



	Remote control RT 50 7POL		
099-008793-EW501	Observe additional system documents!	6.3.2023	



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## **General instructions**

## \land WARNING

## Read the operating instructions!

#### The operating instructions provide an introduction to the safe use of the products.

- Read and observe the operating instructions for all system components, especially the safety instructions and warning notices!
- Observe the accident prevention regulations and any regional regulations!
- The operating instructions must be kept at the location where the machine is operated.
- Safety and warning labels on the machine indicate any possible risks. Keep these labels clean and legible at all times.
- The machine has been constructed to state-of-the-art standards in line with any applicable regulations and industrial standards. Only trained personnel may operate, service and repair the machine.
- Technical changes due to further development in machine technology may lead to a differing welding behaviour.

# In the event of queries on installation, commissioning, operation or special conditions at the installation site, or on usage, please contact your sales partner or our customer service department on +49 2680 181-0.

#### A list of authorised sales partners can be found at www.ewm-group.com/en/specialist-dealers.

Liability relating to the operation of this equipment is restricted solely to the function of the equipment. No other form of liability, regardless of type, shall be accepted. This exclusion of liability shall be deemed accepted by the user on commissioning the equipment.

The manufacturer is unable to monitor whether or not these instructions or the conditions and methods are observed during installation, operation, usage and maintenance of the equipment.

An incorrectly performed installation can result in material damage and injure persons as a result. For this reason, we do not accept any responsibility or liability for losses, damages or costs arising from incorrect installation, improper operation or incorrect usage and maintenance or any actions connected to this in any way.

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The content of this document has been prepared and reviewed with all reasonable care. The information provided is subject to change; errors excepted.

#### Data security

The user is responsible for backing up data of all changes from the factory setting. The user is liable for erased personal settings. The manufacturer does not assume any liability for this.



## 1 Contents

1	Contents3			
2	For your safety	. 4		
	2.1 Notes on using these operating instructions	. 4		
	2.2 Explanation of icons			
	2.3 Safety instructions			
	2.4 Transport and installation	. 9		
3	Intended use	11		
	3.1 Applications			
	3.2 Use and operation solely with the following machines	11		
	3.3 Documents which also apply			
	3.3.1 Warranty			
	3.3.2 Declaration of Conformity			
	3.3.3 Service documents (spare parts)	11		
4	Machine description – quick overview	12		
	4.1 Front view / rear view			
	4.2 Machine control – Operating elements			
	4.2.1 Machine control – Concealed operating elements	16		
5	Design and function	18		
	5.1 General			
	5.2 Scope of delivery			
	5.3 Ambient conditions			
	5.4 Establishing the connections			
	5.5 Shielding gas setting			
	5.5.1 Gas test			
	5.5.2 "Purge hose package" function 5.6 Organising welding tasks (Mode "JOB Manager")			
	5.6.1 Explanation of symbols on the display			
	5.6.2 Select welding task (JOB)			
	5.6.3 Load welding task (JOB) from welding machine to remote control			
	5.6.4 Copy welding task (JOB) from remote control to welding machine			
	5.6.5 Exit JOB Manager without changes			
	5.7 Direct menus (direct access to parameters)			
	5.8 Expert menu (TIG)	22		
	5.9 Power-saving mode (Standby)			
	5.10 Aligning the cable resistance			
	5.11 Protective flap, welding machine control	25		
6	, 1	26		
	6.1 General			
	6.2 Maintenance schedule			
	6.2.1 Explanation of icons			
	6.3 Disposing of equipment			
7	Technical data			
	7.1 RT50 7POL			
8	Accessories			
	8.1 Connection and extension cables			
9	Appendix	31		
	9.1 Searching for a dealer	31		



## 2 For your safety

## 2.1 Notes on using these operating instructions

## **A** DANGER

Working or operating procedures which must be closely observed to prevent imminent serious and even fatal injuries.

- Safety notes include the "DANGER" keyword in the heading with a general warning symbol.
- The hazard is also highlighted using a symbol on the edge of the page.

## **MARNING**

Working or operating procedures which must be closely observed to prevent serious and even fatal injuries.

- Safety notes include the "WARNING" keyword in the heading with a general warning symbol.
- The hazard is also highlighted using a symbol in the page margin.

### **A** CAUTION

Working or operating procedures which must be closely observed to prevent possible minor personal injury.

- The safety information includes the "CAUTION" keyword in its heading with a general warning symbol.
- The risk is explained using a symbol on the edge of the page.

#### **Technical aspects which the user must observe to avoid material or equipment damage.**

Instructions and lists detailing step-by-step actions for given situations can be recognised via bullet points, e.g.:

• Insert the welding current lead socket into the relevant socket and lock.



## 2.2 Explanation of icons

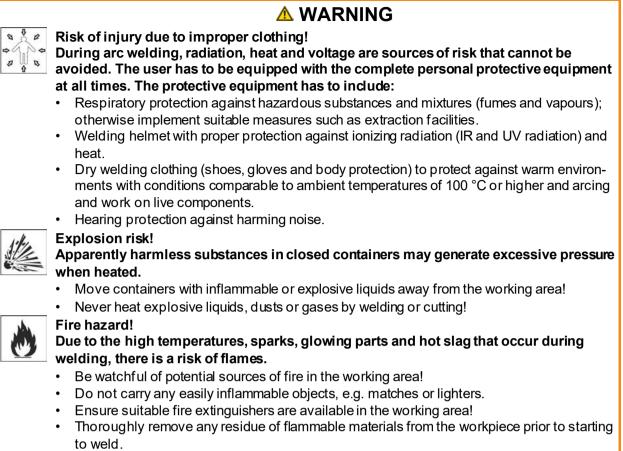
Explanation of icons					
Symbol	Description	Symbol	Description		
R\$	Indicates technical aspects which the user must observe.	$\Leftrightarrow \bigcirc \bigcirc$	Activate and release / Tap / Tip		
	Switch off machine	ÞÐ	Release		
	Switch on machine	(I) (I)	Press and hold		
	Incorrect / Invalid	ÛŊ	Switch		
	Correct / Valid	95	Turn		
+	Input	$\square$	Numerical value – adjustable		
$\bigcirc$	Navigation	-)	Signal light lights up in green		
F	Output	•••••	Signal light flashes green		
45	Time representation (e.g.: wait 4 s / ac- tuate)	-``	Signal light lights up in red		
-11	Interruption in the menu display (other setting options possible)		Signal light flashes red		
*	Tool not required/do not use	-)	Signal light lights up in blue		
	Tool required/use	· O·	Signal light flashes blue		



2.3 Safety	instructions
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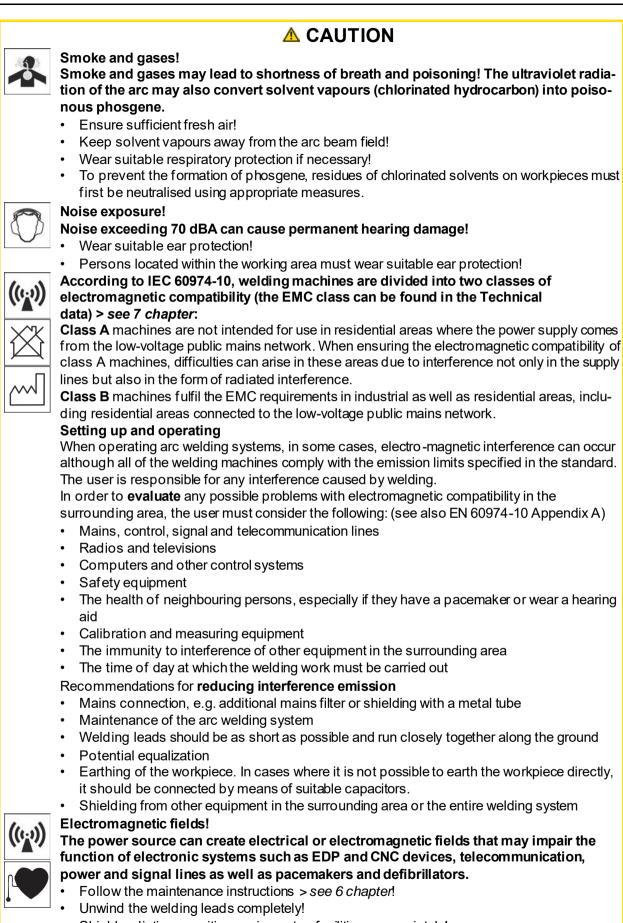
	▲ WARNING
	<ul> <li>Risk of accidents due to non-compliance with the safety instructions!</li> <li>Non-compliance with the safety instructions can be fatal!</li> <li>Carefully read the safety instructions in this manual!</li> </ul>
	<ul> <li>Observe the accident prevention regulations and any regional regulations!</li> <li>Inform persons in the working area that they must comply with the regulations!</li> </ul>
4	Risk of injury from electrical voltage! Voltages can cause potentially fatal electric shocks and burns on contact. Even low vol- tages can cause a shock and lead to accidents.
	<ul> <li>Never touch live components such as welding current sockets or stick, tungsten or wire electrodes!</li> </ul>
	<ul> <li>Always place torches and electrode holders on an insulated surface!</li> <li>Wear the full personal protective equipment (depending on the application)!</li> <li>The machine may only be opened by qualified personne!!</li> <li>The device must not be used to defrost pipes!</li> </ul>
$\bigcirc \boxed{1}$	Hazard when interconnecting multiple power sources! If a number of power sources are to be connected in parallel or in series, only a techni- cal specialist may interconnect the sources as per standard IEC 60974-9:2010: Installa-
	tion and use and German Accident Prevention Regulation BVG D1 (formerly VBG 15) or country-specific regulations.
	Before commencing arc welding, a test must verify that the equipment cannot exceed the maximum permitted open circuit voltage.
	<ul> <li>Only qualified personnel may connect the machine.</li> <li>When taking individual power sources out of operation, all mains and welding current leads must be safely disconnected from the welding system as a whole. (Hazard due to reverse polarity voltage!)</li> </ul>
	<ul> <li>Do not interconnect welding machines with pole reversing switch (PWS series) or machines for AC welding since a minor error in operation can cause the welding voltages to be com- bined, which is not permitted.</li> </ul>
₹¢	Risk of injury due to radiation or heat! Arc radiation can lead to skin and eye injuries. Contact with hot workpieces and sparks can lead to burns.
	<ul> <li>Use hand shield or welding helmet with the appropriate safety level (depends on the application).</li> </ul>
	<ul> <li>Wear dry protective clothing (e.g. hand shield, gloves, etc.) in accordance with the applicable regulations of your country.</li> </ul>
	<ul> <li>Persons who are not directly involved should be protected with a welding curtain or suitable safety screen against radiation and the risk of blinding!</li> </ul>





 Only further process workpieces after they have cooled down. Do not allow them to contact any flammable materials! Safety instructions





- Shield radiation-sensitive equipment or facilities appropriately!
- The function of pacemakers may be impaired (seek medical advice if necessary).



## 

Obligations of the operator!

The respective national directives and laws must be complied with when operating the machine!

- Implementation of national legislation relating to framework directive 89/391/EEC on the introduction of measures to encourage improvements in the safety and health of workers at work and associated individual guidelines.
- In particular, directive 89/655/EEC concerning the minimum safety and health requirements for the use of work equipment by workers at work.
- The regulations applicable to occupational safety and accident prevention in the country concerned.
- Setting up and operating the machine as per IEC 60974.-9.
- Brief the user on safety-conscious work practices on a regular basis.
- Regularly inspect the machine as per IEC 60974.-4.

The manufacturer's warranty becomes void if non-genuine parts are used!

- Only use system components and options (power sources, welding torches, electrode holders, remote controls, spare parts and replacement parts, etc.) from our range of products!
- Only insert and lock accessory components into the relevant connection socket when the machine is switched off.

Requirements for connection to the public mains network

High-performance machines can influence the mains quality by taking current from the mains network. For some types of machines, connection restrictions or requirements relating to the maximum possible line impedance or the necessary minimum supply capacity at the interface with the public network (Point of Common Coupling, PCC) can therefore apply. In this respect, attention is also drawn to the machines' technical data. In this case, it is the responsibility of the operator, where necessary in consultation with the mains network operator, to ensure that the machine can be connected.

## 2.4 Transport and installation

## 

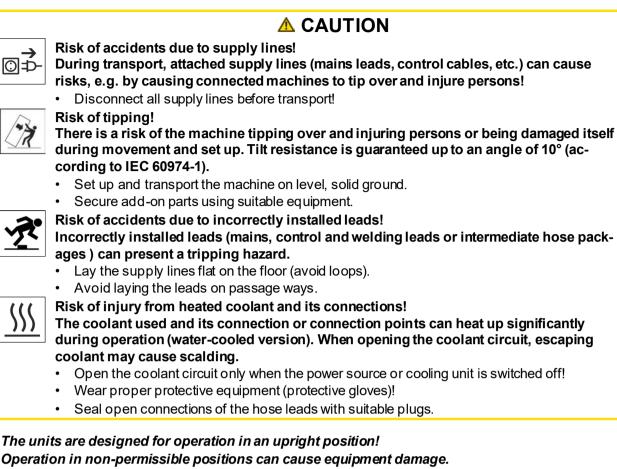
Risk of injury due to improper handling of shielding gas cylinders! Improper handling and insufficient securing of shielding gas cylinders can cause serious injuries!

- Observe the instructions from the gas manufacturer and any relevant regulations concerning the use of compressed air!
- Do not attach any element to the shielding gas cylinder valve!
- Prevent the shielding gas cylinder from heating up.

## For your safety

Transport and installation





- Only transport and operate in an upright position!
- Accessory components and the power source itself can be damaged by incorrect connection!
  - Only insert and lock accessory components into the relevant connection socket when the machine is switched off.
  - Comprehensive descriptions can be found in the operating instructions for the relevant accessory components.
  - Accessory components are detected automatically after the power source is switched on.
- *Protective dust caps protect the connection sockets and therefore the machine against dirt and damage.* 
  - The protective dust cap must be fitted if there is no accessory component being operated on that connection.
  - The cap must be replaced if faulty or if lost!

E P



## 3 Intended use

§

## **A WARNING**

Hazards due to improper usage!

The machine has been constructed to the state of the art and any regulations and standards applicable for use in industry and trade. It may only be used for the welding procedures indicated at the rating plate. Hazards may arise for persons, animals and material objects if the equipment is not used correctly. No liability is accepted for any damages arising from improper usage!

- The equipment must only be used in line with its designated purpose and by trained or expert personnel!
- Do not improperly modify or convert the equipment!

## 3.1 Applications

Remote controls are used for the remote operation of various machine functions.

### 3.2 Use and operation solely with the following machines

Tetrix-Schweißgeräte mit einer 7-poligen Anschlussbuchse zum Anschluss von digitalen Zubehörkomponenten.

## 3.3 Documents which also apply

#### 3.3.1 Warranty

For more information refer to the "Warranty registration" brochure supplied and our information regarding warranty, maintenance and testing at <u>www.ewm-group.com</u>!

#### 3.3.2 Declaration of Conformity



This product corresponds in its design and construction to the EU directives listed in the declaration. The product comes with a relevant declaration of conformity in the original. The manufacturer recommends carrying out the safety inspection according to national and international standards and guidelines every 12 months (from commissioning).

#### 3.3.3 Service documents (spare parts)

## **WARNING**

No improper repairs and modifications! To prevent injuries and damage to the machine, only competent personnel (authorised service personnel) are allowed to repair or modify the machine.

- Unauthorised manipulations will invalidate the warranty!
- Instruct competent personnel (authorised service personnel) to repair the machine.

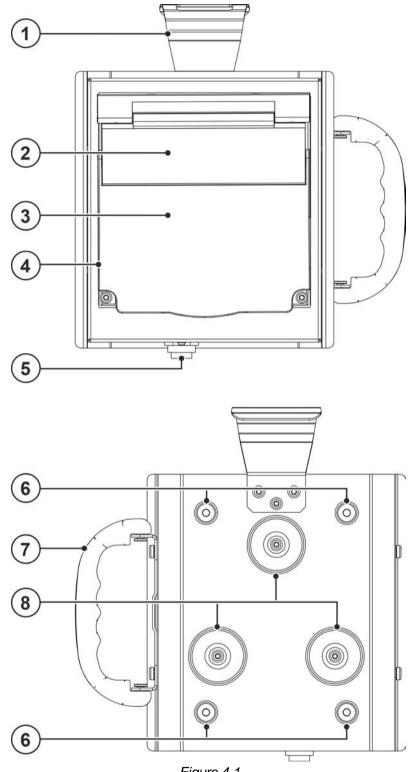
Spare parts can be obtained from the relevant authorised dealer.

Machine description – quick overview Front view / rear view



#### Machine description – quick overview 4

Front view / rear view 4.1





Item	Symbol	Description
1		Holder for suspending the remote control.
2		Lid
3		Machine control > see 4.2 chapter
4		Protective cap
5		<b>Connection socket, 7-pole (digital)</b> Connection to the digital remote control connection on power source.
6		Machine feet
7		Carrying handle
8		<b>Fixing magnet</b> To mount remote control on magnetisable surfaces



## 4.2 Machine control – Operating elements

Basically, all descriptions on the process settings in the standard operating instructions shall apply. This operating manual exclusively describes deviating control functions.

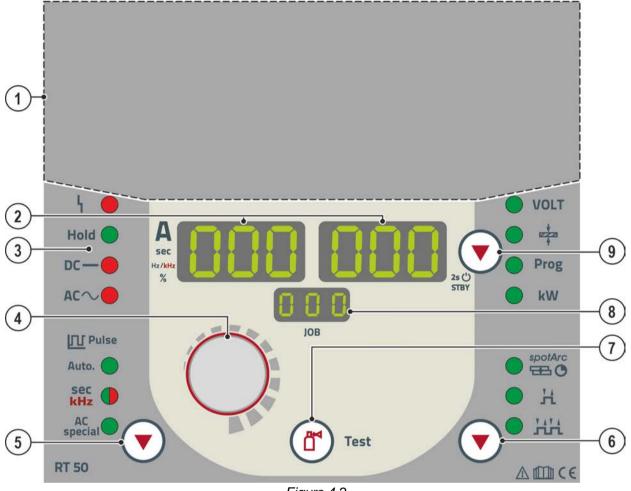


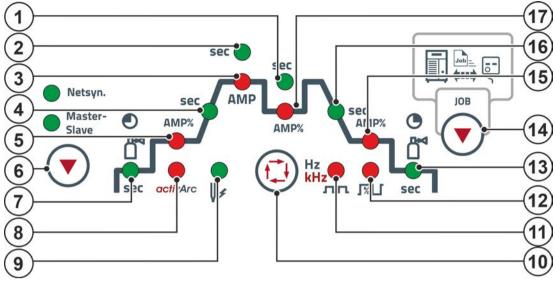
Figure 4-2



ltem	Symbol	Description
1	e jiin ei	Lid > see 4.2.1 chapter
2	000	Welding data display (3-digit) Displays the welding parameters and the corresponding values
3		<ul> <li>Status displays</li> <li>Collective interference signal light</li> <li>Hold After each completed welding task, the last values used in the welding process for the welding current and welding voltage are shown on the displays, and the signal light will be on</li> <li>DC Direct current welding</li> <li>AC Alternating current welding</li> <li>DC and AC simultaneously: Alternating current welding, AC special</li> </ul>
4		Welding parameter setting rotary transducer Setting of all parameters such as welding current, sheet metal thickness, gas pre-flow time, etc.
5		TIG pulse welding         Auto.       TIG automated pulses (frequency and balance)         Sec       TIG pulses with times, green light / Fast TIG DC pulses with frequency and balance, red light         Ac       TIG AC special
6		Operating mode         spotArc         SpotArc         SpotArc         SpotArc         SpotArc         Non-latched         Image: SpotArc         Non-latched         Image: SpotArc         Image: SpotArc         SpotA
7	Ň	Push-button gas test / rinse hose package > see 5.5 chapter
8	000	<b>Display, JOB</b> Shows the currently selected welding task (JOB number).
9		Display/Power-saving mode switching push-button VOLT Welding voltage display Material thickness display Prog Program number display kW Welding performance display Press for 3 s to put machine into power-saving mode. To reactivate, activate one of the operating elements > see 5.9 chapter.



#### Machine control – Concealed operating elements 4.2.1



#### Figure 4-3

Item	Symbol	Description			
1	sec	Pulse break time/slope time from AMP to AMP%			
		Pulse break setting range: 0.01 sec to 2			
		(0.01 sec increments < 0.5 sec; 0.1 sec			
		• Slope time (tS1) setting range: 0.0 sec t			
		TIG pulses: The pulse break time applies to			
		TIG AC Special: The pulse break time appli			
2	Sec	<ul> <li>Pulse time / slope time from AMP% to Al</li> <li>Pulse time setting range: 0.01 s to 20.0</li> </ul>			
		(0.01 s increments < 0.5 s; 0.1 s increm			
		<ul> <li>Slope time (tS2) setting range: 0.0 s to 2</li> </ul>	-		
		TIG pulses	TIG AC Special		
		The pulse time applies to the main current	The pulse time applies to the AC phase for		
		phase (AMP) for pulses.	AC special.		
3	AMP	Main current (TIG) / pulse current	Main current (MMA)		
		I min to I max (1 A increments)	I min to I max (1 A increments)		
4	sec	Signal light			
		Up-slope time <u>LUP</u> (TIG)/hot start time <u>Lh</u> L	(MMA)		
5	AMP%	Signal light			
		Start current [5] (TIG)/hot start current [h] (MMA)			
6		Push-button for synchronous welding (AC)			
	•	Two-sided, simultaneous welding.			
		Netsyn Synchronisation via mains voltage			
7	●	Signal light, gas pre-flow time			
	ľ	Setting range 0.0 s to 20.0 s			
8	activArc	Signal light activArc <sup>RR</sup>			
9		Signal lamp, Spherical cap formation button / Ignition optimisation			
		Lights up when the spherical cap formation	button function is active.		
10		Select welding perspectors button			
10		Select welding parameters button This button is used to select the welding parameters depending on the welding process			
	<b>'</b> ←'	and operating mode used.			
11	ᇝ	Frequency signal light			
	kHz	AC frequency (TIG)/pulse frequency (TIG DC – kHz pulses)/pulse frequency (MMA)			



Item	Symbol	Description		
12	<b>1</b> %U	Balance signal light AC balance (TIG)/pulse balance (TIG DC – kHz pulses)/pulse balance (MMA)		
13	Ð	Signal light, gas post-flow time		
14		Press organise welding tasks (JOB) push-button Briefly pressing the button = display of welding task selected in welding system Holding the button down for long (> 3 s) = "Organise welding tasks (JOB)" mode: • Load welding task (JOB) from welding machine to remote control • Copy welding task (JOB) from remote control to welding machine		
15	AMP%	End-crater current signal light		
16	sec	Down-slope time (TIG)		
17	AMP%	Secondary current / pulse pause current		



## 5 Design and function

## 5.1 General

Basically, all descriptions on the process settings in the standard operating instructions shall apply. This operating manual exclusively describes deviating control functions.

## 5.2 Scope of delivery

The delivery is checked and packaged carefully before dispatch, however it is not possible to exclude the possibility of damage during transit.

#### **Receiving inspection**

• Check that the delivery is complete using the delivery note!

#### In the event of damage to the packaging

• Check the delivery for damage (visual inspection)!

#### In the event of complaints

If the delivery has been damaged during transport:

- Please contact the last haulier immediately!
- Keep the packaging (for possible checking by the haulier or for the return shipment).

#### Packaging for returns

If possible, please use the original packaging and the original packaging material. If you have any queries on packaging and protection during transport, please contact your supplier.

## 5.3 Ambient conditions

#### Equipment damage due to contamination!

Unusually high amounts of dust, acids, corrosive gases or substances can damage the machine (observe maintenance intervals > see 6.2 chapter).

Avoid large amounts of smoke, steam, oily fumes, grinding dust and corrosive ambient air!

#### In operation

Temperature range of the ambient air:

• -25 °C to +40 °C (-13 °F to 104 °F)<sup>[1]</sup>

Relative humidity:

- up to 50 % at 40 °C (104 °F)
- up to 90 % at 20 °C (68 °F)

#### Transport and storage

Storage in a closed room, temperature range of the ambient air:

-30 °C to +70 °C (-22 °F to 158 °F)<sup>[1]</sup>

Relative humidity

• up to 90 % at 20 °C (68 °F)



## 5.4 Establishing the connections



Risk of accidents due to supply lines!

During transport, attached supply lines (mains leads, control cables, etc.) can cause

**A** CAUTION

risks, e.g. by causing connected machines to tip over and injure persons!

Disconnect all supply lines before transport!

Damage to the machine due to improper connection! The remote controls have been developed to be connected to welding machines or wire feed units only. Connecting them to other machines may cause damage to the machines!

- Observe the operating instructions for the welding machine or wire feed unit!
- Switch off the welding machine before connecting!

#### Read and observe the documentation to all system and accessory components!

- Switch off the welding machine.
- Insert the male connector plug (socket) into the remote control connection socket and lock by turning to the right.
- Insert the male connector plug (pin) into the remote control connection socket of the welding machine and lock by turning to the right.

## 5.5 Shielding gas setting

Rule of thumb for the gas flow rate:

Diameter of gas nozzle in mm corresponds to gas flow in l/min.

Example: 7mm gas nozzle corresponds to 7l/min gas flow.

If the shielding gas setting is too low or too high, this can introduce air to the weld pool and may cause pores to form. Adjust the shielding gas quantity to suit the welding task!

#### 5.5.1 Gas test

Operating ele- ment	Action	Result
	1 x 🖉	Select gas test "Gas pre-flow time (TIG)" signal light is on. Shielding gas flows for ap- prox. 20 seconds. The gas test can be ended immediately by pressing it once more.

#### 5.5.2 "Purge hose package" function

i dige nose package i direttori				
Operating ele- ment	Action	Result		
	5 s 🔎	<b>Select hose package rinsing</b> "Gas pre-flow time (TIG)" signal light flashes. The function is ended by pressing the button again.		

If the "Rinse hose package" function is not ended by pressing the "Gas and current parameters" button again, shielding gas will flow until the gas cylinder is empty!



## 5.6 Organising welding tasks (Mode "JOB Manager")

After carrying out any of the actions described, the machine switches back to the default parameters such as current and voltage.

## To ensure that all the changes are active, the welding machine should only be switched off after 5 seconds have elapsed.

The JOB manager enables the loading of the current JOB from the welding machine to the remote control. Likewise, it is also possible to copy this JOB to other welding systems that have been approved for this remote control.

The remote control can switch between any JOBs that can be selected at the machine.

#### 5.6.1 Explanation of symbols on the display

Display	Meaning
	Load JOB. (Load JOB)
	Load JOB from welding machine to remote control. (Get JOB)
Snd	Load JOB from remote control to welding machine. (Send JOB)
End	Exit JOB manager without any changes. (END)

#### 5.6.2 Select welding task (JOB)

Operating element	Action	Result	Display
	1 x 🖭	JOB manager mode selection	<b>L o.J</b> 55
		Select the required JOB number (e.g. 127) with the rotary transducer.	<b>L o.J</b> [27]
	1 x 💽	Confirm selection or wait a short moment for the setting to be automatically applied.	<b>L a.J</b> [27]



## 5.6.3 Load welding task (JOB) from welding machine to remote control

Operating element	Action	Result	Display
	1 x 🎤	JOB manager mode selection.	<b>L o.J</b> 55
		Select the required JOB number (e.g. 127) with the rotary transducer.	<b>Lo.j</b> [27]
	1 x 座	Confirm selection or wait a short moment for the setting to be automatically applied.	127) 127
	3 s 座	JOB manager mode selection.	
		Select the (Get JOB) function with the rotary trans- ducer.	<u>[21]</u>
	5 s 座	Confirm selection; JOB has been loaded into the remote control memory.	Current value and JOB number are displayed.

## 5.6.4 Copy welding task (JOB) from remote control to welding machine

Operatir element		Result	Display
	3 s	JOB manager mode selection	
		Select the (Send JOB) function with the rotary transducer.	<b>Snd</b> [2]
	5 s 💽	Confirm selection; JOB has been loaded into the welding machine memory.	Current value and JOB number are displayed.



#### 5.6.5 Exit JOB Manager without changes

#### The user is in the JOB manager menu and wants to exit without any changes:

Operating element	Action	Result	Display
	3 s 📭	JOB manager mode selection.	
		Select the (END) function with the rotary trans- ducer.	
	1 x 💽	Confirm selection.	Current value and JOB number are displayed.

## 5.7 Direct menus (direct access to parameters)

Functions, parameters and their values can be accessed directly, e.g. can be selected by pressing a button once.

## 5.8 Expert menu (TIG)

The Expert menu has adjustable parameters stored that don't require regular setting. The number of parameters shown may be limited, e.g. if a function is deactivated.

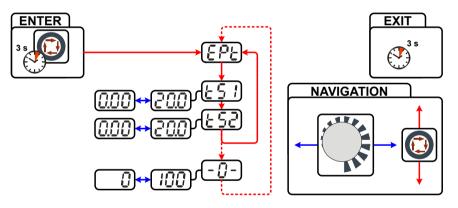


Figure 5-1

Display	Setting/selection	
EPE	Expert menu	
<u> </u>	Slope time (main current to secondary current)	
<u> </u>	Slope time (secondary current to main current)	
<u>ggp</u>	Parameter activArc	
	Setting the intensity	
Filler wire process (cold wire/hot wire)		
	GFFFiller wire disabled (factory setting).	
	anFiller wire enabled (additional parameters are indicated).	
	Hot wire process (start signal for hot wire power source)	
עעיז	anFunction enabled	
	GFFFunction disabled (ex works)	

Power-saving mode (Standby)



Display	Setting/selection
I hE	Hot wire process (setting for hot wire current) 5 A to 999 A (5 A ex works, increments of 1 A)
LJP	Wire/pulse function (wire feeding behaviour when using pulsed TIG welding) Wire feeding can be disabled during pulse pauses (not the case for automated pul- sing or kHz pulsing).
៤៤៤	<b>Filler wire diameter (manual setting)</b> Setting the wire diameter between 0.6 mm to 1.6 mm. The character "d" preceding the wire diameter on the display (d0.8) indicates a pre- programmed characteristics (correction operating mode "KORREKTUR"). If there is no characteristics for the selected wire diameter, the parameters have to be set manually (manual operating mode "MANUELL").
ปมา	<ul> <li>Wire return</li> <li>Increase value = more wire return</li> <li>Decrease value = less wire return</li> </ul>
<u>  </u> _	<b>Corrective current (tungsten balling)</b> Set the corrective current (the setting range is within the JOB limits of the currently selected welding task)
ndA	<b>Diameter of tungsten electrode/ignition optimisation</b> 1 mm to 4 mm or larger (0.1 mm increments)

The number of parameters displayed can vary (machine dependent).

## 5.9 Power-saving mode (Standby)

You can activate the power-saving mode by either pressing the push-button > see 4.2 chapter for a prolonged time or by setting a parameter in the machine configuration menu (time-controlled power-saving mode  $\boxed{5bR}$ ).



When power-saving mode is activated, the machine displays show the horizontal digit in the centre of the display only.

Pressing any operating element (e.g. turning a rotary knob) deactivates power-saving mode and the machine is ready for welding again.



## 5.10 Aligning the cable resistance

To ensure optimum welding properties, the electric cable resistance should be aligned again whenever an accessory component such as the welding torch or the intermediate hose package (AW) has been changed. The resistance value of the cables can be set directly or can be aligned by the power source. In the delivery state the cable resistance is set to the optimum values. To optimise the welding properties for other cable lengths, an alignment process (voltage correction) is necessary.

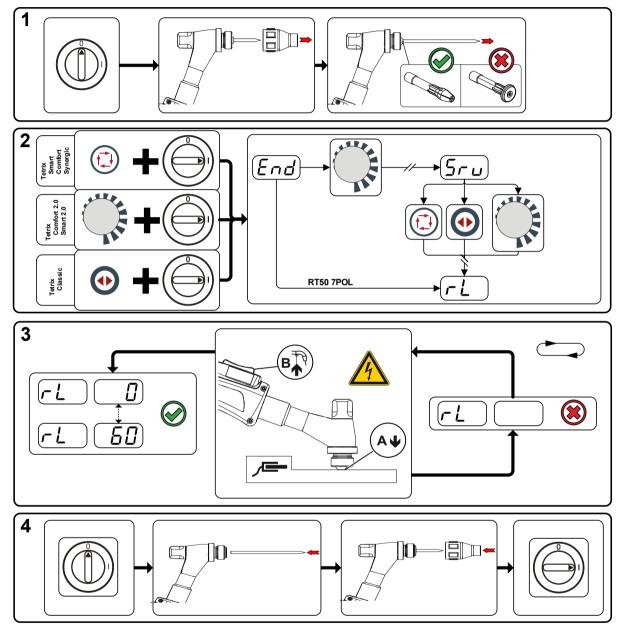


Figure 5-2



#### **1** Preparation

- Switch off the welding machine.
- Unscrew the gas nozzle from the welding torch.
- · Unfasten the tungsten electrode and extract.

#### 2 Configuration

- Press the 😟 or 🕑 (Tetrix Classic) push-button while simultaneously switching on the welding machine.
- Release push-button.
- The required parameter can now be selected using the  $\overset{\textcircled{}}{\searrow}$  rotary knob.

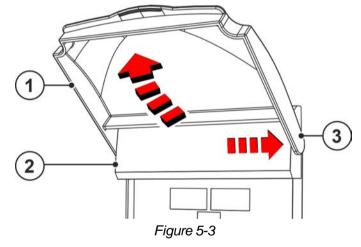
#### 3 Adjustment/measurement

 Applying slight pressure, press the welding torch with the collet against a clean, purged location on the workpiece and then press the torch trigger for approx. 2 seconds. A short-circuit current will flow briefly, which is used to determine and display the cable resistance. The value can be between 0 mΩ and 60 mΩ. The new value is immediately saved without requiring further confirmation. If no value is shown on the right-hand display, then measurement failed. The measurement must be repeated.

#### 4 Restoring welding standby mode

- Switch off the welding machine.
- Lock the tungsten electrode in the collet again.
- Screw the gas nozzle onto the welding torch.
- Switch on the welding machine

### 5.11 Protective flap, welding machine control



#### Item Symbol Description

1	Protective cap
2	Lid
3	Bracket, protective cap

• Push the right-hand bracket of the protective cap to the right and remove the protective cap.



## 6 Maintenance, care and disposal

## 6.1 General

4	A DANGER  Risk of injury due to electrical voltage after switching off! Working on an open machine can lead to fatal injuries! Capacitors are loaded with electrical voltage during operation. Voltage remains present for up to four minutes after the mains plug is removed. 1. Switch off machine. 2. Remove the mains plug. 3. Wait for at last 4 minutes until the capacitors have discharged!					
4	<ul> <li>WARNING</li> <li>Improper maintenance, testing and repairs!</li> <li>Maintenance, testing and repair of the machine may only be carried out by skilled and qualified personnel (authorised service personnel). A competent person is someone who, based on training, knowledge and experience, can recognize the hazards and possible consequential damage that may occur when testing power sources and can take the necessary safety precautions.</li> <li>Follow the maintenance instructions &gt; see 6.2 chapter.</li> <li>If any of the test requirements below are not met, the unit must not be put back into operation until it has been repaired and tested again.</li> </ul>					

Repair and maintenance work may only be performed by qualified authorised personnel; otherwise the right to claim under warranty is void. In all service matters, always consult the dealer who supplied the machine. Return deliveries of defective equipment subject to warranty may only be made through your dealer. When replacing parts, use only original spare parts. When ordering spare parts, please quote the machine type, serial number and item number of the machine, as well as the type designation and item number of the spare part.

Under the specified ambient conditions and normal working conditions this machine is essentially maintenance-free and requires just a minimum of care.

Contamination of the machine may impair service life and duty cycle. The cleaning intervals depend on the ambient conditions and the resulting contamination of the machine. The minimum interval is every six months.



6.2

## Maintenance schedule

Inspector	Type of inspec- tion			<ul> <li>Maintenance step</li> <li>Only personnel designated as inspectors or repairers due to their training are allowed to carry out the relevant work step! Non-applicable inspection points are omitted.</li> </ul>	Repairer
	۲	å	0-0 8h	<ul> <li>Checking all supply lines and their connections (pipes, hoses, hose packages) for damage or leaks.</li> <li>Checking the product for damage to the housing.</li> <li>Transport elements (strap, lifting eyes, handle, wheels, parking brake) corresponding safety elements (if necessary fuse caps) are present and flawless?</li> </ul>	G
	and the second s	٥ D	8h	<ul> <li>Checking operating, signalling and indicator lights, protective devices and actuators.</li> </ul>	
Ð		Ŷ	H/Y	<ul> <li>Clean external surfaces with a damp cloth (do not use aggressive cleaning agents).</li> </ul>	

## 6.2.1 Explanation of icons

#### Personnel

	Welder / operator	G	Qualified person (authorised service person- nel)				
Test							
۲	Visual inspection		Functional test				
Period	, interval						
(Bh	One-shift operation		Multi-shift operation				
0-0 8h	Every 8 hours	Å D	Daily				
W	Weekly	M	Monthly				
0-0 H/Y	Every 6 months	Ŷ	Annually				

Disposing of equipment



## 6.3 Disposing of equipment



#### Proper disposal!

The machine contains valuable raw materials, which should be recycled, and electronic components, which must be disposed of.

- Do not dispose of in household waste!
- Observe the local regulations regarding disposal!
- According to European provisions (Directive 2012/19/EU on Waste of Electrical and Electronic Equipment), used electric and electronic equipment may no longer be placed in unsorted municipal waste. It must be collected separately. The symbol depicting a waste container on wheels indicates that the equipment must be collected separately.

This machine has to be disposed of, or recycled, in accordance with the waste separation systems in use.

According to German law (law governing the distribution, taking back and environmentally correct disposal of electrical and electronic equipment (ElektroG)), used machines are to be placed in a collection system separate from unsorted municipal waste. The public waste management utilities (communities) have created collection points at which used equipment from private households can be disposed of free of charge.

The deletion of personal data is the responsibility of the end user.

Lamps, batteries or accumulators must be removed and disposed of separately before disposing of the device. The type of battery or accumulator and its composition is marked on the top (type CR2032 or SR44). The following EWM products may contain batteries or accumulators:

• Welding helmets

Batteries or accumulators are easy to remove from the LED cassette.

Device controls

Batteries or accumulators are located on the back of these in corresponding sockets on the circuit board and are easy to remove. The controls can be removed using standard tools.

Information on returning used equipment or collections can be obtained from the respective municipal administration office. Devices can also be returned to EWM sales partners across Europe.

Further information on the topic of the disposal of electrical and electronic equipment can be found on our website at: https://www.ewm-group.com/de/nachhaltigkeit.html.

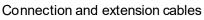


## 7 Technical data

Performance specifications and guarantee only in connection with original spare and replacement parts!

## 7.1 RT507POL

Connection	7-pole	
Ambient temperature	-25 °C to +40 °C	
Test mark	C€/[fil]/ど\$	
Standards used	See declaration of conformity (appliance documents)	
Dimensions (I x b x h)	115 x 235 x 300 mm / 4.5 x 9.3 x 11.8 inch	
Weight	3,2 kg / 7.1 lb.	





#### 8 Accessories

#### **Connection and extension cables** 8.1

Туре	Designation	Item no.
FRV 7POL 0.5 m	Extension/connecting cable	092-000201-00004
FRV 7POL 1 m	Extension/connecting cable	092-000201-00002
FRV 7POL 5 m	Extension/connecting cable	092-000201-00003
FRV 7POL 10 m	Extension/connecting cable	092-000201-00000
FRV 7POL 20 m	Extension/connecting cable	092-000201-00001
FRV 7POL 25M	Extension/connecting cable	092-000201-00007



## 9 Appendix

## 9.1 Searching for a dealer

Sales & service partners www.ewm-group.com/en/specialist-dealers



"More than 400 EWM sales partners worldwide"