

Application Note

ANSSG325091101 – SeaSmart G3 Firmware
update via SD card



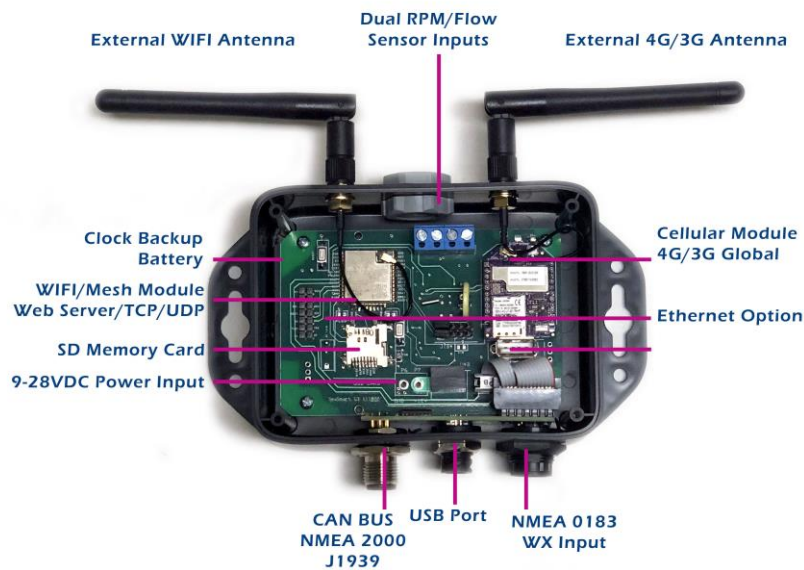
Chetco Digital Instruments, Inc
Revision 091125

SeaSmartG3 supports both CAN BUS/NMEA2000/J1939 and NMEA 0183 (RS2232) inputs and converts to WIFI/Ethernet/Cellular 4G depending on options selected.

SeaSmartG3 provides an embedded Web server for a complete stand-alone solution for viewing live instrumentation data and device configuration using any browser enabled device (pc/laptop/smart phones/iPhones/iPads/android)

SeaSmartG3 can send live data to remote services over standard internet connections.

SeaSmartG3 also supports an internal SD card for data logging and device configuration/updates

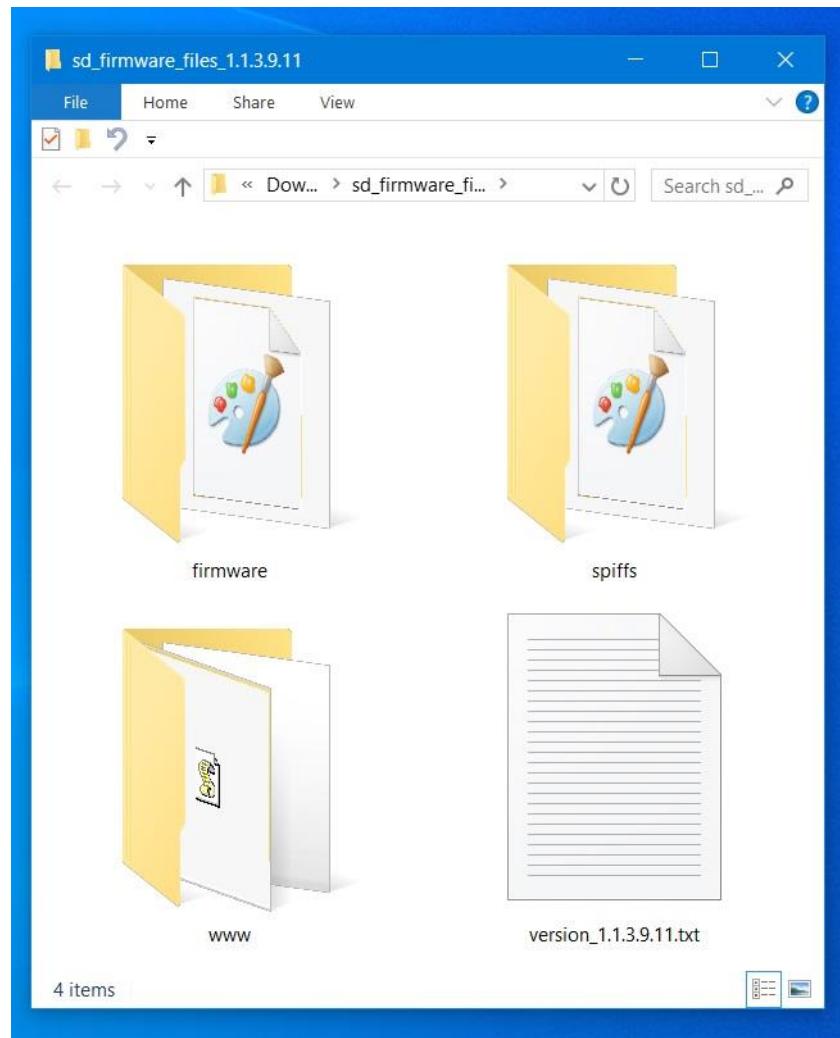


SeaSmart G3 WIFI Gateway = 1122222

SeaSmartG3 firmware can be updated using several methods including local SD card and over the internet using the HelmSmart-Cloud.com service.

This application note describes how use the internal SD card to update firmware and spiffs by copying files to SD card and rebooting device..

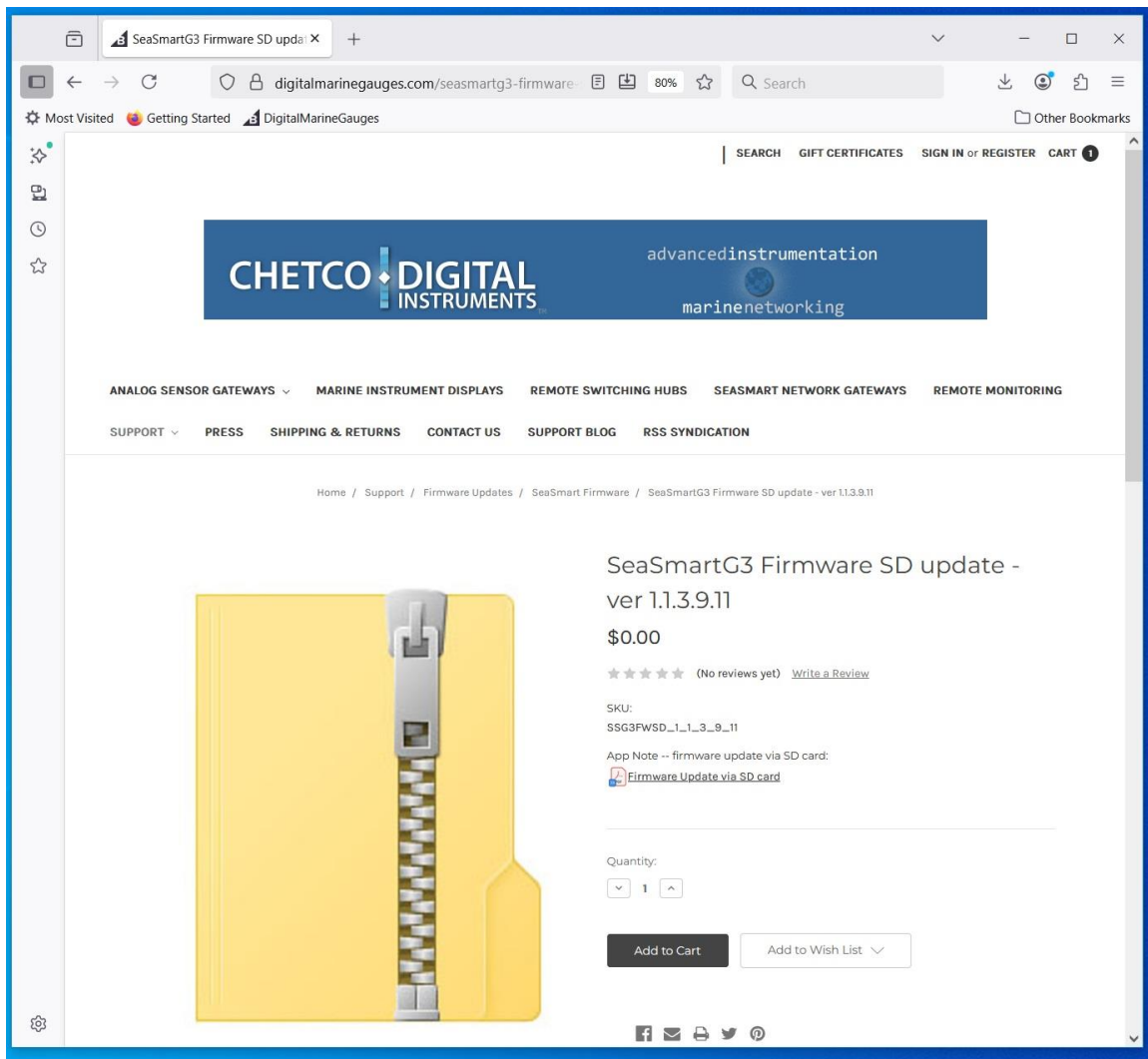
Update files can be copied directly by removing the internal SD card or remotely using the embedded web browser interface



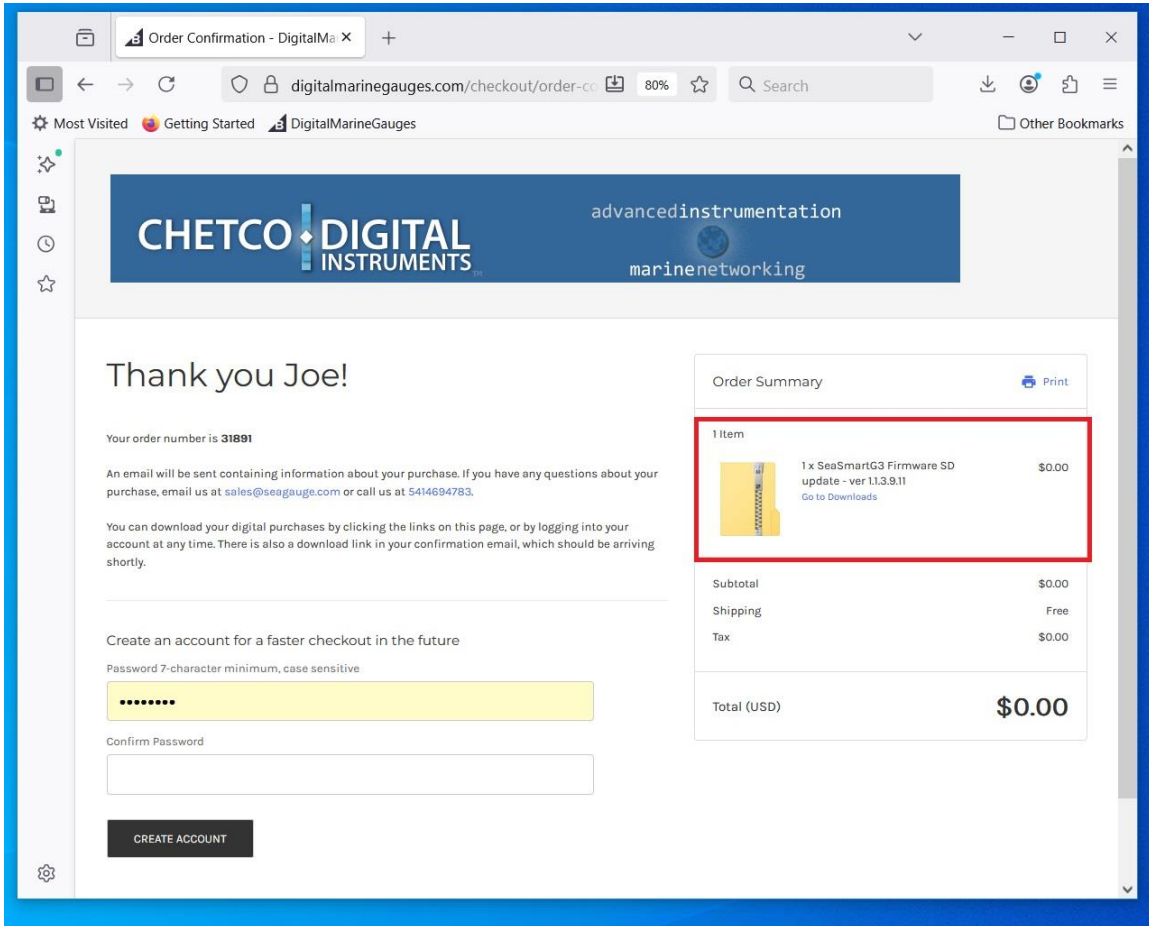
To perform a direct update via SD you will need to download and install the latest firmware package from the www.digitalmarinegauges.com website which can be found under <https://digitalmarinegauges.com/support/firmware-updates/seasmart-firmware/>

Select the most recent version and Add to Cart

You will receive the download link once you complete checkout.



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Create an account for a faster checkout in the future

Password 7-character minimum, case sensitive

.....

Confirm Password

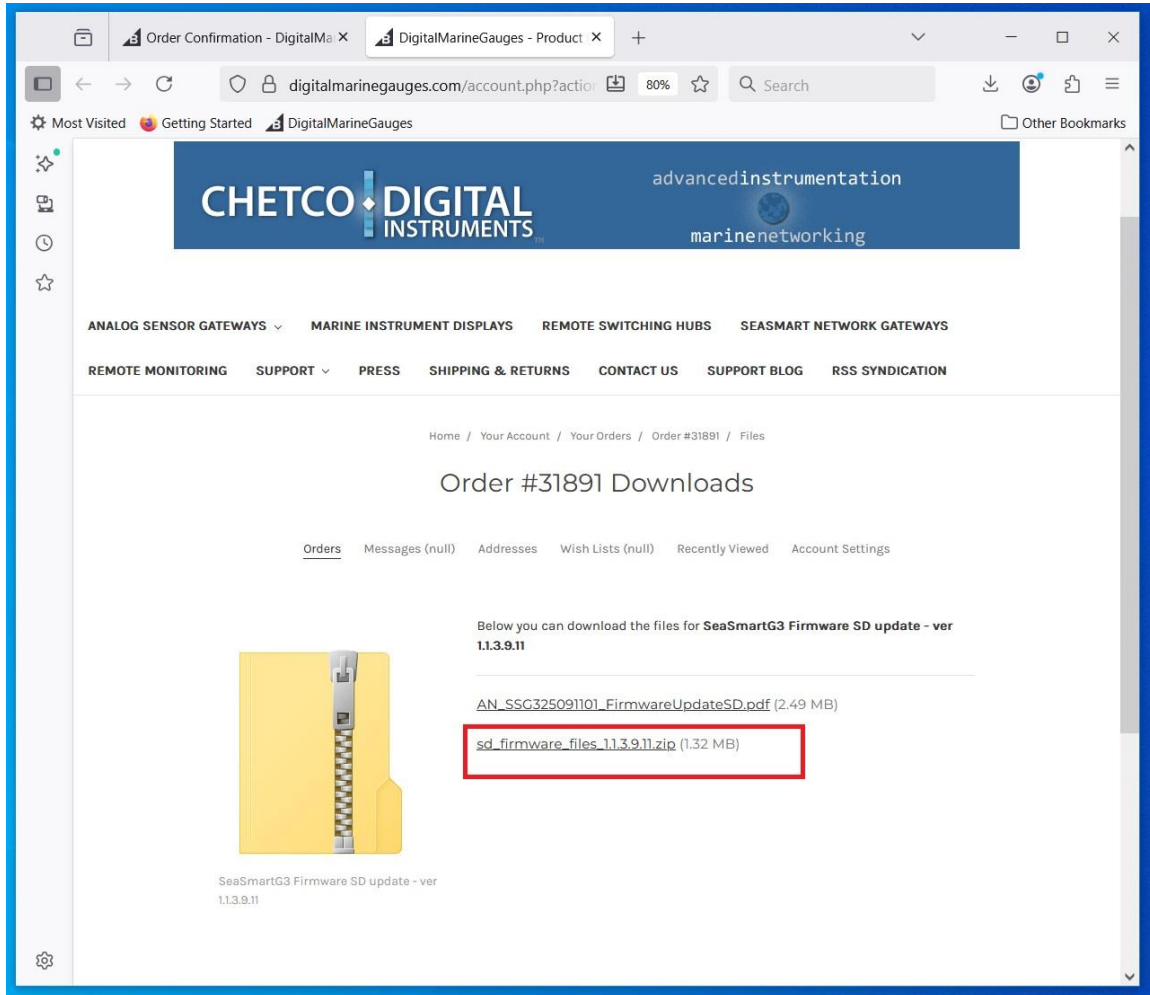
CREATE ACCOUNT

Order Summary

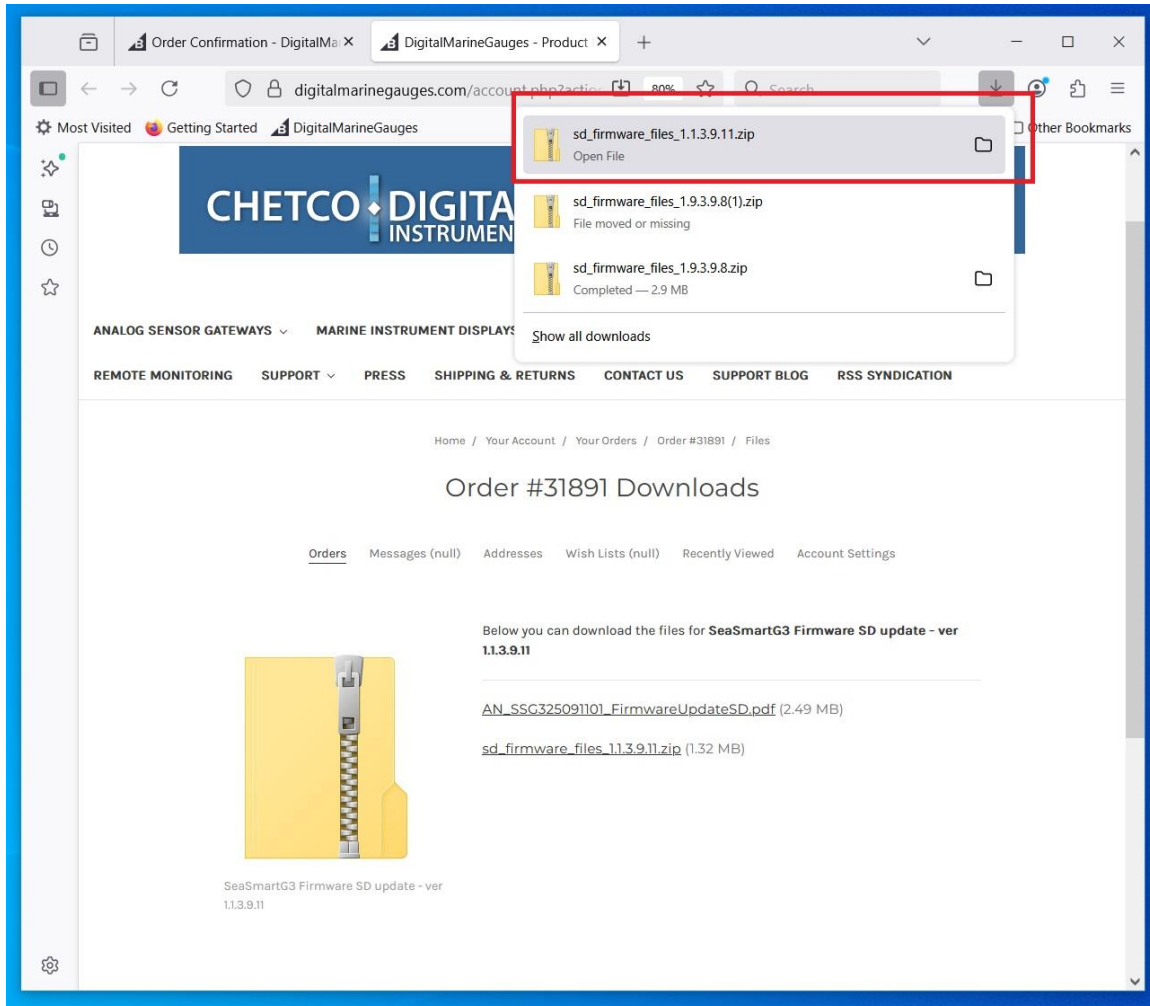
Print

1 Item	
	1 x SeaSmartG3 Firmware SD update - ver 1.13.9.11 Go to Downloads
Subtotal	\$0.00
Shipping	Free
Tax	\$0.00
Total (USD)	\$0.00

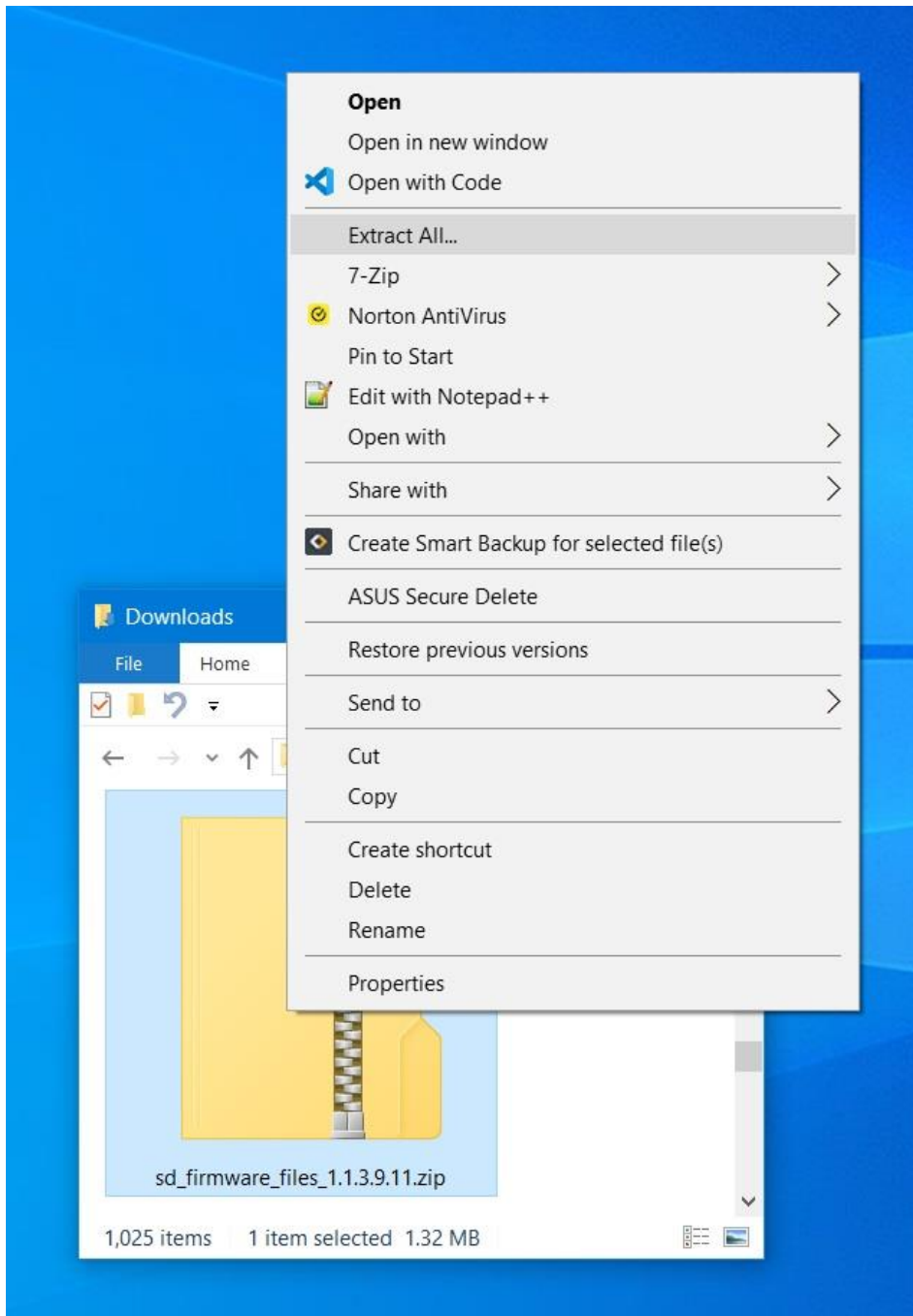
Select the .zip package for download to local PC/Laptop



The update package should automatically be stored in the local DOWNLOADS directory depending on the web browser used.



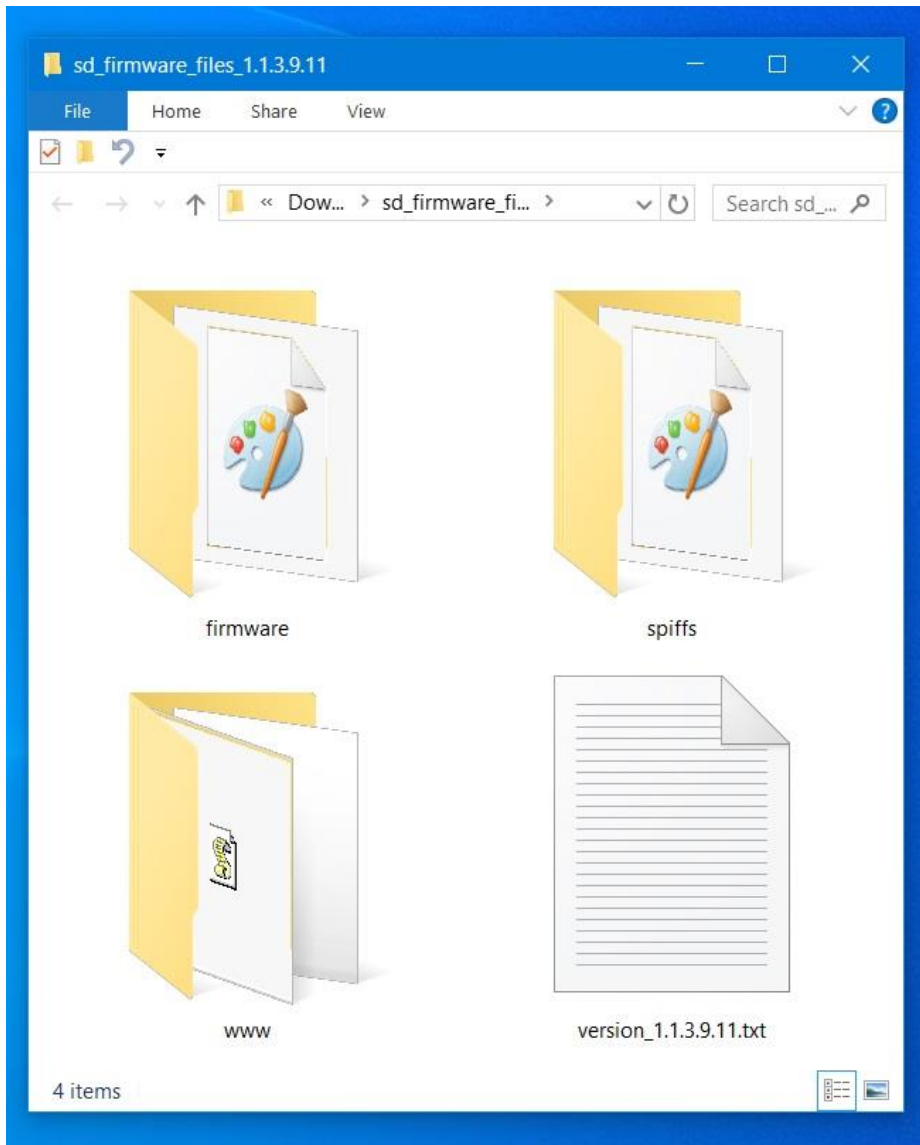
Right-click and extract the .zip contents.



There will be three folders, the firmware folder, spiffs folder, and WWW folder. All folders contain the update files to be copied to corresponding folders on the SD card

The SPIFFS files contain content for the embedded web server which is stored in non-volatile memory (NVRAM) for faster performance compared to using the SD card

The files will need to be copied one at a time starting with the firmware.bin file first and the unit rebooted each time to complete loading the updates.

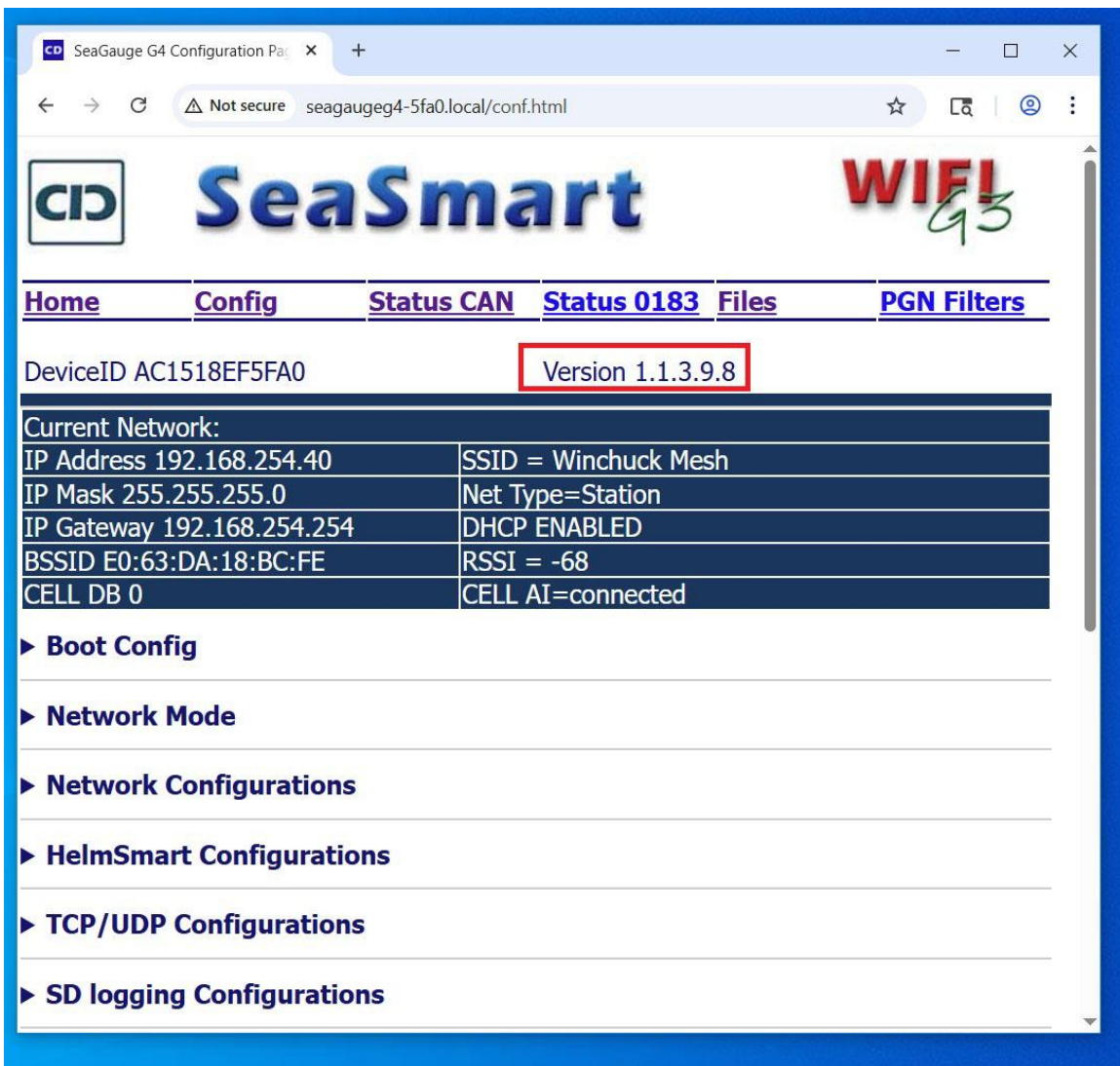


All update files except for the WWW folder can be copied to the internal SD card by using the embedded Web server over WIFI or Ethernet.

To update the WWW folder you will need to remove the SD card and manually copy the entire folder to replace the existing files.

To remotely copy the firmware and spiff files, use the Files link on the Configuration page to select the target SD directory and update files.

Perform the updates one file at a time.

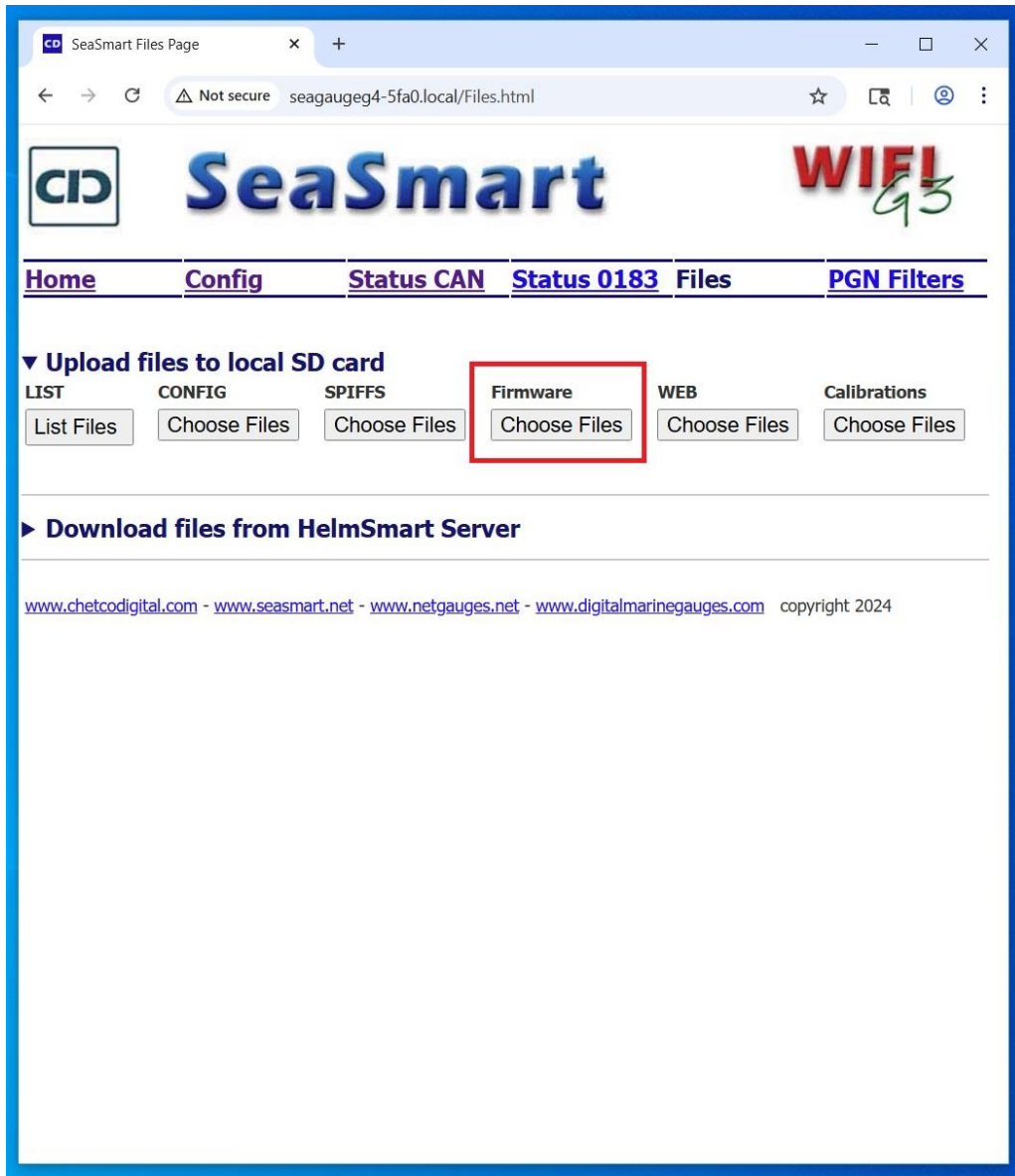


The screenshot shows a web browser window with the address bar displaying "seagaugeg4-5fa0.local/conf.html". The page header includes the "CID" logo, the "SeaSmart" brand name, and a handwritten "WIFI G3" note. A navigation menu at the top contains links for "Home", "Config", "Status CAN", "Status 0183", "Files", and "PGN Filters". The main content area displays the "DeviceID AC1518EF5FA0" and the "Version 1.1.3.9.8", which is highlighted with a red box. Below this, a table lists network settings: IP Address (192.168.254.40), IP Mask (255.255.255.0), IP Gateway (192.168.254.254), BSSID (E0:63:DA:18:BC:FE), CELL DB (0), SSID (Winchuck Mesh), Net Type (Station), DHCP (ENABLED), RSSI (-68), and CELL AI (connected). A list of expandable configuration sections follows, including "Boot Config", "Network Mode", "Network Configurations", "HelmSmart Configurations", "TCP/UDP Configurations", and "SD logging Configurations".

Current Network:	
IP Address	192.168.254.40
IP Mask	255.255.255.0
IP Gateway	192.168.254.254
BSSID	E0:63:DA:18:BC:FE
CELL DB	0
SSID	Winchuck Mesh
Net Type	Station
DHCP	ENABLED
RSSI	-68
CELL AI	connected

- Boot Config
- Network Mode
- Network Configurations
- HelmSmart Configurations
- TCP/UDP Configurations
- SD logging Configurations

Starting with the firmware.bin file, select the Choose Files button to select the file from the unzipped folder.



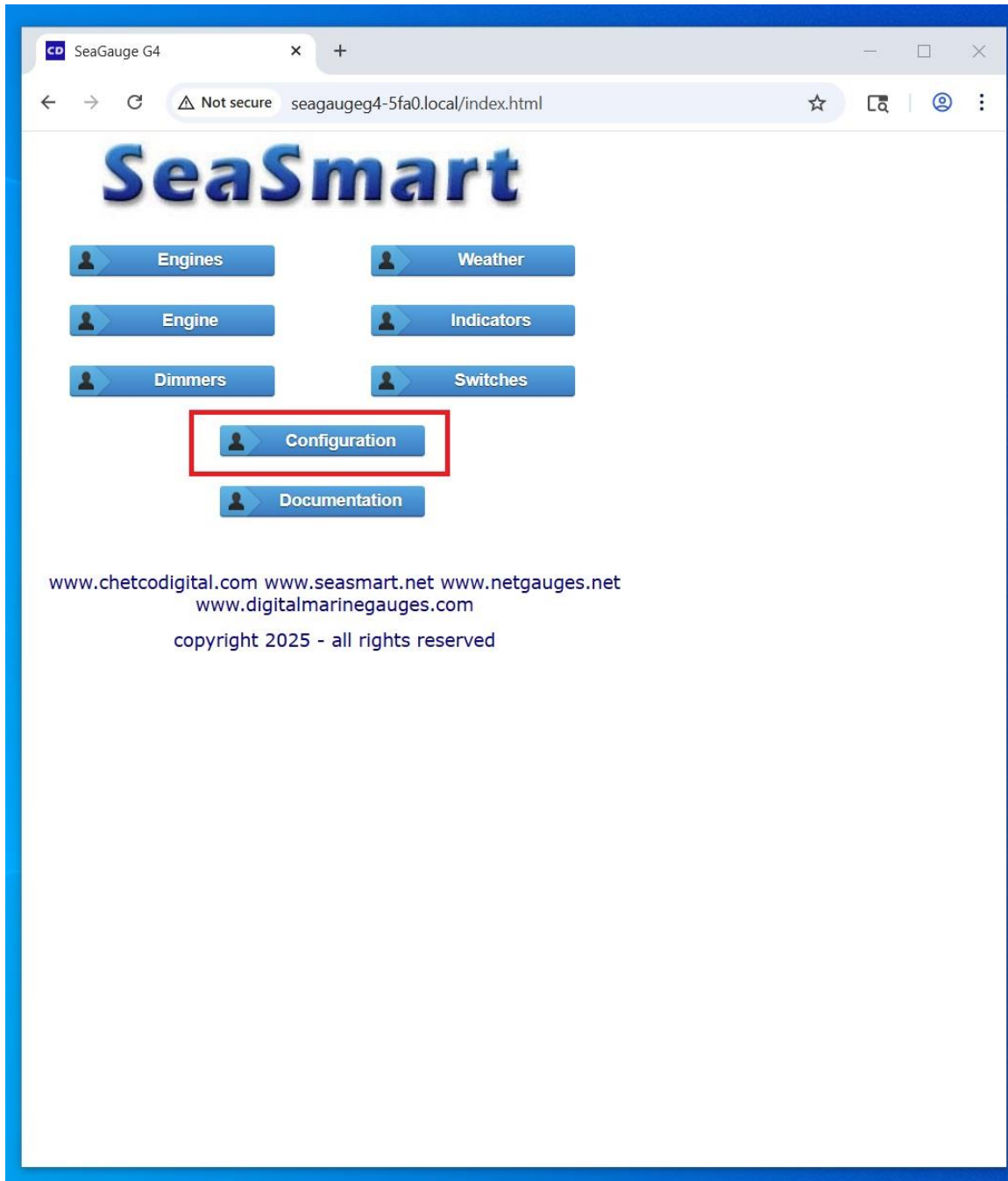
Choose the target firmware.bin file and then OPEN to copy to internal SD Card.

It will take about 30 to 60 seconds to load the file



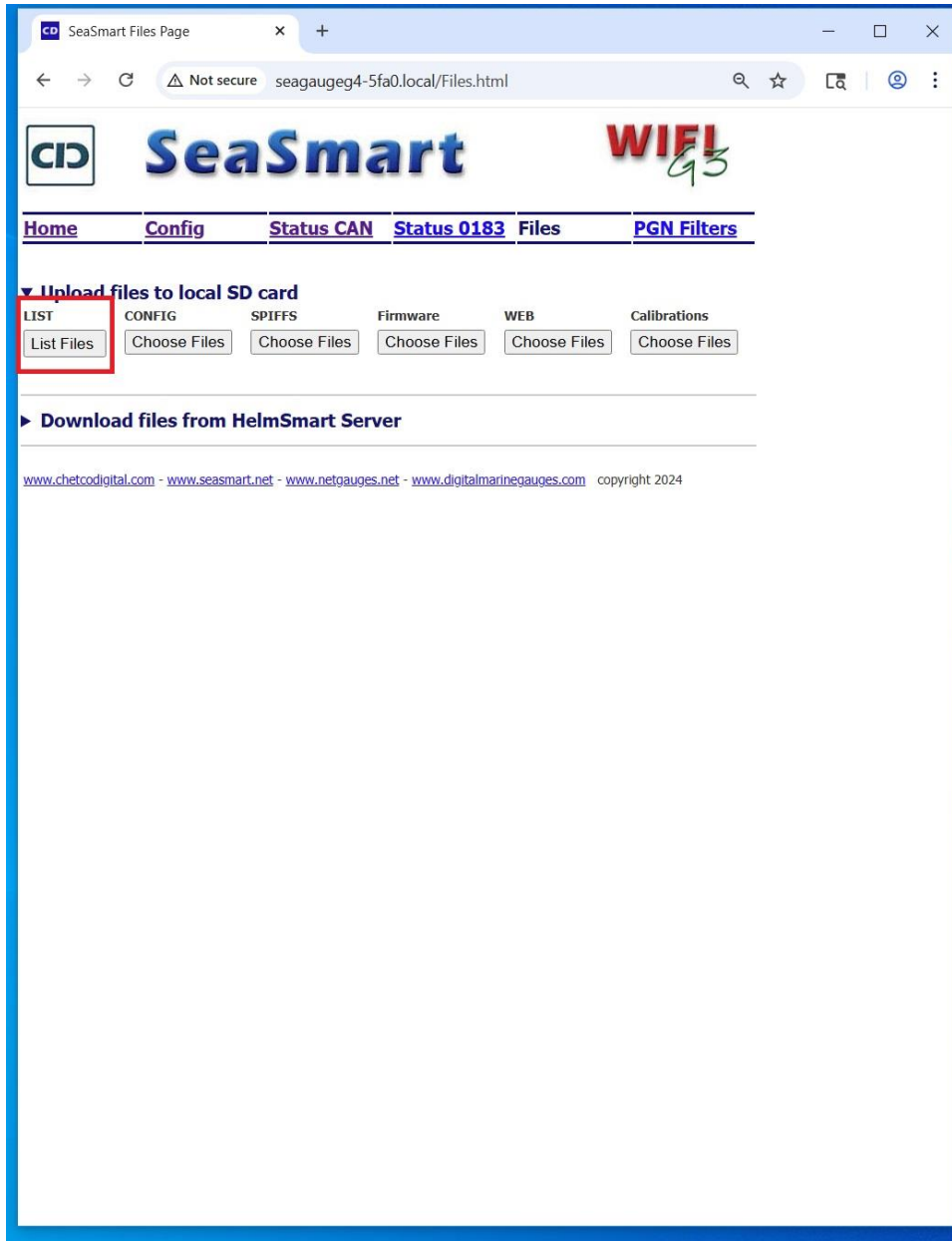
Once the download is complete, SeaSmartG3 will return back to the main start page

Select the CONFIGURATION button to reboot the device and complete the update.

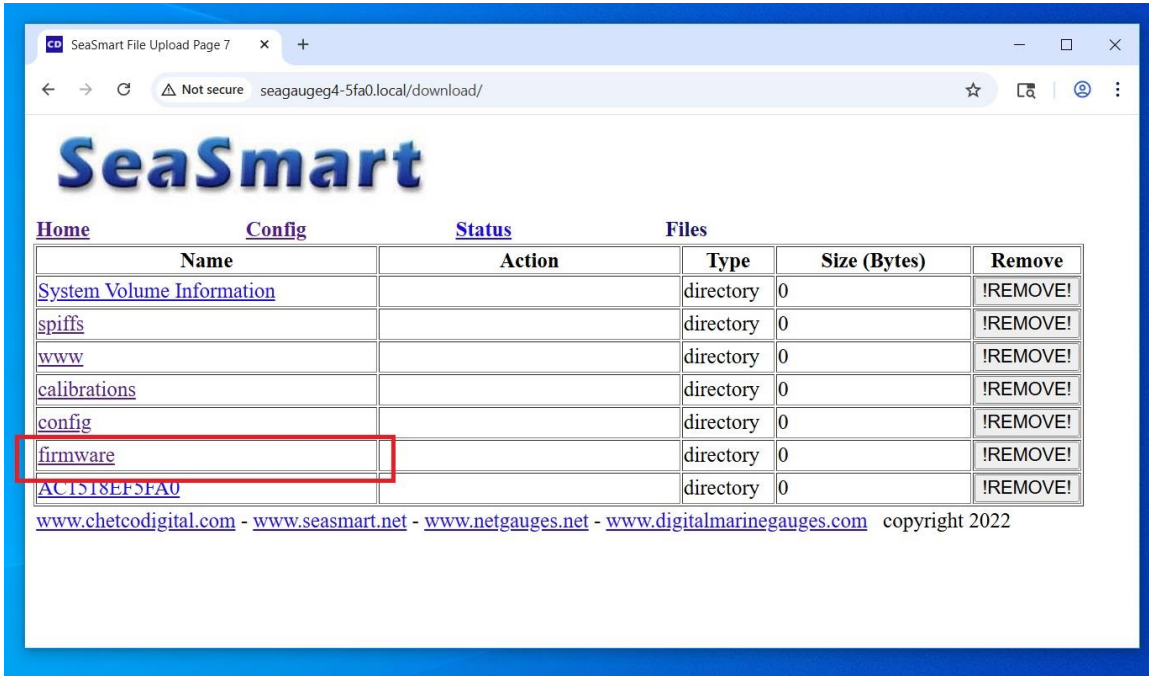


You can also verify the files are copied to the SD card before rebooting the device.

Select LIST FILES under the FILES tab.



Then the FIRMWARE directory



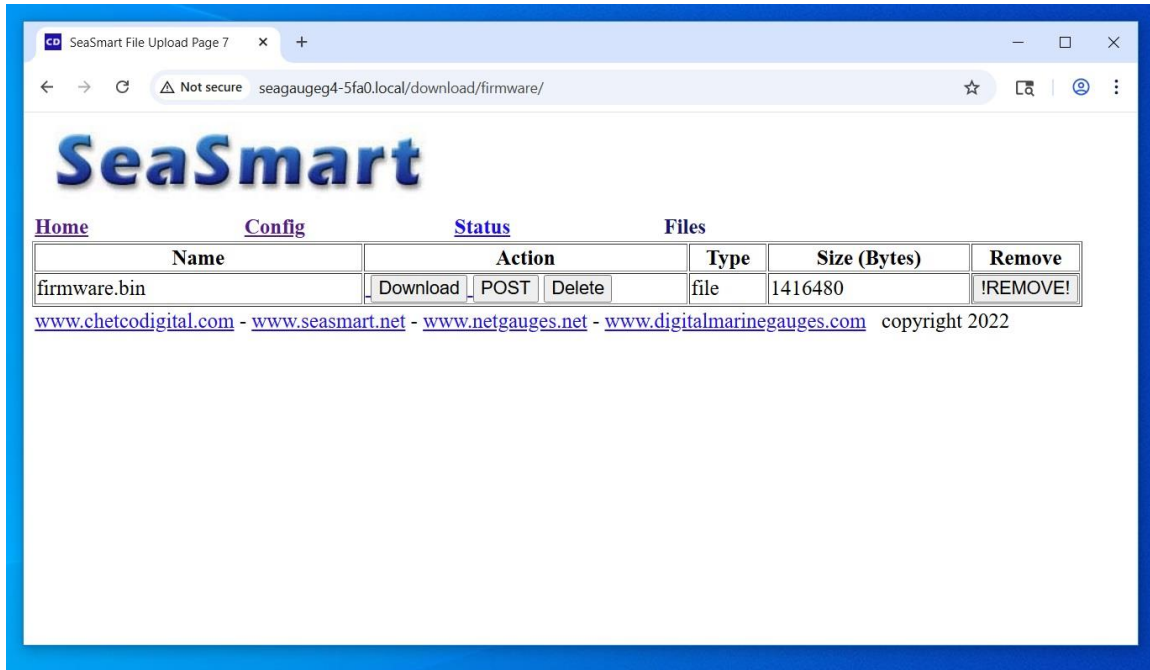
The screenshot shows a web browser window titled "SeaSmart File Upload Page 7" with the address bar displaying "seagauge4-5fa0.local/download/". The page features the "SeaSmart" logo and navigation links: Home, Config, Status, and Files. Below these links is a table listing files and directories. The 'firmware' directory is highlighted with a red box.

Name	Action	Type	Size (Bytes)	Remove
System Volume Information		directory	0	!REMOVE!
spiffs		directory	0	!REMOVE!
www		directory	0	!REMOVE!
calibrations		directory	0	!REMOVE!
config		directory	0	!REMOVE!
firmware		directory	0	!REMOVE!
ACT518EF5FA0		directory	0	!REMOVE!

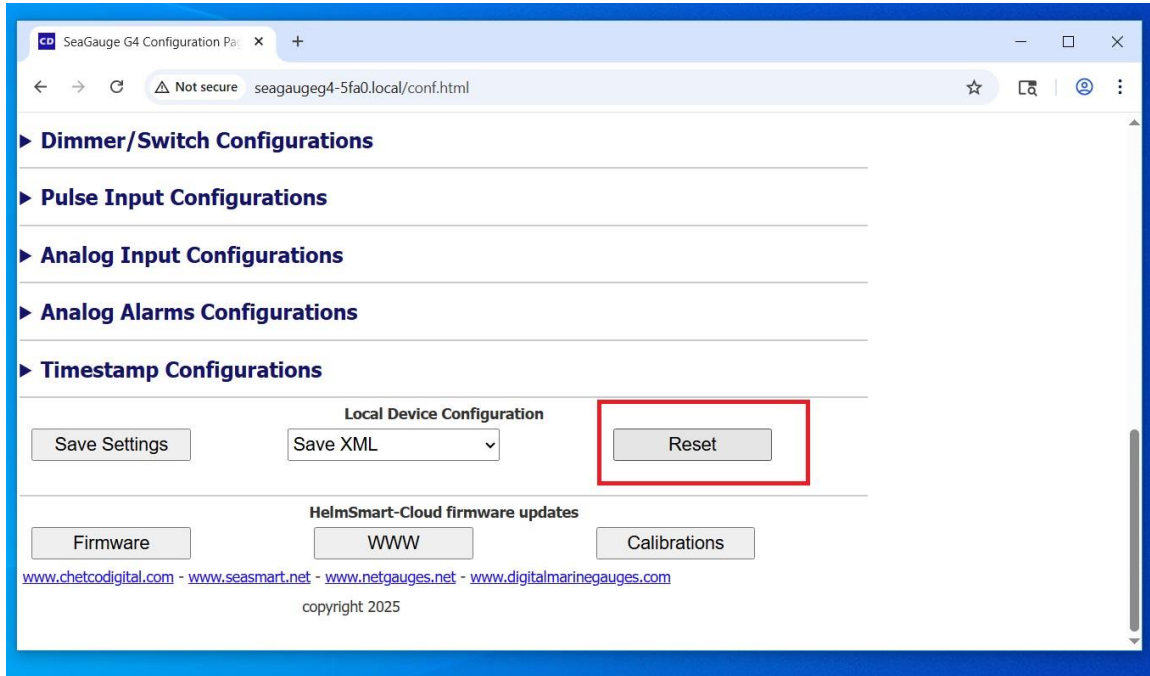
At the bottom of the page, there are links to www.chetcodigital.com, www.seasmart.net, www.netgauges.net, and www.digitalmarinegauges.com, followed by "copyright 2022".

Then verify the new firmware file was successfully copied.

After the update is completed, the firmware.bin file will be deleted from the SD card.

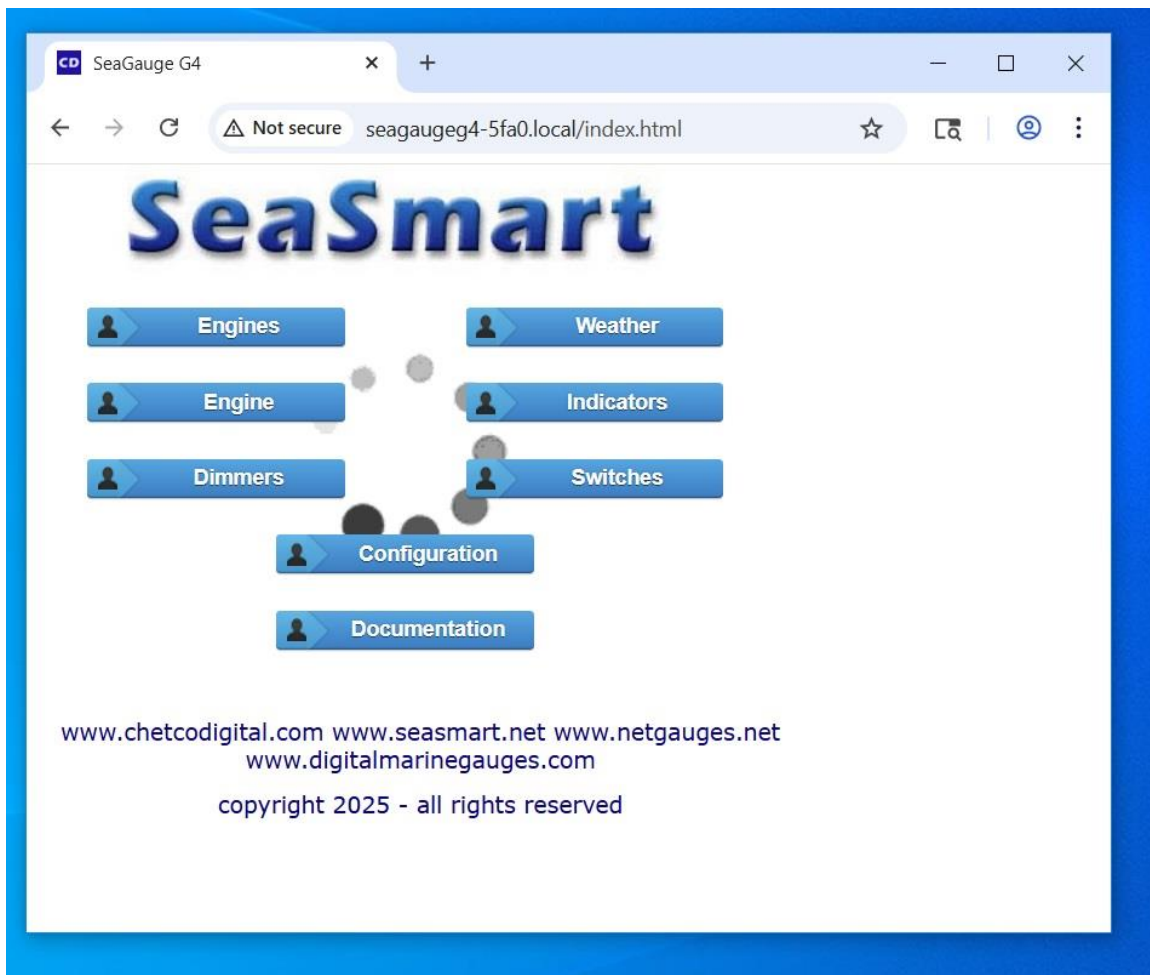


After verification – RESET device

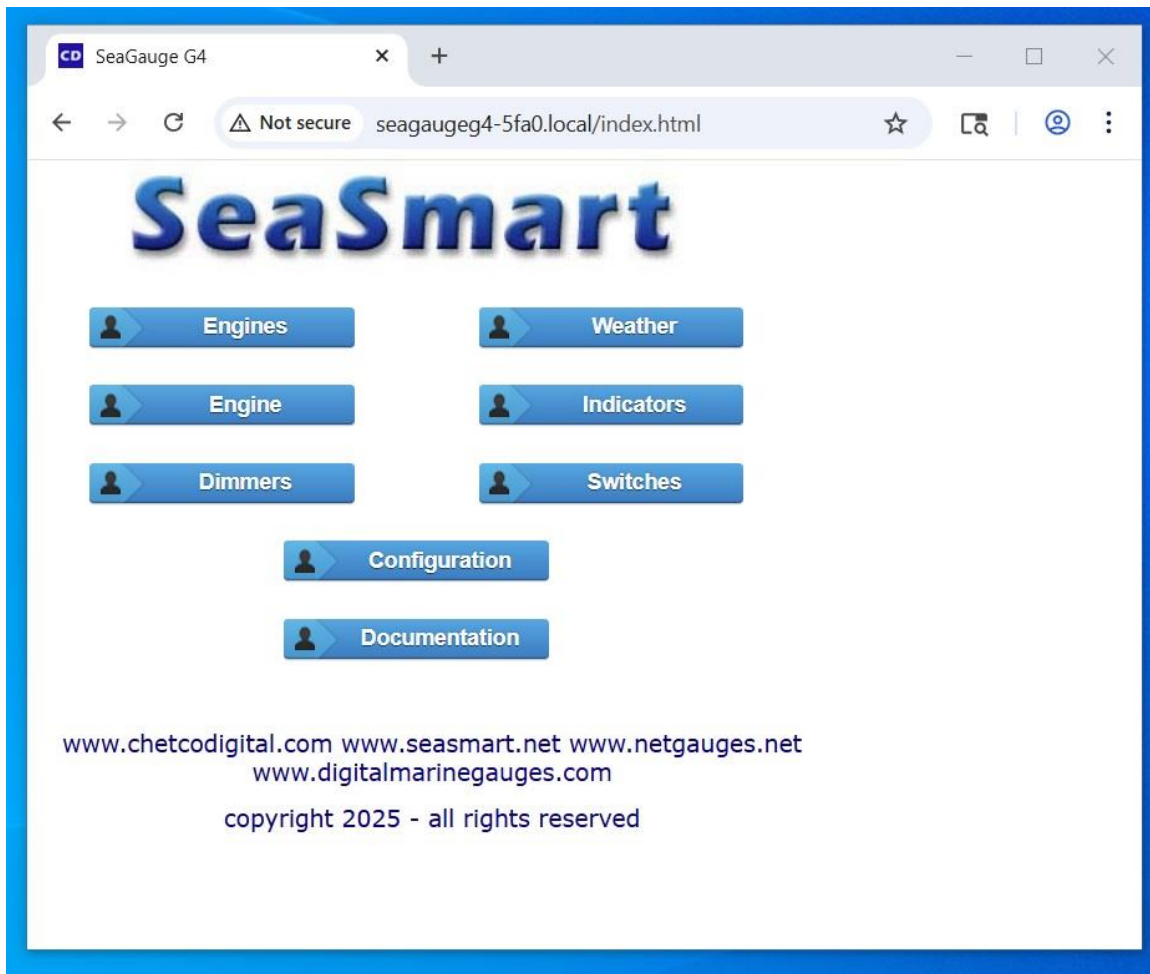


When the device resets, it will load the new firmware.bin file.

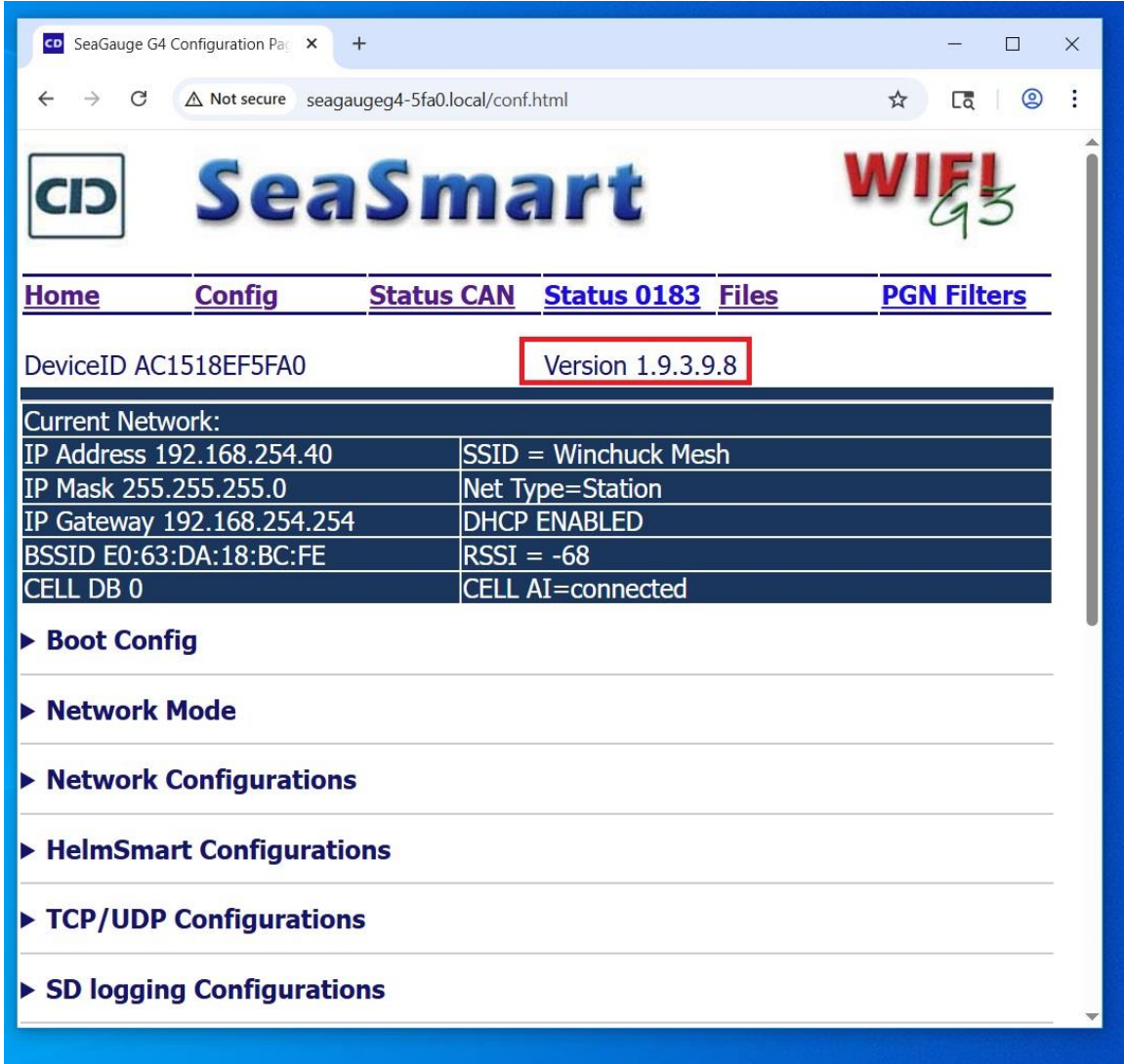
This can take from 60-120 seconds and you will see the spinning dots while the unit is updating. You will not be able to access the device via WIFI until the update completes and the dots stop spinning



Finally – when the dots stop spinning – you can check the update is complete by checking the version on the configuration page



Verify the new version matches the update.

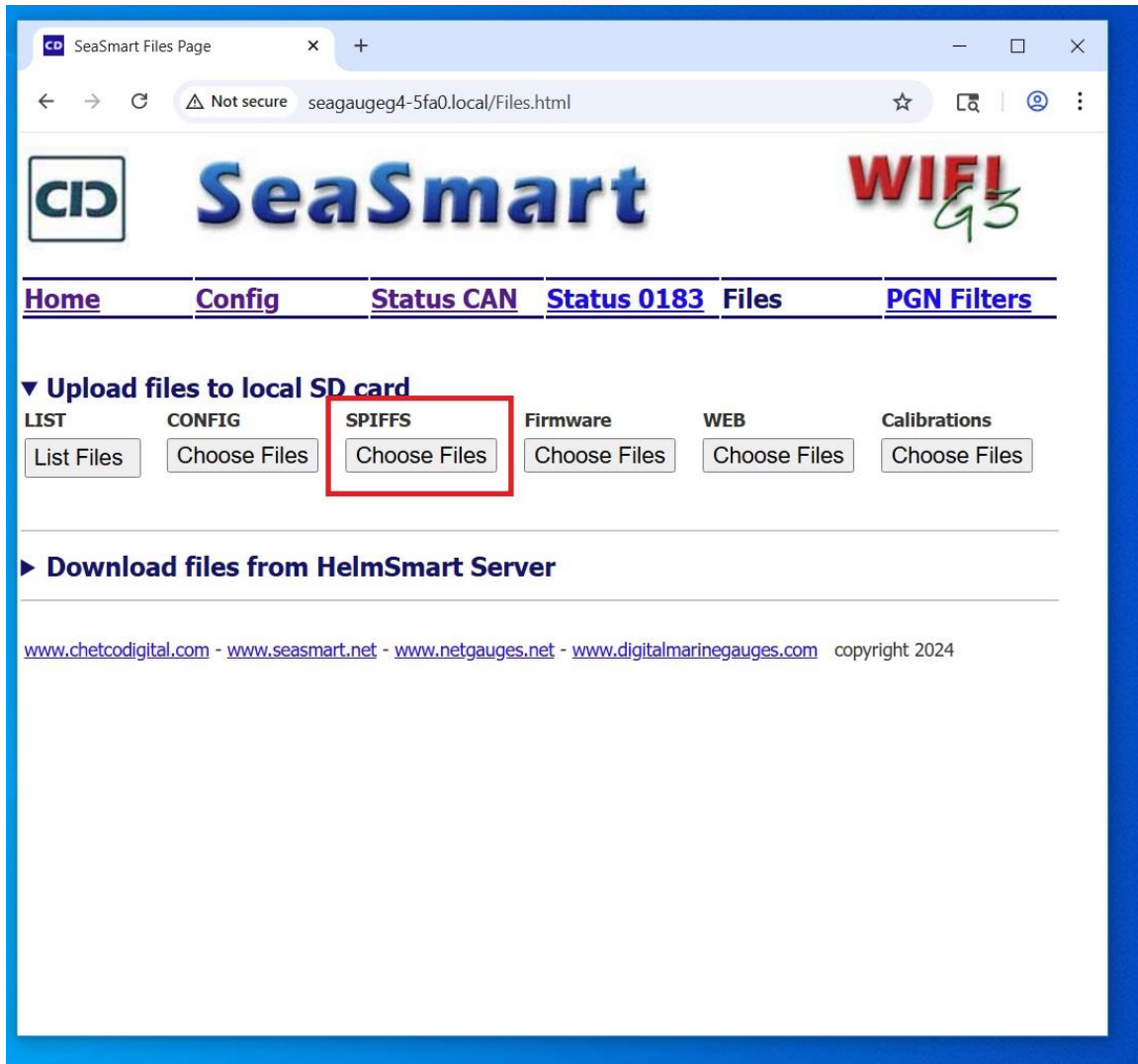


The screenshot shows a web browser window with the address bar displaying "seagauge4-5fa0.local/conf.html". The page header includes the "CID" logo, the "SeaSmart" brand name, and a "WIFI G3" label. A navigation menu at the top contains links for "Home", "Config", "Status CAN", "Status 0183", "Files", and "PGN Filters". The "Status 0183" link is currently selected. Below the navigation menu, the "DeviceID" is listed as "AC1518EF5FA0", and the "Version" is displayed as "1.9.3.9.8", which is highlighted with a red rectangular box. A section titled "Current Network:" contains a table of network settings. Below this, a list of configuration categories is shown with expandable arrows: "Boot Config", "Network Mode", "Network Configurations", "HelmSmart Configurations", "TCP/UDP Configurations", and "SD logging Configurations".

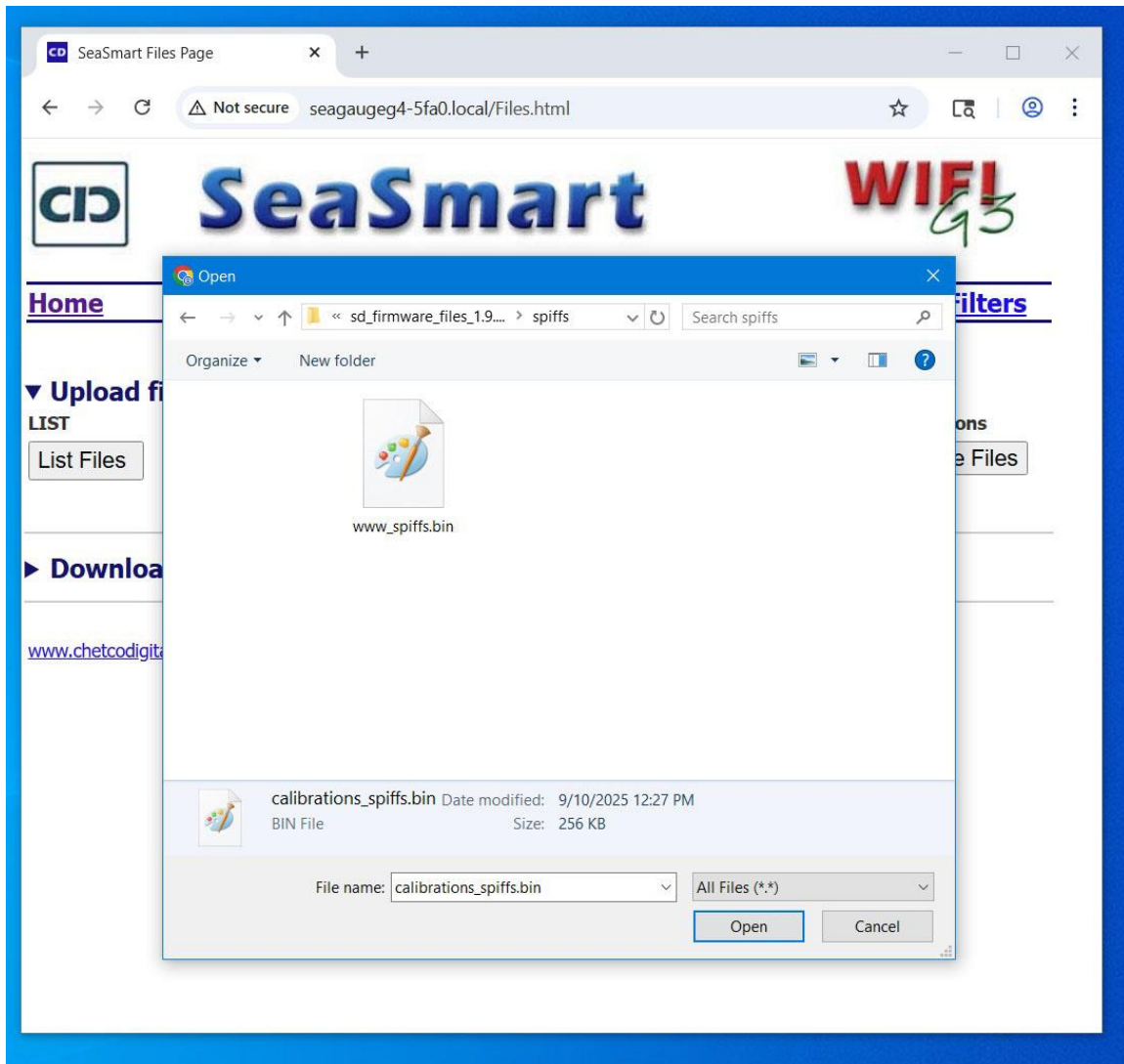
Current Network:	
IP Address 192.168.254.40	SSID = Winchuck Mesh
IP Mask 255.255.255.0	Net Type=Station
IP Gateway 192.168.254.254	DHCP ENABLED
BSSID E0:63:DA:18:BC:FE	RSSI = -68
CELL DB 0	CELL AI=connected

- ▶ Boot Config
- ▶ Network Mode
- ▶ Network Configurations
- ▶ HelmSmart Configurations
- ▶ TCP/UDP Configurations
- ▶ SD logging Configurations

The updates for the SPIFFS file is performed in the same manner.



Copy the selected files one at a time and reboot after each one



Be sure to RESET after each update.

