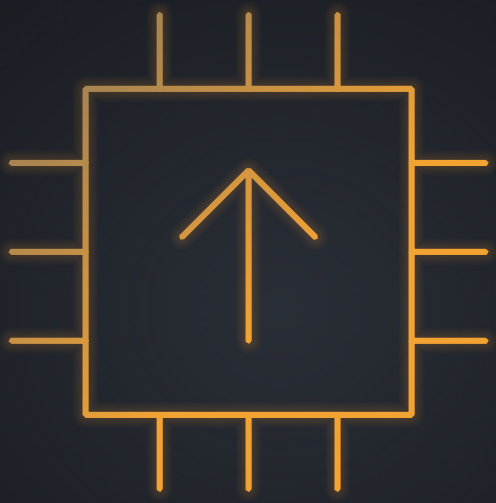
Firmware Updates

Updating AERL Products in the Field



CoolMax · EarthGuard · Nexus Gateway · Nexus HMI

Firmware Update Guide

REV 1.0.1, 11 NOV 2026

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Revision **1.0.1**	Effective **11 / 2026**	Audience **Installers, service technicians and system owners**	Products **CoolMax · EarthGuard · Nexus Gateway · Nexus HMI**
Tools **AERL Link · AERL Cloud**	Release notes **AERL Customer Release Notes**	Format **A4 · 12 pages**	

Foreword

This guide explains how to update the firmware in each AERL product, how to check which version a unit runs, and what to do if an update does not finish. It is for installers, service technicians, and system owners who manage their units in AERL Cloud.

AERL releases firmware to fix problems and add features. Each release's customer-relevant changes are listed in the AERL Customer Release Notes, at aerl.com.au. Update a unit when AERL Link or AERL Cloud offers an update, when AERL support asks you to, or when the release notes list a fix you need.

Before You Update

How each product is updated, precautions

01

1.1 How Each Product Is Updated

Product	How	Who
CoolMax SRX and SRX-R	AERL Link, over USB	Installer on site
CoolMax SRX and SRX-R on AERL Cloud	AERL Cloud **Service** page, through the site's Nexus gateway	Owner, Admin or Technician in AERL Cloud, from anywhere
EarthGuard EG-600 and EG-600-SC	AERL Link, over USB-C	Installer on site
Nexus gateway	Automatic	Nothing to do
Nexus HMI	Arranged with AERL support	Contact AERL support

1.2 Precautions

> **Do not interrupt an update**
> Do not switch off power, unplug the USB cable or open the PV or battery isolators while an update is running. An interrupted update does not damage the unit: it keeps running its previous firmware. But the update must then be run again.

- **The battery stays connected.** A CoolMax SRX or SRX-R is updated with its battery connected and the unit powered up.
- **Charging stops during the update.** A charge controller stops charging while its firmware is installed, and restarts on the new firmware. Plan updates for a time when a short stop in charging does not matter, and check that the site's other sources and the battery can carry the loads.
- **Settings are kept.** An update keeps the unit's settings. Check them afterwards all the same.
- **Updates only go forward.** AERL Link and AERL Cloud only offer firmware newer than the unit's own. A unit is never downgraded.
- **Some updates need a calibration.** AERL Link says so before it starts: have a digital multimeter on hand.

1.3 Checking the Firmware Version

Product	Where to see the version
CoolMax SRX and SRX-R	AERL Link: the unit's card on the **DEVICES** page, and **Firmware** on its **STATUS** tab. AERL Cloud: the **FW Version** column on the **Service** page.
EarthGuard EG-600 and EG-600-SC	AERL Link: the unit's card, and **Firmware** on its **STATUS** tab.
Nexus gateway	AERL Cloud: the gateway's **Firmware** field on its page.
Nexus HMI	On the display: **Setup** > **About** shows the Nexus software version.

Firmware versions are written as numbers such as 2.17.9. AERL Link may add a letter V or a build date after the number.

1.4 Updates Worth Knowing About

Situation	Update
SRX shows Charge Held: Battery Current Limit (−1307)	Reported by some pre-release firmware. Contact AERL support.
SRX ground fault trip	From firmware 2.0.1, the SRX and SRX-R trip at a fixed 50 kΩ; there is no sensitivity to set. Earlier firmware had a Low / Mid / High setting: update to get the fixed trip.
SRX settings from AERL Cloud	Changing an SRX's settings from the AERL Cloud **Service** page works with the current SRX and SRX-R firmware releases (2.17.9 and 2.9.4). Update a unit on older firmware first.
SRX updates from AERL Cloud	Need Nexus gateway software 1.7.12 or later.
A unit is offered an important update	AERL marks an update important when every unit should have it. AERL Link installs it straight away.

1.5 Release Notes

The AERL Customer Release Notes, at aerl.com.au, list the customer-relevant changes in each released version of the SRX, SRX-R and EG-600 firmware, the Nexus gateway software and AERL Link, newest first.

AERL withdraws a release from AERL Link and AERL Cloud when a newer one replaces it. A unit on a withdrawn release keeps working: update it to the release AERL Link or AERL Cloud offers.

CoolMax SRX and SRX-R with AERL Link

02

What you need, update procedure, release channels

2.1 What You Need

- The latest AERL Link, from **aerl.com.au/professionals**. Start it with an internet connection before you go to site, so that its firmware list is current: AERL Link keeps the firmware on the PC, and updates units on site without the internet.
- A USB-A to USB-B data cable.
- A PC on mains power or with a charged battery. Stop it from sleeping during the update.
- A digital multimeter, in case the update needs a calibration.

2.2 Update Procedure

1. Power the unit up with its battery connected, following the start-up procedure in its user manual.
2. Connect the USB cable to the USB-B port: on the SRX, inside the access cover; on the SRX-R, on the backplane, with the **USB Change-Over Switch** set to the module you want to update (**MPPT 1** or **MPPT 2**).
3. Start AERL Link and click the unit's card on the **DEVICES** page.
4. If a newer release is available, AERL Link offers it: **Firmware update available.**, with the unit's name and serial number and the release notes. Click **Update**. An important update (**Important firmware update available.**) installs straight away.
5. Wait while the page shows **Updating Firmware:** and the progress. The transfer usually takes 1–2 minutes. During it the unit stops charging and its LED flashes orange (status 110, firmware update in progress).
6. The unit restarts on the new firmware. Its LED flashes blue briefly, then it returns to normal operation. AERL Link reconnects and shows the new version.
7. If the update needs a calibration, AERL Link starts it. Follow the steps on screen (AERL Link User Guide, Calibration chapter).
8. Check the unit's settings and its status on the **STATUS** tab.

> **SRX-R: one module at a time**
>
> Only the module selected by the USB Change-Over Switch is updated. Do not change the switch during an update. When the first module has finished, change the switch over and update the other module.

2.3 Release Channels

AERL Link offers Stable firmware. AERL support may ask you to try a Beta release, which has passed AERL's release testing but has had less than six months of use in the field: they will give you the password to turn on **Beta Firmware** on AERL Link's **SETTINGS** page. A site that must stay on a tested version can be held there with **Lock Firmware** on the same page, also with a password from AERL support.

CoolMax SRX and SRX-R from AERL Cloud

03

Requirements, update procedure, if the update fails

3.1 Requirements

A CoolMax SRX or SRX-R connected to AERL Cloud through a Nexus gateway can be updated remotely from the AERL Cloud **Service** page.

- You need the **Owner**, **Admin** or **Technician** role in your AERL Cloud organisation. Other roles do not see the Service page.
- The unit must be online (not Offline or Sleeping).
- The gateway must run Nexus software 1.7.12 or later. Nexus gateways update themselves (chapter 5), so this is normally the case.
- AERL Cloud offers Stable releases only.

3.2 Update Procedure

1. Open **Service**. On the **Devices** tab, an arrow beside a unit's **FW Version** means an update is available.
2. Click **Manage** on the unit.
3. Under **Firmware Update**, check the new version and its release notes, then click **Deploy Update**.
4. Read **Confirm Firmware Deployment** and confirm.
5. AERL Cloud shows the progress, the elapsed time and an estimate of the time remaining. A typical update takes about 3 minutes; a few take 10 minutes or more. After about 6 minutes AERL Cloud says the update is taking longer than expected: you can leave the page and check back later.
6. When it finishes, AERL Cloud shows **Deployment Successful** and the unit runs the new version.

> **Every SRX on the CAN bus stops during a remote update**
>
> While the gateway installs firmware in one unit, every CoolMax SRX and SRX-R on the same CAN bus stops charging, and all of them restart when the update ends. Update at a time when a few minutes without solar charging does not matter, and keep every unit powered throughout.

3.3 If the Update Fails

- **Deploy Update is unavailable:** the unit is offline. Wait for it to come online (an SRX that is Sleeping wakes when the sun is up).
- **No update offered:** the unit already has the latest release for its model, or its gateway's software is older than 1.7.12. Contact AERL support if the gateway does not update.
- **Deployment Failed:** check that the unit is online, wait a few minutes, and check its **FW Version**: a long update can finish after the window has reported a failure. If the version has not changed, click **Try Again**. A failed update leaves the unit on its previous firmware. If it keeps failing, update the unit with AERL Link on site (chapter 2), or contact AERL support.

EarthGuard EG-600 and EG-600-SC

04

Update procedure

4.1 Update Procedure

EarthGuard firmware is updated with AERL Link over USB-C only. AERL Cloud cannot update an EarthGuard.

1. Connect a USB-A to USB-C data cable from the PC to the EarthGuard's USB-C port, on the bottom edge. The EarthGuard can run from the USB-C port alone, so it can be updated on the bench or in place.
2. Start the latest AERL Link and click the EarthGuard's card on the **DEVICES** page.
3. If a newer release is available, AERL Link offers it. Click **Update** and wait while the page shows **Updating Firmware:** and the progress.
4. The EarthGuard restarts on the new firmware. Check its **STATUS** tab shows **Ok**, and check its **SETTINGS** (sensitivity and earth type).

> **Note**
> The EarthGuard's alarm relays are fail-safe: they can open while it restarts. If they report to a monitoring system, expect an alarm during the update, and check that it clears afterwards.

Nexus Gateway and Nexus HMI

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Automatic updates, Nexus HMI, checking a gateway

5.1 Automatic Updates

A Nexus gateway connected to the internet keeps its own software up to date. There is nothing to do.

- The gateway checks for a new release regularly and installs it automatically.
- The gateway also restarts itself once a night, around midnight.

5.2 Nexus HMI

Nexus HMI software updates are arranged with AERL support: contact AERL support if a Nexus HMI needs one. **Setup** > **About** on the display shows the Nexus software version.

5.3 Checking a Gateway

In AERL Cloud, a gateway's page shows its **Firmware** version. If a gateway shows an old version, check that it is online and has an internet connection; if it stays on an old version, contact AERL support.

If an Update Fails

AERL Link, AERL Cloud, contact AERL support, change log

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6.1 AERL Link

What you see	What to do
The firmware update was not started.	Something else was running on the unit (a settings save or a calibration). Open the unit again when it has finished, to be offered the update again.
The progress stopped, or the cable or power was lost during the update	The unit keeps its previous firmware. Power-cycle the unit, reconnect, and AERL Link offers the update again.
The firmware update was not installed. The unit restarted on its previous version	Try the update again. If it happens again, contact AERL support.
The device has not reported back after the firmware update.	The update completed. Power-cycle the unit and reconnect. If it does not appear, contact AERL support.
No update is offered	Start AERL Link with an internet connection and press **Refresh** on the **REPO** page. A firmware lock on AERL Link's **SETTINGS** page may be holding the unit at its version.
The unit is not found	See the AERL Link User Guide, Troubleshooting.

6.2 AERL Cloud

See section 3.3. A remote update that keeps failing can be done on site with AERL Link.

6.3 Contact AERL Support

Before you call, note the product, its serial number, the firmware version before and after, and the message shown. If you used AERL Link, save a support bundle (AERL Link **HELP** page) and send it with your email.

AERL support: **1800 950 865** · **support@aerl.com.au**

6.4 Change Log

Revision	Date	Change
1.0.0	11 / 2026	First issue.
1.0.1	11 / 2026	HMI-10 renamed Nexus HMI.

Thank You for Choosing AERL

If you have any questions or need support, contact AERL.

Sincerely,

The AERL Team

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