Translation of the Original Operating Manual

Hardware

ProfiTech S

Version 10 / 2012

P_01513

CE

Contents

1 GENERAL INFORMATION

1.1 PREFACE

The operating manual contains information about safely operating, maintaining, cleaning and repairing the device.
The operating manual is part of the device and must be available to operating and service staff.
The operating and service staff should be instructed according to the safety instructions.
The device may only be operated in compliance with this operating manual.
This equipment can be dangerous if it is not operated according to the definitions in this operating manual.

1.2 WARNINGS, NOTES AND SYMBOLS IN THESE INSTRUCTIONS

Warning instructions in this operating manual highlight particular dangers to users and device and state measures for avoiding the hazard. These warning instructions fall into the following categories:

Danger - immediate risk of danger.
Non-observance will result in death or serious injury.

⚠ DANGER

This information warns you of a hazard!
Possible consequences of not observing the warning instructions.
The signal word indicates the hazard level.

→ The measures for preventing the hazard and its consequences.

Warning - possible imminent danger.
Non-observance may result in death or serious injury.

⚠ WARNING

This information warns you of a hazard!
Possible consequences of not observing the warning instructions.
The signal word indicates the hazard level.

→ The measures for preventing the hazard and its consequences.

Caution - a possibly hazardous situation.
Non-observance may result in minor injury.

⚠ CAUTION

This information warns you of a hazard!
Possible consequences of not observing the warning instructions.
The signal word indicates the hazard level.

→ The measures for preventing the hazard and its consequences.

Notice - a possibly hazardous situation.
Non-observance can cause material damage.

NOTICE

This information warns you of a hazard!
Possible consequences of not observing the warning instructions. The signal word indicates the hazard level.

→ The measures for preventing the hazard and its consequences.

Note - provides information about particular characteristics and how to proceed.

This operating manual describes the installation of a ProfiTech S system (control cabinet, electrical connections and preparation for first start up).
This operating manual is to be used alongside the operating manual ProfiTech S "system operation", which describes the procedure for the first start up of an entire ProfiTech S system.

1.3 LANGUAGES

The operating manual is available in the following languages:

German	2322147	English	2326540
French	2328723	Italian	2328724
Russian	2334669		

1.4 ABBREVIATIONS

Stk	Number of pieces
Pos	Position
K	Marking in the spare parts lists
Order No.	Order number
ET	Spare part
B	Width
H	Height
T	Depth

2 CORRECT USE

2.1 DEVICE TYPE

Controller for automatic powder coating systems

2.2 CORRECT USE

The ProfiTech S controller serves to control the powder coating system's spray guns, powder conveying device, reciprocators and sliding tables.

2.3 USE IN POTENTIALLY EXPLOSIVE AREAS

The ProfiTech S Controller must not be set up or operated in potentially explosive areas (for example Zone 22).

2.4 SAFETY PARAMETERS

The controller is only suitable for the application of powder paint.
J. Wagner AG forbids any other use!
The controller may only be operated under the following conditions if:

- the operating staff have previously been trained on the basis of this operating manual,
- the safety regulations listed in this operating manual are observed,
- the operating, maintenance and repair information in this operating manual is observed,
- and the statutory requirements and accident prevention regulations standard in the country of use are observed.

The automatic coating system may only be used if all parameters are set and all measurements/safety checks are carried out correctly.

2.5 PROCESSING MATERIALS

- Types of powder which can be charged electrostatically
- Metallic powder

2.6 REASONABLY FORESEEABLE MISUSE

- Use of damp powder paint
- Working with liquid coating materials
- Incorrectly set values for coating parameters
- Use of defective components and accessories

2.7 RESIDUAL RISKS

Residual risks are risks which cannot be excluded even in the event of correct use.
If necessary, warning and prohibition signs at the relevant points of risk indicate residual risks.

Residual risk	Source	Consequences	Specific measures	Lifecycle phase
Skin contact with powder paints and cleaning agents	Handling powder paints and cleaning agents	Skin irritation, allergies	Wear protective clothing. Observe safety data sheets.	Operation, maintenance, disassembly
Powder paint in air outside the defined working area	Painting outside the defined working area	Inhalation of substances hazardous to health	Observe	Operation, maintenance

3 IDENTIFICATION

3.1 EXPLOSION PROTECTION IDENTIFICATION

The unit may not be used in potentially explosive areas.

Device type:	Controller for automatic powder coating systems
Manufacturer:	J. Wagner AG
	CH - 9450 Altstätten

CE Ex

CE:	Communautés Européennes
Ex:	Symbol for explosion protection
II:	Device class II
3:	Category 3
D:	Ex-atmosphere dust
85 °C:	Max. surface temperature

4 GENERAL SAFETY INSTRUCTIONS

4.1 SAFETY INSTRUCTIONS FOR THE OPERATOR

→ Keep this operating manual at hand near the device at all times.
→ Always follow local regulations concerning occupational safety and accident prevention.

4.1.1 ELECTRICAL DEVICES AND OPERATING EQUIPMENT

→ To be provided in accordance with the local safety requirements with regard to the operating mode and ambient influences.
→ May only be maintained by skilled electricians.
→ Must be operated in accordance with the safety regulations and electrotechnical regulations.
→ Must be repaired immediately in the event of problems.
→ Must be put out of operation if they pose a hazard.
→ Must be de-energized before work is commenced on active parts.
→ Secure the device against being switched back on without authorization. Inform staff about planned work.
→ Observe electrical safety regulations.

4.1.2 PERSONNEL QUALIFICATIONS

→ Ensure that the device is operated and repaired only by trained persons.

4.1.3 A SAFE WORK ENVIRONMENT

→ The floor in the working area must be electrostatically conductive (measurements according to EN 1081 and EN 61340-4-1).
→ The footwear worn by the operators must comply with the requirements of EN ISO 20344. The measured insulation resistance must not exceed 100 megohms.
→ The protective clothing, including gloves, must comply with the requirements of EN ISO 1149-5. The measured insulation resistance must not exceed 100 megohms.
→ The powder release must be electrically interlocked with the powder spray system's exhaust air equipment.
→ Excess coating material (overspray) must be collected up safely.
→ Ensure that there are no ignition sources such as naked flames, sparks, glowing wires or hot surfaces in the vicinity. Do not smoke.
→ Provide sufficient numbers of suitable fire extinguishers and ensure that they are serviceable.
→ The operating company must ensure that the average concentration of powder paint in the air does not exceed 50% of the lower explosion limit (LEL = max. permitted concentration of powder to air). If no reliable LEL value is available, the average concentration must not exceed 10 g/m^3.

4.2 SAFETY INSTRUCTIONS FOR STAFF

→ Always follow the information in these instructions, particularly the general safety instructions and the warning instructions.
→ Always follow local regulations concerning occupational safety and accident prevention.
→ Under no circumstances may people with pacemakers enter the area where the high- voltage field between the spray gun and the work piece to be coated builds up!

4.2.1 SAFE HANDLING OF WAGNER POWDER SPRAY DEVICES

→ Do not point spray guns at people.
→ Before all work on the device, in the event of work interruptions and functional faults:
- Switch off the energy/compressed air supply.
- Lock spray guns to prevent them actuating.
- Relieve pressure on spray guns and device.
- By functional faults: Identify and correct the problem according to the instructions in chapter "Elimination of Faults".

4.2.2 GROUNDING THE DEVICE

The electrostatic charge may, in certain cases, give rise to electrostatic charges on the device. In the event of discharge, this may result in the formation of sparks or flames.
→ Ensure that the device is grounded before each coating process.
→ Ground the work pieces to be coated.
→ Ensure that all persons inside the working area are grounded, e.g. by wearing electrostatically conductive shoes.
→ The function of grounding cables must be checked regularly (see EN 60204.).

4.2.3 MATERIAL HOSES

→ Only use original Wagner powder hose.

4.2.4 CLEANING

- → Before starting any cleaning work, the high-voltage must be switched off and secured against being inadvertently switched on.
- → Secure the device against being switched back on without authorization.
- → Liquid cleaning agents must not be used!
- → Only mobile industrial vacuum cleaners of design 1 (see EN 60335-2) may be used to remove dust deposits.

4.2.5 HANDLING POWDER PAINTS

- → Take note of the processing regulations laid down by the manufacturer of the powder paint being used, when preparing or processing the powder.
- → Take note of the manufacturer's advice and the relevant environmental protection regulations when disposing of powder paints.
- → Take the prescribed safety measures, in particular wear safety glasses and safety clothing and use protective hand cream if necessary.
- → Use a mask or breathing apparatus if necessary.
- → To ensure sufficient protection of health and the environment, only operate the device in a powder booth or at a spray wall with activated ventilation (exhaust air).

4.3 PROTECTIVE AND MONITORING EQUIPMENT

⚠ WARNING

Protective and monitoring equipment!
Risk of injury and damage to the device.

- → Protective and monitoring equipment must not be removed, modified or rendered unusable.
- → Regularly check that they are working perfectly.
- → If defects are detected on protective and monitoring equipment, the system must not be operated until these defects are remedied.

4.4 SAFETY FEATURES

Plates bearing information for the user have been attached to the work openings of the powder coating booth.
The plate size corresponds to the standard category Ø 100 mm; 3.94 inches.
The label plates, which must be attached, are shown below:

High-voltage!
In the control cabinet:
(25 mm; 0.98 inch)
voltage before main switch

Danger of crushing!

Explosive atmosphere!

Risk of tripping!

Forbidden for persons with a cardiac pacemaker!

Do not jump on the booth floor!
Danger of slipping!

Smoking, fire, and naked flames are prohibited!

Forbidden for unauthorized persons!

Wear electrostatically conductive footwear!

Follow the instructions in the operating manual!

5 DISCLAIMER

5.1 HARDWARE

Any amendments by the user or any third party to the structure of the control cabinet delivered by J. WAGNER GmbH, in particular in respect of the electric control, require the written permission of J. WAGNER GmbH.

Any amendments, which were not permitted, immediately lead to the exclusion of all warranty, liability and guarantee claims by the manufacturer.

5.2 SOFTWARE

The production of software copies intended for sale or installation in the end user's proprietary systems or controllers intended for sale or for internal use requires the written permission of J. WAGNER GmbH.

Any amendments by the user or third parties of the software delivered by J. WAGNER GmbH, requires the written permission of J. WAGNER GmbH.

Any amendments, which were not permitted, immediately lead to the exclusion of all warranty, liability and guarantee claims by the manufacturer.

6 DESCRIPTION

6.1 FIELDS OF APPLICATION, CORRECT USE

The ProfiTech S controller is used in automatic coating systems. The controller controls:

- powder output quantity,
- powder atomization,
- high-voltage,
- current limiting,
- reciprocator settings,
- gap control,
- height control and
- depth control.

6.2 SCOPE OF DELIVERY

Quantity	Order No.	Description
1		ProfiTech S controller
The standard equipment includes:		
1		Declaration of Conformity
1	2322147	Operating manual German
1	see chap. 1.3	Operating manual in local language

6.3 TECHNICAL DATA

6.3.1 CONTROL CABINET

Type:	ProfiTech S
Serial number:	see type plate
Year of construction:	see type plate
Voltage:	400 / 230 V
Frequency:	50 Hz
Power:	maximum 7. 5 kW
Fuse:	35 A
Supply line:	maximum 5 x 10.0 mm^2 or 4 x 10.0 mm^2
Protection class:	IP 54
Dimensions:	
Width:	800 mm; 31.5 inches
Height:	2200 mm; 86.62 inches
Depth:	500 mm; 19.7 inches
Weight:	approx. 160 kg; 352.73 lbs with maximum equipment
Ambient conditions:	
Operating temperature range	5 - 45 °C; 41 - 113 °F

6.3.2 INPUT SIGNALS EXTERNAL INTERFACE

Depending on the order, the output signals can be carried out differently. For this reason, please compare with the circuit diagram!

Signal	Function	Clamp strip	Clamps	Contact /Signal type
Emergency stop	Emergency stop	= E1-X9	24/25/26/27-31	Potential-free NCC
Booth OK	Booth OK	= E1-X10	1/2/3/4	Potential-free NOC
Conveyor operating	Conveyor operating	= E1-X9	15/16	Potential-free NOC
Fire detection alarm	Fire detection alarm	= E1-X11	1/2/3/4	Potential-free NOC
Fire alarm OK	Fire alarm OK	= E1-X11	5/6	Potential-free changer
Grounding check OK	Grounding check OK	= E1-X11	7/8	Potential-free changer
Powder center OK	Powder center OK	= C5-X9	3/4	Potential-free changer

6.3.3 OUTPUT SIGNALS EXTERNAL INTERFACE

Depending on the order, the output signals can be carried out differently. For this reason, please compare with the circuit diagram!

Signal	Function	Clamp strip	Clamps	Contact /Signal type
EMERGENCY STOP, external	to be supplied by the customer	= E1-X9	2/5/4/7/11/PE 6/9/8/10/11/PE 12/13/14/15/16/PE	Potential-free NCC
Fire detection alarm Emergency stop	Emergency stop	= E1-X9	20/21/22/23	Potential-free NCC
Application (Esta) OK	Release to conveyor technology	= E1-X9	17/18/19/PE	Potential-free NOC
Mains air on	Release to mains air valve	= E1-X9	33/34/35/PE	Booth OK
Door inlet Open (optional)	Release to conveyor technology	= E1-X9		Potential-free NOC

6.3.4 RACK (10 EPG S2)

Dimensions:	
Width:	500 mm; 19.69 inches
Height:	2200 mm; 86.62 inches
Depth:	660 mm; 26 inches
Weight:	approx. 150 kg; 330.68 lbs (if equipped with 10 EPG S2)

6.3.5 EPG S2

Dimensions:	
Height	136 mm; 5.35 inches
Width	270 mm; 10.63 inches
Depth (without operating elements)	200 mm; 7.87 inches
Weight	5.5 kg; 12.13 lbs
Electrical:	
Mains (AC)	90 VAC - 250 VAC
Frequency	47 Hz - 63 Hz
Input power	maximum 60 W
Output voltage	2x maximum 22 Vpp
Output current	2x maximum 0.9 A
High-voltage	2x 10-100 kV (adjustable in 1 kV steps)
Corona current limitation	5 µA - 120 µA (adjustable in 1 µA steps)
Tribo current measurement	0 µA - 5 µA (resolution 0.5 µA)
Tribo current limitation	0 µA - 5 µA (adjustable in 0.1 µA steps)
Tribo current cut off	greater than 12 µA (ATEX: switching off of the unit)
Protection class	IP 64
Hazardous area	II 3(2)D 80 °C; 176 °F
Pneumatically:	
Air input pressure	0.6-0.8 MPa; 6-8 bar; 87-116 psi
Air volume	maximum 30 m^3/h
Sum of dosage and feed air	2 - 6 m^3/h
Gun air	0.05 - 4.0 m^3/h
Required compressed air quality as per ISO 8573.1	3.5.2
Connection hose diameter	8 mm; 0.315 inch
Ambient conditions:	
Operating temperature range	5 - 45 °C; 41 - 113 °F

⚠ WARNING

Outgoing air containing oil!
Risk of poisoning if inhaled.

→ Provide compressed air free from oil and water (quality standard 3.5.2 according to ISO 8573.1) 3.5.2 = 5 µm / +7 °C; 44.6 °F / 0.1 mg/m³.

NOTICE

Compressed air quality, accessories
Danger of equipment damage.

→ Operate the control unit only with the prescribed compressed air quality.
→ Only use the control unit with original Wagner accessories.
→ Non-observance of these conditions results in the warranty expiring!

Ambient conditions:
If low-melting powders are used, the ambient temperature may have to be lower than 30 °C; 86 °F.

Volume measures:
for volumes specified in Nm³ (standard cubic meters) One cubic meter of a gas at 0 °C; 32 °F and 1.013 bar is called norm cubic meter.

7 ASSEMBLY OF THE PROFITECH S SYSTEM

P_01878

ProfiTech S Rack

with 10 EPG S2 (application example)

The rack is ready assembled and must only be electrically and pneumatically connected.

See Chapter 8.4 "Connect ProfiTech Rack".

P_01514

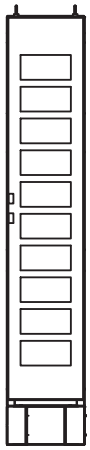
Control cabinet

See Chapter 8.5 "Connections between the control cabinet and rack".

Prior to assembly and before beginning with the electrical connections, a check should be performed as to whether all necessary components are available.

The parts list of the electric circuit diagram lists all control cabinet components. The parts list is project-related and should be kept in a safe place.

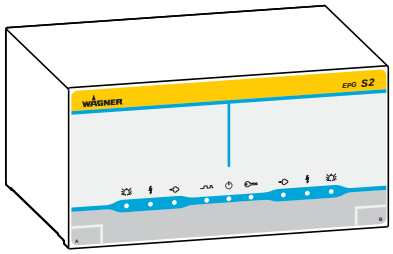
7.1 COMPONENTS RACK


P_01898

Rack: Order No. 2328670

The rack includes:
Air distributor, complete tenfold 1" Order No. 2326124
Hose ∅ 5.5/8 mm, 10 m Order No. 9982078

Base rack for a maximum of 10 EPG S2 control units

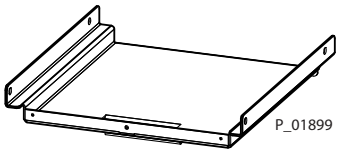


P_01516

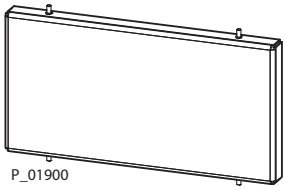
EPG-S2: Order No. 2316991

Universal control unit for Corona or Tribo powder spray guns

One EPG S2 can control two spray guns.


P_01899

Shelf (base): Order No. 2328668


P_01900

Blanking plate: Order No. 2328669

To close free spaces when the rack is not fully fitted.


P_00106

Connection set EPG S2: Order No. 2321529

Consists of:
CAN bus cable 0.6 m; 1.97 ft Order No. 2320127
Power cable 0.55 m; 1.80 ft Order No. 241269
Grounding cable Order No. 360254

 P_00109	**Hose, Ø 6 / 8 mm; 0.32 inch black** Hose connection between the air diffuser of the rack and the control units.	Order No. 9982078
 P_00111	**Power supply cable 10 m; 32.8 ft** Electrical supply cable to the first EPG S2 (with plug to the EPG)	Order No. 360263
	CAN bus cable 10 m; 32.80 ft	Order No. 2320130
	Terminating resistor	Order No. 2321402

8 ASSEMBLY

8.1 QUALIFICATIONS OF THE ASSEMBLY STAFF

⚠ WARNING

Incorrect installation/operation!
Risk of injury and damage to the device.

- → The assembly staff must have all of the technical skills to safely undertake start up.
- → The assembly staff must be familiar with the provisions of European standards DIN EN 50050-2 and DIN EN 50177.
- → When assembling and for all work, read and follow the operating manual and safety regulations for the additionally required system components.

8.2 STORAGE CONDITIONS

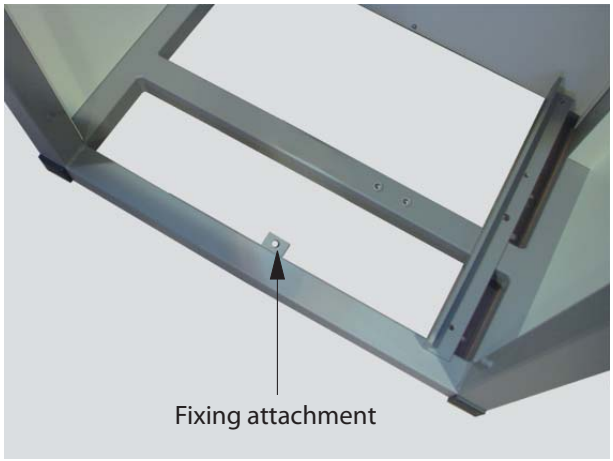
Until the point of installation, the control components must be stored in a dry location, free from vibrations and with a minimum of dust. The control components gun must be stored in closed rooms.
The air temperature at the storage location must be between 5 - 45 °C; 41 - 113 °F.
The relative air humidity at the storage location must not exceed 75%.

8.3 INSTALLATION CONDITIONS

The air temperature at the installation site must be between 5 - 45 °C; 41 - 113 °F.
Depending on the powder paint used, the maximum permissible ambient temperature for reliable operation can be significantly below +40 °C; 104 °F.
The relative air humidity at the storage location must not exceed 75%.

8.4 CONNECT THE RACK

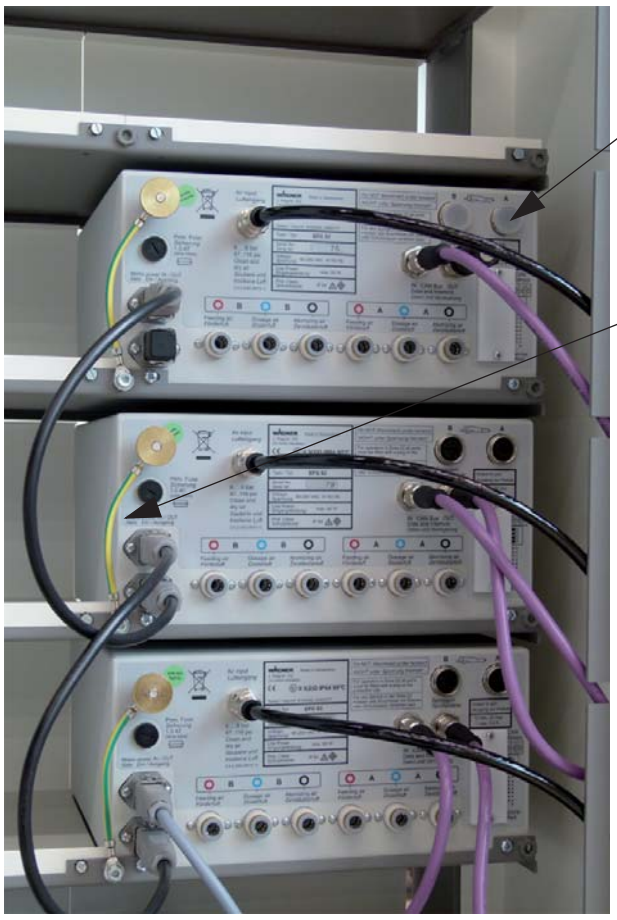
⚠	**⚠ WARNING** **Danger of tipping!** Risk of injury and damage to the device. → Secure the rack against tipping during transport. → Screw rack to base on the fixing attachment at the installation site.



P_00349

8.5 CONNECTIONS BETWEEN THE CONTROL CABINET AND RACK

Illustration with maximum equipment, with three EPG S2



P_01517

Connect spray guns.
See operating manual of the EPG S2 control unit.
Connection cables:
See chapter 8.6 "Hoses for the Connection of the Rack with the Gun and Injector".

Connect ground wire to EPG S2 and to system ground.

Connect supply voltage cable (Order No. 360263) to the clamp strip on the control cabinet.

Connect control voltage cable to the clamp strip = E2-X3 in the control cabinet.

Connect compressed air on site (0.6-0.8 MPa; 6-8 bar; 87-116 psi) to solenoid valve.

P_01901

8.6 HOSES FOR THE CONNECTION OF THE RACK WITH THE GUN AND INJECTOR

 P_00109	**Hose Ø 4/6 mm**	Order No. 9982079
	Hose connection between EPG S2 and spray gun.	
 P_00114	**Hose, Ø 6/8 mm red**	Order No. 9982063
	Feed air hose from EPG S2 to powder injector	
 P_00115	**Hose, Ø6/8 mm blue**	Order No. 9982062
	Dosing air hose from EPG S2 to powder injector	
 P_00116	**Powder hose**	
	Powder hose from the powder injector to the spray gun	
	Inside diameter	
	9 mm	Order No. 351794
	10 mm	Order No. 2310699
	11 mm	Order No. 2307502
	12 mm	Order No. 2310700

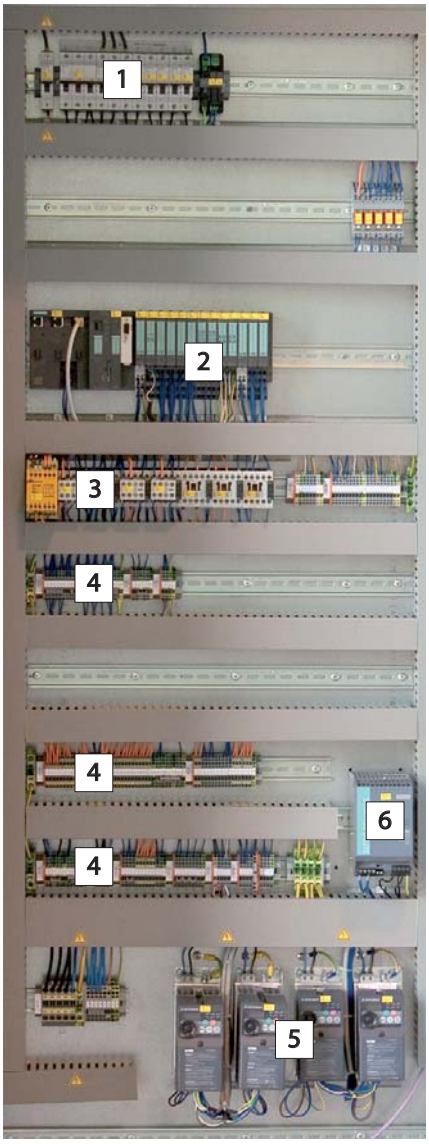
8.7 ELECTRICAL CONNECTIONS IN THE CONTROL CABINET

8.7.1 OVERVIEW

Abbreviations in the ProfiTech S circuit diagram

Abbreviation	Description	Description (English)
EO	Aufbaupläne	Assembly
E1	Lastspannung	Power
SP	SPS-Steuerung	PLC-Control
S8	Bedienpanel	Touch-Panel
E1	Gleichspannung	DC-Distribution
E1	Not-Aus-Schaltgerät	Emergency-Stop device
E7	Encoder/Taktgeber	Encoder
E7	Lichtvorhang Kontur	Light Curtain Kontur
E7	Lichtschranke Scan	Light Barrier SCAN
E1	Signalaustausch	Interlock-Signals
E1	Steuerung	Control
E2	Pistolen Steuergerät	Electrostatic Power Generator
E4	Hubgeräte	Reciprocator
E5	Zustellwagen	Sliding Tables
KO	Klemmenplan	Terminal Connection Diagram
K1	Kabel-Übersichtplan	Diagram of Cable Strip
SL	Stückliste	Part List

Components in the control cabinet



P_01518

1. Fuses
2. Controller
3. Controller components
4. Clamp strips
5. Frequency converter
6. Power pack 24 V

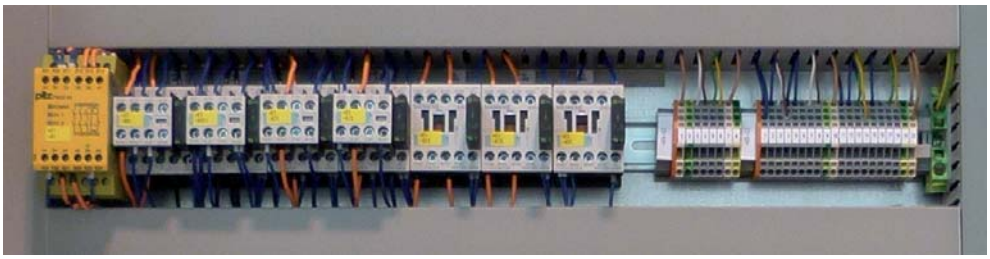
8.7.2 CONTROLLER/CONTROLLER COMPONENTS

2 Controller
see circuit diagram

= CD sheets 1-6

P_01520

3 Controller components
see circuit diagram



P_01519

8.7.3 FREQUENCY CONVERTER

P_01521

8.7.4 CLAMP STRIPS

6 Clamp strips

a	= E1-X3	General distribution	see electric circuit diagram
b	= E2-X3	Guns	see electric circuit diagram
c	= E4-X3	Reciprocator EBA/KHG	see electric circuit diagram
d	= E5-X3	Sliding table ZW (not installed if no sliding table is available)	see electric circuit diagram

7 Clamp strips

a	= E1-X1	230/400 VAC	see electric circuit diagram
b	= E2-X2	230 VAC EPG (guns)	see electric circuit diagram
c	= E7-X3	24 VDC pulse generator	see electric circuit diagram
d	= E7-X3	24 VDC "Scan" light bar	see electric circuit diagram
e	= E1-X9	External interlocking	see electric circuit diagram
f	= E1-X10	Conveyor technics	see electric circuit diagram
g	= E1-X11	Fire detection system alarm	see electric circuit diagram

8 Ground Wire Clamp Strips (See Circuit Diagram)

P_01522

8.8 CONNECTIONS PULSE GENERATOR AND LIGHT BARS

8.8.1 CONNECTIONS BETWEEN CONTROL CABINET AND PULSE GENERATOR


P_00121

Pulse generator Order No. 3125588

Incremental encoder 28 I/U


P_00122

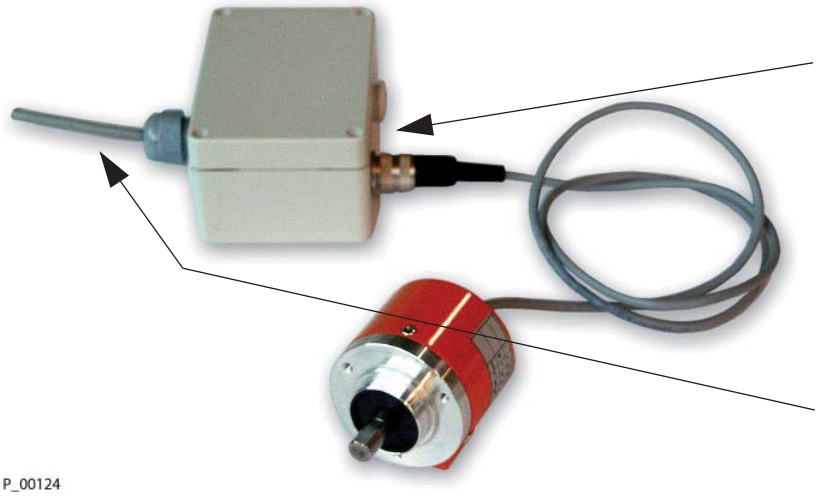
Bracket set for pulse generator Order No. 3104680


P_00123

Connection box for pulse generator Order No. 3113695

Cable to the connection box for incremental encoder

By the meter 5 x 1.5 mm^2 Order No. 3087381

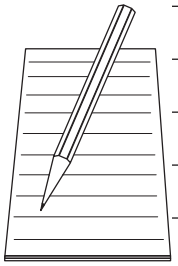


8.8.2 CONNECTIONS BETWEEN CONTROL CABINET AND "KONTUR 2" LIGHT BARS

"Kontur 2" light bar (resolution 10 / 40 mm)

Length (mm; inch)	Order No. Resolution 10 mm	Order No. Resolution 40 mm
320; 12.6	3158584	3127544
480; 18.9	3158585	3127327
640; 25.2	3158586	3127549
960; 37.8	3158587	3127552
1280; 50.4	3158588	3127555
1600; 63.0	3158589	3127024
1920; 75.6	3158590	3127328
2240; 88.2	3158591	3127689
2560; 100.8	3158592	3127564
2880; 113.4	3158593	3127567
3200; 126.0	3158594	3127598

 P_00130	**Connection cable for the "Kontur 2" light bar to the "Quattro-DP" control section** Length 2.5 m; 8.20 ft — Order No. 3158597 5.0 m; 16.4 ft — Order No. 3158598
 P_00131	**Kontur Quattro-DP control section for light bar** Order No. 3158596
 P_00132	**Power supply cable to "Kontur 2" light bar** By the meter 3 x 1.0 mm² — Order No. 3052605
 P_00133	**Connection cable for "Quattro-DP Kontur 2" control section to PLC** By the meter 2 x 0.34 mm² — Order No. 3132707 Plug to PLC — Order No. 3114748



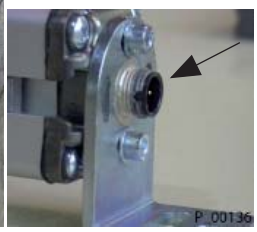
8.9 INSTALLATION OF THE "KONTUR 2" LIGHT BAR

NOTICE

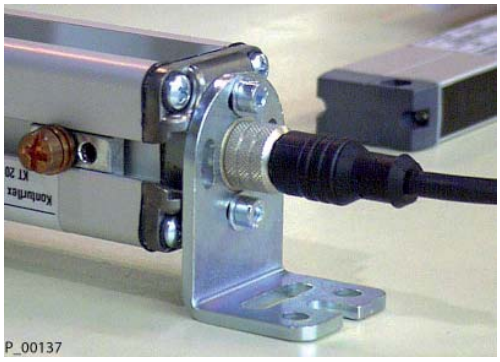
To avoid malfunctions of the light bars through electrostatic influences, the following points should be taken into account for every system!

1. Never plug in or pull live light bar connection cables at the light bars or the "Quattro" control section.

   First switch off 24 VDC supply or remove connection box at "Quattro" control section.



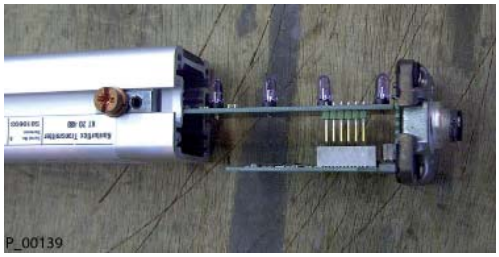
2. A brass ring can be found at the connection thread of every light bar.
   This ring finishes level with the fastening bracket.
   Ensure that the brass ring is present.



3. The metal ring of the connector must be fully screwed onto the thread.

   It is important that the metal ring of the plug contacts the brass ring of the light bar.

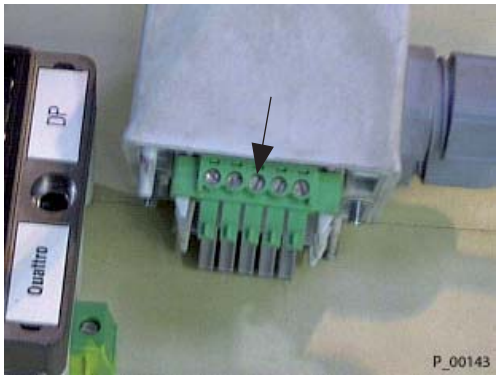
4. If the thread of the light bar is damaged, so that the metal ring cannot be fully screwed on, the end piece of the light bar must be replaced.



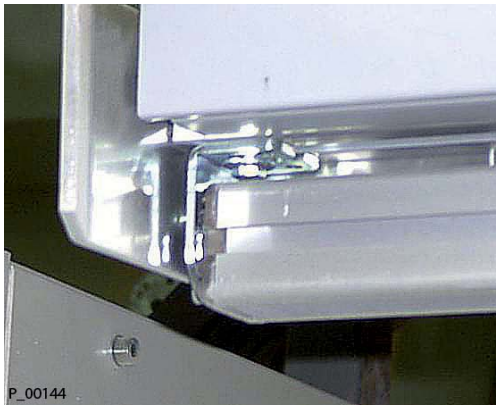
5. All light bars must be connected directly with an equipotential bonding strip from the grounding screw via a grounding cable.
   The bar is ideally fastened to the light grid portal.
   A grounding cable is laid from the equipotential bonding strip to the ground of the control cabinet.

6. Rout the grounding cable from the ground terminal on the "Quattro" control section to the equipotential bonding strip.

7. As the portal profiles are made of anodized aluminum, grounding via sliding blocks is insufficient.
   Connect all profiles with each other via short grounding cables and then with the equipotential bonding strip.



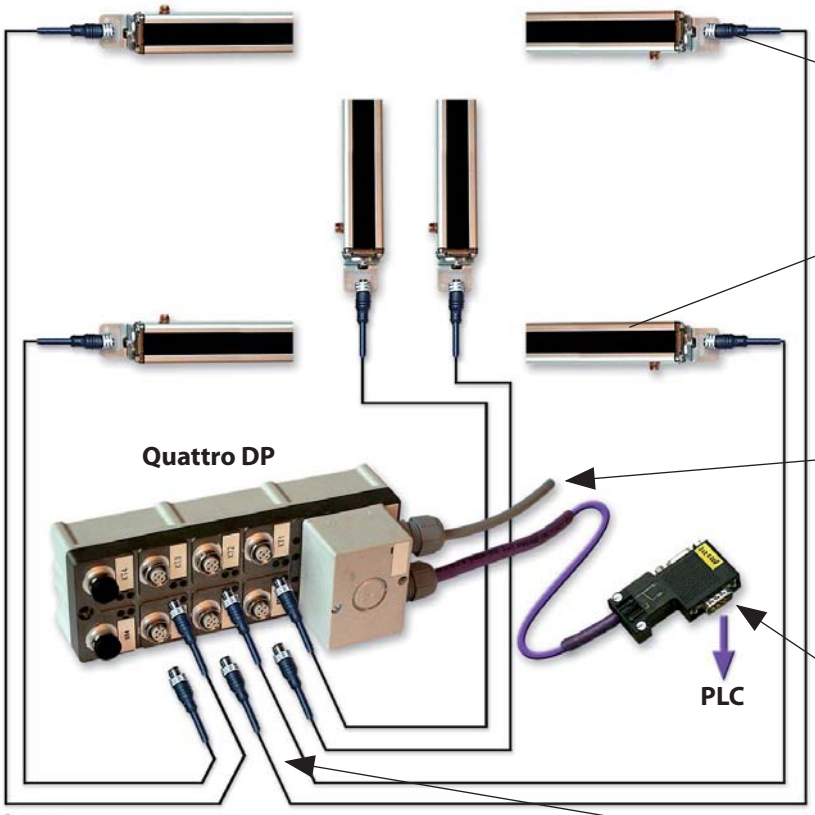
8. Connect the shield of the Profi bus cable on the "Quattro" control section to pin 3 of the green plug.



9. Additional information:

   To keep the gap in the sensing field at the feed slot as small as possible turn the fastening brackets of the upper light bars inwards.

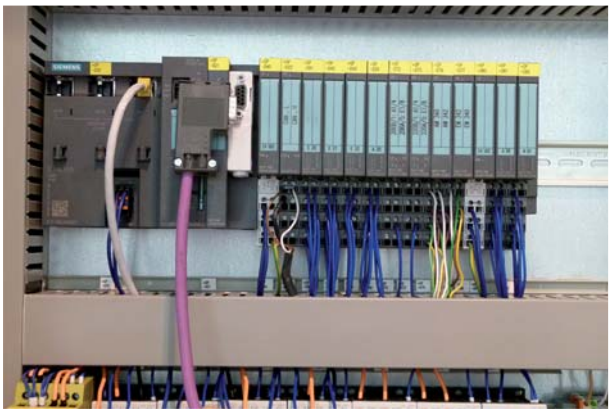
8.10 CONNECTION DIAGRAM OF THE "KONTUR 2" LIGHT BAR



Connection cables "Kontur 2": Length system-dependent

Light Bar "Kontur 2": Length system-dependent

- Connect supply voltage cable (Order No. 3052605) to the clamp strip = E1-X3 in the control cabinet.
- Connect plug at PLC in control cabinet.
- Connect connection cables at "Quattro-DP" control section.


P_01527

8.11 CONNECTION OF THE MOTION TECHNIQUE

8.11.1 OVERVIEW


P_00149

Connection cable combination for the motion technique

One cable combination is required for each motion element (EBA, ZW).

Length 15 m; 49.21 ft	Order No. 3113675
Length 25 m; 82.02 ft	Order No. 3113676
Length 35 m; 114.82 ft	Order No. 3114411


P_00150

Control or motor cable to (KHG) 350-F oscillator

One cable is required for each motion element (KHG).

Shielded cable by the	
meter 7 x 1.5 mm^2-CY	Motor cable Order No. 3124426
By the meter 5 x 1.5 mm^2	Control cable Order No. 3087381


_00151

EBA 1 Electrical automatic movement system

EBA 1 is the base reciprocator model.

It is designed for simple automatic coatings with a maximum of 4 guns per long stroke reciprocator.


P_00152

EBA 6 B-I Electrical automatic movement system

The EBA 6 B reciprocator is designed for more sophisticated automatic coatings with a maximum of 12 guns.

Only EBA 6 B reciprocators with incremental encoders may be used.


P_00153

Oscillator KHG 350-F (0. 75 kW)

Oscillator KHG 350-R (1.5 kW)

The oscillator with its vertical gun arrangement is the ideal supplement for short booths.

Reciprocator and lower speed of the KHG 350-F/R can be smoothly adjusted via a PLC controller.


P_00154

Sliding table ZW ... -1:

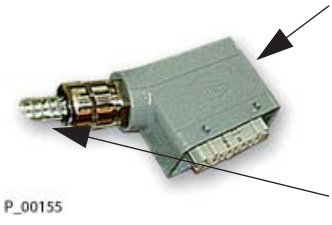
The sliding table is responsible for the horizontal positioning of the reciprocator.

It regulates the space between the spray guns and the object to be coated.

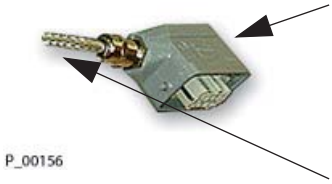
Features:

- Displacement 600 / 900 / 1200 mm
- Set/Actual position can be read at the control cabinet.

8.11.2 CONNECTIONS BETWEEN THE CONTROL CABINET AND MOTION TECHNIQUE


P_00155

- Connect 16-pin plug (controller) to the motion technique connector.
  (see motion technique operating manual)
- Connect cable (controller) to the corresponding clamp strip = E4-X3 and/or = E5-X3 in the control cabinet.


P_00156

- Connect 6-pin plug (supply voltage) to the motion technique connector (see operating manual for motion technique).
- Connect cable (supply voltage) to corresponding frequency converter in control cabinet, see chapter "Fuses/Frequency converters".

8.12 ELECTRICAL ASSEMBLY MATERIAL

Ensure that the following small components depicted are not lost.


P_00157

Small components:

For the assembly of the mechanical components and to connect electric cables and the like.

System-dependent, consisting of:

screws, nuts, connections, end sleeves etc.


P_00158

Grounding cable for potential equalization:

By the meter 16 mm^2 Order No. 3058460

8.13 GROUNDING

DANGER

No Grounding!
Risk of explosion and risk of electric shock.

→ Electrostatic control units and the associated spray equipment may only be connected to mains supplies with a protective conductor connection (PE conductor)!

WARNING

Defective grounding will result in high levels of powder mist!
Danger of poisoning.
Insufficient paint application quality.

→ Ground all device components.
→ Ground the work pieces to be coated.

For security reasons the ProfiTech S system must be properly grounded.
Wagner recommends the use of a copper cable of at least 16 mm^2 with sufficient mechanical resistance for connection to the system ground.
It is important for system's safety and to achieve an optimum coating, that all system components such as work pieces, conveyors, color supply, control unit and booth are perfectly grounded.

A poorly grounded work piece causes:

- dangerous electric charging of the work piece,
- very bad wrap around,
- uneven coating and
- back-spray to the spray gun, i.e. contamination.

Prerequisites for perfect grounding and coating are:

- clean suspension of the work piece to be coated,
- grounding of spraying booth, conveyor system and suspension on site in accordance with the operating manual or the manufacturer's information and
- grounding of all conductive parts within the working area.
- The grounding resistance of the work piece may not exceed 1 MΩ (megohm). (Resistance to ground measured at 500 V or 1000 V).
- The footwear worn by the operators must comply with the requirements of EN ISO 20344. The measured insulation resistance must not exceed 100 MΩ (megohms).

- The protective clothing, including gloves, must comply with the requirements of EN ISO 1149-5. The measured insulation resistance must not exceed 100 MΩ (megohms).

Sparks between conveyor, conveyor hooks (hangers) and work piece can occur if electric contact points between conveyor, conveyor hooks (hangers) and work piece are not sufficiently cleaned and therefore the work pieces are not sufficiently grounded!
These sparks can cause severe radio frequency interference (electro-magnetic compatibility = EMC).

9 START UP

9.1 TRAINING COMMISSIONING STAFF

⚠ WARNING

Incorrect installation/operation!
Risk of injury and damage to the device.

→ The commissioning staff must have the technical skills to safely undertake commissioning.
→ The commissioning staff must be familiar with the provisions of the European standards DIN EN 50050-2 and DIN EN 50177.
→ When putting into operation and for all work, read and follow the operating manual and safety regulations for the additionally required system components.

9.2 SAFETY INSTRUCTIONS

⚠ WARNING

Incorrect operation!
Risk of injury and damage to the device.

→ If contact with powder materials or cleaning agents causes skin irritation, appropriate precautionary measures must be taken, e.g. wearing protective clothing.
→ The footwear worn by commissioning staff must comply with EN ISO 20344. The measured insulation resistance must not exceed 100 megohms.
→ The protective clothing, including gloves, must comply with EN ISO 1149-5. The measured insulation resistance must not exceed 100 megohms.

9.3 START UP

Procedure:

NOTICE
First commissioning! Danger of equipment damage. Prior to the first commissioning of the system, the main switch and all fuses must be switched off. Please proceed in the sequence described below.

1. Add supply voltage "externally".
2. Check supply voltage.

NOTICE
Neutral wire missing! Equipment damage will result from a missing neutral wire. → Make sure that the neutral wire is present.

   - Check at the clamps = E1-X1: 1, 2, 3, 4, 5, N and PE and the supply voltage 230 / 400 V and PE.
3. Switch main switch on.
   - Main switch ON.
4. Switch on fuses one after the other.
5. Switch ventilator on and wait for booth OK.
   - Booth OK takes place after 60 seconds for Wagner booth controls.
6. Check EPG S2 control units.
   - Check gun air for correct allocation:

     Is the feed air, dosage air and atomizing air received by the correct injector and corresponding gun?
   - Check high-voltage for correct allocation:

     When selecting a gun, is the high-voltage received by the correct gun?
7. Check input signals.
   - Fire monitoring (if available).
   - If the message "Fire OK" is missing, then the system cannot be operated.

- If the message "Booth OK" is missing, then no gun may commence operation.
- "Conveyor is operating":
  In automatic mode, the guns are stopped if this signal is not given.

8. Check output signals.
   - If the signal "Applications OK" is missing, the conveyor must be stopped.

10. OPERATION

10.1 TRAINING THE OPERATING STAFF

⚠ WARNING

Incorrect operation!
Risk of injury and damage to the device.

→ The operating staff must be qualified to operate the entire system.
→ Before work commences, the operating staff must receive appropriate training.
→ The operating staff must be familiar with the provisions of European standards DIN EN 50050-2 and DIN EN 50177.

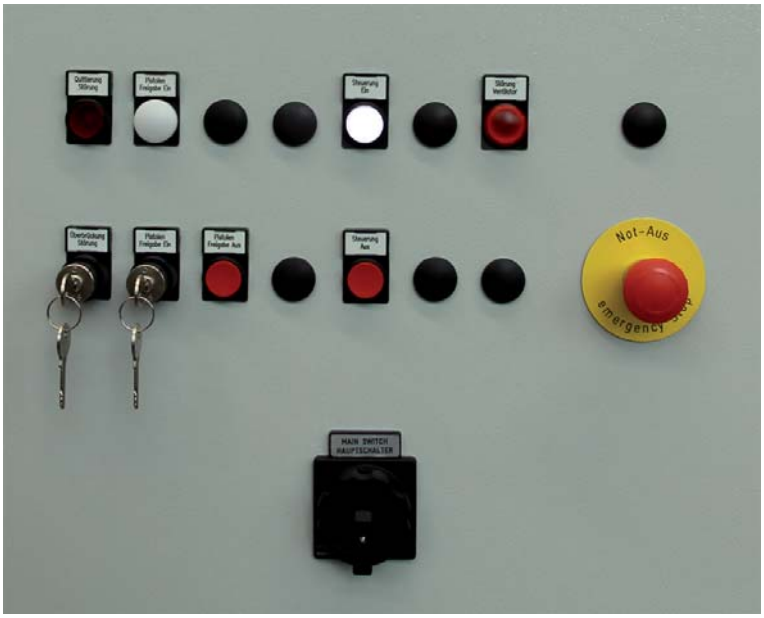
10.2 SAFETY INSTRUCTIONS

⚠ WARNING

Incorrect operation!
Risk of injury and damage to the device.

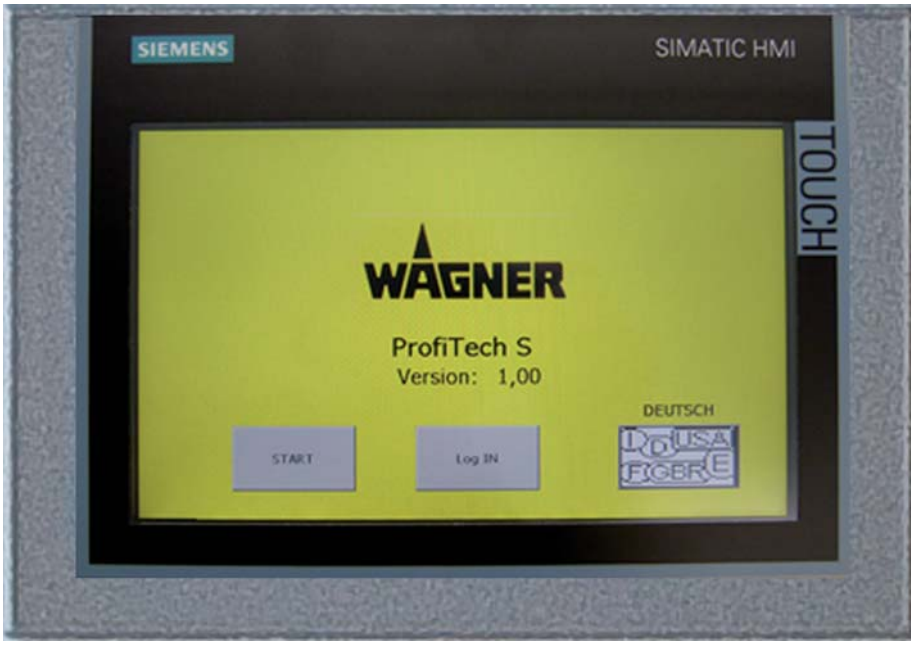
→ If contact with powder materials or cleaning agents causes skin irritation, appropriate precautionary measures must be taken, e.g. wearing protective clothing.
→ The footwear worn by operating staff must comply with EN ISO 20344. The measured insulation resistance must not exceed 100 megohms.
→ The protective clothing, including gloves, must comply with EN ISO 1149-5. The measured insulation resistance must not exceed 100 megohms.

10.3 OPERATING ELEMENTS IN THE CONTROL CABINET DOOR



P_01523

10.4 DIALOG UNIT 9"-TOUCH SCREEN (WIDESCREEN)



P_01525

The dialog unit consists of a display with 800 x 480 pixels and a resistive touch screen. The display is colored. The brightness or contrast can be set so that the display can easily be read in all environments.

Special, replaceable protective film is available for rough industrial use in dirty environments.

The separate operating manual "System Operation" provides an accurate overview of the operating and observation functions of the dialog unit.

10.5 THE OPERATING AND REPORTING ELEMENTS

Element	Description	
 P_01524 Main switch	**"Main switch"** Switching the mains supply	
	Main switch, black	Order No. 3157626
	Clamp cover	Order No. 3126367
 P_00163 Emergency stop button	**"EMERGENCY STOP SWITCH"** The control voltage is disrupted and all PLC outputs are reset.	
	Mushroom-head emergency push button, red	Order No. 3143502
	Switching element 1 NCC (normally closed contact)	Order No. 3143503
 P_00164 red Push button	**"Controller Off"** The controller for the outputs is switched off.	
	Plate holder, complete (blank) [1]	Order No. 3114977
	Push button, red	Order No. 3143496
	Switching element 1 NCC (normally closed contact)	Order No. 3143503
 P_00165 white Illumination push button	**"Controller On"** The control voltage for the inputs is switched on. After usage of the emergency stop, the system must be switched on again.	
	Plate holder, complete (blank) [1]	Order No. 3114977
	Illumination push button, white	Order No. 3143494
	Switching element 1 NOC	Order No. 3143504
	Lamp fitting with integrated LED, white	Order No. 3126387

1) Please always supply text when ordering replacements.

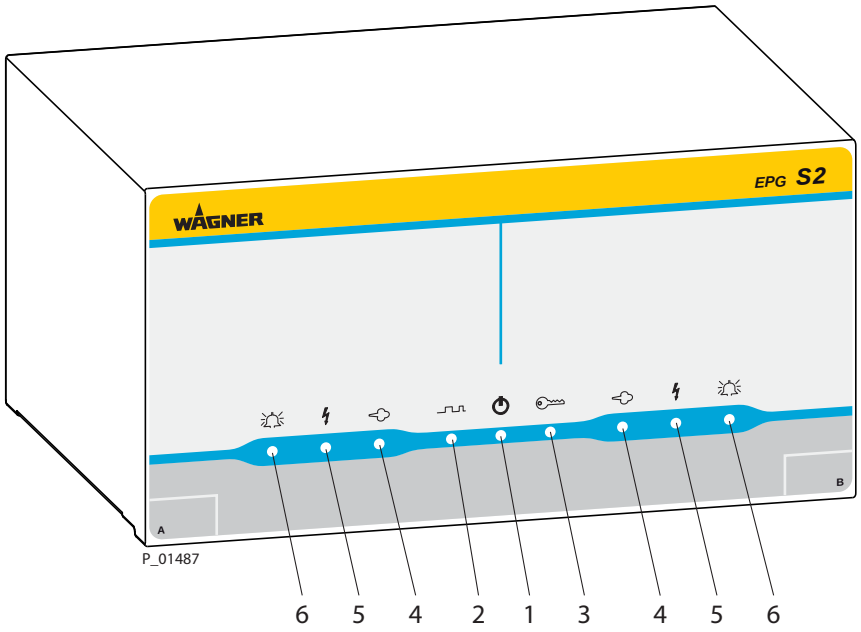
Element	Description	
 P_00165 white Indicator light	**"Release Guns On"** Indicates the complete release of high-voltage and pneumatics. Plate holder, complete (blank) [1]) Indicator light, white Lamp fitting with integrated LED, white	 Order No. 3114977 Order No. 3143498 Order No. 3126387
 P_00167 Key switch	**"Release Guns On"** General switch for the entire release of high-voltage and pneumatics. Plate holder, complete (blank) [1]) Key switch 0-1 key switching Switching element 1 NOC (normally open contact)	 Order No. 3114977 Order No. 3148363 Order No. 3143504
 P_00164 red Push button	**"Release Guns Off"** General switch for the entire release of high-voltage and pneumatics. Plate holder, complete (blank) [1]) Push button, red Switching element 1 NCC (normally closed contact)	 Order No. 3114977 Order No. 3143496 Order No. 3143503
 P_00164 red Illumination push button	**"Reset malfunction"** After rectification of the fault, the error message can be reset by activating this button. Plate holder, complete (blank) [1]) Illumination push button, red Switching element 1 NOC (normally open contact) (2x) Lamp fitting with integrated LED, red	 Order No. 3114977 Order No. 3143495 Order No. 3143504 Order No. 3126379

1) Please always supply text when ordering replacements.

Element	Description
 P_00167 Key switch	**"Bypass error"** This switch can be used to bridge the contact for the output of the error message. Plate holder, complete (blank) [1] — Order No. 3114977 Key switch 0-1 locking — Order No. 3143500 Switching element 1 NOC (normally open contact) (2x) — Order No. 3143504

1) Please always supply text when ordering replacements.

10.6 DISPLAY ELEMENTS FRONT SIDE OF EPG S2



1 Display LED: Operating voltage
- The LED lights up green when the operating voltage is activated.

2 Display LED: CAN data communication
- LED flashes/lights up green during the data communication with the master.

3 Display LED: Release
- LED lights up green when enabling has taken place.

4 Display LED: Air
- LED lights up green when the air module is switched on.

5 Display LED: High-voltage
- LED lights up green when the high-voltage is switched on.

6 Display LED: Warning/malfunction
- LED flashes in the event of a warning and lights up red in the event of a malfunction.

Displays 4 - 6 exist for both gun A and gun B.

11 CLEANING AND MAINTENANCE

11.1 CLEANING

11.1.1 CLEANING STAFF

Cleaning work should be regularly and carefully undertaken by qualified and trained staff. The staff must be familiar with the DIN EN 50050-2 and DIN EN 50177 provisions. They should be informed of specific hazards during their training.

The following hazards may arise during cleaning work:

- Health hazard from inhaling powder paint and
- Use of unsuitable cleaning tools and aids.

11.1.2 SAFETY INSTRUCTIONS

⚠ DANGER

Explosive powder/air mixes!
Danger to life and equipment damage.

→ Before starting cleaning or other manual work, the high-voltage must be shut down and locked to prevent it from being switched back on!
→ The spray gun must be separated from the high-voltage supply before any cleaning work is started!
→ Use only electrically conductive containers for cleaning fluids! Ground the containers!
→ Preference should be given to non-flammable cleaning fluids.
→ Flammable cleaning fluids may only be used if, once the high-voltage has been switched off and all parts carrying high-voltage are discharged to a discharge energy of less than 0.24 mJ before they can be reached.
Most flammable solvents have a firing power of around 24 mJ or 60 nC.
→ The cleaning agent's flash point must be at least 15 K above the ambient temperature.
→ Only mobile industrial vacuum cleaners of design 1 (see EN 60335-2) may be used to remove dust deposits.

	**⚠ WARNING** **Incorrect maintenance!** Risk of injury and damage to the device. → If contact with powder materials or cleaning agents causes skin irritation, appropriate precautionary measures must be taken, e.g. wearing protective clothing. → The footwear worn by operating staff must comply with EN ISO 20344. The measured insulation resistance must not exceed 100 megohms. → The protective clothing, including gloves, must comply with EN ISO 1149-5. The measured insulation resistance must not exceed 100 megohms.

11.1.3 CLEANING PROCEDURES

The cleaning intervals should be adapted by the operator depending on the level of use and if necessary the level of soiling.
In doubt, we recommend contacting J. Wagner AG's specialist personnel.
The valid health and safety specifications and the safety instructions provided in chapter 4 must be adhered to for all cleaning work.

11.2 MAINTENANCE

11.2.1 MAINTENANCE STAFF

Maintenance work should be regularly and carefully undertaken by qualified and trained staff. They should be informed of specific hazards during their training.

The following hazards may arise during maintenance work:

- Health hazard from inhaling powder paint and
- use of unsuitable tools and aids.

Once the maintenance work is complete, the device must be checked by a qualified person to ensure a reliable condition.

11.2.2 SAFETY INSTRUCTIONS

DANGER

Incorrect maintenance/repair!
Danger to life and equipment damage.

→ Repair or replacement of devices or parts of devices may only be performed outside the hazard area by specialist personnel.

DANGER

Incorrect maintenance/repair!
Risk of injury and damage to the device.

→ Have repairs and part replacements be carried out by specially trained staff or a WAGNER service center.
→ Before all work on the unit and in the event of work interruptions:
- Switch off the energy/compressed air supply.
- Decompress spray gun and device pressure.
- Secure the spray gun against actuation.
→ Observe the operating and service instructions when carrying out all work.

⚠ WARNING

Incorrect maintenance!
Risk of injury and damage to the device.

→ If contact with powder materials or cleaning agents causes skin irritation, appropriate precautionary measures must be taken, e.g. wearing protective clothing.
→ The footwear worn by operating staff must comply with EN ISO 20344. The measured insulation resistance must not exceed 100 megohms.
→ The protective clothing, including gloves, must comply with EN ISO 1149-5. The measured insulation resistance must not exceed 100 megohms.

11.2.3 MAINTENANCE PROCEDURES

The maintenance intervals should be adapted by the operator depending on the level of use and if necessary the level of soiling.
In doubt, we recommend contacting J. Wagner AG's specialist personnel.
The valid health and safety specifications and safety instructions provided in chapter 4 must be adhered to for all maintenance work.

Maintenance work	Point in time	
	Per shift	weekly
Blow out gun and check for sintering	x	
Check gun settings	x	
Check gun discharge pressure	x	
Blow out powder hoses	x	
Check grounding		x
Check compressed air quality		x
Check gun voltage		x
Check powder hoses for bends and sintering		x

12 INSPECTIONS IN ACCORDANCE WITH DIN EN 50177: 2010

If the system is used for electrostatic coating with flammable coating powders, testing should be undertaken in accordance with DIN EN 50177: 2010-04 as per Table 3 and Table 4.

Section	Type of inspection	Requirements	Inspection by	Type of inspection	Inspection interval
1	Effectiveness of technical ventilation check	Effectiveness of technical ventilation check	TP/CP	ME Measurements of air flow speed / air quantities Check the differential pressure indicator.	continuously
2	Interlock between technical ventilation and high-voltage, compressed air and coating material supply	The technical ventilation should be interlocked such that the high-voltage cannot be switched on while the technical ventilation is not working effectively.	CP	FI Test whether the system is safely stopped and the material supply, supply air and high-voltage are switched off when the ventilation is shut down.	annually
3	Parts carrying high-voltage outside the spray area	Parts carrying high-voltage outside the spray area must be routed such that discharges which put people at risk do not occur.	CP	FI Inspect and test (e.g. by measurement) whether all parts carrying high-voltage do not result in discharge which puts people at risk.	weekly

Key:
MA = Manufacturer
EM = Employer
CP = Capable person
FSE = Fire safety engineer
ELC = Electrician
TP = Trained person

FI = Function inspection
ME = Measurement
SI = Standard inspection
VI = Visual inspection
CI = Continuous inspection
TI = Technical inspection

Section	Type of inspection	Requirements	Inspection by	Type of inspection	Inspection interval
4	Effectiveness of grounding measures	All the system's conductive elements, such as floors, walls, ceilings, protective grating, transport device, work pieces, powder containers, machines or construction parts etc. in the spray area, with the exception of parts which carry high-voltage during operation, must be connected to the grounding system. Parts of the booth must be grounded in accordance with EN 12215.	CP	VI/ME/CI Visual check of ground connections, perform function test on grounding switch, measurement of grounding resistors.	weekly
5	Measures to take if conductive components are insufficiently grounded	If sufficient grounding of conductive parts cannot be ensured, their discharge energy must not exceed the permissible value.	CP	ME/CI Measurement of discharge energy.	weekly
6	Resistance to ground of work piece's locating point	The resistance to ground of every work piece's locating point must not exceed 1 megohm (measurement voltage must be 1000 V). The design of the work piece receiver must ensure that the adapters remain grounded during coating.	CP	ME/CI Measure resistance to ground (work piece receiver - ground potential) max. 1 MOhm @ 1000 V.	weekly

Key:
MA = Manufacturer
EM = Employer
CP = Capable person
FSE = Fire safety engineer
ELC = Electrician
TP = Trained person

FI = Function inspection
ME = Measurement
SI = Standard inspection
VI = Visual inspection
CI = Continuous inspection
TI = Technical inspection

Section	Type of inspection	Requirements	Inspection by	Type of inspection	Inspection interval
7	Measures to take if the work pieces are insufficiently grounded	If sufficient work piece grounding in accordance with section 6 cannot be ensured, appropriate equipment, e.g. ionizers, may be used to discharge electric charges on the work piece. Such equipment must not exceed the permitted discharge energy of the spray systems with which it is used. In terms of permitted discharge energy, this equipment must be put through the same inspections as the powder spray systems used with it. The discharge equipment must be interlocked with the spray system such that the high-voltage is switched off and that coating cannot take place if the discharge equipment malfunctions.	CP	ME/FU/SÜ Measurement of discharge energy, check the monitoring equipment's test function by triggering it.	weekly
8	Effectiveness of the manually or automatically actuated fire extinguishing systems (room protection system)	Effectiveness of the manually or automatically actuated fire extinguishing systems (room protection system).	HE/BSB	FI Trigger fire extinguishing system, observe manufacturer's requirements.	6 months

Key:
MA = Manufacturer
EM = Employer
CP = Capable person
FSE = Fire safety engineer
ELC = Electrician
TP = Trained person

FI = Function inspection
ME = Measurement
SI = Standard inspection
VI = Visual inspection
CI = Continuous inspection
TI = Technical inspection

13 DISASSEMBLY AND DISPOSAL

13.1 DISASSEMBLY

⚠ WARNING

Incorrect disassembly!
Risk of injury and damage to the device.

→ Before starting disassembly:
- Switch off the energy/compressed air supply.
- Ensure that all system components are grounded.
- Secure system against being switched back on without authorization.

→ Observe the operating manual when carrying out all work.

We recommend having the Wagner system disassembled by Wagner or another specialist.

Before starting disassembly, all supply media (electricity, compressed air) must be disconnected at the connection points. All powder paint lines must be thoroughly emptied and then rinsed. Paint residues must be disposed of in line with statutory requirements.

Before starting disassembly, check whether the supply lines have actually been interrupted and have been depressurized and/or de-energized if necessary.

The empty system should be thoroughly cleaned. In particular fire loads such as unused paint in exhaust air pipes etc. should be removed to keep the risk of fire during disassembly as low as possible.

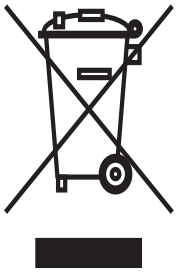
We recommend reporting to the public authorities the fact that systems with mandatory approval requirements are decommissioned.

Separate all materials encountered during disassembly as clearly as possible in line with statutory requirements. Take appropriate actions to ensure that no dangerous substances enter the system during disassembly. All waste produced must be separated and disposed of in line with local requirements.

Used materials are:

- Steel
- PVC plastics
- Cable

13.2 DISPOSAL



NOTICE

Do not dispose of used electrical equipment with household refuse!

In accordance with European Directive 2002/96/EC on the disposal of used electrical equipment and its implementation in national law, this product may not be disposed of with the household refuse, but must be recycled in an environmentally correct manner.

Wagner, or one of our dealers, will take back your used Wagner equipment and will dispose of it for you in an environmentally friendly way. Please contact one of our service points, one of our representatives or us directly to arrange this.

14 SPARE PARTS

14.1 HOW CAN SPARE PARTS BE ORDERED?

Always supply the following information to ensure delivery of the right spare part:

Order number, designation and quantity

The quantity does not have to be identical to the numbers in the "Stk" columns of the lists. This number merely indicates how many of the respective parts are used in each module.

The following information is also required to ensure smooth processing of your order:

- Address for the invoice
- Address for delivery
- Name of the person to be contacted in the event of any queries
- Type of delivery (normal mail, express delivery, air freight, courier etc.)

Identification in spare parts lists

Explanation of column "K" in the following spare parts lists.

◆ = Wearing parts
Note: No liability is assumed for wearing parts.

● = Not part of standard equipment, available, however, as an additional accessory.

	**⚠ WARNING** **Incorrect maintenance/repair!** Risk of injury and damage to the device. → Have repairs and part replacements be carried out by specially trained staff or a Wagner service center. → Before all work on the unit and in the event of work interruptions: - Switch off the energy/compressed air supply. - Ensure that all system components are grounded. - Secure the unit against being switched back on without authorization. → Observe the operating and service instructions when carrying out all work.

14.2 SPARE PARTS RECOMMENDATION FOR THE CONTROL CABINET

The parts list of the electric circuit diagram lists all control cabinet components.
Light curtains or frequency converters are order-related.

- **Priority 1:**
  Components that must be on the spare parts list.
- **Priority 2:**
  Components that are recommended for the spare parts list.
- **Priority 3:**
  List of all other components, that are not necessarily recommended for the spare parts list.

Order No.	Stk		Description	Priority
3125588	1		Incremental encoder 28 I/U	3
2321000	1		Siemens Simatic HMI 9“ TP 900 Comfort control panel	1
2317594	1		CPU IM151-8 PN/DP	2
2320263	1		SIEMENS S 7 400 VAC / 24 VDC 10 A power supply	2
2321106	1	**	F5 0.75 kW frequency converter without EMC filter	2
2321108	1	***	F5 0.1 kW frequency converter without EMC filter	2
3158596	1		Kontur-Quattro-DP control section	2
3145128	1		S0 11 kW power contactor	2
3125549	1		S0 diode combination	2
3120430	1		Relay socket with relay compl. 24 VDC 2	1
2306098	1		Incremental encoder 1000 I/U for EBA	2
2321107	1		EMV filter	

* For EBA 1, KHG 350-F and ZW

** For EBA 6B-I

*** For ZW

15 EXTENDED OPERATING MANUAL

Depending on the system equipment, the following operating manuals are required to operate the entire system.

This extended operating manual includes:

- Important information required for the connection and start up of the respective components,
- Important information required for the use (e.g. change of color) of the respective components,
- The very important chapter "Maintenance and cleaning" for the relevant components,
- The description of troubleshooting and error correction for the respective components and
- A list of spare parts, wearing parts and accessories.

Operating manual	Order No.	Language
Control unit EPG S2	2317573	German
	2317574	English
	2317575	French
	2317576	Italian
	2317577	Spanish
	2334207	Russian
Powder injector PI - P1/PI-F1	241890	German
	241891	English
	241892	French
	241893	Italian
	241897	Spanish
	241895	Russian
Powder Injector Hicoat ED-Pump	241885	German
	241886	English
	241887	French
	241888	Italian
	241889	Spanish
Automatic spray gun PEA-C4-HiCoat	390822	German
	390829	English
	390836	French
	390840	Italian
	390851	Spanish

Description	Order No.	Language
Automatic spray gun PEA-C4XL-HiCoat	390823	German
	390830	English
	390837	French
	390841	Italian
	390855	Spanish
	2326210	Russian
Tribo automatic spray guns PEA-T3	351873	German
	351874	English
	351875	French
	351876	Italian
	351877	Spanish
Tribo automatic spray guns PEA-T3 XL	351700	German
	351701	English
	351702	French
	351703	Italian
	351721	Spanish
Long stroke reciprocator EBA 1	238810	German
	238811	English
	238813	French
	238812	Italian
	238816	Spanish
	2334228	Russian
Long stroke reciprocator EBA 6B	2303106	German
	2303107	English
	2303109	French
	2303110	Italian
	2303111	Spanish
Oscillator KHG 350-F	365800	German
	365801	English
	365802	French
	365803	Italian
	365804	Spanish
	365808	Russian
Sliding table ZW	224820	German
	224821	English
	224822	French
	224823	Italian
	224833	Spanish
	224835	Russian

16 WARRANTY AND CONFORMITY DECLARATIONS

16.1 IMPORTANT NOTES ON PRODUCT LIABILITY

As a result of an EC regulation effective from January 1, 1990, the manufacturer shall only be liable for his product if all parts originate from him or are approved by him, and if the devices are properly mounted, operated and maintained.
The manufacturer will not be held liable or will only be held partially liable if third-party accessories or spare parts have been used.
With genuine WAGNER accessories and spare parts, you have the guarantee that all safety regulations are complied with.

16.2 WARRANTY CLAIM

Warranty is provided for this device to the following extent:
We will at our discretion repair or replace free of charge all parts which within 24 months in single-shift, 12 months in 2-shift or 6 months in 3-shift operation from date of receipt by the Purchaser are found to be wholly or substantially unusable due to causes prior to the sale, in particular faulty design, defective materials or poor workmanship.
The type of warranty provided is such that the device or individual components of the device are either replaced or repaired as we see fit. The resulting costs, in particular shipping charges, road tolls, labour and material costs will be borne by us except where these costs are increased due to the subsequent shipment of the unit to a location other than the address of the purchaser.
We do not provide warranty for damage that has been caused or contributed to for the following reasons:
Unsuitable or improper use, faulty installation or commissioning by the purchaser or a third party, normal wear, negligent handling, defective maintenance, unsuitable coating products, substitute materials and the action of chemical, electrochemical or electrical agents, except when the damage is attributable to us.
Components that have not been manufactured by WAGNER are subject to the original warranty of the manufacturer.
Replacement of a component does not extend the period of warranty of the device.
The unit should be inspected immediately upon receipt. To avoid losing the warranty, we or the supplier company are to be informed in writing about obvious faults within 14 days upon receipt of the device.
We reserve the right to have the warranty compliance met by a contracting company.
The services provided by this warranty are dependent on evidence being provided in the form of an invoice or delivery note. If the examination discovers that no warranty claim exists, the costs of repairs are charged to the purchaser.
It is clearly stipulated that this warranty claim does not represent any constraint on statutory regulations or regulations agreed to contractually in our general terms and conditions.

J. Wagner AG

16.3 CE DECLARATION OF CONFORMITY

Herewith we declare that the supplied version of

- ProfiTech S

complies with the following provisions applying to it:

- 2006/95/EC (low-voltage guideline)
- 2004/108/EC (EMC Directive)

Applied standards, in particular:

- DIN EN 60204-1 (machine safety)
- DIN EN 60439-1 (low-voltage switchgear assemblies 2005-01)

Applied national technical specifications, in particular:

Identification:

CE

EC Certificate of Conformity
The CE Certificate of Conformity is enclosed with this product. If needed, further copies can be ordered through your WAGNER dealer by specifying the product name and serial number.

Order number:
ProfiTech S

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