

MI_2154: Installation SSR

 iVario 2-XS / Pro 2-S

 20 min

 Standard

 21/05/2026

Topic

The information describes the removal and installation of the solid state relay (SSR).

Affected product/accessories

- iVario LMX.100AE
- iVario LMX.100BE
- iVario LMX.200BE

Required tool

- Standard

Required components

Affected component	Article number
Power semiconductor SSR 25A	40.05.670P
Power semiconductor SSR 40A	40.05.840P
Power semiconductor SSR 1200V 40A	40.01.589P

General information

NOTICE

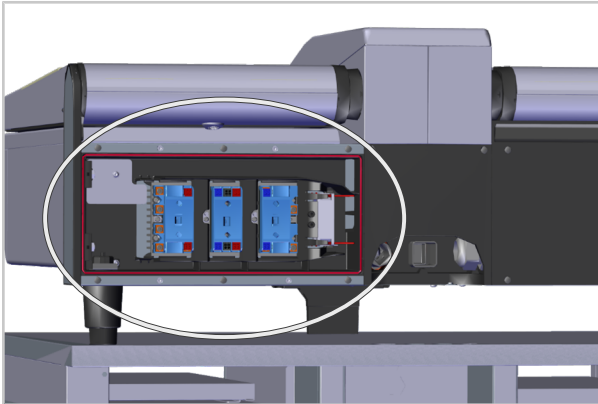
Enter the installation of the component on the service level ("Component replacement" tab). This is an integral part of the maintenance history.

Target group

- This document is intended for skilled technicians, who have been certified by the manufacturer after attending training and safety instructions.
- Installation, inspection, maintenance, and repair work must only be carried out by trained technicians.
- It is recommended that only technicians authorised by the manufacturer perform inspection, maintenance and repair work.
- The unit may not be used, cleaned, or maintained by children. The unit may not be used for play. This is prohibited even under supervision.
- The unit may not be used, cleaned, or maintained by people with limited physical, sensory, or mental capacity or those without the necessary experience or knowledge, unless such people are supervised by a person who is responsible for their safety and who has been informed of the hazards of the unit.
- In order to prevent accidents or damage, the manufacturer recommends that technicians attend training and safety instructions.

Installation position

The SSR is located on the rear right-hand side of the unit.



Safety instructions

DANGER

High voltage when connecting to the mains power

Danger to life when working with high voltage.

- Disconnect from the power supply.
- Secure against unintentional switching on.
- Make sure the unit is disconnected from the power.

CAUTION

Sharp edges on the housing

Risk of cuts on the housing when working in the electrical compartment.

- Wear protective gloves.

NOTICE

Faulty power semiconductors (SSR) require the heating elements to be inspected.

Please note that, in the event of a faulty SSR, the heating elements in the corresponding circuit must also be checked and replaced if necessary. See Modification Instruction MI_2114.

NOTICE

Different procedure for installed Duo SSR (power semiconductor SSR 1200V - 40A 40.01.589P)

Due to supply problems in production, only screwable Duo SSR (power semiconductor SSR 1200V - 40A 40.01.589P) were installed for a time. If this applies to your unit, please follow the instructions below.

Work steps – SSR replacement

1. Remove the cover of the electrical compartment. Remove the 6 fixing screws in the order shown.



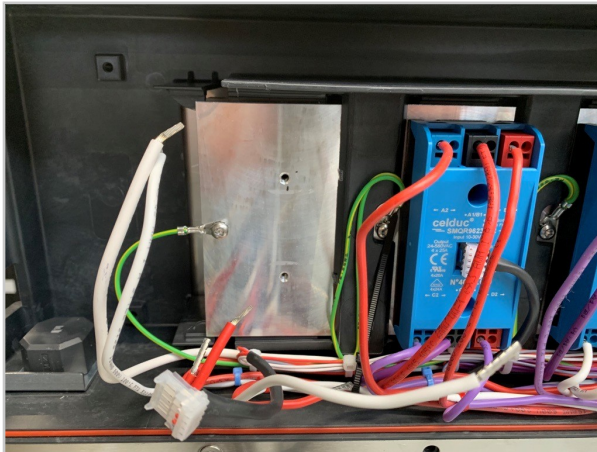
2. Number the power circuit cables before disconnecting them. Insert a flat screwdriver into the hole of the terminal strip below or above the cable and apply some pressure while pulling out the wire. Repeat this procedure for all SSR power cables.



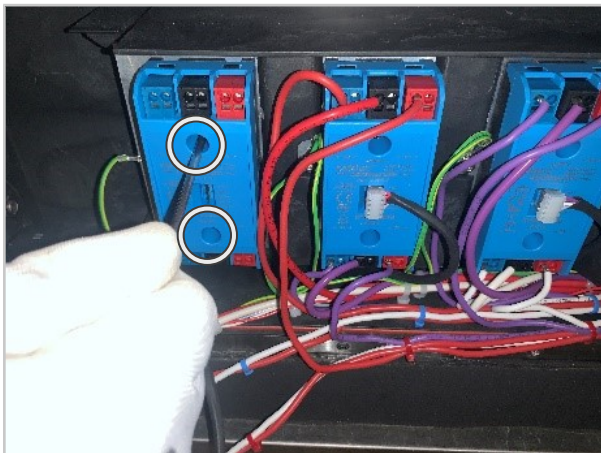
3. Disconnect the control circuit connector.



4. Remove the 2 central screws to disassemble the SSR.



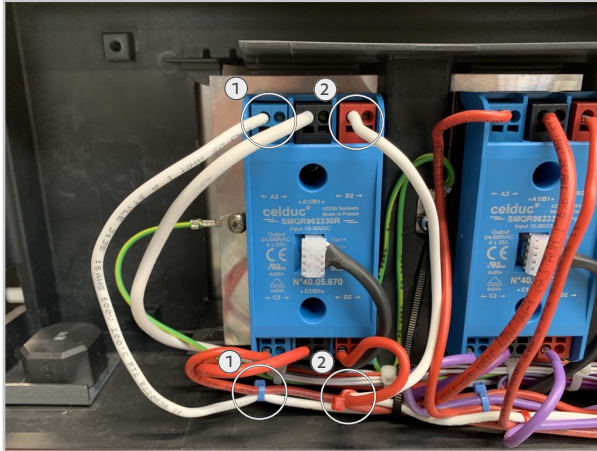
5. Fit the new SSR so that the label on the SSR is legible and the text is not upside down. Tighten the two central screws with 3 Nm.



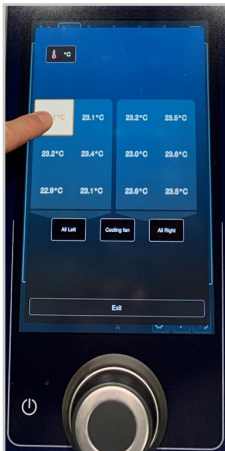
6. Reconnect the control circuit connector (1). Insert the cable with the largest cross-section into the black slot (2).



7. Connect the cables with the smaller cross-section to the blue or red slots. When connecting the cables, refer to the colours of the cable clamps (blue cable clamp to blue (1), red cable clamp to red (2), etc.).



8. Replace the cover. Refit the screws, following step 1 in reverse order.
9. Reconnect the unit to the power supply. Test the operation of the affected heat zone(s) in service mode.

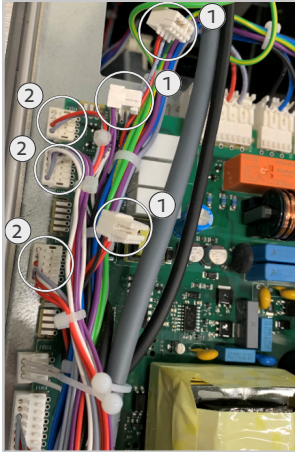


> Removal and installation of the SSR is complete.

Replacing a screwable Duo SSR

If your unit is fitted with two screwable Duo SSRs (power semiconductor SSR 1200V - 40A 40.01.589P), please observe the following instructions:

- When replacing all screwable Duo SSRs with a Quad SSR, ensure that the new Quad SSR is reconnected to the original cable harness (1), as an additional cable harness (2) was installed between the SSR and I/O PCB for the installed screwable Duo SSR. The plug connectors of the additional cable harness (2) were not used and can be removed.



- When replacing a screwable Duo SSR with a new Duo SSR, connect the plug connectors to the same connections as before the modification work. Make sure that the connectors of the original cable harness (1) are not used. Instead, use the additional cable harness between the SSR and the I/O PCB (2).

