



# MIG/TIG & MMA (ARC/STICK) INVERTER WELDER 200A

MODEL NO: MIG200i

Thank you for purchasing a Sealey product. Manufactured to a high standard, this product will, if used according to these instructions, and properly maintained, give you years of trouble free performance.

**IMPORTANT:** PLEASE READ THESE INSTRUCTIONS CAREFULLY. NOTE THE SAFE OPERATIONAL REQUIREMENTS, WARNINGS & CAUTIONS. USE THE PRODUCT CORRECTLY AND WITH CARE FOR THE PURPOSE FOR WHICH IT IS INTENDED. FAILURE TO DO SO MAY CAUSE DAMAGE AND/OR PERSONAL INJURY AND WILL INVALIDATE THE WARRANTY. KEEP THESE INSTRUCTIONS SAFE FOR FUTURE USE.



Refer to instruction manual



Wear a welding mask



Wear protective gloves



Wear safety footwear



Wear protective clothing



Electrical shock hazard



Hot surfaces



Do not use in the vicinity of a pacemaker



Welding sparks can cause explosions or fire



Arc rays can burn eyes and injure skin



Breathing welding fumes can be hazardous to your health

## 1. SAFETY

### 1.1. ELECTRICAL SAFETY

- **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. You may obtain a Residual Current Device by contacting your Sealey stockist. You must also read and understand the following instructions concerning electrical safety.
  - 1.1.1. The Electricity at Work Act 1989 requires that all portable electrical appliances, if used on business premises, are tested by a qualified electrician, using a Portable Appliance Tester (PAT), at least once a year.
  - 1.1.2. The Health & Safety at Work Act 1974 makes owners of electrical appliances responsible for the safe condition of those appliances and the safety of the appliance operators. If in any doubt about electrical safety, contact a qualified electrician.
    - ✓ Ensure that the insulation of all cables on the appliance is safe before connecting it to the power supply.
    - ✓ Ensure that cables are always protected against short circuit and overload.
    - ✓ Regularly inspect power supply cables and plugs for wear or damage and check all connections to ensure that none are loose.
    - ✓ Ensure that the voltage marked on the appliance matches the power supply to be used.
    - ✗ **DO NOT** pull or carry the appliance by the power cable.
    - ✗ **DO NOT** pull the plug from the socket by the cable.
    - ✗ **DO NOT** use worn or damaged cables, plugs or connectors. Have any faulty item repaired or replaced immediately by a qualified electrician.
  - 1.1.3. We recommend connection to a supply with a type C breaker. If in doubt you must contact a qualified electrician to ensure that a suitably rated supply is available.
- **WARNING!** Be very cautious if using a petrol or diesel generator. The generator must be stable with regard to frequency (Hz), voltage and wave form. The output must be higher than the power (kVA) of the inverter. The generator must also be self regulating. If any A.M. feature is not respected the working of the regulation card may be affected. Use of a generator without a regulator may be dangerous and will invalidate your inverter warranty.

### 1.2. GENERAL SAFETY

#### 1.2.1. OPERATOR SAFETY

- ✓ Operators must receive adequate training before using the inverter.
- ✓ Remove ill fitting clothing, remove ties, watches, rings and other loose jewellery and contain long hair.
- ✗ **DO NOT** operate the inverter while under the influence of drugs, alcohol or intoxicating medication, or if tired.
- ✓ Stand correctly keeping a good footing and balance, ensure that the floor is not slippery and wear non-slip shoes.
- ✓ Keep unauthorised persons away from the work area. Any persons working within the area must wear the same protective items.
- ✓ Avoid oily greasy clothing. A spark may ignite them.
- ✗ **DO NOT** touch the work piece close to the weld as it will be very hot. Allow to cool.
- ✗ **DO NOT** touch the electrode holder immediately after use. Allow the electrode holder to cool.
- ✓ Wear safety welding gauntlets.
- **WARNING! DO NOT** place the welding power source on a tilted plane as this may lead to the unit toppling over.
- ✓ The output is rated at an ambient temperature of 20°C and the welding time may be reduced at higher temperatures.
- ✓ Risk of electric shock: Electric shock from welding electrode can kill. **DO NOT** weld in the rain or snow. Wear dry insulating gloves.
- ✗ **DO NOT** touch electrode with bare hands. **DO NOT** wear wet or damaged gloves. Protect yourself from electric shock by insulating yourself from workpiece. **DO NOT** open the equipment enclosure.
- ✓ Use genuine parts and accessories only. Unapproved parts may be dangerous and will invalidate the warranty.

- ▲ **DANGER! DO NOT** weld near flammable materials, solids, liquids, or gases, and **DO NOT** weld containers or pipes which have held flammable materials or gases, liquids or solids. Avoid operating on materials cleaned with chlorinated solvents or near such solvents.
- × **DO NOT** use power source for pipe thawing.
- ▲ **DANGER!** Vapours from chlorinated solvents (such as de-greasers) can be decomposed by the heat of the arc to form PHOSGENE, a highly toxic gas, and other lung and eye irritating products.  
The ultraviolet (radiant) energy of the arc can also decompose trichloroethane and perchloroethylene vapours to form phosgene.
- × **DO NOT** weld where solvent vapours can be drawn into the welding or cutting atmosphere or where the radiant energy can penetrate to atmospheres containing even minute amounts of trichloroethylene or perchloroethylene.
- ✓ Prevent dangerous conditions arising by providing adequate ventilation. **NEVER** ventilate with oxygen.
- ▲ **DANGER!** Lead-, cadmium-, zinc-, mercury- and beryllium-, bearing materials, when welded (or cut) may produce harmful concentrations of toxic fumes. Adequate local exhaust ventilation must be used, or each person in the area as well as the operator must 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 is well ventilated, or the operator wears an air-supplied respirator.
- × **DO NOT** work in an unventilated confined space. If necessary, wear an air-supplied respirator.
- **WARNING!** Generator engine exhaust must be vented to the outside air. Carbon monoxide can kill.
- ✓ When not in use store the welder in a safe, dry, childproof area.
- 1.2.2. CABLE CONNECTIONS**
- ✓ Keep the inverter and cables in good working order and condition. Take immediate action to repair or replace damaged parts.
- ✓ Ensure that there is no obstruction to the flow of clean, cool air and ensure that there are no conductive dusts, corrosive vapours or humidity which could enter the inverter and cause serious damage.
- 1.2.3. PROTECTION FROM ARC**
- **WARNING!** Use welding head shield to protect eyes and avoid exposing skin to ultraviolet rays given off by electric arc. Looking at an arc momentarily with unprotected eyes (particularly a high intensity gas-shielded arc) can cause a retinal burn that may leave a permanent dark area in the field of vision.
- ✓ Before welding whilst wearing contact lenses, seek advice from your optician.
- ✓ Avoid unintentional contact with workpiece. Accidental or uncontrolled arcing on the electrode holder may be dangerous.
- × **DO NOT** hit the electrode on the workpiece, this may damage the electrode and make strike-up difficult.
- ✓ Wear safety welding gauntlets.
- 1.2.4. WELDING ENVIRONMENT**
- ✓ Locate the inverter in a suitable work area.
- ✓ Keep the work area clean and tidy and free from unrelated materials. Also ensure that the work area has adequate lighting.
- × **DO NOT** get inverter wet or use in damp or wet locations or areas where there is condensation.
- ✓ First aid facilities and a qualified first aid person should be available during welding operations.
- ✓ For production welding, a separate room or enclosed bay should be provided. In open areas, surround the operation with low reflective, non-combustible screens or panels. Allow for free air circulation, particularly at floor level. Provide face shields for all persons who will be looking directly at the weld. Before starting to weld, make sure that screen or bay doors are closed.
- ✓ Always ensure that there is full free air circulating around the outer casing of the machine, and that the louvres are unobstructed.
- 1.2.5. FIRE HAZARD**
- **WARNING!** Be aware that flying sparks or falling slag can pass through cracks, along pipes, through windows or doors, and through wall or floor openings, out of sight of the operator. Sparks and slag can fly 10m.
- × **DO NOT** weld within 10 metres of combustible materials (including building construction materials).
- × **DO NOT** weld adjacent to openings (concealed or visible) in floors or walls within 10m that can expose combustibles to sparks.
- × **DO NOT** weld near to walls, ceilings, roofs or metal partitions where there are combustibles that can be ignited by radiant or conducted heat.
- ✓ Have suitable fire extinguishing equipment available and someone to use it during welding operations and for some time after welding ceases. After work is done, check that area is free of sparks, glowing embers, and flames.
- 1.2.6. PRODUCT CARE & MAINTENANCE**
- × **DO NOT** attempt to fit any unapproved electrode holder, components, or parts to the inverter unit.
- ✓ Keep the inverter clean for best and safest performance.
- **WARNING!** If the case is opened for maintenance or repair, wait 10-15 seconds after the unit is switched off for the capacitor to discharge.
- 1.2.7. TRANSPORTATION**
- The machine should be transported in an upright position.**
- NOTE:** Always move the inverter by lifting it from its handle. Never pull it by the welding gun or cables.
- 1.2.8. ENVIRONMENT**
- The machine is suitable for both indoor and outdoor use. But it should be protected from heavy rain and sunshine. Store the machine in a dry and clean environment and protect it from sand and dust during use and storage. The recommended operating temperature range -20°C-+40°C.  
Place the machine in such a way that it does not come in contact with hot surfaces, sparks and spatters.  
Make sure the air flow in the machine is unrestricted.
- 1.2.9. WELDING CABLES**
- The welding cables should be kept as short as possible and should be positioned close together, close to the floor level.
- 1.2.10. EARTHING OF THE WORK PIECE**
- Where the work piece is not bonded to earth for electrical safety, nor connected to earth because of its size and position, e.g. ship's hull or building steel work, a connection bonding the work piece to earth may reduce emissions in some. But not all instances. Care should be taken to prevent the earthing of the work piece increasing the risk of injury to users, or damage to other electrical equipment. Where necessary, the connection of the work piece to earth should be made by direct connection to the work piece.
- **WARNING!** Hot metal such as electrode stubs and workpieces should never be handled without gloves.

## 2. INTRODUCTION

IGBT Inverter fan-cooled DC power supply for MIG/TIG and MMA/ARC welding applications up to 200A. Multi-functional welder bringing together MIG/TIG and MMA application all into one compact unit ideal for workshops, garages, bodyshops and mobile technicians. Ultra-compact and lightweight unit weighing just 11.1kg approx. Supplied with handle making this unit highly portable allowing the welder to be taken to the job at hand. Featuring hot start, anti-stick, forced air cooling and thermal cut out protection. Unit can MIG weld using 5kg  $\varnothing 0.8/\varnothing 0.9/\varnothing 1.0$ mm solid wire and flux cored MIG wire, MMA/ARC weld  $\varnothing 1.6$  up to  $\varnothing 4.0$ mm electrode. Supplied with non-live MIG torch 2.8m, 1.4m earth cable/clamp, 1.6m electrode holder.

## 3. SPECIFICATION

Model No	MIG200i
Absorbed Power	7.7kw
Applicable Standards	EN IEC 60974-10:2021 EN IEC 60974-1:2018+A1:2019
Class of insulation	H
Duty Cycle Mig	200A @ 60%, 154A @ 100%
Duty Cycle MMA	170A @ 60%, 131A @ 100%
Duty Cycle TIG	170% @ 60%, 131A @ 100%
Efficiency of the product:	85%
Electrode Capacity	$\varnothing 1.6-4$ mm
EMC classification	Class A
IP Rating	IP21S
Nett Weight	11.1kg
Plug Type	Bare Wire
Pollution Degree	3
Power Supply Cable Length	2m
Static Characteristic	Drooping
Welding Current	50-200A
Wire Capacity	5kg

## 4. CONTENTS



\* To achieve maximum power 16A supply may be required.

## 5. OPERATION


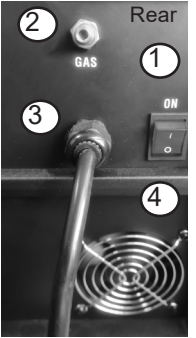
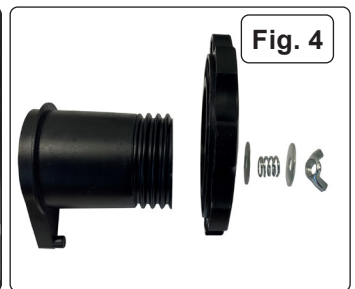
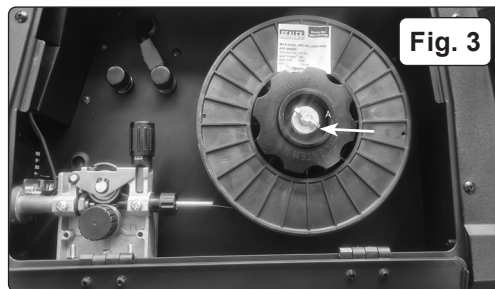
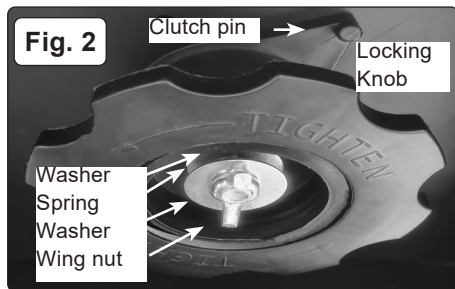
- ❑ **WARNING!** Ensure that the inverter is not plugged into the mains power supply before connecting or disconnecting cables. For electrical installation, see Safety Instructions (Section 1).
  - ❑ **WARNING!** Failure to follow the electrical safety instructions may affect the operating performance and could damage the built-in safety system which, in turn, could result in personal injury or fatality and will invalidate the warranty.
- 5.1. WELDING CABLE “ELECTRODE HOLDER” CONNECTION**
- 5.1.1. Before connecting cables it is important to refer to the electrode manufacturer’s instructions on the electrode packaging which will indicate the correct polarity connection for the electrode, together with the most suitable current to use.
- 5.1.2. The welding cables should be kept as short as possible and should be positioned close together, running at or close to the floor level.
- 5.1.3. EARTHING OF THE WORK PIECE**
- 5.1.4. Where the work piece is not bonded to earth for electrical safety, nor connected to earth because of its size and position, e.g. a ship’s hull or building steel work, a connection bonding the work piece to earth may reduce emissions in some, but not all instances. Care should be taken to prevent the earthing of the work piece increasing the risk of injury to users, or damage to other electrical equipment. Where necessary, the connection of the work piece to earth should be made by direct connection to the work piece. But in some countries where direct connection is not permitted, the bonding should be achieved by suitable capacitance, selected according to national regulations.

**5.1.5. FRONT/ REAR PANELS see Fig.1**

5.1.6. Rocker switch. Turns mains power on and off.

**NOTE:** Familiarize yourself with the location and purpose of the controls on this unit before attempting to operate.

Front	A	Wire feed speed adjustment
	B	Current adjustment dial
	C	Wire speed
	D	Working voltage and 2T/4T switching display
	E	Overheat light
Rear	1	ON/OFF switch
	2	Gas connection
	3	Power Cable
	4	Fan cover

**5.2. FITTING A 5KG REEL OF WIRE**

- 5.2.1. Open the left side of the case by pulling down both side casing catches.
- 5.2.2. Ensure that the wire diameter used, is matched by the correct groove size in the drive wheel and the correct tip size on the torch as well as the correct torch liner. Failure to do this could cause the wire to slip and/or bind.
- 5.2.3. Remove nut Fig.3 (A) from the end of the spindle. Remove retaining assembly and spring and washers. Unscrew locking knob and slide spacer off from spindle.
- 5.2.4. Slide the reel of wire over the spindle and hold it against the back plate so that the hole in the reel rests on the clutch pin. (See Fig.2.).
- 5.2.5. Ensure that the wire is coming off the bottom of the reel in the direction of the wire drive unit as shown in Fig.5.
- 5.2.6. Slide spacer onto the spindle and screw the locking knob back into place. (See Fig.4). Replace retaining assembly and spring into place.
- 5.2.7. Place the retaining assembly back into the spindle. Re-tighten bolt (A).

**5.3. FEED WIRE THROUGH TO TORCH**

- 5.3.1. Open the wire feed mechanism by pushing the locking/wire tension knob (1) down to the right allowing the pressure roller carrier (2) to spring up revealing the feed roller as shown in Fig.6. Ensure that the required feed groove (0.6 0.8) is in line with the wire path. See Section 5.6 on how to reverse or change the roller.
- 5.3.2. Release the wire from the reel and cut off any bent portion ensuring that there are no burrs left on the end of the wire. Keep the wire under tension at all times to prevent it uncoiling.
- 5.3.3. Straighten about 40-50mm of wire and gently push it through the flexible metal sheathed cable, Fig.6 (3) and through the 6 or 8mm feed roller groove and on into the torch cable liner.
- 5.3.4. Push down the pressure roller carrier onto the wire feed roller and hold it down. Lift up the locking/wire tension knob so that it enters the slot in the pressure roller carrier and snaps into the indent in its top surface. See Fig.8. Rotate the tension knob to medium setting i.e. between 2 and 3.
- 5.3.5. Remove gas cup (Fig.7-2) and contact tip (1) from end of torch as follows:

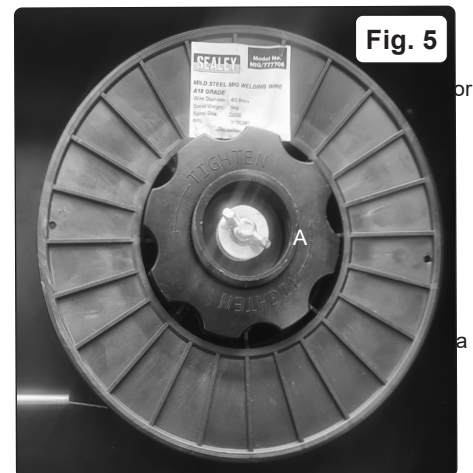
- a) Take torch in left hand with the torch tip facing to the right.
- b) Grasp gas cup firmly in your right hand.
- c) Turn gas cup clockwise only and pull it off end of torch tip.
- ❑ **WARNING! DO NOT** turn gas cup anti-clockwise, as this will damage the internal spring.
- d) Unscrew copper contact tip (right hand thread) to remove.

Check welder is switched off 0, and that the earth clamp is away from the torch tip. Connect the welder to the mains power supply and set the voltage switch to one.

Set the wire speed knob to position 5 or 6. Keep the torch cable as straight as possible and press the torch switch. The wire will feed through the torch.

When the wire has fed through, switch welder off, unplug from mains.

- a) Take torch in left hand, slide the contact tip over the wire and screw back into place.
- b) Grasp gas cup in right hand, push onto torch head and turn clockwise only.
- \* **DO NOT** turn gas cup anti-clockwise, as this will damage the internal spring.
- c). Cut wire so that it is just protruding from the cup.



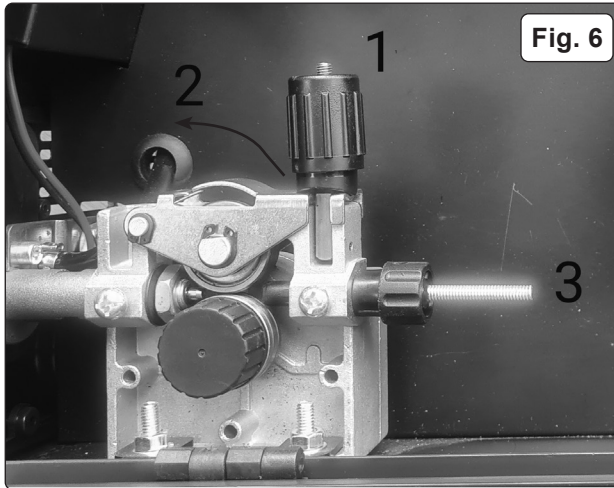


Fig. 6

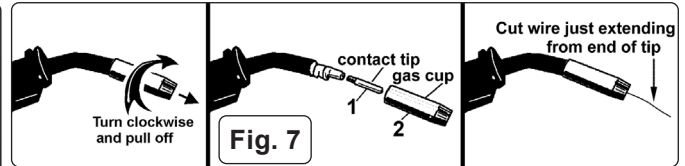


Fig. 7

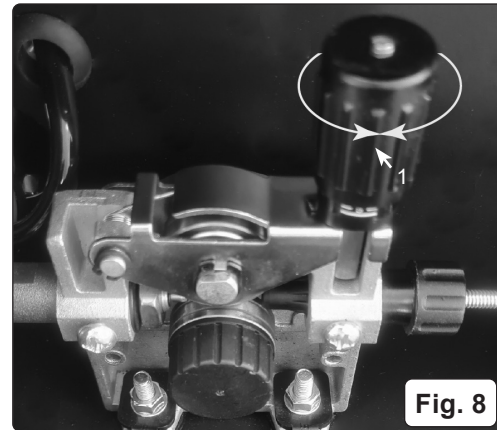


Fig. 8

#### 5.4. SETTING WIRE TENSION

- 5.4.1. Adjust the wire tension by rotating the wire tension knob. Turn clockwise to increase the tension and anticlockwise to decrease the tension. See (1) in Fig.8.

**IMPORTANT:** Too little or too much tension will cause problematic wire feed and result in poor welding.

- 5.4.2. Tension between rollers is checked by slowing down the wire between gloved fingers. If top feed roller skids the tension is correct. Use as low a tension as possible, too high a tension will disfigure wire and result in a blown fuse.

#### 5.5. CLUTCH ADJUSTMENT

**NOTE:** It is essential that the clutch is adjusted correctly.

- 5.5.1. Once the wire is fed through the torch, switch on the machine and set the wire speed to maximum.  
 5.5.2. Depress torch switch and release quickly. If the spool overruns it indicates that the clutch is too loose.  
 5.5.3. Tighten the clutch bolt located in the centre of the wire spool holder hand tight (Fig.5-A) and test the machine as above until the wire stops over running.

**NOTE: DO NOT** over tighten the clutch as this will cause wire feed problems and strain the motor.

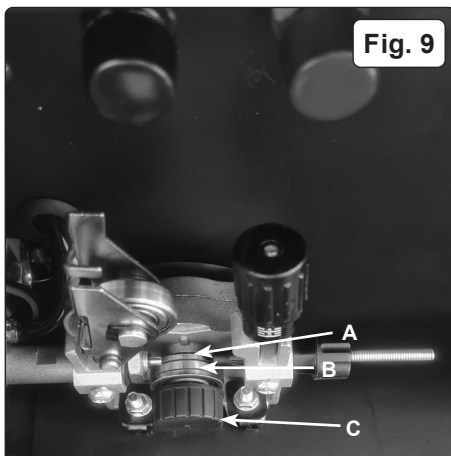


Fig. 9

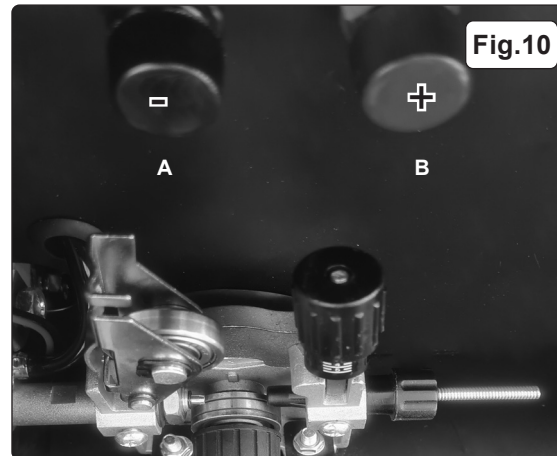


Fig.10

#### 5.6. TURNING/CHANGING THE DRIVE ROLLER (See Fig.9)

- 5.6.1. Ensure that the wire diameter used, is matched by the correct groove size in the drive roller and the correct tip size on the torch as well as the correct torch liner. Failure to do this could cause the wire to slip and/or bind.  
 5.6.2. Referring to Fig.6, open the wire feed mechanism by pushing the locking/wire tension knob (1) down to the right allowing the pressure roller carrier (2) to spring up revealing the feed roller.  
 5.6.3. Referring to Fig.9, loosen and unscrew the black feed roller retaining knob (C) and put to one side.  
 5.6.4. The roller carrier (A) is keyed to the main drive shaft and the drive roller (B) is keyed to the carrier. Place a finger onto the end of the drive shaft to prevent the carrier moving and slide the drive roller off the carrier with your other hand.  
 5.6.5. The size of each wire feed groove is printed on the edge of the roller on the same side as the groove.  
 5.6.6. Turn the roller over to use the other groove or use a roller with different sized grooves as required. The groove to be used should be positioned furthest away from you to be in line with the drive path.  
 5.6.7. Check that the key in the carrier (A) is properly seated in its slot. Ensure that the slot on the inside face of the drive roller (B) is aligned with the key and slide the roller back onto the carrier.  
 5.6.8. Screw the black roller retaining knob (C) back on to the end of the drive shaft and tighten.

Front	A	Wire feed speed adjustment
	B	Current adjustment dial
	C	Wire speed
	D	Working voltage and 2T/4T switching display
	E	Overheat light
Rear	1	ON/OFF switch
	2	Gas connection
	3	Power Cable
	4	Fan cover

Front



Fig. 1



## 5.7. MIG WELDING

5.7.1. Fig.1 A shows wire feed speed control, Fig.1 B shows volt adjustment. Before you press torch switch, Fig.1C shows wire feed speed, Fig.1 D shows preset volt, you can select 2T or 4T. (Note: 2T means when you press the torch switch the machine works, when you release the torch switch, the machine stops working. 4T means when you press the torch switch, the machine works continuously, when you release the torch switch, machine keeps working; and when pressing the torch switch a second time the machine will stop working.)

**NOTE:** When you press torch switch, C shows real time current, Fig.1 D shows real time working volts.

## 5.8. MIG SETUP (Fig.11)

5.8.1. Solid Wire Setup.

5.8.2. This set up is known as DC Electrode Positive (straight polarity).

5.8.3. This is commonly used for DC MIG welding.

5.8.4. When installing wire, remove contact tip from MIG gun first, after wire is sent out, put the contact tip back.

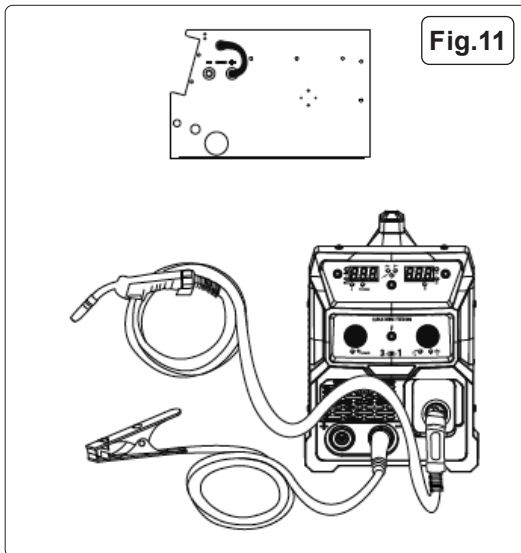


Fig.11

## 5.8.5. FLUX-CORED WIRE SETUP (Fig.12)

5.8.6. This set up is known as DC Electrode Negative (reverse polarity). This is commonly used for DC Flux Core welding.

5.8.7. When installing wire, remove contact tip from MIG gun first, after wire is sent out, put the contact tip back.

**NOTE:** Connect the earth clamp to the positive polarity..

## 5.8.8. THE MIG SOLID WIRE AND FLUX CORE PROCESSES UTILISE DIFFERENT POLARITIES.

5.8.9. To change between them follow these instructions:

5.8.10. Make sure the machine is unplugged from the power receptacle.

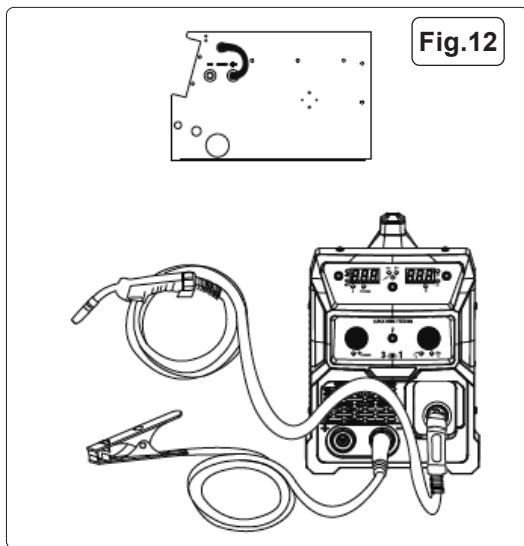
5.8.11. Open the door to the machine.

5.8.12. Remove the polarity terminal knobs.

5.8.13. Set up the polarity (as per graphics above) by removing the leads from the terminals and reversing them if necessary.

5.8.14. Replace the polarity terminal knobs.

**NOTE: ENSURE THAT POLARITY TERMINAL KNOBS ARE TIGHTLY SECURED AND THAT THERE IS NO CONNECTION BETWEEN THE CABLES.**



**5.8.15. GAS CONNECTOR**

5.8.16. When using the MIG welding process (solid wire) a shielding gas is required. Familiarise yourself with the location of the “Back Panel” tapered nozzle gas connector before attempting to operate (Fig.1)

**5.8.17. STICK WELDING**

5.8.18. Fig.1 A is now inoperative, Fig.1 B shows amp adjustment, Fig.1C shows current, Fig.1 D shows volts. You can choose to turn on the VRD or as required.

**5.8.19. STICK SETUP Fig.12A**

5.8.20. Connect the electrode holder to the positive polarity and the earth clamp to the negative polarity, which is commonly used for STICK welding on most materials, such as low carbon steel and low alloy steel.

**5.8.21. STICK WELDING**

5.8.22. Turn on power switch on back panel, fan now operates.

5.8.23. Make sure function switch of front panel is on “correct” position which is stick welding.

5.8.24. Make sure welding current is adequate for thickness of work piece.

**5.8.25. TIG WELDING**

5.8.26. Fig.1 A is now inoperative, Fig.1 B shows amp adjustment, Fig.1 C shows current, Fig.1 D shows volts. In the meantime, VRD light is on.

**5.8.27. TIG SETUP**

5.8.28. Connect the earth clamp to the positive polarity, and the TIG welding torch to the negative polarity.

5.8.29. Turn on the power switch on the back panel, digital current meter is normal, fan starts.

5.8.30. Open the valve of argon cylinder, adjust the volume of regulator and adjust.

5.8.31. Turn on the flow switch on the TIG gun, and check the argon gas is flowing from the torch burner.

5.8.32. Set suitable welding current and make sure welding current is adequate to the thickness of work piece and process demand.

5.8.33. Touch the tungsten needle to the work piece and then lift up, burn and strike arc. The inverter welder can be now operated.

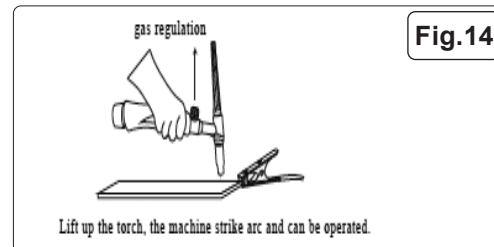
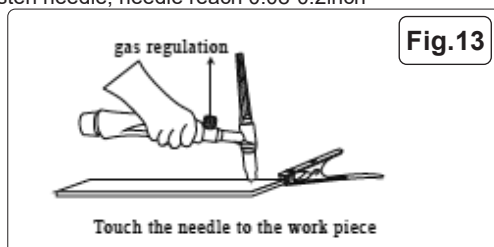
**NOTE:** When welding is complete, argon gas will still flow out for several seconds in order to protect welding spot before its cooled down. So torch must be kept in welding position until flame is extinguished.

**5.8.34. TIG USE OF TORCH (Not included.)**

**5.8.35. PREPERATION FOR TIG**

5.8.36. Install tungsten needle, needle reach 0.08-0.2inch

5.8.37. See Fig.13



5.8.38. Lift up the torch, the machine strike arc and can be operated see Fig.14.



## 6. MAINTENANCE

### 6.1. DAILY MAINTENANCE

- ❑ **WARNING!** Before removing the welding machine panels switch off the machine and disconnect it from the mains power supply. Wait 10-15 seconds after the unit is switched off for the capacitor to discharge.
  - ❑ **WARNING!** Before carrying out routine maintenance, switch off the welding and disconnect it from the mains power supply.
  - ❑ **WARNING!** If the welding machine is not functioning properly repairs should be carried out only and by authorised service engineers.
- 6.1.1. Remove welding splatter from the welding gun's tip and check the condition of the parts. Replace any damaged parts immediately.
  - 6.1.2. Check that the insulation tips of the welding gun's neck are undamaged and in its place. Change any damaged parts.
  - 6.1.3. Check the tightness of the welding gun's and earthing cable's connection.
  - 6.1.4. Check the supply voltage and welding cable and replace faulty cables.
  - 6.2. Periodically remove the casing and, with a low pressure air flow (max 1bar or 15psi), remove dust from inside the machine.
    - ✖ **DO NOT** direct compressed air onto the electronic circuit boards, these should be cleaned with a very soft brush.
  - 6.3. Ensure that all electrical connections are tight and check the wiring for damage to the insulation.
  - 6.4. Ensure that the casing is correctly replaced and secured before attempting to use the inverter.
  - 6.5. Keep the outside of the machine clean by wiping with a soft, dry cloth.
  - 6.6. For any other service or maintenance, contact your local Sealey service agent.
  - 6.7. Put the machine into the original packing in dry location if it is not to be used for a long time.

### 6.8. MAINTENANCE OF THE EQUIPMENT

- 6.8.1. The equipment should be routinely maintained according to these instructions. All access and service covers should be closed and properly fastened when the welding equipment is in operation.  
The welding equipment should not be modified in any way except for those changes and adjustments covered in these instructions. In particular, the spark gaps of any arc striking and stabilising devices should be adjusted and maintained according to their instructions.

## 7. TROUBLESHOOTING

FAULT	CAUSE
The wire does not move or wire entangles.	Feed rollers, wire conduit or contact tips are defective. Check that the feed rollers are not too tight or too loose. Check that the feed roller isn't worn. Check that the wire liner is not blocked. Check that there are no splatters on the conduit tip and that the hole is not cramped or worn loose.
Main switch indicator light does not switch on.	No supply voltage. Check fuses.
Machine welds badly.	Welding outcome is influenced by following factors. Check the trimming settings of the welding power control and arc length. Check that the earthing clamp is fixed properly also the fixing point is clean and the connections are undamaged. Check the flow of shielding gas from the tip of the welding gun. Supply voltage is uneven or too high or too low.
Overheating indicator light comes on.	The machine has overheated. Check that the cooling air can flow without obstructions. Machine volume - capacity has been exceeded; wait for indicator light to switch off. The supply voltage is to high or low.

## 8. RATING PLATE

On the front panel of the welder is the ratings plate, giving the following data:

- 1 - The BS/EU standard relating to the safety and construction of arc welding and associated equipment.
- 2 - Single phase transformer.
- 3 - Symbol indicates welding with a continuous flow of welding wire.
- 4 - Symbol for Single-phase AC supply.
- 5 - Rating of internal protection provided by casing.
- 6 - Output  $U_0$  Rated minimum and maximum no load voltage.  
 $I_2$ ,  $U_2$  Current and corresponding voltage.  
X Welding ratio based on a 10 minute cycle.  
20% indicates 2 minutes welding and 8 minutes rest,  
100% would indicate continuous welding.
- 7 - Mains Supply  
 $U_1$  Rated supply voltage and frequency.  
 $I_{1max}$  Maximum current.  
 $I_{1eff}$  Maximum effective current.
- 8 - Welding current range.
- 9 - Serial Number. Specifically identifies each welder.

②	Model No	B/N:				⑨	
		EN60974 - 1				①	
③		30A/15.5V ~ 160A/22V				⑧	
		X	15%	60%	100%	⑥	
	$U_0 = 32V$	$I_2$	160A	80A	62A		
		$U_2$	22V	18V	17.1V		
④		$U_1 = 230V$	$I_{1max} = 32A$	$I_{1eff} = 12.39A$		⑦	
⑤	IP21S						

For Illustration Only





#### ENVIRONMENT PROTECTION

Recycle unwanted materials instead of disposing of them as waste. All tools, accessories and packaging should be sorted, taken to a recycling centre and disposed of in a manner which is compatible with the environment. When the product becomes completely unserviceable and requires disposal, drain any fluids (if applicable) into approved containers and dispose of the product and fluids according to local regulations.



#### WEEE REGULATIONS

Dispose of this product at the end of its working life in compliance with the EU Directive on Waste Electrical and Electronic Equipment (WEEE). When the product is no longer required, it must be disposed of in an environmentally protective way. Contact your local solid waste authority for recycling information.

**Note:** It is our policy to continually improve products and as such we reserve the right to alter data, specifications and component parts without prior notice.

**Important:** No Liability is accepted for incorrect use of this product.

**Warranty:** Guarantee is 12 months from purchase date, proof of which is required for any claim.

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