

## PARKSIDE PFDS 120 A2

# PARKSIDE PFDS 120 A2 Welding Machine User Manual

Model: PFDS 120 A2

## 1. INTRODUCTION

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This manual provides essential instructions for the safe and efficient operation, setup, maintenance, and troubleshooting of your PARKSIDE PFDS 120 A2 welding machine. Please read this manual thoroughly before using the device and keep it for future reference.

### 1.1 Safety Instructions

Welding involves significant risks. Always prioritize safety to prevent injury or damage. Adhere to the following general safety guidelines:

- **Electric Shock:** Ensure the welding machine is properly grounded. Never touch live electrical parts. Wear dry welding gloves and protective clothing.
- **Fumes and Gases:** Welding fumes can be hazardous. Work in a well-ventilated area or use a fume extractor. Avoid breathing fumes directly.
- **Arc Rays:** The welding arc emits intense ultraviolet and infrared rays that can cause eye and skin burns. Always wear a welding helmet with appropriate filter shade and protective clothing.
- **Fire and Explosion:** Welding sparks and hot metal can cause fires. Keep flammable materials away from the welding area. Have a fire extinguisher readily available.
- **Hot Parts:** Welded materials and machine components can remain hot for a long time after welding. Handle with care and use appropriate tools.
- **Personal Protective Equipment (PPE):** Always wear a welding helmet, welding gloves, protective clothing, and safety shoes.

## 2. PRODUCT OVERVIEW

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The PARKSIDE PFDS 120 A2 is a compact and powerful flux-cored wire welding machine designed for various welding tasks. It features continuous welding current adjustment and a fan cooling system for sustained performance.



Figure 2.1: Front view of the PARKSIDE PFDS 120 A2 welding machine, showing the main unit, welding torch, ground clamp, and power cable.

## 2.1 Components and Controls



Figure 2.2: Rear view of the welding machine, highlighting the control panel and connections.



Figure 2.3: Detailed view of the control panel, showing the ON/OFF switch, current adjustment knobs, and the welding parameter table.

The control panel includes:

- **ON/OFF Switch:** Main power switch for the unit.
- **Current Adjustment Knobs:** Two rotary knobs for continuously adjusting the welding current and wire feed speed. Refer to the integrated table on the panel for optimal settings based on material

thickness.

- **Overload Indicator Light:** Illuminates if the machine overheats, indicating that the thermal protection has activated.
- **Power Input:** Connection for the 230 V power cord.
- **Welding Torch Connection:** For the pre-mounted welding torch.
- **Ground Clamp Connection:** For the ground cable with powerful clamp.



Figure 2.4: Internal view of the welding machine, showing the wire feeder mechanism for the flux-cored wire.

The internal wire feeder is designed for continuous and uninterrupted welding, accommodating a 0.45 kg spool of welding wire.

### 3. SETUP

Before operating the welding machine, ensure it is correctly set up and all connections are secure.

### 3.1 Unpacking and Inspection

1. Carefully remove all components from the packaging.
2. Inspect the machine and accessories for any signs of damage. Do not use damaged equipment.
3. Ensure all included accessories are present (refer to Section 6).

### 3.2 Connecting Cables

1. **Welding Torch:** The welding torch (burner) is pre-mounted to the machine. Ensure its connection is firm.
2. **Ground Clamp:** Connect the ground cable (1.5 m) with its powerful clamp to the designated terminal on the machine. Securely attach the ground clamp to the workpiece or welding table, ensuring good electrical contact.
3. **Power Cord:** Connect the 4 m power cord to a suitable 230 V AC power outlet. Ensure the outlet is properly grounded and protected by a circuit breaker.

### 3.3 Loading Welding Wire

The machine uses flux-cored welding wire. A 0.45 kg spool is included.

1. Open the side panel of the welding machine to access the wire feeder compartment (refer to Figure 2.4).
2. Place the welding wire spool onto the spindle, ensuring it rotates freely.
3. Thread the welding wire through the guide tube and into the wire feeder mechanism.
4. Close the wire feeder pressure roller to secure the wire.
5. Ensure the correct welding nozzle is attached to the torch. Four nozzles are supplied (one pre-mounted) for diameters 0.6 / 0.8 / 0.9 / 1.0 mm. Select the nozzle matching your wire diameter.

## 4. OPERATION

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Once the machine is set up, you can begin welding. Always wear appropriate PPE.

### 4.1 Powering On

1. Ensure all connections are secure and the workpiece is properly grounded.
2. Switch the ON/OFF switch on the control panel to the 'ON' position. The machine will power up.

### 4.2 Adjusting Welding Parameters

Use the two rotary knobs on the control panel to adjust the welding current and wire feed speed. Refer to the table on the machine (Figure 2.3) for recommended settings based on the material thickness and desired welding current range.

## Welding Parameter Guide

Voltage Step	Wire-feeding Step	Welding Current Range
A	2 - 4	25 - 75 A
B	3 - 5	55 - 85 A
C	3 - 6	60 - 100 A
D	4 - 8	65 - 105 A
E	5 - 9	75 - 110 A
F	8 - 10	80 - 115 A
G	8 - 10	85 - 120 A

The recommended material thickness for this machine is 0.8 - 2.5 mm.

### 4.3 Welding Process

1. Position the welding torch close to the workpiece.
2. Press the trigger on the torch to initiate the wire feed and arc.
3. Maintain a consistent arc length and travel speed for an even weld bead.
4. Release the trigger to stop welding.

## 5. MAINTENANCE

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Regular maintenance ensures the longevity and optimal performance of your welding machine.

### 5.1 Cleaning

1. **Welding Torch and Nozzles:** Regularly clean the welding nozzle and contact tip to remove spatter. Replace worn nozzles.
2. **Machine Housing:** Keep the machine's exterior clean. Use a dry cloth to wipe away dust and debris. Do not use solvents.
3. **Cooling Vents:** Ensure the cooling vents are free from obstructions to allow proper airflow for the fan cooling system.

### 5.2 Storage

When not in use, store the welding machine in a dry, dust-free environment, away from direct sunlight and extreme temperatures. Disconnect it from the power supply.

## 6. TROUBLESHOOTING

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This section addresses common issues you might encounter with your welding machine.

### 6.1 Overload Protection

The machine is equipped with thermal protection. If the overload indicator light illuminates, the machine has overheated. In this event:

1. Stop welding immediately.
2. Turn off the machine and allow it to cool down. The fan cooling system will continue to operate to aid cooling.
3. Once sufficiently cooled, the indicator light will turn off, and you can resume operation.

## 6.2 Common Issues

- **No Arc:** Check power connection, ground clamp connection, and ensure the wire is feeding correctly.
- **Poor Weld Quality:** Adjust welding current and wire feed speed according to the parameter table. Ensure the workpiece is clean and free of rust or paint.
- **Wire Feeding Problems:** Check for tangled wire, correct spool installation, and ensure the wire feeder pressure roller is properly adjusted. Inspect the welding nozzle for blockages.

## 7. SPECIFICATIONS

Feature	Specification
Model	PFDS 120 A2
Welding Technique	Flux-cored wire welding
Welding Current	25 - 120 A (continuously adjustable)
Rated Voltage	230 V
No-load Voltage	31 V
Protection Class	IP21S
Recommended Material Thickness	0.8 - 2.5 mm
Power Cord Length	4 m
Ground Cable Length	1.5 m
Dimensions (L x W x H)	30 x 60 x 40 cm
Weight	Approximately 13.5 kg

## 8. INCLUDED ACCESSORIES

The following accessories are supplied with your PARKSIDE PFDS 120 A2 welding machine:



Figure 8.1: Included accessories: a spool of welding wire, a welding mask, and a welder's hammer with an integrated wire brush.

- 0.45 kg welding wire
- 1 welding torch (pre-mounted)
- 4 welding nozzles (1 pre-mounted, for  $\varnothing$  0.6 / 0.8 / 0.9 / 1.0 mm)
- 1 welder's mask
- 1 welder's hammer with wire brush
- Instruction manual (this document)



Figure 8.2: The PARKSIDE PFDS 120 A2 welding machine shown with its integrated shoulder strap for portability.

## 9. WARRANTY AND SUPPORT

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For warranty information, technical support, or spare parts inquiries, please refer to the specific warranty card included with your product or contact PARKSIDE customer service. Information regarding the availability of spare parts is not provided in this document.