



**OWNER'S      MANUAL**  
**FOR**  
**WIRE FEEDER**

**MODEL:   CM-742-U   1U30037**

**DO   NOT   DESTROY**

**IMPORTANT:** Read and understand the entire contents of this manual, with special emphasis on the safety material throughout the manual, before installing, operating, or maintaining this equipment. This equipment and this manual are for use only by persons trained and experienced in the safety operation of welding equipment. Do not allow untrained persons to install, operate or maintain this equipment. Contact your distributor if you do not fully understand this manual.

**DAIHEN Corporation** WELDING PRODUCTS DIVISION

November 6, 2013

**Upon contact, advise MODEL and MANUAL NO.**

Notice : Machine export to Europe
-----------------------------------

This product does not meet the requirements specified in the EC Directives which are the EU safety ordinance that was enforced starting on January 1, 1995. Please make sure that this product is not allowed to bring into the EU after January 1, 1995 as it is.

The same restriction is also applied to any country which has signed the EEA accord.



Please ask us before attempting to relocate or resell this product to or in any EU member country or any other country which has signed the EEA accord.

## TABLE OF CONTENTS


1. SAFETY INFORMATION.....	2
2. ARC WELDING SAFETY PRECAUTIONS.....	2
3. CHECKING OF QUANTITY OF THE ACCESSORIES.....	8
4. NAMES OF PARTS.....	8
5. CARRYING AND INSTALLING OF THE WIRE FEEDER.....	9
6. CONNECTION PROCEDURE.....	11
7. WELDING PREPARATION.....	16
8. MAINTENANCE AND TROUBLESHOOTING.....	29
9. PARTS LIST.....	35
10. SPECIFICATIONS.....	46

## 1. SAFETY INFORMATION



The following safety alert symbols and signal words are used throughout this manual to identify various hazards and special instructions.

 <b>WARNING</b>	<b>WARNING</b> gives information regarding possible personal injury or loss of life.
 <b>CAUTION</b>	<b>CAUTION</b> refers to minor personal injury or possible equipment damage.

## 2. ARC WELDING SAFETY PRECAUTIONS

 <b>WARNING</b>
<b>ARC WELDING can be hazardous.</b>
<ul style="list-style-type: none"><li>• <b>PROTECT YOURSELF AND OTHERS FROM POSSIBLE SERIOUS INJURY OR DEATH.</b> Be sure to:<ul style="list-style-type: none"><li>• Keep children away.</li><li>• Keep pacemaker wearers away until consulting a doctor.</li></ul></li><li>• Read and understand the summarized safety information given below and the original principal information that will be found in the <b>PRINCIPAL SAFETY STANDARDS</b>.</li><li>• Have only trained and experienced persons perform installation, operation, and maintenance of this equipment.</li><li>• Use only well maintained equipment. Repair or replace damaged parts at once.</li></ul>
<b>ARC WELDING is safe when precautions are taken.</b>

## 2. ARC WELDING SAFETY PRECAUTIONS (continued)

	<p><b>ELECTRIC SHOCK can kill.</b></p>
<p>Touching live electrical parts can cause fatal shocks or severe burns. The electrode and work circuits are electrically live whenever the output is on. The power line and internal circuits of this equipment are also live when the line disconnect switch is on. When arc welding all metal components in the torch and work circuits are electrically live.</p> <ul style="list-style-type: none"> <li>• Do not touch live electrical parts.</li> <li>• Wear dry insulating gloves and other body protection that are free of holes.</li> <li>• Insulate yourself from work and ground using dry insulating mats or covers.</li> <li>• Be sure to disconnect the line disconnect switch before installing, changing torch parts or maintaining this equipment.</li> <li>• Properly install and ground this equipment according to its Owner's Manual and national, state, and local codes.</li> <li>• Keep all panels and covers of this equipment securely in place.</li> <li>• Do not use worn, damaged, undersized, or poorly spliced cables.</li> <li>• Do not touch electrode and any metal object if POWER switch is ON.</li> <li>• Do not wrap cables around your body.</li> <li>• When the wire feeder is not in use or the work is interrupted for a long time, shut off the power of all units.</li> <li>• Blow dry air to parts periodically to remove dust and dirt.</li> </ul>	
	<p><b>ARC RAYS can burn eyes and skin: FLYING SPARKS AND HOT METAL can cause injury. NOISE can damage hearing.</b></p>
<p>Arc rays from the welding process produce intense heat and strong ultraviolet rays that can burn eyes and skin.</p> <p>Noise from some arc welding can damage hearing.</p> <ul style="list-style-type: none"> <li>• Wear face shield with a proper shade of filter (See ANSI Z 49.1 listed in PRINCIPAL SAFETY STANDARDS) to protect your face and eyes when welding or watching a welder work.</li> <li>• Wear approved safety goggles. Side shields recommended.</li> <li>• Use protective screens or barriers to protect others from flash and glare: warn others not to look at the arc.</li> <li>• Wear protective clothing made from durable, flame-resistant material (wool and leather) and foot protection.</li> <li>• Use approved earplugs or earmuffs if noise level is high.</li> </ul> <p>Chipping and grinding can cause flying metal. As welds cool, they can throw off slag.</p> <ul style="list-style-type: none"> <li>• Wear approved face shield or safety goggles. Side shields recommended.</li> <li>• Wear proper body protection to protect skin.</li> </ul>	

## 2. ARC WELDING SAFETY PRECAUTIONS (continued)



**WELDING can cause fire and explosion.**

Sparks and spatter fly off from the welding arc. The flying sparks and hot metal, spatter, hot base metal, and hot equipment can cause fire and explosion. Accidental contact of electrode or welding wire to metal object can cause sparks, overheating, or fire.

- Protect yourself and others from flying sparks and hot metals.
- Do not weld where flying sparks can strike flammable material.
- Remove all flammables within 10m (33ft) of the welding arc. If this is not possible, tightly, cover them with approved covers.
- Be alert that welding sparks and hot metals from welding can easily pass through cracks and openings into adjacent areas.
- Watch for fire, and keep a fire extinguisher nearby.
- Be aware that welding on a ceiling, floor, bulkhead, or partition can ignite a hidden fire.
- Do not weld on closed containers such as tanks or drums.
- Connect base metal side cable as close to the welding area as possible to prevent the welding current from traveling along unknown paths and causing electric shock and fire hazards.
- Remove stick electrode from holder or cut off welding wire at contact tip when not in use.
- Does not use the welding power source for other than arc welding.
- Wear oil-free protective garments such as leather gloves, a heavy shirt, cuffless trousers, boots, and a cap.
- A loose cable connection can cause sparks and excessive heating.
- Tighten all cable connections.
- When there is an electrical connection between a work piece and the frame of wire feeder or the wire reel stand, are may be generated and cause damage by a fire if the wire contacts the frame or the work piece.

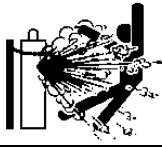


**FUMES AND GASES can be hazardous to your health.**

Arc welding produce fumes and gases. Breathing these fumes and gases can be hazardous to your health.

- Keep your head out of the fumes. Do not breathe the fumes.
- Ventilate the area and/or use exhaust at the arc to remove welding fumes and gases.
- If ventilation is poor, use an approved air-supplied respirator.
- Read the Material Safety Data Sheets (MSDS) and the manufacturer's instructions on metals, consumables, coatings, and cleaners.
- Do not weld or cut in locations near degreasing, cleaning, or spraying operations. The heat and arc rays can react with vapors to form highly toxic and irritating gases.
- Work in a confined space only if it is well ventilated, or while wearing an air-supplied respirator. Shielding gases used for welding can displace air causing injury or death. Be sure the breathing air is safe.

## 2. ARC WELDING SAFETY PRECAUTIONS (continued)



**CYLINDER can explode if damaged.**

A shielding gas cylinder contains high-pressure gas. If damaged, a cylinder can explode. Since gas cylinders are normally part of the welding process, be sure to treat them carefully.

- Use only correct shielding gas cylinders, gas regulator, hoses, and fittings designed for the specific application; maintain them in good condition.
- Protect compressed gas cylinders from excessive heat, mechanical shock, and arcs.
- Keep the cylinder upright and securely chained to a stationary support or a rack to prevent falling or tipping.
- Keep cylinders away from any welding or other electrical circuit.
- Never touch cylinder with welding electrode.
- Read and follow instructions on compressed gas cylinders, associated equipment, and the CGA publication P-1 listed in **PRINCIPAL SAFETY STANDARDS**.
- Turn face away from valve outlet when opening cylinder valve.
- Keep protective cap in place over valve except when gas cylinder is in use or connected for use.
- Do not disassemble or repair the gas regulator except for the person authorized by the manufacturer of them.



### **WARNING**

Be sure to observe the followings for preventing physical injuries, a fire and electric shock.

#### **Handling of plastic parts**

Front cover is made of polycarbonate.

Make sure to observe the following notice.

- Do not apply external force and a shock to front cover. Otherwise it maybe broken and in trouble.
- Polycarbonate can endure wiping off with water and alcohol in general but using at a sticking place with an organic solvent, chemicals, cutting oil and atmosphere such as composition oil, it gives bad influence to polycarbonate and it causes a crack (breaking) and a strength down.




If abnormality was discovered such as crack on the front cover, stop operating immediately and ask to repair and change.



### **WARNING**

- 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.

## 2. ARC WELDING SAFETY PRECAUTIONS (continued)

		Rotating parts may cause injuries. Be sure to observe the following.
<p>If hands, fingers, hair or clothes are put near the fan's rotating parts or wire feeder's feed roll, injuries may occur.</p> <ul style="list-style-type: none"><li>• Do not use this equipment if the case and the cover are removed.</li><li>• When the case is removed for maintenance/inspection and repair, certified or experienced operators must perform the work. Erect a fence, etc. around this equipment to keep others away from it.</li><li>• Before touching rotating parts for maintenance, inspection and repair, shut off the welding power.</li><li>• Do not put hands, fingers, hair or clothes near the rotating fans or wire feed roll.</li></ul>		
	ARC WELDING work areas are potentially hazardous.	
<p>FALLING or MOVING machine can cause serious injury.</p> <ul style="list-style-type: none"><li>• When hanging the welding power source by a crane, do not use the carrying handle.</li><li>• Put the welding power source and wire feeder solidly on a flat surface.</li><li>• Do not pull the welding power source across a floor laid with cables and hoses.</li><li>• Do not put wire feeder on the welding power source.</li><li>• Do not put the welding power source and wire feeder where they will pit or fall.</li></ul> <p>WELDING WIRE can cause puncture wounds.</p> <ul style="list-style-type: none"><li>• Do not press gun trigger until instructed to do so.</li><li>• Do not point gun toward any part of the body, other people, or any metal when threading welding wire.</li></ul>		



## PRINCIPAL SAFETY STANDARDS

Arc welding equipment – Installation and use, Technical Specification  
IEC 62081, from International Electro technical Commission

Arc welding equipment Part 1: Welding power sources IEC 60974-1, from International Electro technical  
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.

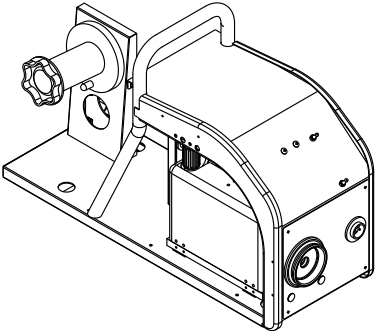
Safe Practices For Occupation And Educational Eye And Face Protection, ANSI Standard Z87.1, from  
American National Standards Institute.

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

NOTE: The codes listed above may be improved or eliminated. Always refer to the updated codes.

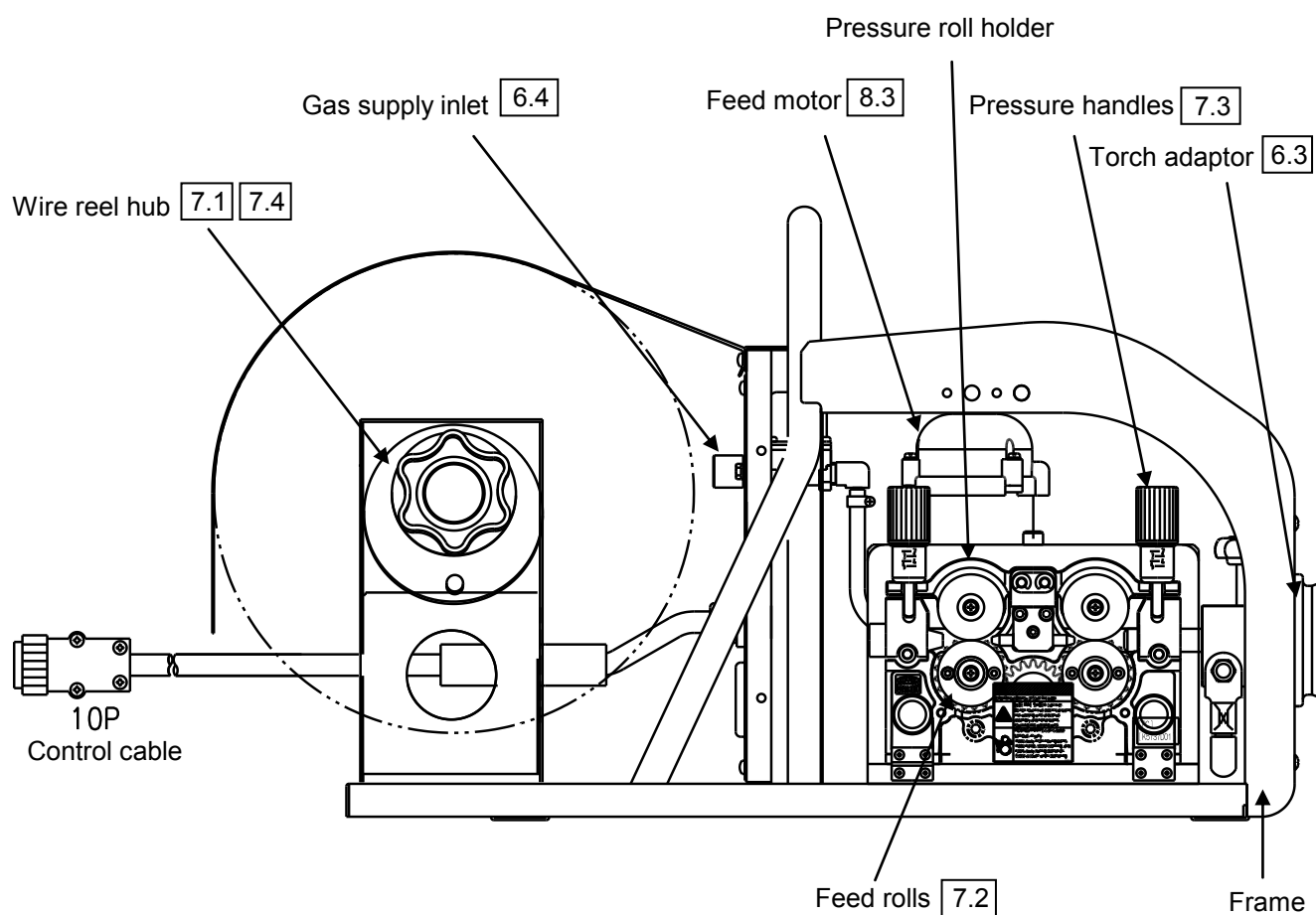
### 3. CHECKING OF QUANTITY OF THE ACCESSORIES

Check the quantity of parts when opening the package.

Wire feeder	Accessory			
	No.	Description	Specification	Quantity
	①	Gas hose (9.8ft [3m])	U5971R00	1
	②	Switch cord	U5971S00	1
	③	Terminal	100-0816	2
		Vinyl cap	100-0817	2
	④	Hose cover	U1997C03	2




### 4. NAMES OF PARTS

Refer to the section indicated in    for details.







## 5. CARRYING AND INSTALLING OF THE WIRE FEEDER

### 5.1 Transportation

 <b>WARNING</b>	
Observe the following to avoid damage to the wire feeder or physical injury when carrying the equipment.	
	<ul style="list-style-type: none"> <li>Do not touch the charging parts inside or outside the wire feeder.</li> <li>Disconnect the wire feeder from the welding power source by turning off the line disconnect switch in the power box to avoid an electric shock before carrying the equipment.</li> </ul>
	<ul style="list-style-type: none"> <li>Be sure to detach the wire reel from the wire feeder before lifting the equipment to the high places by a crane.</li> </ul>

### 5.2 Installation

 <b>WARNING</b>	
When installing the wire feeder, follow the instructions below to avoid occurrence of fires during welding and physical damage by fume gas.	
	<ul style="list-style-type: none"> <li>Do not place the welding machine near combustible materials and flammable gas.</li> <li>Remove combustible materials to prevent dross coming into contact with combustible objects. If that not possible, cover them with noncombustible covers.</li> </ul>
	<ul style="list-style-type: none"> <li>To avoid gas poisoning and danger of suffocation, wear a gas mask or adequately ventilate when using the welding machine in the place regulated by a local law.</li> <li>To prevent disorder or poisoning caused by fume, wear a gas mask or weld at a partial exhaust facility approved by the local regulation.</li> <li>Adequately ventilate or wear a gas mask when using the welding machine in a tank, a boiler, a hold of a ship, because heavier gas such as carbon dioxide or argon gases are drifting there.</li> <li>When using the welding machine at a narrow space, comply with a trained supervisor's directions. And be sure to wear a gas mask.</li> <li>Do not operate the welding machine near the place where degreasing, cleansing, and spraying are performed. Otherwise, poisonous gas may be generated.</li> <li>Be sure to wear a gas mask or adequately ventilate when welding a coating steel plate. (Poisonous gas and fume may be generated.)</li> <li>Do not place the welding power source, wire feeder, torch, and control cable (including the extension cable) in an area where the equipment can become wet.</li> </ul>

 <b>CAUTION</b>
Follow the instructions below when selecting an installation place for the wire feeder.
<ul style="list-style-type: none"> <li>Do not install in areas exposed to direct sunlight and rain.</li> <li>Do not place the welding power source, wire feeder, torch, and control cable (including the extension cable) in an area where the equipment can become wet.</li> <li>Install the wire feeder in the place where is altitude below 1,000m and the ambient temperature is between -10 °C and +40 °C (+14 °F and +104 °F).</li> <li>Install a wind shield to protect arc from wind.</li> </ul> <p>Fix the gas cylinder to a stand specifically made for gas cylinders.</p>

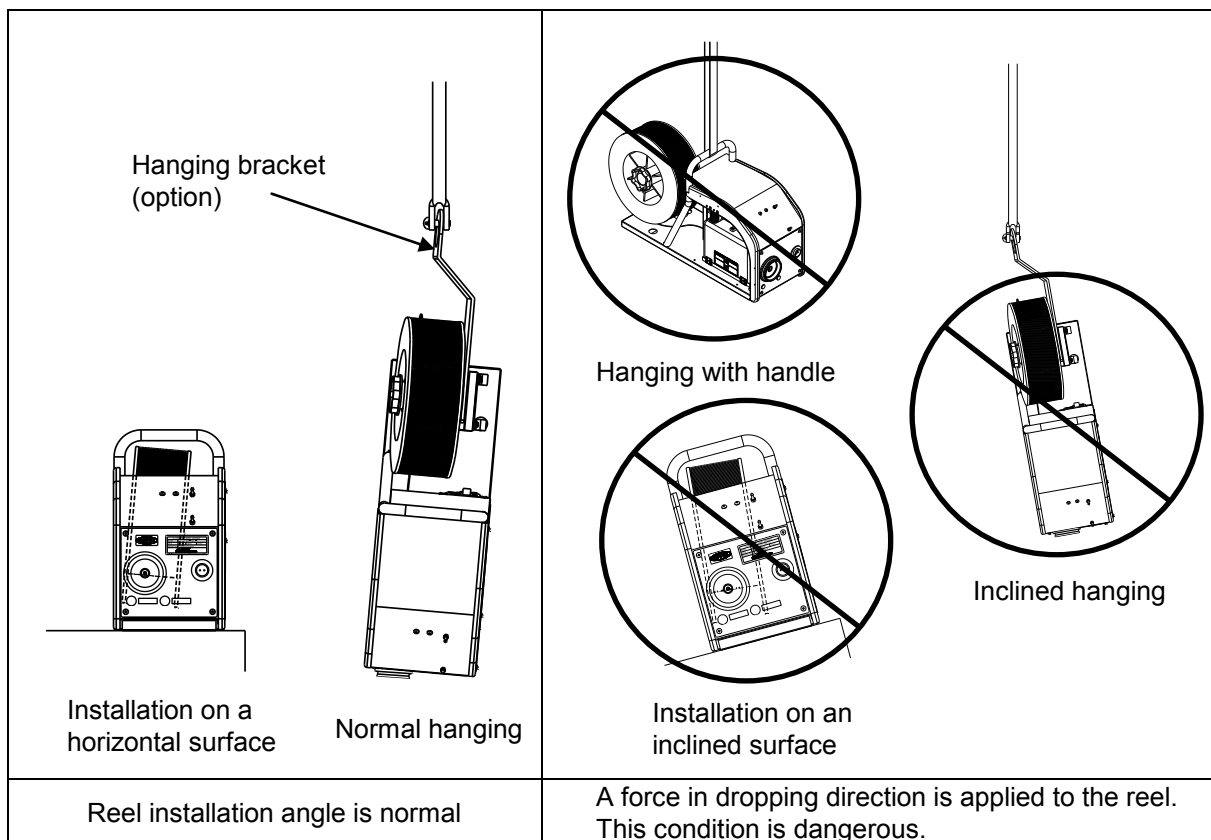
## 5. CARRYING AND INSTALLING OF THE WIRE FEEDER(continued)





### WARNING

When using the wire feeder at a high place or in hung condition, observe the following precautions to prevent serious personal injury due to fallen wire feeder or wire reel.

- For hanging the wire feeder, use a metal hanger structured to prevent falling and hang the wire feeder in a safe and secure manner.
- When hanging the wire feeder, use the hanging bracket (optional bracket of part number (U30022Z00)).
- Do not hang the wire feeder using the handle of the wire feeder as shown in the diagram below.
- Do not install or hang the wire feeder in a posture, resulting in falling of the reel as shown in the diagram below.
- When installing the wire feeder at a high place, be sure to install and secure it on a horizontal surface.

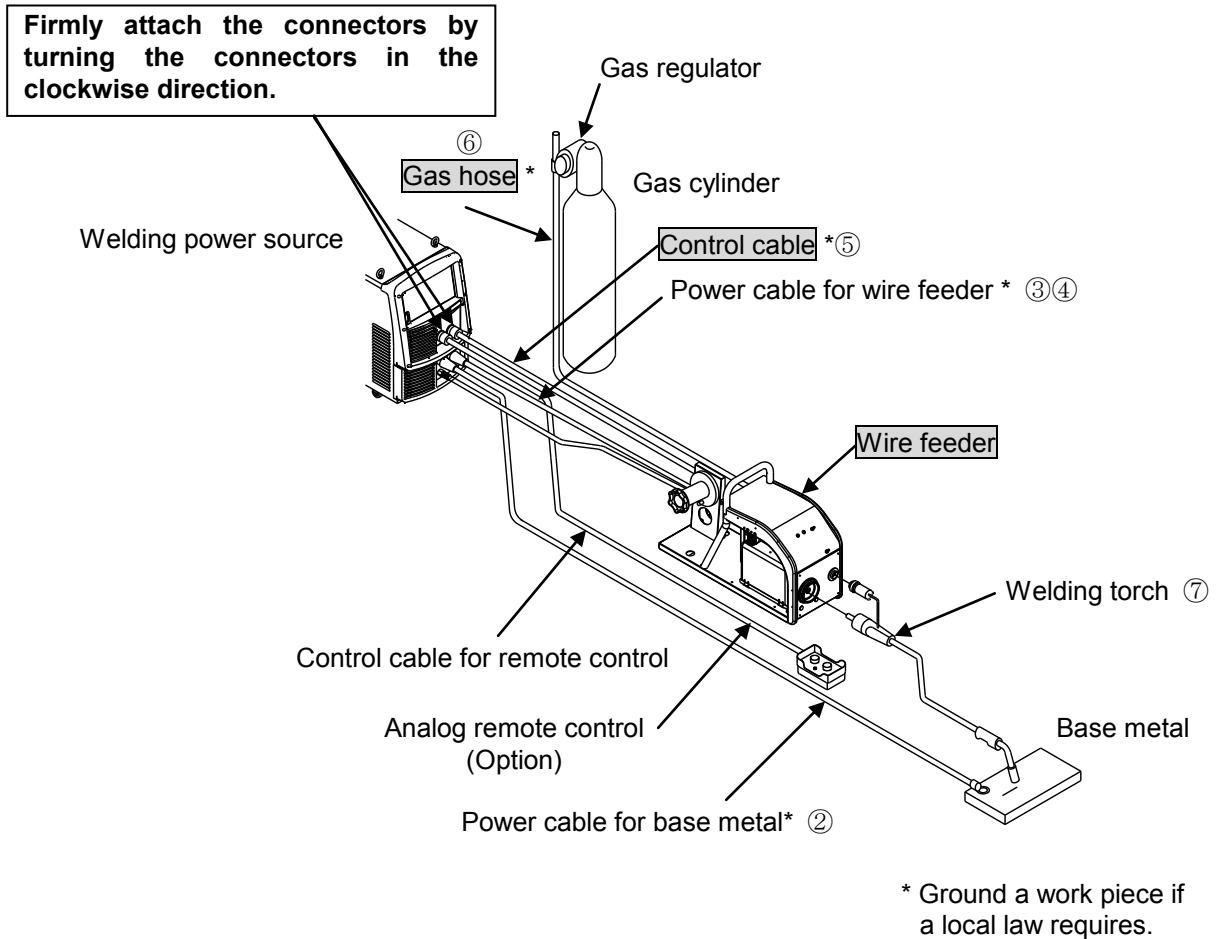



## 6. CONNECTION PROCEDURE

 <b>CAUTION</b>	
	<p>Follow the instructions below to avoid electric shock.</p>
<p><b>Do not touch live electrical parts, as this may cause in fatal shock and severe burns.</b></p> <ul style="list-style-type: none"><li>• Do not touch live electrical parts of the welding machine.</li><li>• Have a qualified electric engineer ground the case of the welding power source and the base metal or jig electrically connected, following a local law.</li><li>• Disconnect the wire feeder from the welding power source by turning off the line disconnect switch in the power box to avoid an electric shock before grounding the welding power source or base metal and connecting the cables or hoses.</li><li>• Do not use a cable with lack of capacity or a damaged cable.</li><li>• Tighten and insulate the connections of cables.</li><li>• Firmly attach the cover of the welding machine after connection of the cables.</li><li>• Do not place the welding power source, wire feeder, torch, and control cable (including the extension cable) in an area where the equipment can become wet.</li><li>• Insulate connected part of the bolt and the nut with the insulating tape surely after it tightens enough.</li></ul>	

## 6. CONNECTION PROCEDURE(continued)

### 6.1 Connection to the Welding Power Source and to the Gas regulator



**NOTE:** Standard composition consists of the parts indicated in . Preparation of the parts except the standard composition is required to use the wire feeder.

\*Available in 16ft[5m], 33ft[10m], 49[15m], and 66ft[20m].

Follow the steps below for the connection of the welding power source and the wire feeder.

1. Ground the base metal (if required by local laws or codes).
2. Connect the power cable for base metal between the negative output terminal and the base metal.
3. Attach the power cable for wire feeder to the positive output terminal.
4. After removing the right-side plate of the wire feeder, attach the power cable for wire feeder to the power terminal block. (refer 6.2 for details)
5. Connect the control cable for the wire feeder (10P) into the wire feeder socket on the welding power source.
6. Attach the gas hose to the gas supply inlet on the back side of the wire feeder. (refer 6.4 for details)
7. Connect the welding torch to the wire feeder. (refer 6.3 for details)

## 6. CONNECTION PROCEDURE(continued)

### 6.2 Connecting of the Power Cable for Wire Feeder



#### WARNING

Touching live electrical parts may cause in fatal electric shock and severe burns.

- Do not touch live electrical parts of the welding machine.
- Have a qualified electric engineer ground the case of the welding power source and the base metal or jig electrically connected in accordance with a local law.
- Disconnect the wire feeder from the welding power source by turning off the line disconnect switch in the power box to avoid an electric shock before the welding power source or base metal and connecting the cables or hoses.
- After connecting the cables, cover the power source with the cover or case.
- When using the welding machine in such a humid environment as construction site, on the steel plate, or on steel structure, install a leakage breaker.



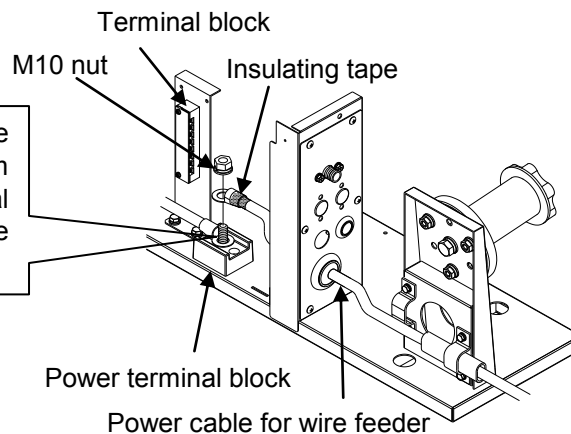
#### CAUTION

- Use the proper power cable that matches the welding current.

Welding current	Cable thickness
0 — 200 A	AWG 1 [38mm <sup>2</sup> ] or more
200 — 350 A	AWG 0 [60mm <sup>2</sup> ] or more
350 — 500 A	AWG 3/0 [80mm <sup>2</sup> ] or more

\* When performing pulse welding using a 56ft [17m] or more cable, use the thicker cable by one rank.


Take care to attach the power cable firmly to prevent the cable from touching the frame and the terminal block. Put around the terminals of the cable with insulating tape.

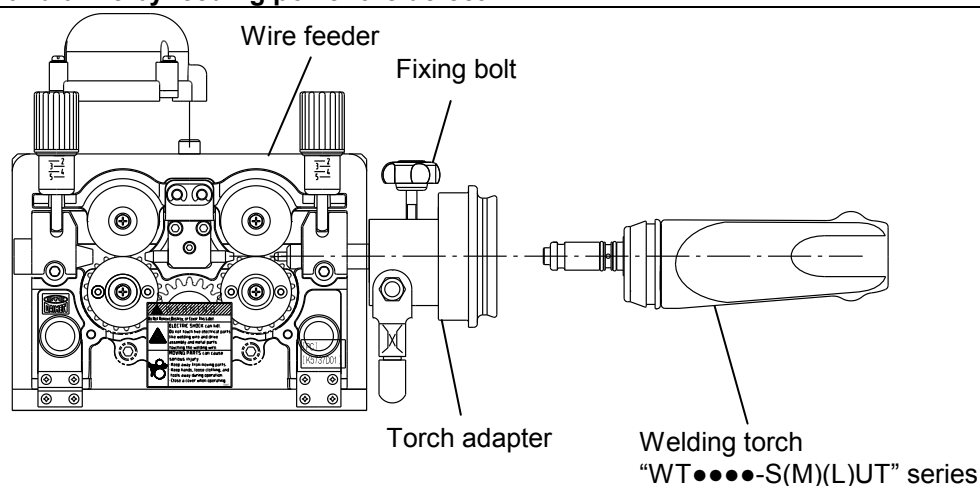


## 6. CONNECTION PROCEDURE(continued)

### 6.3 Connecting of the Welding Torch

Welding torch is connected with the part torch adapter of Wire feeder, fixing bolt is tightened, and welding torch is fixed.

 <b>CAUTION</b>
<b>• Please tighten fixing bolt surely to fix Torch. Otherwise, it causes the electric shock and a fire by feeding power the defect.</b>



[Note] This product can connect following welding torch by the standard.

OTC CO<sub>2</sub>/MAG Welding torch

"WT3510- S(M)(L)UT" series, "WT4000- S(M)(L)UT" series

When following welding torch is connected, it is necessary to prepare option parts and option kit separately.

OTC CO<sub>2</sub>/MAG Welding torch

"WT5000- S(M)(L)UT" series

※Option kit : Torch adaptor kit (K5870C00)

OTC MIG Welding torch

"WTA200-SUT", "WTA300-SUT", "WTAW400-SUT"

※Option kit : Aluminum kit (K5870E00)

※Please use the following torches if voltage detection is required.

OTC CO<sub>2</sub>/MAG Welding torch

"WT3500-S(M)(L)D" series

"WT3510-S(M)(L)D" series



"WT3520-S(M)(L)D" series


※Option kit : Voltage detection adaptor kit (K5870V00)

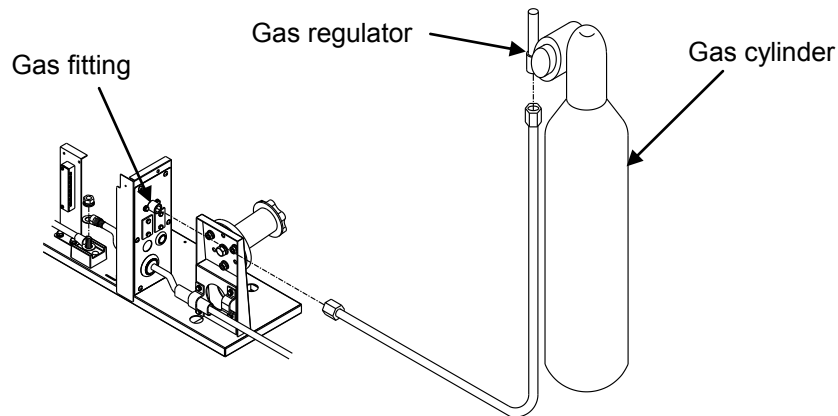


## 6. CONNECTION PROCEDURE(continued)

### 6.4 Connecting of the Gas Hose

 <b>WARNING</b>	
	<ul style="list-style-type: none"><li>• You may suffer from danger of suffocation caused by lack of oxygen when shield gas keeps drifting in a closed place. Be sure to turn off the shield gas at the main when the welding power source is not in use.</li></ul>

 <b>WARNING</b>	
<ul style="list-style-type: none"><li>• Be sure to connect the gas hose after fixing to the stand, as physical injuries may cause from falling down of gas cylinder.</li><li>• Attach a proper gas regulator to the gas cylinder. Failure to observe the demand may cause in physical injuries. The gas regulator for high pressure gas must be used.</li></ul>	



#### How to Make Gas Connection

1. Firmly connect the gas hose to the gas supply inlet located on the rear side of the wire feeder.
2. Mount the gas regulator on the gas cylinder by tightening the nut for attaching the gas cylinder .
3. Connect the gas hose to the gas supply outlet on the gas regulator.

**NOTE:** Firmly tighten the nuts using a monkey wrench, etc. to connect the gas hose and gas regulator.

## 7. WELDING PREPERATION

### 7.1 Fitting of Wire



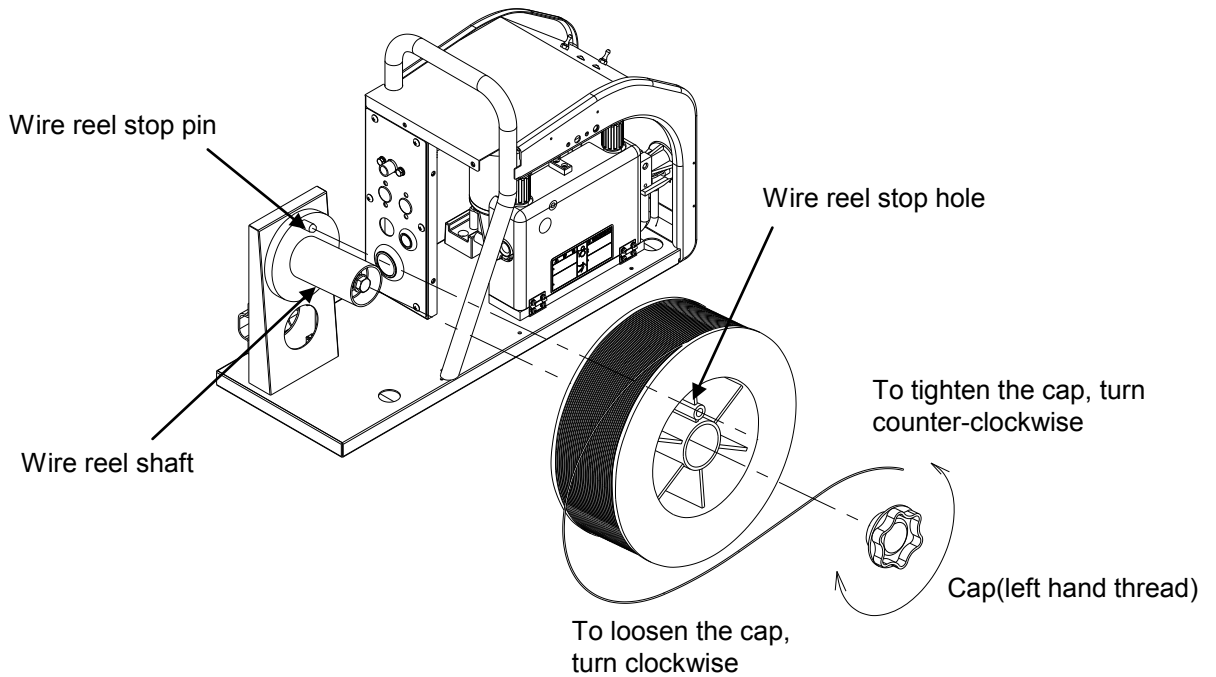
#### WARNING

- When the wire is set on the wire reel shaft, fully tighten the cap to prevent falling.
- In case a breakage, crack or deformation is found in the wire reel shaft or cap, do not use but replace it.

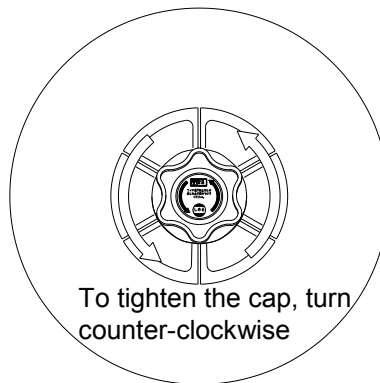
#### Fitting of Wire

1. Turn the cap clockwise to loosen it.
2. Detach the cap from the wire reel shaft.
3. Mount the wire reel on the wire reel shaft.

**NOTE:** When installing the wire reel shaft, be sure to insert the stopper pin of the wire reel shaft into the wire reel stopper pin hole.

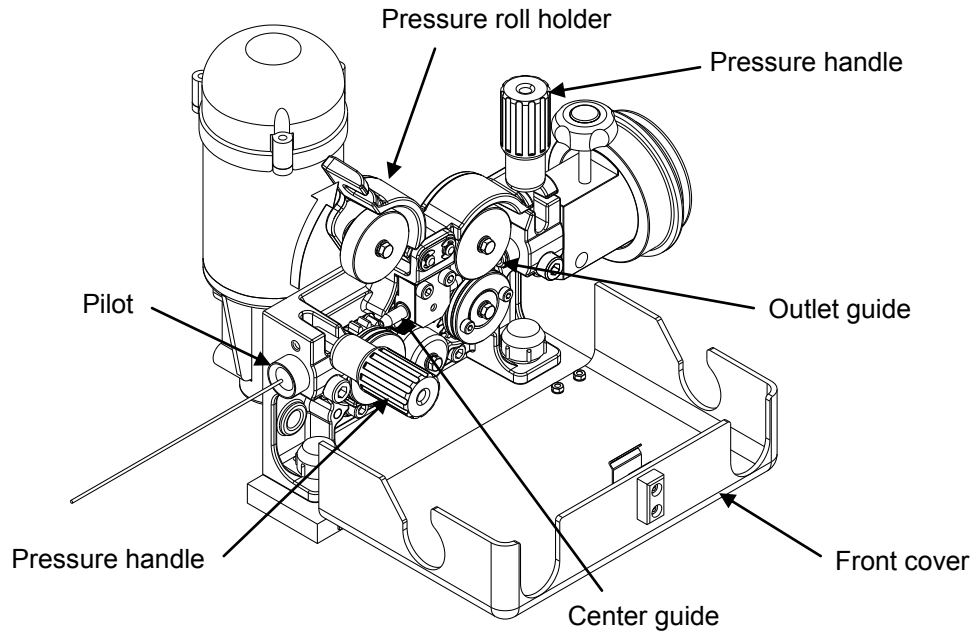


4. Turn the cap counter-clockwise to tighten it.



## 7. WELDING PREPERATION(continued)

5. Open the front cover.
6. Bring down the pressure handle, then raise the pressure roll holder.
7. After pulling out the wire, thread it from the pilot to outlet guide through the center guide.
8. Return the pressure reel holder first, the pressure handle.
9. Close the front cover.



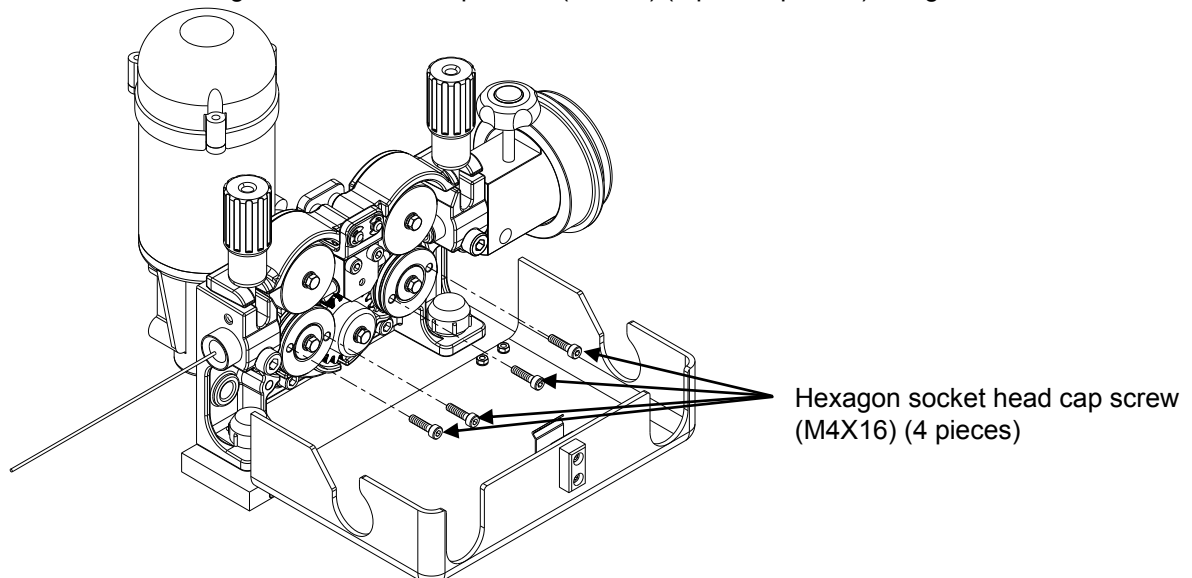
### 7.2 Mounting of the Feed Roll

#### Confirming of the wire size marked on the feed roll

1. Use the proper feed roll for the wire size.
2. The feed roll of  $\phi 0.045$ in[1.2mm] wire size is mounted on the CM-742-U wire feeder when Shipping.

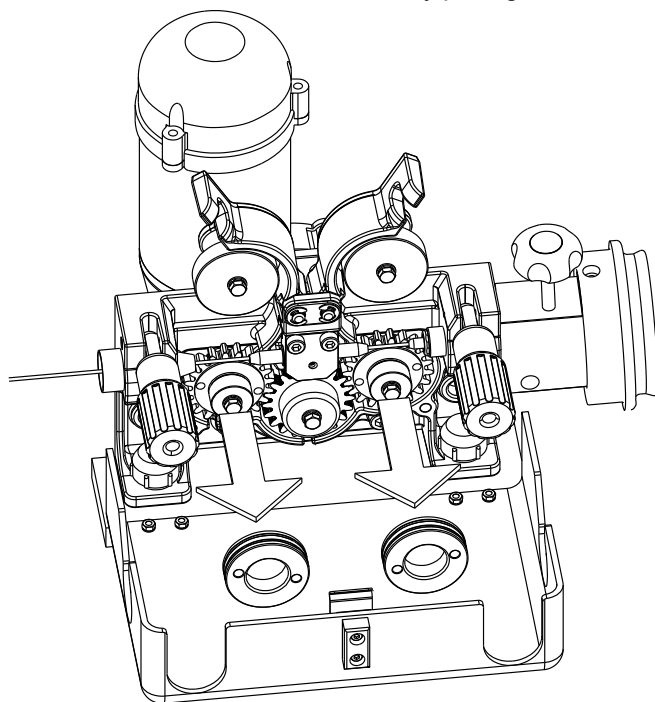
#### Replacing of the feed roll

1. Open the front cover.
2. Remove the hexagon socket head cap screw (M4x16) (2 pieces per roll) fixing the feeder roll.

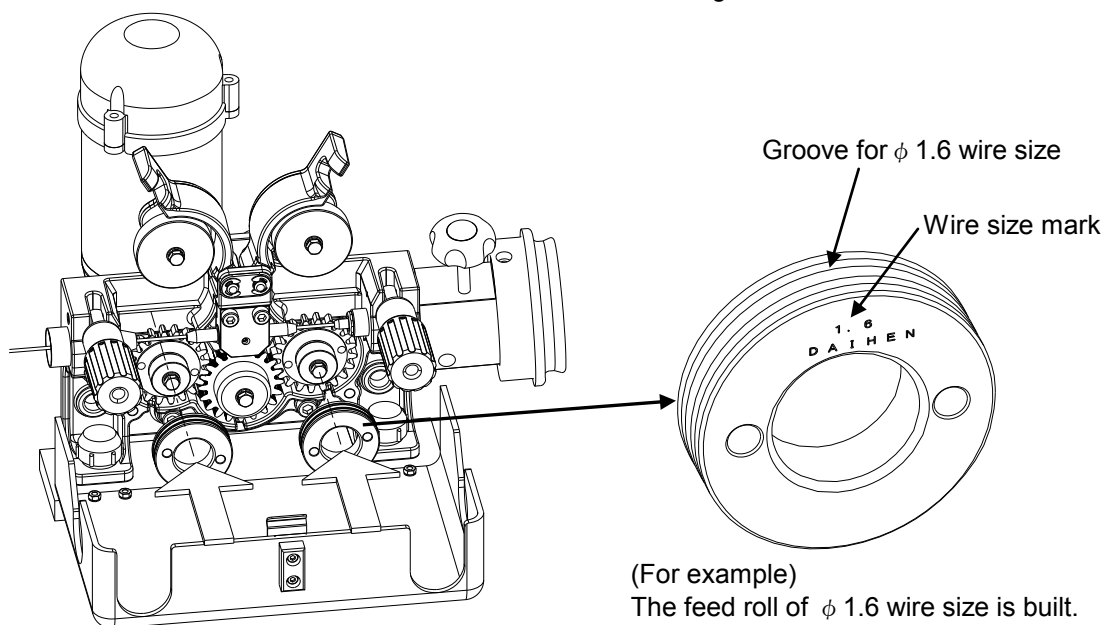


## 7. WELDING PREPERATION(continued)

3. Bring down the pressure handle, then raise the pressure roll holder.
4. Separate the feed roll from the wire feeder by pulling out the feed roll toward you.



5. Mount the feed roll, with the wire size marked on the wire feeder facing out.



6. Tighten the hexagon socket head cap screw (M4X16) (2 pieces per roll) to fix the feeder roll.
7. Close the front cover.

## 7. WELDING PREPERATION(continued)

### 7.3 Adjusting of the wire pressure


Set to the proper wire pressure for the wire type by turning the pressure handle.

The numeral on the pressure scale set with the right pressure handle should be correspond to the one set with the left pressure handle.

Recommended wire pressure adjustment				
Wire material	Wire diameter		Pressure handle scale	Wire straightener scale
	( $\phi$ mm)	( $\phi$ inch)		
Aluminum	1.6	1/16"	2-3	2-3
	1.2	3/64"	1-2	3-4
	1.0	.040"	1-2	4-5
Mild steel Stainless steel	1.6	1/16"	3-4	(2-3)
	1.4	.052"	3-4	(3-4)
	1.2	.045"	2-3	(3-4)
	1.0	.040"	2-3	(4-5)
	0.9	.035"	2-3	(4-5)
	0.8	.030"	1-2	(4-5)
	0.6	.024"	1-2	(4-5)

### 7.4 Adjusting of the wire reel hub

After performing inching operation, take care to adjust the brake of the wire reel hub to prevent the wire from going too slack. The bake has been properly adjusted before shipment. Therefore, readjustment of the brake is not required for welding in standard welding conditions.

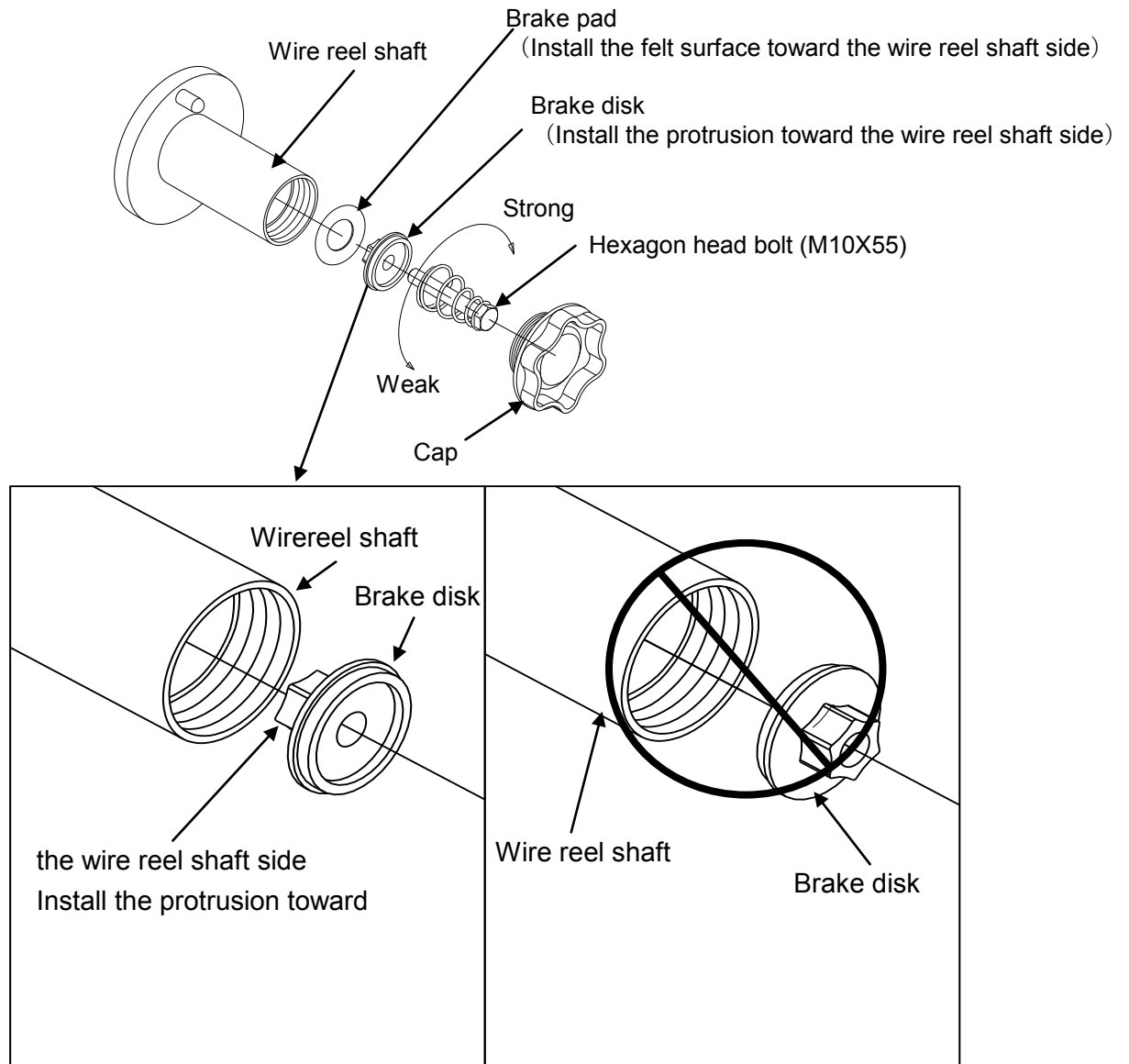
 <b>WARNING</b>	
<p><b>Observe the following precautions to prevent serious personal injury caused by fall of the wire reel at the time of wire reel hub adjustment or hanging bracket installation.</b></p> <ul style="list-style-type: none"> <li>●Mount the brake pad to the wire reel shaft as illustrated below with care placed to the mounting direction.</li> <li>●Mount the brake disk to the wire reel shaft as illustrated below with care placed to the mounting direction.</li> <li>●In the event that the brake pad and the brake disk are used in wrong directions, the hexagon head bolt comes loose due to rotations of the wire reel shaft and may fall together with the wire reel shaft.</li> </ul>	

## 7. WELDING PREPERATION(continued)

### How to adjust the wire reel hub





1. Detach the cap from the wire reel shaft.
2. Adjustment of the brake can be achieved by turning the hexagon bolt (M10).

If the brake pad and brake disk are disengaged by mistake, assemble them by referring to the diagram below.



## 7. WELDING PREPERATION(continued)

### 7.5 Feeding Wire Feeding by Performing Inching Operation

 <b>WARNING</b>	
	<ul style="list-style-type: none"><li>• Do not look into the tip hole to check for the rate of wire feeding while inching.</li></ul>
 <b>CAUTION</b>	
	<ul style="list-style-type: none"><li>• Keep away your hands, fingers, hair or clothes from the rotating parts of the feed roll, etc. to prevent you from being caught into the rotating parts while inching.</li></ul>

After straightening the welding torch, feed the wire by pressing the INCHING key. (the INCHING lamp located at the upper right of the INCHING key lights up).

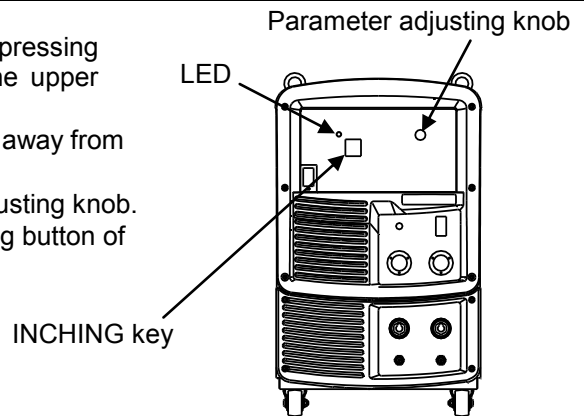
Release the inching key when the wire is about 10mm away from the end of the tip. (LED goes out)

Wire feed rate can be adjusted with the parameter adjusting knob.




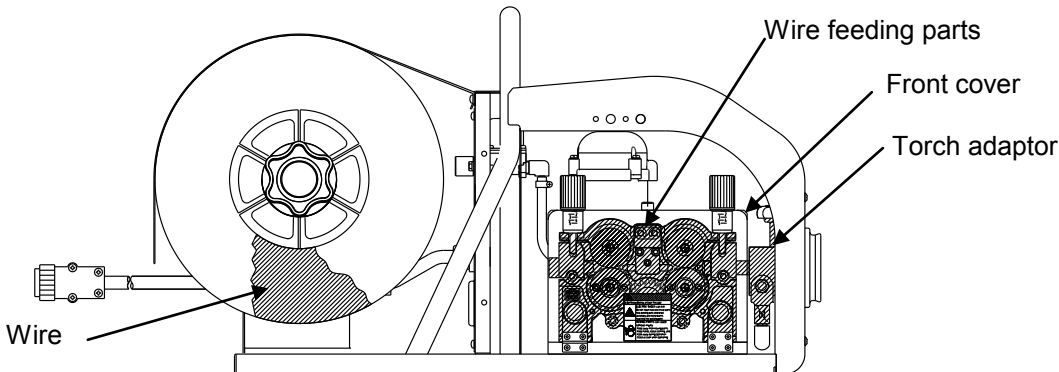
In addition, operation can also be made with the inching button of the remote controller (optional accessory).

In this case, adjustment can be made with the current knob of the remote controller.


Adjustment cannot be made with the parameter adjusting knob of the front panel.



## 7. WELDING PREPERATION (continued)

 <b>WARNING</b>	
<b>Touching the charging parts may cause fatal electric shocks and burns.</b>	
	<ul style="list-style-type: none"> <li>• Never touch live electrical parts in the wire, wire feeder and feeder block. The parts indicated as  in the figure are the charging parts during welding.</li> <li>• Be sure to close the front cover of the wire feeding section to prevent electric shock and fingers from being caught in the wire feeder. Replace the damaged cover with a new one. Do not use the wire feeder with the front cover removed.</li> </ul>
	

### 7.6 Hanging the Wire Feeder

 <b>WARNING</b>	
<b>Be sure to observe the following to prevent serious personal injury.</b>	
<ul style="list-style-type: none"> <li>• When hanging the wire feeder, firmly fix the cap knob and clamp screw in position to prevent the device from dropping.</li> <li>• Do not use the carrying handle of the wire feeder to hang the wire feeder.</li> <li>• When hanging the wire feeder, use the hanging bracket (optional bracket of part number U30022Z00).</li> <li>• Prevent unauthorized persons from entering the area of welding machine and welding work.</li> <li>• Tighten the nut section with flat washer and spring washer.</li> <li>• Tighten bolts and nuts to the tightening torque stated on this sheet and check the tightening torque 60. every 3 months.</li> <li>• Check for deformation and damage of bolts and nuts after use and replace if you found any abnormality.</li> </ul>	

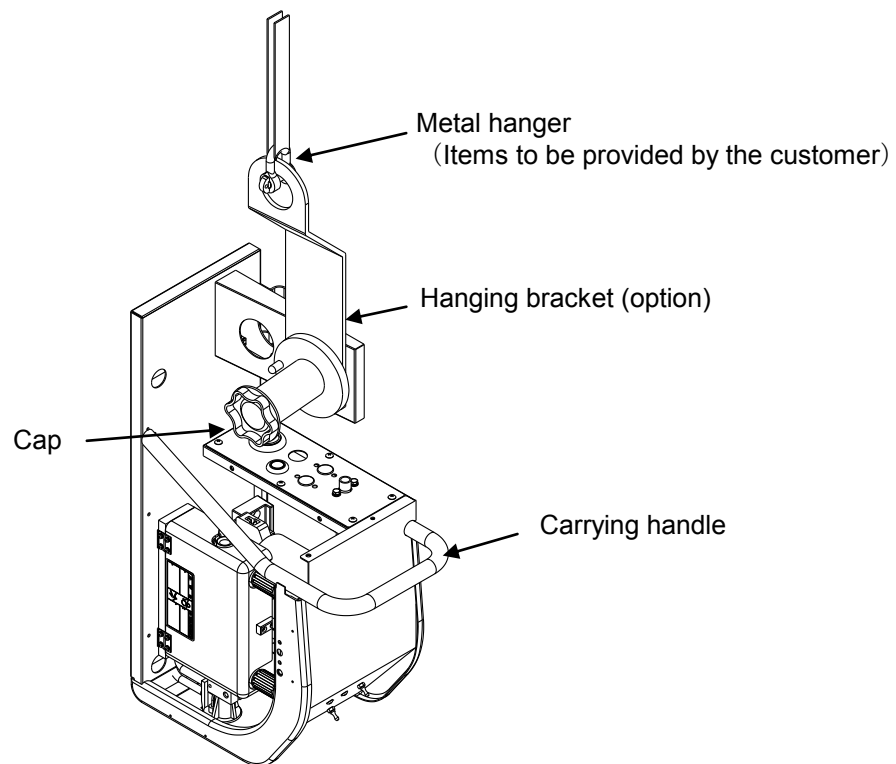
\*Use a metal hanger structured to prevent it from coming off due to swinging, etc.

\*Inspect the metal hanger and hanging bracket daily and ensure that they are free from abnormal conditions.

\*When using the hanging bracket, be sure to observe the precautions of the instruction manual of the hanging bracket.



## 7. WELDING PREPERATION (continued)



## 7. WELDING PREPERATION (continued)

How to attach the hanging bracket

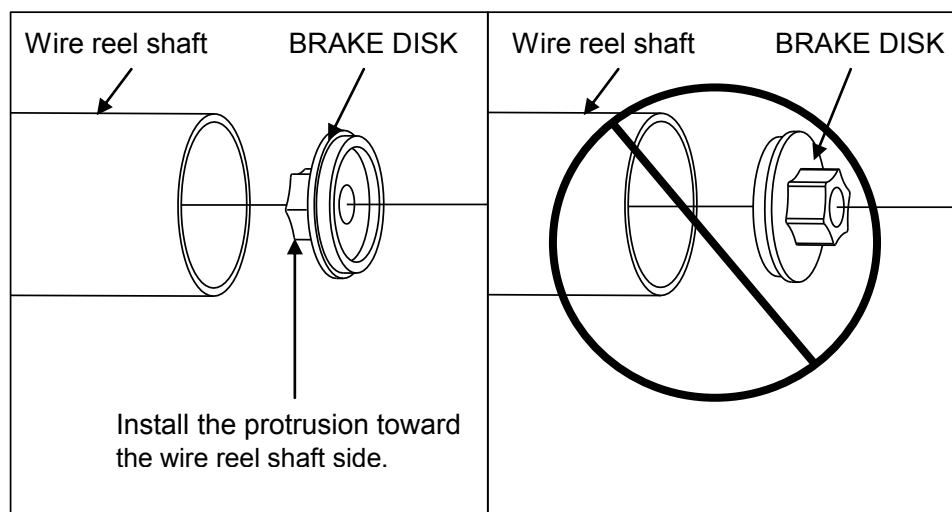
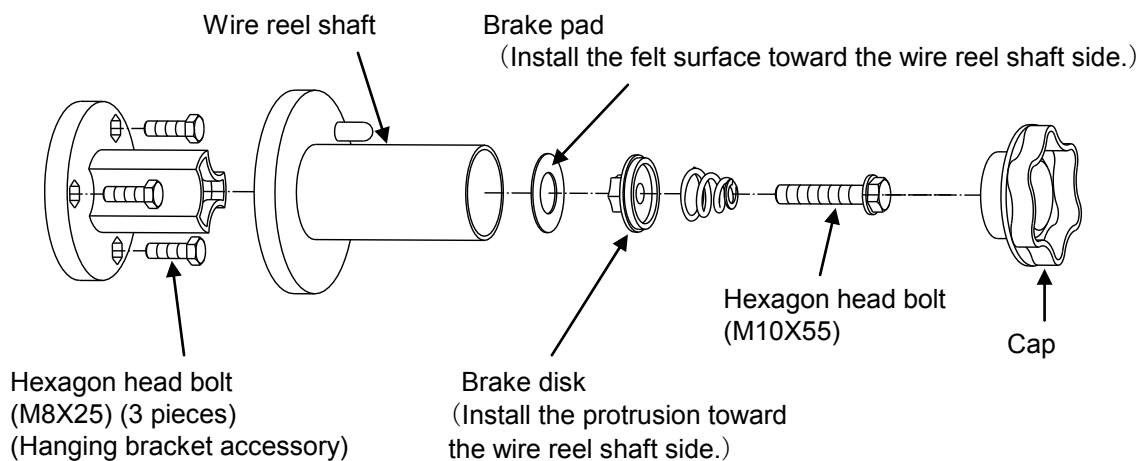


### WARNING

Observe the following precautions to prevent serious personal injury caused by fall of the wire reel at the time of wire reel hub adjustment or hanging bracket installation.

- Mount the brake pad to the wire reel shaft as illustrated below with care placed to the mounting direction.
- Mount the brake disk to the wire reel shaft as illustrated below with care placed to the mounting direction.
- In the event that the brake pad and the brake disk are used in wrong directions, the hexagon head bolt comes loose due to rotations of the wire reel shaft and may fall together with the wire reel shaft.

1. Remove hexagon head bolt (M10X16) and Nut (M8) (3pieces) and remove the wire reel hub from the reel bracket.
2. Disassemble the wire reel hub, replace hexagon head bolt (M8X16) (3 pieces) with hexagon head bolt (M8X25) (3 pieces) of the hanging bracket accessory and reassemble the wire reel hub to its original condition. When reassembling, pay attention to the order and direction of parts.

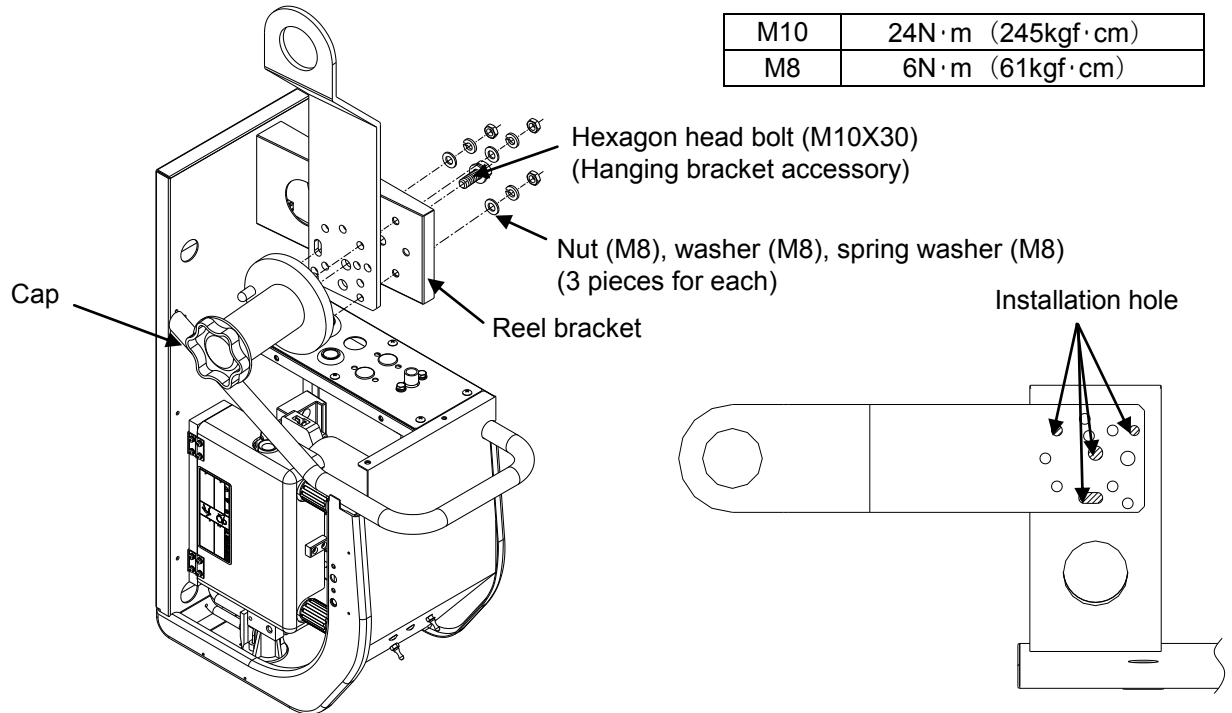


## 7. WELDING PREPERATION (continued)

3. Install the wire reel hub and hanging bracket on the reel bracket and tighten to the following torque so as not to loose the hexagon head bolt (M10X30), nut(M8), washer (M8) and spring washer (M8) (3 pieces for each) of the hanging bracket accessory in that order.
4. Adjust the wire reel hub

Recommended tightening torque

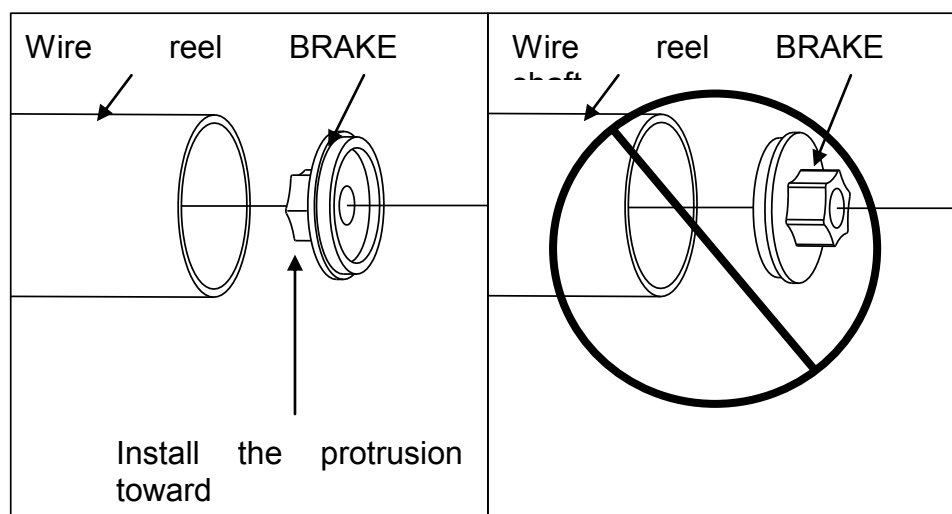
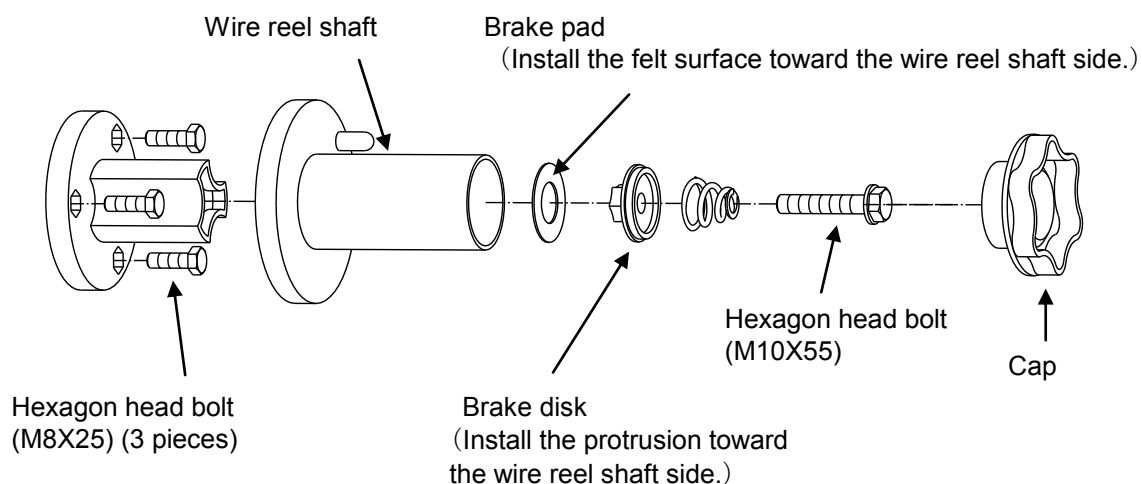
M10	24N·m (245kgf·cm)
M8	6N·m (61kgf·cm)



## 7. WELDING PREPERATION (continued)

### 7.7 Attach the covers

1. Remove hexagon head bolt (M10X16) and Nut (M8) (3pieces) and remove the wire reel hub from the reel bracket.
2. Disassemble the wire reel hub, replace hexagon head bolt (M8X16) (3 pieces) with hexagon head bolt (M8X25) (3 pieces) reassemble the wire reel hub to its original condition.  
When reassembling, pay attention to the order and direction of parts.



※Please prepare the following parts.

Ref. No.	Part number	Description	Q'ty	Remarks
1	K5870H00	Wire reel cover assy	1	Plastic full cover
2	K5870K00	Side cover assy	1	
(2)	—	Hexagon head bolt	3	M8X25
(2)	—	Hexagon head bolt	3	M10X30
3	U30034V00	Reel adapter	1	
(3)	K5870E00	Aluminum kit	(1)	
(3)	—	Hexagon head bolt	3	M8X12

## 7. WELDING PREPERATION (continued)

3. Install the wire reel hub and wire reel cover on the wire reel adapter and tighten the hexagon head bolt (M10X30), nut(M8), washer (M8) and spring washer (M8) to the following torque.

### Recommended tightening torque

M10 : 24Nm(245kgf · cm)

M8 : 6Nm(61kgf · cm)

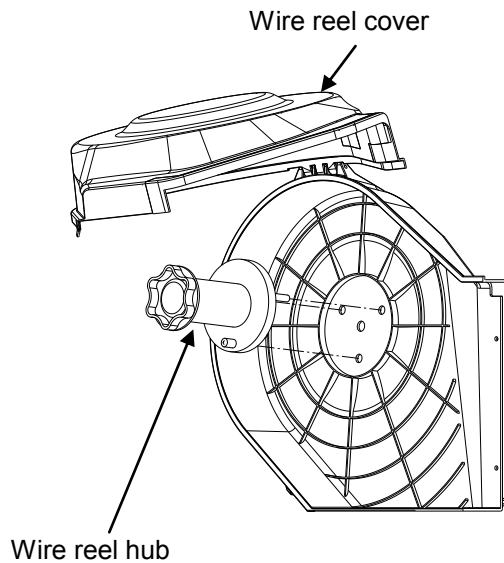


Fig 1. Front

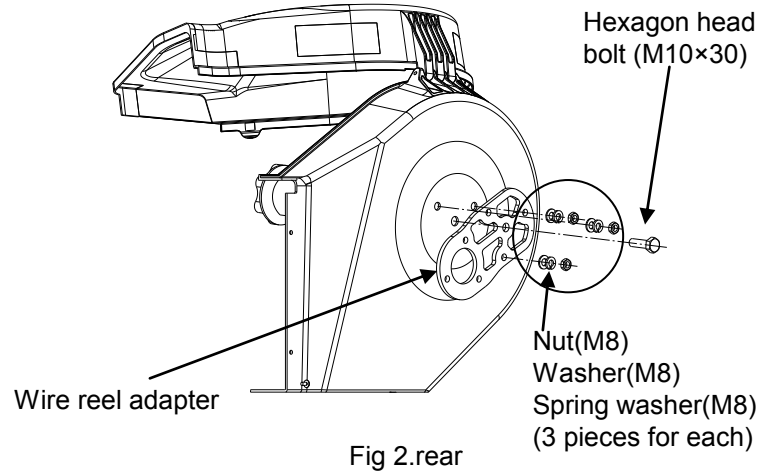


Fig 2. rear

4. Install the side panel on the wire feeder .

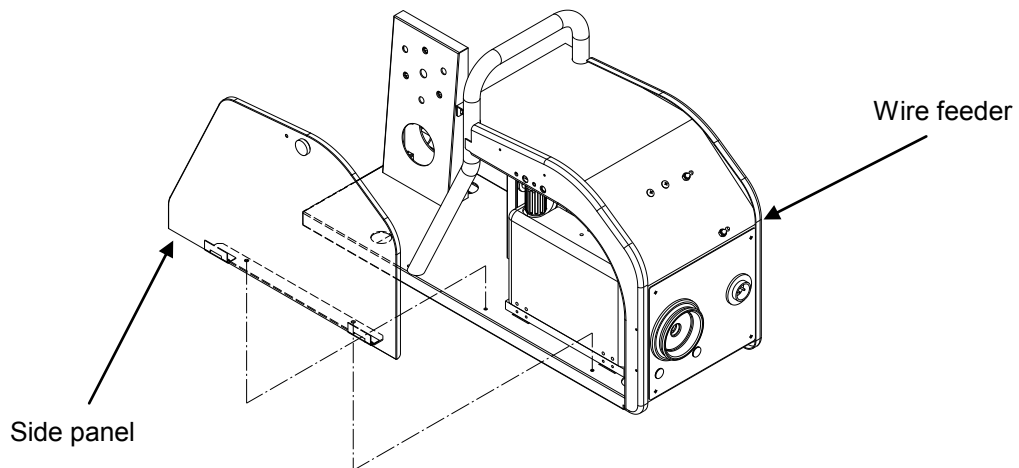


Fig 3. Install the side panel

## 7. WELDING PREPERATION (continued)

5. Install the plate on the wire feeder.

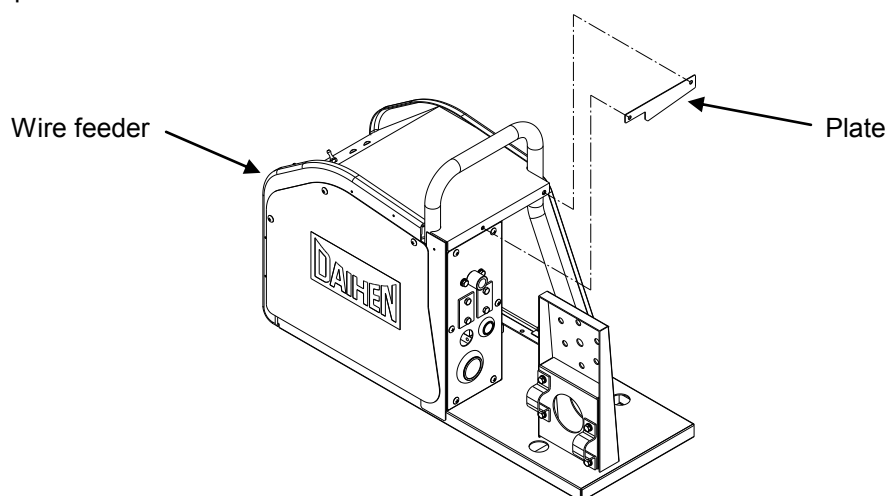


Fig 4. Install the plate

6. Install the wire reel cover on the reel bracket and tighten the hexagon head bolt (M8X12) to the following torque .

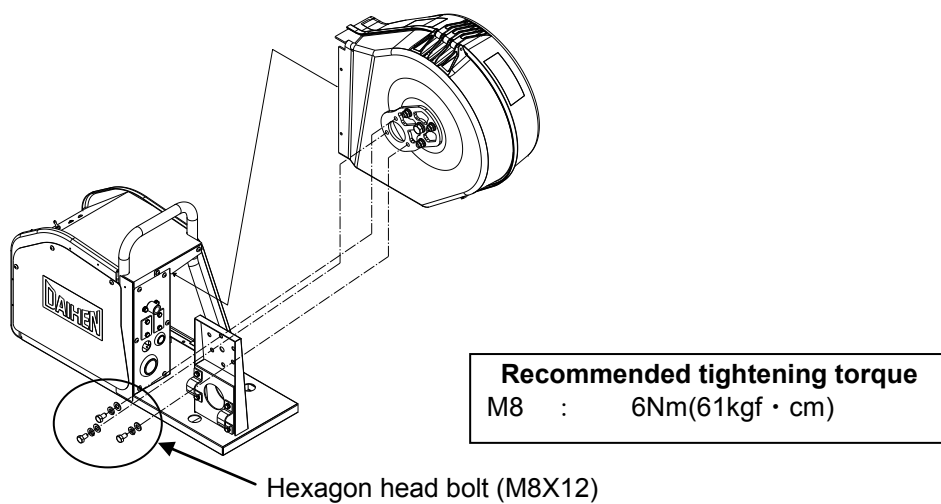


Fig 5. Install the wire reel cover

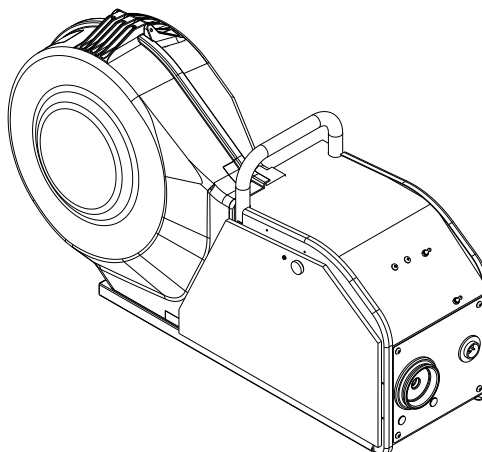




Fig 6. Finished view

## 8. MAINTENANCE AND TROUBLESHOOTING

### 8.1 Carrying Out Maintenance

 <b>WARNING</b>	
	<ul style="list-style-type: none"> <li>• <b>Do not touch live electrical parts inside or outside the wire feeder.</b></li> <li>• <b>Disconnect the wire feeder from the welding power source by turning off the line disconnect switch in the power box to avoid an electric shock before carrying the equipment.</b></li> </ul>

In order to use the wire feeder safely and efficiently, be sure to conduct periodical maintenance and inspection. If flaw is found, ask for change or repair of the object part.

○ : Necessary inspection item    △ : Recommended inspection item    — : Omissible inspection item

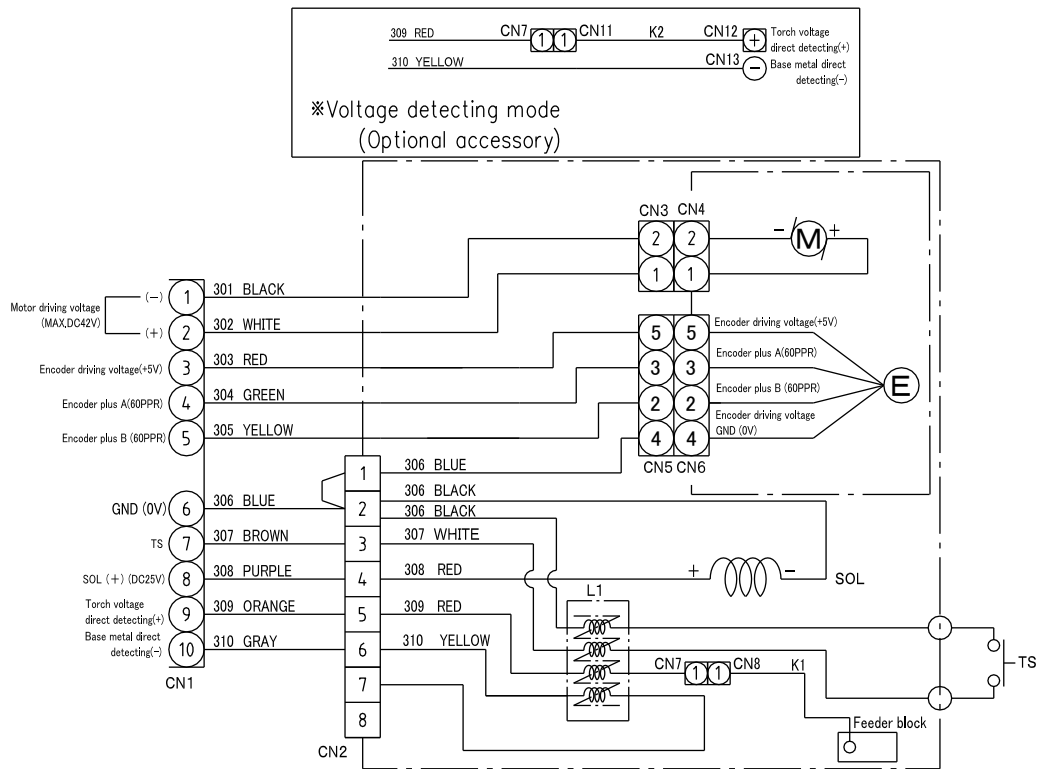
No.	Inspection item	Daily inspection	Periodical inspection in 3 to 6 months
1	Is there not abnormal vibration, buzz or odor?	○	—
2	Are there not discoloration of terminal parts and melting and deterioration of cable jackets?	○	—
3	Are fastening screws not loosened or is contact not deteriorated by rust at power cable connection part on the inlet side of wire feeder? Is insulation not problematic?	△	○
4	Is there not portion of cable that is beginning to break?	○	—
5	Is there not break in frames or covers or deformation in hanging bracket?	○	△
6	Is there not crack or break in parts and sheet metals inside wire feeder?	—	○
7	Is there not portion of wiring inside wire feeder that is beginning to break?	—	○
8	Is there no loosening of parts fixing?	—	○
9	Is there no connecting part of connector that is beginning to come out?	—	○
10	Remove dirt and dust inside wire feeder.	—	○

#### • Failure and countermeasures

No.	Phenomenon	Cause of failure/anomaly	Treatment
1	Wire is not fed. Wire gets deformed.	Wire pressure is too weak.	Refer to "Recommended wire pressure adjustment" in Section 7.3.
		Wire pressure is too strong.	
		Feed roll of wrong wire size is used.	Replace it with the feed roll of proper wire size.
		Feed roll are worn.	Replace the feed roll , if necessary.
		Poor contact or breakdown in the control cable.	Confirm state of connection. Confirm cables. Replace cables.
		Trouble with the motor	Replace the motor, if necessary.
		Dust or chip is accumulated on the outlet guide and on the feed roll.	Remove the dust and chip.
		Feeding roll bearing failure	Replace it, if necessary.
2	Shield gas supply does not come out or does not stop.	Failure of gas solenoid valve.	Check the socket. Check the cables and replace it, if necessary.
3	Gas or water leakage from gas or water hose.	There are defects such as cracks.	Replace it, if necessary.
4	Wire is not fed smoothly through the wire reel.	Adjustment of the brake is either too strong or too weak.	Refer to "Adjustment of the wire reel hub" in Section 7.4.

## 8. MAINTENANCE AND TROUBLESHOOTING (continued)

### < Schematic Diagram >



### 8.2 Replacing of the Outlet Guide

#### ⚠ WARNING

- 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.

Follow the procedures below when replacing the outlet guide.

1. Open the front cover.
2. Bring down the pressure handle, then raise the pressure roll holder.
3. Reel the wire on the reel.
4. Remove the torch from the wire feeder.

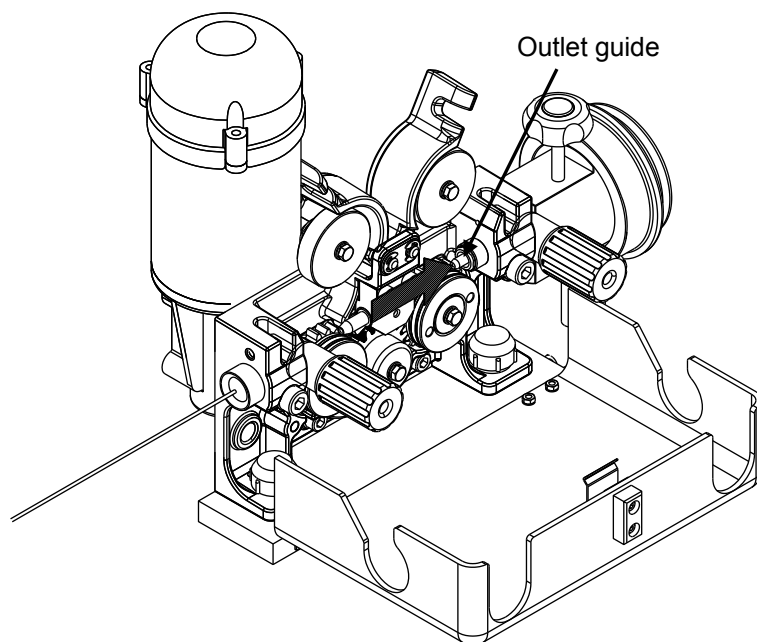
#### ⚠ WARNING

- Do not look into nor bring your face, eyes and body close to the torch connecting opening. Outlet guide or wire may fly out and stick into face, eye or body, causing injury.

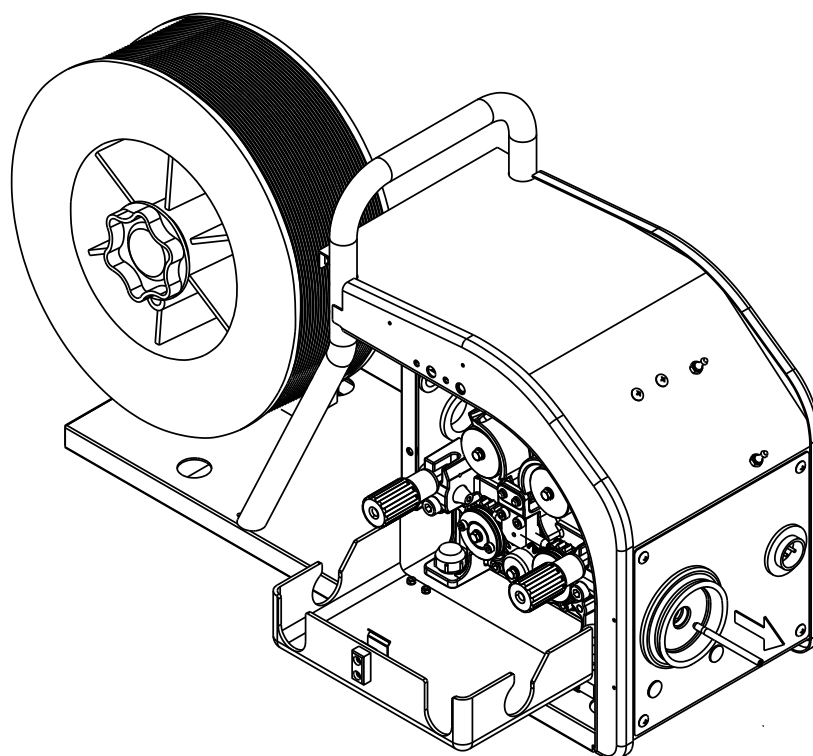


## 8. MAINTENANCE AND TROUBLESHOOTING (continued)

5. Firmly press the outlet guide toward the torch connecting opening until a “click” is felt.

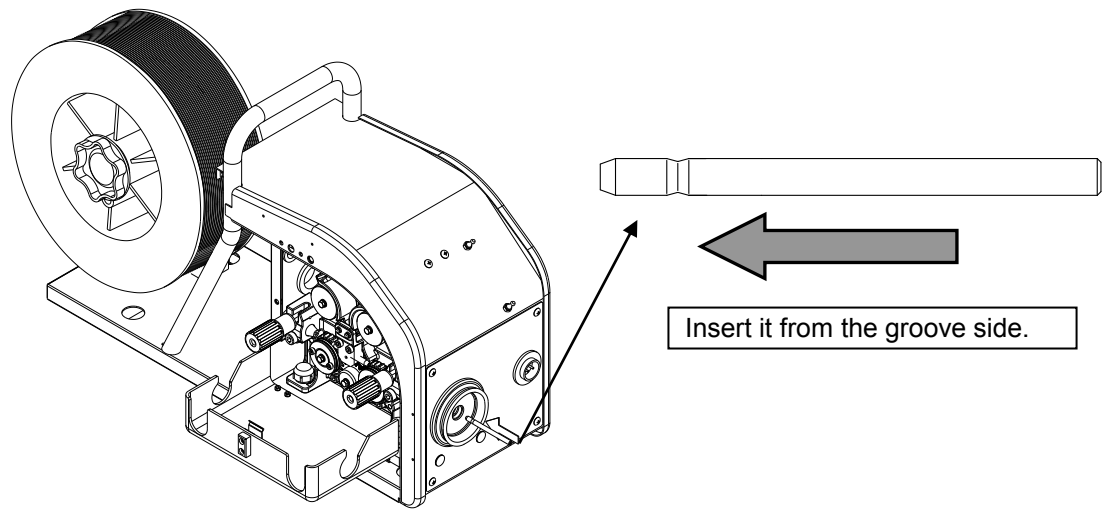


6. Take out the outlet guide from the torch connecting opening.

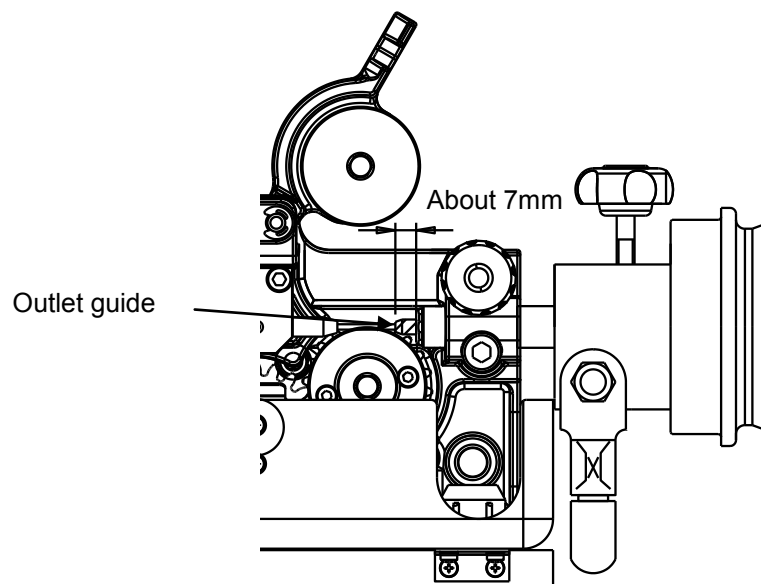


## 8. MAINTENANCE AND TROUBLESHOOTING (continued)

7. Insert a new outlet guide from the torch connecting opening. In this case, insert the outlet guide along the groove provided in the outlet guide.



8. Press it in firmly until a “click” is felt. Confirm that the outlet guide is protruding by about 7mm.



9. Replace the wire and torch in the reverse procedure.

## 8. MAINTENANCE AND TROUBLESHOOTING (continued)

### CAUTION

- **Never attempt to disassemble the feed motor. This may result in damage to the wire feeder.**
- **Feed motor is built with dustproof structure, in which a rotary encoder is installed.**  
If the feed motor is disassembled, its dustproof function will be lost or the rotary encoder damaged, resulting in failure.
- **It is unable to clean the inside of the motor nor replace the brush.**

\*Target for life and replacement of feed motor

The life of the feeding motor is approximately 3,000 to 4,000 hours.

In addition, the life varies with the load conditions and ambient temperature.

\*When the life of the feeding motor expires, the following phenomena occur.

It is recommended that the feeding motor be replaced in advance by referring to the lifetime.

When the motor does not operate, the following warning and abnormal status of the welding machine will be displayed.

Example)

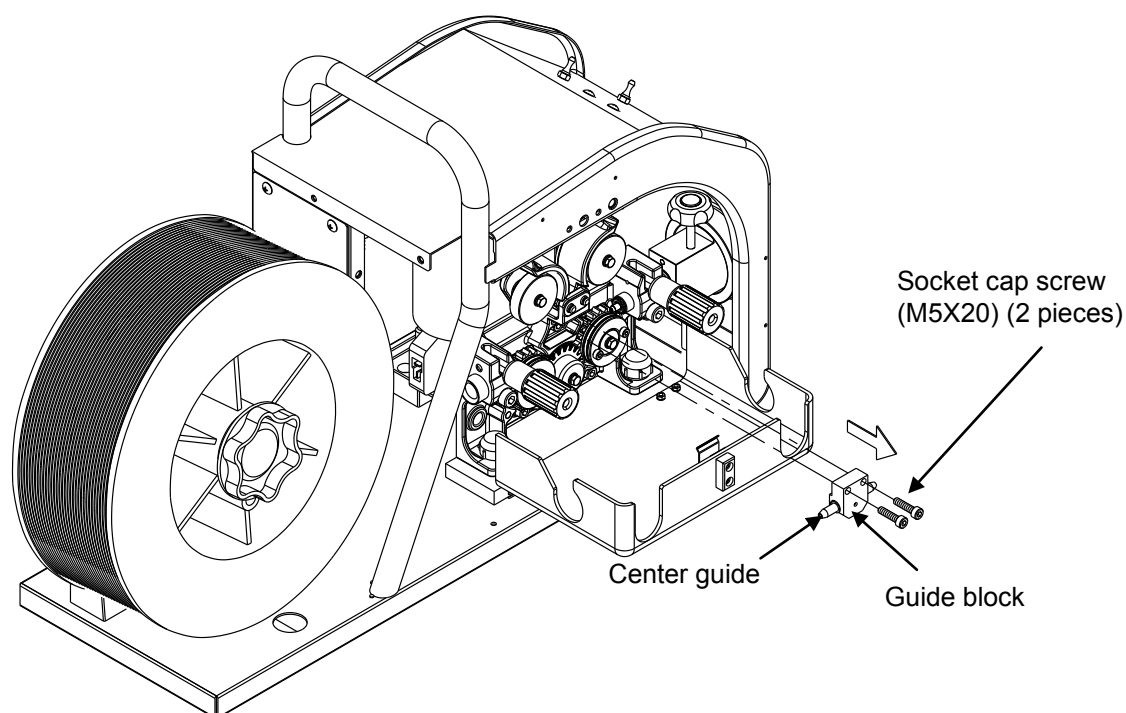
[E-800] Abnormal encoder of feeding motor

[E-820] Motor overcurrent (warning)

[E-830] Motor overcurrent (abnormal status)

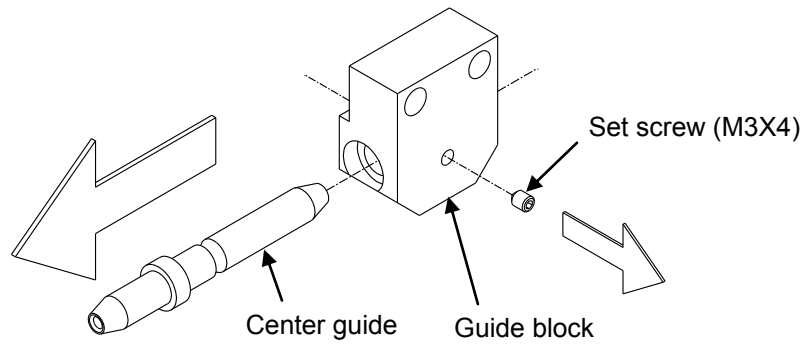
### 8.4 Replace the center guide.

1. Open the front cover.
2. Bring down the pressure handle, then raise the pressure roll holder.
3. Reel the wire on the reel.
4. Remove socket head cap screw (M5X20) (2 pieces) and remove the center guide and the guide block together.



## 8. MAINTENANCE AND TROUBLESHOOTING (continued)

5. Remove the set screw (M3X4) and pull out the center guide.



6. Replace the center guide and assemble it in the reverse procedure.
7. Close the front cover.

## 9. PARTS LIST

### 9.1 Main body and wiring (Fig.1)

- Please contact your local dealer to order parts. (See the back cover for telephone and fax numbers, and mailing addresses.)

Ref. No.	Part number	Description	Q'ty	Remarks
1	U30022U00	Frame	1	Assembly
2	U30022C04	Strike	2	
3	U30031C01	Side plate	1	Without 3-1
3-1	—	Cross recessed head screw	3	M4X8
4	U30037C02	Rear panel	1	Without 4-1,4-2,4-3,4-4
4-1	—	Cross recessed head screw	10	M4X8
4-2	U5971J03	Blind plate	2	
4-3	4739-489	Rubber bushing	1	C-30-SG-20A-EP-UL
4-4	100-1380	Rubber bushing	1	C-30-SG-36A-EP-UL
5	U30037C03	Front panel	1	Without 5-1,5-2,5-3
5-1	—	Cross recessed head screw	4	M4X8
5-2	5730-002	Receptacle	1	2P
5-3	—	Phillips pan head screw	(3)	M3X10
6	U30023B00	Wire feeder	1	Assembly refer 9.2
7	U30022L00	Feed motor	1	Assembly refer 9.3
8	U30037H00	Feed cover	1	Assembly refer 9.4
9	U30037J00	Attachment	1	Assembly refer 9.5
10	U30037D00	Torch adapter	1	Assembly
10-1	U5971D03	Fixing bolt	(1)	
11	U30037N00	Power cable	1	Assembly
12	U5185J09	Power terminal block	1	
13	4733-370	Terminal block	1	Without 13-1
13-1	—	Cross recessed round head screw	2	M3X14
14	U30037E00	Control cable	1	Assembly, with 14-1, 14-2
14-1	100-1381	Metal socket	(1)	DPC25-10A
14-2	U30038R00	Wire harness	(1)	
15	U30038F00	Wire reel hub	1	Assembly, with 15-1,15-2,15-3,15-4
15-1	—	Hexagon head bolt	(1)	M10X16
15-2	—	Nut	(3)	M8
15-3	—	Washer	(3)	M8
15-4	—	Spring washer	(3)	M8
16	U30037G00	Gas line	1	Assembly refer 9.6
17	U30038P00	Common mode coil	1	Assembly
18	U5185J01	Cable clamp	1	Without 18-1
18-1	—	Phillips hexagon head bolt	2	M5X15
19	U1997C02	Hose clamp	1	Without 19-1
19-1	—	Phillips hexagon head bolt	2	M5X15
20	U1997C03	Hose cover	1	
21	U30022C06	Wire reel cover	1	Without 21-1
21-1	—	Cross recessed head screw	2	

## 9. PARTS LIST (continued)

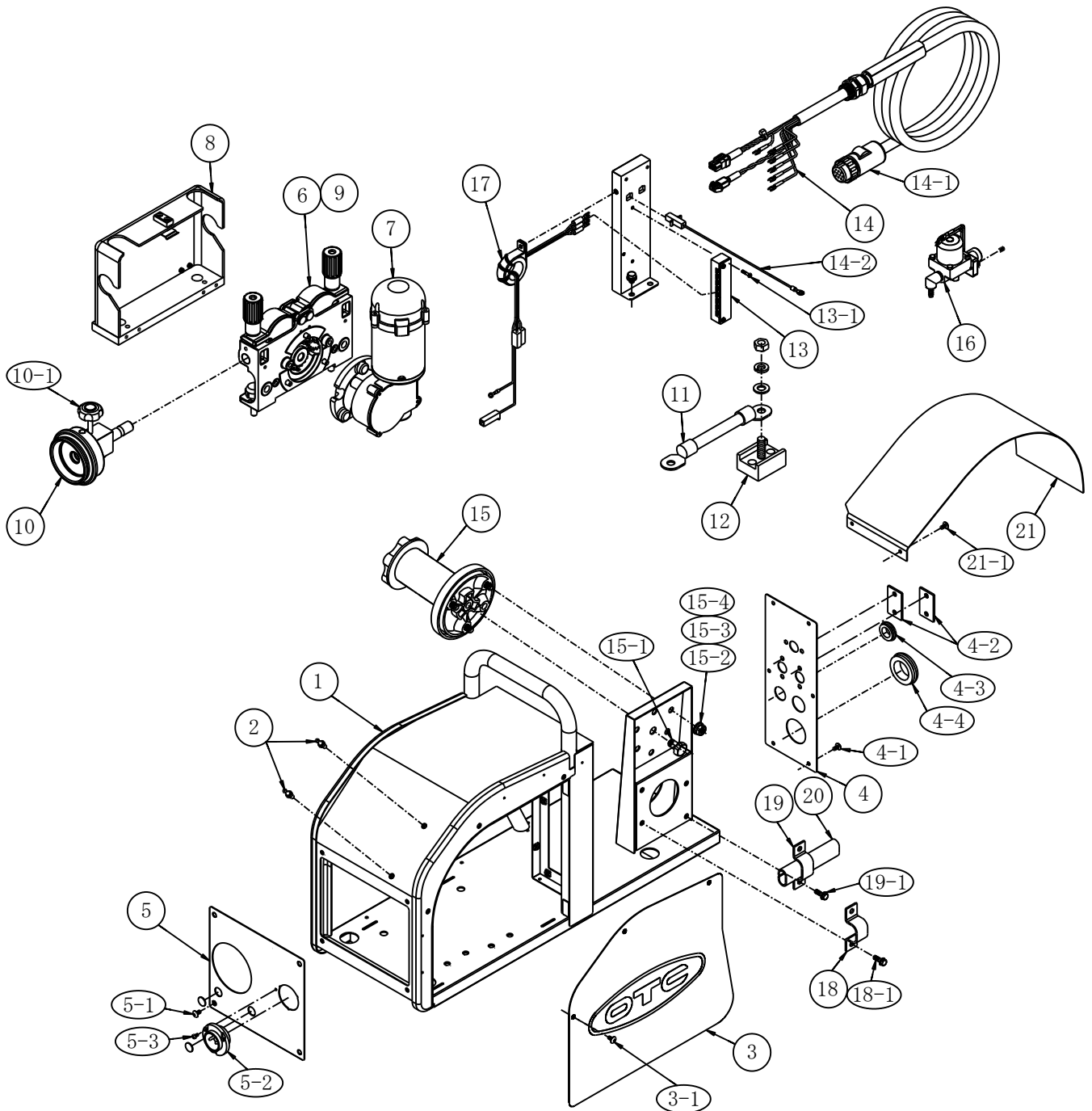


Fig. 1 Main Body and Wiring Assembly

## 9. PARTS LIST (continued)

### 9.2 Wire feeder (Fig.2)

Ref. No.	Part number	Description	Q'ty	Remarks
1	U30022B01	Main bracket	1	Without 1-1,1-2
1-1	—	Socket head cap screw	3	M6X18
1-2	—	Small washer	3	M6
2	L10595B02	Pressure roll holder pin	2	Without 2-1
2-1	3361-404	E-type retaining ring	2	E-5
3	L10595B03	Feed roll shaft	2	
4	U30023T00	Pressure roll holder (L)	1	Assembly
5	U30023W00	Pressure roll holder (R)	1	Assembly
6	L10595B04	Coil spring	1	
7	L10595B05	Pressure spring holder	2	
8	L10595B06	Pressure handle	2	
9	L10595B07	Pressure bolt	2	Without 9-1,9-2,9-3
9-1	—	Small washer	2	M6
9-2	3361-404	E-type retaining ring	2	E-5
9-3	4739-043	Spring pin	2	2.5X14
10	L10595B08	Compressed spring	2	
11	U30022B02	Insulation bushing	2	Without 11-1,11-2,11-3
11-1	—	Hexagon head bolt	2	M8X40 with washer, spring washer
11-2	—	Washer	2	M8
11-3	—	Nut	2	M8
12	U5185B15	Insulation cover	2	

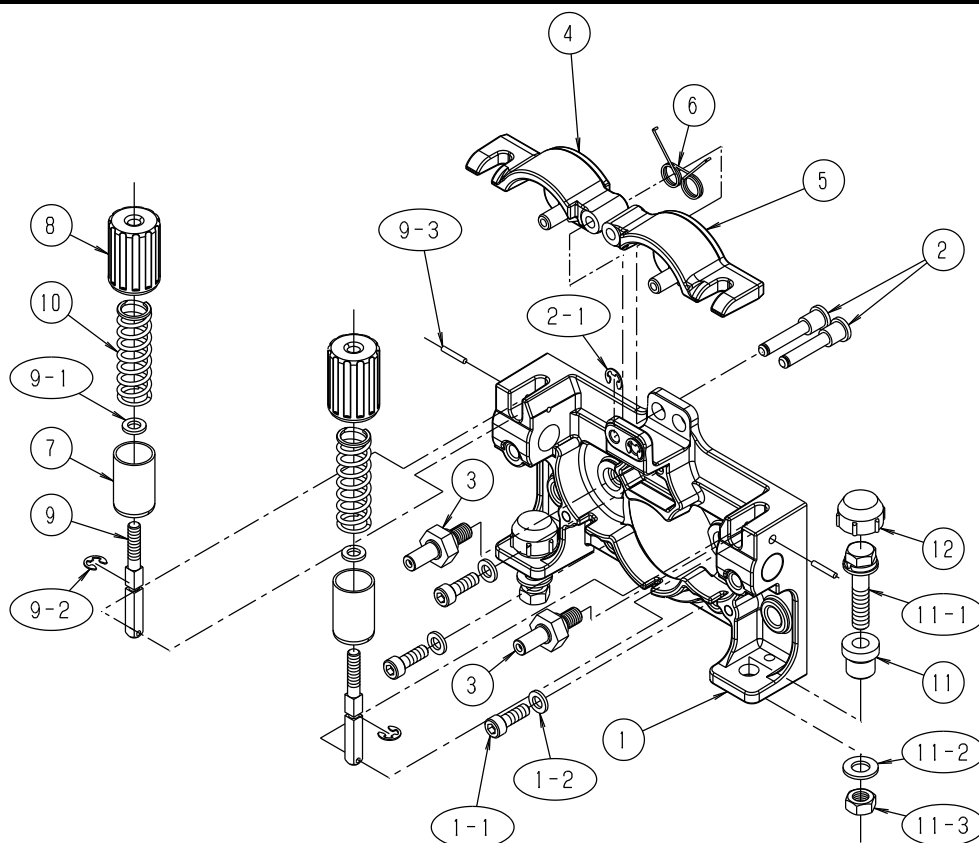


Fig. 2 Wire Feeder Assembly

## 9. PARTS LIST (continued)

### 9.3 Feed motor (Fig.3)

Ref. No.	Part number	Description	Q'ty	Remarks
1	W-W03729	Feed motor	1	Without 1-1
1-1	—	Socket head cap screw	3	M6X16
2	U30022L01	Motor mount	1	

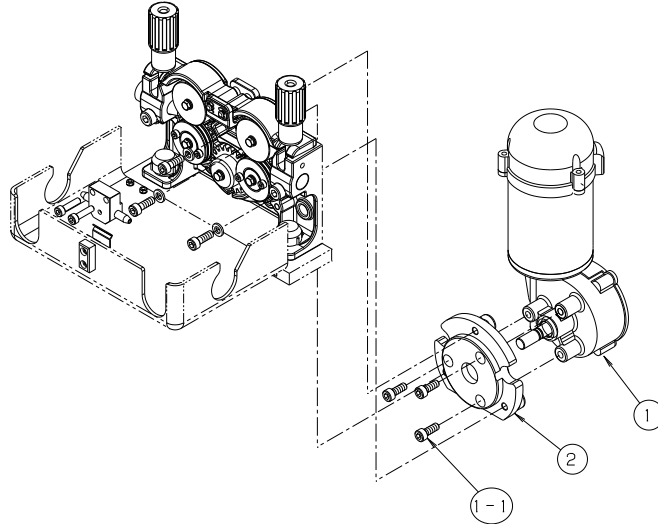


Fig. 3 Feed Motor Assembly

### 9.4 Feed cover (Fig.4)

Ref. No.	Part number	Description	Q'ty	Remarks
1	L10595D02	Base plate	1	Without 1-1
1-1	—	Phillips hexagon head bolt	2	M5X20
2	U30037V00	Front cover	1	Assembly with 2-1,2-2,2-3,2-4
2-1	K5737D01	Front cover	(1)	Without Label
2-2	U30022V02	Cover bracket	(1)	
2-3	—	Socket head cap screw	(2)	M3X10
2-4	U30022V03	Insulating spacer	(1)	
3	4739-540	Hinge	2	B-1100-1 without 3-1,3-2,3-3
3-1	—	Cross recessed round head screw	8	M3X8 with small washer
3-2	—	Nut	4	M3

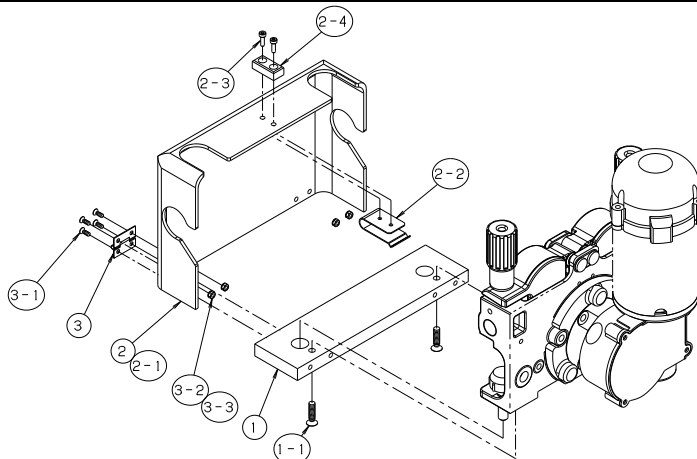


Fig. 4 Feed Cover Assembly



## 9. PARTS LIST (continued)

### 9.5 Attachment (Fig.5)

Ref. No.	Part number	Description	Q'ty	Remarks
1	L10595C01	Center guide	1	
2	L10595C02	Guide block	1	Without 2-1,2-2
2-1	—	Socket head cap screw	2	M5X20
2-2	—	Set screw	1	M3X4
3	K5439C00	Pressure roll	2	Without 3-1
3-1	—	Phillips hexagon head bolt	2	M4X10 With washer, spring washer
4	U30022J01	Pilot	1	
5	L10595P00	Gear	2	Assembly, Without 5-1
5-1	—	Phillips hexagon head bolt	2	M4X10 With washer, spring washer
6	K5439B12	Feed roll(0.9-1.0/1.2)	2	Without 6-1
6-1	—	Socket head cap screw	4	M4X16
7	U30037J01	Outlet guide(0.9-1.2)	1	
8	—	Socket head cap screw	2	M6X35
9	—	Washer	2	M6
10	L10595Q00	Drive gear	1	Without 11-1
10-1	—	Phillips hexagon head bolt	1	M4X15 With washer, spring washer

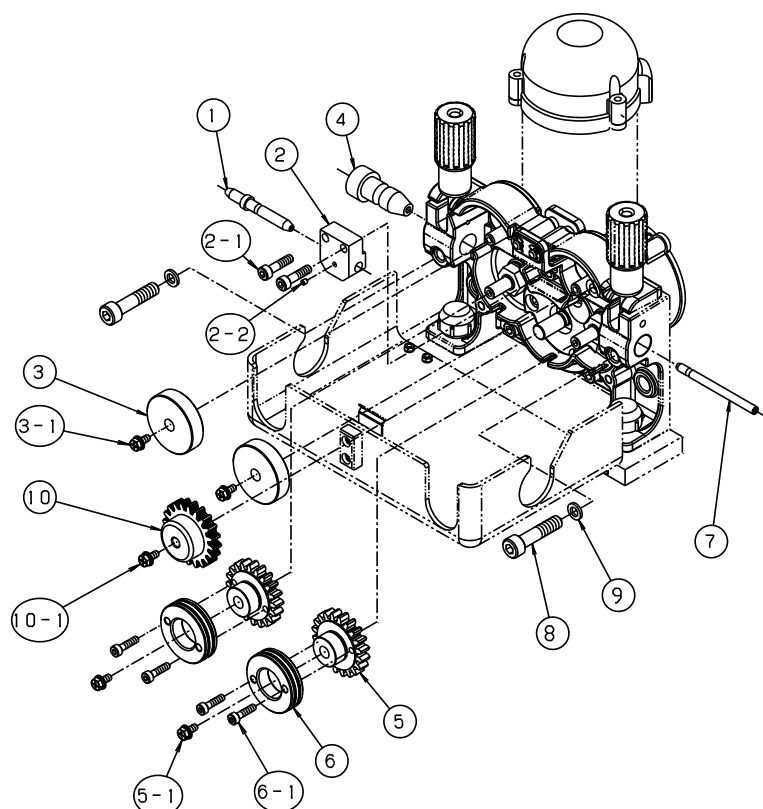


Fig. 5 Attachment Assembly

## 9. PARTS LIST (continued)

### 9.6 Gas line (Fig.7)

Ref. No.	Part number	Description	Q'ty	Remarks
1	4813-001	Gas solenoid valve	1	
2	U4179D01	Hose elbow	1	
3	U5971G01	Gas connector	1	
4	U1997D02	Flange	1	

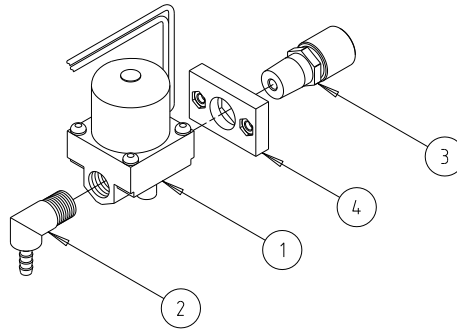


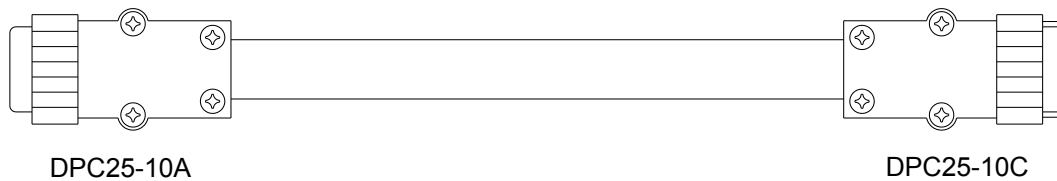
Fig. 7 Gas line Assembly

### 9.7 Optional Accessory

#### (1) Extension cable/hose

##### Control cable (10P)

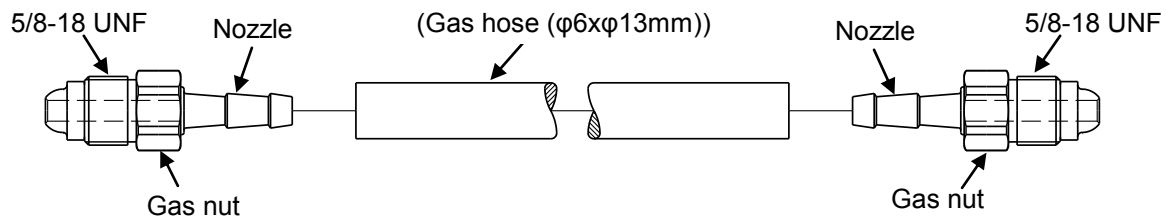
	Cable length			
	5m	10m	15m	20m
Model	BKCPJ-1005	BKCPJ-1010	BKCPJ-1015	BKCPJ-1020



Control cable BKCPJ

##### Gas hose

Part No.	Description	Q'ty	Remarks
U5971R01	Gas nut	2	
U5971R02	Nozzle	2	



Gas hose

## 9. PARTS LIST (continued)

### (2) Feed roll, pressure roll, gear

Wire Material (Groove type of roll)	Wire Diameter		Feed Roll	Q'ty	Pressure Roll	Q'ty
	(mm)	(inch)				
Mild Steel Stainless Steel (V type groove)	1.4 / 1.6	.052", 1/16"	K5439B01	2	K5439C00	2
	1.2 / 1.4	.045", .052"	K5439B04	2	K5439C00	2
	1.2 / 1.2	.045", .045"	K5439B05	2	K5439C00	2
	1.4 / 1.4	.052", .052"	K5439B06	2	K5439C00	2
	1.6 / 1.6	1/16", 1/16"	K5439B07	2	K5439C00	2
	0.6 / 0.8	.024", .030"	K5439B09	2	K5439C00	2
	1.6 / 2.0	1/16", 5/64"	K5439B10	2	K5439C00	2
	1.2 / 1.6	.045", 1/16"	K5439B11	2	K5439C00	2
	0.9-1.0 / 1.2	.035"-.040", .045"	K5439B12	2	K5439C00	2
	0.8 / 0.9-1.0	.030", .035"-.040"	K5439B13	2	K5439C00	2
Aluminum (U type groove)	1.0 / 1.2	.040", 3/64"	K5463R02	2	K5463R02	2
	1.2 / 1.6	3/64", 1/16"	K5463R03	2	K5463R03	2
	1.6 / 2.0	1/16"	K5463R04	2	K5463R04	2
	1.6 / 2.4	1/16", 3/32"	K5463R05	2	K5463R05	2
Aluminum (V type groove)	1.0 / 1.2	.040", 3/64"	K5463V02	2	K5463V02	2
	1.2 / 1.6	3/64", 1/16"	K5463V03	2	K5463V03	2
	1.6 / 2.0	1/16"	K5463V04	2	K5463V04	2
	1.6 / 2.4	1/16", 3/32"	K5463V05	2	K5463V05	2

Part No.	Description	Q'ty	Remarks
L10595P00	Gear	2	For steel
		4	For aluminum

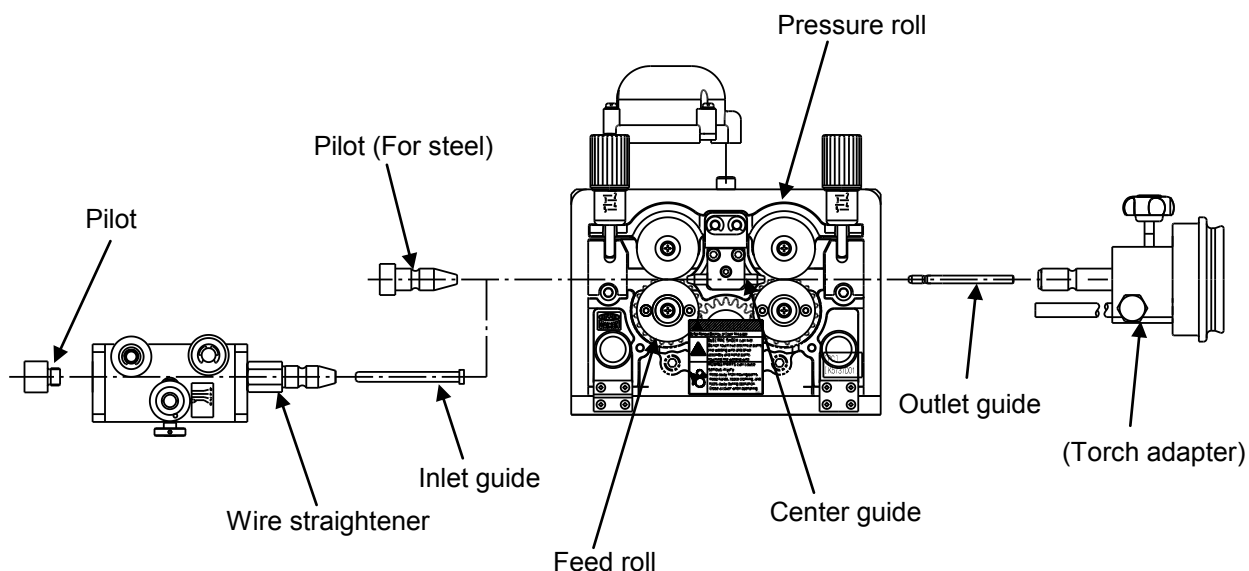
### (3) Outlet guide, center guide, pilot

Part No.	Description	Q'ty	Remarks
K5870B01	Outlet guide NO.4 (0.6-0.9)	1	For steel (.023"-.035")
K5870B03	Outlet guide NO.4 (1.2-1.6)	1	For steel (.045"-1/16")
K5870B13	Outlet guide NO.5 (1.2-1.6)	1	For steel (.045"-1/16")
K5870B21	Outlet guide NO.4 (AL1.0)	1	For aluminum (.040"), black
K5870B22	Outlet guide NO.4 (AL1.2)	1	For aluminum (3/64"), black
K5870B23	Outlet guide NO.4 (AL1.6)	1	For aluminum (1/16"), black
K5870B32	Outlet guide NO.5 (AL1.2)	1	For aluminum (3/64"), black
K5870B33	Outlet guide NO.5 (AL1.6)	1	For aluminum (1/16"), black
L10595C01	Center guide ( 1.0-1.6 )	1	For steel (.040"-1/16")
L10596C01	Center guide ( 1.0-1.6 )	1	For aluminum (.030"-.040"), black
L10596C02	Center guide ( 0.8-1.0 )	1	For aluminum (.040"-1/16"), black
K970G72	Pilot	1	For steel
K970J62	Pilot	1	For aluminium
U30022J01	Pilot	1	For steel

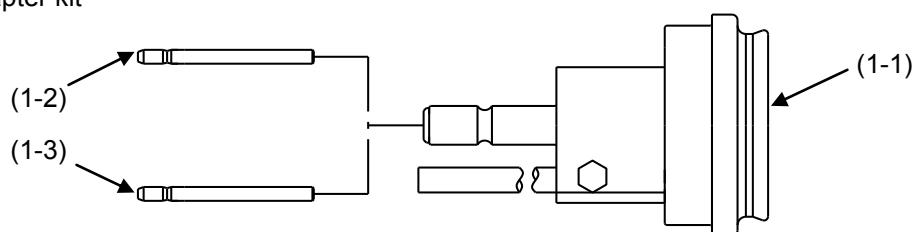
## 9. PARTS LIST (continued)

### (4) Wire straightener

Part No.	Description	Q'ty	Remarks
U30038S00	Wire straightener	1	
K970G72	Pilot	1	For steel
K970J62		1	For aluminum
U69B34	Inlet guide	1	For steel
K5870G01		1	For aluminum



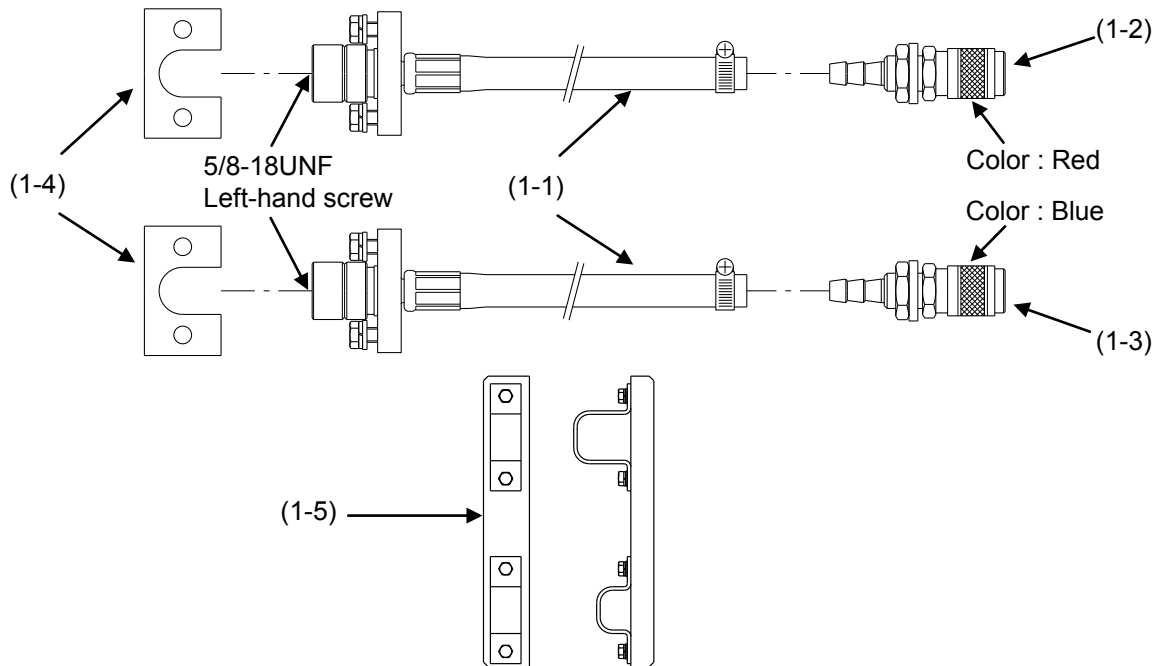
### (5) Torch adapter kit



Ref. No.	Part No.	Description	Q'ty	Remarks
1	K5870C00	Torch adapter kit	1	The following parts are contained.
1-1	-	Torch adapter	(1)	for "NO.5"
1-2	K5870B13	Outlet guide NO.5 (1.2-1.6)	(1)	For steel (.040"-1/16")
1-3	K5870B32	Outlet guide NO.5 (AL1.2)	(1)	For aluminum (3/64"), black

## 9. PARTS LIST (continued)

### (6) Water cooling kit



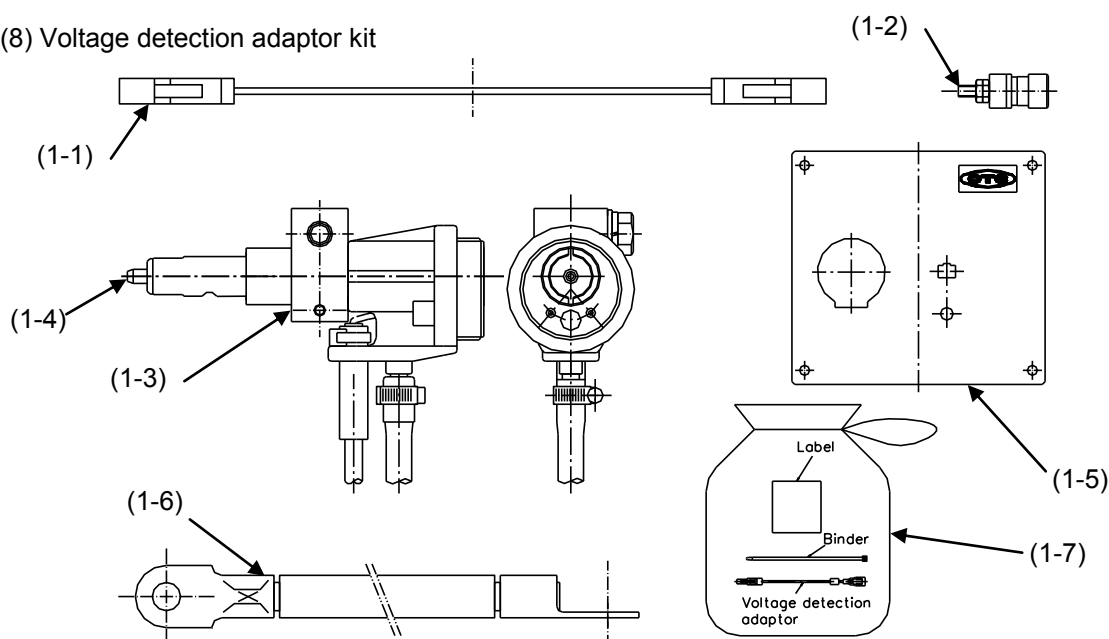
Ref. No.	Part No.	Description	Q'ty	Remarks
1	K5870D00	Water cooling kit	1	The following parts are contained.
1-1	K5870F00	Supply water hose	(2)	
1-2	4739-549	Quick connector (red)	(1)	
1-3	4739-550	Quick connector (blue)	(1)	
1-4	U5971J02	Fitting plate	(2)	
1-5	U30033R00	Hosebracket	(1)	

### (7) Aluminum kit

Part No.	Description	Q'ty	Remarks
K5870E00	Aluminum kit	1	The following parts are contained.
K5463V03	Feed roll ( 1.2 / 1.6 )	(4)	3/64", 1/16"
L10596C01	Center guide ( 1.0-1.6 )	(1)	.040", 1/16", black
L10595P00	Gear	(2)	
U30038S00	Wire straightener	(1)	
K970J62	Pilot	(1)	For wire straightener
K5870G01	Inlet guide	(1)	For wire straightener
U30034V00	Reel adapter	(1)	
K5870B22	Outlet guide NO.4 (AL1.2)	(1)	

## 9. PARTS LIST (continued)

### (8) Voltage detection adaptor kit



Ref. No.	Part No.	Description	Q'ty	Remarks
1	K5870V00	Voltage detection adaptor kit	1	The following parts are contained.
1-1	U30038X00	Wire harness(1)	(1)	
1-2	T-375 12MM (Black)	Rikugun terminal	(1)	
1-3	U30022D00	Central adaptor	(1)	
1-4	U30022J02	Outlet guide(0.9-1.2)	(1)	
1-5	U30042C03	Front panel	(1)	
1-6	U30022N00	Power cable	(1)	
1-7	K5870P00	Voltage detection adaptor kit	(1)	For modifying welding torch

### (9) Other optional parts

Part No.	Description	Q'ty	Remarks
U5191E00	Wire reel cover	1	Plastic half cover
K5870H00	Wire reel cover assy	1	Plastic full cover
U30034V00	Wire reel adaptor	1	
K5870K00	Side cover assy	1	
K5439F00	Caster	1	
U30022Z00	Hanging bracket	1	
U30023Y00	Inter lock	1	
FCR-226	CO <sub>2</sub> gas regulator (with heater)	1	Max. gas flow rate: 25 liter/min
NP-201	CO <sub>2</sub> gas regulator (without heater)	1	Max. gas flow rate: 20 liter/min
AU-888	CO <sub>2</sub> gas regulator (without heater)	1	Max. gas flow rate: 20 liter/min
FCR-100N	CO <sub>2</sub> gas regulator for large current	1	Max. gas flow rate:100 liter/min
D-BHN-2	Argon gas regulator	1	For MAG gas flow rate:28 liter/min

## 9. PARTS LIST (continued)

Table for Option parts and option KIT

NO.	Torch series	Welding wire	Option parts and option KIT				
			Outlet guide	Torch adaptor KIT	Water cooling KIT	Aluminum KIT	Voltage detection adaptor KIT
1	WT3510-S(M)(L)UT	Steel wire .035"- .045"	(K5870B02)*1	-	-	-	-
2		Steel wire .052"	K5870B03	-	-	-	-
3	WT4000-S(M)(L)UT	Steel wire .035"- .045"	(K5870B02)*1	-	-	-	-
4		Steel wire .052"- 1/16"	K5870B03	-	-	-	-
5	WT5000-S(M)(L)UT	Steel wire .045"- 1/16"	(K5870B13)*3	K5870C00	-	-	-
6	WTA200-SUT	Aluminum wire .040"	K5870B21	-	-	K5870E00	-
7		Aluminum wire .3/64"	(K5870B22)*2	-	-		-
8	WTA300-SUT	Aluminum wire .040"	K5870B21	-	-		-
9		Aluminum wire .3/64"	(K5870B22)*2	-	-		-
10		Aluminum wire .1/16"	K5870B23	-	-		-
11		Aluminum wire .3/64"	(K5870B32)*3	K5870C00	K5870D00		-
12	Aluminum wire .1/16"	K5870B33	-				
13	WT3500-S(M)(L)D	Steel wire .035"- .045"	(U30022J02)*4	-	-	K5870V00	
14	WT3510-S(M)(L)D	Steel wire .035"- .045"		-	-		
15	WT3520-S(M)(L)D	Steel wire .045"		-	-		

\*1 : It is a standard building in Wire feeder.

\*2 : It is attached to Aluminum KIT.

\*3 : It is attached to Torch adapter KIT.

\*4 : It is attached to Voltage detection adaptor KIT.

## 10. SPECIFICATIONS

### 10.1 Specifications

Model		CM-742-U
Applicable wire size	inch	(.030"), .035", .040", .045", (.052"), (1/16")
	mm	(0.8), 0.9, 1.0, 1.2, (1.4), (1.6)
Wire feeding rate		Max. 866.4 ipm [ 22m/min ]
Applicable wire reel	Shaft diameter	1.97" $\phi$ [ 50mm $\phi$ ]
	External diameter	Max. 11.8" $\phi$ [ 300mm $\phi$ ]
	Wide	4.05" [ 103mm ]
Mass of applicable wire		Max. 55.1 lbs [ 25kg ]
Temperature range		14 ~ 104° F (-10 ~ 40°C)
Moisture range		20% ~ 80% (no condensation)
Storage temperature range		14 ~ 140° F (-10 ~ 60°C)
External dimensions (WxDxH)		8.11" × 23.19" × 14.65" (206mm x 589mm x 372mm)
Storage moisture range		20% ~ 80% (no condensation)
Mass		28.6 lbs [ 13 kg ]

### 10.2 Available Welding Torch

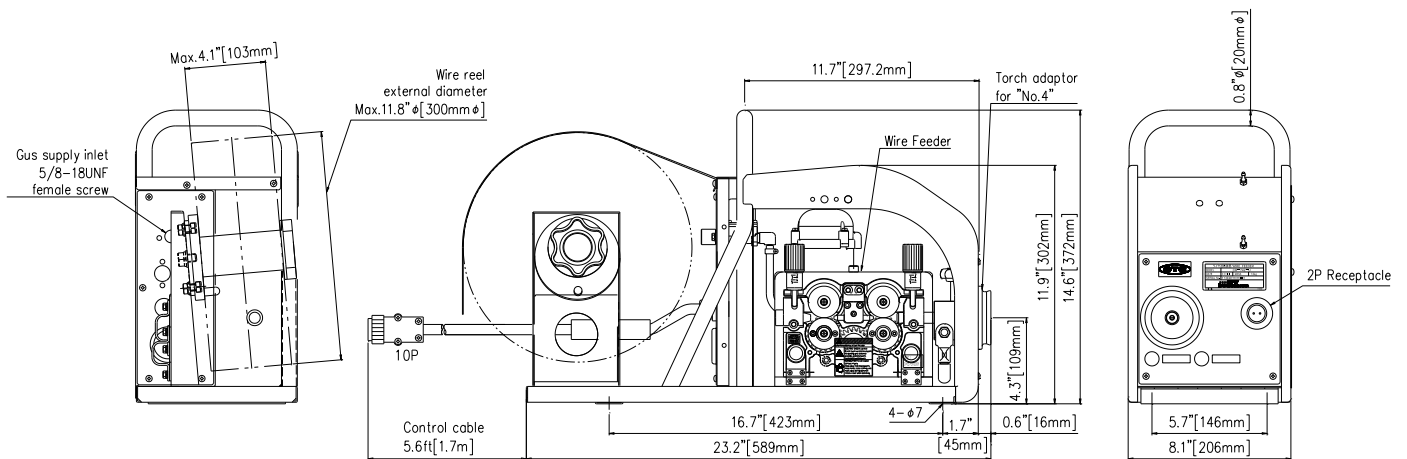
Rated current	Duty cycle	Cooling method	Cable length				
			For mild steel				For aluminum
			10ft [ 3m ]	13ft [ 4m ]	15ft [ 4.5m ]	20ft [ 6m ]	10ft [ 3m ]
350 A	30%	Air cooling	WT3500-SD	-	WT3500-MD	WT3500-LD	-
	60%		WT3510-SUT WT3510-SD	-	WT3510-MUT WT3510-MD	WT3510-LUT WT3510-LD	-
	80%		WT3520-SD	-	WT3520-MD	WT3520-LD	-
400 A	60%		WT4000-SUT	-	WT4000-MUT	WT4000-LUT	-
500 A	60%		WT5000-SUT	-	WT5000-MUT	WT5000-LUT	-
200 A	60%		-	-	-	-	WTA200-SUT
300 A	50%		-	-	-	-	WTA300-SUT
400 A	100%	Liquid cooling	-	-	-	-	WTAW400-SUT

### 10.3 Standard Accessory

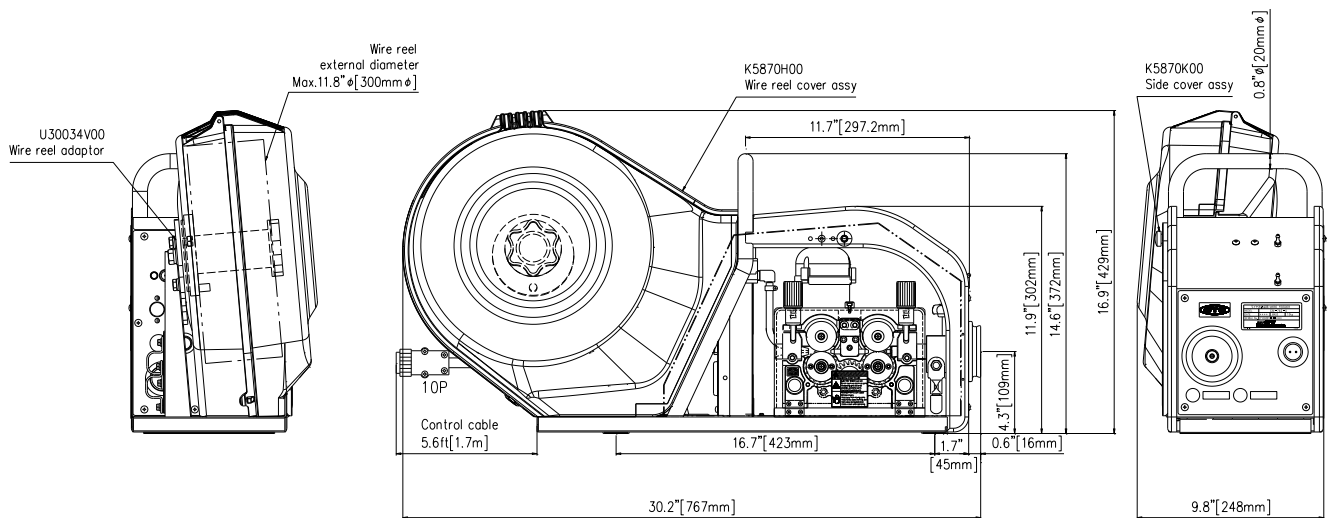
Part number	Description	Quantity	Remarks
K5439C00	Pressure roll	(2)	Pre-installed
K5439B12	Feed roll(0.9-1.0/1.2)	(2)	Pre-installed, .035"-.040" / .045"
K5870B02	Outlet guide NO.4 (0.9-1.2)	(1)	Pre-installed, .035"-.045"
U5971R00	Gas hose	1	Attached, (9.8ft [3m])
U5971S00	Switch cord	1	Attached
100-0816	Terminal	2	Attached
100-0817	Vinyl cap	2	Attached
U1997C03	Hose cover	2	Attached



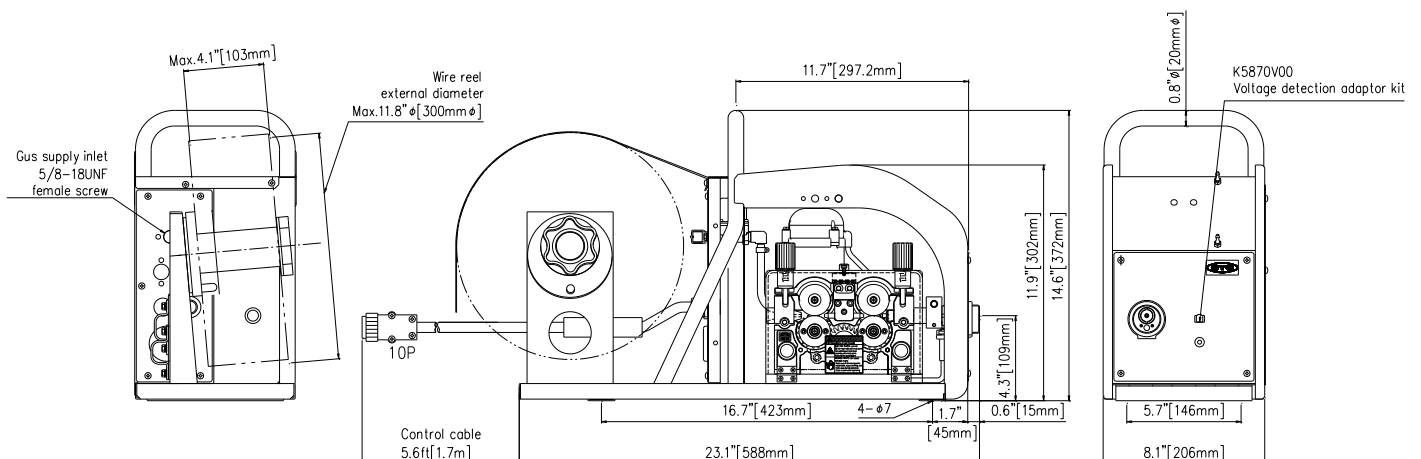
## 10. SPECIFICATIONS (continued)



External View of CM-742-U Type Wire Feeder(mm)



External View of CM-742-U Type Wire Feeder(※Option : Full cover)



External View of CM-742-U Type Wire Feeder(※Option : For voltage detection)



**DAIHEN Corporation**

4-1, Koyochonishi, Higashinada-ku, Kobe, Hyogo 658-0033, Japan  
Phone: +81-78-275-2006, Fax: +81-78-845-8159

**DAIHEN Inc.**

1400 Blauser Drive Tipp City, Ohio 45371, USA  
Phone: +1-937-667-0800, Fax: +1-937-667-0885

**OTC DAIHEN EUROPE GmbH**

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

**OTC Industrial (Shanghai) Co.,Ltd.**

17F Majesty Building, 138 Pu Dong Da Dao Shanghai 200120, China  
Phone: +86-21-5882-8633, Fax: +86-21-5882-8846

**OTC (Taiwan) Co.,Ltd.**

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

**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 DAIHEN INDIA Pvt.Ltd.**

2<sup>nd</sup> Fl. D-45 Udyog Vihar, Phase-5, Gurgaon, 122016, Haryana, India  
Phone: +91 124-4300821, Fax: +91 124-4300820

**PT.OTC DAIHEN INDONESIA**

Blok G1A-20, Jl. Kenari II, Delta Silicon V,  
Lippo Cikarang Industrial Park, Bekasi 17550 Indonesia  
Phone: +6221-2957-7566, Fax: +6221-2957-7567

**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

**Upon contact, advise MODEL and MANUAL NO.**