



Remote control  
**R50 7POL**

099-008776-EW501

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21.01.2016

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# General instructions

## CAUTION



### **Read the operating instructions!**

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

- Read the operating instructions for all system components!
- Observe accident prevention regulations!
- Observe all local regulations!
- Confirm with a signature where appropriate.



***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](http://www.ewm-group.com).***

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## 2 Safety instructions

### 2.1 Notes on the use of these operating instructions



#### **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.



#### **WARNING**

**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.



#### **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.

#### **CAUTION**

**Working and operating procedures which must be followed precisely to avoid damaging or destroying the product.**

- The safety information includes the "CAUTION" keyword in its heading without a general warning symbol.
- The hazard is explained using a symbol at the edge of the page.



#### **Special technical points which users must observe.**

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

Symbol	Description
	Special technical points which users must observe.
	Correct
	Wrong
	Press
	Do not press
	Press and keep pressed
	Turn
	Switch
	Switch off machine
	Switch on machine
<b>ENTER</b>	enter the menu
<b>NAVIGATION</b>	Navigating in the menu
<b>EXIT</b>	Exit the menu
4 s 	Time display (example: wait 4s/press)
	Interruption in the menu display (other setting options possible)
	Tool not required/do not use
	Tool required/use

## 2.3 General



### DANGER



#### Electric shock!

**Welding machines use high voltages which can result in potentially fatal electric shocks and burns on contact. Even low voltages can cause you to get a shock and lead to accidents.**

- Do not touch any live parts in or on the machine!
- Connection cables and leads must be free of faults!
- Switching off alone is not sufficient!
- Place welding torch and stick electrode holder on an insulated surface!
- The unit should only be opened by specialist staff after the mains plug has been unplugged!
- Only wear dry protective clothing!
- Wait for 4 minutes until the capacitors have discharged!



#### Electromagnetic fields!

**The power source may cause electrical or electromagnetic fields to be produced which could affect the correct functioning of electronic equipment such as IT or CNC devices, telecommunication lines, power cables, signal lines and pacemakers.**

- Observe the maintenance instructions - See 6 Maintenance, care and disposal chapter!
- Unwind welding leads completely!
- Shield devices or equipment sensitive to radiation accordingly!
- The correct functioning of pacemakers may be affected (obtain advice from a doctor if necessary).



### WARNING



#### Risk of accidents due to non-compliance with the safety instructions!

**Non-compliance with the safety instructions can be fatal!**

- Carefully read the safety instructions in this manual!
- Observe the accident prevention regulations and any regional regulations!
- Inform persons in the working area that they must comply with the regulations!



#### Validity of the document!

**This document is valid only in combination with the operating instructions for the product being used!**

- Read and observe the operating instructions for all system components, especially the safety instructions!



#### Fire hazard!

**Flames may arise as a result of the high temperatures, stray sparks, glowing-hot parts and hot slag produced during the welding process.**

**Stray welding currents can also result in flames forming!**

- Check for fire hazards in the working area!
- Do not carry any easily flammable objects such as matches or lighters.
- Keep appropriate fire extinguishing equipment to hand in the working area!
- Thoroughly remove any residue of flammable substances from the workpiece before starting welding.
- Only continue work on welded workpieces once they have cooled down. Do not allow to come into contact with flammable material!
- Connect welding leads correctly!

 **WARNING****Risk of injury due to radiation or heat!****Arc radiation results in injury to skin and eyes.****Contact with hot workpieces and sparks results in burns.**

- Use welding shield or welding helmet with the appropriate safety level (depending on the application)!
- Wear dry protective clothing (e.g. welding shield, gloves, etc.) according to the relevant regulations in the country in question!
- Protect persons not involved in the work against arc beams and the risk of glare using safety curtains!

**Hazards due to improper usage!****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 proper usage and by trained or expert staff!
- Do not modify or convert the equipment improperly!

 **CAUTION****Noise exposure!****Noise exceeding 70 dBA can cause permanent hearing damage!**

- Wear suitable ear protection!
- Persons located within the working area must wear suitable ear protection!

**CAUTION****Obligations of the operator!****The respective national directives and laws must be observed for operation of the machine!**



- National implementation of the framework directive (89/391/EEG), as well as the associated individual directives.
- In particular, directive (89/655/EEG), on the minimum regulations for safety and health protection when staff members use equipment during work.
- The regulations regarding work safety and accident prevention for the respective country.
- Setting up and operating the machine according to IEC 60974-9.
- Check at regular intervals that users are working in a safety-conscious way.
- Regular checks of the machine according to IEC 60974-4.

**Damage due to the use of non-genuine parts!****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.

**Trained personnel!****Commissioning is reserved for persons who have the relevant expertise of working with arc welding machines.**

## 2.4 Transport

 <b>CAUTION</b>	
	<p><b>Damage due to supply lines not being disconnected!</b> During transport, supply lines which have not been disconnected (mains supply leads, control leads, etc.) may cause hazards such as connected equipment tipping over and injuring persons!</p> <ul style="list-style-type: none"><li>• Disconnect supply lines!</li></ul>

## 2.5 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.

### 2.5.1 Ambient conditions

<b>CAUTION</b>	
	<p><b>Equipment damage due to dirt accumulation!</b> Unusually high quantities of dust, acid, corrosive gases or substances may damage the equipment.</p> <ul style="list-style-type: none"><li>• Avoid high volumes of smoke, vapour, oil vapour and grinding dust!</li><li>• Avoid ambient air containing salt (sea air)!</li></ul>

#### 2.5.1.1 In operation

##### Temperature range of the ambient air:

- -25 °C to +40 °C

##### Relative air humidity:

- Up to 50% at 40 °C
- Up to 90% at 20 °C

#### 2.5.1.2 Transport and storage

##### Storage in an enclosed space, temperature range of the ambient air:

- -30 °C to +70 °C

##### Relative air humidity

- Up to 90% at 20 °C



### 3 Intended use

#### WARNING



##### **Hazards due to improper usage!**

**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 proper usage and by trained or expert staff!
- Do not modify or convert the equipment improperly!

Remote control for welding machine and accessory functions.

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

- Phoenix Progress / Expert
- alpha Q
- Taurus Synergic S

#### 3.2 Documents which also apply

##### 3.2.1 Warranty



*For more information refer to the "Warranty registration" brochure supplied and our information regarding warranty, maintenance and testing at [www.ewm-group.com](http://www.ewm-group.com)!*

##### 3.2.2 Declaration of Conformity



**The designated machine conforms to EC Directives and standards in terms of its design and construction:**

- EC Low Voltage Directive (2006/95/EC),
- EC EMC Directive (2004/108/EC),

This declaration shall become null and void in the event of unauthorised modifications, improperly conducted repairs, non-observance of the deadlines for the repetition test and / or non-permitted conversion work not specifically authorised by the manufacturer.

The original copy of the declaration of conformity is enclosed with the unit.

##### 3.2.3 Service documents (spare parts)



#### **DANGER**



##### **Do not carry out any unauthorised repairs or modifications!**

**To avoid injury and equipment damage, the unit must only be repaired or modified by specialist, skilled persons!**

**The warranty becomes null and void in the event of unauthorised interference.**

- Appoint only skilled persons for repair work (trained service personnel)!

Spare parts can be obtained from the relevant authorised dealer.

## 4 Machine description – quick overview

### 4.1 Front view

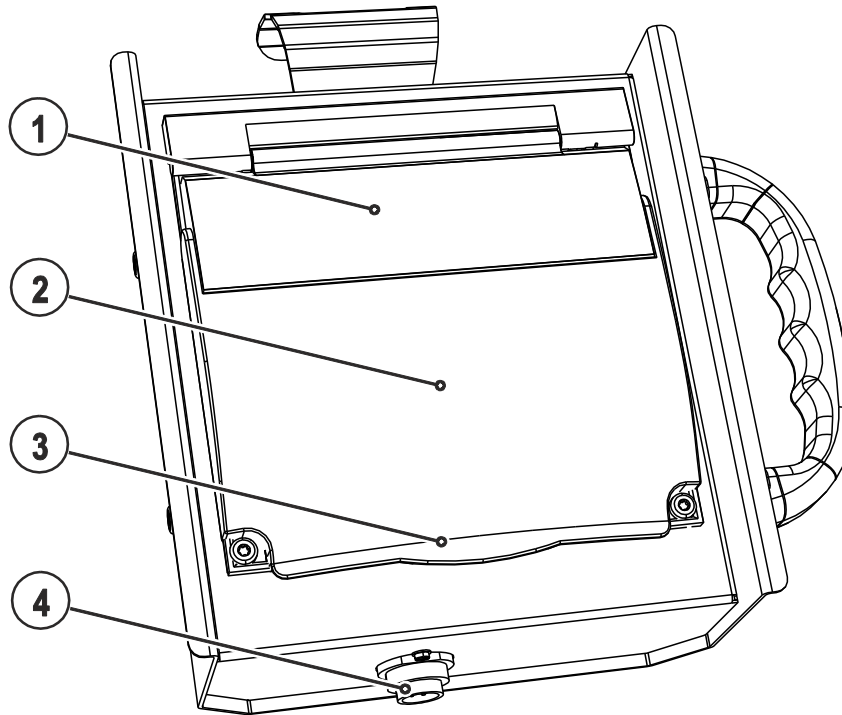


Figure 4-1

Item	Symbol	Description
1		Lid
2		Machine control- See 4.3 Machine control – Operating elements chapter
3		Protective cap
4		Connection socket, 7-pole (digital) Connection to the digital remote control connection on power source or wire feed unit.

## 4.2 Rear view

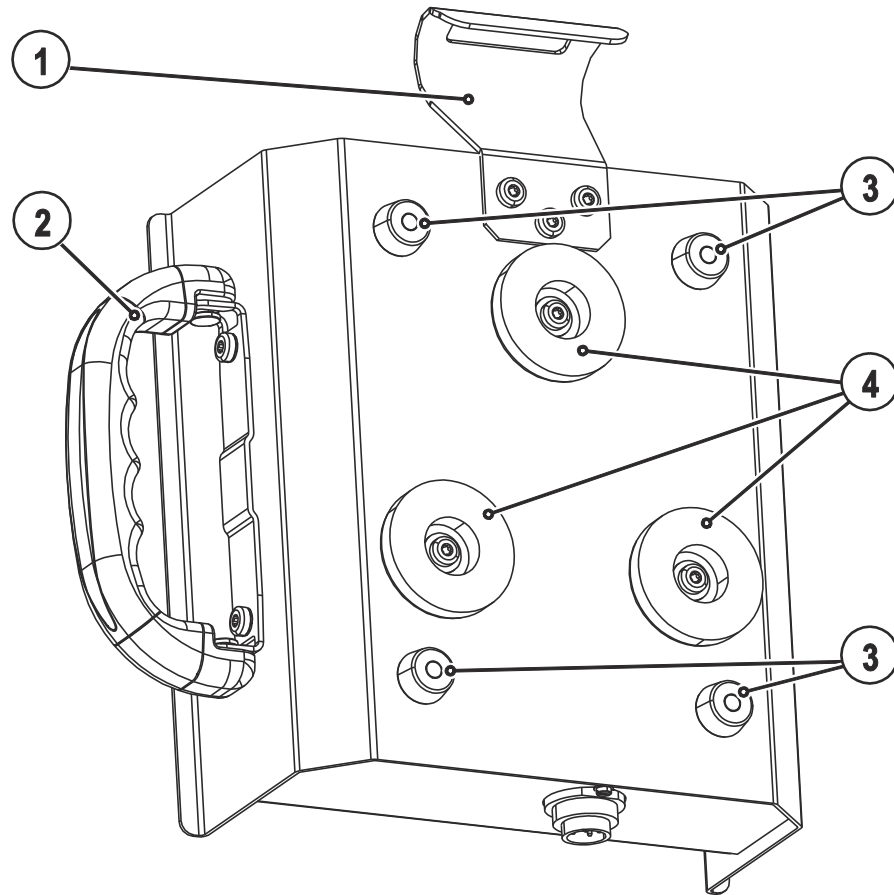


Figure 4-2

Item	Symbol	Description
1		Holder for suspending the remote control
2		Carrying handle
3		Machine feet
4		Fixing magnet To mount remote control on magnetisable surfaces

## 4.3 Machine control – Operating elements

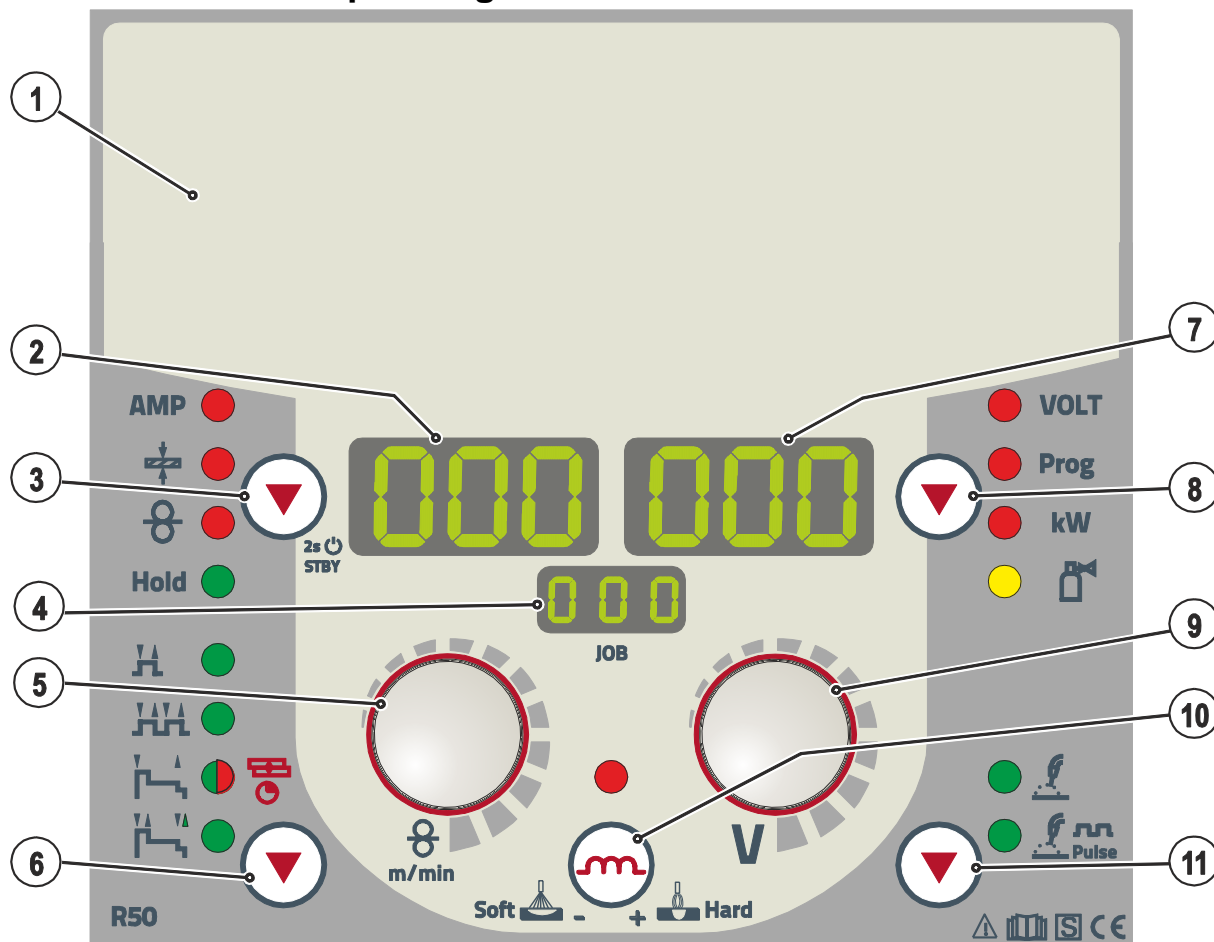


Figure 4-3

Item	Symbol	Description
1		Lid - See 4.3.1 Machine control – Concealed operating elements chapter
2		<b>Display, left</b> Welding current, material thickness, wire speed, hold values
3		<b>Push-button, parameter selection left/power-saving mode</b> AMP      Welding current Material thickness Wire feed speed Hold      After welding, the values used last are shown from the main program. The signal light is illuminated. STBY      Press for 2 s to put machine into power-saving mode. To reactivate, activate one of the operating elements.
4		<b>Display, JOB</b> Shows the currently selected welding task (JOB number).
5		<b>Welding parameter setting, rotary dial</b> For setting the welding performance, for selecting the JOB (welding task) and for setting other welding parameters.
6		<b>Select operating mode button</b> H      Non-latched HH      Latched Signal light lights up in green: Special non-latched Signal light lights up in red: MIG spot welding Special latched
7		<b>Display, right</b> Welding voltage, program number, motor current (wire feed mechanism)
8		<b>Button, Parameter selection (right)</b> VOLT      Welding voltage Prog      Program number kW      Welding performance display Gas flow quantity (optional)
9		<b>Arc length correction/selection of welding program, rotary dial</b> • Correction of the arc length from -9.9 V to +9.9 V. • Selection of welding programs 0 to 15 (not possible if accessory components, such as program torches, are connected).
10		<b>Push-button, throttling effect (arc dynamics)</b> +  Hard      Arc is harder and more narrow Soft       Arc is softer and wider
11		<b>Welding type push-button</b> Standard arc welding Pulsed arc welding

## 4.3.1 Machine control – Concealed operating elements

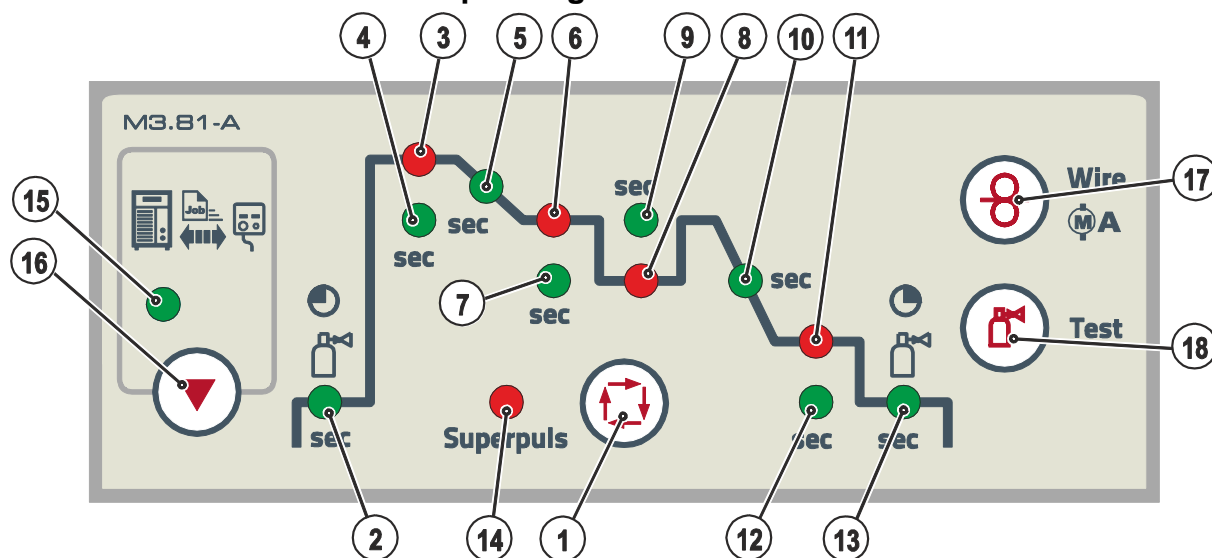






Figure 4-4


Item	Symbol	Description
1		<b>Select welding parameters button</b> This button is used to select the welding parameters depending on the welding process and operating mode used.
2		<b>Signal light, gas pre-flow time</b> Setting range 0.0 s to 20.0 s
3		<b>Signal light, start program (P<sub>START</sub>)</b> <ul style="list-style-type: none"> <li>Wire speed: 1% to 200% of the main program P<sub>A</sub></li> <li>Correction of the arc length -9.9 V to +9.9 V</li> </ul>
4	sec	<b>Signal light, start time</b> Setting range, absolute 0.0 s to 20.0 s (0.1 s increments)
5	sec	<b>Signal light, slope time program P<sub>START</sub> to main program P<sub>A</sub></b> Setting range 0.0 s to 20.0 s (0.1 s increments)
6		<b>Signal light, main program (P<sub>A</sub>)</b> <ul style="list-style-type: none"> <li>Wire speed WF-min. to WF-max.</li> <li>Correction of the arc length -9.9 V to +9.9 V</li> </ul>
7	sec	<b>Signal light, duration of main program P<sub>A</sub></b> Setting range 0.1 s to 20.0 s (0.1 s increments). Used e.g. in connection with the super pulse function
8		<b>Signal light, reduced main program (P<sub>B</sub>)</b> <ul style="list-style-type: none"> <li>Wire speed: 1% to 200% of the main program P<sub>A</sub></li> <li>Correction of the arc length -9.9 V to +9.9 V</li> </ul>
9	sec	<b>Signal light, duration reduced main program P<sub>B</sub></b> Setting range 0.0 s to 20.0 s (0.1 s increments). Used e.g. in connection with the super pulse function.
10	sec	<b>Signal light, slope time program P<sub>A</sub> (or P<sub>B</sub>) to end program P<sub>END</sub></b> Setting range 0.0 s to 20.0 s (0.1 s increments)
11		<b>Signal light, end program (P<sub>END</sub>)</b> <ul style="list-style-type: none"> <li>Wire speed: 1% to 200% of the main program P<sub>A</sub></li> <li>Correction of the arc length -9.9 V to +9.9 V</li> </ul>
12	sec	<b>Signal light, duration of end program P<sub>END</sub></b> Setting range 0.0 s to 20.0 s (0.1 s increments)
13		<b>Signal light, gas post-flow time</b> Setting range 0.0 s to 20.0 s

Item	Symbol	Description
14	<b>Super-puls</b>	<b>Signal lamp, super pulse function</b> Lights up when the super pulse function is active.
15		<b>Signal light: organising welding tasks (JOB)</b> Flashes when JOB number is displayed or selected
16		<b>Press organise welding tasks (JOB) push-button</b> 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: <ul style="list-style-type: none"> <li>• Load welding task (JOB) from welding machine to remote control</li> <li>• Copy welding task (JOB) from remote control to welding machine</li> </ul>
17		<b>Push-button, wire inching/motor current (wire feed mechanism)</b>
18		<b>Gas test / rinse button</b> <ul style="list-style-type: none"> <li>• Gas test: For setting the shielding gas quantity</li> <li>• Rinse: For rinsing longer hose packages</li> </ul>


## 5 Design and function

### 5.1 General

The remote control is virtually a 100% copy of the existing welding machine/wire feed unit control. Users can optimise all process parameters required for the welding task either directly at the work site or, as usual, on the welding machine/wire feed unit control.

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

### 5.2 Establishing the connections

CAUTION	
	<p><b>Damage to the machine due to improper connection!</b></p> <p><b>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!</b></p> <ul style="list-style-type: none"><li>• Observe the operating instructions for the welding machine or wire feed unit!</li><li>• Switch off the welding machine before connecting!</li></ul>

 **Observe documentation of other system components when connecting!**

- 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.

### 5.3 Welding task selection

The remote control can show the selected JOB in the display. It, however, cannot change the JOB. The welding task (JOB) can only be selected on the machine control of the welding machine/wire feed unit (also see chapter "Selection of welding tasks" in the standard operating instructions).



### 5.4 Organise welding task (JOB)

The remote control is equipped with a data storage medium (Flash ROM). Users can download any welding task (JOB) onto this memory from the memory of the welding machine. This JOB can subsequently be copied via an existing JOB in the free memory of the welding machine (JOB 129 - JOB 169) or onto itself. Likewise, it is also possible to copy this JOB to other welding systems that have been approved for this remote control. The unit will once again return to the main menu if the user does not make any entry within 10 seconds.

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

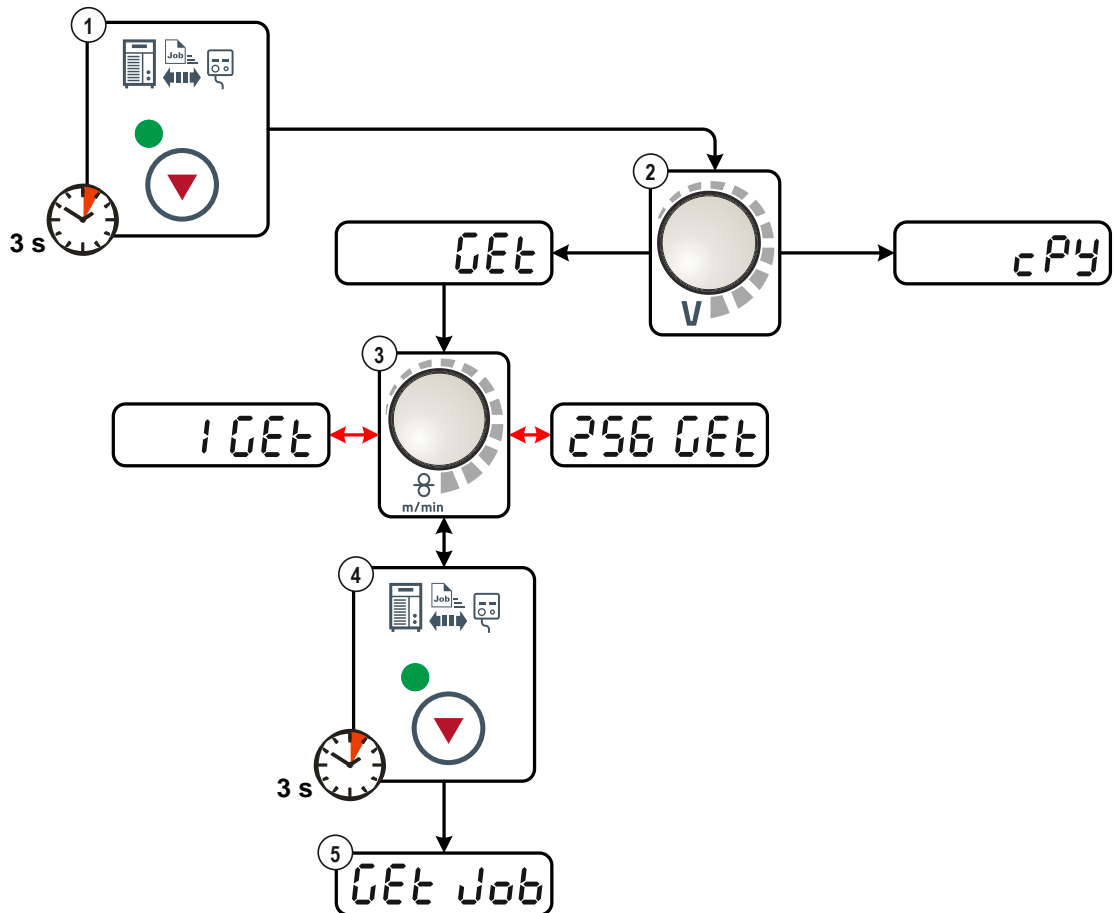



Figure 5-1

Item	Symbol	Description
1		<b>Press organise welding tasks (JOB) push-button for at least 3 sec</b> The remote control switches to the "Organise welding tasks (JOB)" mode.
2		<b>Select function:</b> Load welding task (JOB).
3		<b>JOB selection</b> Select any JOB for loading.
4		<b>Press organise welding tasks (JOB) push-button for at least 3 sec</b> JOB is loaded into remote control memory.
5		<b>JOB will be loaded</b> The system returns to the main menu following completion of the loading process.

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

 A JOB must first be loaded onto the remote control before it can be copied (also see chapter "Loading the welding task (JOB) from the welding machine to the remote control"). The loaded JOB can subsequently be copied onto itself or to a storage location in the free space of the power source (JOB 129 - JOB 169).

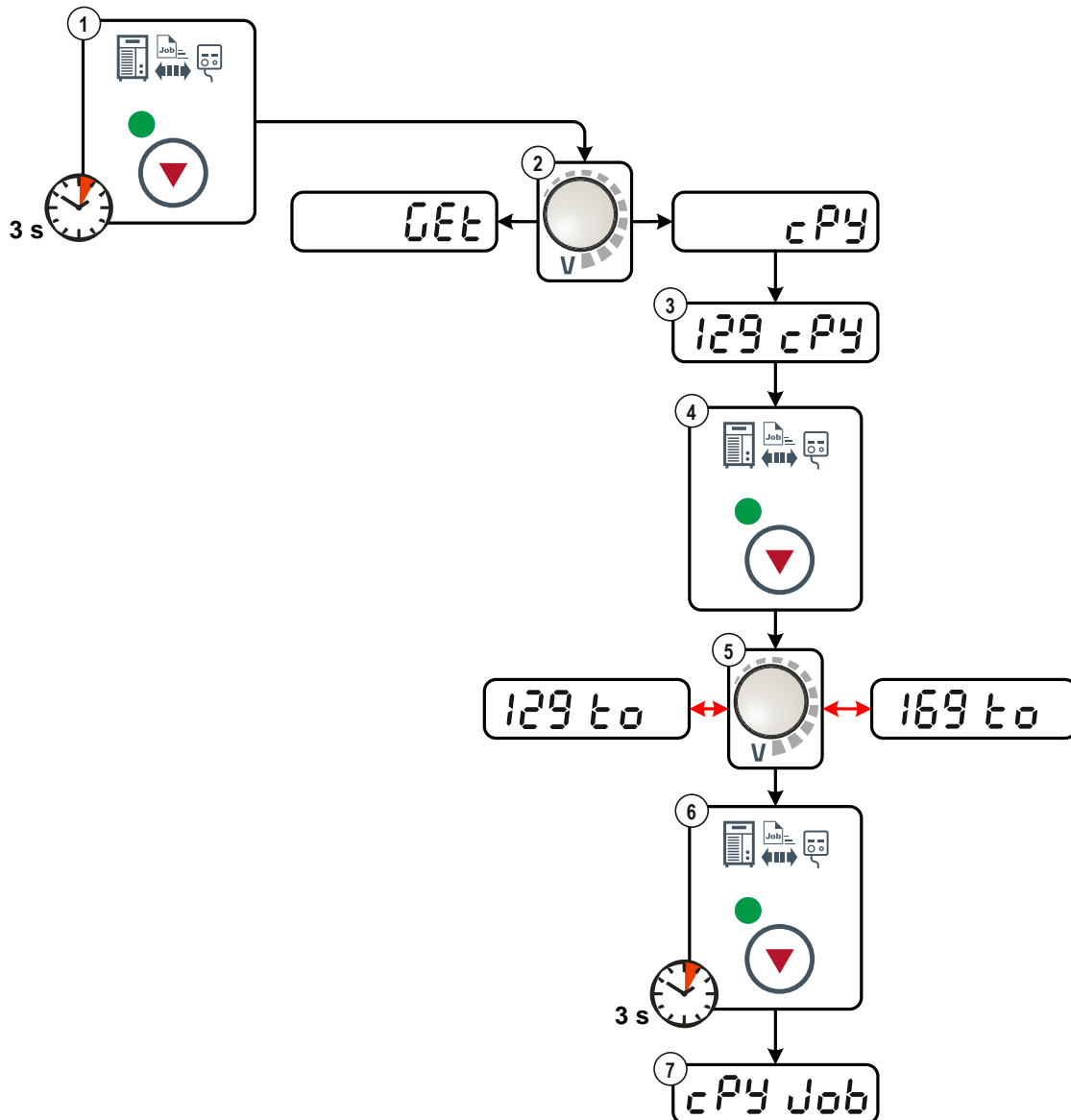


Figure 5-2

Item	Symbol	Description
1		<b>Press organise welding tasks (JOB) push-button for at least 3 sec</b> The remote control switches to the "Organise welding tasks (JOB)" mode.
2		<b>Select function:</b> Copy welding task (JOB)
3		<b>Display of JOB saved in the remote control</b> Example: JOB 129
4		<b>Press organise welding tasks (JOB) push-button</b> The remote control switches to the target selection of the JOB to be overwritten in the welding machine.
5		<b>Selection of the JOB to be overwritten in the welding machine</b> The JOB loaded in the remote control memory can be copied via an existing JOB in the free memory of the welding machine (JOB 129 - JOB 169) or onto itself.
6		<b>Press organise welding tasks (JOB) push-button for at least 3 sec</b> The copy process is started.
7		<b>JOB is being copied</b> Following completion of the copying process, the program returns to the main menu.

### 5.4.3 Delete saved welding task (JOB) in remote control



**All special parameters will be overwritten by the factory settings!**

**The welding task (JOB) will be deleted in the remote control memory.**

Operating element	Action	Result	Display	
			left	right
		Switch off the welding machine	-	-
		Press and hold the "right parameter selection" push-button on remote control	-	-
		Switch on the welding machine		
		Release push-button Wait for about 3 seconds		
		Switch off the welding machine and restart in order to implement the changes	-	-

### 5.5 Special parameters (advanced settings)

Special parameters (P1 to Pn) are applied for customer-specific configuration of machine functions. This allows the user maximum flexibility in optimising their requirements.

These settings are not configured directly on the machine control since a regular setting of the parameters is generally not required. The number of selectable special parameters can deviate between the machine controls used in the welding system (also see the relevant standard operating instructions).

If required, the special parameters can be reset to the factory settings- See 5.5.1.2 Reset to factory settings chapter.

#### 5.5.1 Selecting, changing and saving parameters



##### ENTER (Enter the menu)

- Switch off the machine at the main switch.
- Press and hold the "left parameter selection" button on the remote control and, at the same time, switch on the machine.

##### NAVIGATION (Navigate the menu)

- Select parameters by turning the "welding parameter setting" rotary dial.
- Set or change parameters by turning the "arc length correction/select welding program" rotary dial.

##### EXIT (Exit the menu)

- Press the "right parameter selection" button (switch machine off and on again).

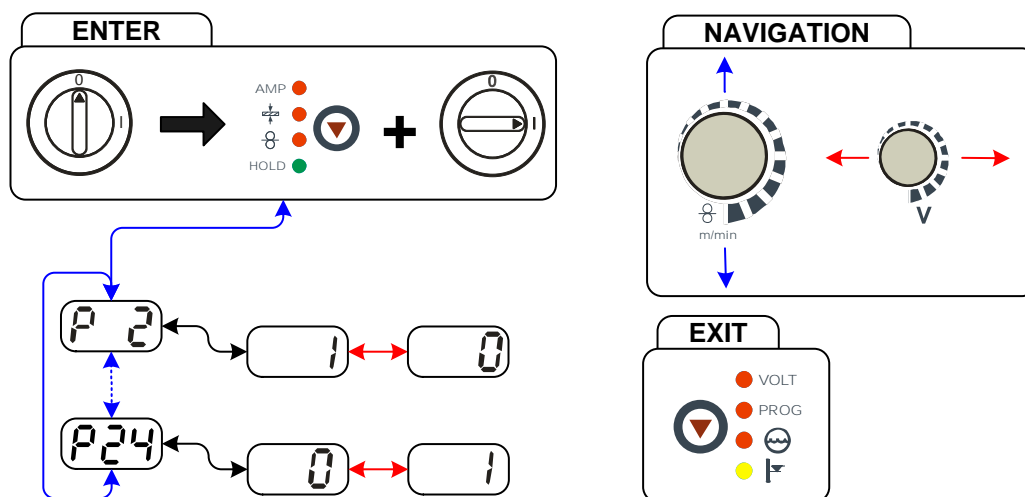



Figure 5-3

Display	Setting/selection
P 2	<b>Block program "0"</b> 0 = P0 enabled (Ex works) 1 = P0 blocked
P 4	<b>Program limitation</b> Programs 1 to max. 15 Ex works: 15
P 15	<b>HOLD function</b> 0 = HOLD values are not displayed 1 = HOLD values are displayed (Ex works)
P 19	<b>Mean value display for superPuls</b> 0 = Function switched off. 1 = Function switched on (ex factory).
P 23	<b>Program settings for relative programs</b> 0 = Combined setting of relative programs possible (ex works). 1 = Individual setting of relative programs possible (ex works).

Display	Setting/selection
	<b>Correction or nominal voltage display</b> 0 = Correction voltage display (ex works). 1 = Absolute nominal voltage display.

### 5.5.1.1 Special parameters in detail

#### Program "0", releasing the program block (P2)

The program P0 (manual setting) is blocked. Only operation with P1-P15 is possible, irrespective of the key switch position.

#### Program limit (P4)

Program selection can be limited with special parameter P4.

- The setting is adopted for all JOBS.
- Program selection depends on the position of the "welding torch function" changeover switch (see "Machine description"). Programs can only be switched when the changeover switch is in the "Program" position.
- Programs can be switched by means of a connected remote control or special welding torch.
- It is only possible to switch programs by means of the "arc length correction/select welding program" rotary dial (see "Machine description") if no special welding torch is connected.

#### Hold function (P15)

##### Hold function active (P15 = 1)

- Mean values for the last main program parameters used for welding are displayed.

##### Hold function not active (P15 = 0)

- Setpoint values for the main program parameters are displayed.

#### Mean value display for superPuls (P19)

##### Function active (P19 = 1)

- For superPuls, the performance **mean value** from program A ( $P_A$ ) and program B ( $P_B$ ) is shown on the display (ex factory).

##### Function inactive (P19 = 0)

- Only the performance of program A is displayed for superPuls.

#### Program settings for relative programs (P23)

The start, down-slope and end program relative programs can be set individually or combined for the P0-P15 operating points. When choosing the combined setting, in contrast to the individual setting, the parameter values are saved in the JOB. With the individual setting, the parameter values are identical for all JOBS (except for special JOBS SP1, SP2 and SP3).

#### Correction or nominal voltage display (P24)

When setting the arc correction using the right-hand rotary knob the display will either show the correction voltage  $\pm 9.9$  V (ex works) or the absolute nominal voltage.

## 5.5.1.2 Reset to factory settings



**All special parameters will be overwritten by the factory settings!  
The welding task (JOB) will be deleted in the remote control memory.**

Operating element	Action	Result	Display	
			left	right
		Switch off the welding machine	-	-
		Press and hold the "right parameter selection" push-button on remote control	-	-
		Switch on the welding machine	Fr	r50
		Release push-button Wait for about 3 seconds	t1	on
		Switch off the welding machine and restart in order to implement the changes	-	-

## 5.6 Protective flap, welding machine control

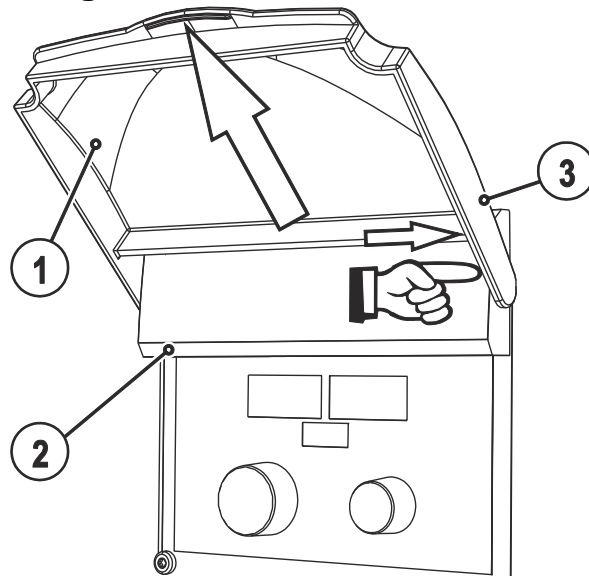


Figure 5-4

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



**DANGER**



### **Improper maintenance and testing**

The equipment may only be cleaned, repaired or tested by specialist, skilled persons! A skilled person is one who, due to training, knowledge and experience, is able to recognise the dangers that can occur during testing of this equipment as well as possible subsequent damage and who is able to implement the required safety procedures.

- Complete all tests given in the chapter below!
- Only put the equipment back into operation following a successful test.

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.

### 6.1 General

When used in the specified environmental conditions and under normal operating conditions, this machine is largely maintenance-free and requires a minimum of care.

There are some points, which should be observed, to guarantee fault-free operation of your welding machine. Among these are regular cleaning and checking as described below, depending on the pollution level of the environment and the length of time the unit is in use.

### 6.2 Maintenance work, intervals

#### 6.2.1 Monthly maintenance tasks

- Check control leads and their strain relief for damage.
- Carry out functional test of operating, signalling, safety and/or adjustment devices.
- Other, general condition



## 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!**



### 6.3.1 Manufacturer's declaration to the end user

- According to European provisions (guideline 2002/96/EG of the European Parliament and the Council of January, 27th 2003), 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 is to be placed for disposal or recycling in the waste separation systems provided for this purpose.
- According to German law (law governing the distribution, taking back and environmentally correct disposal of electric and electronic equipment (ElektroG) from 16.03.2005), 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.
- Information about giving back used equipment or about collections can be obtained from the respective municipal administration office.
- EWM participates in an approved waste disposal and recycling system and is registered in the Used Electrical Equipment Register (EAR) under number WEEE DE 57686922.
- In addition to this, returns are also possible throughout Europe via EWM sales partners.

## 6.4 Meeting the requirements of RoHS

We, EWM AG Mündersbach, hereby confirm that all products supplied by us which are affected by the RoHS Directive, meet the requirements of the RoHS (Directive 2011/65/EU).

## 7 Technical data

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

### 7.1 R50 7POL

Interface	7-pole
Dimensions L x W x H	115 x 235 x 300 mm
Weight	3.2 kg

**8 Accessories****8.1 Connection and extension cables**

Type	Designation	Item no.
FRV 7POL 10 m	Extension/connecting cable	092-000201-00000
FRV 7POL 20 m	Extension/connecting cable	092-000201-00001
FRV 7POL 1 m	Extension/connecting cable	092-000201-00002
FRV 7POL 5 m	Extension/connecting cable	092-000201-00003

## 9 Appendix A

### 9.1 Overview of EWM branches

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● More than 400 EWM sales partners worldwide