

GASLESS 120A MIG INVERTER MULTI WELDER

70049



Important: This document provides a brief overview of the product and the relevant safety information. Read the accompanying instruction manual in full before using this product.

1. Intended Use

This machine is designed for welding MMA and gasless MIG welding operations requiring up to 120A of current.

Important: Gasless MIG welding requires a gasless flux-cored welding wire.

Important: A 16A plug **MUST** be fitted by a qualified electrician before use.

2. Summary of Safety Instructions

- WARNING!** NEVER direct the product towards any person or animal.
- WARNING!** NEVER support the workpiece or welding unit with your hands or body during operation.
- WARNING!** UV and IR radiation generated by welding is highly damaging to eyes and skin. ALWAYS wear suitable protective equipment for your eyes, face and body. Radiation may penetrate through lightweight clothing.
- WARNING!** This product generates a magnetic field that may interfere with pacemakers and other such equipment. Seek professional medical advice before use.
- WARNING!** If you detect any kind of electrical shock from this product, stop using it IMMEDIATELY.
- WARNING!** DO NOT leave the machine running with the cables still attached. NEVER leave the machine unsupervised while on.
- WARNING!** Gases and fumes produced by welding operations are dangerous.
 - DO NOT inhale these substances; seek immediate medical attention if you feel unwell.
 - Chemical reactions involving these substances may produce toxic or explosive environments. Ensure that the environment is well-ventilated and free from potentially hazardous substances.
 - Avoid welding zinc-plated and galvanised metals as they may produce toxic fumes.

- Use a residual current device (RCD) with this product.
- Allow at least 50cm of free space around all sides of the product.
- **DO NOT** use this tool in explosive atmospheres or around existing or residual flammable or pressurised substances.
- **DO NOT** expose this product to or use it in wet conditions and ensure that you are not in contact with any wet surface during operation.
- Wear isolating, heat-resistant gloves and footwear, a certified welding helmet with appropriate ocular protection and long, flame-resistant sleeves and trousers during use.
- Assess the need for suitable hearing protection before each use.
- Disconnect the product from the power supply and allow at least five minutes for it to cool before opening any panels or performing adjustments or maintenance.
- **NEVER** handle or change electrodes with bare hands or damp gloves.
- **DO NOT** use this product to thaw frozen piping.

3. Identification



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| (1) Cooling fan | (12) MIG wire spool hub |
| (2) Current adjustment (synergy) indicator | (13) MMA electrode clamp |
| (3) Earth clamp | (14) Negative coupling |
| (4) Function indicators | (15) On/off switch |
| (5) Function selection button | (16) Positive coupling |
| (6) MIG torch | (17) Power cable and plug |
| (7) MIG torch gas shroud | (18) Power indicator |
| (8) MIG torch hanging hook | (19) Side panel catch |
| (9) MIG torch trigger | (20) Thermal overload indicator |
| (10) MIG wire feed assembly | (21) Transport handle |
| (11) MIG wire feed/current adjustment dial | (22) Unit earth terminal |
| | (23) Voltage adjustment (synergy) dial |

4. MMA Setup

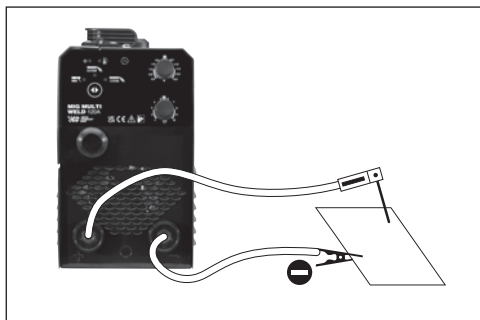


Fig. 1

MMA (Manual Metal Arc, "Stick") welding requires the use of a coated electrode gripped in the MMA electrode clamp.

1. Insert the plug of the MMA electrode clamp (13) into the **positive** coupling (16) and twist to lock it in place.
2. Insert the plug of the earth clamp (3) into the **negative** coupling (14) and twist to lock it in place.
3. Select a suitable electrode and insert it into the MMA electrode clamp.
4. Connect the plug to a power supply and switch on the machine.
5. Use the function selection button (5) to select the MMA function; see **7.2 Welding Function Selection**

Use the table below as a starting point for selecting an appropriate electrode. This is a guide only.

MMA electrode	Material thickness	Suitable amp range	Approximate wire feed dial position*
≤1.6mm	1.0–1.5mm	≤50A	≤4.0
2.0mm	1.2–3.0mm	45–75A	3.5–6.5
2.5mm	2.0–5.0mm	75–110A	6.5–9.0
3.25mm	4.0–8.0mm	100–150A	≥8

5. Gasless MIG Setup

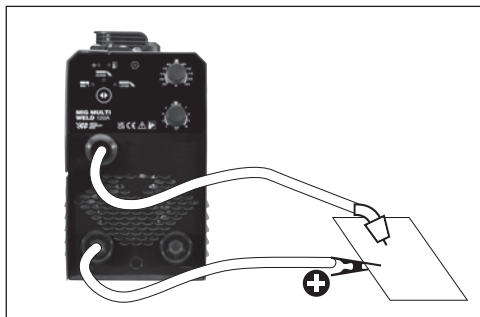


Fig. 2

Gasless MIG (Metal Inert Gas, FCAW) welding requires the use of gasless flux-cored welding wire fed from the machine through the MIG torch (6).

1. Insert the plug of the earth clamp (3) into the positive coupling (16) and twist to lock it in place.
2. Open the side panel and load the welding wire into the MIG wire feed assembly (10) using the correct wire gauge.
3. Ensure that the correct feed tip is fitted to the MIG torch.
4. Connect the plug to a power supply and switch on the machine.
5. Press the MIG torch trigger (9) to feed the wire.

WARNING! DO NOT touch the earth clamp with the welding wire or your body while feeding the wire into the torch hose.

6. Switch off and disconnect the machine and trim the wire back to no more than 5mm from the end of the torch nose.

Important: When storing the product, remove the wire spool as it is prone to rust and may damage the feeding system.

6. Current and Voltage Adjustment

The current can be set using the MIG wire feed/current adjustment dial (11). In MMA operations, the dial controls the current output through the electrode. In gasless MIG operations, the dial controls the wire feed speed and the current is set automatically.

Once the current has been set, it can be fine-tuned to accommodate preference, work speed and the specific requirements of the workpiece by positioning the voltage adjustment dial (23). For standard welding, keep the dial in the central (0) position.

7. Switching Off

When the work is complete, detach the earth clamp (3) from the earthing point and disconnect the cables from the positive (16) and negative (14) couplings to prevent accidental starting. Leave the machine switched on to allow the cooling fan to operate until it has cooled thoroughly. When it has cooled, switch off the product and disconnect the power supply.

8. Specification

Stock No.	70049
Part No.	MW120A
Rated voltage	220–240V AC
Input current	16A
Current range (MMA / MIG)	20–120A / 30–120A
External static volt-ampere characteristic	Flat
MIG wire range (flux-cored)	0.8, 1.0mm
MMA/arc electrode size	1.6–302mm
MIG wire spool	1kg
Degree of protection	IP21S
Cooling	Air (fan)
Insulation class	F
Duty cycle (120A / 92A)	60% / 100%
Net weight	6.8kg