

TECH NOTES

F-4300 Clamp-On Ultrasonic Flow Meter



FIRMWARE UPDATE

OVERVIEW

The F-4300 firmware can be updated easily via the USB interface. The update requires a **.bin** file that can be obtained by contacting ONICON technical support.

TOOLS REQUIRED

- High Quality USB 3.0 Thumb Drive, 32 GB Maximum, FAT32 Formatting Required
- .bin file - provided via email from ONICON technical support

SUMMARY

1. Stop any active data logging, download the logs if you want to keep them, and then delete any logs from the meter before starting the firmware updates.
2. Delete any other files from the USB drive and save the .bin files provided by ONICON tech support to onto the USB drive. Utility board (13405.bin) and Comm board (13430.bin) files will be separate files, but both can be on the USB drive at the same time. Do not have multiple versions of the same .bin files on the USB drive.

IMPORTANT NOTE

DO NOT change the names of the .bin files or the update will fail.

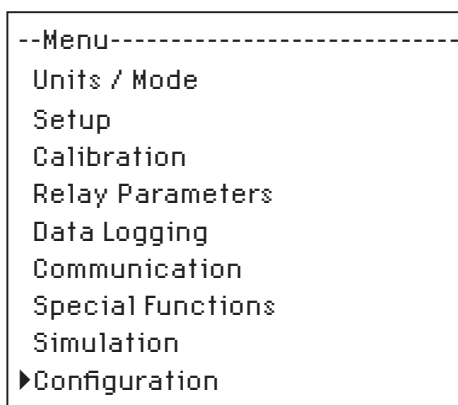
3. Access the Configuration menu and enable the Firmware Update function.
4. Insert the USB drive when prompted by the meter.
5. Allow the update to process and remove the USB drive when prompted by the meter.



PROCEDURE - UTILITY BOARD UPDATE



1. From the main screen, press the RIGHT  arrow button to access the program menu.



2. Press the DOWN  arrow button to "Configuration". Press the RIGHT  arrow to enter the Configuration menu.

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PROCEDURE - UTILITY BOARD UPDATE (CONTINUED)

```
--Configuration-----  
Serial#          000012345  
► Utility          1.26.0.5  
Transit Time      1.38.1  
CommBoard        1.22.8  
Relays           2  
Analog Out       1
```

3. Press the DOWN  arrow to "Utility". Press the RIGHT  arrow to highlight the Utility firmware version.

```
--Configuration-----  
Serial#          000012345  
► Utility          Update  
Transit Time      1.38.1  
CommBoard        1.22.8  
Relays           2  
Analog Out       1
```

4. Press the UP  or DOWN  arrow to change the firmware version to "Update".

IMPORTANT NOTE

Before proceeding, ensure that power to the meter will not be interrupted.

```
--Configuration-----  
Serial#          000012345  
► Utility          Insert USB  
Transit Time      1.38.1  
CommBoard        1.22.8  
Relays           2  
Analog Out       1
```

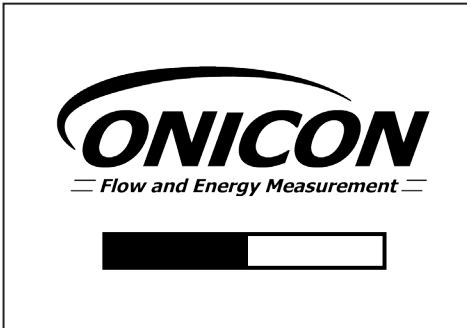
5. Press the ENTER  button to start the update procedure. "Insert USB" will flash on the screen.

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PROCEDURE - UTILITY BOARD UPDATE (CONTINUED)



6. Insert the USB drive with the 13405.bin file on it into the USB port located on the front of the meter. The meter will confirm that the .bin file exists on the drive, verify it's integrity, and then perform the update.



7. When prompted, remove the USB drive. The meter will reboot and the update is complete.

PROCEDURE - COMM BOARD UPDATE

IMPORTANT NOTE

The existing Comm Board Firmware must be v1.22.8 or greater to be compatible with firmware upgrades.

WARNING

If the Comm Board Update procedure gets stuck in a reboot loop during the upgrade, power off the meter, leave the USB drive in the front panel, and contact ONICON support for help in resolving the update issue. Do not attempt to reboot the meter without the USB drive installed if the upgrade fails. Doing so will erase the Comm Board software.



1. From the main screen, press the RIGHT  arrow button to access the program menu.

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PROCEDURE - COMM BOARD UPDATE (CONTINUED)

```
--Menu-----  
Units / Mode  
Setup  
Calibration  
Relay Parameters  
Data Logging  
Communication  
Special Functions  
Simulation  
▶Configuration
```

2. Press the DOWN  arrow button to "Configuration". Press the RIGHT  arrow to enter the Configuration menu.

```
--Configuration-----  
Serial#          000012345  
Utility          1.26.0.5  
Transit Time     1.38.1  
▶ CommBoard      1.22.8  
Relays           2  
Analog Out       1
```

3. Press the DOWN  arrow to "CommBoard". Press the RIGHT  arrow to highlight the CommBoard firmware version.

```
--Configuration-----  
Serial#          000012345  
Utility          1.26.0.5  
Transit Time     1.38.1  
▶ CommBoard      Update  
Relays           2  
Analog Out       1
```

4. Press the UP  or DOWN  arrow to change the firmware version to "Update".

IMPORTANT NOTE

Before proceeding, ensure the power to the meter will not be interrupted.

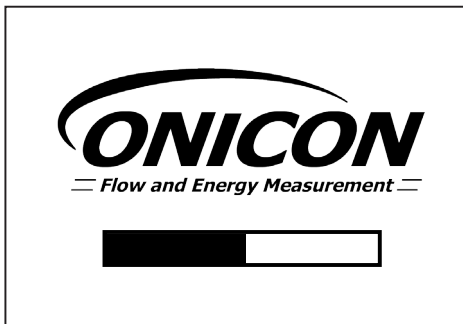
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PROCEDURE - COMM BOARD UPDATE (CONTINUED)

```
--Configuration-----  
Serial#           000012345  
Utility           1.26.0.5  
Transit Time      1.38.1  
► CommBoard       Insert USB  
Relays            2  
Analog Out        1
```

5. Press the ENTER  button to start the update procedure.

"Insert USB" will flash on the screen.



6. Insert the USB drive with the 13430.bin file on it into the USB port located on the front of the meter. The meter will confirm that the .bin file exists on the drive, verify it's integrity, and then perform the update.

WARNING

If the Comm Board Update procedure gets stuck in a reboot loop during the upgrade, power off the meter, leave the USB drive in the front panel, and contact ONICON support for help in resolving the update issue. Do not attempt to reboot the meter without the USB drive installed if the upgrade fails. Doing so will erase the Comm Board software.



7. When prompted, remove the USB drive. The meter will reboot and the update is complete.

If you have any questions or concerns about the firmware update, please contact ONICON technical support at (727) 447-6140 or via email at techsupport@onicon.com.

