

T.I. No.: 2023-18b Updated: 03/10/2023	Subject: Failure of solid-state relays (update)
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Date: 28/08/2023	Priority	Need for action
Affected machines:	High	As soon as possible
see table „Affected machines“	X Medium	X On next visit to the machine
As of date: Immediately	Low	FYI only

PROBLEM DESCRIPTION

Follow up defective solid-state relays

Regretfully, after detailed investigations at our supplier, an additional production lot of solid-state relays has been identified as potentially affected. Next to lot **RW39**, lot **RX14** may have the same faulty component built-in (Varistor). (All other SSR production lots have varistors from a different supplier or a different varistor production lot).

Identifying sign



Figure 1: Solid-state relay, article no. 072044

A failed relay can look intact from the outside or burnt to varying degrees (see example picture). In many cases, one of the safety thermostats (Klixons) tripped. In isolated cases, the power board had to be replaced.

Production lot

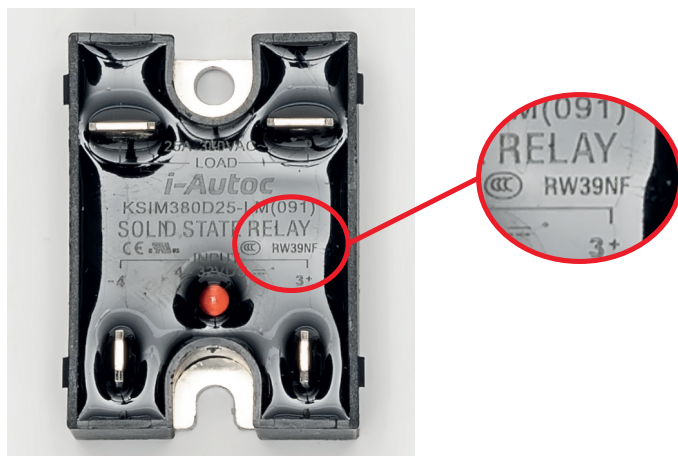


Figure 2: Faulty production lot

Potentially faulty relays are from the production lots **RW39** and **RX14**. The last two characters (NF in the example) are insignificant, see illustration above.

Affected machines lot RW39

Machine type	As of production date	Until production date
Schaerer Coffee Prime	Calendar week 13/2023	Calendar week 22/2023
Schaerer Coffee Soul 10 & 12	Calendar week 13/2023	Calendar week 22/2023
Schaerer Coffee Skye	Calendar week 13/2023	Calendar week 22/2023

All machines **delivered** from calendar week 35/2023 onwards are checked at Schaerer for SSRs with **production code RW39**.

Affected machines lot RX14

Machine type	As of production date	Until delivery date
Schaerer Coffee Prime	Calendar week 13/2023	Calendar week 39/2023
Schaerer Coffee Soul 10 & 12	Calendar week 13/2023	Calendar week 39/2023
Schaerer Coffee Skye	Calendar week 13/2023	Calendar week 39/2023

All machines **delivered** from calendar week 40/2023 onwards are checked at Schaerer for SSRs with **production code RX14**.

Risk assessment

The solid-state relays are located in an area surrounded by flame-retardant material. Furthermore, the amount of feedback is low compared to the number of machines produced. Therefore, there is no need to proactively visit the machines.

Additional damage

In some cases, the **power board 079430** must be replaced because the output to the solid-state relay does no longer function. In isolated cases, the SSR wiring may be damaged by heat emission.

Recommended measures

When visiting one of the affected machines built in 2023:

- ▶ Check the production code of the solid-state relays.
- ▶ If the relays are from the **RW39** or **RX14** production lots: Replace all relays.

Stock

- ▶ Check the spare parts stock for the presence of solid-state relays with production codes **RW39** or **RX14**.
- ▶ Sort out solid-state relays with production code **RW39** or **RX14**.
- ▶ Machines in stock: Check machines in stock before or during installation.

REPAIR INSTRUCTIONS

- ▶ Ensure professional repair with suitable tools, observe the electrical safety guidelines and the following information:

Connectors suitable for the **output** of the solid-state relay (6.3x0.8 mm) can be ordered from Schaefer Ltd..

- Plug-in connector 6.3 x 0.8 mm for 1.5 - 2.5 mm² (steel-nickel plated): **#065'258**.
- Isolation sleeve (6.3 mm, glow wire GWT compatible): **#065'246**.
- For those service organisations which do not have suitable tools or knowledge for an electrically safe repair may use boiler wiring repair kit **#075'294** (SSR **output** side only).
- Currently, Schaefer does not have a solution for the **input** of the solid-state relay (4.8x0.5 mm). Development of a solution is in progress.
- ▶ Use suitable (professional) tools to mount the plug-in connections in an electrically safe manner (not sold by Schaefer Ltd).



Free of charge replacement material

Replacement relays (**article no. 072044**) and, if applicable, power boards (**article no. 079430**) can be ordered through the usual channels using the machine number(s). Replacements under warranty will only be made against return of the goods and indication of the serial number and date of removal or alternatively with clear indication "from spare parts stock".

This offer is valid until 31/12/2023 or until expiry of the machine's warranty period at the latest.

Return of material

- ▶ Return all material appropriately packaged and labelled.
- ▶ Label with the following information:
 - > Machine number
 - > Installation and removal date
 - > alternatively: "from spare parts stock".

Return address

Schaefer Ltd
Quality assurance
Niedermattstrasse 3
4528 Zuchwil
Switzerland

Service contact

Global Technical Support Team
GBU Professional Coffee Machines
> Support Hotline: +41 32 681 62 75 (10:00-11:30 CET/
15:00-16:30 CET)
> Support E-Mail: technical-support@schaerer.com