

Maintenance Instruction

Cleaning of conductor rails Program 0800

WV0800-0001a-E

Order Number

08XXXX-...

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1. Introduction

These instructions are for conductor rail installations with operating voltage < 1000 V. Conductor rails are installed as insulated conductor rails or as non insulated conductor rails. Cleaning is a part of the maintenance of conductor rail installations. Cleaning prevents hazards to the safe operation as well as to the protection against direct contact.

The reasons for cleaning are:

- To remove carbon dust
- To remove dust from insulation wear
- To remove from the contact surface all particles with insulating properties (oxidation of the contact surface, condensation and film formation)
- To remove any soiling coming from the environment (dusts, liquids, oils, etc.)

The execution of a cleaning of the conductor rails requires a walkaround tour / local inspection by a specialist from Wampfler AG. Exceptional case is repetitive cleaning, which have been agreed - with the „Conductor rails department“ of Wampfler AG - in an inspection plan.

2. Safety regulations

Working on electrical installation: The usual safety regulations apply.

Crossing and working on the installations: The safety regulation of the operating equipment is applicable.

Use of cleaning media: The relevant safety data sheets and directions for use are applicable.

3. Selection of the cleaning method / Selection of cleaning medium

have to be discussed with the „Conductor rail Department“ of Wampfler AG before use. Disassembly / reassembly / adjustment of the conductor rail installation or of components of the conductor rail installation for cleaning purpose have to be agreed with the „Conductor rail department“ of the Wampfler AG.

The relevant product documentation is valid; i.e. the instruction for disassembly / reassembly / adjustment.

4. Insulation measurement

In order to determine the necessity / success of the cleaning of the conductor rail installation, it is necessary to measure the insulation resistance before / after the cleaning, and to record the results.

The work described here under have to be carried out by an electrical specialist.

Before beginning work on the conductor rail, it must be ensured that it has been switched off and that it cannot be unintentionally or erroneously switched on.

In order to avoid incorrect measurements the system has to be isolated i.e. feeds to the conductor rail as well as to collectors / terminal boxes have to be disconnected.

Collectors must be in operating position.

Any variation to the test method should be stated in the report, with a sketch of the test section showing all components.

When determining the test section, pick-up / transfers, air gaps have to be taken into consideration. The conductor rail system (each measuring section) has to be divided accordingly.

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The following insulation resistances have to be recorded:

- phase to phase
- phase to earth

The arrangement / designation of the phase has to be stated in the report (sketch). For unstable insulation resistances, the unstable value has to be measured again and the range of the value has to be defined.

For low-voltage installations (rated voltage < 1000 V)

	rated voltage \leq 500 V	insulation resistance
$\geq 0,5 \text{ M}\Omega$.	DC measure voltage must be 500 V	
	rated voltage > 500 V	insulation resistance
$\geq 1,0 \text{ M}\Omega$.	DC voltage must be 1000 V	

high voltage installations (rated voltage > 1000 V)

Satisfactory insulation resistance should be recorded before the system is taken into operation again.

5. Detailed description of cleaning products

- Cleaning brush / emery (grain size "180" or thinner)
- Humid patch (water) without additional cleaning medium
- "Rivolta B.W.R. 210":
Cleaning concentrate which is pleasant to smell, light alkaline, biodegradable, incombustible, non-toxic. Attention: causes an insulating layer when evaporite.
- "Rivolta S.L.X.-Top":
Cleaning concentrate which evaporates without deposit, free of halogen-hydrocarbon, odourless, special boxes etc. not required according to German norm "GefStoffV", many uses possible.
- "Rivolta O.C.X." oxide detacher:
Detaches oxide and sulphide layers, forms resin with oils, greases and metal particles. It has to be cleaned with S.L.X.-Top.

6. Environmental information

	B.W.R. 210	S.L.X.-Top	O.C.X. oxide detacher
Biodegradable	more than 97%	-	-
Flashing point	Incombustible	> 55°C - class A III	> 65°C - class A III
Identification acc. to "GefStoffV"	Not necessary	Not necessary	Not necessary
	At ambient temperature in synthetic boxes	At ambient temperature in well ventilated areas; boxes equipped with a safety lock!	At ambient temperature in well ventilated areas; boxes equipped with a safety lock!

7. Use and application

Soiling / Cleaning medium	Humid patch see com-ment pt. 4	Thin brush / thin grained emery	B.W.R. 210	S.L.X.-Top	O.C.X. oxide detacher
Dust, carbon wear or light soiling	Insulation / Conductor	Conductor / Carbon	Insulation / Conductor		
Grease, oil, soot or other soiling			Insulation / Conductor	Conductor / Carbon	
Corrosion		Conductor			Power feed / Connector / Conductor
Additional information			Suitable for food industries; <u>only cold processing!</u>	Only for use on metal parts.	

8. Packing / Handling / Source of supply

	B. W. R. 210	S.L.X.-Top	O.C.X. Oxide detacher
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Format	Loose material	Loose material / spray	Loose material / spray
Method	Mix 1:50 / Apply by spraying or high pressurized cleaner (spray distance > 0,7 m). <u>Cleaned areas to be washed with water.</u> Caution: Installation to be switched on only when it is certain that all water has evaporated (⇒ risk of short circuit!)	Indiluted with electrical spray gun without air / Airless - high pressurized cleaner	Spray by means of aerosols / indiluted with electrical spray gun without air. Operation: 15 to 20 min. Always to be cleaned with S.L.X.-Top
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