

The firmware update procedure for **Agrident Stationary Readers (ASRs)** is easy. The described update mechanism is applicable to the ASR550 and the ASR650. Both readers have an RS232 – and an RS485 interface. Since personal computers do not have RS485 interfaces and modern PCs do not even have a ‘real’ RS232 interface anymore, interface converters must be used: USB-to-RS232 or USB-to-RS485 converters – both types are commercially available.

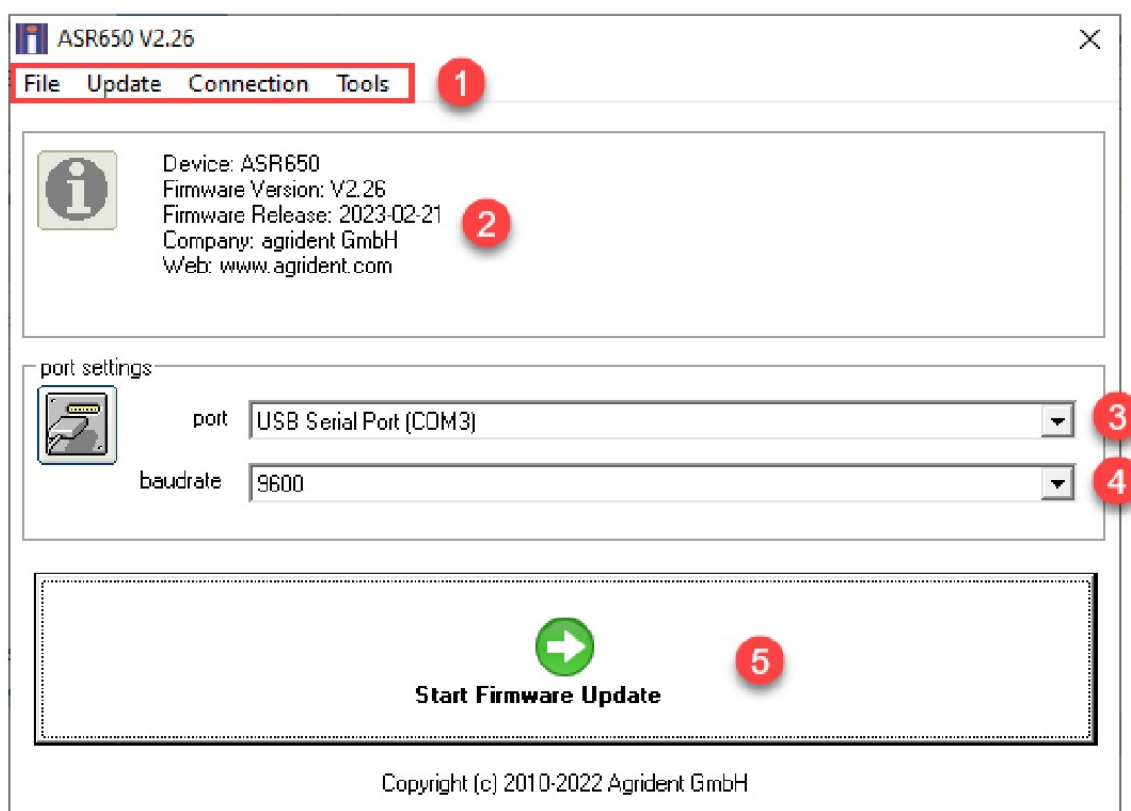
The updates can also be done via Bluetooth or Ethernet in case an appropriate add-on-module is installed but this scenario is probably an exception for installing updates.

Connect your ASR to your computer using a suitable cable/converter setup. Ideally you should check the correct connection using *ASR-PC-Demo* before trying to run the update. When you can connect to the reader here, the updater should work with the same settings.

Then start the update executable file.

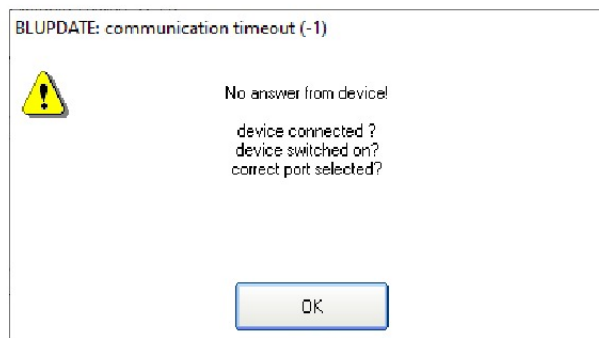


The updater opens:



The file menu **1** contains items for configuring connection settings, for opening the Windows Device Manager, for starting the update or for closing the program. The info section **2** shows information like device type or firmware version and release date. The serial port can be changed via the drop-down-menu **3**. Ensure you select the correct baud rate under **4** and start the update by clicking on **5**.

When the updater cannot communicate with the reader successfully, the update attempt will fail and an error message is shown:

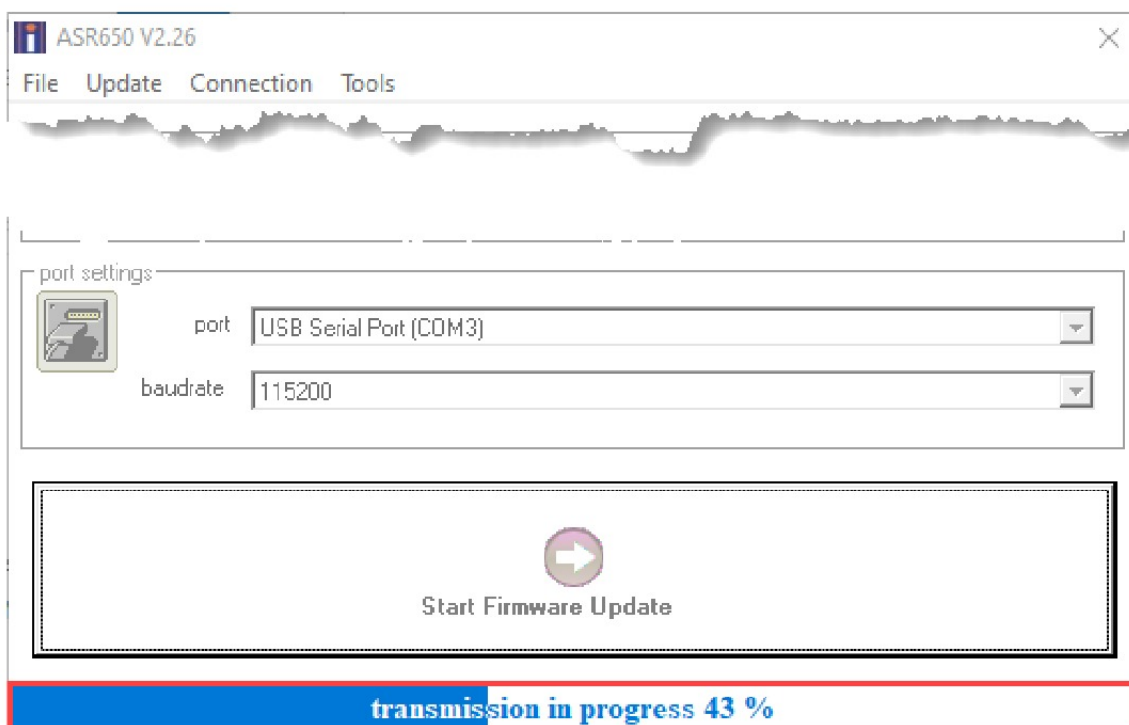


In this case ensure the reader is switched on, all connections are made properly and serial port and baud rate are correctly configured (can be checked using *ASR-PC-Demo* before).



The baud rate is configurable from 9600bps to 115200bps. The update is much slower when using 9600bps, so it is recommended to switch to 115200 – at least for the update.

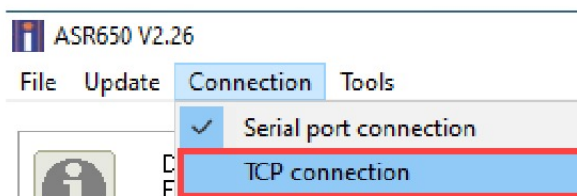
A progress bar shows the update status:



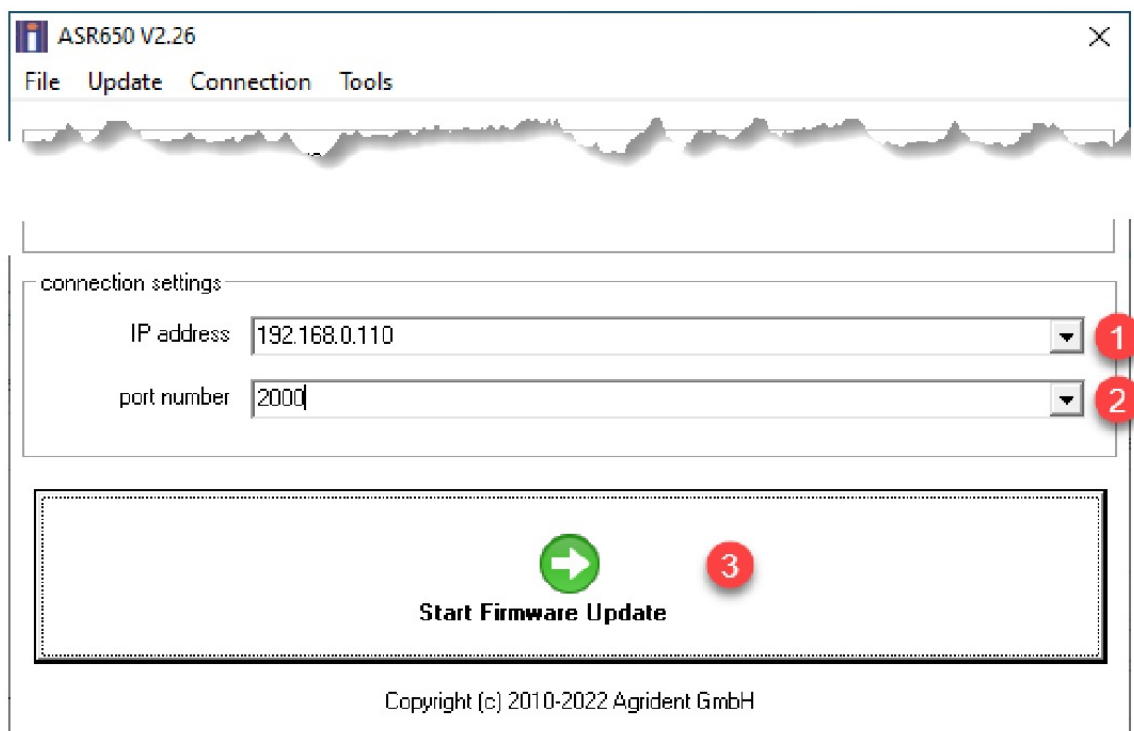
The transmission of the update file to the reader takes ~ 1 ½ minutes at 115200bps (takes much longer at slower speeds). During this period the yellow and red LED on the reader are activated continuously and the green LED is flashing. Applying the update takes another ~ 15 seconds – only the red LED is flashing here. Then the update is complete – only the yellow LED lights up continuously.

An update via Bluetooth (ABT200) works in the same way but the correct Bluetooth Serial Port must be chosen before trying to apply the update. The baud rate selected in the updater must match with the configured **module** baud rate!

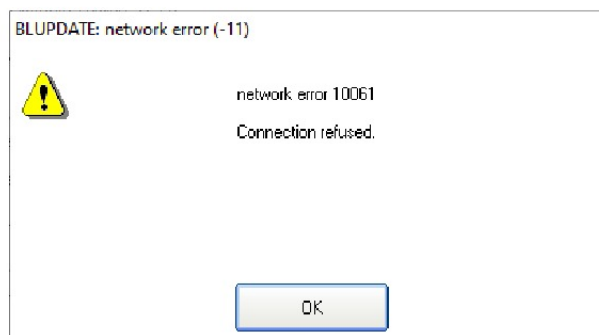
For updating the firmware via an Ethernet module (AET300), first select 'TCP connection' in the 'Connection' file menu:



Then the correct IP address **1** and port number **2** must be entered, before the update is started by clicking on **3**.

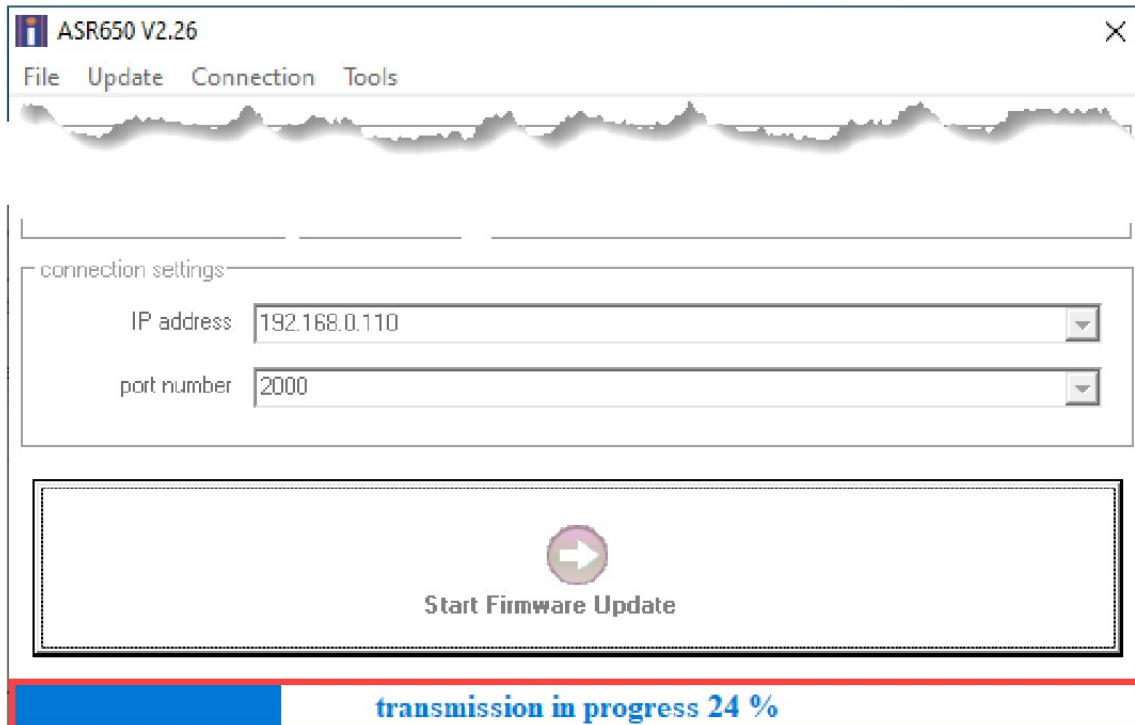


When the updater cannot communicate with the reader successfully, the update attempt will fail and an error message will be shown:



In this case ensure the reader is switched on, all connections are made properly and IP address and port number are set correctly (can be checked using *ASR-PC-Demo* before).

If everything is set up and configured correctly, the update will start and a progress bar will indicate the transmission status:



As with transmission via a serial interface, the update is then processed, which takes about 15 more seconds.