

TELWIN TE-821054

Telwin Telmig 170/1 Turbo 160A Welding Machine

USER MANUAL

Brand: TELWIN | Model: TE-821054

Product Overview

The Telwin Telmig 170/1 Turbo is a versatile welding machine designed for both FLUX (no gas) and MIG-MAG (gas) welding processes. It offers flexibility for use with various materials including steel, stainless steel, and aluminum. The machine is equipped with thermostatic protection for enhanced safety and durability. It comes with essential MIG-MAG welding accessories and supports a 5 kg wire spool.



Image: Front view of the Telwin Telmig 170/1 Turbo welding machine, showing its red and black casing, control panel, wheels, and connected welding cables with torch and earth clamp.

Setup Instructions

1. **Unpacking:** Carefully remove the welding machine and all accessories from the packaging. Inspect for any shipping damage.
2. **Placement:** Place the machine on a stable, level surface in a well-ventilated area, away from flammable materials.
3. **Power Connection:** Ensure the machine is switched off. Connect the power cable to a suitable 230V single-phase power outlet with a 16A fuse.

4. **Wire Spool Installation:** Open the wire compartment and install a 5 kg welding wire spool (e.g., steel, stainless steel, or aluminum wire with appropriate diameter). Ensure the wire feeds smoothly through the guide.
5. **Accessory Connection:**
 - Connect the MIG Torch (2.5M, part no. 742393) to the designated port on the machine.
 - Attach the Toledo 250 Earth Clamp (250A, part no. 712030) to the workpiece.
 - For MIG-MAG welding, connect the Argon Cylinder Adapter (part no. 432036) and the Rechargeable Cylinder Pressure Reducer (part no. 722341) to a gas cylinder, then connect the gas hose to the machine.
6. **Initial Checks:** Before powering on, double-check all connections for security and proper fit.

Operating Instructions

The Telmig 170/1 Turbo supports both FLUX (gasless) and MIG-MAG (with gas) welding. Select the appropriate mode and settings based on your material and welding requirements.

- **Mode Selection:** Choose between FLUX (no gas) or MIG-MAG (gas) welding depending on your wire type and application.
- **Material Compatibility:** This machine is suitable for welding steel, stainless steel, and aluminum. Ensure you use the correct wire type and diameter for the material being welded.
- **Regulation Positions:** The machine features 6 regulation positions to adjust the welding current. Start with a lower setting and gradually increase until the desired arc stability and penetration are achieved.
- **Wire Diameter Selection:**
 - Steel Welding Wire: 0.6 - 0.8 mm
 - Stainless Steel Welding Wire: 0.8 mm
 - Aluminum Welding Wire: 0.8 - 1 mm

Ensure the wire feed roller matches the selected wire diameter.

- **Welding Process:**
 - Wear appropriate personal protective equipment (PPE), including a welding helmet, gloves, and protective clothing.
 - Turn on the machine.
 - Initiate the arc by pressing the torch trigger. Maintain a consistent travel speed and arc length for optimal results.
 - The machine features thermostatic protection, which will automatically shut down the unit if it overheats. Allow it to cool down before resuming operation.

Maintenance

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

- **Cleaning:** Periodically clean the machine's exterior with a dry cloth. Ensure ventilation openings are free from dust and debris.
- **Wire Feed System:** Inspect the wire feed rollers and liner for wear or blockages. Clean or replace as necessary to ensure smooth wire feeding.
- **Torch and Earth Clamp:** Check the torch nozzle, contact tip, and earth clamp for wear or damage. Replace consumables as needed. Ensure all connections are tight.
- **Cable Inspection:** Regularly inspect all cables (power, torch, earth) for cuts, abrasions, or loose connections. Repair or replace damaged cables immediately.
- **Storage:** When not in use, store the machine in a dry, clean environment, protected from dust and moisture.

Troubleshooting

This section provides solutions to common issues you might encounter.

- **Machine Does Not Power On:**
 - Check if the power cable is securely plugged into both the machine and the power outlet.
 - Verify that the power outlet is functional and the circuit breaker or fuse (16A) has not tripped.
 - Ensure the machine's power switch is in the "ON" position.
- **No Arc or Weak Arc:**
 - Check the earth clamp connection to the workpiece; ensure it is clean and secure.
 - Inspect the welding wire for proper feeding and ensure the contact tip is not clogged or worn.
 - Verify that the welding current settings are appropriate for the material thickness.
 - For MIG-MAG welding, ensure gas flow is adequate and the gas cylinder is not empty.
- **Machine Overheats (Thermostatic Protection Activated):**
 - The machine has built-in thermostatic protection. If it shuts down, allow it to cool down for a sufficient period (typically 10-15 minutes) before restarting.
 - Ensure adequate ventilation around the machine and that cooling vents are not obstructed.
 - Reduce the duty cycle or welding current if continuous operation is causing frequent overheating.
- **Poor Weld Quality:**
 - Adjust welding current and wire feed speed settings.
 - Ensure the workpiece is clean and free of rust, paint, or grease.
 - Check for proper gas shielding (for MIG-MAG) and correct torch angle.

Technical Specifications

Detailed specifications for the Telwin Telmig 170/1 Turbo welding machine.

Parameter	Value
Single-Phase Mains Voltage	230 V
Mains Frequency	50 / 60 Hz
Regulation Range	30 - 160 A
Max Current (15%)	140 A
Current at 60%	80 A
Max No-Load Voltage	31 V
Max Absorbed Power	5.2 kW
Absorbed Power at 60%	2.3 kW
Mains Fuse	16 A
Power Factor (cosphi)	0.9
Regulation Positions	6

Parameter	Value
Welding Wire Diameter (Steel)	0.6 - 0.8 mm
Welding Wire Diameter (Stainless Steel)	0.8 mm
Welding Wire Diameter (Aluminum)	0.8 - 1 mm
Protection Degree	IP21
Dimensions (L x W x H)	80 x 45 x 57 cm
Weight	37 kg
EAN Code	8004897598352
Model Number	TE-821054








						
V (50-60Hz)	A	EN 60974-1 A	EN 60974-1 A	V	kW	A
230 1 ph	30÷160	140 15%	80	31	2,3 5,2	16

Image: A table illustrating electrical specifications such as voltage, current range, maximum current, and fuse rating for the welding machine.

							
cos φ	N°	mm			IP	mm	kg
0,9	6	0,6 0,8	0,8	0,8 1	IP21	800 L 450 W 570 H	37

Image: A table illustrating additional specifications including power factor, number of regulation positions, compatible wire diameters for steel, stainless steel, and aluminum, IP protection rating, dimensions, and weight.

Included Accessories

The Telwin Telmig 170/1 Turbo comes equipped with the following accessories:

- Argon Cylinder Adapter (Part No. 432036)
- MIG Torch 2.5M (Part No. 742393)
- Cable 16 MMQ 1.8M (Part No. 120302)
- Rechargeable Cylinder Pressure Reducer (Part No. 722341)





- Toledo 250 Earth Clamp 250A (Part No. 712030)



Warranty and Support

For detailed warranty information, please refer to the warranty card included with your product or contact your authorized Telwin dealer or the manufacturer directly. Support inquiries can be directed to Telwin's official customer service channels, typically found on their website.

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Related Documents - TE-821054

	<p>Telwin ELECTROMIG 330 WAVE: Professional MIG-MAG, TIG, MMA Welding Machine Instruction Manual</p> <p>Comprehensive instruction manual for the Telwin ELECTROMIG 330 WAVE professional welding machine, covering MIG-MAG, TIG (DC), and MMA welding processes with inverter technology.</p>
	<p>Telwin Professional MIG-MAG, TIG (DC), MMA Welding Machine Instruction Manual</p> <p>This comprehensive instruction manual details the safe operation, installation, maintenance, and troubleshooting of Telwin's professional inverter-based MIG-MAG, TIG (DC), and MMA welding machines, designed for industrial and professional applications.</p>
	<p>Telwin SUPERMIG Welding Machines Instruction Manual</p> <p>Comprehensive instruction manual for Telwin SUPERMIG welding machines, covering MIG-MAG, TIG, and MMA processes. Includes safety guidelines, operation procedures, technical specifications, and maintenance information.</p>
	<p>Telwin Technomig 210 Dual Synergic Welding Machine Manual</p> <p>Instruction manual for the Telwin Technomig 210 Dual Synergic welding machine, covering operation, maintenance, safety, and technical specifications for MIG-MAG, TIG, and MMA welding.</p>

 <p>INVERSPOTTER 14000 SMART AQUA</p>	<p>Telwin INVERSPOTTER 14000 SMART AQUA Spot Welder - Technical Specifications and Features</p> <p>Detailed information on the Telwin INVERSPOTTER 14000 SMART AQUA, a medium frequency, direct current inverter-controlled resistance welding machine. Features include SMART AUTOSET technology, WAVE technology, and a water-cooled pneumatic gun. Suitable for automotive body shops and industrial applications, especially with high-strength steel and galvanized materials.</p>
 <p>Telwin Technology TIG & MMA Inverter Welding Machine Instruction Manual</p>	<p>Telwin Technology TIG & MMA Inverter Welding Machine Instruction Manual</p> <p>This comprehensive instruction manual provides detailed guidance on the safe operation, installation, maintenance, and troubleshooting of Telwin Technology TIG (AC/DC) HF/LIFT and MMA inverter welding machines, designed for industrial and professional use.</p>