



Firmware Update Instructions for Isolation Transceiver, Synapse and Sidescan Interface

Marine Magnetix Firmware Installer allows the user to update the firmware in the recent models of the Isolation Transceiver, Synapse and Sidescan Interface Transceiver units. Please refer to the table below for compatibility details.

Table 1 - Firmware update compatibility summary for Marine Magnetix products

Product	Model that supports upgrades	Earliest firmware that supports upgrades
Isolation Transceiver	4-port GPS-Enabled transceivers manufactured beginning in late 2023. All 3-port transceivers, and 4-port transceivers shipped prior to Nov 2023: in-factory updates only	Isolation Transceiver firmware 2.21 or newer
Sidescan Interface Transceiver	Sidescan interface units manufactured beginning in 2024 Earlier models: in-factory updates only	Sidescan Interface firmware 1.03 or newer
Synapse	Synapse manufactured beginning in 2024 Earlier models: in-factory updates only	Synapse node firmware 2.63 or newer
SeaQuest	In-factory updates only.	
Explorer	In-factory updates only.	
Sea Sentinel / Sentinel 1	In-factory updates only.	
Sentinel 2	Sentinel2 requires a different update procedure. Please refer to the Sentinel2 operating manual for details http://marinemagnetix.com/products/base-stations/sentinel-2/	Sentinel2 software release 2022.09.20 or newer https://marinemagnetix.com/install/sentinel/
Argos	Argos requires a separate tool to update firmware: Argos Monitor https://www.marinemagnetix.com/install/argos/dap/public/default.htm	Argos firmware 2.31 or newer

Firmware Installer setup and firmware update files

The Marine Magnetix firmware installer tool can be found on the main web site, in the products list.

Alternatively please use the following web page: <https://marinemagnetix.com/install/syfi/public/default.htm>

The latest firmware versions are also available for downloading from the same web page.

The following file name format is used for the supported products:

- ssi____.arg Desktop isolation transceiver
- ssim____.arg Synapse node
- ssilop____.arg Sidescan integration isolation transceiver

Firmware Installer user interface

The Firmware Installer has a simple and linear interface and has three main steps:

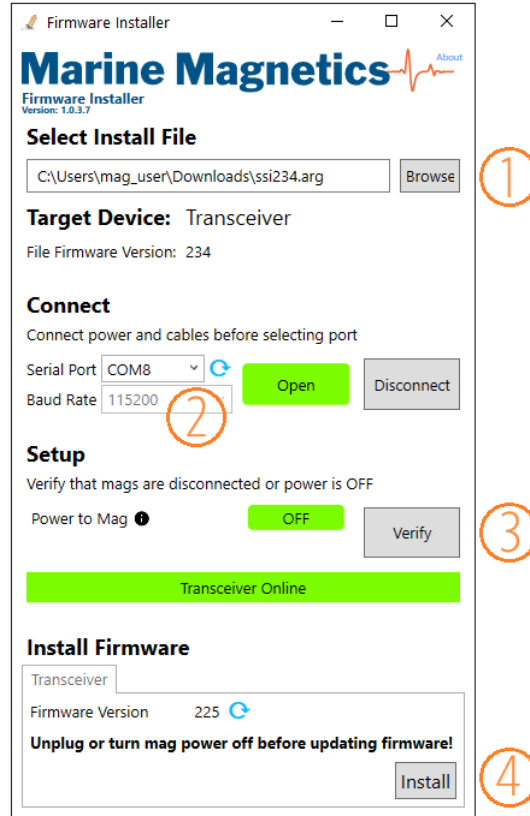
1. Select the firmware update file from your computer
2. Select the COM port for connecting to the target device
3. Verify the connection parameters are good
4. Install new firmware

The target device is determined based on the user's selection of the firmware update file. Accidentally attempting to install the wrong firmware file type into the connected device will simply stop the installation progress without any negative consequences.

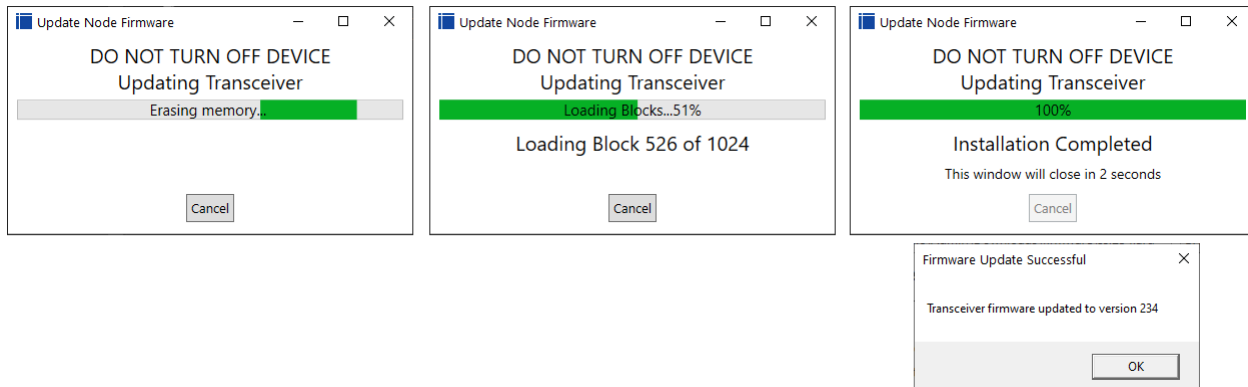
Updating firmware in the desktop isolation transceiver

IMPORTANT: Older firmware versions (older than v 2.34) require that the gradiometer mode be turned off (be sure to switch from grad mode to mag mode) and the GPS signal to be blocked before updating the firmware. Having GPS lock may interfere with the firmware update progress in older transceivers.

Before updating the firmware, ensure that the towfish connection is unplugged from the transceiver.



The typical progress of the installation is illustrated below:

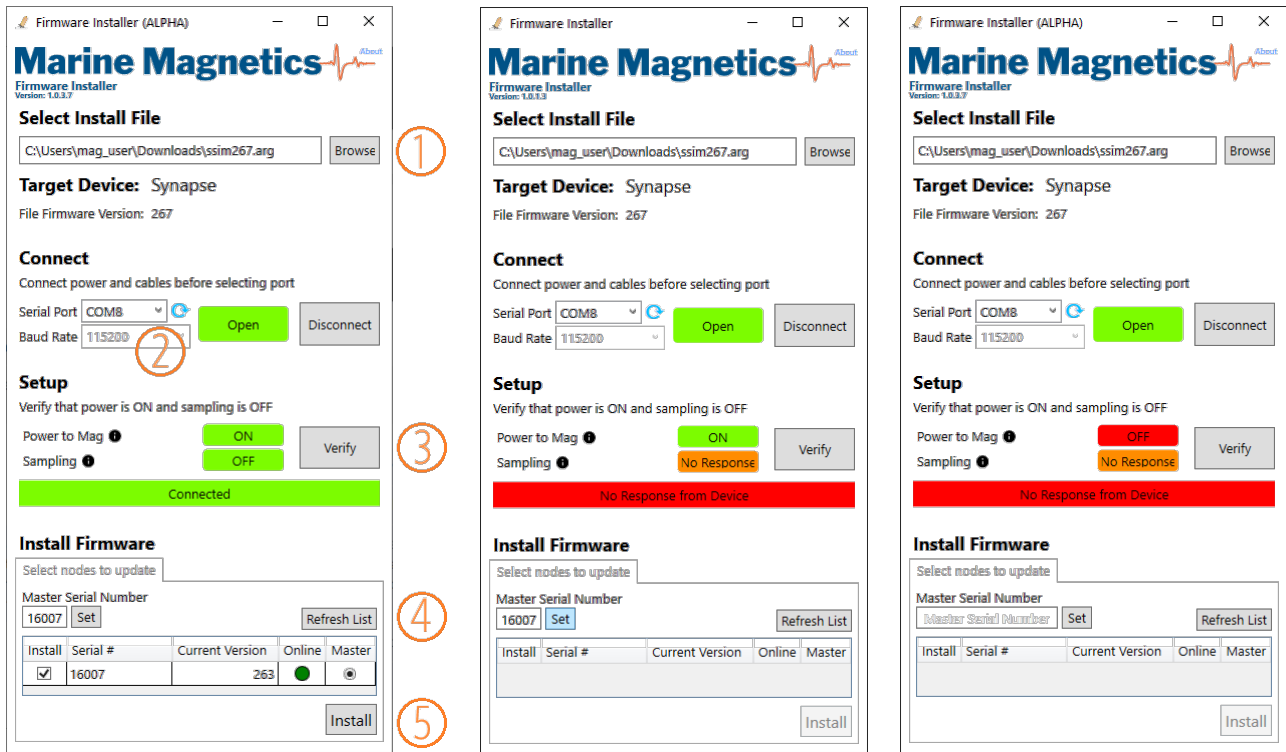


Updating firmware in the sidescan integration transceiver

The procedure for updating the sidescan integration transceiver is identical to that of the desktop isolation transceiver, with the exception of the firmware update file, and the test cable used to interface to the unit. The towfish cable should be disconnected prior to updating the transceiver firmware.

Updating firmware in the Synapse node or Synapse array

Synapse node firmware can be updated individually, or while having the entire array connected together. A single Master node must be selected, similarly to normal Synapse operation. This can be done using the Firmware Installer interface.



Normal update scenario:

Power and Sampling conditions are good (green).
A single Synapse node is connected and is already configured to act as Master node
Version 2.63 will be upgraded to 2.67

Alternative scenario 1:

Power to the Mag indicator is ON, meaning a towfish or array are connected to the output of the transceiver.
No response from the device on the selected COM port:
While Synapse unit(s) may be connected, the Master node is not set.
Manually enter the Master unit's SN into the Serial Number box and click Set.
Refresh List if necessary.
Proceed to install if the node list shows the connected unit(s) and current firmware version(s).

Alternative scenario 2:

Power to the Mag indicator is OFF.
This means that no towfish are connected to the output of the transceiver.
Check the towfish connection cable and ensure that the LEDs on the front of the connected Synapse unit are flashing when the transceiver is powered.