



OWNER'S MANUAL
FOR
WIRE FEEDER
MODEL: CM-7471 1U30005

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

August 9, 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.


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1. SAFETY INFORMATION

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


 WARNING	WARNING gives information regarding possible personal injury or loss of life.
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 CAUTION	CAUTION refers to minor personal injury or possible equipment damage.
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2. ARC WELDING SAFETY PRECAUTIONS


 WARNING
ARC WELDING can be hazardous.
<ol style="list-style-type: none">1. PROTECT YOURSELF AND OTHERS FROM POSSIBLE SERIOUS INJURY OR DEATH. Be sure to:<ul style="list-style-type: none">• Keep children away.• Keep pacemaker wearers away until consulting a doctor.2. Read and understand the summarized safety information given below and the original principal information that will be found in the PRINCIPAL SAFETY STANDARDS.3. Have only trained and experienced persons perform installation, operation, and maintenance of this equipment.4. Use only well maintained equipment. Repair or replace damaged parts at once.
ARC WELDING is safe when precautions are taken.


2. ARC WELDING SAFETY PRECAUTIONS (continued)

	ELECTRIC SHOCK can kill.
<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> <ol style="list-style-type: none">1. Do not touch live electrical parts.2. Wear dry insulating gloves and other body protection that are free of holes.3. Insulate yourself from work and ground using dry insulating mats or covers.4. Be sure to disconnect the line disconnect switch before installing, changing torch parts or maintaining this equipment.5. Properly install and ground this equipment according to its Owner's Manual and national, state, and local codes.6. Keep all panels and covers of this equipment securely in place.7. Do not use worn, damaged, undersized, or poorly spliced cables.8. Do not touch electrode and any metal object if POWER switch is ON.9. Do not wrap cables around your body.10. Turn off POWER switch when not in use.	


	ARC RAYS can burn eyes and skin: FLYING SPARKS AND HOT METAL can cause injury. NOISE can damage hearing.
<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> <ol style="list-style-type: none">1. 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.2. Wear approved safety goggles. Side shields recommended.3. Use protective screens or barriers to protect others from flash and glare: warn others not to look at the arc.4. Wear protective clothing made from durable, flame-resistant material (wool and leather) and foot protection.5. Use approved earplugs or earmuffs if noise level is high. Chipping and grinding can cause flying metal. As welds cool, they can throw off slag.6. Wear approved face shield or safety goggles. Side shields recommended.7. Wear proper body protection to protect skin.	


2. ARC WELDING SAFETY PRECAUTIONS (continued)



	WELDING can cause fire and explosion.
<p>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.</p> <ol style="list-style-type: none">1. Protect yourself and others from flying sparks and hot metals.2. Do not weld where flying sparks can strike flammable material.3. Remove all flammables within 10m (33ft) of the welding arc. If this is not possible, tightly, cover them with approved covers.4. Be alert that welding sparks and hot metals from welding can easily pass through cracks and openings into adjacent areas.5. Watch for fire, and keep a fire extinguisher nearby.6. Be aware that welding on a ceiling, floor, bulkhead, or partition can ignite a hidden fire.7. Do not weld on closed containers such as tanks or drums.8. Connect power cable for base metal 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.9. Remove stick electrode from holder or cut off welding wire at contact tip when not in use.10. Does not use the welding power source for other than arc welding.11. Wear oil-free protective garments such as leather gloves, a heavy shirt, cuffless trousers, boots, and a cap.12. A loose cable connection can cause sparks and excessive heating.13. Tighten all cable connections.14. 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.
<p>Arc welding produce fumes and gases. Breathing these fumes and gases can be hazardous to your health.</p> <ol style="list-style-type: none">1. Keep your head out of the fumes. Do not breathe the fumes.2. Ventilate the area and/or use exhaust at the arc to remove welding fumes and gases.3. If ventilation is poor, use an approved air-supplied respirator.4. Read the Material Safety Data Sheets (MSDS) and the manufacturer's instructions on metals, consumables, coatings, and cleaners.5. Do not weld or cut in locations near degreasing, cleaning, or spraying operations. The heat and rays of the arc can react with vapors to form highly toxic and irritating gases.6. 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.
<p>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.</p> <ol style="list-style-type: none">1. Use only correct shielding gas cylinders, gas regulator, hoses, and fittings designed for the specific application; maintain them in good condition.2. Protect compressed gas cylinders from excessive heat, mechanical shock, and arcs.3. Keep the cylinder upright and securely chained to a stationary support or a rack to prevent falling or tipping.4. Keep cylinders away from any welding or other electrical circuit.5. Never touch cylinder with welding electrode.6. Read and follow instructions on compressed gas cylinders, associated equipment, and the CGA publication P-1 listed in PRINCIPAL SAFETY STANDARDS.7. Turn face away from valve outlet when opening cylinder valve.8. Keep protective cap in place over valve except when gas cylinder is in use or connected for use.9. Do not disassemble or repair the gas regulator except for the person authorized by the manufacturer of them.	

 WARNING	
<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.	

		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> <ol style="list-style-type: none">1. Do not use this equipment if the case and the cover are removed.2. 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.3. Do not put hands, fingers, hair or clothes near the rotating fans or wire feed roll.		

2. ARC WELDING SAFETY PRECAUTIONS (continued)

	<p>ARC WELDING work areas are potentially hazardous.</p>
<p>FALLING or MOVING machine can cause serious injury.</p> <ol style="list-style-type: none">1. When hanging the welding power source by a crane, do not use the carrying handle.2. Put the welding power source and wire feeder solidly on a flat surface.3. Do not pull the welding power source across a floor laid with cables and hoses.4. Do not put wire feeder on the welding power source.5. Do not put the welding power source and wire feeder where they will pit or fall. <p>WELDING WIRE can cause puncture wounds.</p> <ol style="list-style-type: none">1. Do not press gun trigger until instructed to do so.2. Do not point gun toward any part of the body, other people, or any metal when threading welding wire.	

PRINCIPAL SAFETY STANDARDS

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

Arc welding equipment Part 5: Wire feeders IEC 60974-5, 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.

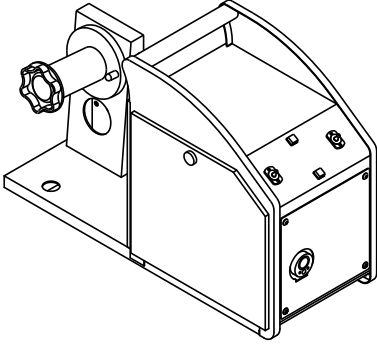
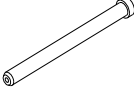
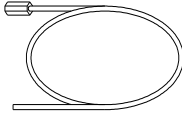
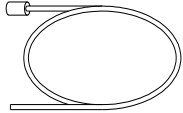
Safe Practices For Occupation And Educational Eye And Face Protection, ANSI Standard Z87.1, from American National Standards Institute.

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.

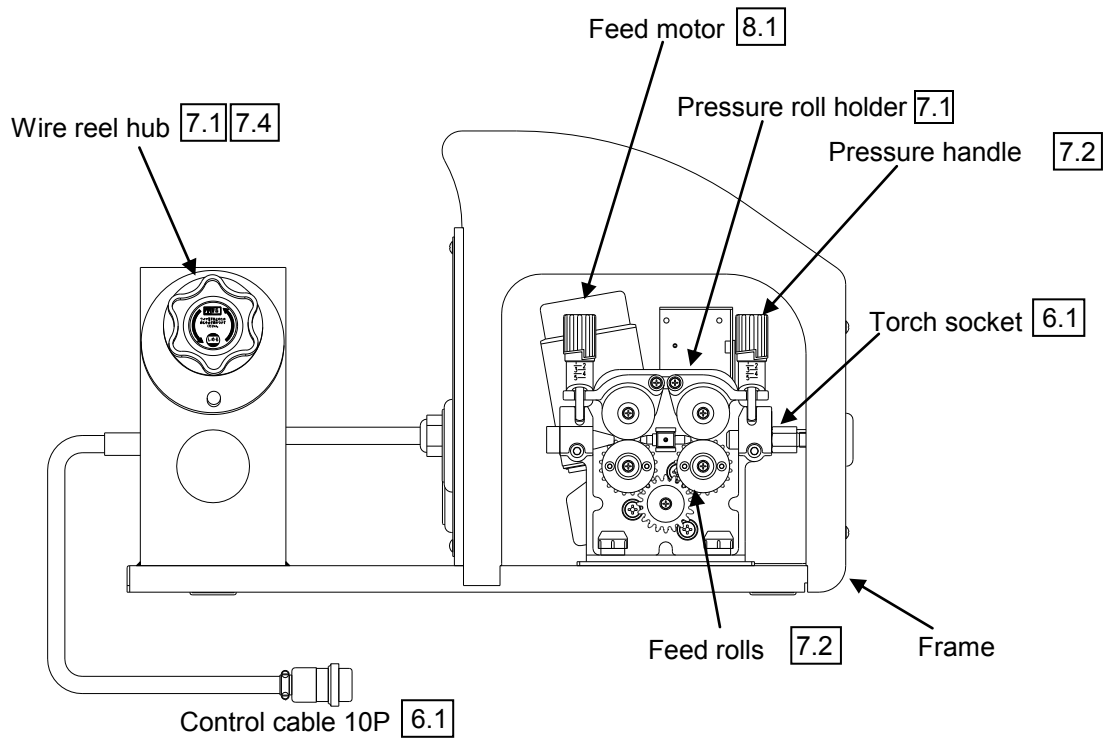
3. CHECKING OF QUANTITY OF THE ACCESSORIES

Check the quantity of parts when opening the package.

Wire feeder		Accessory		
	①	②	③	
				
	No.	Description	Specification	Quantity
	①	Outlet guide	U69B34 for steel 0.9-1.2mm	1
②	Conduit	U2586G00 3.4m	1	
③	Plastic liner	U3567C01 $\phi 2.7 \times \phi 5.6 \times 3.4\text{m}$	1	




4. NAMES OF PARTS

Refer to the section indicated in for details.






5. CARRYING AND INSTALLING OF THE WIRE FEEDER

5.1 Transportation

 WARNING	
To prevent accidents and damage of the welding machine during transportation, observe the following.	
	<ul style="list-style-type: none"> ● Do not touch the charging parts inside or outside the wire feeder. ● Be sure to disconnect the line disconnect switch when carrying the welding machine.
	<ul style="list-style-type: none"> ● Be sure to detach the wire reel from the wire feeder before lifting the equipment to the high places by a crane.

5.2 Installation

 WARNING	
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"> ● Do not place the welding machine near combustible materials and flammable gas. ● Remove combustible materials to prevent dross coming into contact with combustible objects. If that not possible, cover them with noncombustible covers.
	<ul style="list-style-type: none"> ● To avoid gas poisoning and danger of suffocation, wear a gas mask or adequately ventilate when the welding machine is used in the place regulated by a local law. ● To prevent disorder or poisoning caused by fume, wear a gas mask or weld at a partial exhaust facility approved by the local regulation. ● Adequately ventilate or wear a gas mask when using the welding machine in a tank, in a boiler or in a hold of a ship, because heavier gasses such as carbon dioxide or argon gases are settle there. ● When using the welding machine at a narrow space, comply with a trained supervisor's directions. And be sure to wear a gas mask.

INSTALLATION PLACE

Follow the instructions below when selecting an installation place for the wire feeder.

- Do not install the wire feeder in the indoor place subject to direct sunlight and rain.
- 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.
- Install the wire feeder in the place where the ambient temperature is between -10 °C and +40 °C.
- Use a wind shield to protect arc from a wind blow when welding on a windy day.

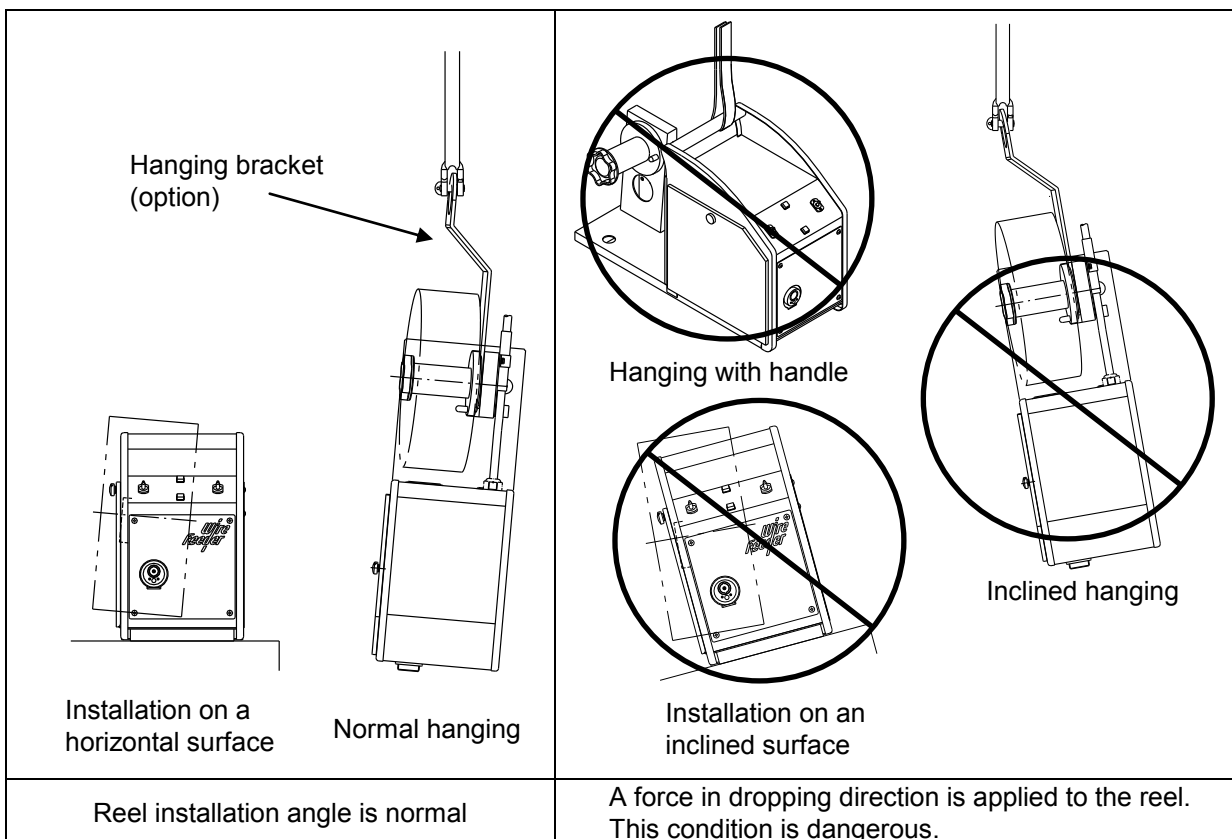
5. CARRYING AND INSTALLING OF THE WIRE FEEDER(continued)




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.

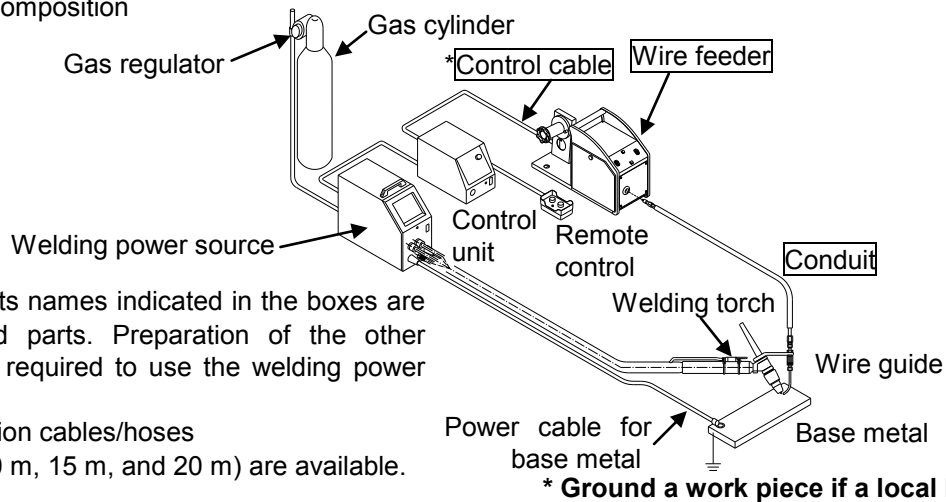
- For hanging the wire feeder, use a metal hanger structured to prevent falling and hang the wire feeder in a safe and secure manner.
- When hanging the wire feeder, use the hanging bracket (optional bracket of part number U30022Z00).
- Do not hang the wire feeder using the handle of the wire feeder 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

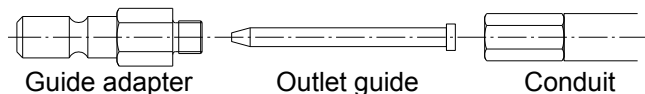
	⚠ CAUTION
Observe the following to prevent electric shock.	
<p>* Do not touch the charged sections; otherwise, you might receive serious electric shock or get burned.</p> <ul style="list-style-type: none"> ● Do not touch the charged sections. ● Have a qualified electric engineer ground the case of the welding power source. Have a qualified electric engineer ground the base metal or jig electrically connected, following a local law. ● Connect the welding machine with all the line disconnect switches inside the switch box turned off. ● Do not use a cable with lack of capacity or a damaged cable. ● Tighten and insulate the connections of cables. ● Attach the case properly after connecting the cable. ● Do not place the welding power source, wire feeder, torch, control unit, conduit and control cable (including the extension cable) in an area where the equipment can become wet. 	

6.1 Connection to the Welding Power Source and to the Gas regulator Standard Composition



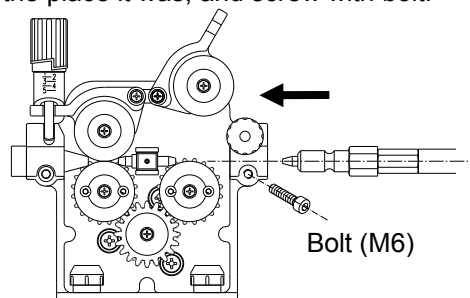
- The parts names indicated in the boxes are standard parts. Preparation of the other parts is required to use the welding power source.
- *Extension cables/hoses (5 m, 10 m, 15 m, and 20 m) are available.

1. Remove the guide adapter from the wire feeder, insert the outlet guide into the guide adapter and attach the guide adapter to the conduit of the welding torch. Use proper sized outlet guide adjusted to the wire size.



Outlet guide for wire diameter 0.9-1.2 is attached. For other diameter wire, change outlet guide for suitable diameter depending on the using wire.

2. Insert the guide adapter to the place it was, and screw with bolt.



7. WELDING PREPERATION

7.1 Fitting of Wire

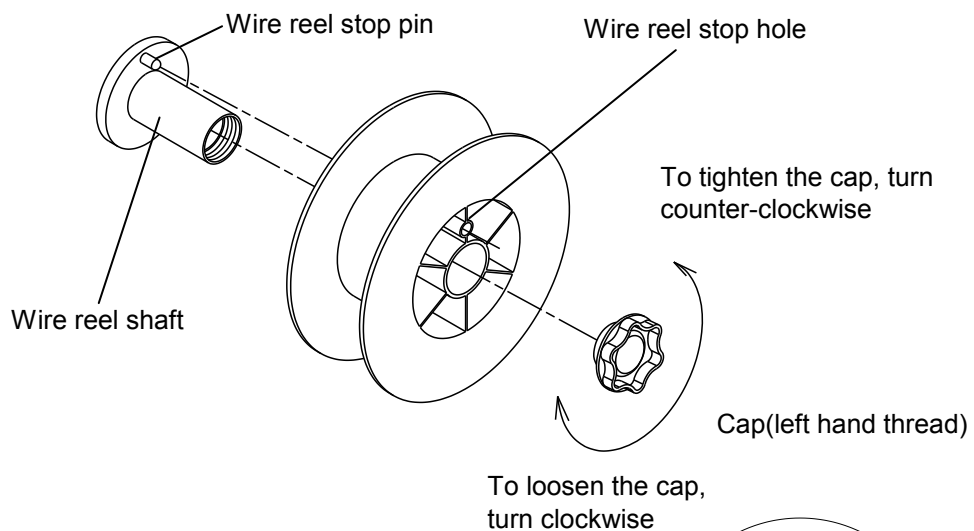
WARNING

- 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

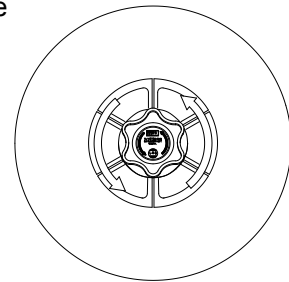
1. Turn the cap clockwise to loosen it.
2. Detach the cap from the wire reel shaft.
3. Mount the wire reel on the wire reel shaft.

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.

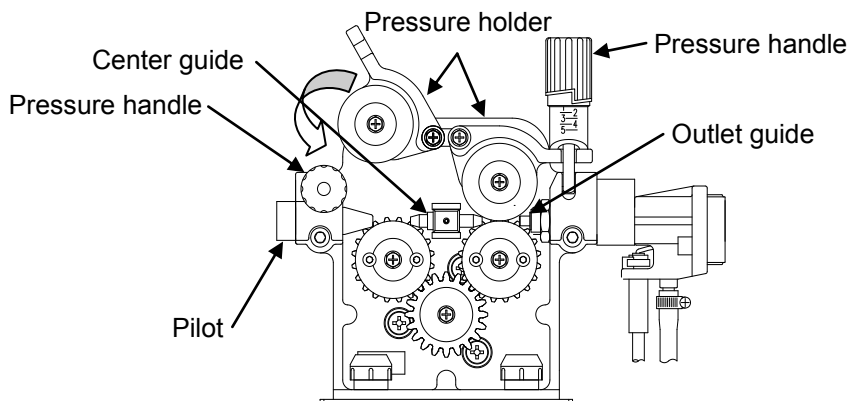


4. Turn the cap counter-clockwise to tighten it.

To tighten the cap, turn counter-clockwise



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

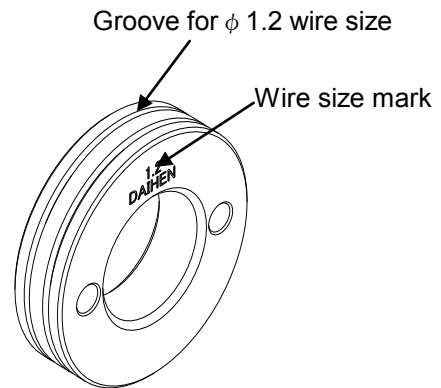


7. WELDING PREPERATION (continued)

7.2 Mounting of the Feed Roll

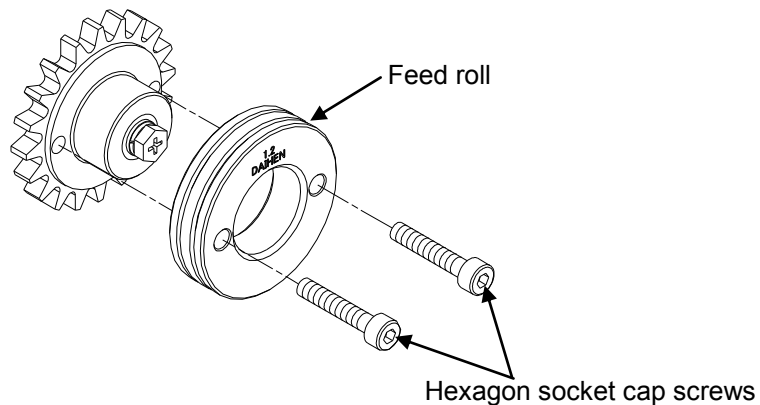
Confirmation of the wire size marked on the feed roll

Use the proper feed roll according to the wire size.
The feed roll of ϕ 1.2mm wire size is mounted on the CM-7471 wire feeder when it is shipping.



Replacement of the feed roll

1. Remove the hexagon socket cap screws fixing the feed roll.
2. Bring down the pressure handle, and then lift the pressure roll holder.
3. Pull up the feed roll from the wire feeder.
4. Mount the new feed roll, with the wire size marked on the wire feeder facing out.



Adjusting of pressure and straightner

- Turn the pressure handle to set to the correct pressure force for your wire diameter.
- Set both pressure handle gauge to same value.
- Wire straightner is an optional part. (Refer to 9.3.)

Recommended wire pressure adjustment

	Wire diameter		Pressure handle Gauge	Wire straightner Gauge
	(ϕ mm)	(ϕ inch)		
AL/MG (HARD)	1.6	1/16	2-3	2-3
	1.2	3/64	1-2	3-4
	1.0	0.035	1-2	4-5
AL/PURE (SOFT)	1.6	1/16	2-3	2-3
	1.2	3/64	1-2	4-5
Mild steel Stainless steel Blazing	1.6	1/16	3-4	2-3
	1.4	0.055	3-4	3-4
	1.2	0.045	2-3	3-4
	1.0	0.040	2-3	4-5
	0.9	0.035	2-3	4-5
	0.8	0.030	1-2	4-5

*Applicable wire diameter of brazing wire is ϕ 0.8, 0.9, 1.0 and 1.2.

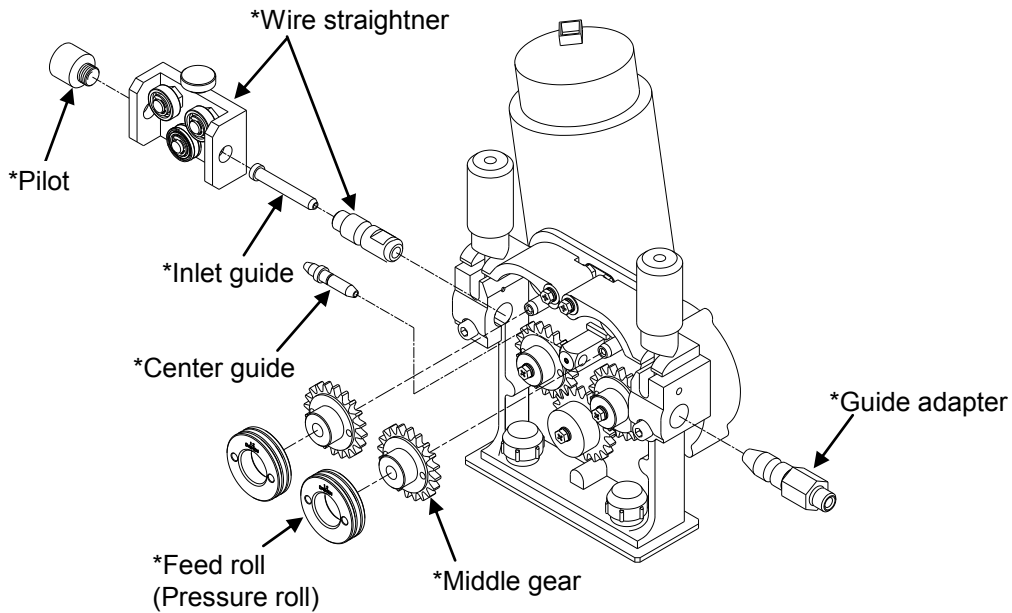
*Refer to section 7.3 for wire feeding of other than aluminum.

7. WELDING PREPERATION (continued)

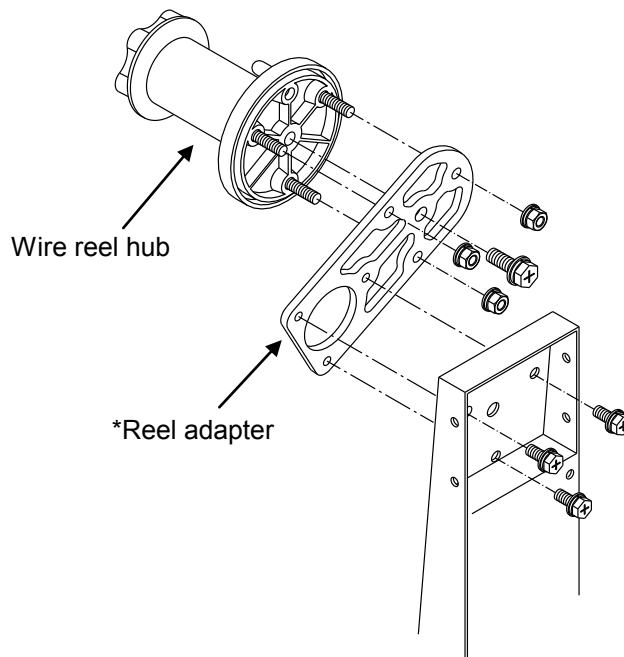
7.3 For aluminum welding and for brazing

Parts marked with "*" are optional parts. (Refer to section 9.3.)

1. Remove the pressure roll.
2. Change the center guide and guide adapter for aluminum.
3. Attach the middle gear and feed roll for aluminum.
4. Attach the wire straightner, inlet guide and pilot.



5. Remove the wire reel hub.
6. Attach the reel adapter.
7. Attach the wire reel hub to the reel adapter.



7. WELDING PREPERATION (continued)

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 brake has been properly adjusted before shipment. Therefore, readjustment of the brake is not required for welding in standard welding conditions.

! WARNING

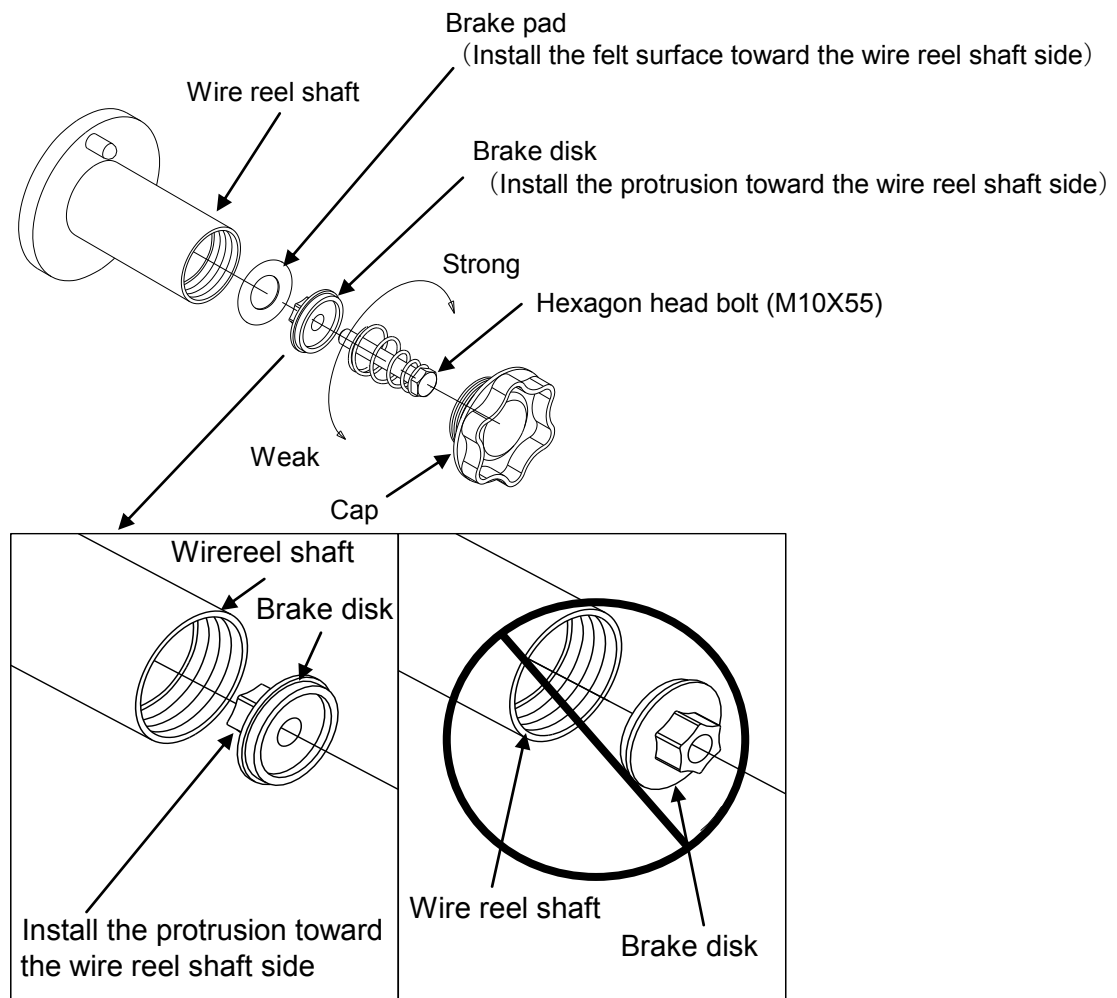
Observe the following precautions to prevent serious personal injury caused by fall of the wire reel at the time of wire reel hub adjustment or hanging bracket installation.

- **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.**

How to adjust the wire reel hub

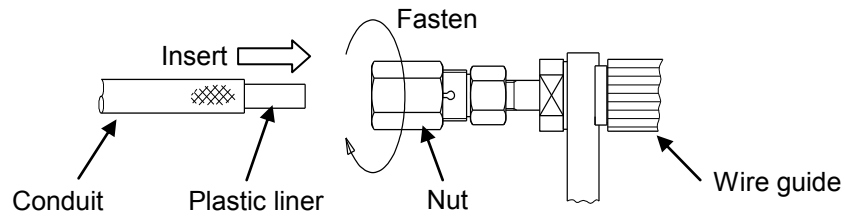
1. Detach the cap knob from the wire reel shaft.
2. Fine adjustment of the brake can be achieved by turning the hexagon bolt (M10).

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

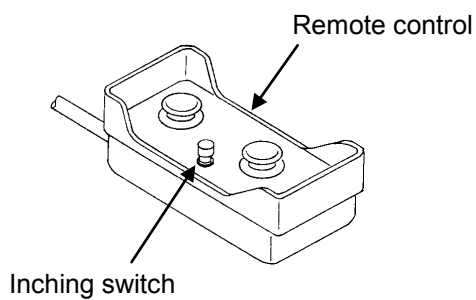


7.5 Connection of conduit

- Insert the plastic liner into the conduit, fasten the insert nut to the wire guide.



7.6 Feeding Wire by Inching Operation

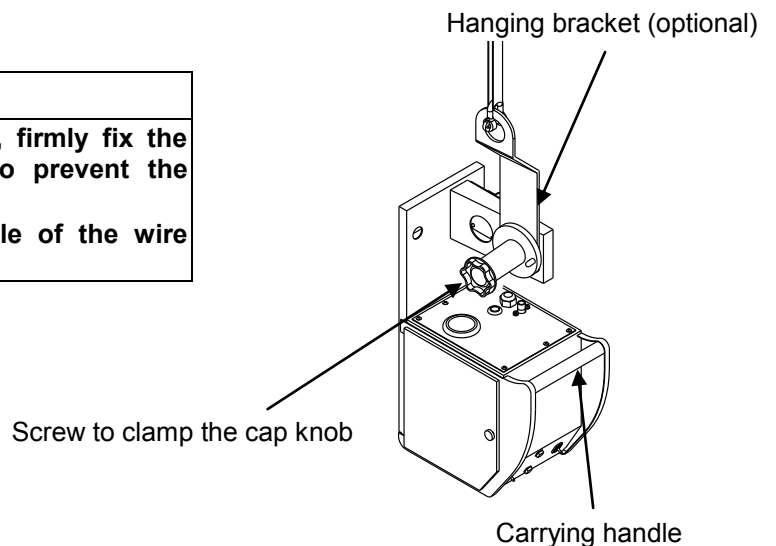


⚠ WARNING	
	<ul style="list-style-type: none"> ● Keep away your face, eyes and body from the top of torch while inching. Wire may come out and stick to your face, eyes and body and cause injured.
⚠ CAUTION	
	<ul style="list-style-type: none"> ● Keep away your hands, fingers, hair or clothes from the rotating parts of the feed roll, etc. to prevent you from being caught into the rotating parts while inching.

After straightening the conduit, feed the wire by pressing the INCHING key. When the wire appears from the end of the wire guide, press the INCHING key again. Cut the wire at about 10mm from the end of the tip. Wire feed speed can be adjusted by turning the adjusting knob.

7.7 Hanging the Wire Feeder

⚠ CAUTION	
<ul style="list-style-type: none"> ● When hanging the wire feeder, firmly fix the cap knob and clamp screw to prevent the device from dropping. ● Do not use the carrying handle of the wire feeder to hang the wire feeder. 	



7. WELDING PREPERATION (continued)

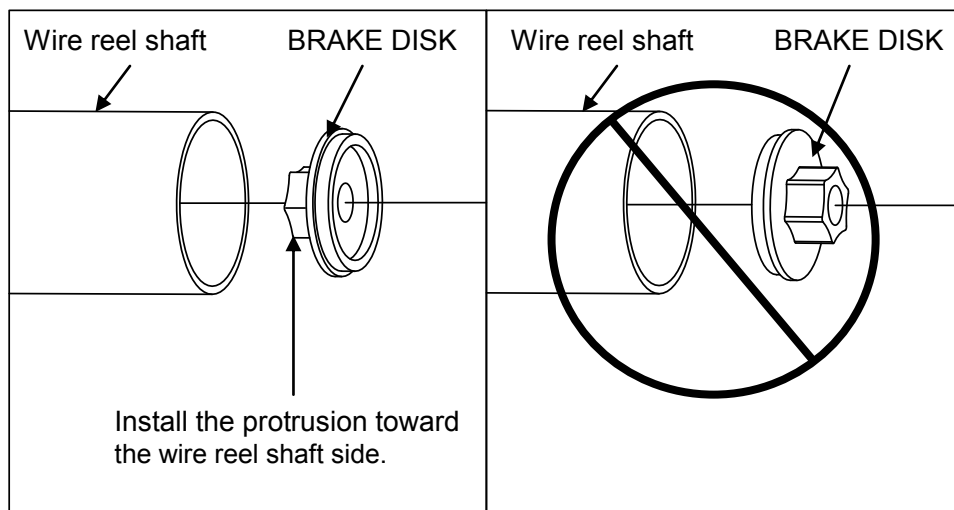
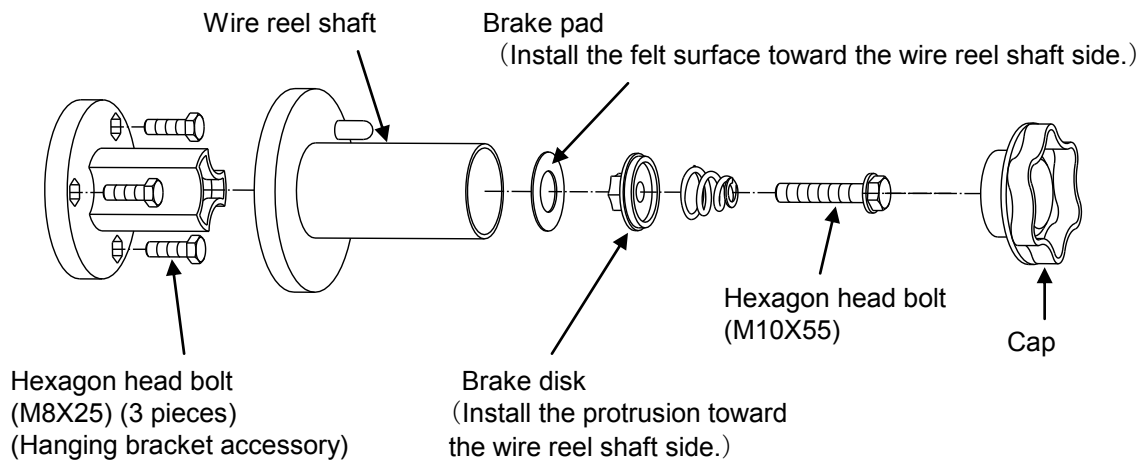
How to attach the hanging bracket

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.



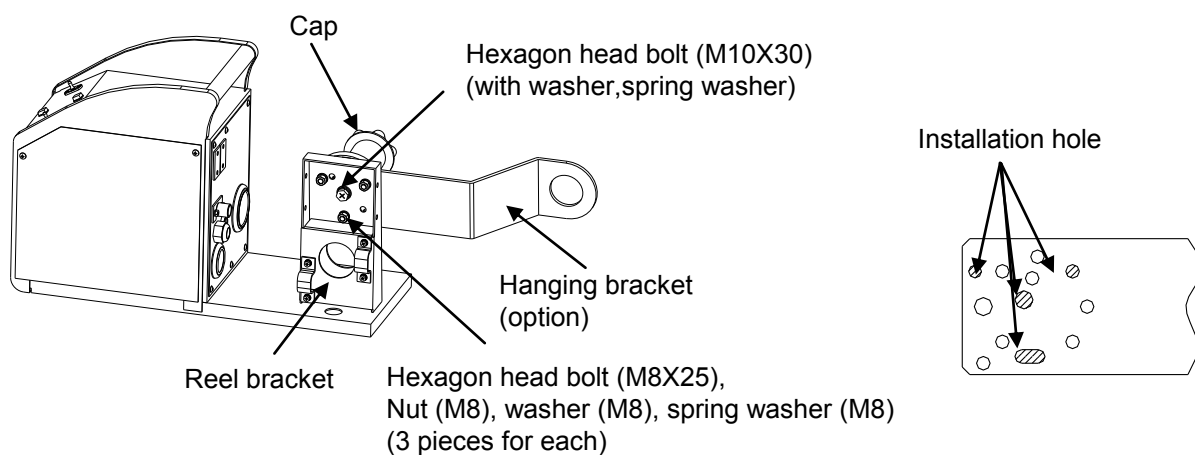
3. Install the wire reel hub and hanging bracket on the reel bracket and tighten to the following torque so as not to loose the hexagon head bolt (M10X30), nut(M8), washer (M8) and spring washer (M8) (3 pieces for each) of the hanging bracket accessory in that order.

7. WELDING PREPERATION (continued)

4. Adjust the wire reel hub.



Recommended tightening torque

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



8. MAINTENANCE AND TROUBLESHOOTING

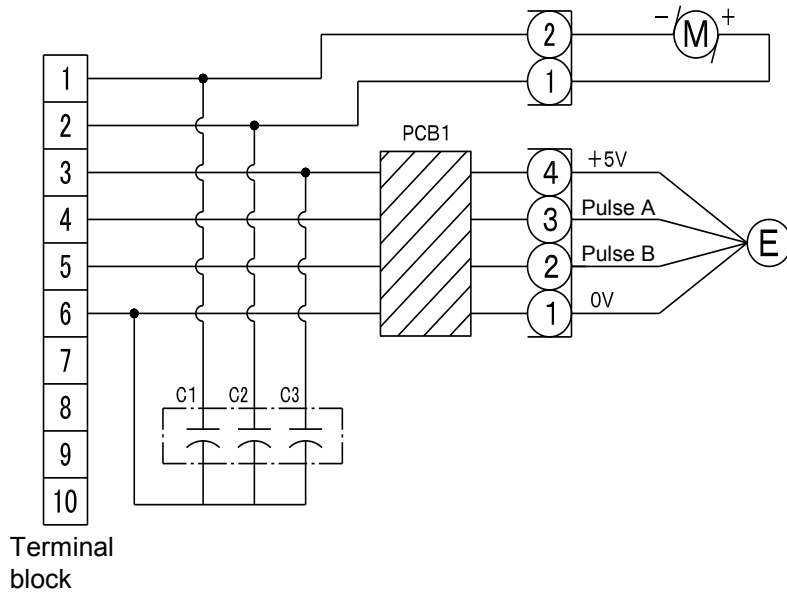
8.1 Maintenance

 WARNING	
	<ul style="list-style-type: none"> ● Do not touch the charged sections; otherwise, you might receive serious electric shock or get burned. ● Turn off all of the line disconnect switches before touching the parts inside the welding machine.

No.	Problem	Cause	Solution
1	Wire gets deformed.	Wire pressure is too strong.	Refer to “Recommended wire pressure adjustment” in Section 7.2.
		Wrong feed roll is used.	Replace it with the feed roll of proper wire size.
		Feed roll and pressure roll are worn.	Replace the feed roll and the pressure roll.
2	Wire is not fed.	Poor contact or breakdown in the control cable.	Check the connection of the socket. Check the cables and replace them if necessary.
		Poor contact or breakdown in the encoder cable	
		Trouble with the motor	Replace the motor.
		Wire pressure is too weak.	Refer to “Recommended wire pressure adjustment” in Section 7.2.
		Dust and chip are accumulated on the outlet guide and on the feed roll.	Remove the dust and chip.
3	Pressure roll does not rotate smoothly.	Failure of the pressure roll holder.	Replace it if necessary.
4	Shield gas is not supplied when pressing the torch switch.	The discharge valve of the gas cylinder is closed.	Open the valve.
		Lack of gas pressure in the gas cylinder	Check gas pressure.
		Failure of gas solenoid valve	After checking the gas solenoid valve, replace it if necessary.
5	Shield gas supply does not stop.	Failure of gas solenoid valve	After checking the gas solenoid valve, replace it if necessary.
6	Defective gas hoses	Crack in the gas hose	Replace them if necessary.
7	Wire is not fed smoothly from 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 >



⚠ CAUTION

- Never attempt to disassemble the feed motor. This may result in damage to the wire feeder.
- Never check the amount of brushing friction or replace the brush.

Service life of the brush varies depending on ambient temperature and welding condition, etc., but normally the service life is about 4,000 hours. (If the machine is operated for six hours a day, the service life of the brush will be about two years). Periodical replacement of the feed motor is recommended.

9. PARTS LIST

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

9.1 Main body and Wiring (Fig.1)

Ref. No.	Part number	Description	Q'ty	Remarks
1	U30000U00	Frame	1	Assembly
2	K970H90	Strike	2	
3	4739-013	Support	2	
4	U5185C01	Cover	1	With coating
5	U5185C02	Screw with knob	1	
5-1	3361-219	Washer	2	
6	U5281C03	Side plate	1	With coating and a screen
7	U5623C04	Rear cover	1	With coating
7-1	U5374J02	Grommet with film	1	
7-2	4739-489	Grommet with film	1	
8	U5281C05	Panel	1	With coating and a screen
8-1	4739-507	Grommet	1	
9	U5281B00	Wire feeder	1	With a feed motor
10	U5209J01	Guide adapter	1	
11	U5185J04	Terminal block bracket	1	With coating
12	4739-492	Terminal block	1	
13	U5185X00	Encoder cable	1	Assembly
14	U5185F00	Motor cable	1	Assembly
15	U5185E00	Control cable	1	Assembly, with metal socket
15-1	4730-422	Metal socket	(1)	
16	U30022F00	Wire reel hub	1	
17	U1997C02	Hose clamp	1	
18	U1997C03	Hose cover	1	
19	U5185J05	Wire reel cover	1	

9. PARTS LIST (continued)

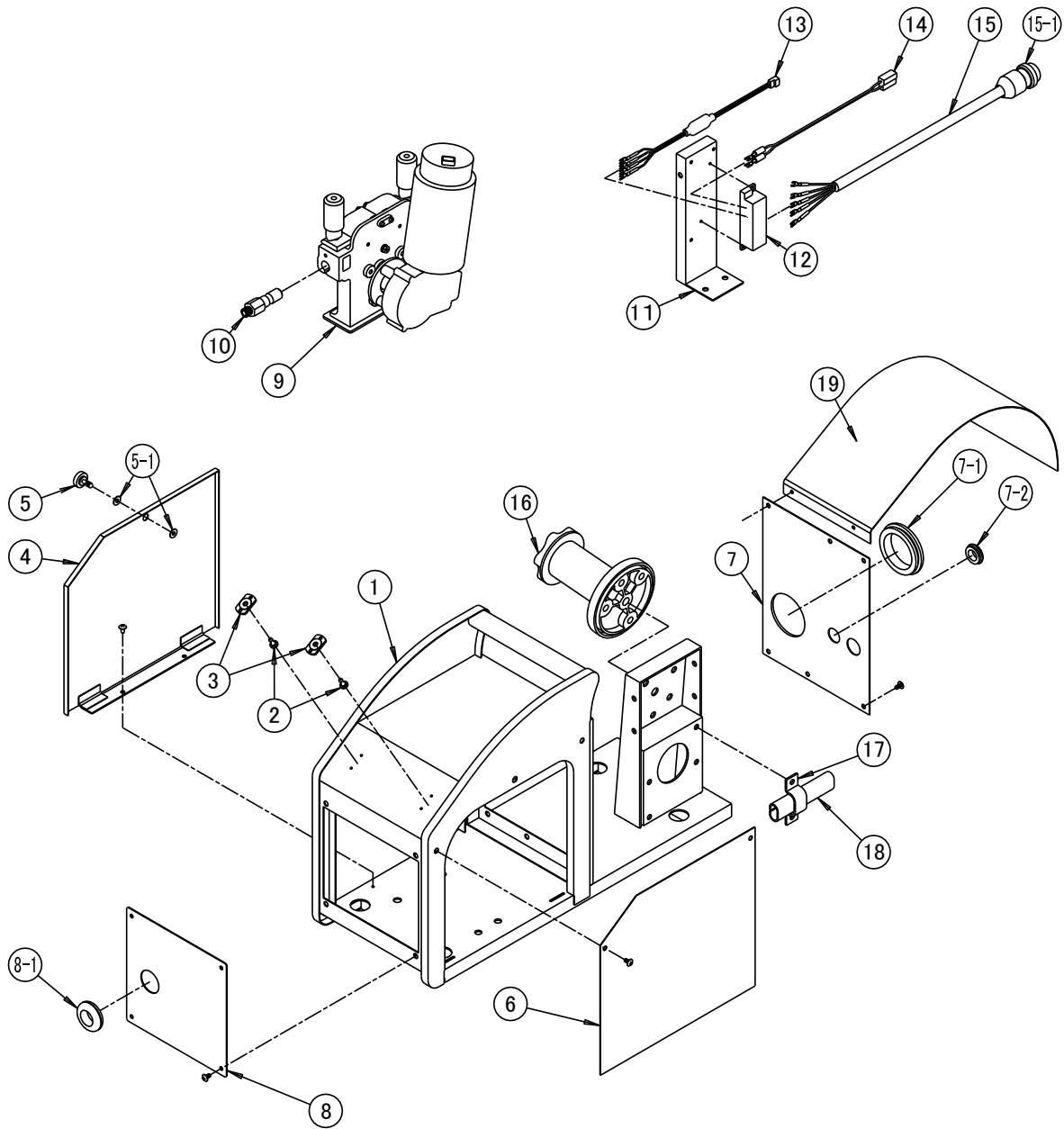


Fig.1 Main body and wiring disassembly

9. PARTS LIST (continued)

9.2 Wire Feeder (Fig.2)

Ref. No.	Part number	Description	Q'ty	Remarks
1	U5209B01	Bracket	1	
1-1	3361-892	Hexagon socket cap screw	2	M6 x 25
2	U5185B08	Coil spring	1	
3	U5185B02	Pressure roll holder pin	2	
4	U5185S00	Pressure roll holder (R)	1	Assembly
5	U5185T00	Pressure roll holder (L)	1	Assembly
6	K5439C00	Pressure roll	2	Assembly
7	U5158B03	Driving roll shaft	2	
8	U5185P00	Gear	2	Assembly
9	K5439B12	Feed roll (0.9-1.0/1.2)	2	
9-1	3361-880	Hexagon socket cap screw	4	M4 x 16
9-2	3361-893	Bolt	4	M4 x 10
10	U5185B04	Guide block	1	
11	U5185B05	Center guide	1	
12	4802-207	Feed motor	1	
13	U5185B06	Insulating board	1	
14	U3971B04	Insulating bush	3	
14-1	3361-895	Flat head screw	3	M6 x 20
15	U5185Q00	Drive gear	1	
16	U5185B09	Pressure spring holder	2	
17	U5185B12	Compression spring	2	
18	U5185B10	Pressure handle	2	
19	U5185B11	Pressure bolt	2	
19-1	None	Spring pin	2	2.5 x 14
20	U5185J06	Pilot	1	
21	U5185B13	Insulating bush	2	
21-1	None	Hexagon bolt	2	M8 x 25
22	U5185B14	Insulating board	1	
23	U5185B15	Insulating cover	2	

9.PARTS LIST (continued)

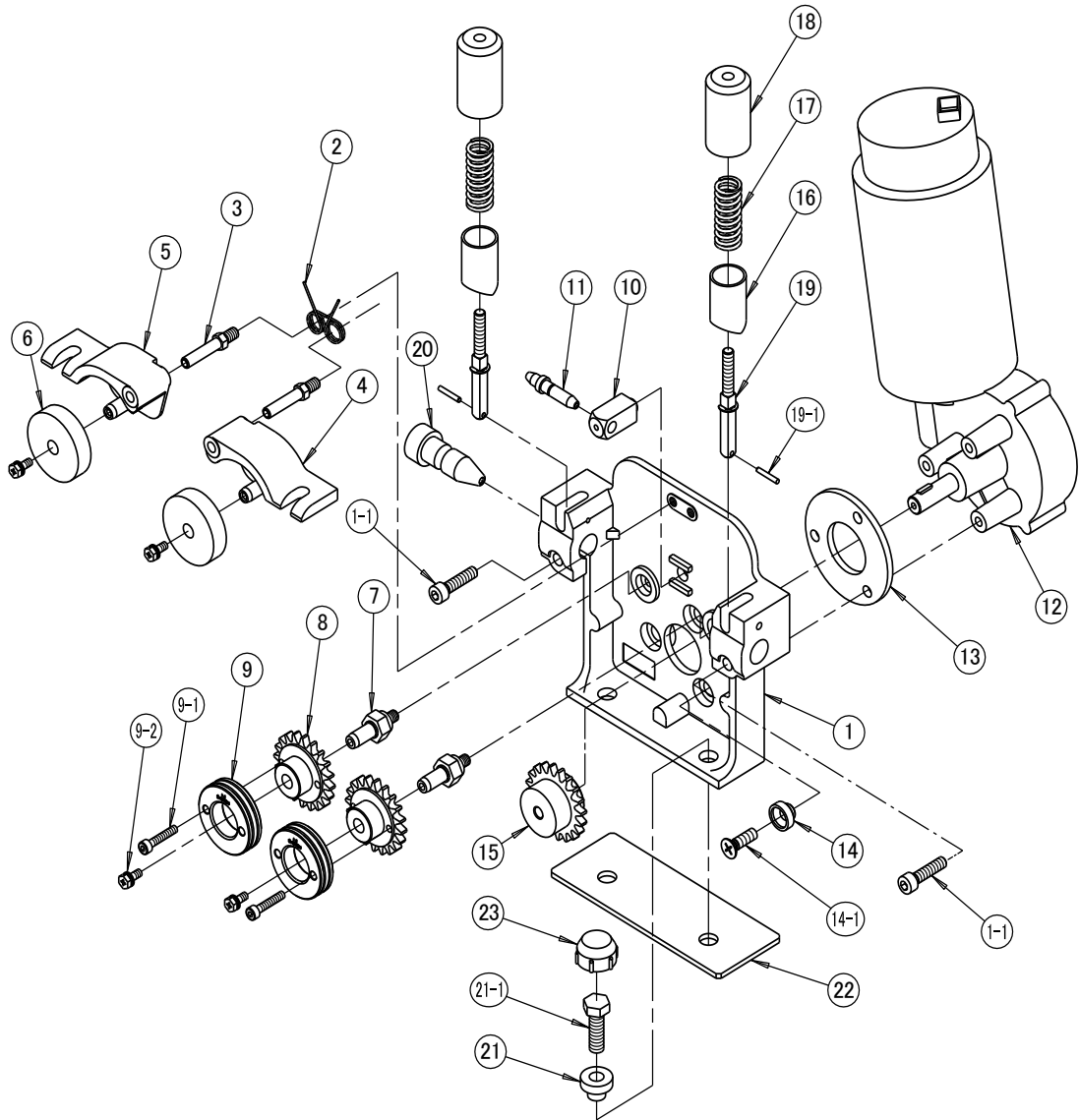


Fig.2 Feeding part disassembly

9. PARTS LIST (continued)

9.3 Optional parts

(1) Extension cable

- Control cable (10P)

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

(2) Feed roll·Pressure roll (Fig.3)

- For stainless steel welding, use the parts for mild steel.
- For brazing welding, use the parts for aluminum.

Part No.	Description	Q'ty	Remarks
K5439B01	Feed roll (1.4/1.6)	2	For steel
K5439B04	Feed roll (1.2/1.4)	2	For steel
K5439B05	Feed roll (1.2/1.2)	2	For steel
K5439B06	Feed roll (1.4/1.4)	2	For steel
K5439B07	Feed roll (1.6/1.6)	2	For steel
K5439B11	Feed roll (1.2/1.6)	2	For steel
K5439B12	Feed roll (0.9-1.0/1.2)	2	For steel
K5439B13	Feed roll (0.8/0.9-1.0)	2	For steel
K5439C00	Pressure roll	2	For steel
K5463R02	Feed roll (1.0/1.2)	4	For aluminum (U type groove)
K5463R03	Feed roll (1.2/1.6)	4	For aluminum (U type groove)
K5463V02	Feed roll (1.0/1.2)	4	For aluminum (V type groove)
K5463V03	Feed roll (1.2/1.6)	4	For aluminum (V type groove)
K5463R06	Feed roll (0.8/0.9)	4	For brazing

(3) Center guide·Outlet guide·Guide adapter (Fig.3) (Outlet guides include E type snap ring)

Part No.	Description	Q'ty	Remarks
U5185B05	Center guide (0.6-1.6)	1	For steel
U5204B02	Center guide (0.8-1.0)	1	For aluminum
U5204B03	Center guide (1.0-1.6)	1	For aluminum
U2075J03	Outlet guide (0.8-1.0)	1	For steel
U69B34	Outlet guide (0.9-1.2)	1	For steel
U69B35	Outlet guide (1.2-1.6)	1	For steel
K970J13	Outlet guide (0.8-1.0)	1	For aluminum, white
U2962M03	Outlet guide (1.0-1.2)	1	For aluminum, black
U2962M04	Outlet guide (1.6)	1	For aluminum, white
U5209J01	Guide adapter	1	For steel (7/16-20UNF)
U5204J01	Guide adapter	1	For aluminum (7/16-20UNF)

(4) Parts for wire straightner (Fig.3)

Part No.	Description	Q'ty	Remarks
U5204H00	Wire straightner	1	For steel and aluminum
K970G72	Pilot	1	For steel
U2344C08	Pilot	1	For aluminum
U5204M02	Inlet guide	1	For steel
U5204J07	Inlet guide	1	For aluminum

9. PARTS LIST (continued)

(5) Other optional parts

Part No.	Description	Q'ty	Remarks
U5191E00	Wire reel cover (simple)	1	With bolts
K5439E00	Wire reel cover (full cover)	1	Assembly, with bolts
U5191F00	Reel adapter	1	With bolts
K5439F00	Caster	1	For wire feeder, with 4 wheels and bolts
U30022Z00	Hanging bracket	1	With bolts

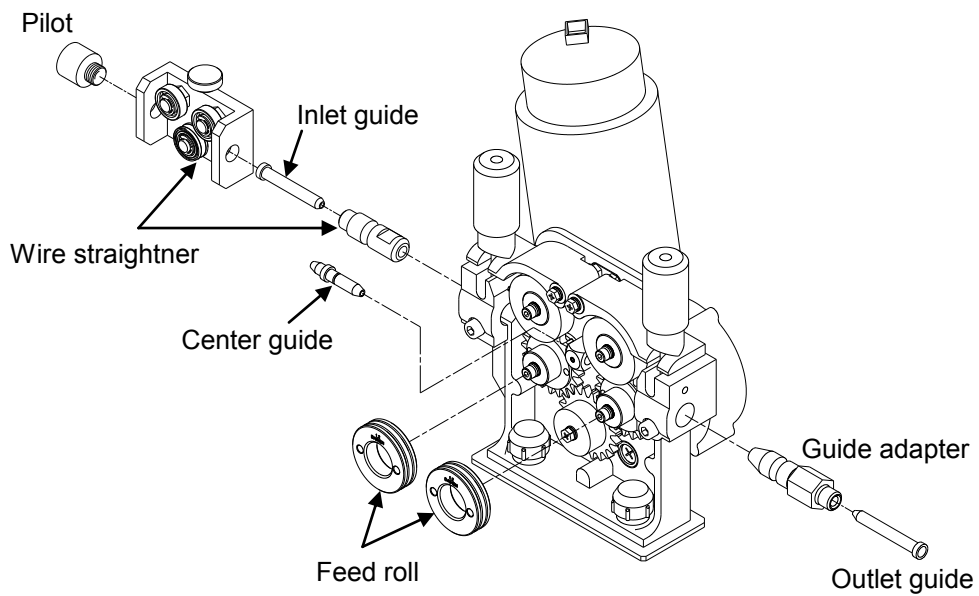


Fig.3 Optional parts (assembly)

10. SPECIFICATIONS

10.1 Specifications

Model		CM-7471
Applicable wire size	Mild steel	(0.8), 0.9, 1.0, 1.2, (1.4), (1.6)
	Stainless steel	(0.8), 0.9, 1.0, 1.2, (1.6)
	Aluminum	(1.0), (1.2), (1.6)
	Brazing	(0.8), (0.9), (1.0), (1.2)
Wire feeding speed		Max. 5 m/min
Applicable wire reel	Shaft diameter	50 mm ϕ
	External diameter	Max. 300 mm ϕ
	Width	103 mm
Mass of applicable wire		Max. 25 kg
Mass		13 kg

*For using () wire, optional parts are necessary.

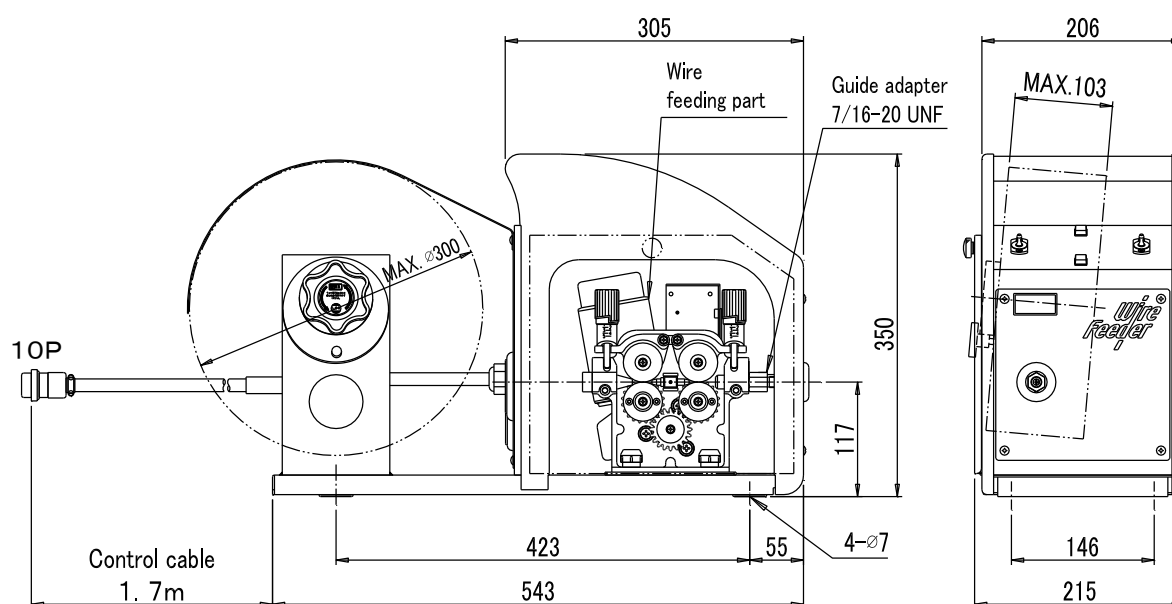
10.2 Available TIG welding torch and wire guide

TIG welding torch	Wire guide
AW(D)-17 (150A air-cooled)	BHCD-7117
AW(D)-26 (200A air-cooled)	BHCD-7126
AW(D)-18 (300A water-cooled)	BHCD-7118

10.3 Available TIG filler controller HC-71D type TIG filler controller

10.4 Standard accessories

Part number	Description	Quantity	Remarks
K5439B12	Feed roll (0.9-1.0/1.2)	(2)	Pre-installed, for steel
U69B34	Outlet guide (0.9-1.2)	1	For steel
U2586G00	Conduit	1	
U3567C01	Plastic liner	1	



CM-7471 type wire feeder external view



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