InvertaPuls IP4-3

MIG-MAG Welding Inverter

Operation Manual REV 2.1







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1 INTRODUCTION

1.1 Product Introduction

InvertaPuls IP4-3 welding machine is compact pulse MIG-MAG welding inverter especially developed for car body repair. The unique benefit is triple wire feed unit which together with its excellent welding properties for thin sheet metal as well as aluminum and CuSi makes it possible to use this device to repair all kinds of vehicles with fine quality results.

Be aware of danger resulted from welding and follow the safety and fire instructions.

It's necessary to keep the device on a dry place, to protect device against moisture. It's not advisable to use the device on the open air during rain.

2 SETUP

2.1 Setup conditions

It's necessary to set the device for welding in protection atmosphere on a dry place with the sufficient area for cooling. The device is designed for use in covered area (under roof).

2.2 Selecting the accessories

Please check the machine for possible transport damages before use!

1.	screw M5x16	4St
2.	screw M8x16	4 St
3.	spring washer M8	4 St
4.	U-disc M8	4 St
5.	screw M10x40	2 St
6.	spring washer M10	2 St
7.	U-disc M10	2 St
8.	U-disc M24	2 St
9.	split pin 3.5x40	2 St
10.	2x20l place for gasbottle	1 St
11.	front wheel set	1 St
12.	rear wheels	2 St
13.	rear axle	1 St
14.	gas connecting hose	3 St
15.	belt for gas bottle	4 St
16.	MIG torch,	1 St
	Steel Version	
17.	MIG torch,	1 St
	CuSi/Alu Version	
18.	ground cable	1 St



2.3 Connecting to the electric network

Check if the voltage stated on the device label complies with rated voltage of alternate voltage of your electric network.

The device can be connected to electric socket equipped with protective contact installed by authorized electrician. The electrical circuit of the socket must be protected by a fuse or a circuit breaker.

Refer to the Technical Data on pages 22-23 for the required amperage.

The device is delivered without plug. For connections can be used only plugs and sockets according to CEE standard.

2.4 Connecting the MIG/MAG torch



- For torch connecting is used EURO Standard torch connector.
- Please, tighten the connector well to avoid the contact resistance.
- Never use damaged torch.



Connect the welding conduction main connecting plug into the main socket on the front side. Secure it with the lock nut.



2.5 Torch wire liner

For mild steel, the wire feed tube consists of a steel spiral. When using wire electrodes made of chromium-nickel-steel and of aluminum and other metals, a tube of wear-resistant plastic (for example Teflon) is used. Plastic guides have a lower friction coefficient than steel.

Make sure the contact tip match the manufacturer's recommendations for type and diameter of used wire.

In case Teflon liner is used is it necessary to use contact neck liner out of brass to provide good current conduction to the fill wire.

Material	Wire diameter	Liner material	Liner color
Fe	0,8mm	steel spiral	
	1,0mm	or	
	1,2mm	Ιετιοή	
Inox	0,8mm	Teflon	
	1,0mm]	
	1,2mm		
AIMg, AISi	1,0mm Teflon		
	1,2mm		
CuSi3	0,8mm	Teflon	
	1,0mm		
	1,2mm		
CuAl8	0,8mm Tefl		
	1,0mm		

Liner color:

Blue: Art.N° 337139

Red: Art.N° 337142

Black: Art.N° 337147



2.6 The feeding unit



Please choose the feeding rolls correspond to used welding wire.

Material	Shape	Diameter	Article-Number
Fe Inox CuSi CuAl		0,6/0,8mm 0.8/1.0mm 1,0/1,2mm	337219 337220 xxx
AIMg AISi		0,8/1,0mm 1.0/1.2mm	xxx 337221

When the feeding wheel is set up, you can see on the front side of the wheel the assigned welding wire diameter (value is in mm).

2.7 Connecting the pressure bottle

While adjusting the gas flow rate, the unit must be switched on and the burner switch must be pressed to open the solenoid valve. To avoid unnecessary wire consumption, open the leaf spring of the wire feeder.

Determination of the gas flow rate: Steel - 10x wire Ø Aluminium - 12x wire Ø

Example: Wire Ø 0,8mm x 10 = 8Liter/minute

2.8 Connecting the ground cable

It's necessary to connect the grounding clamp in the very vicinity of welded place. The transfer contact must be metallic clear free of dust and color.

2.9 MMA – TIG welding connection



TIG Connection

MMA Connection



3 SAFETY AND FIREINSTRUCTION

Keep this device away from children. You must follow the safety and fire instructions when you work with the welding device and for welding in a protective atmosphere. Follow all regulations for the prevention of accidents during "welding, cutting and similar working activities".



WARNING FIRE HAZARD!

Be sure the area is safe before doing any welding. Remove all flammable material within 10m of the welding area. Quench hot metal or allow it to cool before handling or before letting it touch combustible materials.

Never weld containers with potentially flammable materials inside – they must be emptied and properly cleaned first.

Ventilate potentially flammable atmospheres before welding



WARNING EXPLOSION RISK!

It's possible that harmless substances in closed containers may generate excessive pressure when heated. Move containers with flammable or explosive liquids away from the working area!

Never heat explosive liquids, dusts or gases by welding!



CAUTION TOXIC FUMES!

Smoke and gases can lead to breathing difficulties and poisoning Use local exhaust ventilation to remove fumes from the air. Remove all coatings and solvents from the metal before welding. Wear suitable breathing apparatus if appropriate! Never weld containers with potentially toxic materials inside. Empty and properly clean the container first.



CAUTION Noise exposure!

Prolonged exposure to noise from welding, cutting or similar work can damage hearing.

Use approved ear protection.

Warn others nearby about the noise hazard.



WARNING ARC RAYS CAN BURN EYES AND SKIN!

The welding arc produces intense visible and invisible rays that can burn eyes and skin. Wear eye protection (welding helmet) with appropriate lens shading to protect your eyes from the arc's ultraviolet and infrared rays. Wear protective clothing to protect against burns caused by ultraviolet light, sparks and hot metal. Flame-retardant clothing to cover all exposed areas.

Use protective screens or barriers to protect others from flash and glare.



Recommended welding helmet lens shade according ISO 4850:

		AMPS									
	0.5 2.5	5 ¹⁰ 15 2	20 4 30	ю 60 60	30 10	125 15 	0 175 225 0 200 2	275 50 3	35 00	0 450 400 5	00 <
<u></u>			9	10		11	12			13	14
<u>, 7</u> Fe				10	11	12			13	14	
<u>, 7</u> AI					10 11		12	13	3		
<u> </u>		9	10	11	12		13			14	

DANGER



CYLINDERS CAN EXPLODE

Gas cylinders contain gas under high pressure which can explode if damaged or exposed to a heat.

Regional safety regulations for pressurised gas must be followed.

Due to high pressure inside the bottles (up to 200 bar) it is necessary to secure them against mechanical damage, overturning, downfall, heating up (max 50°C), against sunshine exposure for a longer time and against strong frost.



WARNING RISK OF ELECTRIC SHOCK

Voltages can cause potentially fatal electric shocks and burns on contact. Even low voltages can cause a shock and lead to accidents.

Install and ground this equipment according to the instruction manual and in accordance with national and local standards.

Wear the full personal protective equipment (depending on the application)!

Never touch live components such as welding current sockets or stick, tungsten or wire electrodes!

Always place torches and electrode holders on an insulated surface!

The device must be placed out of higher electrical danger environment. You can be in the endangered environment with a torch only.





CAUTION ELECTROMAGNETIC FIELDS

Device is constructed according IEC 60974-10 class A and is intended to work only in industrial areas.

When operating welding machines, electro-magnetic interference can occur.

The user is responsible for any interference caused by welding. Pacemaker and hearing aid operation can be affected by magnetic fields from high currents. Pacemaker and hearing aid wearers should consult a doctor before going near any arc welding machines.

SAFETY INSTRUCTIONS

Welding in the environment with higher electrical danger

The welding device is constructed in compliance with IEC 60974 as a device suitable for welding in the environment with higher electrical danger.



4 OPERATION

4.1 Switching ON the machine

Always use the main switch on the back side of the machine to turn On and Off the device, never use the power plug for this purpose!

4.1.1 Power-on sequence

After powered special power on sequence is started on the operating panel, to give the user information about the firmware. First all segments are lighted up, than after following information are displayed:

- a) Firmware type (in material Volt window) EA – ACT panel
- b) Model (in Ampere window) 240

Wieländer+Schill

c) Firmware revision (in Ampere window) r11 major . minor revision numbers.



4.2.1 Welding mode selection

(Not available if MMA/TIG selected)



- 2- cycle mode
- A Manual wire inch mode. In wire speed window is possible to adjust the speed for manual feed. Feeding is activated by pressing the trigger button.

2-TACT Mode / 4-TACT Mode

2-TACT/4-TACT relates to the function of starting button (trigger) on the welding torch. Differences in operation of this two modes are shown in following pictures:





Interval welding

To activate interval welding program, the pause time must be set greater than 0 (factory setting). To disable interval welding feature, set the pause time parameter to 0 (menu parameter number 1.9 - PAU). Interval function is available in both – 2cycle and 4cycle operation





Synergy parameters for MIG/MAG welding



Synergy parameters for standard Pulse



Time diagram of Pulsed weld (without Hot start & Crater fill level)





Double pulse time characteristic



Double pulse weld – AlSi5 / 1.0mm wire

4.2.3 Selection of the additional material (Not available if MMA/TIG selected)

Fe (ACT) - alloyed + non-alloyed steel, inert gas: 82%Ar + 18%CO₂ (LED shines)



Fe (ACT) - Steel thin sheets ACT welding, inert gas: 82%Ar + 18%CO₂ (LED flashes)

- **CrNi** Stainless steel AWS308LSi, gas: 87.5%Ar + 2.5%CO₂
- **AIMg** Aluminum + magnesium, shielding gas: 100%Ar
- **AISi** Aluminum + silicium, shielding gas: 100%Ar
- CuSi3 Copper silicium, shielding gas: 100%Ar
- CuAl8 Copper aluminium, shielding gas: 100%Ar

4.2.4

Selection of the additional material diameter



0,6mm 0,8mm 1,0mm <u>(1,2mm)</u>

MENU

4.2.5



For enhanced adjustment is available MENU function.

Press and hold for 3 seconds



4.2.5.1 List of MENU parameters:

Display Name	Description	Min.	Max.	Step	Unit	MIG	Pulse MIG	Double Pulse MIG	MMA	TIG
GPr	Gas pre-flow time	0,0	10,0	0,1	sec	X	X	Х	-	-
GPo	Gas post-flow time	0,0	10,0	0,1	sec	X	X	Х	-	-
hSL	Hot-start level	100	199	1	%	Х	X	х	х	-
cFL	Crater-fill level	1	100	1	%	Х	X	х	-	-
hSt	Hot-start slope time	0,0	10,0	0,1	sec	X	X	Х	X	-
cFt	Crater-fill slope time	0,0	10,0	0,1	sec	X	X	Х	-	-
Act	Active time for interval weld.	0,0	10,0	0,1	sec	Х	X	-	-	-
PAU	Pause time for interval weld.	0,0	10,0	0,1	sec	Х	X	-	-	-

Synergetic controlled parameters

These parameters are reset to factory settings when changing the material thickness selection.

Global menu parameters

Parameters that are independent of the selected filler material, wire diameter and base material thickness are referred to as general parameters. All these parameters can be set by the user in the menu. They remain saved and unchanged as long as the user does not change the setting. The parameter group includes:

1. Gas pre-flow time

2. Gas post-flow time

3. Hot-start level	 Hot start level in percent, based on the preselected Welding current. Can only be> 100%.
4. Crater-fill level	 Crater fill level in percent, relative to the selected one Welding current. Can only be <100%
5. Hot-start slope time	 a time which is needed to slope from hot start level to the welding level. In sec.
6. Crater-fill slope time	 a time which is needed to slope from welding level to the crater fill level. In sec.
7. Active time	 parameter for automatic interval welding, which defines an active welding time in seconds
8. Pause time	 parameter for automatic interval welding, which defines an inactive time, when arc is off in seconds. If it is set to 0, interval welding is disabled.



4.3 Set up, adjustment and display description

4.3.1 Welding power set up



Teh welding-brazing machines are controlled with full synergic feature (except Manual modus).

The welding power is to adjust just with one main rotary encoder. By press of the encoder button, wire speed (in meters/min) or material thickness (in millimeters) can be selected.

In MMA and TIG mode is only Ampere setup possible.

4.3.2 Arc length correction synergic mode

In all MIG/MAG modes is possible to adjust length of the welding arc. By turning the encoder in any direction is display switching from Voltage mode to Arc length correction mode (% LED active).



Arc length set to = 0 -

Arc length set to max. +

Arc length set to min. –



The settings made for the respective operating mode and the additional material remain valid even after switching off and on again!



4.4 JOB Mode

The JOB mode allows you to store up to 100 individual parameter settings in addition to the preset programs.



Change from synergic mode made by short press of the JOB button . After entered the Job mode, number of actual job is shown in the Material thickness / JOB window. There are 100 jobs available: J00 – J99. By Turning main encoder can be chosen required job number.

While in JOB mode, there are no set up and adjustments available except the JOB number and welding mode. If adjustment is required, JOB editing must be activated – see following section

To quit from JOB mode press JOB button again.

4.4.1 Editing / saving the JOB

While working in synergic mode $\stackrel{\text{def}}{\longrightarrow}$, by long pressing the JOB button $\stackrel{\text{JOB}}{\longrightarrow}$ actual set up

can be stored. After long pressing of JOB button, number of job starts to flash. This number can be changed by encoder rotation, after desired job number is set by pressing the encoder button actual set up is saved under this job number.

To edit actual job, set job number to change, by long pressing the JOB button the material thickness start to flesh and any change of any parameter can be made. After changes are made, by short press of encoder button will be stored.

4.5 Selecting the active feeder

Active feed unit selection is indicated by LED indicator above the corresponding euro torch connector. To switch the idle feed unit on, must be just pressed the trigger button on the corresponding torch. By pressing the trigger button on the not active feed unit, it will switch to active state with automatic up-loading of all appropriate settings on the front panel. After releasing the torch button and pressing it again the welding process will start.

4.6 Parameters setup for different feed units

There can be made specific setup for each feed unit. All settings made on the front panel are belonging to the active feed unit and will be stored in internal memory in case of switching the feed unit to idle state or switching the machine off. Always if some setup should be done, the feed unit must be set as active.



4.7 ARC Control

If there is no arc detected for more than 3 seconds during active welding the inverter will be automatically switched off.

This feature may prevent user from some desired actions. In case of feeding the wire in the torch, please use Manual feed mode described before.

4.8 Factory setup

With the following procedure the machine can be reset to factory setup. This procedure will delete all stored job an will reset all parameters to the state at delivery!





5 MAINTENANCE

Pull out the power cable from the socket before every maintenance and troubleshooting. The device is almost maintenance free.

It's necessary to check feeding wheel, pressure roller and inflow nozzle regularly, if there is not some dirt. If it is, you have to clean it out.

Please, change the contact tip on the torch regulary

The complete set of pressure hoses should be cleaned up from time to time, because of em- bedded dust and parts.

The contact nozzle of the torch is wearing up subsequently. When the hole in the nozzle is too large, it is necessary to change the nozzle. The metal drops are embedding in the inner walls of the torch cover. Take them out if necessary. The separator is helpful and it is also a prevention against the firm caking of the drops.

You have to change the damaged cables at once.

5.1 Disposal of the machine



Do not dispose of electrical equipment together with the normal waste!

In observance of European Directive 2002/96/EC on Waste Electrical and Electronic Equipment and its implementation in accordance with national law, electrical equipment that has reached end of its life must be collected separately and returned to an environmentally compatible recycling facility.

6 TECHNICAL DATA

InvertaPuls IP4-3 / 400V :

Mains connection Mains cable

Fusing Load capacity @ 40°C

Peak input current l1p Effective maximum input current I1eff No load output voltage Uo Efficiency Idle power consumption in MIG mode Idle power consumption in MMA/TIG mode Power factor Current adjustment range Voltage adjustment range Wire speed range Wire feed roll diameter Wire spool diameter Thermal class Temperature range Max. noise emission (LWA) **Dimensions LxWxH** Weight

3~ 400V +/-15% 4x4qmm cable's length 10m 16Amp 60% ED @ 240Amp/29.6V 100% ED @ 200Amp/28V 16Amp ED @240Amp/29,6V 11Amp @240Amp/29,6V/60% 96V 86% 25W 120W 0.75 10 – 240Amp / 1Amp step 10 - 50V / 0.1V step 0.5 – 22 m/min 37mm 3 x 200mm / 7kg max. H(180°C) -10+40°C - operating temp. -40+80°C - storage temp. 68 dB (A) 1030x640x880mm 64kg IP23

The product meet requirements for CE and S marking.



Degree of protection

InvertaPuls IP4-3 / 200V :		
Mains connection		2~ 200V +/-15%
		(2~ 240V +5/-15%)
		(1~ 230V +5/-15%)
		(1~ 208V/220V +10/-15%)
Mains cable		3x4qmm
		cable's length 10m
Fusing		32Amp
Load capacity MMA @ 40°C		30% ED @240Amp/29.6V
		60% ED @190Amp/27.6V
		100% ED @150Amp/26V
Load capacity MIG @ 40°C		40% ED @240Amp/26V
		60% ED @210Amp/24.5V
		100% ED @170Amp/22.5V
Load capacity MIG @ 40°C		50% ED @240Amp/19.6V
		60% ED @220Amp/18.8V
		100% ED @170Amp/16.8V
Peak input current	l1p	54Amp @240Amp/29.6V
Effective maximum input current	l1eff	32Amp @240Amp/29.6V/30%
No load output voltage	Uo	96V
Efficiency		85%
Idle power consumption in MIG r	node	25W
Idle power consumption in MMA	/TIG mode	120W
Power factor		0.75
Current adjustment range		10 – 240Amp / 1Amp step
Voltage adjustment range		10 – 50V / 0.1V step
Wire speed range		0,5 – 22 m/min
Wire feed roll diameter		37mm
Wire spool diameter		3 x 200mm / 2x7kg max.
Thermal class		H(180°C)
Temperature range		-10+40°C - operating temp.
		-40+80°C - storage temp.
Max. noise emission (LWA)		68 dB (A)
Dimensions LxWxH		1030x640x880mm
Weight		64kg
Degree of protection		IP23

The product meet requirements for CE and S marking.

IP4-3 / 200V - Connection



	115V / 200V	120V / 240V	230V	208V / 220V
Brown	L1	H1	L	L
Blue	L2	H2	N	N
Green / Yellow	Ground (PE)	Ground (PE)	Ground (PE)	Ground (PE)

7 AVERAGE CONSUMPTION VALUES FOR WELDING

7.1 Average welding wire consumption for MIG / MAG welding

7.1.1 Steel welding wire

Wire feed rate	0,6 mm Welding wire diameter	0,8 mm Welding wire diameter	1,0 mm Welding wire diameter
2m/min	0,4kg/h	0,6kg/h	0,7kg/h
3m/min	0,7kg/h	0,9kg/h	1,1kg/h
5m/min	1,1kg/h	1,5kg/h	1,9kg/h
7m/min	1,6kg/h	2,1kg/h	2,6kg/h
10m/min	2,2kg/h	3kg/h	3,7kg/h
12m/min	2,7kg/h	3,6kg/h	4,4kg/h



7.1.2 CrNi welding wire

Wire feed rate	0,6 mm Welding wire diameter	0,8 mm Welding wire diameter	1,0 mm Welding wire diameter
2m/min	0,5kg/h	0,6kg/h	0,8kg/h
3m/min	0,7kg/h	0,9kg/h	1,1kg/h
5m/min	1,1kg/h	1,5kg/h	1,9kg/h
7m/min	1,6kg/h	2,1kg/h	2,7kg/h
10m/min	2,3kg/h	3kg/h	3,8kg/h
12m/min	2,7kg/h	3,6kg/h	4,6kg/h

7.1.3 Aluminium welding wire

Wire feed rate	1,0 mm Welding wire diameter	1,2 mm Welding wire diameter	
2m/min	0,3kg/h	0,3kg/h	
3m/min	0,4kg/h	0,5kg/h	
5m/min	0,7kg/h	0,8kg/h	
7m/min	0,9kg/h	1,1kg/h	
10m/min	1,3kg/h	1,6kg/h	
12m/min	1,6kg/h	1,9kg/h	

7.1.4 CuSi welding wire

Wire feed rate	0,6 mm Welding wire diameter	0,8 mm Welding wire diameter	1,0 mm Welding wire diameter
2m/min	0,5kg/h	0,6kg/h	0,8kg/h
3m/min	0,7kg/h	1kg/h	1,2kg/h
5m/min	1,2kg/h	1,6kg/h	2kg/h
7m/min	1,7kg/h	2,2kg/h	2,8kg/h
10m/min	2,4kg/h	3,2kg/h	4kg/h
12m/min	2,9kg/h	3,8kg/h	4,8kg/h



7.2 Average shielding gas consumption for MIG / MAG welding

7.2.1 MIG / MAG steel welding

Welding wire diameter	0,6mm	0,8mm	1,0mm	1,2mm
Average gas consumption	8 l/min	9l/min	10l/min	

7.2.2 MIG / MAG aluminium welding

Welding wire diameter	0,6mm	0,8mm	1,0mm	1,2mm
Average gas consumption			12l/min	15l/min

7.3 Average shielding gas consumption for WIG welding

Gas nozzle size	4	5	6	7	8	10
Average gas consumption	6l/min	6l/min	10l/min	12l/min	12l/min	15l/min

8 TROUBLESHOOTING



Mechanical defects are mostly the result of irregular wire feeding or its blocking.

Electrical defects cause partial or full device failure. Only an authorized electrician can repair the electrical part of welding device.

The trobleshooting should be executed in the OFF mode first and in the following sequence:

- Check up the solidity of electrical connections on switches, current transformer, suppressor and also the solidity of plugged and soldered connections.
- Check up the conductivity and fuse contacts.
- Check up visually possible short circuits or winding overload (coloration).

Possible malfunction

Troubleshooting

Possible reason

Electric arc is irregular or unstable

1.	wrong welding voltage setup	adjust the voltage
2.	too much/little wire	adjust the wire feed regulator
3.	The workpiece clamp is loose	make a good contact between workpiece
	or transfer resistance is too high (rust,	and clamp
	paint)	
4.	The contact nozzle is worn up or	change it
	the diameter is wrong	
5.	The gas flow is not correct	adjust the gas flow
6.	The workpiece is not clear in the	remove paint, rust, fat etc.
	welding area	
7.	Performance grade malfunction	take the device to service
8.	Plug-in spiral is dirty	clean it up or change it
9.	Feeding malfunction	see below

Too much metal drops during welding

1.	too much wire	adjust the wire feed regulator
2.	welding voltage is too high	set up lower voltage
3.	workpiece is dirty	clean it up

Feeding engine is not rotating

1.	Power malfunction	check up the connection to the socket
2.	Button on the torch was not pressed	press the button
3.	Burner switch not actuated	Press the button, good contact between
		workpiece and make workpiece clamp
4.	Fuse	change it (must be changed by authorized
		electrician)
5.	Engine malfunction	take the device to service

Wire feeding malfunction

1.	Pressing roller is loosen	Increase the pressure to the leaf spring by using the grooved screw
2.	Wire has got out from feeding	Center the intake nozzle
3.	Wire feed wheel grove is worn up	Change the wire feed wheel
4.	Wire is welded to the contact nozzle	Change the contact nozzle, if the wire is
		deformed, lower the pressure on wire

Device turns OFF and the "Err t" is displayed

4.	Time of make is exceeded (TM)	Let the device cool down and follow the
		instructions for TM according to device type

The protective gas still flows

4. Magnetic valve is dirty and it is still open	Disconnect the torch connector and connecting hose, alternately flow a pressure air into the torch connector and connecting hose and in the same time often press the button on the torch.
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Only an authorized electrician can repair the electric part of device.



9 Distributors Worldwide

Here you can find our worldwide distributors:

https://www.wielanderschill.com/service/vertretungen-weltweit/ https://www.wielanderschill.com/en/service/distributors-worldwide/



10 EU-Declaration of Conformity

EU Declaration of conformity			
Manufacturer:	WS Wieländer+Schill GmbH & Co.KG Professionelle Karosserie-Spezialwerkzeuge Neue Wiesen 8 D-78609 Tuningen		
Equipment type: Tool type:	Arc welding machine Inert gas welding equipment		
Model name:	InvertaPuls IP4-3		
	Developed and manufactured in accordance with the standards and guidelines listed below by		
Applied	EN 60074 4 / 2042		
harmonized standards	EN 60974-172012 EN 60974-5 / 2013 EN 60974-10 / 2014 EMV-guideline 2014/30/EU Low Voltage Directive 2014/35/EU		
EU-Machinery directive:	2006/42/EG		
We hereby declare that:	The products marked accordingly comply with the requirements of the referenced guidelines and standards.		
	Tuningen, 04.07.2018		
	Manfred Bäurer Managing Director		







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