



Mobile Industrial Robots A/S expressly disclaims liability for any damages or injuries caused as a result of customer's failure to operate the robot in strict compliance with the User Manuals, and failure to follow and implement the recommendations in this Safety Notice.

Subject: SAFETY NOTICE: Lithium batteries, 24V and 48V

Products and product serial numbers: This Safety Notice comprises robot models with the following numbers: All MiR100, MiR200, MiR500, and MiR1000 with **15-digit serial numbers.**

All models with **9-digit serial numbers** up to the below stated serial numbers.

MiR100 w. 1 battery:	201703313	MiR200 w. 1 battery:	201903139	MiR500:	202503134
MiR100 w. 2 batteries:	201803068	MiR200 w. 2 batteries:	202003094	MiR1000:	2026030 XX
MiR100 BOR:	2021031 XX	MiR100 CN:	202203076		

Issued by: Claus Jørgensen, Safety & Compliance Manager

Date: July 26, 2021, superseding version dated December 17, 2020

The December 17, 2020 Safety Notice identified the need to prevent deep discharging of the batteries. As a result, software was released to protect against deep discharging.

MiR did an exhaustive assessment of the batteries in the affected products. There remains a risk of overheating with a possibility of a fire happening. Therefore, battery replacement is recommended. This will be provided at no charge for the affected MiR robots.

The logistics for the manufacture and distribution of new batteries is a major undertaking. In the interim, there is a software update that will monitor and limit the total charge of these existing batteries. Use of this software will have an impact on the runtime between charging.



WARNING: Lithium batteries can overheat and cause a fire



Read the instructions, download the software, and update the MiR robots.



Obtain and keep nearby suitable extinguishing media in case of lithium-ion battery fires.

Find the serial number:

Check the product serial number (S/N) on the robot's identification label. To see where the labels with serial numbers are located, see *Identification labels* on the MiR website under **Solutions**.

Until the battery can be replaced, MiR recommends reducing the risk by the in the following way:

Go to the Distributor site > Download and download the software. Follow the instructions in the guide *How to implement the battery safety measures from Safety notice*. The guide is found on the Distributor site under Batteries > How to guides.

The software update reduces the maximum state of charge of the battery to 50%. Limiting the maximum state of charge reduces the risk of overheating and causing a fire. In addition, the software limits the charging current to 20A for MiR500 and MiR1000 robots.

Additional important instructions for the use of chargers are found in the guide *How to use chargers on MiR robots with deprecated batteries* on the Distributor site under **Batteries > How to guides**.

To those customers who decide NOT to follow this recommendation, an alternate solution is made available in the guide *How to change the battery state of charge limit*. This solution will instead reduce the maximum state of charge to 80%. With this solution the risk of fire will remain but have been made less probable. Therefore, additional measures



Safety Notice



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are recommended: Supervise the robot during charging, remove flammable material close to the charger, and move the charger if it is positioned near an emergency exit.

Replacement of batteries

A plan for replacement of all batteries will be communicated as soon as it is available.

Questions about this safety notice?

Contact your local MiR representative directly or send an email to <u>safetynotices@mir-robots.com</u>. Your email will be redirected to your regional MiR Technical Support Manager. FAQs are posted on the Distributor site under **Batteries** > **FAQ**.