

TOTAL TW21602

Total Tools Inverter Digital Welding Machine 160 Ampere Model TW21602 User Manual

Model: TW21602 | Brand: TOTAL

1. INTRODUCTION

This manual provides essential information for the safe and effective operation, setup, maintenance, and troubleshooting of your Total Tools Inverter Digital Welding Machine 160 Ampere, Model TW21602. Please read this manual thoroughly before using the machine to ensure proper function and safety.

2. SAFETY INFORMATION

WARNING: Welding can be dangerous. Always follow safety precautions to prevent serious injury or death.

- **Electric Shock:** Can kill. Do not touch live electrical parts. Wear dry insulating gloves and protective clothing.
- **Fumes and Gases:** Can be hazardous to your health. Keep your head out of the fumes. Use ventilation or exhaust to remove fumes from the breathing zone.
- **Arc Rays:** Can injure eyes and burn skin. Wear a welding helmet with a proper shade of filter plate to protect your face and eyes. Wear appropriate protective clothing.
- **Fire and Explosion:** Welding sparks can cause fire or explosion. Keep flammable materials away from the welding area. Have a fire extinguisher nearby.
- **Hot Parts:** Can cause severe burns. Allow equipment to cool before touching.
- Always ensure the machine is properly grounded.
- Disconnect power before servicing.

3. PRODUCT OVERVIEW AND COMPONENTS

The Total Tools Inverter Digital Welding Machine TW21602 is a compact and efficient 160 Ampere inverter welding machine designed for various welding tasks. It features IGBT inverter technology for stable arc performance.

3.1 Front Panel



Image 3.1: Front View of Welding Machine. This image displays the front panel of the Total Tools Inverter Digital Welding Machine, Model TW21602. Key features visible include the digital display, the amperage adjustment knob, and the positive and negative output terminals for connecting welding cables. The "IGBT Inverter Technology" label is also prominent.

1. **Digital Display:** Shows current welding amperage.
2. **Amperage Adjustment Knob:** Used to set the desired welding current (160 Ampere maximum).
3. **Positive Output Terminal (+):** Connects to the electrode holder cable.
4. **Negative Output Terminal (-):** Connects to the work clamp cable.
5. **Power Indicator Light:** Illuminates when the machine is powered on.
6. **Overload/Overheat Indicator Light:** Illuminates if the machine is overloaded or overheated, indicating a need to cool down.

3.2 Rear Panel



Image 3.2: Rear View of Welding Machine. This image shows the rear panel of the Total Tools Inverter Digital Welding Machine. Visible components include the power input cable, the main power switch (ON/OFF), and the cooling fan, which is essential for dissipating heat during operation.

1. **Power Input Cable:** Connects the machine to the main power supply (Corded Electric).
2. **Main Power Switch (ON/OFF):** Controls the power to the unit.
3. **Cooling Fan:** Provides necessary airflow to prevent overheating.

3.3 Control Panel Close-up





Image 3.3: Close-up of Control Panel. This detailed view highlights the digital display and the amperage adjustment knob on the Total Tools Inverter Digital Welding Machine. The model number TW21602 and the 160A capacity are clearly visible, along with the QR code for product information.

This close-up provides a clearer view of the digital display and the amperage adjustment knob, which are central to controlling the welding process.

4. SETUP INSTRUCTIONS

1. **Unpacking:** Carefully remove the welding machine and all accessories from the packaging. Inspect for

any damage.

2. **Placement:** Place the machine on a stable, level surface in a well-ventilated area, away from flammable materials. Ensure adequate space around the cooling fan.
3. **Power Connection:**
 - Ensure the main power switch on the machine is in the "OFF" position.
 - Connect the power input cable to a suitable grounded power outlet. The machine operates on corded electric power.
4. **Cable Connections:**
 - Connect the electrode holder cable to the positive (+) output terminal.
 - Connect the work clamp cable to the negative (-) output terminal.
 - Ensure all connections are tight and secure.
5. **Electrode Installation:** Insert the appropriate welding electrode into the electrode holder.
6. **Work Clamp Attachment:** Securely attach the work clamp to the workpiece, ensuring good electrical contact.

5. OPERATING INSTRUCTIONS

1. **Power On:** Turn the main power switch to the "ON" position. The power indicator light should illuminate.
2. **Set Amperage:** Use the amperage adjustment knob to set the desired welding current. Refer to electrode manufacturer specifications for recommended settings. The digital display will show the selected amperage.
3. **Safety Gear:** Always wear appropriate personal protective equipment (PPE), including a welding helmet, gloves, and protective clothing, before striking an arc.
4. **Welding:**
 - Bring the electrode into contact with the workpiece to strike an arc.
 - Maintain a consistent arc length and travel speed for optimal weld quality.
 - If the overload/overheat indicator light illuminates, stop welding and allow the machine to cool down.
5. **Power Off:** After welding, turn the main power switch to the "OFF" position.
6. **Cool Down:** Allow the machine to cool down before disconnecting cables or storing.

6. MAINTENANCE

Regular maintenance ensures the longevity and safe operation of your welding machine.

- **Cleaning:** Periodically clean the machine's exterior with a dry cloth. Ensure the cooling fan vents are free from dust and debris. Use compressed air to gently clear internal dust if necessary, ensuring the machine is unplugged.
- **Cable Inspection:** Regularly inspect welding cables, electrode holder, and work clamp for damage, fraying, or loose connections. Replace damaged components immediately.
- **Storage:** Store the machine in a dry, clean environment, protected from dust and moisture.
- **Professional Service:** For internal repairs or complex issues, contact qualified service personnel.

7. TROUBLESHOOTING

Problem	Possible Cause	Solution
Machine does not power on.	No power supply; main switch off; faulty power cable.	Check power outlet; ensure main switch is ON; inspect power cable for damage.
No arc or weak arc.	Incorrect amperage setting; poor cable connections; faulty electrode; poor work clamp contact.	Adjust amperage; check all cable connections; replace electrode; ensure good work clamp contact.
Overload/Overheat indicator light is on.	Machine is overheated due to prolonged use or insufficient ventilation.	Stop welding, allow the machine to cool down in a well-ventilated area. Do not block cooling vents.
Poor weld quality.	Incorrect amperage; improper electrode; incorrect technique; dirty workpiece.	Adjust amperage; use correct electrode for material; refine welding technique; clean workpiece thoroughly.

8. SPECIFICATIONS

The following are the technical specifications for the Total Tools Inverter Digital Welding Machine TW21602:

- **Model Number:** TW21602
- **Type:** Welding & Soldering Machine
- **Power Source:** Corded Electric
- **Amperage:** 160 Ampere (Maximum)
- **Technology:** IGBT Inverter
- **Item Weight:** 4.2 Kilograms
- **Package Dimensions:** 32.2 x 27.4 x 14.4 cm
- **Manufacturer:** Total
- **Country of Origin:** China





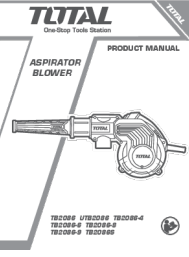
Image 8.1: Product Dimensions. This image illustrates the approximate dimensions of the Total Tools Inverter Digital

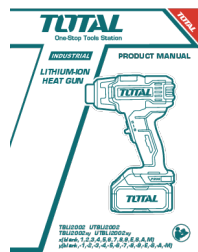
9. WARRANTY AND SUPPORT

For warranty information, technical support, or service inquiries, please refer to the documentation provided with your purchase or contact Total Tools customer service. Keep your purchase receipt as proof of purchase. For general inquiries or to find more information about Total Tools products, visit the official Total Tools website or contact your local distributor.

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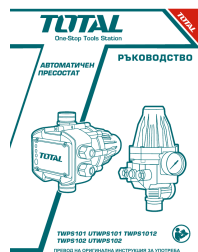
Related Documents - TW21602

	<p>TOTAL MMA Welding Machine TW21605, UTW21605, TW22005 - User Manual and Safety Guide</p> <p>This document provides comprehensive information on the TOTAL MMA Welding Machine models TW21605, UTW21605, and TW22005. It includes detailed safety precautions, operating principles, welding techniques, maintenance procedures, technical specifications, accessories, spare parts lists, and wiring diagrams.</p>
	<p>TOTAL TSP9103 Auto-Darkening Welding Helmet Product Manual</p> <p>Comprehensive product manual for the TOTAL TSP9103 auto-darkening welding helmet. It covers essential safety warnings, intended use, detailed specifications, operation instructions, disassembly guidance, and common troubleshooting remedies. Features include a large viewing area, fast switching time, and adjustable shade control for professional welding applications.</p>
	<p>TOTAL Aspirator Blower Product Manual - Models TB2086, UTB2086, and more</p> <p>Official product manual for the TOTAL Aspirator Blower. Includes detailed safety instructions, operating procedures, technical specifications, and maintenance guidelines for models TB2086, UTB2086, TB2086-4, TB2086-6, TB2086-8, TB2086-9, and TB2086S. Learn how to use your TOTAL power tool safely and effectively.</p>



TOTAL Lithium-Ion Heat Gun Product Manual - TBLI2002 Series

User manual for the TOTAL Lithium-Ion Heat Gun (TBLI2002 series), detailing industrial applications, safety guidelines, specifications, operation, and maintenance. Learn how to safely and effectively use your TOTAL heat gun.



TOTAL Automatic Pressure Switch User Manual and Specifications

Comprehensive user manual and technical specifications for TOTAL automatic pressure switches, including models TWPS101, UTWPS101, TWPS1012, TWPS102, and UTWPS102. Covers safety, installation, operation, maintenance, and troubleshooting.



TOTAL TMT47504 Цифров Мултицет - Ръководство за Потребителя

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