

T.I. no.: 2023-26 Updated: -	Topic: SCA NA - Overheating of boiler relays
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<b>Date:</b> 12/19/2023	<b>Priority</b>	<b>Need for action</b>
<b>Affected machines:</b> Coffee Art USA	<input type="checkbox"/> High	<input type="checkbox"/> Fastest possible action
<b>From serial number:</b> 2242xx ... 2245xx	<input checked="" type="checkbox"/> Medium	<input checked="" type="checkbox"/> During the next visit to the machine
<b>From date:</b> Right away	<input type="checkbox"/> Low	<input type="checkbox"/> Only for informational purposes

## DESCRIPTION OF THE PROBLEM

### Boiler overheating due to relay switching too late

An opto-triac [EL 3062] from a second supplier, whose switching tolerance is somewhat higher than that of the first supplier, was used on the 075207 PC board on 580 machines between CW 42/2022 and 45/2022. This can cause opto-triacs U4, U5, U10 to switch downstream relays Rel2, Rel3, Rel4 with a delay. U12 and U41 are not affected.

Serial number of the affected PC boards: **007902 – 008491**

This leads to light arcs between the relay contacts and to destruction of the relays; the downstream boilers are also activated for a period that is marginally too long. The heating elements overshoot and the safety thermostats trip.

### Distinguishing features: Serial number of the control PC board and type designation of the EL 3062 opto-triac

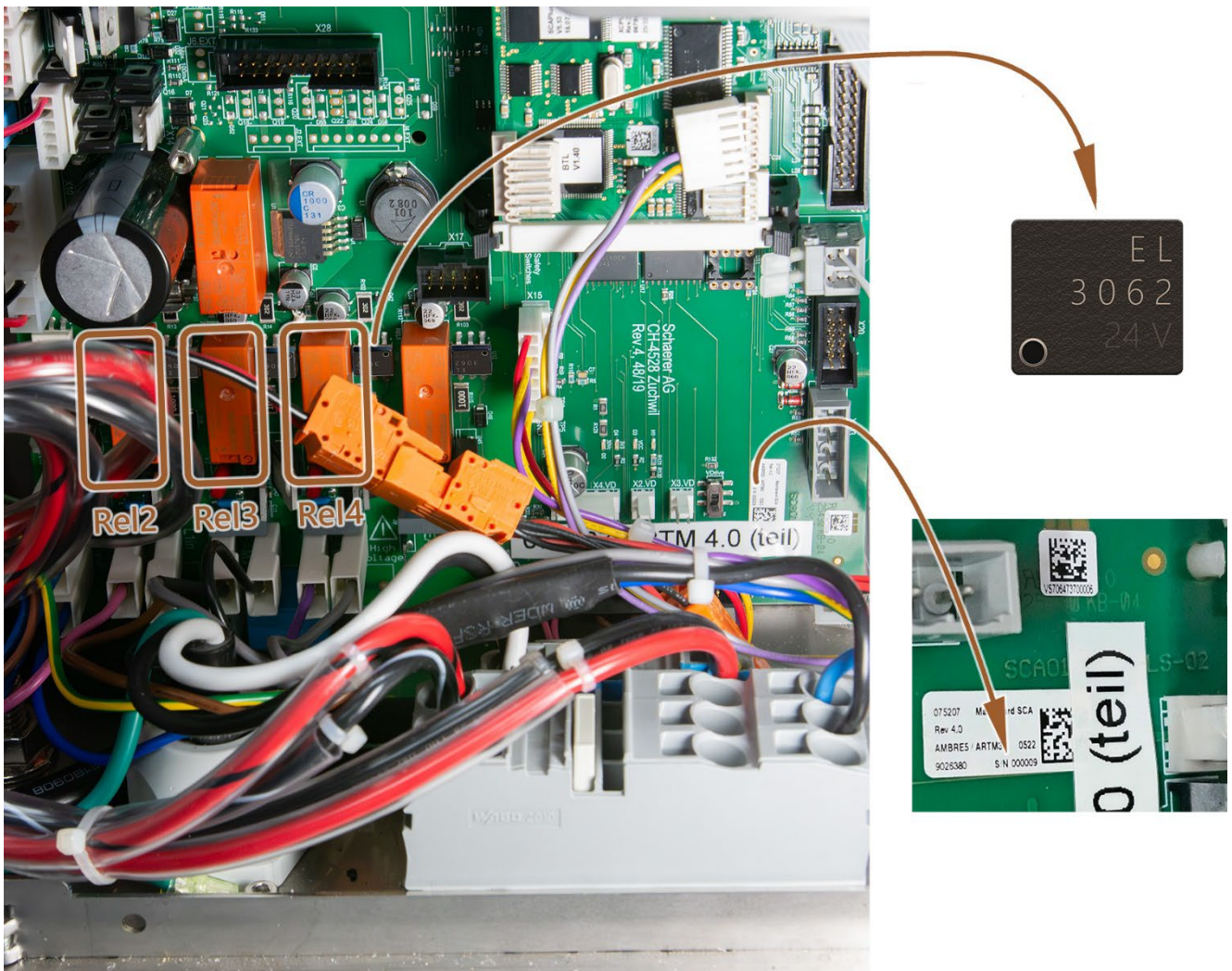


Figure 1: Identification of the serial number, part number 075207 (partially assembled)

## Afected machines

Machine type	From production date	To production date
Schaerer Coffee Art USA	Calendar week 42/2022	Calendar week 45/2022

Serial number of the affected PC boards: 007902 – 008491

## More information

For additional information on the affected machines, please contact **Technical Support**:

### Service contact

Global Technical Support Team

GBU Professional Coffee Machines

- > Support hotline: +41 32 681 62 75 (10:00-11:30 a.m. CET/ 3:00-4:30 p.m. CET)
- > Support e-mail: technical-support@schaerer.com

## Risk assessment

The mechanical relays are installed in an area surrounded by flame-retardant material. The heating of the relays caused by the fault does not reach a critical temperature.

The heating elements are always switched off, although with a delay. Overshoot of the temperature is limited by the safety thermostats. Boiler overpressure caused by excessive heating is relieved through the safety valves.

## SOLUTION TO THE PROBLEM

### Recommended action

If you visit one of the affected machines that was constructed in the specified period in 2022:

- ▶ Check the component identification number (EL 3062) of the opto-triacs.
- ▶ Check whether the serial number of the PC board is in the range of 007902 – 008491. The number is not easy to identify. Use the magnifying glass function on your smartphone if possible.
- ▶ Replace the power board. Spare part 075208 PC board SCA ARTM 4.0 fully assembled.

Not all opto-triacs from the second supplier are outside the required tolerance. We expect a total of 20% of the affected batch. The power board must always be replaced if one or more relays are damaged.

### REPAIR NOTES

- ▶ Make sure that repairs are carried out professionally using suitable tools.
- ▶ Observe the electrical safety guidelines.
- ▶ Observe the applicable ESD protective measures when replacing the PC board.

### Material return

- ▶ Return all material in the original packaging of the replacement board and label it.
- ▶ Provide the following information on the label:
  - > Machine number
  - > Date of installation and removal

### Return address

Schaerer AG

Quality Control

Niedermattstrasse 3b

4528 Zuchwil

Switzerland