

# OWNER'S MANUAL

**FOR** 

# WIRE FEEDER

MODEL: CM-7401 U5260

# 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 20, 2003

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

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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.

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

#### 2. ARC WELDING SAFETY PRECAUTIONS

ARC WELDING can be hazardous.					
PROTECT VOLIDGELE AND OTHERS FROM ROSSIRI E SERIOUS IN HIRV OR DEATH					

- PROTECT YOURSELF AND OTHERS FROM POSSIBLE SERIOUS INJURY OR DEATH. Be sure to:
  - · Keep children away.
  - Keep pacemaker wearers away until consulting a doctor.
- ♦ Read and understand the summarized safety information given below and the original principal information that will be found in the PRINCIPAL SAFETY STANDARDS.
- ♦ Have only trained and experienced persons perform installation, operation, and maintenance of this equipment.
- ◆ 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.

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.

- 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.

Arc rays from the welding process produce intense heat and strong ultraviolet rays that can burn eyes and skin.

Noise from some arc welding can damage hearing.

- 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.
- 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.

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.

- 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 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.
- 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.
- 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.

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

- 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.
- 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.

#### 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.

- 1. Use only correct shielding gas cylinders, regulators, 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
- Do not disassemble or repair the gas regulator except for the person authorized by the manufacturer of the regulator.



Rotating parts may cause injuries. Be sure to observe the following.

If hands, fingers, hair or clothes are put near the fan's rotating parts or wire feeder's feed roll, injuries may occur.

- 1. Do not use this equipment if the case and the cover are removed.
- 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.
- Do not put hands, fingers, hair or clothes near the rotating fans or wire feed roll.

### 2. ARC WELDING SAFETY PRECAUTIONS (continued)



ARC WELDING work areas are potentially hazardous.

# FALLING or MOVING machine can cause serious injury.

- ♦ When hanging the welding power source by a crane, do not use the carrying handle.
- Put the welding power source and wire feeder solidly on a flat surface.
- ♦ Do not pull the welding power source across a floor laid with cables and hoses.
- Do not put wire feeder on the welding power source.
- ♦ Do not put the welding power source and wire feeder where they will pit or fall.

### WELDING WIRE can cause puncture wounds.

- ◆ Do not press gun trigger until instructed to do so.
- 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 1: Welding power sources IEC 60974-1, from International Electro technical Commission

Arc welding equipment Part 5: Wire feeder 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

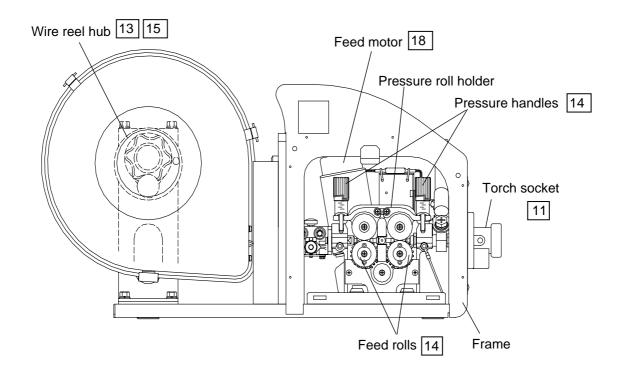
Make sure that you have the items below before you use the wire feeder.

#### Wire feeder

Wire feeder		Accessory	
	Description Gas hose (3m)	Specification K5430A00	Quantity 1

# 4. NAMES OF PARTS

Refer to the page indicated in  $\square$  for details.



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#### 5. CARRYING AND INSTALLING OF THE WIRE FEEDER

#### **5.1 Transportation**

#### **WARNING**

Observe the following to avoid damage to the wire feeder or physical injury when carrying the equipment.



Do not touch the charging parts inside or outside the wire feeder.

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.



Be sure to detach the wire reel from the fire 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.



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.



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. 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, a boiler, a hold of a ship, because heavier gas such as carbon dioxide or argon gases are drifting 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.

Do not operate the welding machine near the place where degreasing, cleansing, and spraying are performed. Otherwise, poisonous gas may be generated.

Be sure to wear a gas mask or adequately ventilate when welding a coating steel plate. (Poisonous gas and fume may be generated.)

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.

#### INSTALLATION PLACE

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

Do not install the wire feeder in the indoor place subject to direct sunlight and rain. Install the wire feeder in the place where the ambient temperature is between -10 °C and +40 °C.

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.

Use a wind shield to protect arc from a wind blow when welding on a windy day.

#### 6. CONNECTION PROCEDURE

# **!** CAUTION



Follow the instructions below to avoid electric shock.

\* Do not touch the charging parts, as this will result in fatal shock and severe burns. Do not touch the charging 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, following a local low.

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.

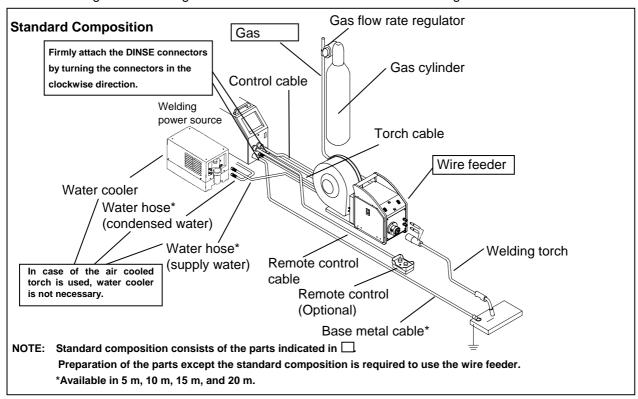
Do not use a cable with lack of capacity or a cable seriously damaged.

Tighten and insulate the connections of cables.

Firmly attach the cover of the welding machine after connection of the cables.

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.

6.1 Connecting to the Welding Power Source and to the Gas Flow Rate Regulator



Follow the steps below to connect to the welding power source and to the gas flow rate regulator.

- 1. Ground the base metal (if required by local laws or codes).
- Connect between the negative output terminal of the welding power source and the base metal with the base metal cable.
- 3. Attach the torch cable to the positive output terminal of the welding power source.
- 4. Connect the other side of torch cable to the terminal on the back side of the wire feeder.
- 5. Plug 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 wire feeder.
- 7 . Connect the water hose (supply water) to the water connection (supply water) of the back of wire feeder and the water connection (supply water) in front of the water cooler.

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#### 6. CONNECTION PROCEDURE (continued)

- 8. Connect the water hose (condensed water) to the water connection (condensed water) of the back of wire feeder and the water connection (condensed water) in front of the water cooler.
- 9. Connect the welding torch to the wire feeder.

#### 6.2 Connecting of the Torch Cable

#### 

\* Touching the charging parts may result in fatal electric shock and severe burns. Do not touch the charging parts of the welding machine.

Have a qualified electric engineer ground the case of the welding power source and the base

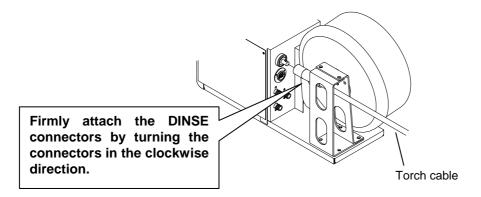
metal or jig electrically connected in accordance with a local low. Disconnect the wire feeder from the welding power source by turning off the line disconnect switch in the power box to avoid an electric shock before the welding power source or base metal and connecting the cables or hoses.

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.

<u> </u> CAUTION						
Use the proper torch cable that matches the weldi	ng current.					
Applicable current (Rated current) Cable thickness						
200 A	38mm <sup>2</sup> or more					
350 A*	60mm <sup>2</sup> or more					
500 A	80mm <sup>2</sup> or more					

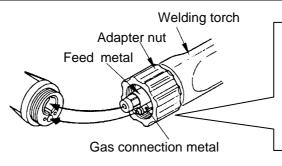
\* When performing pulse welding using the welding power source with 350 A applicable current and a 17m or more cable, use the thicker cable by one rank.



#### 6.3 Connecting of the Welding Torch

### **!** CAUTION

Ensue that the torch connector is firmly attached. If the connector is not fully inserted, there may be a risk of fire, burns, and product damage.



Before connecting a wire feeder to a welding torch, make sure that the feed metal and gas connection metal are inserted into the welding torch until restricted and that the adapter nut is properly inserted **into** the welding torch. (Forcible insertion of the adapter nut may result in damage to the threads of the metals.)

#### CONNECTION PROCEDURE (continued)

#### 6.4 Connecting of the Gas Hose

### NARNING

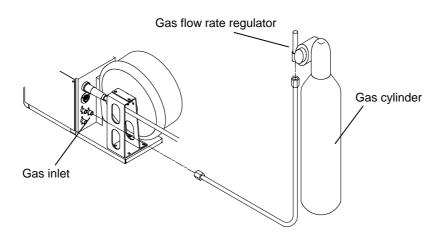


You may suffer from danger of suffocation caused by lack of oxygen when shield gas keeps drifting in a closed place. Be sure to turn off the shield gas at the main when the welding power source is not in use.

#### / WARNING

Be sure to connect the gas hose after fixing to the stand, as physical injuries may result from falling down of gas cylinder.

Attach a proper gas flow rate regulator to the gas cylinder. Failure to observe the demand may result in physical injuries. The gas flow rate regulator for high pressure gas must be used



#### 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 flow rate 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 flow rate regulator.

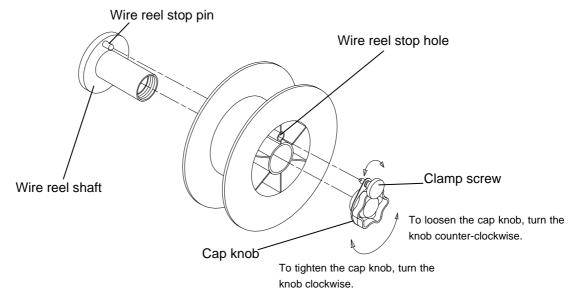
NOTE: Firmly tighten the nuts using a monkey wrench, etc. to connect the gas hose and gas flow rate regulator.

#### 7. WELDING PREPERATION

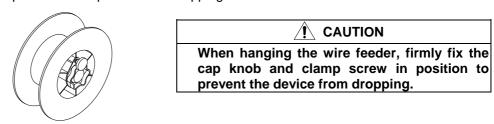
#### 7.1 Fitting of Wire

- 1. Loosen the screw to clamp the cap knob.
- 2. Detach the cap knob from the wire reel shaft.
- 3. Mount the wire reel on the wire reel shaft.

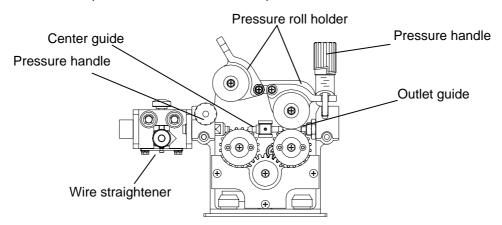
NOTE: Check the positions of the wire reel stop pin and the wire reel stop hole to insert and fully seat the pin into the hole.



- 4. Firmly tighten the cap knob.
- 5. Align the hole in the cap knob with the wire reel stop hole, then cap the wire reel hole with the clamp screw to prevent the cap knob from dropping.



- 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.



### 7. WELDING PREPERATION (continued)

#### 7.2 Mounting of the Feed Roll

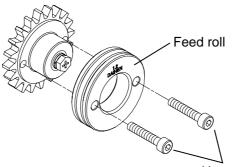
#### Confirming of the wire size marked on the feed roll

Use the proper feed roll for the wire size.

The feed roll of 1.2 wire size is mounted on the CM-7401 wire feeder.

#### Replacing 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. Separate the feed roll from the wire feeder by pulling out the feed roll toward you.
- 4. Mount the feed roll, with the wire size marked on the wire feeder facing out.



Hexagon socket cap screws

Groove for 1.2 wire size

Wire size mark

#### Adjusting of the wire pressure and straightener

- 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

		1		
Wire material	Wire diameter( mm)	Pressure handle scale	Straightener scale	
	2.4	2 ~ 3	1 ~ 2	
Hard aluminum	1.6	2 ~ 3	2~3	
riaid aidifilitutti	1.2	1 ~ 2	3 ~ 4	
	1.0	1 ~ 2	4 ~ 5	
	2.4	2 ~ 3	2 ~ 3	
Soft aluminum	1.6	2 ~ 3	2~3	
	1.2	1 ~ 2	4 ~ 5	
	1.6	3 ~ 4	2 ~ 3	
	1.4	3 ~ 4	3 ~ 4	
Mild steel	1.2	2~3	3 ~ 4	
Stainless steel	1.0	2~3	4 ~ 5	
	0.9	2 ~ 3	4 ~ 5	
	0.8	1 ~ 2	4 ~ 5	

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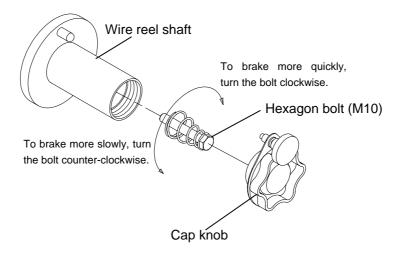
#### 7. WELDING PREPERATION (continued)

#### 7.3 Adjusting of the wire reel hub

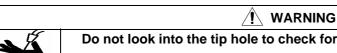
After performing inching operation, take care to adjust the brake of the wire reel hub to prevent the wire from going too slack. The bake has been properly adjusted before shipment. Therefore, readjustment of the brake is not required for welding in standard welding conditions.

How to adjust the wire reel hub

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



#### 7.4 Feeding Wire Feeding by Performing Inching Operation



Do not look into the tip hole to check for the rate of wire feeding while inching.





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 welding torch, feed the wire by pressing Parameter adjusting knob the INCHING key. (the INCHING lamp located at the upper right of the INCHING key lights up). When the wire appears from the end of the torch, press the INCHING key again (the INCHING lamp goes out). Cut the wire at about 10 mm from the end of the torch. Wire feed rate can be adjusted by turning the parameter adjusting knob.

**INCHING** key

# 7. WELDING PREPERATION (continued)

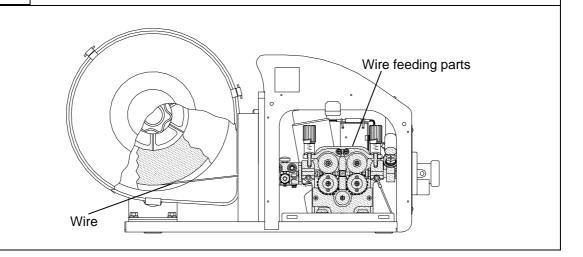
# ♠ WARNING

Touching the charging parts may cause fatal electric shocks and burns.



Never touch the charging parts in the wire and wire feeder.

The parts indicated as in the figure are the charging parts during welding.



### 7.5 Hanging the Wire Feeder

#### /!\ CAUTION

When hanging the wire feeder, firmly fix the cap knob and clamp screw in position to prevent the device from dropping.

Do not use the carrying hand of the wire feeder to hang the wire feeder.

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# 8. MAINTENANCE AND TROUBLESHOOTING

### 8.1 Carrying Out Maintenance

### Ţ.

### WARNING



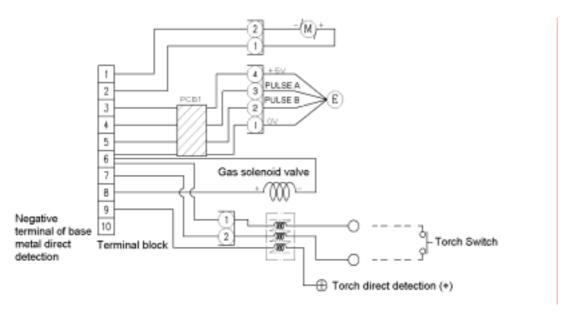
Do not touch the charging parts inside or outside the wire feeder.

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.

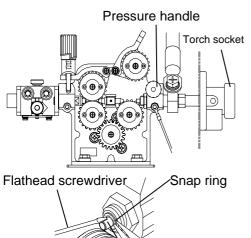
No.	Problem	Cause	Solution
1	Wire gets deformed.	Wire pressure is too strong.	Refer to "Recommended wire adjustment" in Section 7.2.
		Feed roll of wrong wire size is used.	Replace it with the feed roll of proper wire size.
		Feed roll and pressure roll are worn.	Replace the feed roll and the pressure roll with a new ones.
2	Wire is not fed.	Poor contact and breakdown in the control cable.	Check the socket. Check the cables and replace with new ones.
		Poor contact and breakdown in the encoder cable	
		Poor contact and breakdown in the voltage detection cable	
		Trouble with the motor	Replace the motor with a new.
		Wire pressure is too weak.	Refer to "Recommended wire 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 with a new.
4	Shield gas is not supplied when pressing the torch switch.	The discharge valve is closed of the gas cylinder.	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 with new ones.
5	Shield gas supply does not stop.	Failure of gas solenoid valve	Check the socket. Check the cables and replace with new ones.
6	Defective gas hoses	Crack in the gas hose	Replace them with new ones.
7	Wire does 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 7.3.

### 8. MAINTENANCE AND TROUBLESHOOTING (continued)

#### < Schematic Diagram>



#### 8.2 Replacing of the Outlet Guide



Follow the procedures below when replacing the outlet guide.

- 1. Bring down the pressure handle first, and then lift the pressure roll holder.
- Forcibly insert a flathead screwdriver, etc. into the space between the outlet guide and the snap ring to remove the snap ring while holding the snap ring with long-nose pliers.
- 3. Remove the outlet guide by pushing it toward the torch socket.
- Insert a new outlet guide from the direction of the torch socket, and then place the snap ring under the new outlet guide.
- 5. Return the pressure roll holder first, the pressure handle.

#### /!\ CAUTION

Long-nose pliers

Outlet guide

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, 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

### 9.1 Main body and Wiring

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

Ref.	Part number	Description	Q'ty	Remarks
No.	CM-7401	·	,	
1	U5260U00	Frame	1	Assembly
2	K970H90	Strike	2	
3	4739-013	Support	2	
4	U5260C01	Cover	1	With coating
4-1	U5260C02	Latch	2	
5	4739-547	Slide latch	1	A3-40-625-12
6	U5185C03	Side plate	1	With coating and indicating plate
7	U5260C04	Rear cover	1	With coating
7-1	4739-548	Grommet	1	C-30-BW-28-2-UL
8	U5260C05	Panel	1	With coating and indicating
				plate
9	U5260B00	Wire feeder	1	With a feed motor
10	4739-549	Quick connector	1	FA3076 (Red)
11	4739-550	Quick connector	1	FA3086 (Blue)
12	4734-020	Cable connector	1	DIXSE 70/95
13	U5260N00	Power cable	1	Assembly
14	U5260J01	Terminal block bracket	1	With coating
15	4739-492	Terminal block	1	RTK-10M-10P
16	U5185X00	Encoder cable	1	Assembly
17	U5185F00	Motor cable	1	Assembly
18	U5260E00	Control cable	1	Assembly
19	4739-494	Wire reel hub	1	STANDARD2
20	U5185J07	Plate	1	
21	U5185J08	Clamp screw	1	
21-1	3361-405	E-snap ring	1	E-4
22	U5191B00	Common mode coil	1	Assembly
23	U5260C07	Reel bracket (1)	1	With coating
24	U5260C08	Reel bracket (2)	1	With coating
25	K5439E00	Wire reel cover	1	

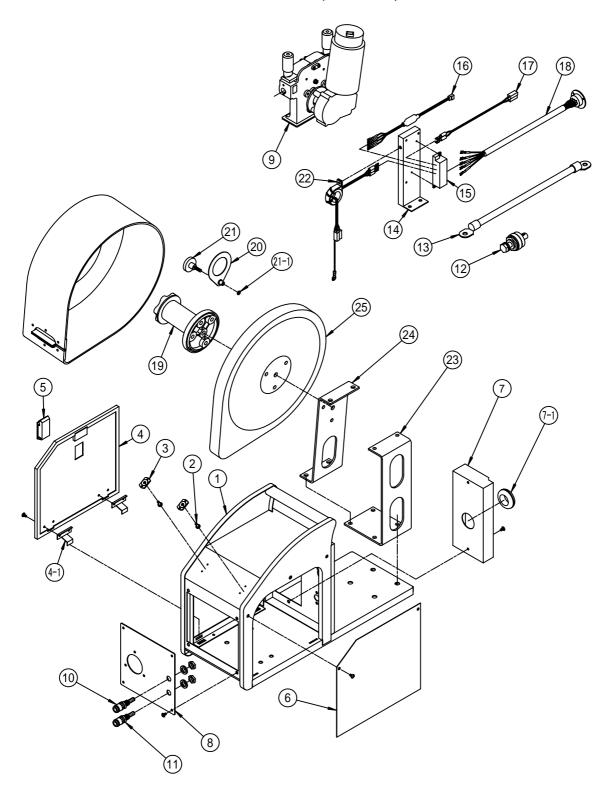


Fig. 1 Main Body and Wiring Assembly

### 9.2 Wire Feeder

Ref. No.	Part number	Description	Q'ty	Remarks
1	U5185B01	Bracket	1	
1-1	None	Hexagon socket cap screw		M6 x 25
2	U5185B08	Coil screw	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	U5439B02	Feed roll (1.0/1.2)	2	
9-1	None	Hexagon socket cap screw	4	M4 x 16
9-2	None	Bolt	4	M4 x 10
10	U5260B02	Guide block	1	
11	U5185B05	Center guide	1	
12	4802-206	Feed motor	1	
13	U5185B06	Insulating board	1	
14	U3971B04	Insulating bush	3	
14-1	None	Flat head screw	3	M6 x 20
15	U5185Q00	Drive gear	1	
16	U5185B09	Pressure screw 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	U5260J06	Insulating cap	2	
21	U5185B13	Insulating bush	2	
21-1	None	Hexagon bolt	2	M8 x 30
22	U5185B14	Insulating board	1	
23	U5204H00	Wire straightener	1	
23-1	K970G72	Pilot	1	
23-2	U5204M02	Inlet guide	1	
24	U5260B03	Cover	1	
25	U5260J05	Gear cover	1	

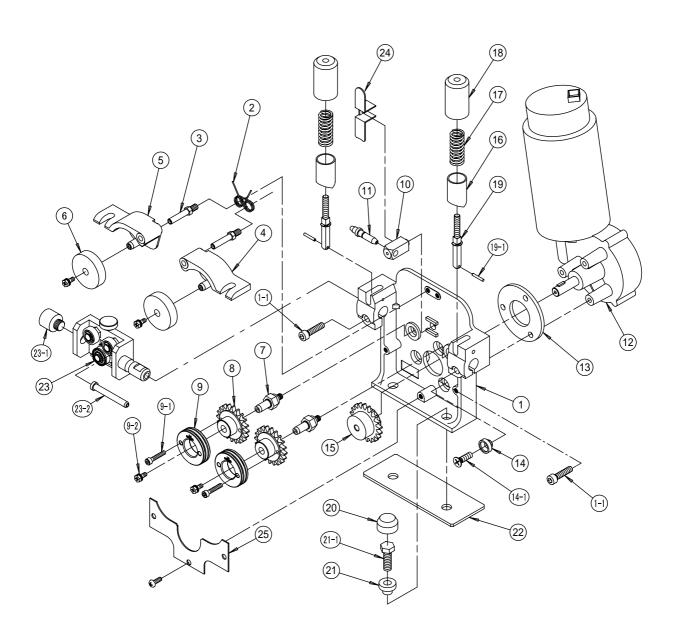


Fig. 2 Wire Feeder Assembly

# 9.3 Central Adapter

Ref. No.	Part number	Description	Q'ty	Remarks
1	BW0014	Plastic housing	1	BW0014
1-1	None	Set screw	2	M8 x 8
2	AM6000	Euro central adaptor	1	AM6000
3	U5204J04	Guide adaptor	1	
4	U5260J03	Feeder block	1	
4-1	None	Hexagon Socket cap screw	1	M8 x 25
5	U5260J02	Outlet guide	1	E-snap ring
5-1	3361-405	E-snap ring	1	E-4
6	U5185D04	Small nut	1	

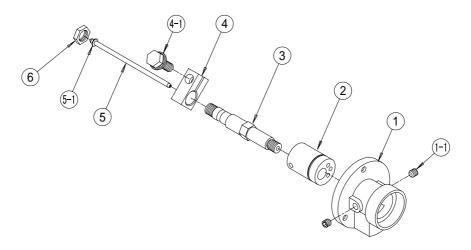


Fig. 3 Central Adapter Assembly

Ref. No.	Part number	Description	Q'ty	Remarks
1	4813-001	Gas solenoid valve	1	W-31156
2	U4179D01	Hose elbow	1	
3	U1997D01	Gas connector	1	
4	U1997D02	Flange	1	

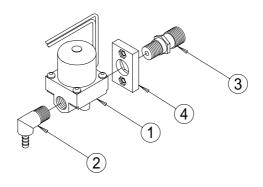


Fig. 4 Gas Piping Assembly

### 9.5 Optional Accessory

# (1) Extension cable/hose

Power cable

Applicable cui	rrent (Rated o	current)	200 A	350 A	500 A
Cable length	Cable termination		Model	Model	Model
2m	Connecto r	Connecto r	BKPDJ-3802	BKPDJ-6002**	BKPDJ-8002
7m	Connecto r	Connecto r	BKPDJ-3807	BKPDJ-6007**	BKPDJ-8007
12m*	Connecto r	Connecto r	BKPDJ-3812	BKPDJ-6012**	BKPDJ-8012

<sup>\*</sup> When the power cable more than 12m is necessary, please consult with the dealer.

Control cable (10P)

	Cable length				Cable length		
	2m	7m	12m***				
Model	BKCPP-1002	BKCPP-1007	BKCPP-1012				

<sup>\*\*\*</sup> When the control cable more than 12m is necessary, please consult with the dealer.

#### Gas hose

	Cable length			
	5m	10m	15m	20m
Model	BKGG-0605	BKGG-0610	BKGG-0615	BKGG-0620

#### Water hose

	Cable length			
	5m	10m	15m	20m
Model	BKWR-0605	BKWR-0610	BKWR-0615	BKWR-0620

<sup>\*\*</sup> When performing pulse welding using the welding power source with 350 A applicable current and a 17m or more cable, use 80mm<sup>2</sup> cable.

(2) Other Optional Parts

Part number	Description	Q'ty	Remarks	
K5463R02	Feed roll (1.0/1.2)	4	for aluminum \	
U5204B03	Center guide (1.0-1.6)	1	for aluminum	
U2344C08	Pilot	1	for aluminum > aluminum kit	
U5204J07	Inlet guide	1	for aluminum	
U5185P00	Gear	2	for aluminum	
	Hexagon socket cap screw	4	M4 x 16	
K5463R03	Feed roll (1.2/1.6)	4	for aluminum	
U2879J00	Cooling water hose	2	1.7m	
K5439B01	Feed roll (1.4/1.6)	2	for steel	
K5439B03	Feed roll (0.8/0.9)	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	
K5439B08	Feed roll (0.9/1.2)	2	for steel	
FCR-226	CO <sub>2</sub> gas flow rate regulator (with	1	Max. current rate: 25 l/min	
YR-507FD	heater)			
NP-201	CO <sub>2</sub> gas flow rate regulator (without	1	Max. current rate:20 l/min	
YC-1G	heater)			
FCR-100N	CO <sub>2</sub> gas large gas flow rate regulator	1	Max. current rate:100 l/min	
RF-16D	Argon gas flow rate regulator	1	For MAG gas 28 l/min	

# 10. SPECIFICATIONS

### 10.1 Specifications

Model		CM-7401 (U5260)	
	Mild steel Stainless steel	0.8 - 1.6	
Applicable wire size	Hard aluminum	(1.0 - 1.6)	
	Soft aluminum	(1.2 - 1.6)	
Fire feedir	ng rate	Max. 22 m/min	
Applicable wire reel	Shaft diameter	50mm	
	External diameter	Max. 300mm	
	Wide	103m	
Quantity of applicable wire		Max. 25kg	
Quantity		16 kg	

The wire feeder complies with the requirements of IEC974-5.

# 10.2 Available Welding Torch

EURO BINZEL TORCH (Air cooling)
EURO BINZEL TORCH (Water cooling)

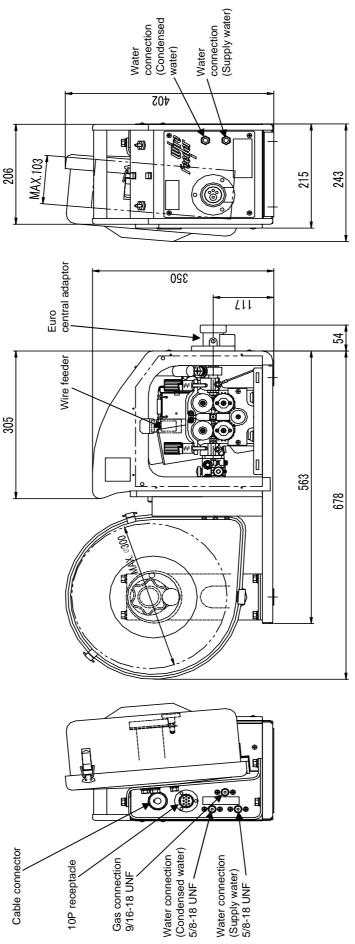
#### 10.3 Combination Power Sources

DM-350 (P10329)

# 10.4 Standard Accessory

Description	Part number	Q'ty	Remarks
Pressure roll	K5439C00	(2)	Pre-installed
Feed roll (1.0/1.2)	K5439B02	(2)	Pre-installed
Center guide	K5185B05	(1)	Pre-installed
Pilot	K970G72	(1)	Pre-installed
Inlet guide	U5204M02	(1)	Pre-installed
Gas hose	K5430A00	1	BKGFF-0603(3m)

# 10. SPECIFICATIONS (continued)



unit: mm

External View of CM-7401 Wire Feeder