

GEONET FIRMWARE UPGRADE PROCEDURE

WARNING! Performing a firmware update on a Node will reset the Node memory. **Retrieve all data from the Network prior to performing a firmware update.**

- 1) **Put the Network in deployment mode.** This is done by pressing the Status button on Supervisor node. Within 3 minutes the green led will flash once every 10 seconds.
- 2) **For RS-232 Supervisors:**
 - a. Connect the *COM-108* (RS-232 cable) to the 10-pin connector on the Supervisor.
 - b. Connect the *8001-7* (USB to RS-232 adapter) to the COM-108.
 - c. Connect the *8001-7* to the PC. (Figure 1) shows the completed connection.



Figure 1 – RS-232 Cable Connection

For all other Nodes/Supervisors:

- a. Connect the *COM-166* (Mini USB to STD A cable) to the “USB” connector on the bottom of enclosure (Figure 2).



Figure 2 – USB Cable Connection

- 3) Download the “8800 GeoNet Firmware Update Package” from geokon.com/Software.
- 4) Right click on the downloaded file and choose “Extract All...” (Figure 3).

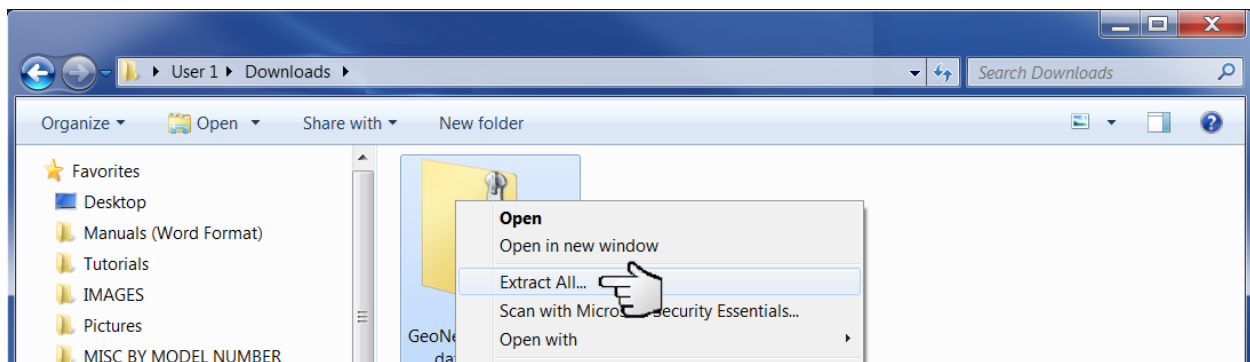


Figure 3 - Run “GeoNetUpdateUtility.exe”

- 5) When prompted click “Extract All” (Figure 4)

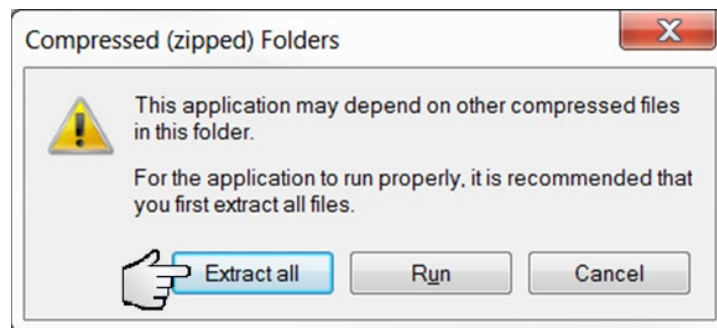


Figure 1 - Choose “Extract All”

- 6) Select a destination for the files and then click “Extract” (Figure 5).

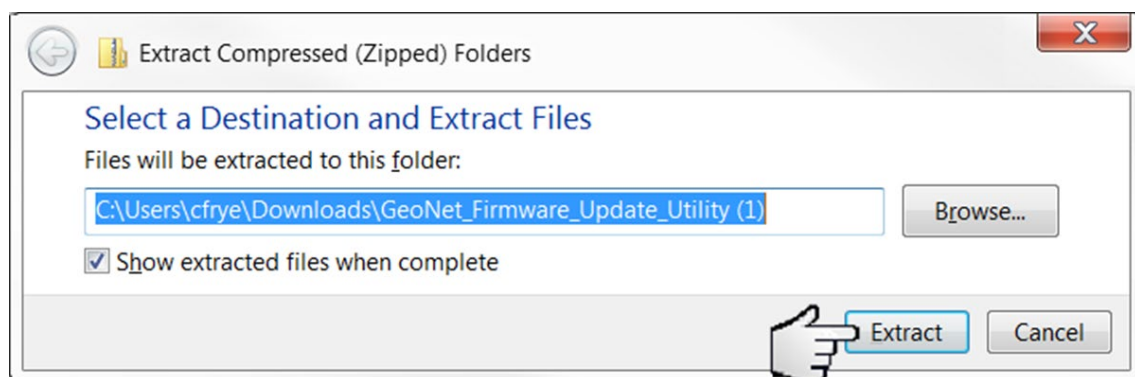


Figure 5- Select Destination, then Click Extract

7) Open “GeoNetUpdateUtility.exe” (Figure 6). If a security warning appears click “Run”.

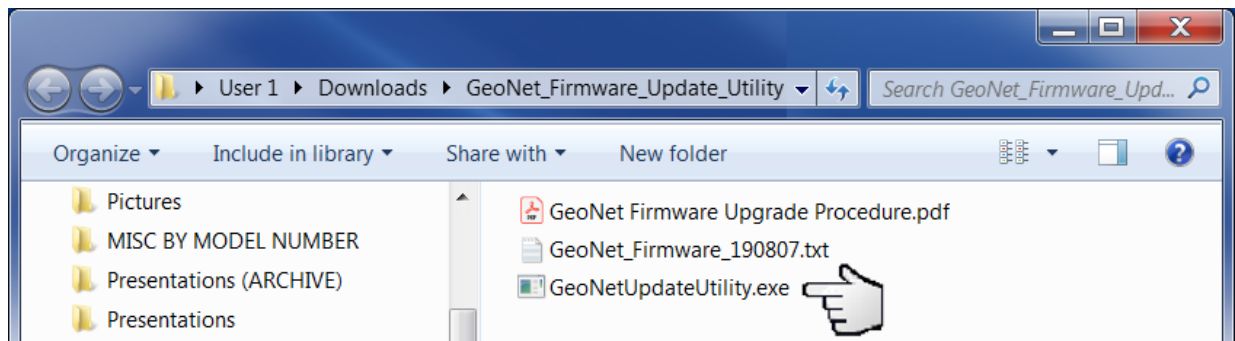


Figure 6 - Open the GeoNet Update Utility Application

8) Click “Select File” (Figure 7).

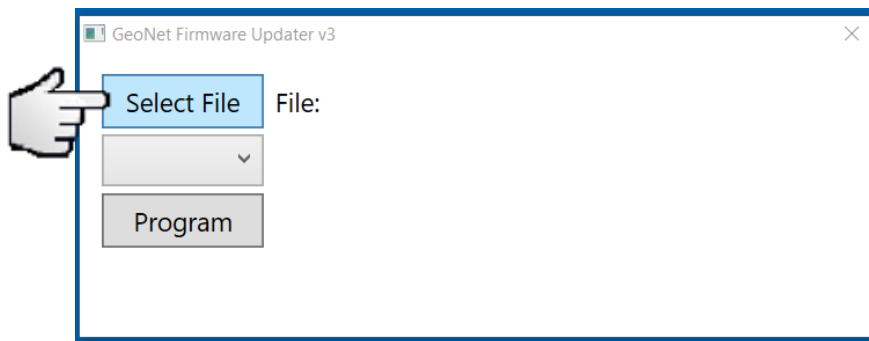


Figure 7- Click on “Select File”

9) Double click on the .txt firmware file (Figure 8). (Firmware files are named in the following format: “GeoNet_Firmware_YYMMDD.txt”, where YY is the last two digits of the year, MM is the month, and DD is the day of the month.)

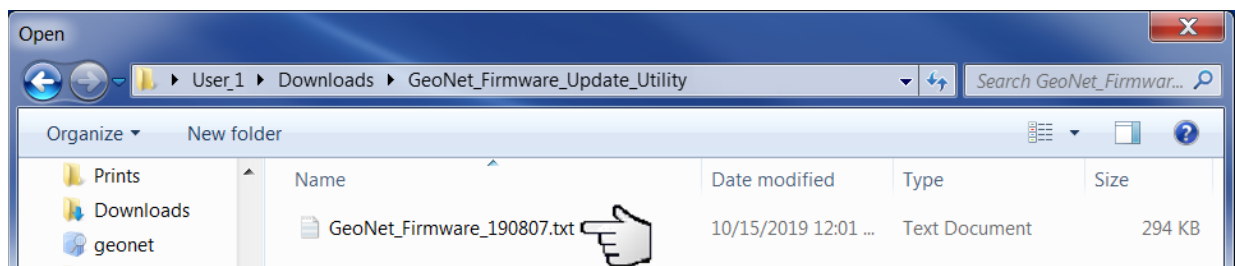


Figure 8- Double Click on Firmware Text File

10) Using the drop-down box below the “Select File” button, select the correct serial port for the *8001-7* or *COM-166* cable (Figure 9). To identify which serial port the unit is connected to, complete the following:

- Unplug the *8001-7* or *COM-166* cable from the PC.
- Go to the “Control Panel” then open “Device Manager”.
- Click on the triangle to the left of “Ports (COM & LPT)” to expand the list.
- Plug the cable back into the computer and the port will appear in the list.

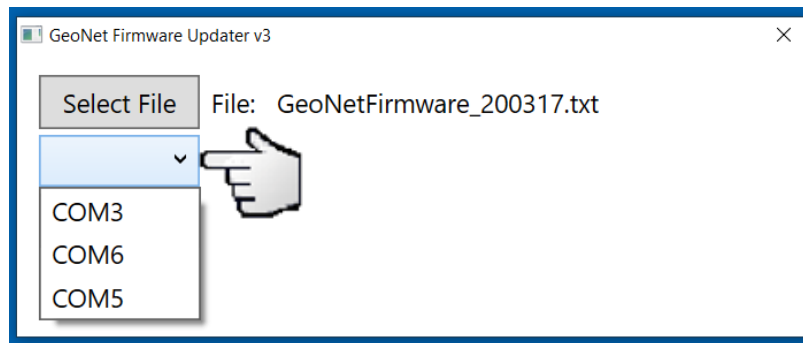


Figure 9- Select COM Port

11) Click “Program” (Figure 10).

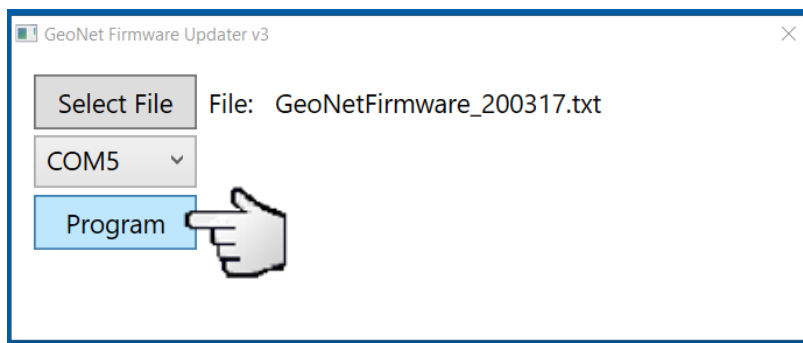


Figure 10- Program

12) A progress bar will appear. The update process will normally take one to two minutes.

13) Once the update has finished, operation will return to normal.

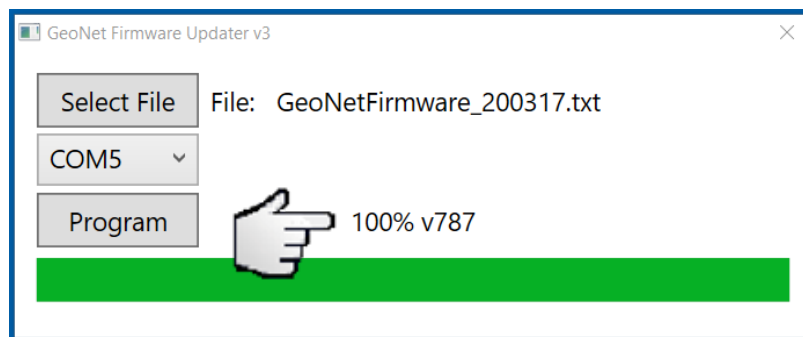


Figure 11- Update finished

14) Repeat the above process with all the Nodes in the Network.

The firmware update is now complete.

Troubleshooting

- ✓ For RS-232 Supervisors, updates should be done using the Geokon provided 8001-7 USB to RS232 adapter. Other adapters and native serial ports have been unreliable.
- ✓ Make sure the batteries are fresh.

Change Summary for Firmware Versions

Version (Most recent at top)	Changes Instituted
(788) 200410	<ul style="list-style-type: none">• Revised bootstrap loader (BSL) provides firmware updates via external USB. Internal "CHANNEL" DIP switches don't need to be changed when using new software utility to upload new firmware images.• Make USB the default port.• Automatically configure and use Digi International 900SX and 868SX radios.• Nodes fill device table to provide information for AgentMobile handheld interaction.• Initialize GPIO to minimize S-8800-2 sleep current.• Recognize models 6150F, 6150G, etc., as MEMS.
(787) 200311	<ul style="list-style-type: none">• Corrected Leap Day bug that prevented nodes from relaying data to Sensemetrics THREADs after joining.
(786) 191023	<ul style="list-style-type: none">• Prevent concurrent flash writes or erasures to protect flash integrity.• Verify newly written flash metadata matches RAM master. Rewrite metadata if difference detected.• Load prior record into RAM during bootup if newer metadata in flash is corrupted.• Stop sampling supervisor every minute.• Update supervisor signal strength regularly.
(784) 190807	<ul style="list-style-type: none">• Provisions GeoNet for "airplane mode", silencing radio for logger-only operation.
(783) 190502	<ul style="list-style-type: none">• Corrected fault that prevented sensemetrics threads from reading MUX boards.
(782) 190311	<ul style="list-style-type: none">• Fixes intermittent addressable discovery of drop 1• USB lock up corrected
(779) 190125	<ul style="list-style-type: none">• Log data from Addressable Temperature Sensors (3810A) and Addressable Vibrating Wire Readers (8020-30).• Simplified keypad operation.• Corrected defects that impeded prompt radio network connections.• Augmented power control and battery monitoring
181025 through 180228	<ul style="list-style-type: none">• Single Channel: VW is never disabled• MUX: VW channel disabled after 10 failed reads• MEMS: MEMS drops disabled after 10 failed reads
180213 through 170818	<ul style="list-style-type: none">• Single Channel: VW is never disabled

	<ul style="list-style-type: none">• MUX: VW channel disabled after 10 failed reads
Prior to 170818	<ul style="list-style-type: none">• Single Channel: VW is disabled after 5 failed reads• MUX: VW is disabled after 5 failed reads