



CUT40HF/CUT40NHF

CUT45PFC

IGBT INVERTER CUTTER

Thank you for selecting this new JASIC welder equipment!

This operating manual contains important information on the use and maintenance of this product, as well as safe handling of the product. Please refer to technical parameters of the equipment in Technical Parameter section in this manual, and read the manual carefully before using the equipment for the first time. For your own safety and that of your working environment, please pay particular attention to the safety instructions in the manual and operate the equipment according to the instructions. For more information on JASIC products, please contact JASIC Technology, consult an authorized JASIC dealer or visit JASIC website at www.jasictech.com.

Disclaimer

Shenzhen JASIC Technology Co., Ltd. solemnly promises that this product is manufactured according to relevant domestic and international standards, and that this product conforms to EN60974-1 International Safety Standard. Patents protect the relevant design scheme and manufacturing technology adopted in this product

1. The information contained in this Manual has been made every effort to be accurate and perfect, and the company will not be responsible for any errors and omissions arising from non-compliance with this Manual.
2. JASIC reserves the right to amend this Manual at any time without prior notice.
3. Although the contents of this Manual have been carefully checked, there may still be inaccuracies. If users find out, please consult with our company.
4. It is forbidden to copy, record, reprint or disseminate the contents of this Manual without the prior authorization of JASIC.

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Contents

1. Safety precautions.....	5
1.1. General safety.....	5
1.2. Other precautions.....	8
2. Description of symbols.....	9
3. Product overview.....	10
4. Technical parameters.....	11
5. Installation.....	12
5.1. External interface description.....	12
5.2. Power installation.....	13
5.3. Connection of cutting torch, earth cable and gas hose.....	14
6. Control panel.....	15
6.1. Overview.....	15
6.2. Display of parameters and error codes.....	15
6.3. Parameter adjustment knob.....	16
6.5. Selection of working mode.....	17
6.6. Gas check function.....	17
6.7. Cutting current configuration.....	18
6.8. 2T/4T function settings.....	18
6.9. Cutting torch length and post-flow time configuration.....	18
6.10. Help.....	19
6.11. Language selection.....	19
6.12. Unit configuration.....	19
6.13. Back-end configuration.....	19
6.14. User manual.....	20
6.15. Protective indication.....	21
7. Cutting function operation.....	21
7.1. Cutting operation.....	21
8. Maintenance.....	23
8.1. Power supply maintenance.....	23
9. Troubleshooting.....	24
9.1. Common malfunction analysis and solution.....	24
9.2. Alarms and solutions.....	25
10. Packaging, transportation, storage and waste disposal.....	26
10.1. Transportation requirements.....	26
10.2. Storage conditions.....	26
10.3. Waste disposal.....	26
Appendix 1: Wiring diagram of CUT45PFC.....	27
Appendix 2: Exploded-view drawing of CUT45PFC.....	28
Appendix 3: List of CUT45PFC common spare parts.....	29
Appendix 4: Wiring diagram of CUT40HF/CUT40NHF.....	30
Appendix 5: Exploded-view drawing of CUT40HF/CUT40NHF.....	31
Appendix 6: List of CUT40HF/CUT40NHF common spare parts.....	32

For your safety, please read this manual carefully before installing and operating this JASIC equipment.

Pay extra attention to all content marked with "  ".

All operations must be carried out by professional, suitably qualified persons!

1. Safety precautions

1.1. General safety



SAFETY INSTRUCTION

These general safety norms cover both arc welding machines and plasma cutting machines unless otherwise noted.

It is important that users of this equipment protect yourselves and others from harm or even death.

The equipment must only be used for the purpose it was designed for. Using it in any other way could result in damage or injury and in breach of the safety rules.



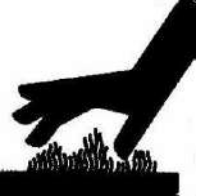
Only suitably trained and competent persons should use the equipment.





Pacemaker wearers should consult your doctor prior to using this equipment

PPE and workplace safety equipment must be compatible for the application of work involved.

Always carry out a risk assessment before carrying out any welding or cutting activity

	<p>Only qualified personnel should operate this machine!</p> <ul style="list-style-type: none"> ·Always use the appropriate personal protective equipment. ·Always pay attention to the safety of other persons around the working zone ·Do not carry out any maintenance with the power on the machine
	<p>Electric shock—May cause serious injury or even death!</p> <ul style="list-style-type: none"> ·The equipment should be installed by a qualified person and in accordance with current standards in operation. It is the user's responsibility to ensure that the equipment is connected to a suitable power supply. Consult with your utility supplier if required. Do not use the equipment with the covers removed. ·Do not touch live electrical parts or parts, which are electrically charged. ·Turn off all equipment when not in use.
	<p>Fumes and gases—May be hazardous to your health.</p> <p>Locate the equipment in a well-ventilated position and keep your head out of the fume.</p> <p>Do not breathe the fume.</p> <p>Ensure the working zone is well ventilated and provision should be made for suitable local fume extraction system to be in place.</p> <p>If ventilation is poor, wear an approved air fed welding helmet or respirator.</p> <p>Read and understand the Material Safety Data Sheets (MSDS's) and the manufacturer's instructions for metals, consumable, coatings, cleaners and de-greasers.</p> <p>Do not work in locations near any de-greasing, cleaning or spraying operations.</p> <p>Be aware that heat and rays of the arc can react with vapours to form highly toxic and irritating gases.</p>

	<p>Arc rays—May injure the eyes and burn the skin.</p> <p>The arc rays from all processes produce intense, visible and invisible (ultraviolet and infrared) rays that can burn eyes and skin.</p> <ul style="list-style-type: none"> ·Wear an approved welding helmet fitted with an appropriate shade of filter lens to protect your face and eyes when working or watching. ·Wear approved safety glasses with side shields under your helmet. ·Never use broken or faulty welding helmets. ·Always ensure there are adequate protective screens or barriers to protect others from flash, glare and sparks from the working area. ·Ensure that there are adequate warnings that welding or cutting is taking place. ·Wear suitable protective flame resistant clothing, gloves and footwear.
	<p>Precautions against fire and explosion</p> <p>Avoid causing fires due to sparks and hot waste or molten metal.</p> <p>Ensure that appropriate fire safety devices are available near the welding and cutting area.</p> <p>Remove all flammable and combustible materials from the welding, cutting and surrounding areas.</p> <p>Do not weld or cut fuel and lubricant containers, even if empty. These must be carefully cleaned before they can be welded or cut.</p> <p>Always allow the welded or cut material to cool before touching it or placing it in contact with combustible or flammable material.</p> <p>Do not work in atmospheres with high concentrations of combustible fumes, flammable gases and dust.</p> <p>Always check the work area half an hour after cutting to make sure that no fires have begun.</p> <p>Take care to avoid accidental contact of electrode to metal objects. This could cause arcs, explosion, overheating or fire.</p>
	<p>Risks due to hot material</p> <p>The process will create hot metal, sparks and drips of molten metal, so it's very important to ensure the operator is equipped with full PPE and to always ensure there are adequate protective screens or barriers to protect others from flash, glare and sparks from the working area. Hot surfaces will create fires and will burn any exposed skin.</p> <p>Always protect your eyes and body. Use the correct welding screen and filter lens and wear full PPE protective clothing.</p> <p>Do not touch any hot surfaces or parts bare handed.</p> <p>Always allow hot surfaces and parts to cool down first before touching or moving.</p> <p>If you are required to move hot parts, ensure you use proper tools and insulated welding gloves (PPE) to prevent burns to your hands and arms.</p>

	<p>Noise—Excessive noise may be harmful to hearing</p> <ul style="list-style-type: none"> ·Protect your ears by ear shields or other hearing protectors. ·Give warning to nearby personnel that noise may be potentially hazardous to hearing.
	<p>Risks due to magnetic fields</p> <p>The magnetic fields created by high currents may affect the operation of pacemakers or electronically controlled medical equipment.</p> <p>Wearers of vital electronic equipment should consult their physician before beginning any arc welding, cutting, gouging or spot welding operations.</p> <p>Do not go near welding equipment with any sensitive electronic equipment as the magnetic fields may cause damage.</p> <p>Keep the torch cable and work return cable as close to each other as possible throughout their length, this can help minimize your exposure to harmful magnetic fields.</p> <p>Do not wrap the cables around the body.</p>
	<p>Protection from moving parts</p> <p>When the machine is in operation keep away from moving parts such as motors and fans.</p> <p>Moving parts, such as the fan, may cut fingers and hands and snag garments.</p> <p>Protections and coverings may be removed for maintenance and controls only by qualified personnel after first disconnecting the power supply cable.</p> <p>Replace the coverings and protections and close all doors when the intervention is finished and before starting the equipment.</p> <p>Take care to avoid getting fingers trapped when loading and feeding wire during set up and operation.</p> <p>When feeding wire be careful to avoid pointing it at other people or towards your body.</p> <p>Always ensure machine covers and protective devices are in operation.</p>
	<p>Troubleshooting</p> <p>Before the machines are dispatched from the factory, they have already been checked thoroughly. The machine should not be tampered with or altered.</p> <p>Maintenance must be carried out carefully. If any wire becomes loose or is misplaced, it maybe potentially dangerous to user!</p> <p>Only professional maintenance personnel should repair the machine!</p> <p>Ensure the power is disconnected before working on the machine. Always wait 5 minutes after power switch off before removing the panels.</p> <p>If you still do not fully understand or cannot solve the problem after reading the instructions in this manual, you should contact the supplier or JASIC's service center immediately for professional help.</p>

1.2. Other precautions



Warning! Location

The machine should be located in a suitable position and environment. Care should be taken to avoid moisture, dust, steam, oil or corrosive gases. Place on a secure level surface and ensure that there is adequate clearance around the machine to ensure natural airflow.



Warning! The handle or strap on the machine is only suitable for manual lifting of the machine. If mechanical equipment such as crane is used to lift the machine, please ensure the machine is secured with suitable lifting equipment.



Warning!

Input connection


Before connecting the machine, you should ensure that the correct supply is available. Details of the machine requirements can be found on the data plate of the machine or in the technical parameters shown in the manual. The equipment should be connected by a suitably qualified competent person.


Always ensure the equipment has a proper grounding.

Never connect the machine to the mains supply with the panels removed.

- 1) When the operator's movement is limited by the surroundings (for example, the operator can only bend his knees, barefoot, or lie down during operation), the operator shall practice proper insulation and avoid direct contact with conductive parts on the equipment.
- 2) Do not use the machine in closed containers in narrow spaces where conductive components cannot be removed.
- 3) Do not use the machine in humid environments where the operator is prone to the risk of electric shock.
- 4) Do not use the machine in sunlight or rain, and no water or rainwater shall seep into the machine.
- 5) Do not perform gas shielded welding in an environment with strong air flow.
- 6) Avoid welding or cutting in dusty area or environment with corrosive chemical gas.
- 7) The ambient temperature must be between -10°C and 40°C during operation and between -25°C and 50°C during storage.
- 8) Welding or cutting shall be carried out in a relatively dry environment, and the air humidity shall not exceed 90%.
- 9) The inclination of the machine shall not exceed 10°.
- 10) Ensure that the input power supply voltage does not exceed 15% of the rated voltage of the machine.
- 11) Beware of falling when welding or cutting at heights.


2. Description of symbols


 Warning! Read the Manual

 Electric shock risk warning

 WEEE tag

A Current unit "A"

 Overheat protection indicator

 Overcurrent protection indicator

 2T continuous cut

 4T continuous cut

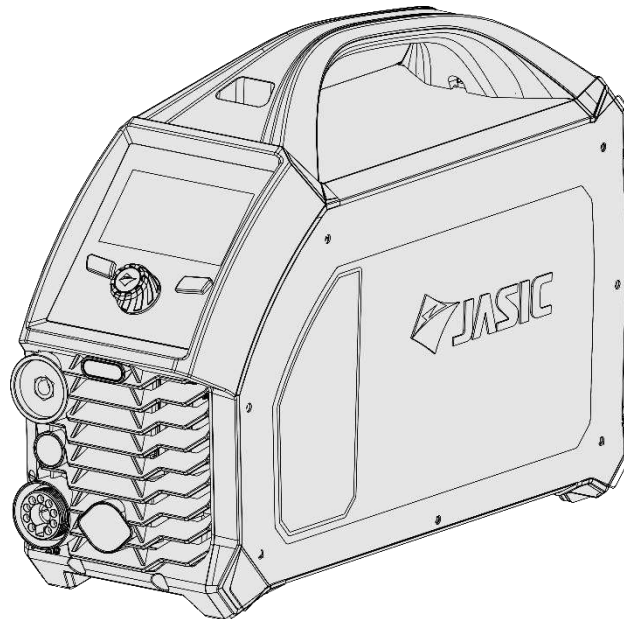
 Mesh cutting

 Home

 Return

 Encoder

3. Product overview



This is a digital inverter air plasma cutter featuring advanced technology with excellent performance. It provides a stable DC arc and can cut carbon steel, low alloy steel, stainless steel and other materials. Moreover, it offers adjustable cutting torch length setting and post flow time setting. It is a durable machine with a wide range of applications.

The unique electrical structure and air passage design inside the machine increases dissipation of heat generated by the power device, thus improving its duty cycle. Benefitting from its unique air passage, it effectively prevents damage to the power device and control circuits from dust drawn in by the fan, thus greatly improving the reliability of the machine.

Its main functions are:

- ◆ Three cutting modes: 2T and 4T continuous cutting, and mesh cutting.
- ◆ Stepless adjustment of cutting current for more precise current adjustment.
- ◆ On-demand fan: prolongs the life of the fan and reduces accumulation of dust inside the machine.
- ◆ Parameters are automatically saved, and the state before shutdown is restored after starting again.
- ◆ Factory settings restore function.
- ◆ The machine can be optionally equipped with a CNC interface to support CNC equipments.

4. Technical parameters

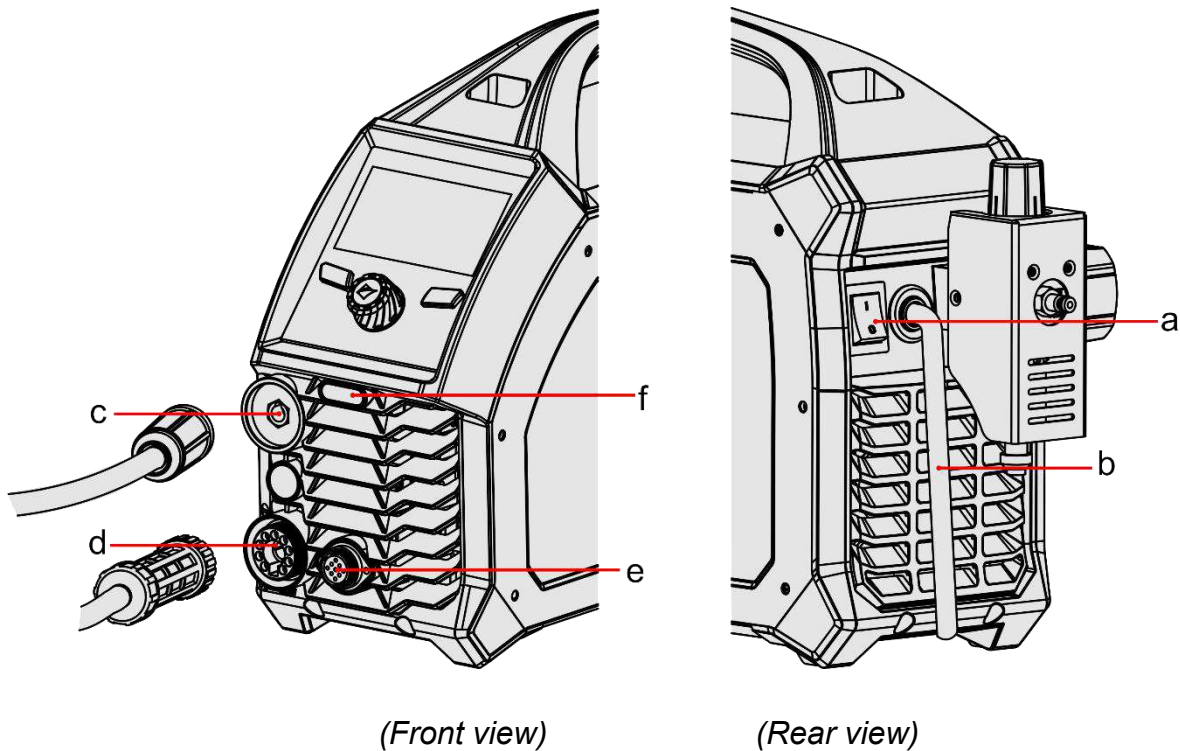
Item	Unit	Parameters		
Model	/	CUT45PFC	CUT40HF	CUT40NHF
Input voltage	VAC	AC95~265V	AC230V±15%	AC230V±15%
Input frequency	Hz	50/60	50/60	50/60
Rated input current (AC230V)	A	23	31	31
Rated input current (AC115V)	A	31	/	/
Rated input power (AC230V)	kVA	5.3	7.1	7.1
Rated input power (AC115V)	kVA	3.6	/	/
Output current range	A	20 ~ 45	20 ~ 40	20 ~ 40
No-load voltage	V	300	280	280
Rated working voltage	V	98	96	96
Arc start mode		NHF	HF	NHF
Duty cycle	%	25	25	25
Power factor		0.99	0.6	0.6
Insulation class		H	H	H
Protection class		IP23S	IP23S	IP23S
Dimensions L*W*H	mm	546×165.8×341.1	546×165.8×341.1	546×165.8×341.1
Net weight	Kg	10	9.6	9.2
Overall total weight	Kg	14.5	14.1	13.7
Power supply efficiency (at maximum input current)	%	86	88	88
Idle state power	W	11.7	10.8	10.8
Characteristics		CC	CC	CC
Pollution level		Grade 3	Grade 3	Grade 3

5. Installation



Warning! All connections shall be made with the power supply is turned off.
Warning! Electric shock may cause death; after power failure, there is still a high voltage on the equipment, do not touch the live parts on the equipment.
Warning! Incorrect input voltage may damage the equipment.
Warning! This product meets the requirements of Class A equipment in EMC requirements and is not to be connected to a residential low-voltage power supply grid.

5.1. External interface description



- a. Power switch
- b. Input power cord
- c. Fast socket (positive output)
- d. Central plasma adapter (negative output)
- e. CNC aviation socket (optional) (arc voltage output, torch trigger signal input)

5.2. Power installation

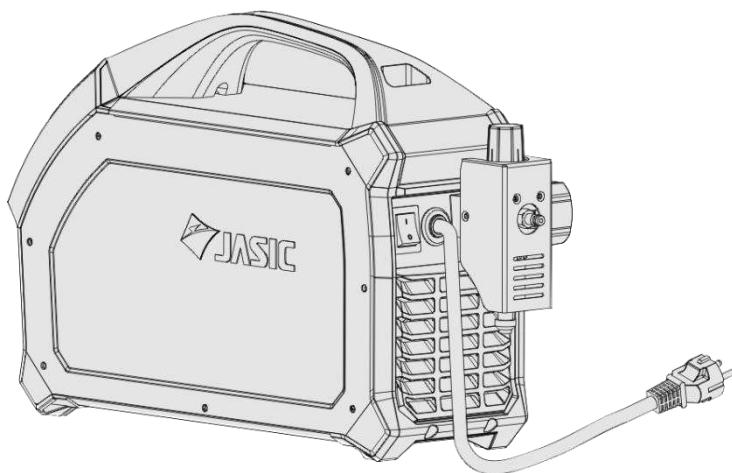


Warning! The electrical connection of equipment shall be carried out by suitably qualified personnel.

Warning! All connections shall be made after the power supply is off.

Warning! Incorrect voltage may damage the equipment.

- 1) Ensure the input voltage value is within the specified input voltage range.
- 2) Ensure that the power switch of the cutter is turned off.
- 3) Connect the input power cord to the input terminal or plug the power cord into the corresponding socket (if any) and ensure a good contact.
- 4) Ground the power supply well. (As shown in the diagram, the European plug has a grounding terminal, so no additional grounding is required.)



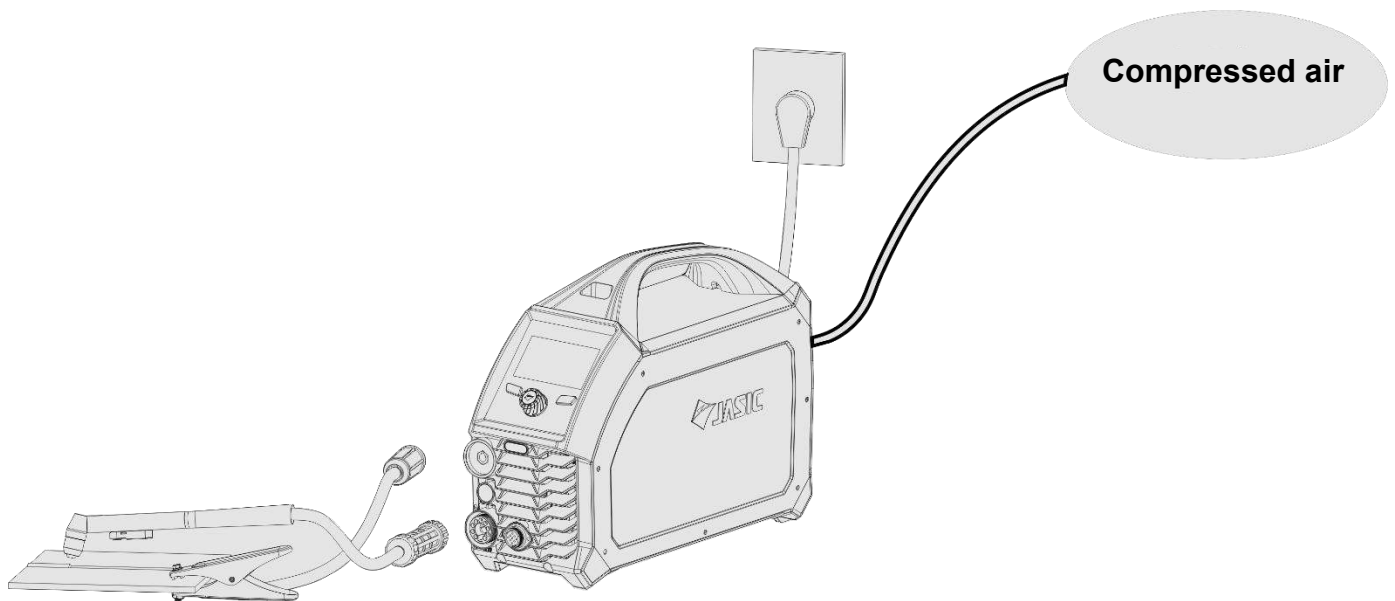
(Wiring diagram)

NOTE!

If the input cable needs to be extended, please use a cable with larger cross-sectional area to reduce the voltage drop, 3x2.5mm² or more is recommended.

5.3. Connection of cutting torch, earth cable and gas hose

- 1) Ensure that the power switch of the cutting machine is turned off.
- 2) Insert the cable plug with earth clamp into the corresponding positive fast socket on the front panel of the machine and tighten it clockwise.
- 3) Insert the central plasma plug of the cutting torch into the negative central plasma socket on the front panel of the machine and tighten it clockwise.
- 4) Connect the regulator input on the rear panel to the output interface of the compressed air source, and fix it firmly with a clamp.



(Wiring diagram)

NOTE! If you want to use long secondary cables (plasma torch cable and earth cable), you must ensure that the cross-sectional area of the cable is increased appropriately in order to reduce the voltage drop due to the cable length.

6. Control panel

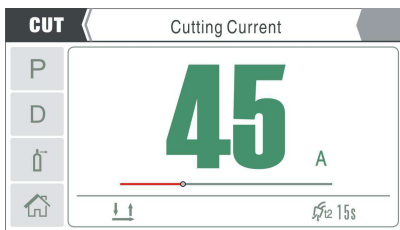
6.1. Overview



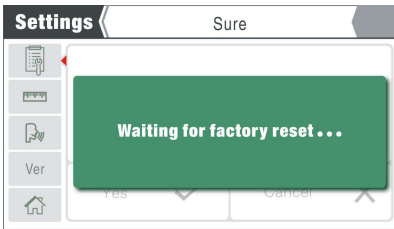
- a. Home: return to Home page
- b. Return: return to upper level
- c. Confirm: go to next level
- d. Function adjustment knob: adjust the parameter or focal spot
- e. LCD screen: display information

6.2. Display of parameters and error codes

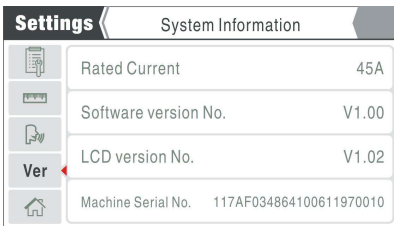
1) Display the current configuration, operation mode, post-flow time, and information prompt on current operation.



2) When the factory settings are restored, a prompt window is displayed.



3) When the barcode queried, the machine barcode is displayed.

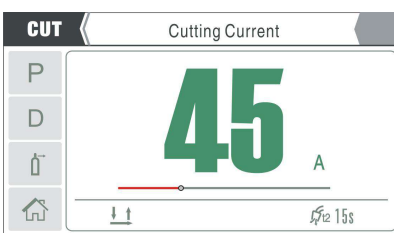


4) When the product is not working correctly, an error code is displayed.

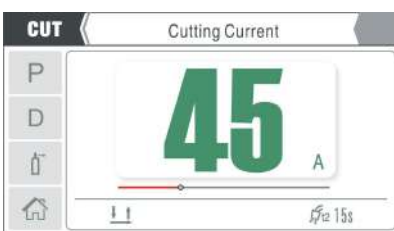


6.3. Parameter adjustment knob

1) Parameter adjustment: When adjusting the parameter, the focal spot is cancelled. Rotate the knob to adjust the parameter. Rotating clockwise increases the value, and counterclockwise decreases it. As the knob is rotated, the parameter is adjusted in the display area.

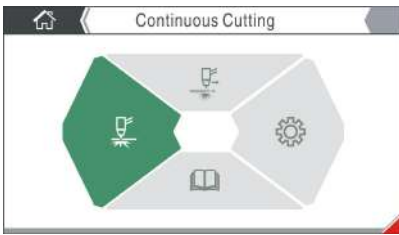


2) Focal spot adjustment: When adjusting the focal spot, the focal spot moves. Rotate the knob to adjust it. Rotate the knob clockwise to shift the focal spot to the next element, and counterclockwise to shift it to the previous element.



6.4. Button operation

1) Home: After pressing Home, the screen jumps to the Home page.

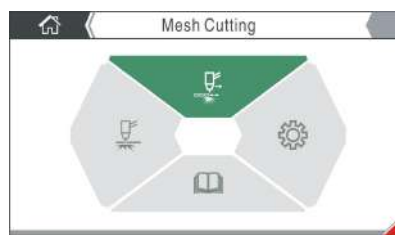
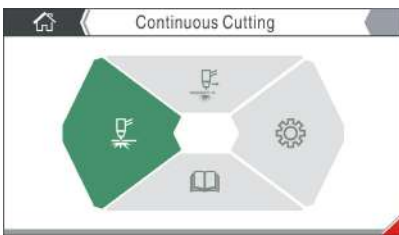


2) Confirm: After pressing Confirm, the current focal spot response operation is performed.

3) Return: After pressing Return, the screen returns to the upper-level menu.

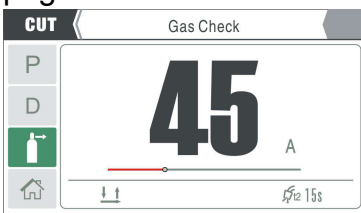
6.5. Selection of working mode

1) Before cutting, press the Home button to return to the home page; rotate the knob to select Continuous Cut or Mesh Cut; and press Confirm to select the corresponding cut mode.

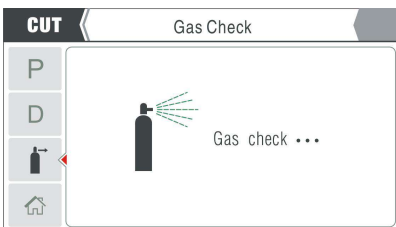


6.6. Gas check function

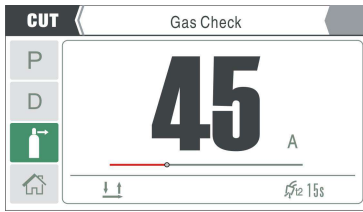
1) In non-cutting state, select the gas check function on the Continuous Cut or Mesh Cut page.



2) If the gas check animation is played, it indicates that the machine is in Gas Check mode.

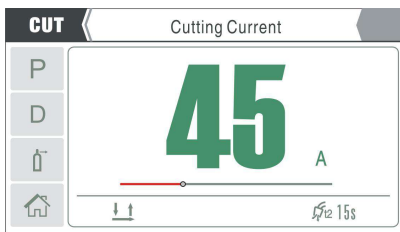


3) Press Gas Check again or wait for 20s to close the animation and exit Gas Check mode.



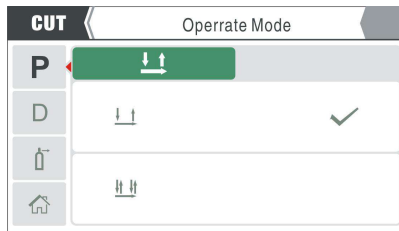
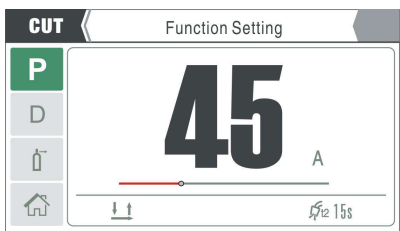
6.7. Cutting current configuration

In the Continuous Cut or Mesh Cut page, the display window shows the current cutting current. Enter the adjusted current by rotating the knob.



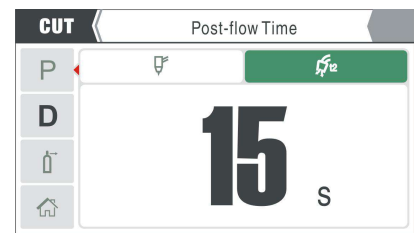
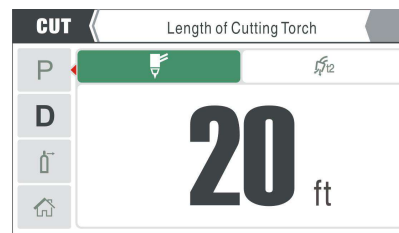
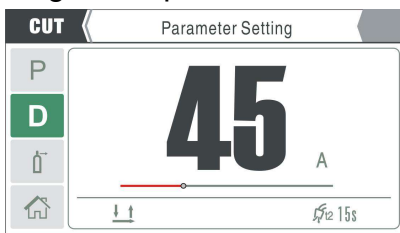
6.8. 2T/4T function settings

In the Continuous Cut page, enter the Function Settings menu to select 2T or 4T.



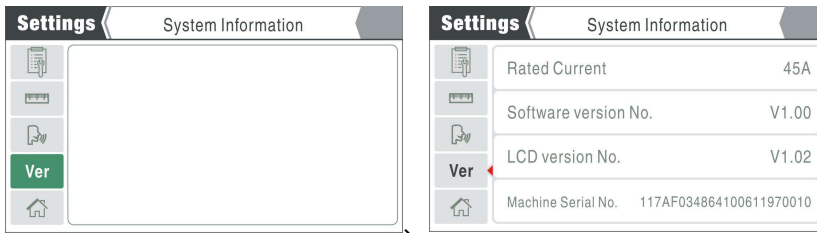
6.9. Cutting torch length and post-flow time configuration

In the Continuous Cut or Mesh Cut pages, enter the Parameter Settings menu to set torch length and post-flow time.



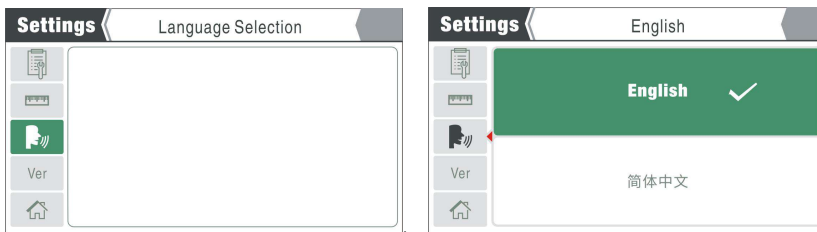
6.10. Help

In the Settings page, enter the Help menu to display the current machine information.



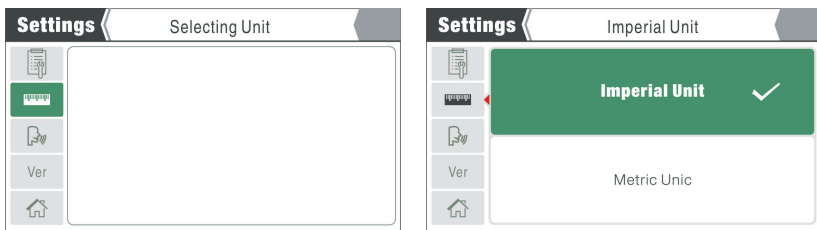
6.11. Language selection

In settings page, enter the Language Selection menu to select English or Simplified Chinese.



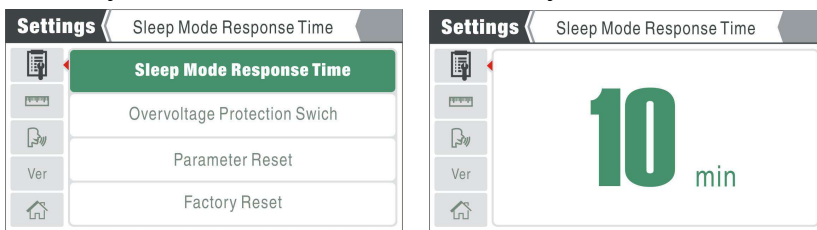
6.12. Unit configuration

In the Settings page, enter the Unit Setting menu to select the Imperial or metric system.



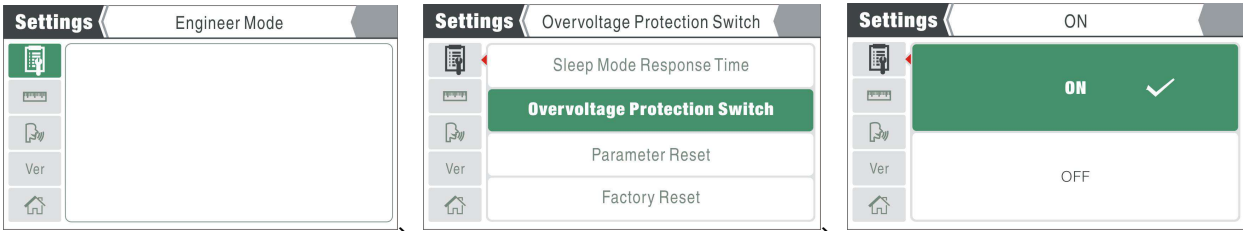
6.13. Back-end configuration

Standby time: Set the machine standby time.

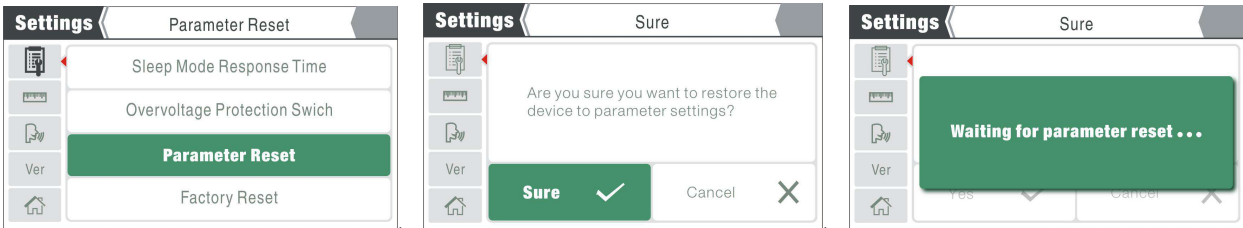


In the Settings page, enter the Back-end Settings menu to select overvoltage/undervoltage protection switch and standby time, restore cutting parameters, or restore factory settings.

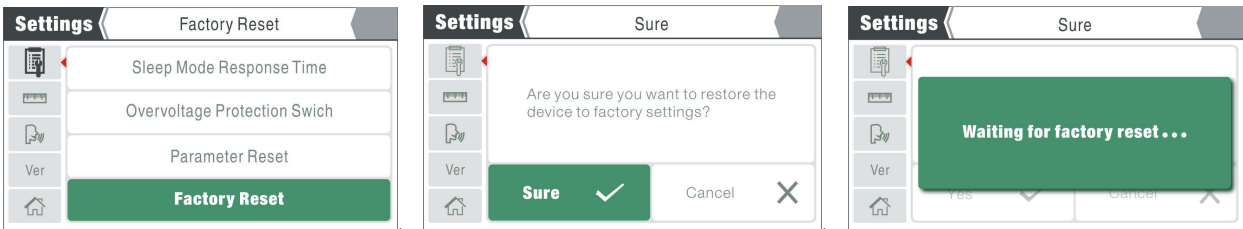
Overvoltage/undervoltage protection switch: Set to enable or disable overvoltage/undervoltage protection.



Parameter Reset: restore all cutting parameters of the machine.



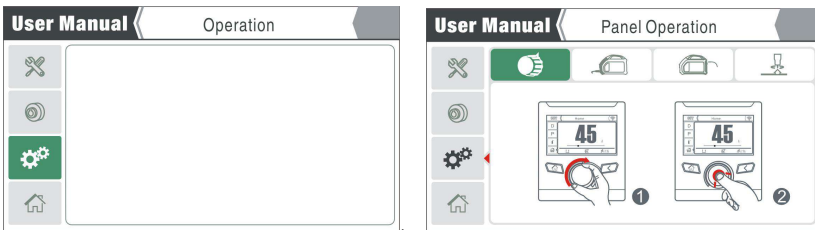
Factory Reset: Restore all factory settings of the machine.



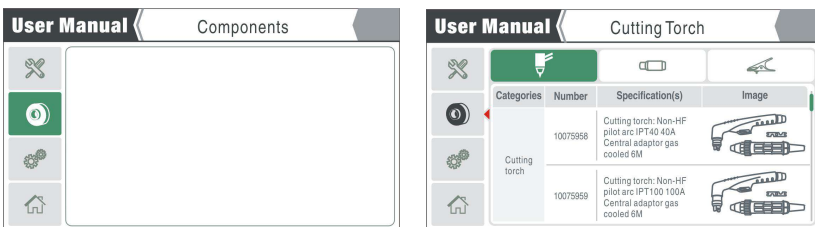
6.14. User manual

In the Home page, enter the User Manual to select Operation, Components, or Maintenance.

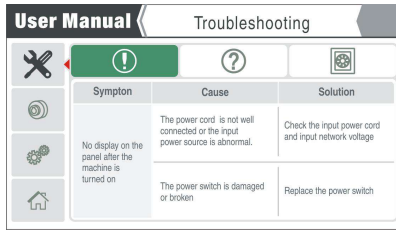
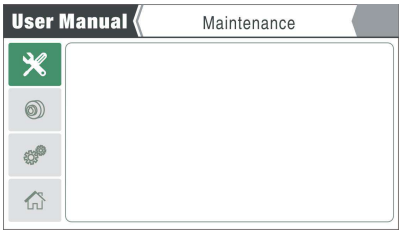
Operation: Learn about the operations of the machine.



Components: Learn about the parts of the machine.




Maintenance: Learn about maintenance of the machine.



6.15. Protective indication

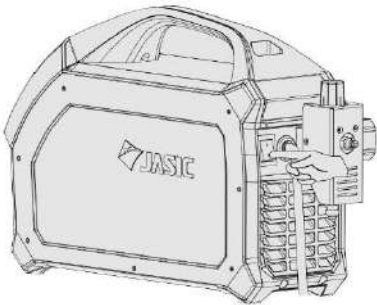


If the page displays , it indicates that the cutting machine has entered protected state and stopped output.

7. Cutting function operation

7.1. Cutting operation

7.1.1 Turn on the power switch.



The power switch is located at the rear panel of the machine; set it in the "ON" position; then the panel indicator will light up, the fan will start to rotate, and the machine will start to work normally.

NOTE! Some models are equipped with the smart fan function. When the power supply is turned on for a period before welding or cutting, the fan will automatically stop running. It will run automatically when welding or cutting begins.

7.1.2 Select the proper cut mode as required: 2T continuous cut, 4T continuous cut, or mesh cut.

7.1.3 Select the proper cutting current according to the thickness of the cut plate and rotate

the encoder to adjust the current parameter.

Cutting thickness (mm)	0.1	1	2	3	4	5	6	7	8	9
Mild steel		8		1.5			0.4			
Galvanized steel		8		1.5			0.4			
Stainless steel		8		1.5			0.4			
Aluminum		8		1.5						
Brass		0.75								
Red copper		0.75								

NOTE! The operator should set the functions that meet the cutting requirements. If the selections are incorrect, this may lead to problems such as an unstable arc, incomplete cutting, more dross, rough cutting surface and heavy consumables consumption and etc.

7.1.4 Start cutting

2T continuous cut: When the main arc extinguishes due to lack of base material during the cutting process, the cutting machine automatically turns the output off. At this time, the operator must release the torch trigger and press it again to re-establish the pilot arc and continue cutting.

4T continuous cut: When the main arc extinguishes due to a lack of base material during the cutting process, the cutting machine automatically changes to pilot arc. At this time, the operator can re-establish the pilot arc and continue cutting without releasing the torch trigger.

Mesh cutting: When the main arc extinguishes due to a missing workpiece, the machine automatically establishes the pilot arc for a certain time. When the pilot arc contacts the workpiece and ignites the main arc, cutting can continue. The machine is automatically in 2T mode when in mesh cutting mode.

7.1.5 Turn off the power supply after cutting

The power switch is located on the rear panel of the machine and set it to the "off" position. After a time delay, the panel indicator is off and the cutter stops working.

8. Maintenance



Warning!

The following operation requires sufficient professional knowledge on electric aspects and comprehensive safety knowledge. Make sure the input cable of the machine is disconnected from the electricity supply and wait for 5 minutes before removing the machine covers.

Please note: The following should only be carried out by an authorised electrical technician.

8.1. Power supply maintenance

In order to guarantee that the machine works efficiently and in safety, it must be maintained regularly. Operators should understand the maintenance methods and means of the machine operation. This guide should enable customers to carry out simple examination and safeguarding by oneself, try to reduce the fault rate and repair times of the machine, so as to lengthen service life of the machines.

<u>Period</u>	<u>Maintenance item</u>
Daily examination	Check the condition of the machine, mains cables, welding or cutting cables and connections. Check for any warnings LEDs and machine operation.
Monthly examination	Disconnect from the mains supply and wait for at least 5 minutes before removing the cover. Check internal connections and tighten if required. Clean the inside of the machine with a soft brush and vacuum cleaner. Take care not to remove any cables or cause damage to components. Ensure that ventilation grills are clear. Carefully replace the covers and test the unit. This work should be carried out by a suitably qualified competent person.
Yearly examination	Carry out an annual service to include a safety check in accordance with the manufacturers standard (EN 60974-1). This work should be carried out by a suitably qualified competent person.

9. Troubleshooting



Warning! Before machines are dispatched from the factory, they have already been checked thoroughly. The machine should not be tampered with or altered. Maintenance must be carried out carefully. If any wire becomes loose or is misplaced, it may be potentially dangerous to user! Only professional maintenance personnel should repair the machine!

Ensure the power is disconnected before working on the machine. Always wait 5 minutes after power switch off before removing the panels.

9.1. Common malfunction analysis and solution



The symptoms listed here may be related to the accessories, gas, environmental factors, and power supply you use. Please try to improve the environment and avoid such situations.

Symptom	Reasons	Troubleshooting
No pilot arc appears after pressing the torch trigger	<ul style="list-style-type: none"> ·The cutting machine is using the Gas Check function ·The torch trigger circuit is disconnected ·No compressed air is connected ·The pilot arc circuit is damaged 	<ul style="list-style-type: none"> ·Turn off the gas check function or wait for 20s to exit automatically ·Check the torch trigger circuit ·Reconnect the compressed air ·Replace or repair the main board
The pilot arc is discontinuous or extinguishes	<ul style="list-style-type: none"> ·The consumables are seriously worn ·The input compressed air pressure is too high ·The input compressed air has too much moisture and impurities ·The pilot arc time exceeds 2s 	<ul style="list-style-type: none"> ·Replace with new consumables ·Adjust the pressure of the compressed air to 0.35-0.55MPa through the regulator on the rear panel ·Manually drain the water in the filter cup of the regulator on the rear panel, or replace the valve ·Do not press the torch to keep pilot arc for a long time without cutting.
The pilot arc cannot be transferred to the workpiece	<ul style="list-style-type: none"> ·The cutting circuit is blocked ·Too much distance between the tip of cutting torch and the workpiece 	<ul style="list-style-type: none"> ·Check whether the earth clamp is damaged and clean the part which contacts the workpiece, and ensure good metal-to-metal contact ·Ensure that the distance between the tip of the cutting torch and the workpiece is 3-5mm

<p>Poor cutting quality</p>	<ul style="list-style-type: none"> ·The cutting current and cutting speed do not match the thickness of the workpiece ·The cutting air pressure is too low or high ·The consumables are seriously worn 	<ul style="list-style-type: none"> ·Choose the correct cutting standard operation - refer to section 7.1.3 "Cutting Procedure Checklist" ·Ensure that the working air pressure range is 0.35-0.55MPa ·Replace with new consumables
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9.2. Alarms and solutions

Error code	Category	Possible cause	Countermeasure
E10	Overcurrent protection	Continuously output the maximum capacity current of machine	Restart the machine. If overcurrent protection alarm is still active, contact the after-sales department.
E31	Undervoltage protection	Input network voltage is too low	Turn it off and on again. If this the alarm cannot be eliminated and the grid voltage remains too low, check the power grid voltage and wait for the grid to be normal before cutting. If the grid voltage is normal and the alarm persists, contact professional maintenance personnel.
E32	Overvoltage protection	Input network voltage is too high	Turn it off and on again. If the alarm cannot be eliminated and the grid voltage remains too high, check the power grid voltage and wait for the grid to be normal before cutting. If the grid voltage is normal and the alarm persists, contact professional maintenance personnel.
E60	Overheating	Output rectifier diode temperature is too high	Do not turn off the machine. Wait for a while, and then continue cutting after the indicator goes out.
E61	Overheating	Inverter IGBT temperature is too high	Do not turn off the machine. Wait for a while, and then continue cutting after the indicator goes out.
E62	Overheating	PFC IGBT temperature is too high	Do not turn off the machine. Wait for a while, and then continue cutting after the indicator goes out.

NOTE! After applying the above countermeasures, the alarm still persists or reappears after lifting. Please contact professional maintenance personnel.

10. Packaging, transportation, storage and waste disposal

10.1. Transportation requirements

In the process of handling the equipment, it should be handled with care, and should not be dropped or severely impacted. Avoid moisture and rain during transportation.

10.2. Storage conditions

Storage temperature: $-25\text{ }^{\circ}\text{C} \sim +50\text{ }^{\circ}\text{C}$

Storage humidity: relative humidity $\leq 90\%$

Storage period: 12 months

Storage site: indoors with no corrosive gas and air circulation

10.3. Waste disposal

Disposal

The equipment is manufactured with materials, which do not contain any toxic or poisonous materials dangerous to the operator.

When the equipment is scrapped, it should be dismantled separating components according to the type of materials.

Do not dispose of the equipment with normal waste. The European Directive 2002/96/EC on Waste Electrical and Electronic Equipment states the electrical equipment that has reached its end of life must be collected separately and returned to an environmentally compatible recycling facility.

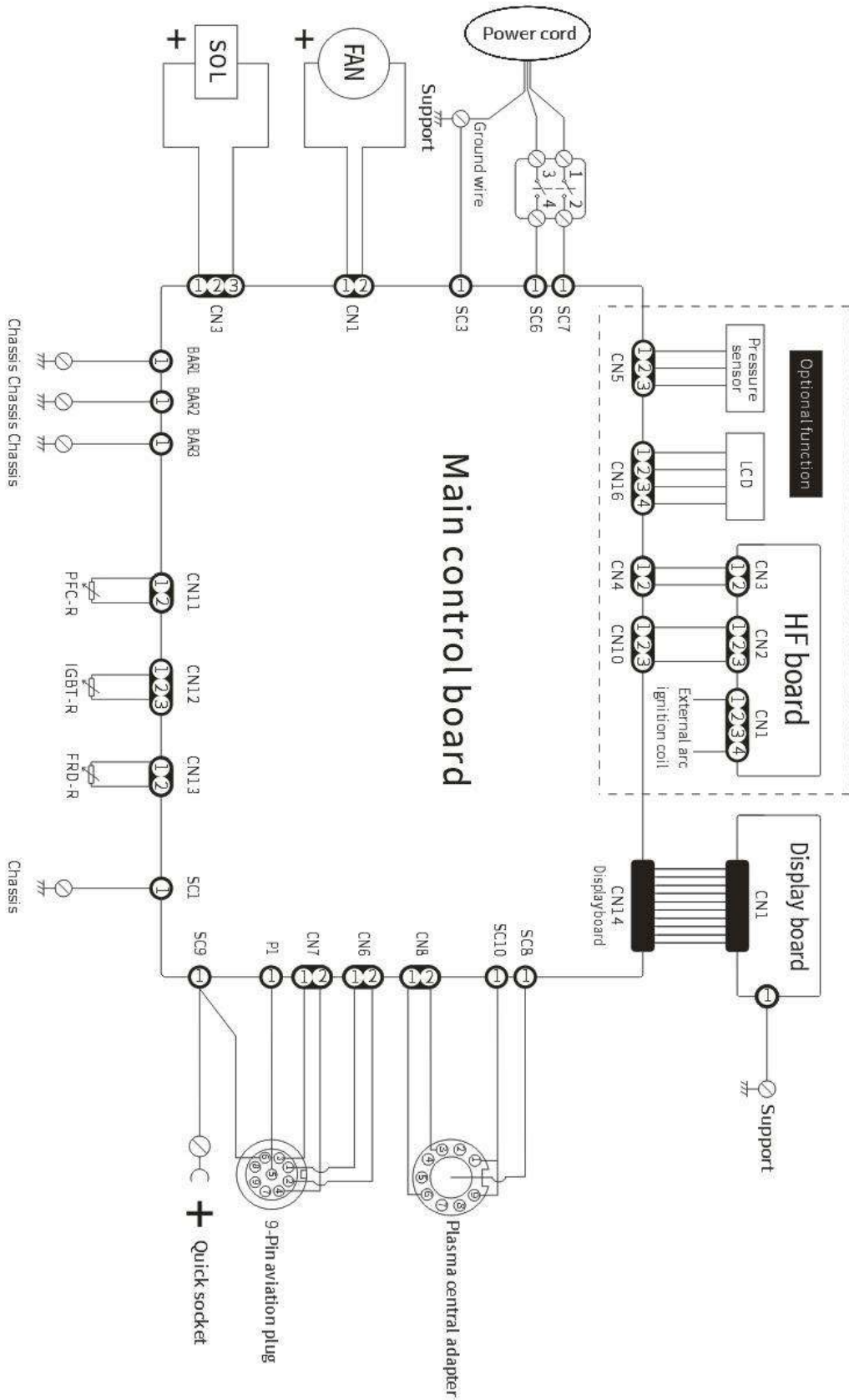
In order to comply with WEEE regulations in your country you should contact your supplier.

RoHS Compliance Declaration

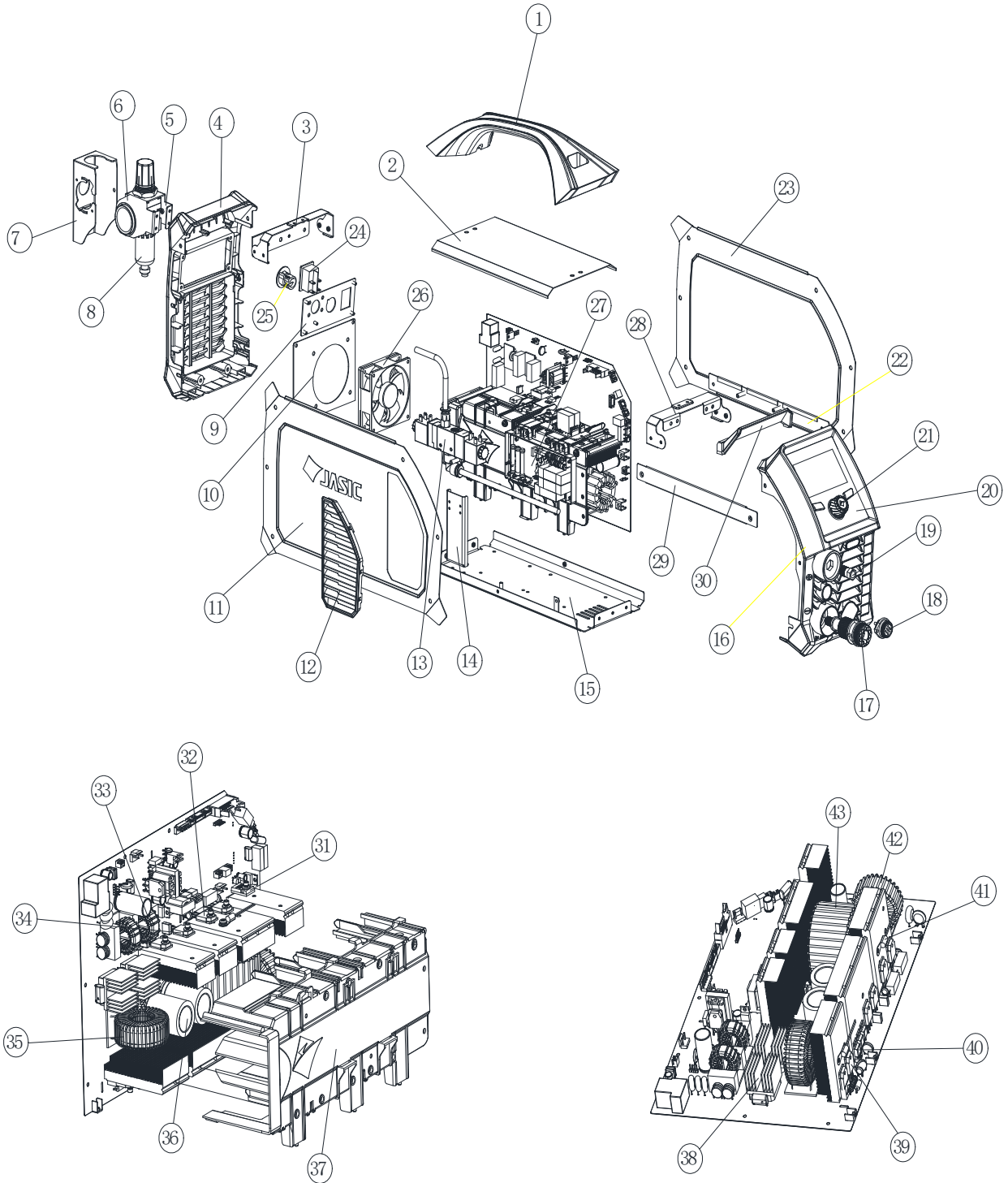
We herewith confirm, that the above-mentioned product does not contain any of the restricted substances as listed in EU Directive 2011/65/EC in concentrations above the limits as specified therein.

Disclaimer: Please note that this confirmation is given to the best of our present knowledge and belief. Nothing herein represents and/or may be interpreted as warranty within the meaning of the applicable warranty law.

Appendix 1: Wiring diagram of CUT45PFC



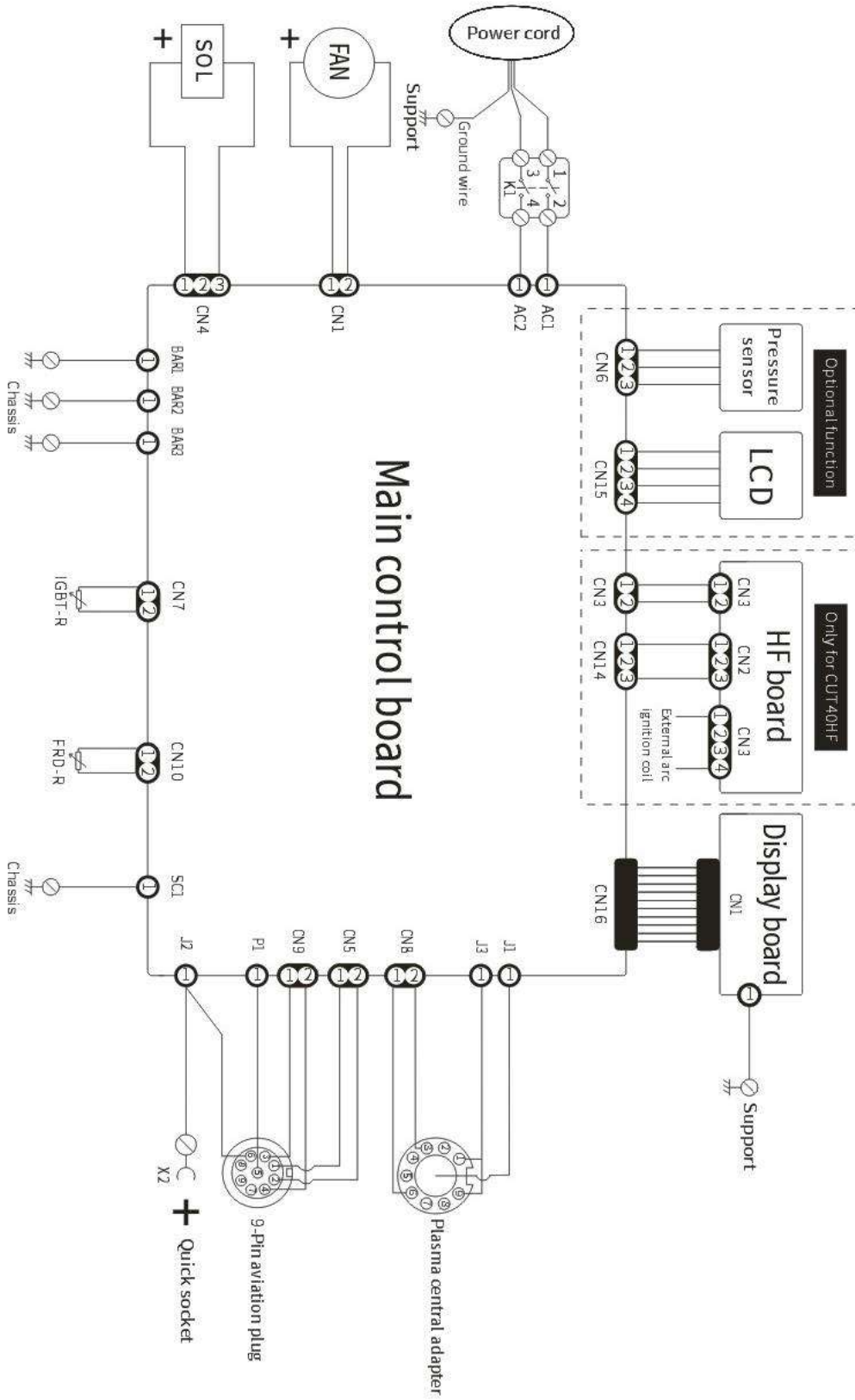
Appendix 2: Exploded-view drawing of CUT45PFC



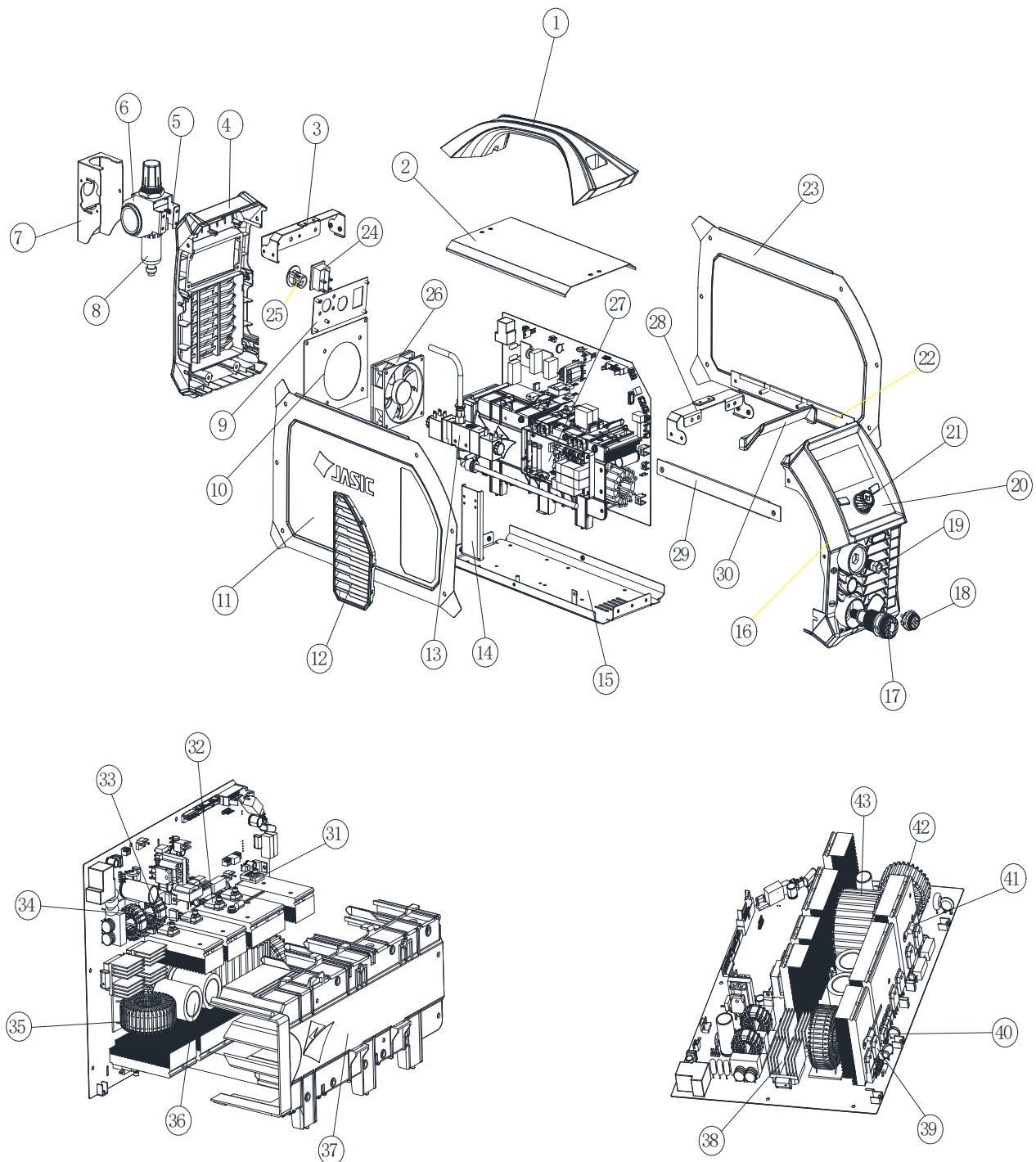
Appendix 3: List of CUT45PFC common spare parts

SN	Material code	Name	Quantity	SN	Material code	Name	Quantity
1	51001788	Handle	1	23	51001965	Right side cover	1
2	51001964	Top cover	1	24	51000471	Rocker switch	1
3	51001677	Rear bracket	1	25	10083802	Ring	1
4	51001808	Rear panel	1	26	51000336	Fan	1
5	51001972	Regulator mount	1	27	51000501	HF board	1
6	51001790	Regulator meter enclosure	1	28	51001680	Front bracket	1
7	51001678	Regulator enclosure	1	29	51001672	Left mount	1
8	10080422	Regulator	1	30	-	Front panel cover	1
9	51001956	Rear mounting plate	1	31	51000601	Pilot arc IGBT	1
10	51001681	Fan mount	1	32	51000072	FRD	4
11	51001967	Left side cover	1	32	10006545	EMC inductor	2
12	51001795	Louver	1	34	51000602	Inverter IGBT	4
13	51000510	Gas valve	1	35	51000455	PFC inductor	1
14	51001674	Gas valve mount	1	36	10078333	Electrolytic capacitor	2
15	51001963	Chassis	1	37	51001800	Wind shield	1
16	10084103	Front panel	1	38	10037345+5 1000332	Bridge rectifier + heat sink	1
17	51000513	Plasma central adapter	1	39	51000601	PFC IGBT	2
18	10041400	9-Pin aviation plug	1	40	10064645	PFC diode	2
19	10004635	Quick socket	1	41	51000705	Thermistor	3
20	51000779	Display board iron plate	1	42	10077123	Arc ignition coil	1
21	51001899	Chassis	1	43	10084177	Main transformer	1
22	51001679	Right mount	1				

Appendix 4: Wiring diagram of CUT40HF/CUT40NHF



Appendix 5: Exploded-view drawing of CUT40HF/CUT40NHF



Appendix 6: List of CUT40HF/CUT40NHF common spare parts

SN	Material code	Name	Quantity	SN	Material code	Name	Quantity
1	51001788	Handle	1	21	51001899	Chassis	1
2	51001964	Top cover	1	22	51001679	Right mount	1
3	51001677	Rear bracket	1	23	51001965	Right side cover	1
4	51001808	Rear panel	1	24	51000471	Rocker switch	1
5	51001972	Regulator mount	1	25	10083802	Ring	1
6	51001790	Regulator meter enclosure	1	26	51000515	Fan	1
7	51001678	Regulator enclosure	1	27	51000501	HF board	1
8	10080422	Regulator	1	28	51001680	Front bracket	1
9	51001958	Rear mounting plate	1	29	51001672	Left mount	1
10	51001673	Fan mount	1	30	-	Front panel cover	1
11	51001967	Left side cover	1	31	51000601	Pilot arc IGBT	1
12	51001795	Louver	1	32	51000072	FRD	4
13	51000510	Gas valve	1	33	10006545	EMC inductor	2
14	51001674	Gas valve mount	1	34	51000602	Inverter IGBT	4
15	51001963	Chassis	1	35	51000552+ 51000332	Bridge rectifier + heat sink	1
16	10084103	Front panel	1	36	51000900	Electrolytic capacitor	2
17	51000513	Plasma central adapter	1	37	10084112	Wind shield	1
18	10041400	9-Pin aviation plug	1	38	10077123	Reactor	2
19	10004635	Quick socket	1	39	10077124	Arc ignition coil	1
20	51000728/ 51000765	Display board panel	1	40	10084010	Main transformer	1

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