THANKS FOR PURCHASING OUR PRODUCT

MIG-MAG 500I

Inverter MIG/MAG/MMA/LIFT TIG Semi-auto ARC Welding Machine

(with preset voltage,wire speed)

Operation Manual

(Read the manual carefully before installation ,operation and maintenance)

（**BE SUITABLE FOR 3~380V/400V/415V**）

SAFETY PRECAUTIONS

Follow these precautions carefully. Improper use of any welder can result in injury or death.

1. ONLY CONNECT WELDER TO A POWER SOURCE FOR WHICH IT WAS DESIGEND. The specification plate on the welder lists this information. When welding outdoors only use an extension cord intended for such use.

2. ONLY OPERATE WELDER IN DRY LOCATIONS and on cement or masonry floor. Keep area clean and uncluttered.

3. KEEP ALL COMBUSTIBLES AWAY FROM WORK SITE.

4. DO NOT WEAR CLOTHING THAT HAS BEEN CONTAMINATED with grease or oil.

5. KEEP CABLES DRY AND FREE FROM OIL AND GREASE and never coil around shoulders.

6. SECURE WORK WITH CLAMPS or other means; don't overreach when working.

7. NEVER STRIKE AN ARC ON A COMPRESSED GAS CYLINDER

8. DON'T ALLOW THE INSULATED PORTION OF THE ELECTRODE HOLDER TO TOUCH THE WELDING GROUND WHILE CURRENT IS FLOWING.

9. SHUT OFF POWER AND UNPLUG MACHINE WHEN REPAIRING OR ADJUSTING. Inspect before every use. Only use identical replacement parl.

10. FOLLOW ALL MANUFACTURER'S RULES on operating switches and making adjustments.

11. ALWAYS WEAR PROTECTIVE CLOTHING when welding . This includes: long sleeved shirt(leather sleeves), protective apron without pockets, long protective pants and boots. When handing hot materials, wear asbestos gloves.

12. ALWAYS WEAR A WELDER'S HELMET WITH PROTECTIVE EYE PIECE when welding. Arcs may cause blindness. Wear a protective cap underneath the helmet.

13. WHEN WELDING OVERHEAD, BEWARE OF HOT METAL DROPPINGS. Always protect the head, hand, feet and body.

14. KEEP A FIRE EXTINGUISHER CLOSE BY AT ALL TIMES.

15. DO NOT EXCEED THE DUTY CYCLE OF THE MACHINE. The rated cycle of a welding machine is the percentage of a ten minute period that the machine can operate safely at a given output setting.

16. KEEP ALL CHILDREN AWAY FROM WORK AREA. When storing equipment, make sure it is out of reach of children.

17. GUARD AGAINST ELECTRIC SHOCK. DO not work when tired. Do not let body come In'contact with grounded surfaces.

Prolegomenon

We do very appreciated for your selecting our products.

This kind of welding power Model MIG-MAG500I is taken foreign advanced technology to develop and manufacture the new generation inverter integrated controlling Semi-auto MIG/MAG ARC Welding machine.

It can be composed the MIG-MAG500I DC MMA/DC&sopt CO_2/MIG/MAG ARC Welding system equipped with wire feeder and welding gun .It has many characteristic such as easy Arc starting .good Arc shininess .adjustable arc thrusting ,low splash,good welding form ,easy welding operation,wide range and electricity save.

The MIG/MAG semi-auto Arc welding machine model MIG-MAG500I is advanced welding machine and it cam be compared with foreign products.

This operation manual can help you for the machine installation, operation and maintenance correctly and safely.Pay attention to the points as following.

. Installation of the power cord. Be grounded correctly.

. Don't put sundries under the welder.Otherwise it will affect the heat released.

. Installation for the positive and negative cable of the power output.

. Welding voltage selection (the potentiometer on the wire feeder)

. Welding current selection (speed of wire feeder)

. Selection of Arc thrusting(potentiometer on the front panel)

The amendment right and the explanation right of the manual belonging to my company.We have no special notice if the manual is amended.

1. Main characteristic and suitable range

This kind of welding power Model MIG-MAG500I is taken foreign advanced technology to develop and manufacture the new generation inverter integrated controlling Semi-auto Arc welding machine.It makes use of the import key parts such as Siemens IGBT module of Germany,alloy magnetic core and the resume diode module of America. It has the perfect performance of high quality ,good reliability, quick speed of welding current, steady welding process,low splash and good welding form . Anyway,It becomes the welding very easy.

1.1 Structure of the MIG-MAG500I semi-auto Arc welding machine

a.The name of the model

MIG-MAG500I

Model improvement

Rated max welding current

Semi-auto MIG/MAG Arc welding machine

b. Composing of the product

This product is composed by three parts as following

★ Power source(MIG-MAG500I)

★ Wire feeder

★ welding gun

1.2 Suitable range of the MIG-MAG500I

★ Suitable material: low-carbon steel, stainless steel,Al and its alloy

★Thickness of the material:

low-carbon steel and stainless: more than 1.0mm

Al and its alloy: more than 1.0mm

★Suitable position:all positions

★Suitable wire :

φ0.9,1.2solid wire/flux cord wire ,φ0.9,1.2, 1.6AL wire.

★Suitable welding rod :φ1.0 ~ 5.0 for low-carbon steel, stainless steel.

1.3 Characteristic of MIG-MAG500I

★ Wide output current 50-350A: 0.9 ----------50-180A

1.2----------100-350A

1.6----------120-500A

★Steady welding process,low splash,easy control,good welding form.

★High efficiency: 500A/39V the duty cycle is 60%

387A/33.4V the duty cycle is 100%

continuous wire feed,the max speed of wire feed is 15m/min

★Low starting of wire feed

★2/4steps changing

★Preset the diameter of the wire to get the excellent arc steady and good welding form.

★Preset the welding voltage :Preset the welding current to read the welding criterion easy.

★Adjusting the arc thrusting: Control the splash and steady arc.

★Strong resistance for the fluctuate of the electricity

★Enlarge the output cable to 50m/50mm^2 to guarantee the welding current not less than 350A when using the 1.2 welding wire.

2.Main technical Data :

★	Input Voltage	3~380V/400V/415V±10% ;50/60Hz
★	Rated Input current	37A
★	Rated Input power	25KVA
★	No-load Voltage	65~75V
★	No-load first current	0.1~0.2A
★	No-load loss	100W
★	Voltage adjusting Range	15±3V~50±3V
★	Current output Range	50~500A(MIG/MAG/CO2) 30~400A(MMA/TIG)
★	Suitable wire	1.0, 1.2,1.6(solid/flux)
★	Duty cycle	500A/39V X=60%(Rated condition); 387A/33.4V X=100%
★	Efficiency	η≥0.85
★	Power factor	λ=0.8
★	Insulation class	F
★	Protection class of shell	fan cooling
★	Overall measurement (l*w*h)	670mm*310mm*565mm
★	Weight	58KG

Note:(1) Adjust the no-load voltage according to the requirements. Normally it is 70V.

3.Function

3.1 Adjusting function for the welding voltage and welding current

3.1.1 MIG-MAG500I supply the adjusting range at MIG/MAG as following,

Welding voltage : 16V±3V~50V±3V use the voltage adjusting knob on the wire

feeder

Welding current : 50A~500A use the current adjusting knob on the wire feeder

3.1.2 MIG-MAG500I supply the adjusting range at MMA&TIG as following,

Welding current : 30A~400A use the welding current knob on the panel.

3.2 Adjusting function of the Arc thrusting

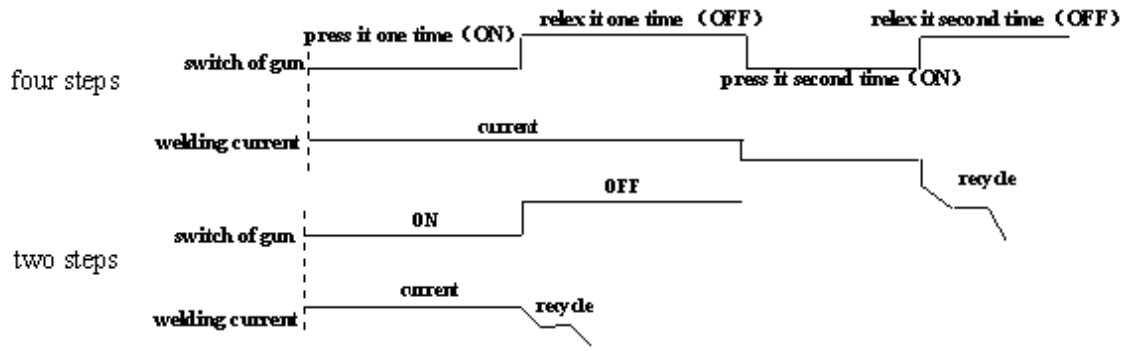
It has the important function to select the proper Arc thrusting for improvement of the welding line ,control the welding splash and the steady Arc. Normally,.

If the thrusting is low ,the arc is soft and splash .

If the trusting is high,the arc is strong and high splash.

Use the arc thrusting continuously by the control knob on the front panel of MIG-MAG500I.

3.3 2/4 steps change



3.4 Spot welding

When open the 'spot time' knob ,you can select right time (Intermittent welding regulator to minimum, turning it anticlockwise to the end) , then spot welding

3.5 Intermittent welding

Open the the 'spot time' knob and the 'Intermittent welding time 'knob at one time,you can achieve Intermittent welding

3.6 Function for low Arc starting

We design the function for low arc starting in order to improve the efficiency of arc starting.

3.7 AC 36V/3A power function

When you use the CO_2 MIG/MAG welding machine, you may generally equip with gas heating source. So we design the power function to meet the heating for 36V-3A /120W heater .The out connection is down of the front panel of MIG-MAG500I.

3.8 Recycle function

We design the function to settle two problems.

1) Control the diameter of the wire ball at the end of wire .

2) Prevent the wire into the pool after the Arc stopped.

3.9 Over current function of the wire feed motor

In order to protect the motor, the wire feed motor may stop rolling automatically if the current reaches 10A .When it is lower than 10A ,the motor begins rolling automatically.

3.10 Quick wire feed function

The spot wire feed speed can be adjusted by the welding current knob on the wire feed panel, so that it is convenient for the customers to get the quick wire feed speed.

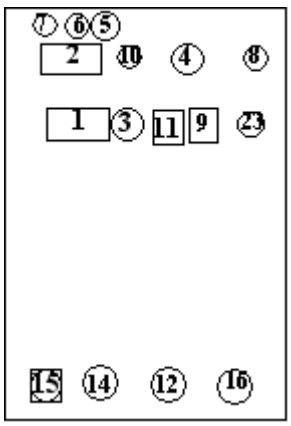
3.11 Arc defeated protection function

If the Arc starting defeated, the system stops the wire feed and turn off the power automatically(only 4 steps useful).Turn on the welding gun again if continuous welding.

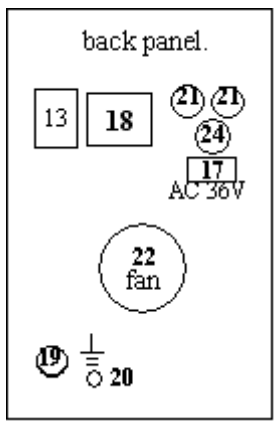
4. Indicating and warning on the MIG-MAG500I control panel

4.1 Indicating and adjusting

1. FRONT PANEL



2. BACK PANEL



1.indication of welding current 2.indication of welding voltage 3. Welding current regulator(for MMA) 4. Spot welding regulator 5.warning indicating light 6. over heat indicating light 7. indicating light of power 8.arc force 9.MMA/MIG SWITCH 10. Intermittent welding regulator 11.crater switch(2T/4T) 12gas outlet 13. power switch14. output"+" 15 feeder control 16.output"-" 17. 36Vacpower plug 18. nameplate 19.power supply 20.safety earthing column 21. fuse 22.fan 23.burnback time regulator 24.gas inlet

4.1.1 Voltage indicating

The voltage meter on the front panel can indicate the actual welding voltage or preset voltage.The indicating number has the precision of 0.1V .The meter indicates the preset during no welding.

4.1.2 Current indicating

The current indicating meter on the front panel indicates the actual welding current during the welding.The adjusting range is 50A to 500A.

The current indicating meter indicates the Preset the speed of the wire during no welding. The adjusting range is 2 ~ 100.

4.1.3 Welding current regulator (for MMA/TIG)

Regulating the knob, It can be selected between 30A to max Amp..

4.1.4 Spot welding regulator

Regulating the knob, It can be selected between 0.2 to 1.5s.

4.1.5 Warning

If the circuit is over current ,the light is ON.The control circuit stop the power automatically.

4.1.6 excess temper(over heat)

In the condition of more than 40℃ temperature,large current is used continuously (I2>200A),efficiency radiator temperature id more than 80±5℃ ,overheat circuit begins working.The indicating light is on ,the power stop the welding automatically.The fan running continuously.If the temperature is lower,the indicating is off,the power can work and weld can be continued automatically ,Remind:Don't turn off the machine while te indicating overheat light is ON.

4.1.7 Power indicating

Turn power on, it will illuminate indicating.

4.1.8 arc force regulator

Regulating suitable arc force, splash can be reduced .

4.1.9 MMA/MIG SWITCH

Select the mode of output

4.1.10 Intermittent welding

4.1.11 2/4 steps switch

MIG/MAG Trigger Sequences

For the machine , MIG/MAG welding can be done in either the 2-step or 4-step mode which is selected with the Trigger Mode Push Button.

4.1.12 gas outlet

4.1.13 power switch

Input line switch turns input power ON or OFF, as indicated by the on or off status of the front panel digital display (See Item 1&2).

4.1.14 output"+"

For quick disconnect system using Twist-Mate cable plugs

In MIG/MAG welding, connected with wire feeder.

In MMA welding, connected with cable and electrode holder or clamp according to the kind of welding rod.

4.1.15 feeder control

In mig/mag welding, you must connect wire feeder with the feeder control

4.1.16 output"-"

This quick connect Twist-Mate receptacle provides electrical connection to the electrode holder and cable for Stick welding and connection for the mig/mag clamp when mig/mag welding.

4.1.17 36 Vacpower plug

connection for heated flow meter.

4.1.18 nameplate

The data plate stamped on the metal structure complies with the EN 60974-1, EN50199(EN60974-10) international standards and contains the following information:

* (a) Manufacturer's name and address
* (b) Trademark
* (c) Model
* (No) Serial number
* () The welding power source comprises a frequency converter followed by an transformer and rectifier that transforms input voltage into direct current.
* (EN 60974-1/EN 50199) Standards applied.
* ( ) Direct current.
* (x) Utilisation factor expressed as a percentage of useful work over a cycle of 10 minutes at an ambient temperature of 40^{o}C.

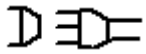
* (I_2) Rated weld current.

* (U_2) Conventional load voltage.

* (Uo) Rated no-load voltage.

* () mig/mag welding.

* () MMA welding.

* () 3 input phases.

* (IP21S) Casing protection degree in compliance with the EN 60529 Standard:

IP2XX Casing protected against access to dangerous components with fingers and against the introduction of foreign matters with diameter 12.5 mm.

IPX3X Casing protected against rain failing at 60^{O} on the vertical line.

IPXXC Casing protected against contact of a test gauge φ2.5 mm length 100 mm with live dangerous parts,

* (U_1) Rated power supply voltage.

* (50/60 Hz) Power supply rated frequency.

* (I_1 max) Maximum supply current.

($I_{1\ eff}$) Effective supply current.

* (S) Generator suitable for installation in places where major risks of electric shocks are preset

* (CE) In compliance with the European regulations in force.

4.1.19power supply

connected main supply

4.1.20safety earthing column

The earthing must be made according to the national regulations. Make sure that the supply mains and the earthing are sufficient and adequate

4.1.21 fuse

4.1.22 fan

4.1.23 burnback time regulator

4.1. 24.gas inlet

5.Safe and installation caution

Read the safe caution before installation and operation .It come down to the high voltage electricity,electric Arc and high temperature splash.So keep the safe regulation ,operate the machine properly,avoid the danger of electricity and high temperature arc.

★ Check if any damage ot out looking ot the welder.

★ Confirm the capacity:more than 60A.

★ Power source is grounded,diagram 6

★ Prohibit the combustible goods in the welding locale.

★ There is fire proof measure in the welding locale with favorable ventilated condition.

★ There is smoke discharge system if the welding is operated inside the house in order to keep the safety of workers.

★The welding operator must be professional workers.

★The operator must be fitted with safe accessories .Such as safe shoes,gloves,cover,welding make and welding dress etc.

6. Explanation of installation

★ Check the products according to the packing list when open the package.

★Ground protection.Attached the diagram 6

The power source is 380v/400V/415Vac/(50~60)Hz with three phases and 4 lines.The yellow/green double cable is grounding cable.Be sure to connect the yellow/green double cable into the grounding connection in the welding locale .Another way is selecting the M8 bolt on the back on the machine and connect the grounding as the diagram as following.

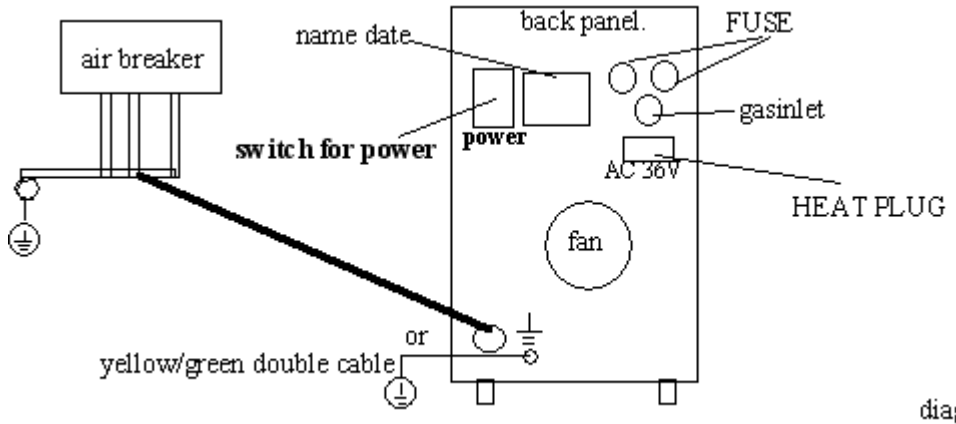


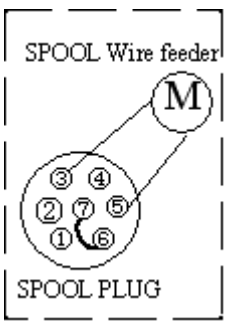
diagram 6

6.1 MIG/MAG welding

put the switch"9" into "MIG"

★ confirm the positive and negative marks and install the cable as diagram.

★ Insert the connectors inside the positive "+" and negative "-" position and roll it in 90. Do it oppositely when unloading the connectors.Keep the surface clean



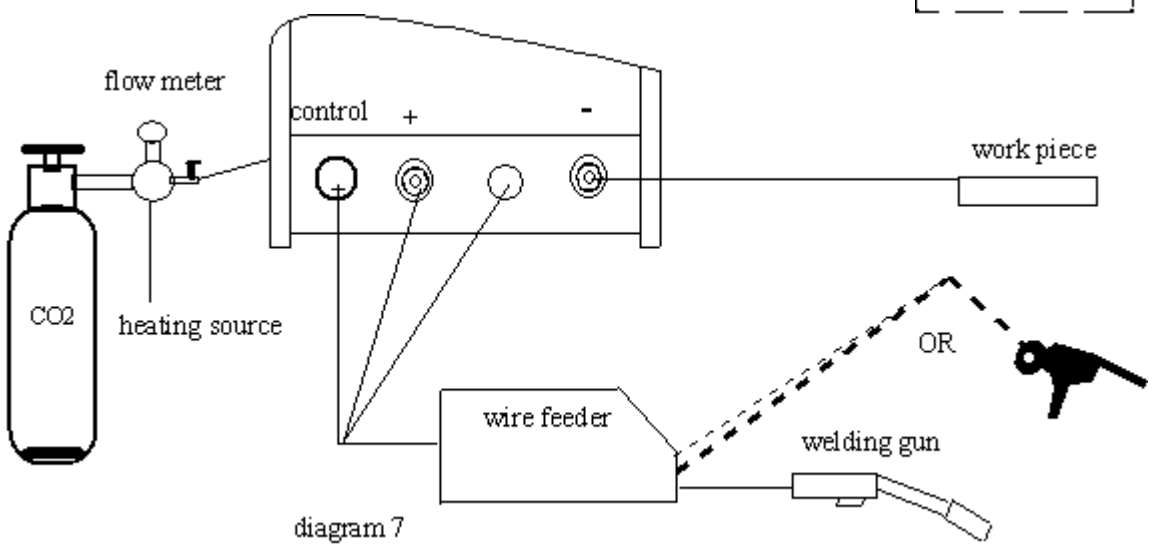


diagram 7

★Install the welding gun on the wire feeder and roll the welding gun in 90,then lock the bolt.

★ Connect the gas pipe with the gas bottle according to the locale conditions. Check the air proof conditions to ensure the good airproof.

★ Connect the control cable ot the wire feeder with the relative connection of the power MIG-MAG500I.

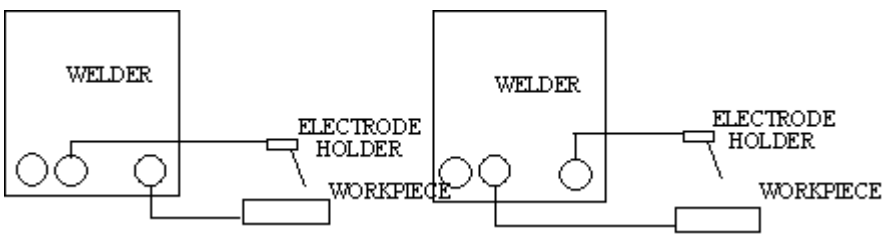
6.2 MMA welding

put the switch"9" into "MMA"

Selecting empiric formula: I=40*d ,d is dia. of the electrode.

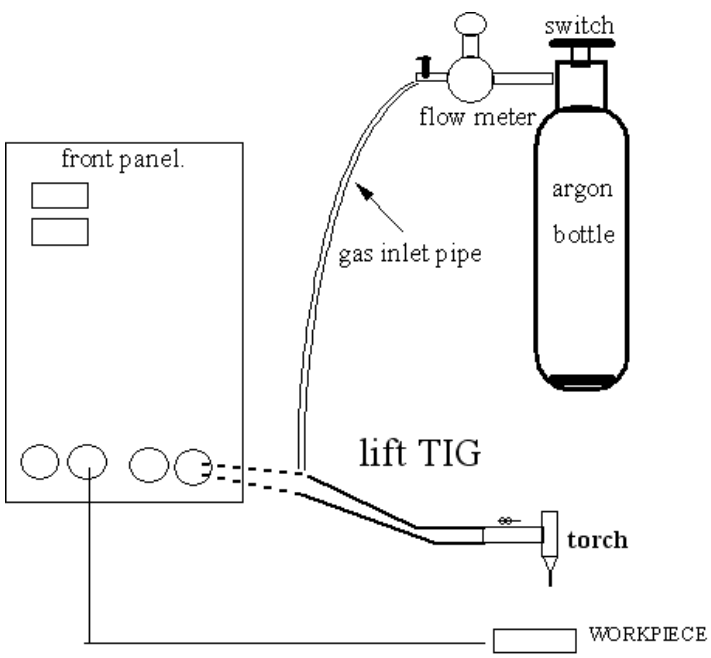
Notice positive and negative connection during welding.

A negative connection B positive connection



6.3 LIFT TIG welding

put the switch"9" into "TIG"



7. Operatings

★"ON" and "OFF" indicating switch on the front panel.

★Preset the welding voltage ,welding current(voltage adjusting knob,current adjusting knob on the wire feeder).Arc thrusting and selection switch of the wire diameter.Diagram 4

★ Preset 2/4 steps switch (selection switch of second current)

★ Confirm the specification of the wire feed hose

It affects the wire feed resistance and steady welding process.Specially theφ1.6 wire ,be sure to select the proper hose.

★Confirm the specification of nib base .It affects the extended length of the wire .

★Confirm the specification of nib. It affects the electric resistance.

★ Confirm the wire slot of the roller is suitable for the diameter of the wire. Different diameter of wire select different wire slot. Otherwise it affects the wire feed result.

★ Confirm the pressure of the roller to avoid slipping.

If the pressure is not enough ,the wire feed is slow speed.

If the pressure is too much ,the wire will be anamotphic.

The wire feeder can not work properly.

★ Confirm the flow of the gas and air proof.

We suggest the gas flow to be "L" more than 10D(D-diameter of wire).If the selection is not proper,it also affects the welding quality.When using the CO_2 gas,please confirm if the heating power works properly or not .

★Straight the hose of welding gun as much as possible .The bending radius can not be less than 200mm.Otherwise it affects the wire feeder.

7.1 2 steps/4 steps working process

4steps : Put the switch of the panel on the position "4 steps",press the switch of the gun for the first time,the normal welding begins.Relax the switch for the first time,the welding process keeps unchanged.Press the switch for the second time,the welding process keeps unchanged.too.Relax the switch for the second time,the arc stops.

7.2Gas inspection

Press the switch of the gun before the wire roller is firmed,preset the gas flow through the meter to check if it is gas proof.Otherwise ,it affects the welding result.

7.3Rip into the wire

Select the specification of the wire ,materials according to the craft requirements.Firm the bolt and press the button on the front panel.The speed of ripping wire can be controlled by the welding current knob.Unload the nib if necessary and load it again after the wire is out.

8.Suggested welding criterion

Select good quality welding wire to get the perfect welding result and smooth welding process .Low quality wire can affect the welding quality by resistance welding process and blocking etc.

8.1Selection switch for wire diameter

Please refer to rhe function on 1.3

8.2Selection for Arc thrusting

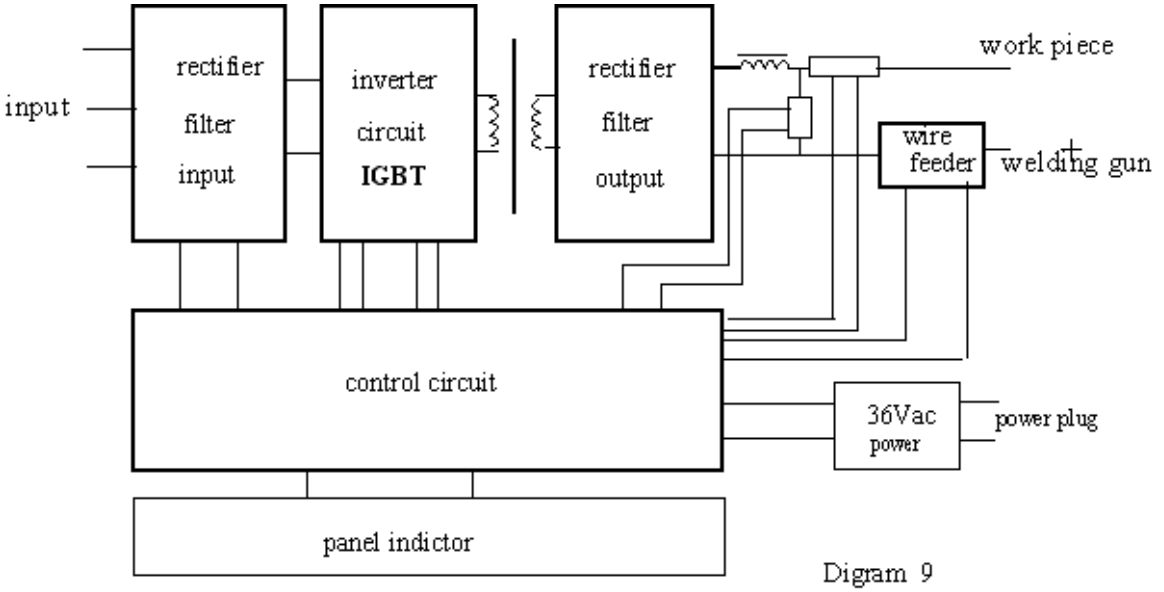
Please refer to the function on 2.2

8.3Selection for welding voltage and current Diagram 8

d(mm)	ϕ0.8	ϕ1.0	ϕ1.2	ϕ 1.6
suitable welding criterion	18~ 20V /80 ~ 120A* 17 ~ 18V/50 ~ 80A* 19 ~ 22V/100 ~ 150A	17 ~ 18V/50 ~ 80A*	17 ~ 19V/80 ~ 100A*	20 ~ 22V/120 ~ 150A*
		18 ~ 19V/80 ~ 100A*	19 ~ 22V/100 ~ 150A*	22 ~ 24V/150 ~ 200A*
		19 ~ 22V/100 ~ 160A*	22 ~ 24V/150 ~ 200A*	24 ~ 27V/200 ~ 250A*
		22 ~ 24V/150 ~ 200A*	24 ~ 27V/200 ~ 250A*	27 ~ 32V/250 ~ 350A*
		24 ~ 30V/200 ~ 300A	27 ~ 36V/250 ~ 400A	32 ~ 40V/350 ~ 500A

9. working elements

Diagram for the MIG-MAG500I working elements.Digram9



Digram 9

Input AC 380V/400V/415V , rectifier and filter it into 540VDC.

Control the IGBT by PWM+FM,inverter the 540VDC to 20KHz AC.

High frequency transformer pass the power by insulation and voltage reducing with high efficiency.

Output the second rectifier and the second filter.Output the required welding current and voltage.

10.Maintenance

Check the safety measure be efficiency.

Get rid of the dust for the power source (FORexample,dry compressed air)

Before operating,,Check the "+""-"connectors of the power panel if they are relaxed

.Check the connection between the grounding cable and plug if they are relaxed,(If relaxed,the serious heating will damaged the quick connectors)

.Check the fan if it works regularly.charge it if it is trouble.

Check the insulation and breakage of the input power cord

.Change it in time to ensure the safety.

check if there is any noisy for the wire feed motor.

Check the abrasion of the wire feed hose.Get rid of the dust inside of the hose.(!~2times /40kg wire)

.Get rid of the splash inside the nib regularly to ensure the guaranteed result by the gas blow.

Check the abrasion of the nib.Change it in time.(suggust 1~2pieces nibs/40kg wire).

11.Troubles and Remedy

Troubles and remedy and remedy are as the form 10 as following,,

Troubles	Cause	Remedy
1.Fan not works properly	1.phase absent of the power 2.the fan line lose 3.Fan breakage	1.Check the power 2.Connect the line 3.Change the fan
2.No indicating on the front panel	1.phase absent of the power 2.the fuse broken 3.Indicating light broken	1.Check the power 2.Change the fuse 10A/250V(back panel) 3.Change it(φ8)
Troubles	Cause	Remecly

3.The light for low voltage on	1.the power voltage istoo low (lower than 300-330v) 2.Input capacity not enough 3.Control panel damaged	1.Check the power 2.Enlarge the capacity(enlarge the thickness or the cable) 3.Check the control panel and change it
4.Over heating light on	1.aeration is not good 2.The temperature is too high 3.over-load use 4.Thermostat broken 5.Control plate broken	1.get rid of the bar 0.5m around 2.Reduce the temperature 3.Reduce the use loading 4.Change the thermostat(JUC-OF) .Check and change the control plate
5.Over-current light ON	1.IGBT broken 2.output diode broken 3.Drive plate broken 4.Control plate broken	Contact the manufacturer
6.Wire feeder not work	1.the fuse broken 2.the Cables are not 3.the wire blocked 4.the drive circuit broken 5.other reasons	1.Change the fuse 10A/250V(on back panel) 2.the Cables are not connected properly 3.Check the gun 4.Change the control panel 5.Contact with the namufacturer
7.Welding Voltage and welding current not adjustable	1.Potentiometer line fall down 2.Potentiometer broken 3.fuse broken 4.the cables not connectecl properly 5.The drive circuit broken	1.Connect the lines 2.Change it (5K) 3.Change the fuse10A/250V(on back panel) 4.Check it 5.Change the control panel

12.Enlarge the length of the welding cable

The length of the welding cable includes the total length of the welding circuit including the cables between the positive"+"of the power source.The cables longer,thesection area thinner ,It caused large voltage reducing and large voltage loss,More over,it affect the quality of the arc and the slag.So arrange the position of the welding machine properly to get the shortest cable.

The cable between the welding power and wire feeder is the shorter,the better Otherwise it affects thd maximum speed of wire feeder are the maximum welding current.

form 12 The relationship between cable length,section area and maximum output current

The maximum output is 40V	6V 30m	9.6V 60m	14V 100m
50mm^2	350A/31.5-36V	280A/28-35V	240A/26-36V
70mm^2	350A/31.5-36V	350A/31.5-36V	315A/30-36V

on the condition of low speed (lower than 12m/min),we can enlarge the cable to 50m when useφ0.9~1.2

★Straight the enlarged cable, otherwise it affects the arc stability.

13.Transportation,storage and environment conditions

★The package (Wooden cases or cartons)of the manufacturer is suitable for air ,sea ,railway and highway (three class more) transportation..

★Pay attention to the indication on the package dure the transportation.

★ the environment conditions

A Temperature range operating 0℃ ~ 40℃

transportation -25℃ ~+55℃

B The air humidity 40℃ 50%RH

20℃ 90%RH

C The dust ,acid and cause tic gas in the enviroment must be lower than the normal level (The welding process produced not included)

D Rain proof when it is used outside.

14.Quality Guaranteed

If you have any problem of the quality ,please contact us in time .We generally have one year quality guarantee on condition that you operate or transport the machine properly according to the operation manual.

15.ACCESSORIES:SEE PACKING LIST,PLEASE

PACKING LIST

★★★★★★★★★★★★★★★★★★★★★★★★★★★

MIG-MAG500I Welding machine	1		
wire feeder(FCS-203)	1		
connector+cable+Ground pliers	1		
connector+cable+holder	1		
welding torch	1		
gas pipe	1		
flow meter	1	optional accessary	
Spool welding torch(QLBT 5m)	1	optional accessory	
feeder roller	2		
Operation instructions	1		
Certificate of quality	1		

No.

_____

Certificate of quality

Name of product: $C0_2$/MIG/MAG Semi-auto ARC Welding Machine

Type of product: MIG-MAG500I

Packing No: _____

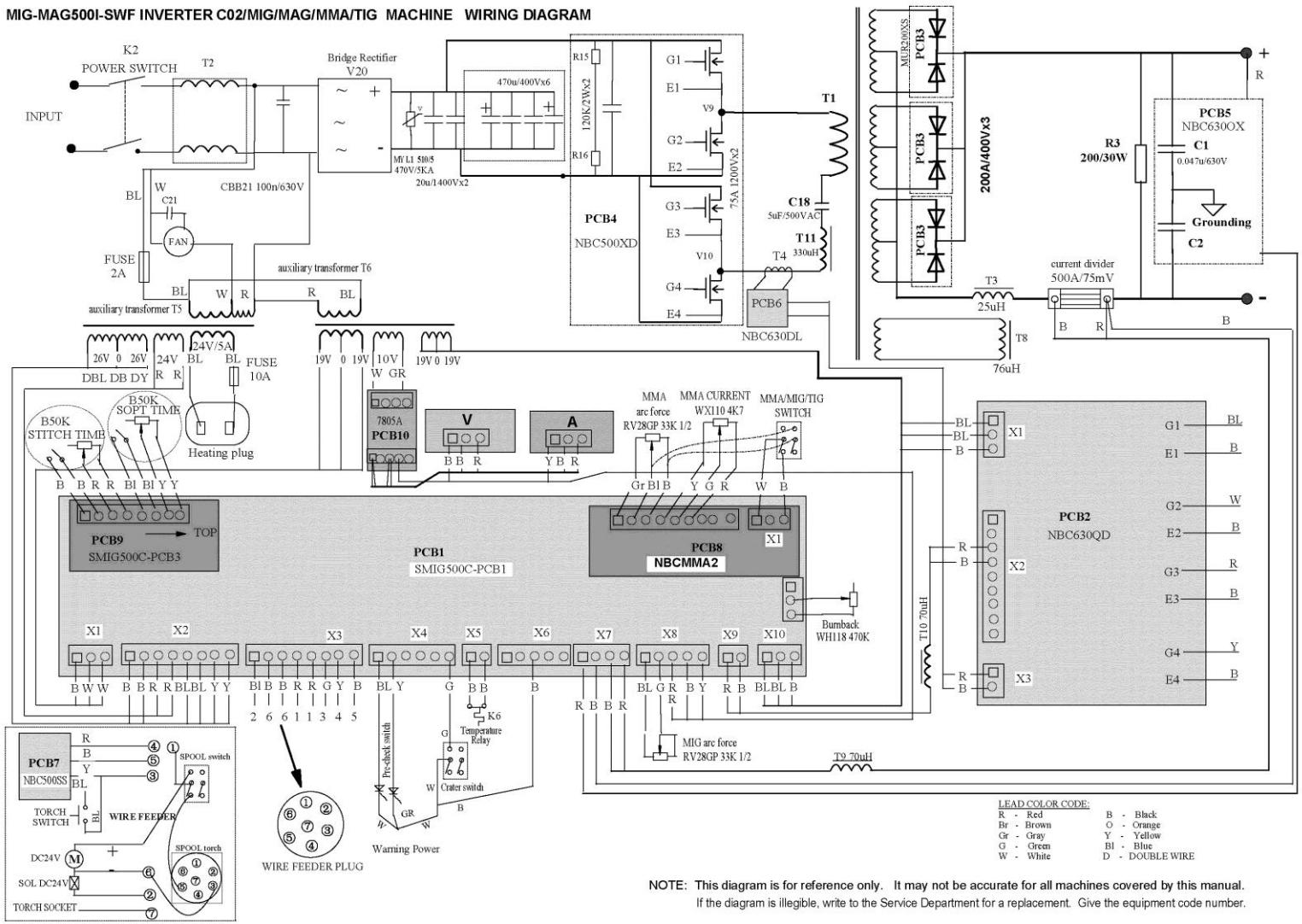
Test results of this welder fulfils_____

_____**technical requirements and its release**

from the works is granted.

Inspector_____ **Date**_____

MIG-MAG500I-SWF INVERTER C02/MIG/MAG/MMA/TIG MACHINE WIRING DIAGRAM



LEAD COLOR CODE:

R	- Red	B	- Black
Br	- Brown	O	- Orange
Gr	- Gray	Y	- Yellow
G	- Green	Bl	- Blue
W	- White	D	- DOUBLE WIRE

NOTE: This diagram is for reference only. It may not be accurate for all machines covered by this manual.
If the diagram is illegible, write to the Service Department for a replacement. Give the equipment code number.

			
WARNING	● Do not touch electrically live parts or electrode with skin or wet clothing. ● Insulate yourself from work and ground.	● Keep flammable materials away.	● Wear eye, ear and body protection.
Spanish **AVISO DE PRECAUCION**	● No toque las partes o los electrodos bajo carga con la piel o ropa mojada. ● Aislese del trabajo y de la tierra.	● Mantenga el material combustible fuera del área de trabajo.	● Protéjase los ojos, los oídos y el cuerpo.
French **ATTENTION**	● Ne laissez ni la peau ni des vêtements mouillés entrer en contact avec des pièces sous tension. ● Isolez-vous du travail et de la terre.	● Gardez à l'écart de tout matériel inflammable.	● Protégez vos yeux, vos oreilles et votre corps.
German **WARNUNG**	● Berühren Sie keine stromführenden Teile oder Elektroden mit Ihrem Körper oder feuchter Kleidung! ● Isolieren Sie sich von den Elektroden und dem Erdboden!	● Entfernen Sie brennbarres Material!	● Tragen Sie Augen-, Ohren- und Körperschutz!
Portuguese **ATENÇÃO**	● Não toque partes elétricas e electrodos com a pele ou roupa molhada. ● Isole-se da peça e terra.	● Mantenha inflamáveis bem guardados.	● Use proteção para a vista, ouvido e corpo.
Japanese **注意事項**	● 通電中の電気部品、又は溶材にヒフやぬれた布で触れないこと。 ● 施工物やアースから身体が絶縁されている様にして下さい。	● 燃えやすいものの側での溶接作業は絶対にしてはなりません。	● 目、耳及び身体に保護具をして下さい。
Chinese **警 告**	● 皮肤或濕衣物切勿接觸帶電部件及銲條。 ● 使你自己與地面和工件絕緣。	● 把一切易燃物品移離工作場所。	● 佩戴眼、耳及身體勞動保護用具。
Korean **위 험**	● 전도체나 용접봉을 젖은 헝겁 또는 피부로 절대 접촉치 미십시요. ● 모재와 접지를 접촉치 미십시요.	● 인화성 물질을 접근 시키지 마시요.	● 눈, 귀와 몸에 보호장구를 착용하십시요.
Arabic **تحذير**	● لا تلمس الاجزاء التي يسري فيها التيار الكهربائي أو الالكترود بجلد الجسم أو بالملابس المبللة بالماء. ● ضع عازلا على جسمك خلال العمل.	● ضع المواد القابلة للاشتعال في مكان بعيد.	● ضع أدوات وملابس واقية على عينيك وأذنيك وجسمك.

READ AND UNDERSTAND THE MANUFACTURER'S INSTRUCTION FOR THIS EQUIPMENT AND THE CONSUMABLES TO BE USED AND FOLLOW YOUR EMPLOYER'S SAFETY PRACTICES.

SE RECOMIENDA LEER Y ENTENDER LAS INSTRUCCIONES DEL FABRICANTE PARA EL USO DE ESTE EQUIPO Y LOS CONSUMIBLES QUE VA A UTILIZAR, SIGA LAS MEDIDAS DE SEGURIDAD DE SU SUPERVISOR.

LISEZ ET COMPRENEZ LES INSTRUCTIONS DU FABRICANT EN CE QUI REGARDE CET EQUIPMENT ET LES PRODUITS A ETRE EMPLOYES ET SUIVEZ LES PROCEDURES DE SECURITE DE VOTRE EMPLOYEUR.

LESEN SIE UND BEFOLGEN SIE DIE BETRIEBSANLEITUNG DER ANLAGE UND DEN ELEKTRODENEINSATZ DES HERSTELLERS. DIE UNFALLVERHÜTUNGSVORSCHRIFTEN DES ARBEITGEBERS SIND EBENFALLS ZU BEACHTEN.

● Keep your head out of fumes. ● Use ventilation or exhaust to remove fumes from breathing zone.	● Turn power off before servicing.	● Do not operate with panel open or guards off.	**WARNING**
● Los humos fuera de la zona de respiración. ● Mantenga la cabeza fuera de los humos. Utilice ventilación o aspiración para gases.	● Desconectar el cable de alimentación de poder de la máquina antes de iniciar cualquier servicio.	● No operar con panel abierto o guardas quitadas.	Spanish **AVISO DE PRECAUCION**
● Gardez la tête à l'écart des fumées. ● Utilisez un ventilateur ou un aspirateur pour ôter les fumées des zones de travail.	● Débranchez le courant avant l'entretien.	● N'opérez pas avec les panneaux ouverts ou avec les dispositifs de protection enlevés.	French **ATTENTION**
● Vermeiden Sie das Einatmen von Schweibrauch! ● Sorgen Sie für gute Be- und Entlüftung des Arbeitsplatzes!	● Strom vor Wartungsarbeiten abschalten! (Netzstrom völlig öffnen; Maschine anhalten!)	● Anlage nie ohne Schutzgehäuse oder Innenschutzverkleidung in Betrieb setzen!	German **WARNUNG**
● Mantenha seu rosto da fumaça. ● Use ventilação e exhaustão para remover fumo da zona respiratória.	● Não opere com as tampas removidas. ● Desligue a corrente antes de fazer serviço. ● Não toque as partes elétricas nuas.	● Mantenha-se afastado das partes moventes. ● Não opere com os paineis abertos ou guardas removidas.	Portuguese **ATENÇÃO**
● ヒュームから頭を離すようにして下さい。 ● 換気や排煙に十分留意して下さい。	● メンテナンス・サービスに取りかかる際には、まず電源スイッチを必ず切って下さい。	● パネルやカバーを取り外したままで機械操作をしないで下さい。	Japanese **注意事項**
●頭部遠離煙霧。 ●在呼吸區使用通風或排風器除煙。	●維修前切斷電源。	●儀表板打開或沒有安全罩時不準作業。	Chinese **警 告**
● 얼굴로부터 용접가스를 멀리하십시요. ● 호흡지역으로부터 용접가스를 제거하기 위해 가스제거기나 통풍기를 사용하십시요.	● 보수전에 전원을 차단하십시요.	● 판넬이 열린 상태로 작동치 마십시요.	Korean **위 험**
● ابعد رأسك بعيداً عن الدخان. ● استعمل التهوية أو جهاز ضغط الدخان للخارج لكي تبعد الدخان عن المنطقة التي تتنفس فيها.	● اقطع التيار الكهربائي قبل القيام بأية صيانة.	● لا تشغل هذا الجهاز اذا كانت الاغطية الحديدية الواقية ليست عليه.	Arabic **تحذير**

LEIA E COMPREENDA AS INSTRUÇÕES DO FABRICANTE PARA ESTE EQUIPAMENTO E AS PARTES DE USO, E SIGA AS PRÁTICAS DE SEGURANÇA DO EMPREGADOR.

使う機械や溶材のメーカーの指示書をよく読み、まず理解して下さい。そして貴社の安全規定に従って下さい。

請詳細閱讀並理解製造廠提供的説明以及應該使用的銀焊材料，並請遵守貴方的有関勞動保護規定。

이 제품에 동봉된 작업지침서를 숙지하시고 귀사의 작업자 안전수칙을 준수하시기 바랍니다.

اقرأ بتمعن وافهم تعليمات المصنع المنتج لهذه المعدات والمواد قبل استعمالها واتبع تعليمات الوقاية لصاحب العمل.