
6	U5185X00	Encoder wire	1	Refer to 9.2 for the electrical wiring diagram.
7	L10275D	Optional accessory	(1set)	Refer to 7.5 for the details. Option
8	L7810G	Feeding roll	1set	Refer to 5.6 for the details.
9	L7931F	Wire straightener ASSY	(1)	

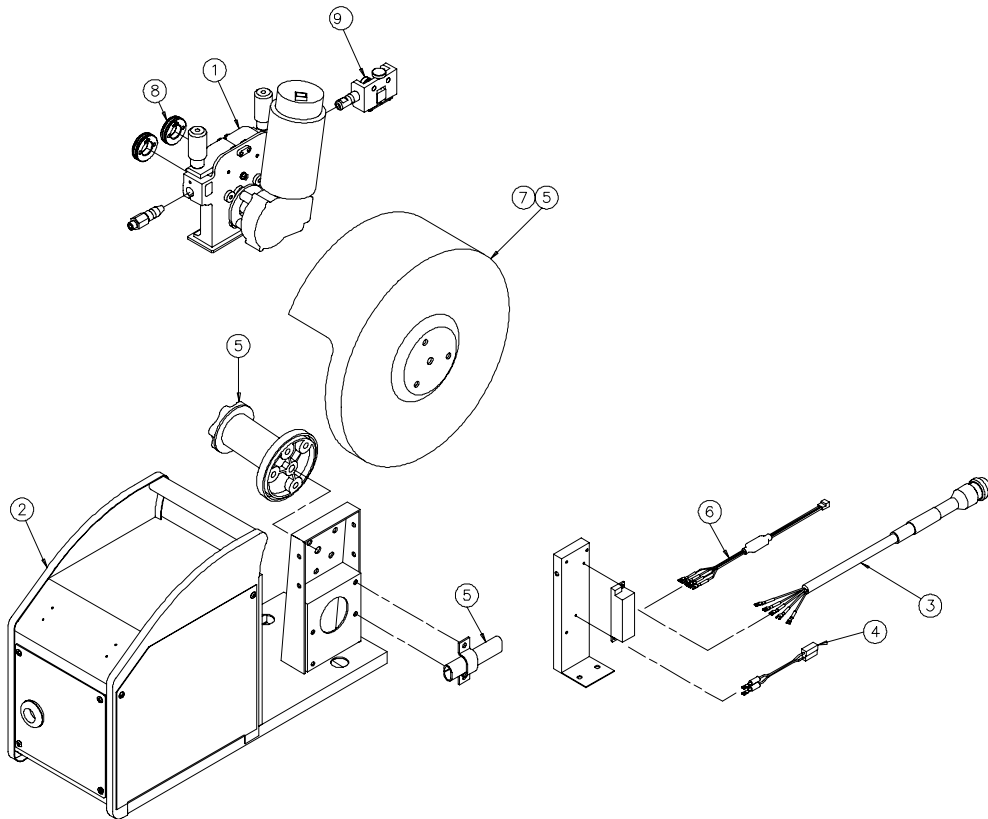


Fig. 7.1 Exploded diagram of wire feeding unit (AFTF-4201)

7.2 Parts List for Wire Feeding Unit (U5281B00)

Table 7.2 Parts list for wire feeding unit (U5281B00)

Ref. No.	Part No.	Item	Qty	Remarks
1	U5209B01	Bracket	1	
1-1		Setscrew	2	M6x25
2	U5185B08	Coil spring	1	
3	U5185B02	Pressure holder pin	2	
4	U5185S00	Pressure holder (R)	1	Assembly
5	U5185T00	Pressure holder (L)	1	Assembly
6	U5185B03	Drive roll shaft	2	
7	U5185B04	Guide block	1	
8	4802-207	Feed motor	1	
9	U5185B06	Insulation board	1	
10	U3971B04	Insulating bush	3	
10-1		P flat screw	3	M6x20
11	U5185Q00	Drive gear	1	
12	U5185B09	Pressure spring holder	2	
13	U5185B12	Compression spring	2	
14	U5185B10	Pressure handle	2	
15	U5185B11	Pressure bolt	2	
15-1		Spring pin	2	2.5x15
16	U5185B13	Insulating bush	2	
16-1		Hexagon head bolt	(2)	M8x25
17	U5185B14	Insulation board	1	
18	U5185B15	Insulation cover	2	

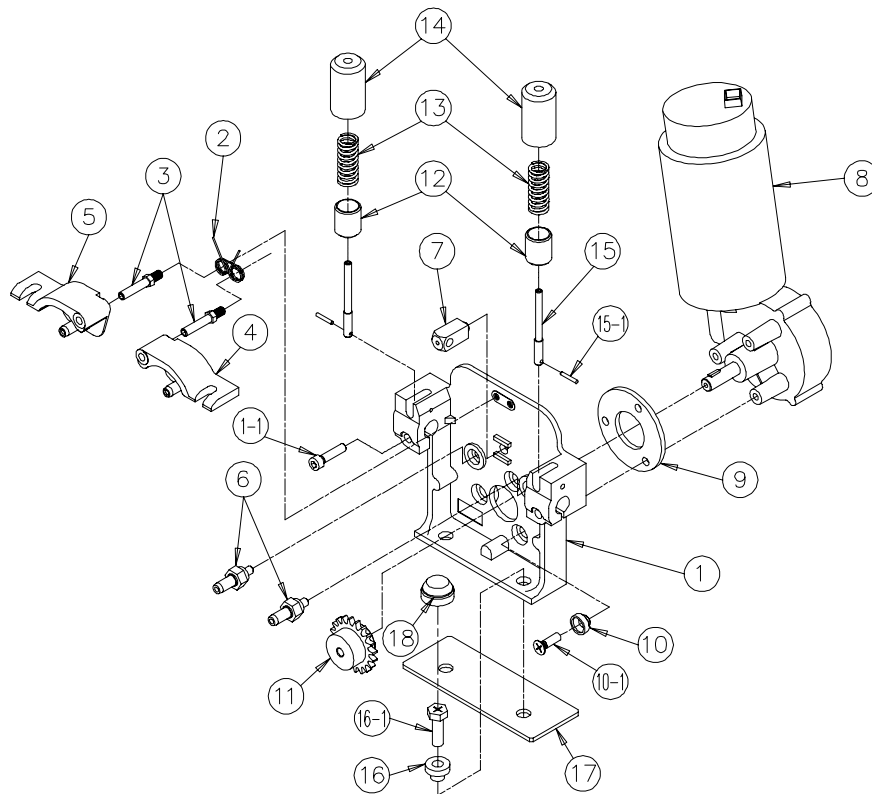


Fig. 7.2 Exploded diagram of wire feeding unit (U5281B00)

7.3 Parts List for Case (U30005C)

Table 7.3 Parts list for case (U30005C)

Ref. No.	Part No.	Item	Qty	Remarks
1	U30000U00	Frame	1set	
2	U30000C01	Cover	1	
3	U5185C02	Handle knob screw	1	
3-1	3361-219	Slip joint washer	2	
4	U30000C03	Side plate	1	
5	U30005C04	Rear cover	1	
6	U30005C05	Panel	1	

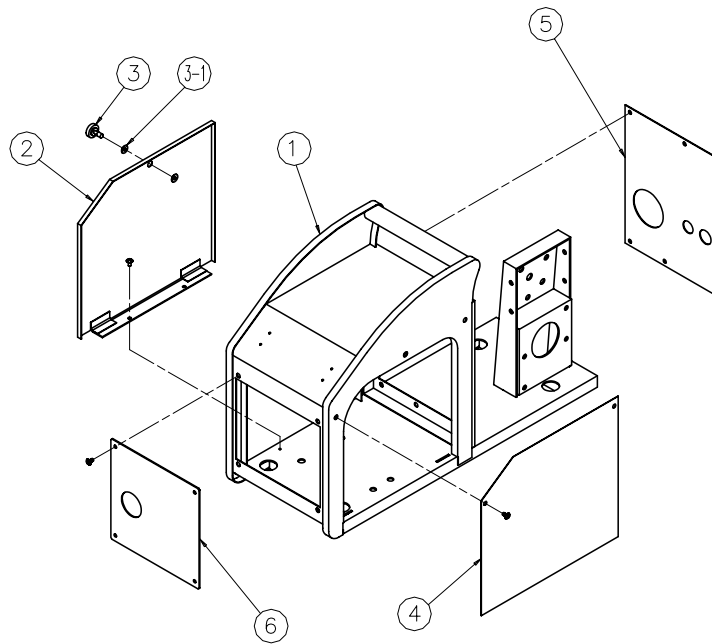


Fig. 7.3 Exploded diagram of case (U30005C)

7.4 List for Assembly (L10906B)

Table 7.4 List for assembly (L10906B)

Ref. No.	Part No.	Item	Qty	Remarks
1	4739-494	Wire reel hub	1	
2	U1997C02	Cable clamp	1	
3	U1997C03	Hose cover	1	
4	4739-492	Terminal block	1	RTK-10M-10P
5	U5374J02	Membrane grommet	1	C-30-SG-60A-UL
6	4739-489	Membrane grommet	1	C-30-SG-20A-UL
7	C-30-BW-22-1-UL	Membrane grommet	1	
8	U30000J04	Terminal block bracket	1	
9	U5191E00	Wire reel cover (Simplified type)	1	Half cover
10	U5185J06	Pilot	1	
11	U5281N00	Filter	1	
12	U5185J07	Plate	1	
13	U5185J08	Holding screw	1	
13-1	3361-405	E-type snap ring	1	E-4
14	U5185B05	Center guide	1	
15	U5185P00	Intermediate gear	2	
16	K5439C00	Pressure roll	2	
17	U5209J01	Guide adaptor	1	

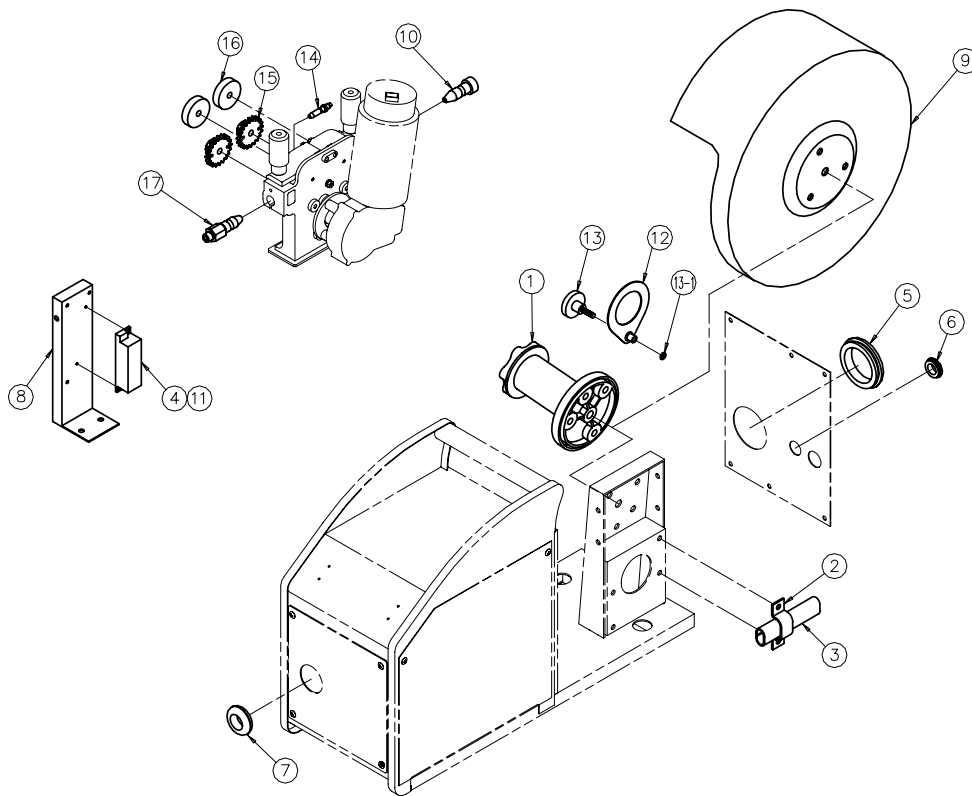


Fig. 7.4 Exploded diagram of assembly (L10906B)

7.5 List of Optional Accessories (L10275D)

Table 7.5 List of optional accessories (L10275D)

Ref. No.	Part No.	Item	Qty	Remarks
1	K5439E00	Wire reel cover (Full cover)	(1set)	Parts for conversion to the Full cover
2	U5191F00	Reel adaptor	(1)	
3	K5439F00	Caster	(1set)	
4	U5191G00	Hanging bracket	(1set)	
5	L7810D04	Guide adaptor	(1)	When the conduit is directly connected (packed wire).

※ L10275D is not a parts # to be ordered as an assembly. Please order separately in each parts as needed.

8. Parts List for AFUF-4201

- If the parts are getting worn out or damaged while using the wire feeding unit, see Fig. 8.1 ~ 8.2 and Table 8.1 ~ 8.3 to place an order with our sales office or agent. When ordering, be sure to provide the item name and part No. Note that the component indicated by () for its quantity is an optional item.

8.1 Parts List for Wire Feeding Unit (AFUF-4201)

Table 8.1 Parts list for wire feeding unit (AFUF-4201)

Ref. No.	Part No.	Item	Qty	Remarks
1	U5281B00	Wire feeding unit	1set	Refer to 7.2 for the details.
2	U30005C00	Case	1set	Refer to 7.3 for the details.
3	U5185E00	Control cable	1	Refer to 9.2 for the electrical wiring diagram.
4	U5185F00	Motor cable	1	Refer to 9.2 for the electrical wiring diagram.
5	L10907B	Assembly	1set	Refer to 8.2 for the details.
6	U5185X00	Encoder wire	1	Refer to 9.2 for the electrical wiring diagram.
7	L10907C	Optional accessory	(1set)	Refer to 8.3 for the details. Option
8	L7812C	Feeding roll	1set	Refer to 6.4 for the details.
9	L7933E	Wire straightener ASSY	1	

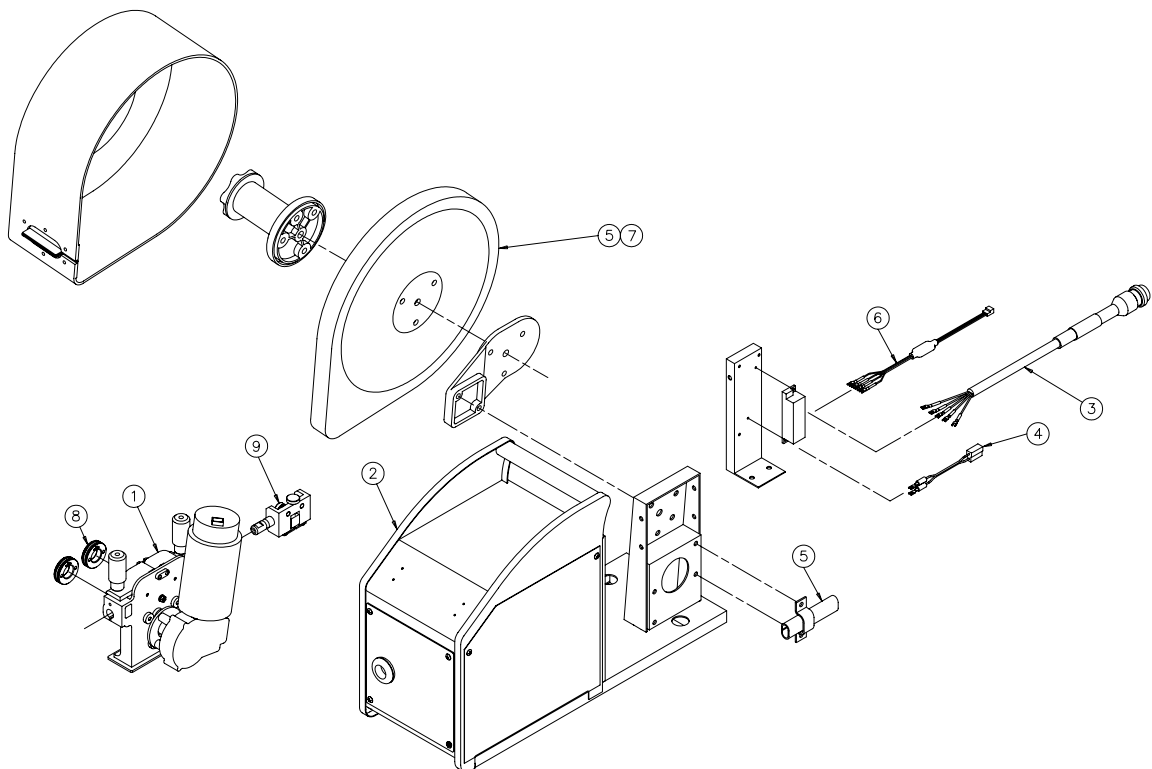


Fig. 8.1 Exploded diagram of wire feeding unit (AFUF-4201)

8.2 List of Assembly (L10907B)

Table 8.2 List of assembly (L10907B)

Ref. No.	Part No.	Item	Qty	Remarks
1	4739-494	Wire reel hub	1	
2	U1997C02	Cable clamp	1	
3	U1997C03	Hose cover	1	
4	4739-492	Terminal block	1	RTK-10M-10P
5	U5374J02	Membrane grommet	1	C-30-SG-60A-UL
6	4739-489	Membrane grommet	1	C-30-SG-20A-UL
7	C-30-BW-22-1-UL	Membrane grommet	1	
8	U30000J04	Terminal block bracket	1	
9	U5439E00	Wire reel cover (Full cover)	1	
10	U5185J06	Pilot	1	
11	U5281N00	Filter	1	
12	U5185J07	Plate	1	
13	U5185J08	Holding screw	1	
13-1	3361-405	E-type snap ring	1	E-4
14	U5204B03	Center guide (1.0-1.6)	1	For aluminum, Wire dia. ϕ 1.0~1.6
15	U5185P00	Intermediate gear	2	
16	U5191F00	Reel adaptor	1	
17	U5204J07	Inlet guide	1	
18	U5209J01	Guide adaptor	1	

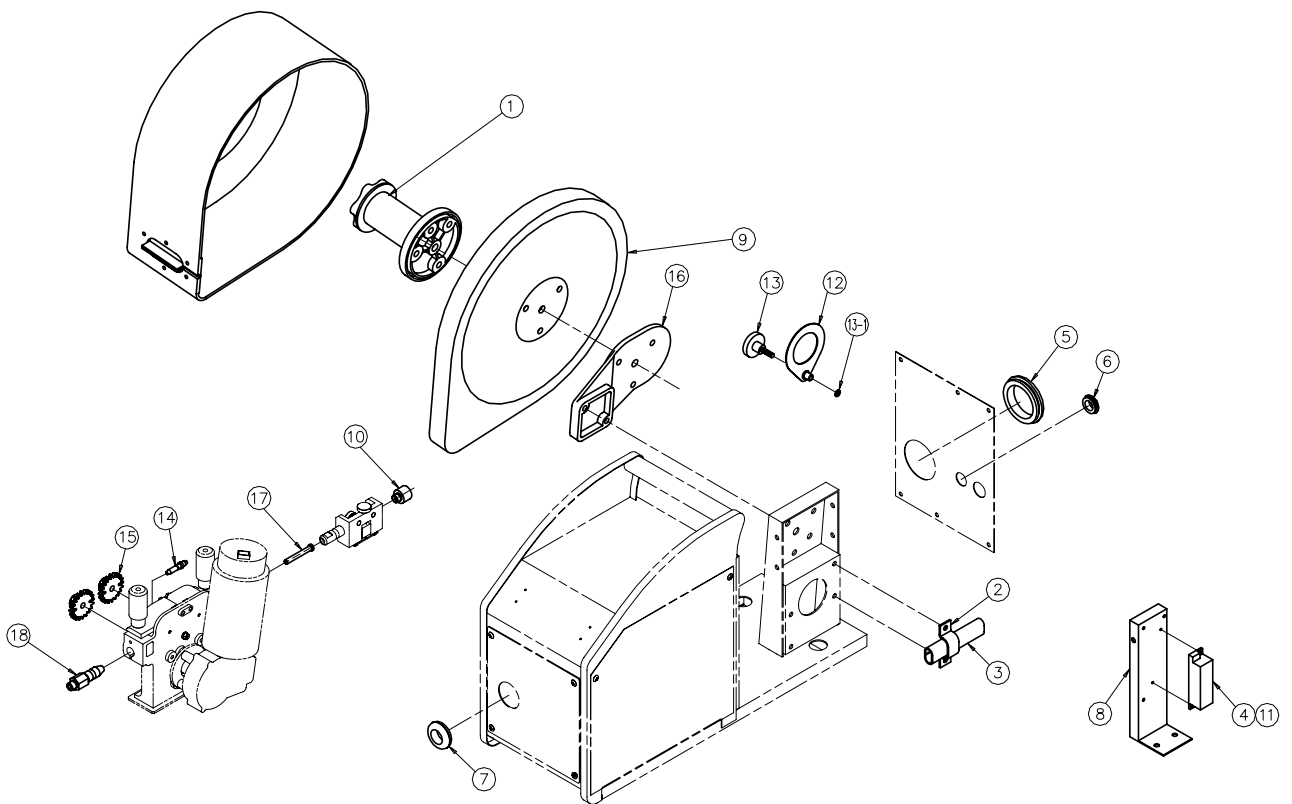


Fig. 8.2 Exploded diagram of assembly (L10907B)

8.3 List of Optional Accessories (L10907C)

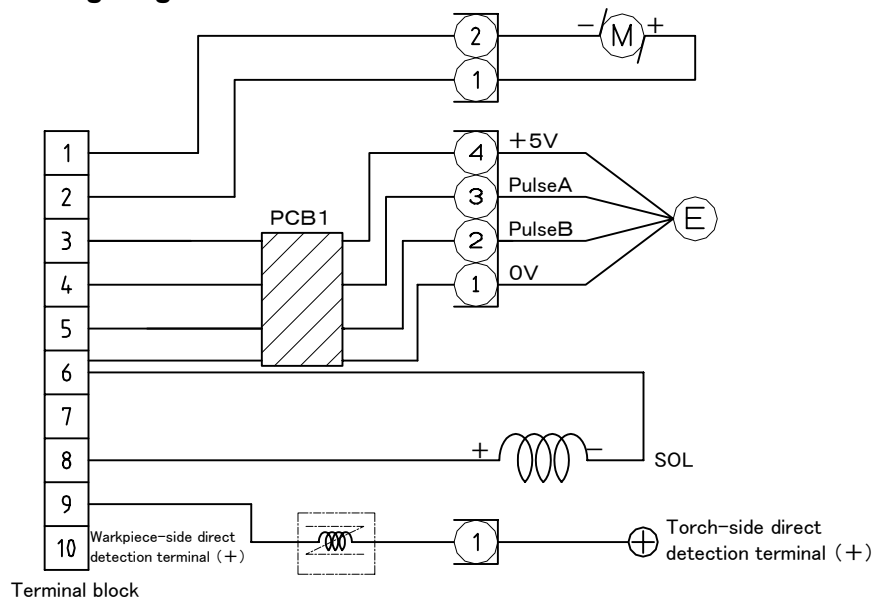
Table 8.3 List of optional accessories (L10907C)

Ref. No.	Part No.	Item	Qty	Remarks
1	U5185M01	Wire reel cover (Simplified)	(1)	Half cover
2	K5439F00	Caster	(1set)	
3	U5191G00	Hanging bracket	(1set)	
4	U5204B02	Center guide (0.8-1.0)	(1)	For aluminum, Wire dia. $\phi 0.8\sim 1.0$
5	L7812B02	Guide adapter	(1)	When the conduit is directly connected (packed wire).
6	L7812B03	Inlet guide	(1)	

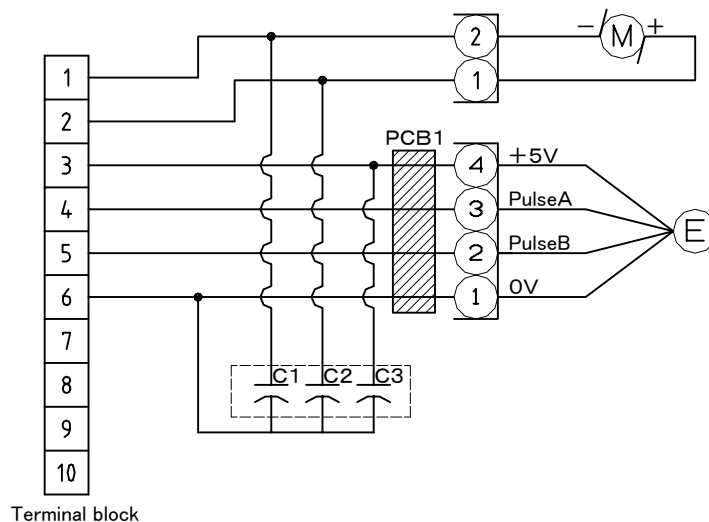
※ L10907D is not a parts # to be ordered as an assembly. Please order separately in each parts as needed.

9. Electrical Wiring Diagram

9.2. Electrical Wiring Diagram for AFF-4001 / AFAF-4001



9.3. Electrical Wiring Diagram for AFTF-4201 / AFUF-4201



Instruction Manual for CO₂/MAG/MIG/TIG Wire Feeding Unit
[AFF-4001, AFAF-4001, AFTF-4201, AFUF-4201]

No. 1L10904-E-1 November , 2009 1st Edition

ITEMS OF MAIN PRODUCTS

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DAIHEN Corporation

4-1, Koyochonishi, Higashinada-ku,
Kobe, Hyogo 658-0033
Phone : 078-275-2006
Fax : 078-845-8159

DAIHEN, Inc.

DAYTON OFFICE

1400 Blausser Drive
Tipp City, Ohio 45371, U.S.A
Phone : +1-937-667-0800
Fax : +1-937-667-0885

OTC DAIHEN EUROPE GmbH

Krefelder Strasse 675-677,
D-41066 Moenchengladbach
GERMANY
Phone : +49-2161-6949710
Fax : +49-2161-6949711

OTC DAIHEN Asia Co., Ltd.

23/43, 16th Fl. Sorachai Building,
23 Soi 63 Sukhumvit Road,
Klongtonnua, Wattana,
Bangkok 10110, Thailand
Phone : +66-2-714-3201
Fax : +66-2-714-3204

OTC (Taiwan) Co., Ltd.

2F No.153 Huanbei Rd.,
Chung Li City, Taoyuan Hsien,
Taiwan, R.O.C.
Phone : +886-3-461-3962
Fax : +886-3-434-2394

DAIHEN Korea Co., Ltd.

11B/L Hyeongok Industrial Complex,
463-1 Hyeongok-ri, Cheongbuk-myeon,
Pyeongtaek, Gyeonggi-do, 451-831,
Republic of Korea
Phone : +82-31-686-7459
Fax : +82-31-686-7465

OTC Industrial (Shanghai) Co., Ltd.

17F Majesty Building,
138 Pu Dong Da Dao Shanghai
The People's Republic of China
Phone : +86-21-5882-8633
Fax : +86-21-5882-8846