



**EN**

**Retrofit option**

**ON Drahteinschleich Poti M1.02**

099-001102-EW501

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24.05.2017

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## General instructions

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

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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## 1 For your safety

### 1.1 Safety instructions

#### WARNING



**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)!



**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!



***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!***

## 2 Intended use

### 2.1 General

#### 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!

### 2.2 Applications

The option described below expands the functionality of an existing machine with the possibility to control the wire creep speed.

These instructions apply only for the conversion of the following machines:

- Saturn 301/351 M1.02 FKG
- Saturn M1.02 drive 41L
- Wega 401 M1.02 FKG
- Wega M1.02 drive 41L

### 2.3 Short description of the working steps required

- Open the machine.
- Install the option.
- Final inspection

## 3 Conversion

### 3.1 General

#### **⚠ DANGER**



**Risk of injury from electric shock!**

**Servicing machines that are not disconnected from the mains can lead to serious injuries!**

- Disconnect the machine completely from the mains.  
Pull out the mains plug!
- Wait for 4 minutes until the capacitors have discharged!



**Wiring the accessories has to follow the machine's circuit diagrams at all times!**

**The circuit diagrams can be found in the machine (document pouch on the casing cover) and may also be included in these conversion instructions!**

### 3.2 Parts list



**Before conversion, check that the retrofit kit is complete (see parts list).**

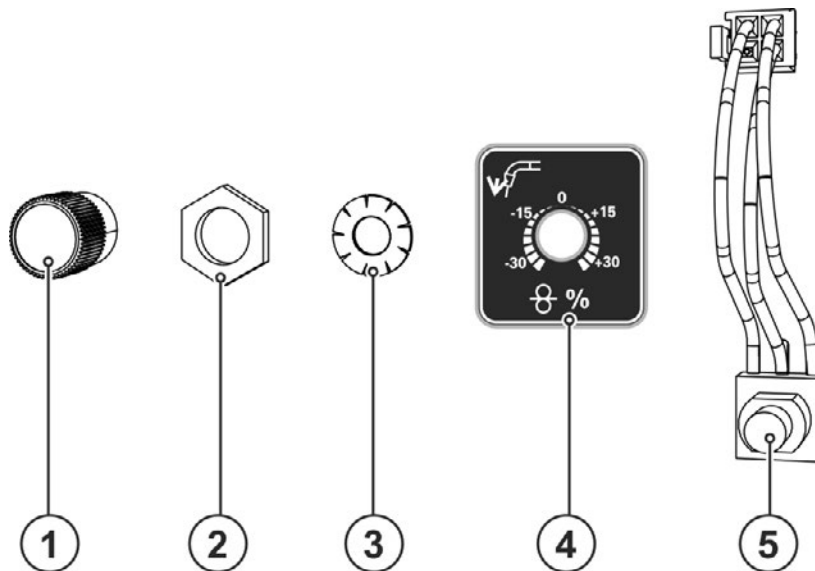


Figure 3-1

Item	Quantity	Description	Item number
1	1	Rotary knob	094-000997-00000
2	1	Hexagonal nut, M10 x 0.75	044-000551-00000
3	1	Flap disc	044-002149-00000
4	1	Adhesive film	094-012220-00000
5	1	Rotary transducer with cable harness	092-001103-00000

**3.3 Installation position**

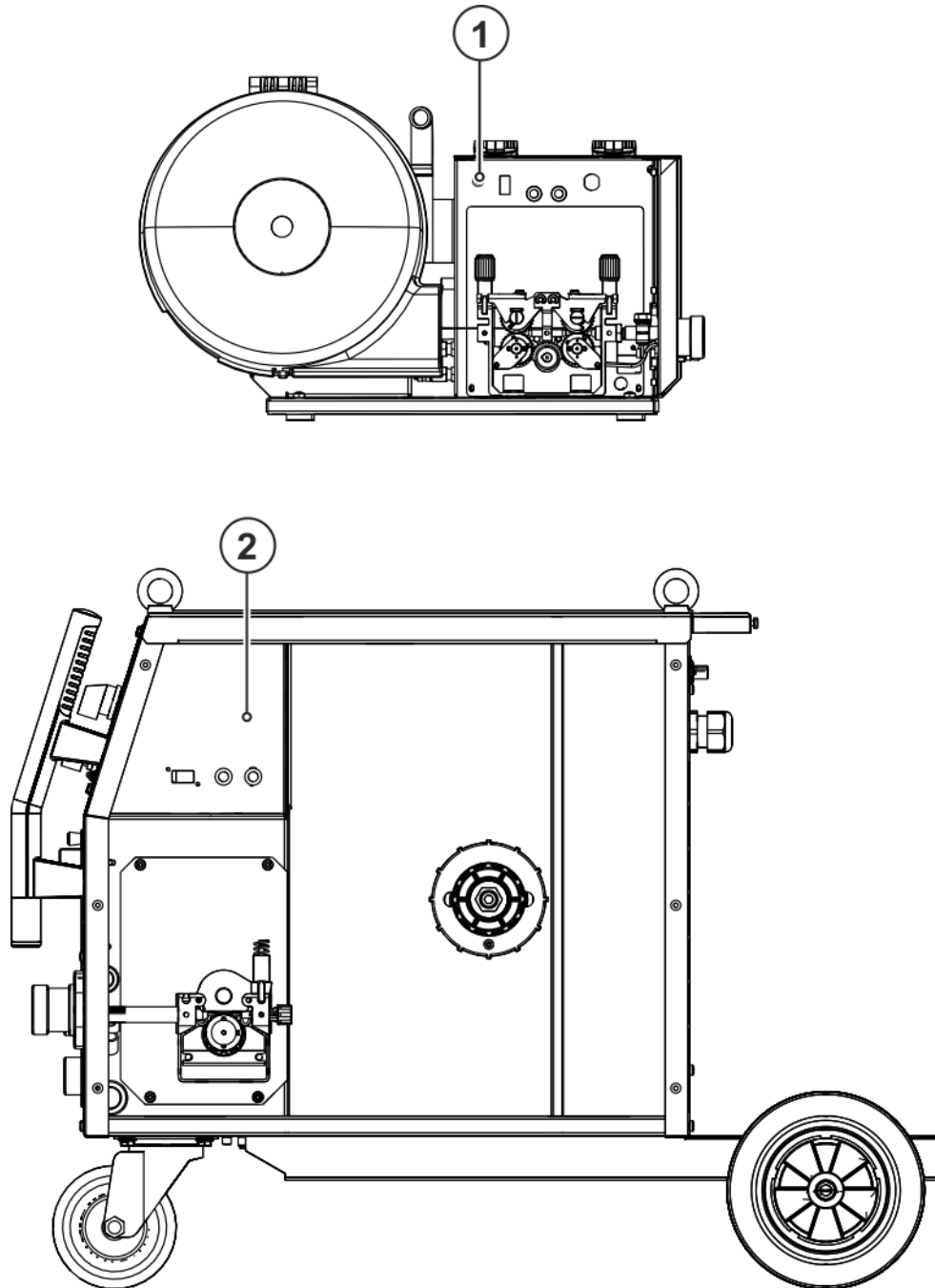


Figure 3-2

Section	Designation
1	Wire feeder installation position
2	Welding machine installation position

## 3.4 Assembly

### 3.4.1 Wire feed unit

#### 3.4.1.1 Opening the unit

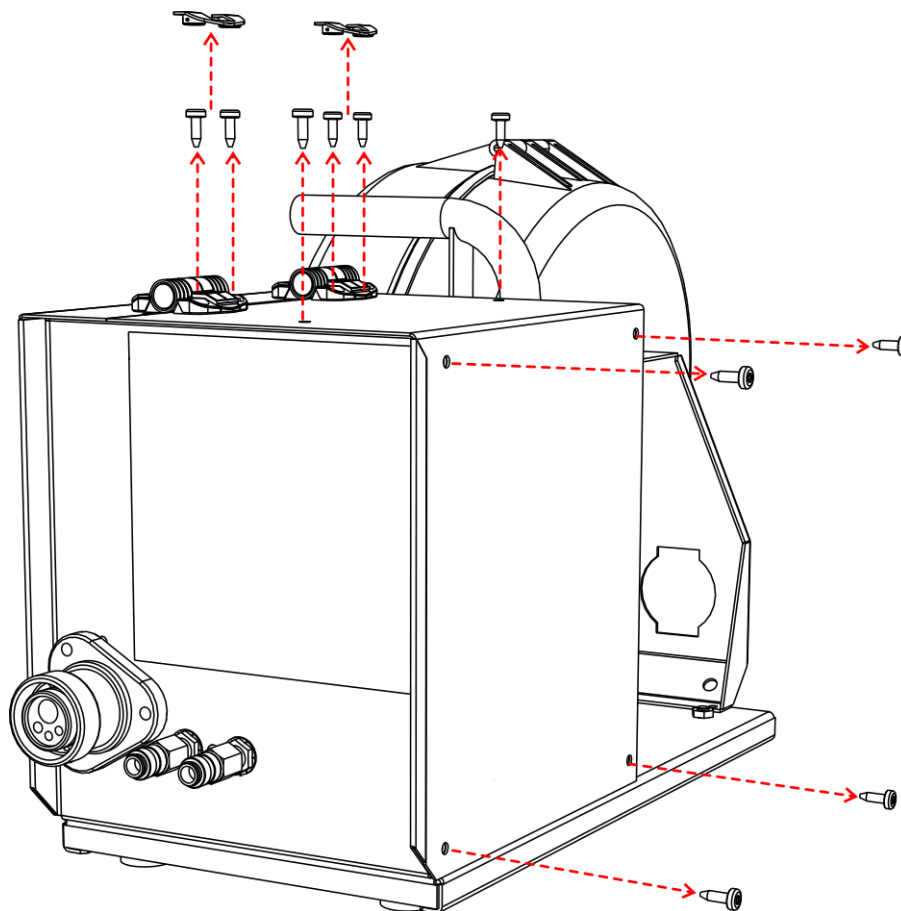


Figure 3-3

- Remove cap
- Unscrew the casing cover.
- Remove earth lead from casing cover.

#### 3.4.1.2 Installation

- Remove cap (see installation position).
- From inside, insert the rotary transducer into the opening.



**The cable harness connection has to point downwards.**

- From outside, put the flap disc onto the rotary transducer.
- From outside, screw the hexagonal nut onto the rotary transducer.
- Turn the rotary transducer to the left stop.
- Place the rotary knob with the indication pointing to the bottom left onto the rotary transducer and screw tight.

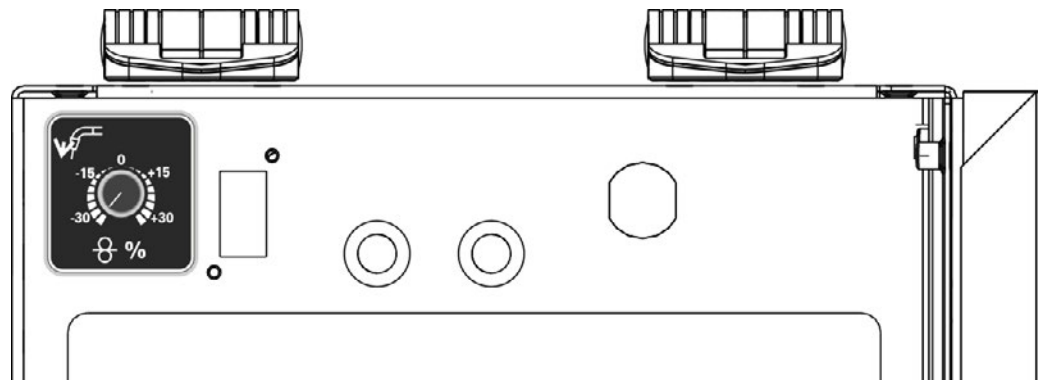


Figure 3-4

- Attach the adhesive film as shown.
- Plug the 4-pole connector plug of the cable harness into the X6 connection of the M1.02 PCB.

### 3.4.2 Welding machine

#### 3.4.2.1 Opening the unit

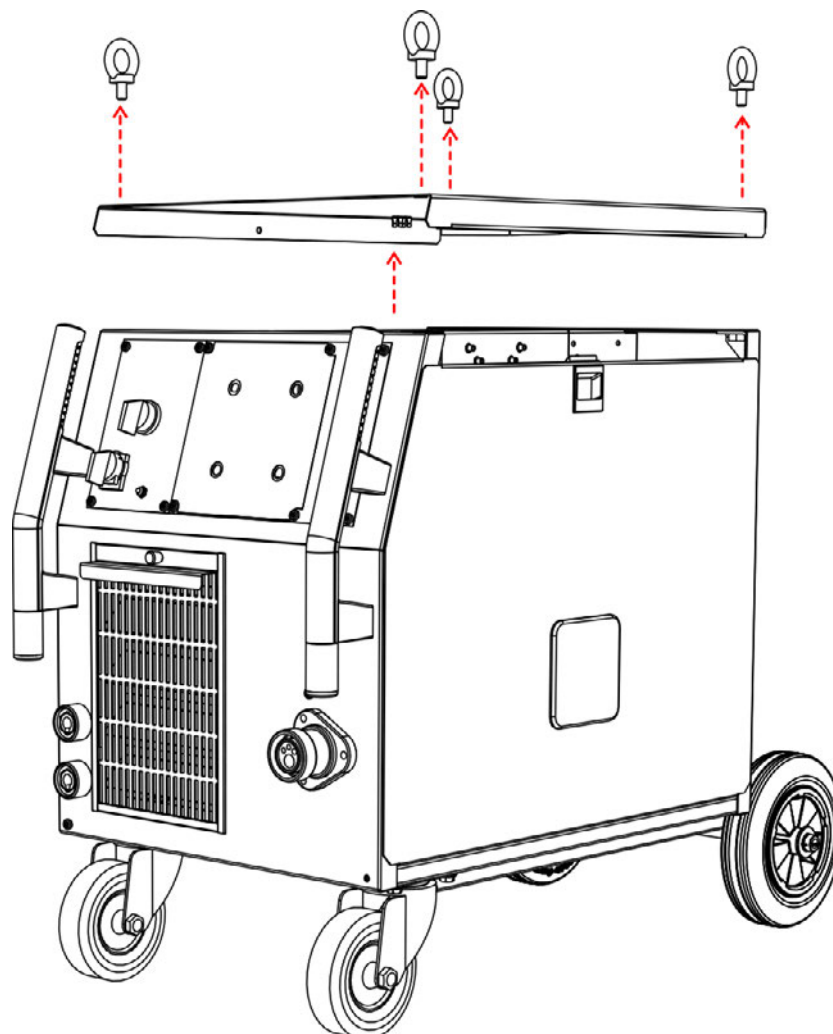


Figure 3-5

- Unscrew the casing cover.
- Remove earth lead from casing cover.

## 3.4.2.2 Installation

- Remove cap (see installation position).
- From inside, insert the rotary transducer into the opening.



**The cable harness connection has to point downwards.**

- From outside, put the flap disc onto the rotary transducer.
- From outside, screw the hexagonal nut onto the rotary transducer.
- Turn the rotary transducer to the left stop.
- Place the rotary knob with the indication pointing to the bottom left onto the rotary transducer and screw tight.

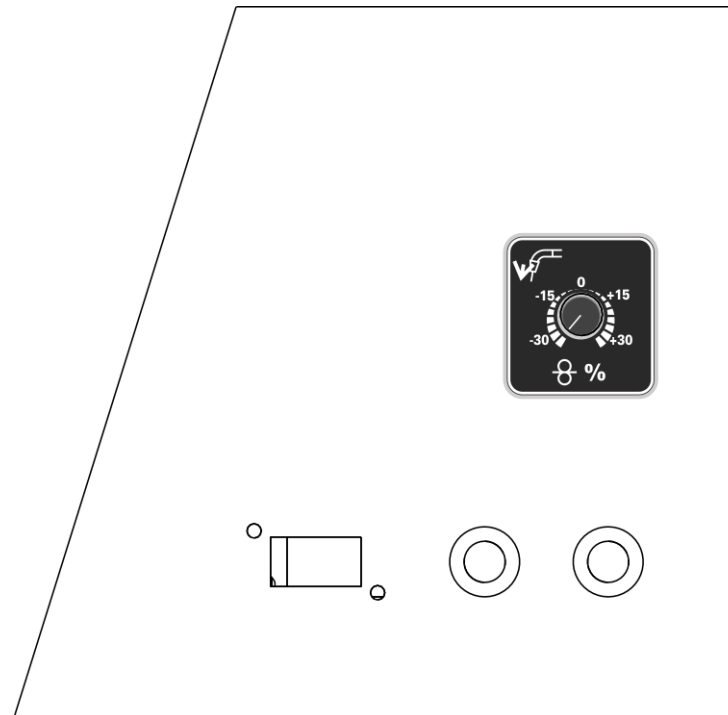


Figure 3-6

- Attach the adhesive film as shown.
- Plug the 4-pole connector plug of the cable harness into the X6 connection of the M1.02 PCB.



## 4 Final inspection

 **WARNING****Protective earth PE!**

To protect persons and animals against dangerous live voltages and electric shocks in the event of a fault, the casing panels on the unit are connected to a green/yellow protective earth.

- After conversion, re-connect the protective earth to the casing panels!

**Danger due to failure to carry out the final inspection!**

After installation or conversion, all mechanical and electrical connections must be checked for correct installation to avoid any potential injuries.

- No leads or tubes should be squashed or laid on sharp edges.
- Check all mechanical connections to ensure that they are fitted correctly!
- Carry out the final inspection!
- Carry out the functional test!

- Assemble the machine in the reverse order.



**Before reconnection, “Inspection and Testing during Operation” according to IEC/BS EN 60974-4 “Arc welding systems – Inspection and Testing during Operation” has to be performed!**



**Keep the conversion instructions with the machine documentation!**

**When ordering spare parts, ensure that the item number and serial number of the machine are quoted!**