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SIP WELDMATE® PRO 200A Dual Voltage MMA/TIG Welder

SIP Code 05690 / 05696

For help or advice please contact your distributor, or sip directly on:

Tel.: 01509 500400

Email:

sales@sip-group.com

or

customerservice@sip-group.com

www.sip-group.com

Please read and fully understand the instructions in this manual before operation. Keep this manual safe for future reference.

CONTENTS

SAFETY SYMBOLS USED THROUGHOUT THIS MANUAL

Danger / Caution: Indicates risk of personal injury and / or the possibility of damage

Warning: Risk of electrical injury or damage

Note: Supplementary Information

Important: Please read the following instructions carefully, failure to do so could lead to serious injury, or damage to the product.

SAFETY INSTRUCTIONS

When using your inverter welder, basic safety precautions should always be followed to reduce the risk of personal injury and / or damage to the welder.
Read all of these instructions before operating the welder and save this user manual for future reference.
The welder should not be modified or used for any application other than that for which it was designed.
This welder was designed to supply electric current for Arc welding.
If you are unsure of its relative applications do not hesitate to contact us and we will be more than happy to advise you.
Before each use of the welder always check no parts are broken and that no parts are missing.
Always operate the welder safely and correctly.
KNOW YOUR WELDER: Read and understand the owner's manual and labels affixed to the welder. Learn its applications and limitations, as well as the potential hazards specific to it.
KEEP WORK AREA CLEAN AND WELL LIT: Cluttered work benches and dark areas invite accidents. Floors must not be slippery due to oil, water or sawdust etc.

DO NOT USE THE WELDER IN DANGEROUS ENVIRONMENTS: Do not use the welder in damp or wet locations, or expose it to rain. Provide adequate space surrounding the work area. Do not use in environments with a potentially explosive atmosphere.
KEEP CHILDREN AND UNTRAINED PERSONNEL AWAY FROM THE WORK AREA: All visitors should be kept at a safe distance from the work area.
STORE THE WELDER SAFELY WHEN NOT IN USE: The welder should be stored in a dry location and disconnected from the mains supply, and out of the reach of children.
USE SAFETY CLOTHING / EQUIPMENT: Use a CE approved welding mask at all times with the correct shade of filter lens. A fume extractor should be used particularly where there is little or no ventilation.
PROTECT YOURSELF FROM ELECTRIC SHOCK: When working with the welder, avoid contact with any earthed items (e.g. pipes, radiators, hobs and refrigerators, etc.). It is advisable wherever possible to use an RCD (residual current device) at the mains socket.
STAY ALERT: Always watch what you are doing and use common sense. Do not operate the welder when you are tired or under the influence of alcohol or drugs.
DISCONNECT THE WELDER FROM THE MAINS SUPPLY: When not in use and before servicing.
AVOID UNINTENTIONAL STRIKING: Make sure the switch is in the OFF position before connecting the welder to the mains supply.
NEVER LEAVE THE WELDER CONNECTED WHILST UNATTENDED: Turn the welder off and
disconnect it from the mains supply between jobs. Do not leave the welder connect - ed to the mains supply if no more welding is to be done.
DO NOT ABUSE THE MAINS LEAD: Never attempt to move the welder by the mains lead or pull it to remove the plug from the mains socket. Keep the mains lead away from heat, oil and sharp edges. If the mains lead is damaged, it must be replaced by the manufacturer or its service agent or a similarly qualified person in order to avoid un- wanted hazards. All extension cables must be checked at regular intervals and replaced if damaged.
CHECK FOR DAMAGED PARTS: Before every use of the welder, any damage found should be carefully checked to determine that it will operate correctly, safely and

perform its intended function. Any damaged, split or missing parts that may affect its operation should be correctly repaired or replaced by an authorised service centre unless otherwise indicated in this instruction manual.
KEEP ALL PANELS IN PLACE: Never operate the welder with the panels removed, this is extremely dangerous.
MAINTAIN THE WELDER WITH CARE: Keep the earth clamp and Electrode Holder clean for the best and safest performance.
USE ONLY RECOMMENDED ACCESSORIES: Consult this user manual, your distributor or SIP directly for recommended accessories. Follow the instructions that accompany the accessories. The use of improper accessories may cause hazards and will invalidate any warranty you may have.
SECURE THE WORK-PIECE: Always use welding clamps to secure the work piece. This frees up both hands to operate the welder correctly.
DO NOT OVERREACH: Keep proper footing and balance at all times.
USE THE RIGHT TOOL: Do not use the welder to do a job for which it was not designed.
DO NOT OPERATE THE WELDER IN EXPLOSIVE ATMOSPHERES: Do not use the welder in the presence of flammable liquids, gases, dust or other combustible sources. Welding will create sparks which can ignite the dust or fumes.
DO NOT EXPOSE THE WELDER TO RAIN OR USE IT IN WET CONDITIONS: Water entering
the welder will greatly increase the risk of electric shock and equipment damage.
HAVE YOUR WELDER REPAIRED BY A QUALIFIED PERSON: The welder is in accordance with the relevant safety requirements. Repairs should only be carried out by qualified persons using original spare parts, otherwise this may result in considerable danger to the user.

- Stop operation immediately if you notice anything abnormal.
- Always disconnect the plug from the mains supply before cleaning or servicing etc. Be alert at all times, especially during repetitive, monotonous operations; Don't be lulled into a false sense of security.
- Use of improper accessories may cause damage to the inverter welder and surrounding area as well as increasing the risk of injury.
- Do not modify the inverter welder to do tasks other than those intended.

- To avoid injury, the work-piece should never be held with bare hands; The work- piece will become hot during normal welding operations, and stay hot for a period after the weld is complete.
- Appropriate personal protective equipment must be worn and must be designed to protect against all hazards created. Severe permanent injury can result from using inappropriate or insufficient protective equipment - Eyes in particular are at risk.
- The work should be clamped firmly whilst welding, If its loose it could result in personal injury or damage to the machine or item that is being welded.
- Do not attempt any repairs to the welder unless you are a qualified electrician or competent service engineer.
- Ensure that the machine is connected to the correct supply voltage and protected by a fuse or circuit breaker of the recommend rating.
- Never allow the earth clamp and electrode holder to come into contact with each other.
- Understand the operating environment; Before each use the operator should assess, understand and where possible reduce the specific risks and dangers associated with the operating environment. Bystanders should also be made aware of any risks associated with the operating environment.
- Electromagnetic fields can interfere with various electrical and electronic devices such as pacemakers; Consult your doctor before using any electric welder or cutting device.
- Keep people with pacemakers away from your welding area when welding. Do not wrap cable around your body while welding.
- If the welder is to be used on business premises - ensure that all local and national regulations are followed concerning the use of portable electrical appliances at work.
- Electric inverter welders have the potential to cause a shock that could lead to injury or death. Touching electrically 'hot' parts can cause fatal shocks and severe burns; While welding, all metal components connected to the welder are electrically 'hot'.

ELECTRIC SHOCK

- Keep your body and clothing dry. Never work in a damp area without adequate insulation against electrical shock, stay on a dry duck board, or rubber mat when dampness or sweat can not be avoided. Sweat, sea water or moisture between the body and an electrically 'hot' part or grounded metal reduces the body surfaces electrical resistance enabling dangerous and possibly lethal currents to flow through the body.
- Never allow live metal parts to touch bare skin or any wet clothing, be sure welding gloves are dry.
- Before welding, check for continuity; Be sure the earth clamp is connected to the work-piece as close to the welding areas as possible. Grounds connected to building frame work or other remote locations from the welding area reduce efficiency and increase the potential electric shock hazard. Avoid the possibility of the welding current passing through lifting chains, crane cables or other electric paths.
- Frequently inspect leads for wear, splits, cracks and any other damage. Immediately replace those with worn or damaged insulation to avoid a possibly lethal shock from bare leads.

FIRE

- During normal operation, the heat and sparks created during the welding process have the potential to ignite flammable liquids, gases or other combustible material least 10 metres away and out of the reach of sparks and heat or protect against ignition with suitable and snug fitting, fire resistant covers or shields.
- Walls touching combustibles on opposite sides should not be welded on, walls, ceilings and the floor near the work area should be protected by heat resistant covers or shields.
- Openings (concealed or visible) in floors or walls within 10 metres may expose combustibles to sparks.
- Combustibles adjacent to walls, ceilings, roofs or metal partitions can be

ignited by radiant or conducted heat.

- After the work is done, check that the area is free of sparks, glowing embers and flames.
- An empty container that has held combustibles, or that can produce flammable or toxic vapours when heated, must never be welded, unless the container has first been cleaned. Consult HSE INDG214, HSG250 and CS15. HSE document CS15 includes information on cleaning by thorough steam or solvent/ caustic cleaning followed by purging and inserting with nitrogen, carbon dioxide or water filling just below working level.
- A container with unknown contents should be treated as if it contained combustibles (see previous paragraph), Do not depend on sense of smell or sight to determine if it is safe to weld.
- Hollow items must be vented before welding as they can explode.
- Explosive atmosphere; Never weld when the air may contain flammable dust, gas or liquid vapours (such as petrol).

GLARES AND BURNS

- The welding arc produces ultraviolet (UV) and infrared (IR) rays as well as extreme temperatures that can cause injury to your eyes and skin. Do not look at the welding arc without proper eye protection.
- The electric welding arc must not be observed with the naked eye. Always use a welding mask; Ensure the welding mask is fitted with the correct shade of filter lens for the welding current level, and covers the entire face from neck to the top of the head.
- Welding gauntlet gloves should be worn to protect the hands from burns, non- synthetic overalls with buttons at the neck and wrist, or similar clothing should be worn. Greasy overalls should not be worn. Wear suitable protective footwear.
- Always wear correctly rated protective clothing which covers all areas of the body; The operator should not weld with any bare skin showing to reduce the chance of burns etc.

- Avoid oily or greasy clothing, a spark may ignite them.
- Hot metal such as electrode stubs and work-pieces should never be handled without gloves.
- First aid facilities and a qualified first aid person should be available for each shift unless medical facilities are close by for immediate treatment of flash burns to the eyes and skin.
- Flammable hair products should not be used by persons intending to weld. Warn bystanders not to watch the arc and not to expose themselves to the welding arc rays or to hot metal.
- Keep children away whilst welding, they may not be aware that looking at an arc can cause serious eye damage.
- Protect other nearby personnel from arc rays and hot sparks with a suitable non- flammable partition.

VENTILATION

- Ventilation is now regulation and must be adequate to remove the smoke and fumes during welding (see the relevant safety regulation for acceptable levels).
- Toxic gases may be given off when welding, especially if zinc or cadmium coated materials are involved, welding should be carried out in a well ventilated area and the operator should always be alert to fume build-up.
- Areas with little or no ventilation should always use a fume extractor.
- Vapours of chlorinated solvents can form the toxic gas phosgene when exposed to UV radiation from an electric arc. All solvents, degreasers and potential sources of these vapours must be removed from the arc area.
- Severe discomfort, illness or death can result from fumes, vapours, heat, oxygen enrichment or depletion that welding (or cutting) may produce. This will be prevented by adequate ventilation or using a fume extractor. NEVER ventilate with oxygen.
- Lead, cadmium, zinc, mercury, beryllium bearing and similar materials when welded may produce harmful concentrations of toxic fumes. Adequate

ventilation must be provided for every person in the area. The operator should also wear an air supplied respirator, for beryllium both must be used.

- Metals coated with or containing materials that emit toxic fumes should not be heated unless coating is removed from the work surface. The area should be well ventilated or the operator should wear an air supplied respirator.
- Work in a confined space only while it is being ventilated and if necessary whilst wearing an air supplied respirator.
- Gas leaks in a confined space should be avoided, leaking gas in large quantities can change oxygen concentration dangerously. DO NOT bring gas cylin ders into a confined space.
- Leaving a confined space you must shut off the gas supply at the source to prevent possible accumulation of gases in the space if down stream valves are left open. Check to be sure that the space is safe before re-entering it.
- Vapours from chlorinated solvents can be decomposed by the heat of the arc (or flame) to form phosgene a highly toxic gas and other lung and eye-irritating products. The ultra violet (radiant) energy of the arc can also de compose tri- chloroethylene and perchlorethylene vapours to form phos gene. DO NOT WELD or cut where solvent vapours can be drawn into the welding atmosphere, or where the radiant energy can penetrate to at mospheres containing even minute amounts of trichloroethylene or per chlorethylene.

When using the welder always ensure the operator as well as those in the area use a welding mask with the correct shade filter lens.

SAFETY INSTRUCTIONS Cont...

Some metals and metal composites have the potential to be highly toxic; always wear a face mask .

CAUTION: The warnings and cautions mentioned in this user manual can not cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be applied.

ELECTRICAL CONNECTION

WARNING! It is the responsibility of the owner and the operator to read, understand and comply with the following:
You must check all electrical products, before use, to ensure that they are safe.
You must inspect power cables, plugs, sockets and any other connectors for wear or damage.
You must ensure that the risk of electric shock is minimised by the installation of appropriate safety devices; A residual current circuit Breaker (RCCB) should be incorporated in the main distribution board. We also recommend that a residual current device (RCD) is used. It is particularly important to use an RCD with portable products that are plugged into a supply which is not protected by an RCCB. If in any doubt consult a qualified electrician.

ELECTRICAL CONNECTION CONT...

This product can be connected to both a 110v and 230v power supply, please ensure the correct plug is used for the desired voltage.

Refer to the specification table on *Page 15* for the limitations of use when operating the machine with a 110v supply

Connecting to the power supply:

This SIP welder is supplied without a plug fitted, it must NOT be connected to a 13A supply, consult the technical specification table for the required rating, if in doubt contact a qualified electrician. Before using the welder, inspect all the leads and plugs to ensure that non are damaged. If any damage is visible have the welder inspected / repaired by a suitably qualified person.

The wires for the plug are coloured in the following way:

Yellow / green	Earth
Blue	Neutral
Brown	Live

As the colours of the wires may not correspond with the markings in your plug, proceed as follows:

The wire which is coloured brown, must be connected to the terminal, which is marked L or coloured red.

The wire which is coloured blue, must be connected to the terminal marked with N or coloured black.

The wire which is coloured yellow / green should be connected to the terminal which is coloured the same or marked with this symbol. 

Always secure the wires in the plug terminal carefully and tightly. Secure the cable in the cord grip carefully.

ELECTRICAL CONNECTIONS Cont...

Warning: The wires in the power cable of this product are coloured in accordance with the following code:

Blue = Neutral Brown = Live Yellow and Green = Earth ⏚

Warning: Never connect live or neutral wires to the earth terminal of the plug. Only fit an approved plug with the correct rated fuse. If in doubt consult a qualified electrician.

Note: Always make sure the mains supply is of the correct voltage and amperage and the correct fuse protection is used. In the event of replacing the fuse always replace the fuse with the same value as the original.

Note: If an extension lead is required in order to reach the mains supply;
ensure that this too is rated for the correct voltage and fuse rating.

Note: The cross section of the extension lead should be checked so that it is of sufficient size so as to reduce the chances of voltage drops.

GUARANTEE

This SIP inverter welder is covered by a 24 month parts and labour warranty covering failure due to manufacturers defects. This does not cover failure due to misuse or operating the welder outside the scope of this manual - any claims deemed to be outside the scope of the warranty may be subject to charges Including, but not limited to parts, labour and carriage costs.

Please register your product online at www.sip-group.com within 28 days to qualify for the full 24 month warranty. Failure to register will result to a limited 12 month warranty period.

Failure to regularly clean your welder will shorten its working life and reduce performance. The warranty does not cover consumable items such as collets, ceramics & clamps etc.

Note: Proof of purchase will be required before any warranty can be honoured.

TECHNICAL SPECIFICATION

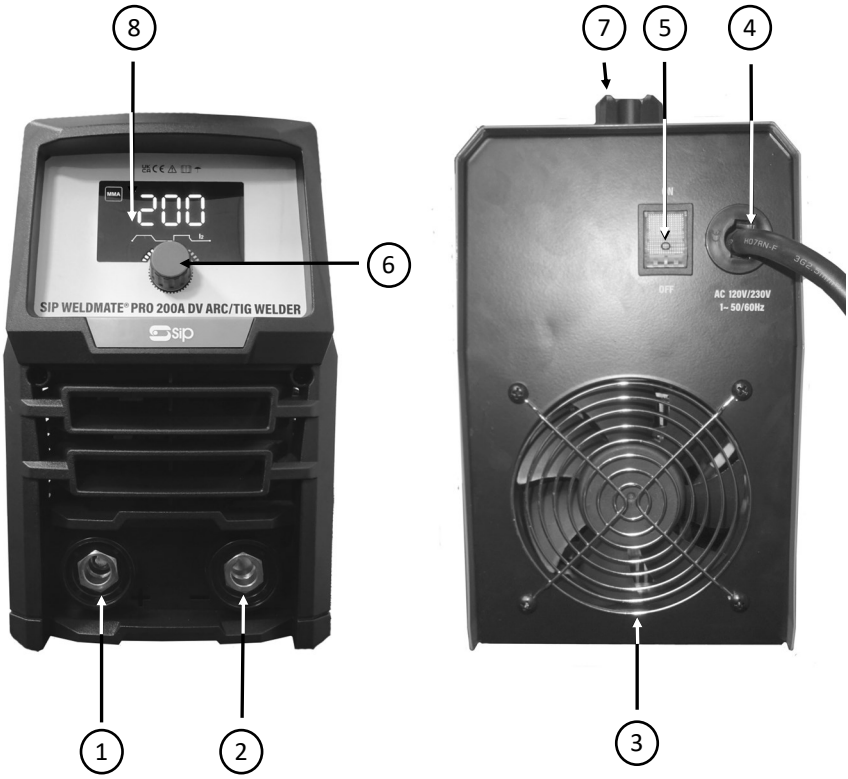
Model	230V	110V
Input Voltage	230V ~ 50Hz	110V ~ 50Hz
Input Current	I_{max} 30A / I_{eff} 13.4A	1_{max} 27A / I_{eff} 12A
OCV	86V	
Output Current - MMA &TIG	10A - 200A	10A - 100A
Output Voltage - MMA	20.4V - 28V	20V - 24V
Welding Thickness	1.5mm - 10.5mm	1.5mm - 5.5mm
Duty Cycle 40°C	200A - 20%	100A - 20%
	114.9A - 60%	72.5A - 60%
	89.5A @ 100%	46A @ 100%
Protection / Insulation	1P21S/H	
Efficient	86%	
Product Dimensions	410x170x310mm	
Packaged Dimensions L-W-H	460x290x380mm	
Weight	GW 9.5kg / NW 8.2kg	

CONTENTS AND ACCESSORIES

1	05691 Weldmate Pro 200A	1	User Manual
1	Electrode holder with lead	1	Earth clamp with lead
1	Chipping Hammer/Wire Brush		

Note: If any of the above are missing or damaged, contact your distributor immediately.

Note: This product DOES NOT come supplied with a Tig Torch, a Tig Torch can be purchased from your SIP Distributor.

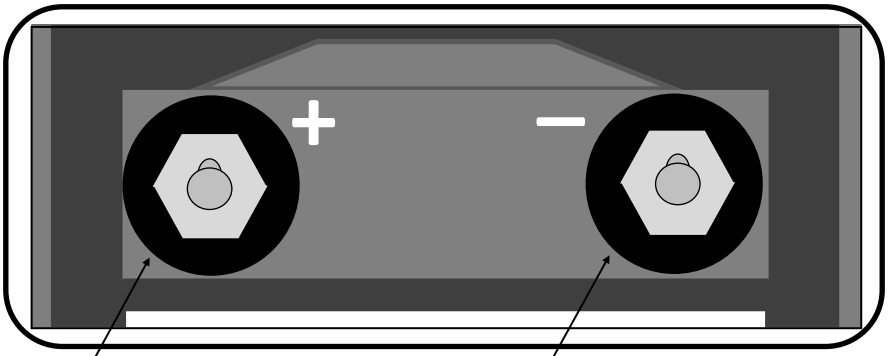


Item	*Description*	*Item*	*Description*
1	Positive Output Socket	5	Power Switch
2	Negative Output Socket	6	Multifunction Control Dial
3	Cooling Fan	7	Carry Handle
4	Power Cable	8	LED Display Screen

MMA (ARC) WELDING QUICK START

- Connect the welding leads.
- Plug the electrode lead into the positive socket and turn to secure.
- Plug the Earth / welding return lead into the negative socket and turn to secure. See Fig .3
- Switch the machine on
- Select “MMA” on the control panel.
- The welding current will be displayed. Adjust the power by turning the large control knob; anti-clockwise to reduce or clockwise to increase.

Fig.3



Positive Welding Socket - Electrode lead connection

Negative Welding Socket - Earth lead connection

There are no hard and fast rules by which a particular gauge of electrode is selected, usually this is determined by the type of welding required and the thickness of the workpiece e.g. *a butt weld in 1.5mm (1/16”) sheet metal can be done by a 1.6mm or 2.0mm electrode, the difference being that the 2.0mm electrode will do the job more quickly.*

The table gives a guide as to which electrode is most suitable according to the material thickness. This table is only a guide, and values given are an indication only. These welding current values are for the E6013 electrodes, for other types of electrode consult their data sheet.

Electrode Size - mm	*Material Thickness - mm*	*Welding Current - A*
1.60	1 - 1.6	25 - 40
2.00	1.6 - 2.6	40 - 70
2.50	2.6 - 4.0	60 - 100
3.25	3.0 - 5.0	80 - 130
4.00	5.0 - 7.0	130 - 170
5.00	7.0 - 9.0	170 - 200

Note: The above is a guide; always try a short weld test at the setting selected. It is normal to make minor adjustments to achieve the required weld.

WELDING CURRENT CONTROL

The welder should be set so that the welding current, electrode diameter and material thickness all match.
Use the above table as a guide.
The welding current adjustment is performed by adjusting the power by turning the large control knob; anti-clockwise to reduce or clockwise to increase the power.

PREPARATION FOR WELDING

Clean the area to be welded, and the earthing point of all rust, paint and contaminants etc.
Place the earth clamp on to a cleaned area of the workpiece.
Connect the welder to the electrical supply but do not switch on.

WELDING

CAUTION: Ensure all protective equipment is worn and bystanders are not in the vicinity

- Switch the welder on.
- Select MMA from the front panel.
- Select your required welding current; the table on page 19 can be used as a guide.
- The welding current adjustment is performed by adjusting the power by turning the large control knob; anti-clockwise to reduce or clockwise to increase the power.
- Fit the correct size welding electrode.

CAUTION: Be aware that the electrode is now live, simply touching any part of the workpiece with the electrode will create a spark.

- Place a welding headshield / headshield over your face (not supplied).
- Initiate the arc by striking the electrode; several attempts may be required.
- Once the arc is started, proceed steadily in one direction keeping the gap between the electrode and workpiece small and constant.
- When the weld is complete simply “break” the arc by pulling the electrode away from the workpiece.
- Whilst wearing protective goggles or a face visor remove the slag from the weld using a chipping hammer and clean the weld using a wire brush.
- Once all work is completed, switch off the machine.

MMA WELDING SETUP

1. Press the “DIAL” on the front of the product.

2. Rotate the dial clockwise or anti-clockwise so “YES” is displayed on the screen.
3. Press the “DIAL” once to select this function

4. Select your “HOT START” setting as a percentage by rotating the dial anti-clockwise to decrease or clockwise to increase
5. Press the “MENU” Button once to select your preference.

Note: **HOT START** The Hot start function values are automatically set to the normal welding values after a predefined period of time. The functionality can be used, for example, when welding thick materials, where using extra power (heat) at the start helps ensure the high quality of the weld

6. Select your “T START” (Timed Start) setting in seconds by rotating the dial anti-clockwise to decrease or clockwise to increase
7. Press the “DIAL” once to select your preference.

8. Select your “ARC FORCE” setting as a percentage by rotating the dial anti-clockwise to decrease or clockwise to increase
9. Press the “DIAL” once to select your preference.

Note: **ARC FORCE** Alters the percentage of arc force in arc welding and refers to the amount of force or control applied to the electric arc between the electrode and the workpiece during welding. This is important for ensuring proper weld penetration, bead formation, and overall stability of the arc.

10. Select your VRD (Voltage Reduction Device) preference, by rotating the dial to select “ON” or “OFF”
11. Press the “DIAL” once to select your preference.

Note: **VRD (Voltage Reduction Device)** is a safety device that reduces the voltage of the electrode when not in use. Using the welder with the VRD on reduces the risk of unintentional striking

12. Select your “ANTISTICK” preference by rotating the dial clockwise or anti-clockwise to select “ON” or “OFF”
13. Press the “DIAL” once to select your preference.

SYNERGIC CONTROL : MMA - ELECTRODE DIAMETER

Note: **Synergic Control ,** the synergic control simplifies the weld setup. Set the electrode diameter in the setting and the welding current is automatically selected. This can still be increased/decreased to your desired power.

1. Press the “DIAL” seven times to take you to the “Electrode” screen
2. Rotate the dial Clockwise or Anti-clockwise to select your electrode thickness using the table on page 19 for reference.

Ø 1.6 ELECTRODE

Ø 2.0 ELECTRODE

Ø 2.5 ELECTRODE

Ø 3.2 ELECTRODE

Ø 4.0 ELECTRODE

Ø 5.0 ELECTRODE

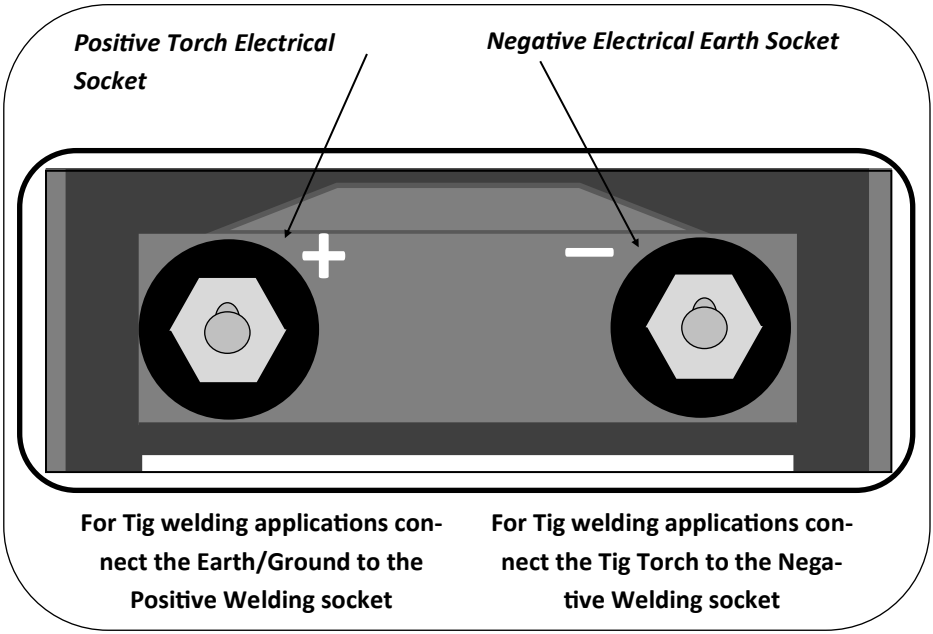
SYNERGIC CONTROL : MMA - MATERIAL THICKNESS

Note: **Synergic Control ,** the synergic control simplifies the weld setup. Set the material thickness in the setting and the welding current is automatically selected. This can still be increased/decreased to your desired power.

1. Press the "DIAL" eight times to take you to the "Material Thickness" screen 
2. Rotate the dial Clockwise or Anti-clockwise to select your desired material thickness.

Note: **Electrode Diameter** must be selected to suit the thickness of material, and welding current. Please use table on Page 19 for guidance.

TIG WELDING



TUNGSTEN INFORMATION

The required tungsten diameter is determined by the thickness of the material to be welded, for each tungsten size there are strict current limits which should be adhered to.

Too great a current causes excessive tungsten consumption and weld pool contamination, whilst a too small a current causes arc instability.

The table gives a guide as to which tungsten is most suitable according to the material thickness. This table is only a guide, and values given are a indication only.

The table also shows the different types of tungsten's, their mode & colour code .

Welding Mode	*Tungsten Type*	*Colour*	*Welding Thickness mm*	*Tungsten Diameter mm*	*Welding Current - Steel / Amps*
AC or DC	Ceriated 2%	Grey	0.5	1.0	30 - 60
AC or DC	Lanthanated 1%	Black	1.0	1.6	50 - 70
AC or DC	Lanthanated 1.5%	Gold	1.5	1.6	90 - 110
AC or DC	Lanthanated 2%	Blue	2.0	1.6	100 - 130
DC	Thoriated 2%	Red	3.0	2.4	120 - 140
DC	Zirconiated	White	4.0	2.4	150 - 200

Note: The above is a guide only; always try a short weld test at the setting selected. It is normal to make minor adjustments to achieve the required weld.

It is important to choose a tungsten with the correct diameter for the current to be used.

The tungsten will normally protrude from the ceramic nozzle by 2 or 3mm; in order to gain access to areas such as internal corners the tungsten can be made to protrude by up to 8mm.

The tungsten should be sharpened facing the grinding wheel, Fig.2.

The tip should be perfectly concentric in order to avoid arc deviations It is best to regularly inspect the tungsten to maintain peak condition.

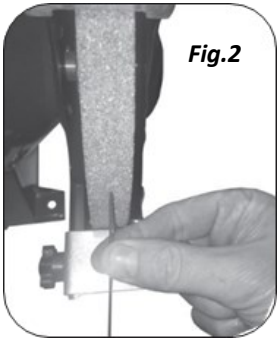


Fig.2

Note: Dust created by grinding tungsten's may require collection and disposal - contact your local authority or the HSE for advice.

PREPARATION FOR WELDING

- Clean the area to be welded, and the earthing point of all rust, paint and contaminants etc.
- Place the earth clamp onto a cleaned area of the workpiece. Fit the ground tungsten into the TIG torch head.
- Connect the regulator (not supplied) onto the gas bottle.
- Connect the gas pipe from the Tig Torch onto the regulator. Turn the regulator on.
- Connect the welder to the electrical supply but do not switch on.

LIFT TIG WELDING

- Switch the welder on.
- Place a Handshield / Headshield over your face (not supplied).
- Initiate the arc - How the arc is initiated will depend on which setting have been used when setting the welding parameters.
- The arc can be initiated by using touching the Tungsten against the workpiece and slowly lifting to draw an arc.
- Once all work has been done, switch the machine and the gas off.

CAUTION: Ensure all protective equipment is worn and bystanders are not in the vicinity

Note: Additional filter rod material will need to be purchased separately. The type required will depend upon the material being welded i.e. Steel, Stainless, Aluminium etc

TIG WELDER SETUP

1. Press the “DIAL” to bring up the TIG symbol is shown in the top left of the screen.
2. Rotate the dial clockwise or anti-clockwise to show the word “YES” press the “Dial” a second time to select this function.

3. Select your welding voltage using the table on “page 28” for reference

Note: The table used on page 28 is for reference only, fine adjustment of the welding current could be required during operation.

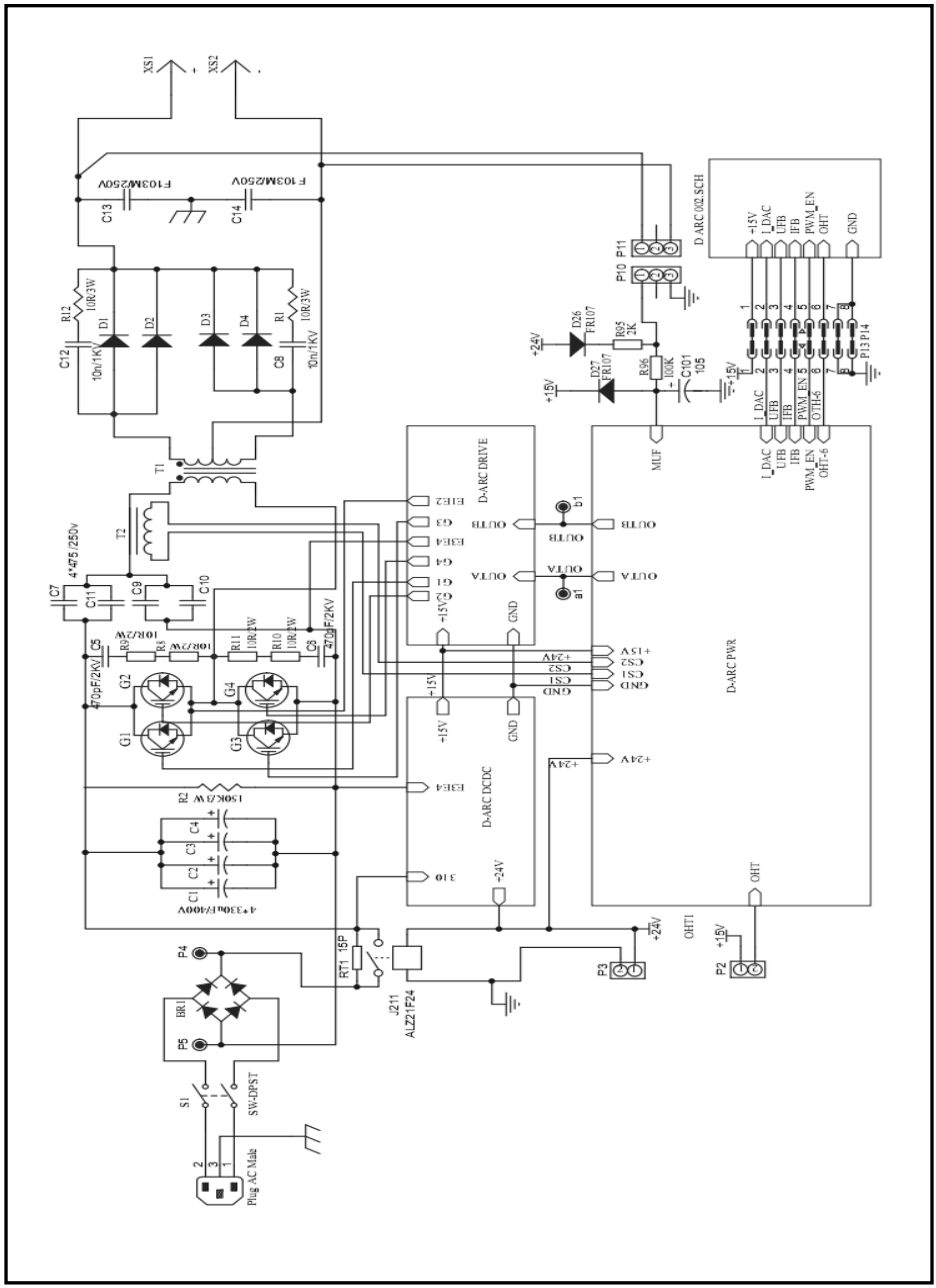
- Clear dust from the machine at regular intervals, if used in a dirty environment the machine should be cleaned at least once a month.
- Check all connections are clean and tight, if there is any oxidization clean the connection with a mild abrasive or wire brush.
- Check all cables for damage or degradation to the insulation, replace if any is found.
- Check earth clamp condition ensure they clamp tightly, replace if damaged or loose.
- If the machine is not to be used for a long time, store it in the original packing a dry place.
- All consumables in the torch must be checked and cleaned / replaced frequently.

TROUBLESHOOTING

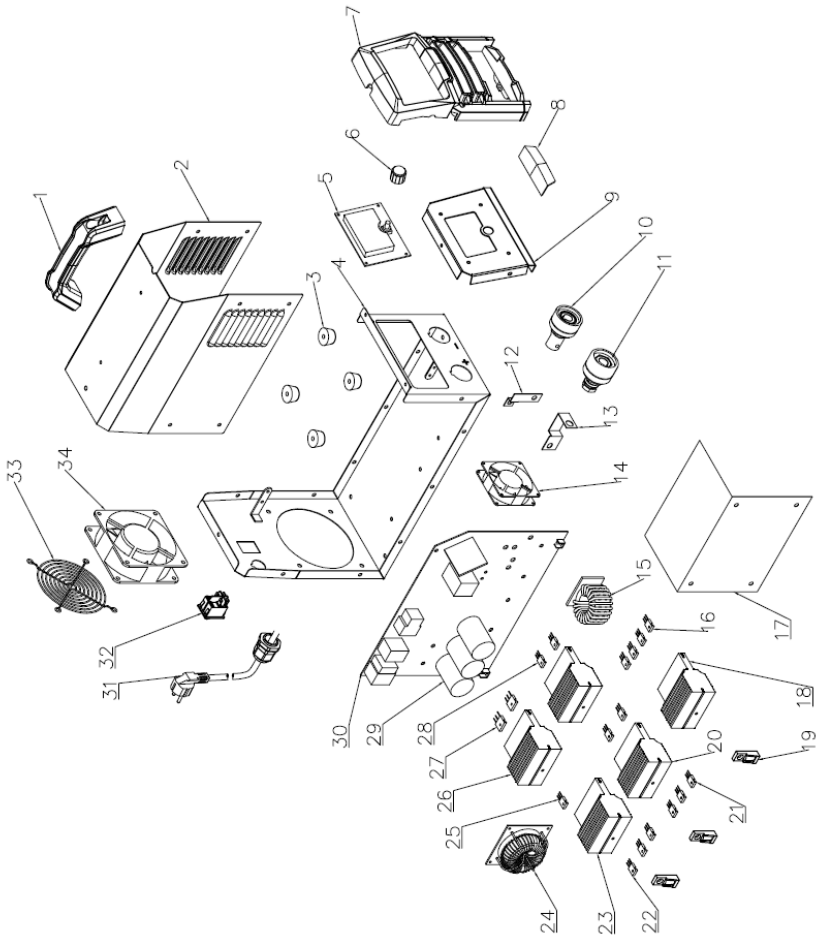
ARC		
Symptom	**Possible Cause**	**Solution**
Alarm light on	Overheated .	Allow the to cool
Difficult to strike an arc	Damp electrode. Incorrect electrode.	Warm the electrode or replace. Select the correct size electrode to match the amperage set on the machine
Burns through thin metal	Material too thin for arc welding.	Use the TIG function

TIG		
Symptom	**Possible Cause**	**Solution**
Quality of weld is poor	No gas flow Incorrect ceramic nozzle Check condition of tungsten	Check gas flow and adjust as required Select correct ceramic nozzle Re-grind to shape or replace
Quality of weld is poor	Fan problem Rear casing blocked, obstructing air flow Poor connection on earth clamp / electrode holder Tungsten does not match collet / collet body	Check Fan connections, replace fan Check and clean Change collet / collet body
Difficult to strike an arc	Tungsten in poor condition	Regrind to shape or replace
Alarm light on	Overheated	Allow the to cool

WIRING DIAGRAM



EXPLODED DRAWING



No.	Description	No.	Description
1	Handle	18	Heat Sync
2	Machine Casing	19	Plastic Support
3	Rubber Foot	20	IGBT Heat Sync
4	Casing Base Plate	21	Fast Recovery Diode
5	Control Panel	22	IGBT
6	Control Knob	23	IGBT Heat Sink
7	Plastic Front Panel	24	Inductor
8	Plastic Front Panel	25	Fast Recovery Diode
9	Front Panel	26	Rectifier Bridge Heat Sync
10	Electrical Socket	27	Rectifier Bridge
11	Electrical Socket	28	IGBT
12	Buzz Bar	29	Electrolytic Capacitor
13	Buzz Bar	30	Main PCB
14	Cooling Fan	31	Power Cable
15	Medium Frequency Transformer	32	Power Switch
16	Fast Recovery Diode	33	Fan Cover
17	Fan Baffle	34	Fan

NOTES

NOTES

UK - DECLARATION OF CONFORMITY

We

SIP (Industrial Products) Ltd
Gelders Hall Road
Shepshed Loughborough
Leicestershire
LE12 9NH
England

As the manufacturer within England, Scotland and Wales, we declare that the

SIP WELDMATE PRO 200A DV MMA/TIG WELDER SIP Item Number 05691

Conforms to the requirements of the following regulation(s), as indicated:

Electromagnetic Compatibility Regulations 2016

Electrical Equipment (Safety) Regulations 2016

The Restriction of the Use of Certain Hazardous Substances in
Electrical & Electronic Equipment Regulations 2012

And the following harmonised standard(s):

BS EN60974-10:2014+A1:2015
BS EN IEC 60974-1:2018/AI:2019

Signed.
Mr. Paul Ippaso
Managing Director
SIP (Industrial Products) Ltd
Date: 29-01-2025

EU - DECLARATION OF CONFORMITY

We

SIP Machinery Europe Ltd
Quayside Business Park
Dundalk
County Louth

As the manufacturer's authorised representative within the EC declare that the

SIP WELDMATE PRO 200A DV MMA/TIG WELDER SIP Item Number 05691

Conforms to the requirements of the following directive(s), as indicated:

EMC 2014/30/EU

Low Voltage Directive 2014/35/EU

RoHS 2011/65/EU & 2015/863/EU

And the following harmonised standard(s):

EN60974-10:2014+A1:2015
EN IEC 60974-1:2018/AI:2019

Signed.
Mr. Paul Ippaso
Managing Director
SIP (Machinery Europe) Ltd
Date: 29-01-2025

CE

Please dispose of packaging for the product in a responsible manner. It is suitable for recycling. Help to protect the environment, take the packaging to the local amenity tip and place into the appropriate recycling bin.

Never dispose of electrical equipment or batteries in with your domestic waste. If your supplier offers a disposal facility please use it or alternatively use a recognised recycling agent. This will allow the recycling of raw materials and help protect the environment.

FOR HELP OR ADVICE ON THIS PRODUCT PLEASE CONTACT YOUR DISTRIBUTOR, OR SIP

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