



X 35 Apollo system



X35 Apollo system

X35 Apollo System Upgrading Monitor Software & ECU Firmware Version 4.01.509





New X35 equipped tanks and drills for 2018 will require software and firmware as listed below. If software and firmware are not correct you may see a warning on the X35 that there is an Apollo Firmware mismatch.

[illegible]



Updating X30 Software

The files may also be downloaded, listed below are the instructions how to download.
Please go to our download site at **download.bourgault.com**.

Enter code **4.01.509** *the code is case sensitive and must be entered exactly.*

Press the submit code button

http://download.bourgault.com

Enter Download Code:

4.01.509

Submit Code

IT IS ALWAYS
RECOMMENDED TO
UPGRADE THE ECU
FIRMWARE BEFORE THE
X35 SOFTWARE IS
UPGRADED

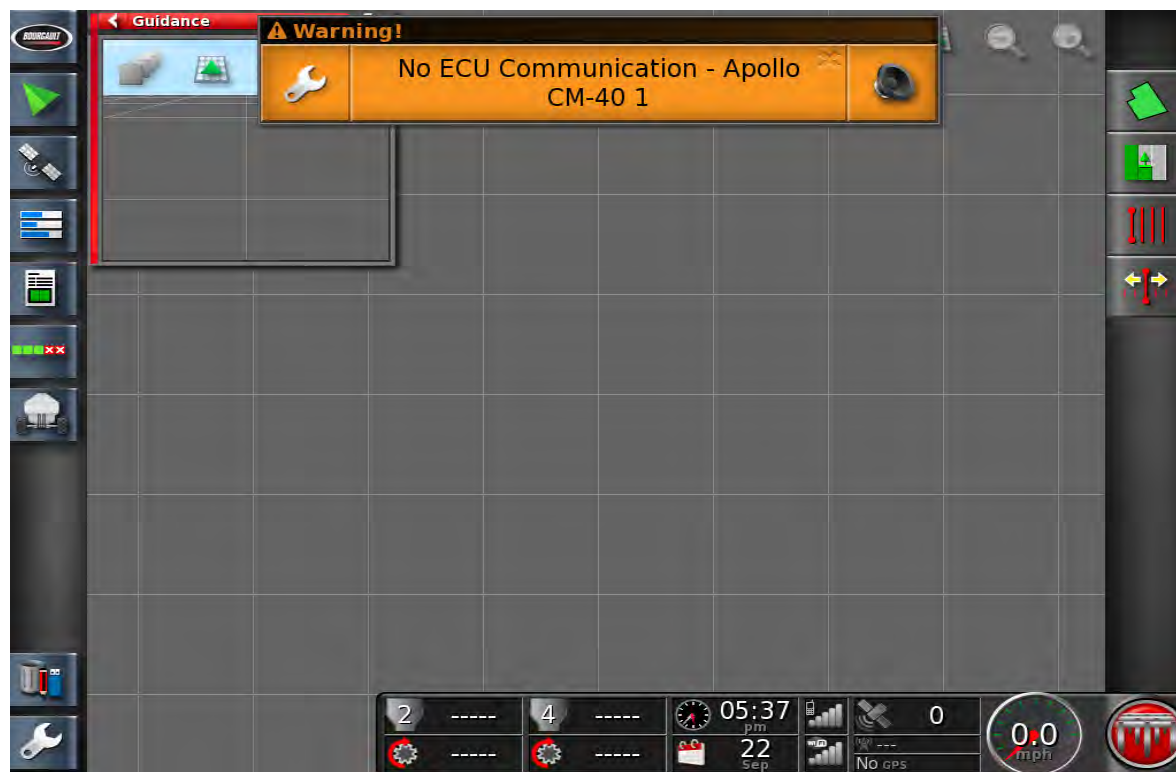


X35 Apollo system

Before upgrading firmware ensure that the ECU's are detected. If the ECU's are not detected refer to Detecting Apollo ECU's

INSERT THE USB WITH THE CORRECT FILES TO BEGIN

Go to
settings page
by touching
wrench in
lower left of
X35 screen





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The first step is to
Ensure that the file
Server is enabled.
Go to System/
Features/ Console

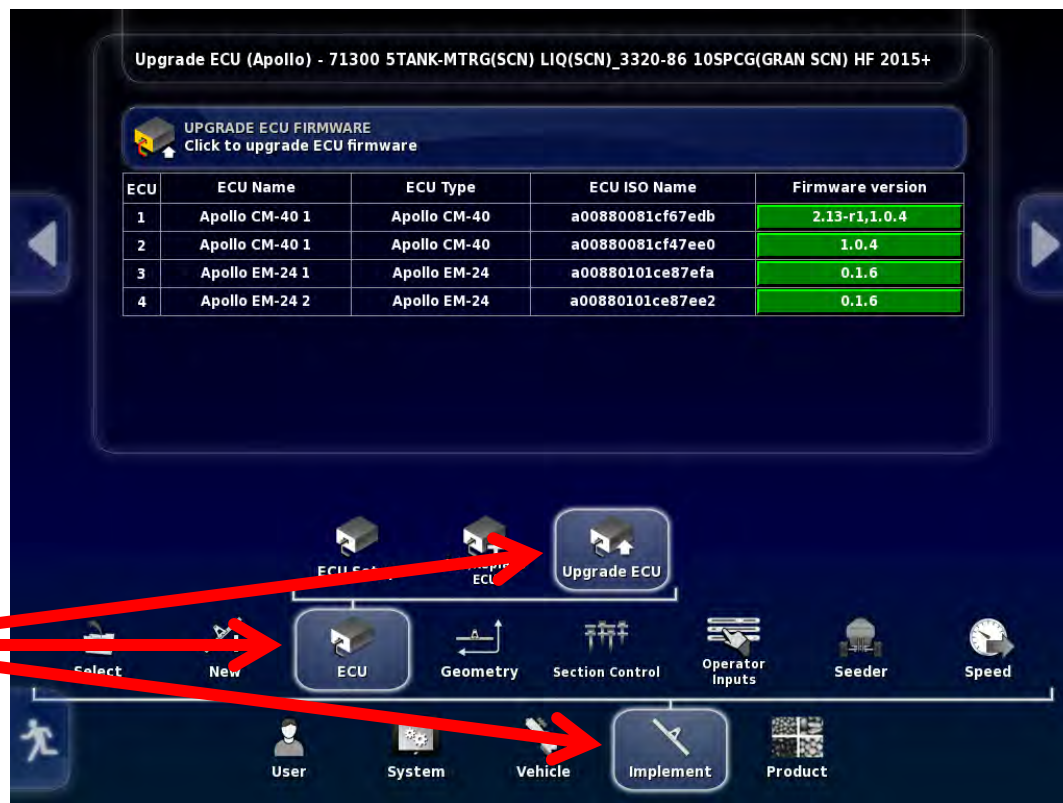




X35 Apollo system

Note: firmware versions may not match what you see on your monitor.

Once the file server is enabled the next step is to check whether the ECU's have been properly detected





If the ECU's have been detected an Id will be present under ECU ISO Name. It will also display the Firmware version once ECU information is uploaded.

Upgrade ECU (Apollo) - 71300 5TANK-MTRG(SCN) LIQ(SCN)_3320-86 10SPCG(GRAN SCN) HF 2015+

UPGRADE ECU FIRMWARE
Click to upgrade ECU firmware

ECU	ECU Name	ECU Type	ECU ISO Name	Firmware version
1	Apollo CM-40 1	Apollo CM-40	a00880081cf67edb	2.13-r1,1.0.4
2	Apollo CM-40 2	Apollo CM-40	a00880081cf47ee0	1.0.4
3	Apollo EM-24 1	Apollo EM-24	a00880101ce87efa	0.1.6
4	Apollo EM-24 2	Apollo EM-24	a00880101ce87ee2	0.1.6

ECU Setup Add/Replace ECU Upgrade ECU

Select New ECU Geometry Section Control Operator Inputs Seeder Speed

User System Vehicle Implement Product



In the right column under Firmware version, select green tab for ECU to be upgraded. Start with the first CM-40 on the list.

This will vary based on options selected with tank. There will be from one to six ECU's that may need to be upgraded

Upgrade ECU (Apollo) - 7700 5TANK-MTRG(SCN)_3320-60 10SPCG(GRAN SCN)

UPGRADE ECU FIRMWARE
Click to upgrade ECU firmware

ECU	ECU Name	ECU Type	ECU ISO Name	Firmware version
1	Apollo CM-40	Apollo CM-40	a00880081ce77ec5	2.11-r6
2	Apollo CM-40	Apollo CM-40	a00880081ce77ec5	0.0.18
3	Apollo EM-24 1	Apollo EM-24	a00880101cfd7ef9	0.0.15

ECU Setup Add/Replace ECU Upgrade ECU

Select New ECU Geometry Section Control Operator Inputs Seeder Speed

User System Vehicle Implement Product



CM-40

After the green tab has been selected the Upgrade option will come up. For Apollo CM-40 (Master) select Upgrade both
Then press check mark





After the check mark has been pressed the green tab that had been selected will become red and display the upgrade type you selected.

Press the Upgrade ECU Firmware tab at the top of the page.

You will get warning that System will need to restart. Press Check mark.



Upgrade ECU (Apollo) - 7950 5TANK-MTRG(SCN)_3320-86 12SPCG(GRAN SCN) HF 10 PORT 2016+BOARD2018

UPGRADE ECU FIRMWARE
Click to upgrade ECU firmware

ECU	Name	ID	Firmware version
1	Apollo CM-40 1	A00880081CE57FD4	Upgrade both
2	Apollo CM-40 2	A00880081CE67EF9	5.10.02,1.6.1
3	Apollo EM-24 1		0.3.1,0.3.1
4	Apollo EM-24 2		0.3.1,0.3.1

Operation Requires Restart
WARNING: certain functions may cycle or change state unexpectedly as the console powers down or restarts. Please ensure all people are clear of the machine before continuing.
This change requires the console to be restarted. Click OK to continue, or Cancel to undo the change.

Setup Manage Upgrade

Select New ECU Geometry Section Control Seeder Operator Inputs Speed & Position

User System Vehicle Implement Product



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You will be guided through the firmware upgrade with the help of a wizard.
Read instructions and press right arrow when it turns yellow.

Step 1 starts the upgrade procedure
You will be able to track progress here.



Step 2
To start the upgrade insert the thumb drive into the left side of the X35 when right arrow turns yellow it is ready right arrow can be pressed.





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Step 3

A list of files on the thumb drive should show up listed on screen.

Do not open 3420 Drill Fold ECU unless updating a drill fold ECU

press the right arrow button to continue.



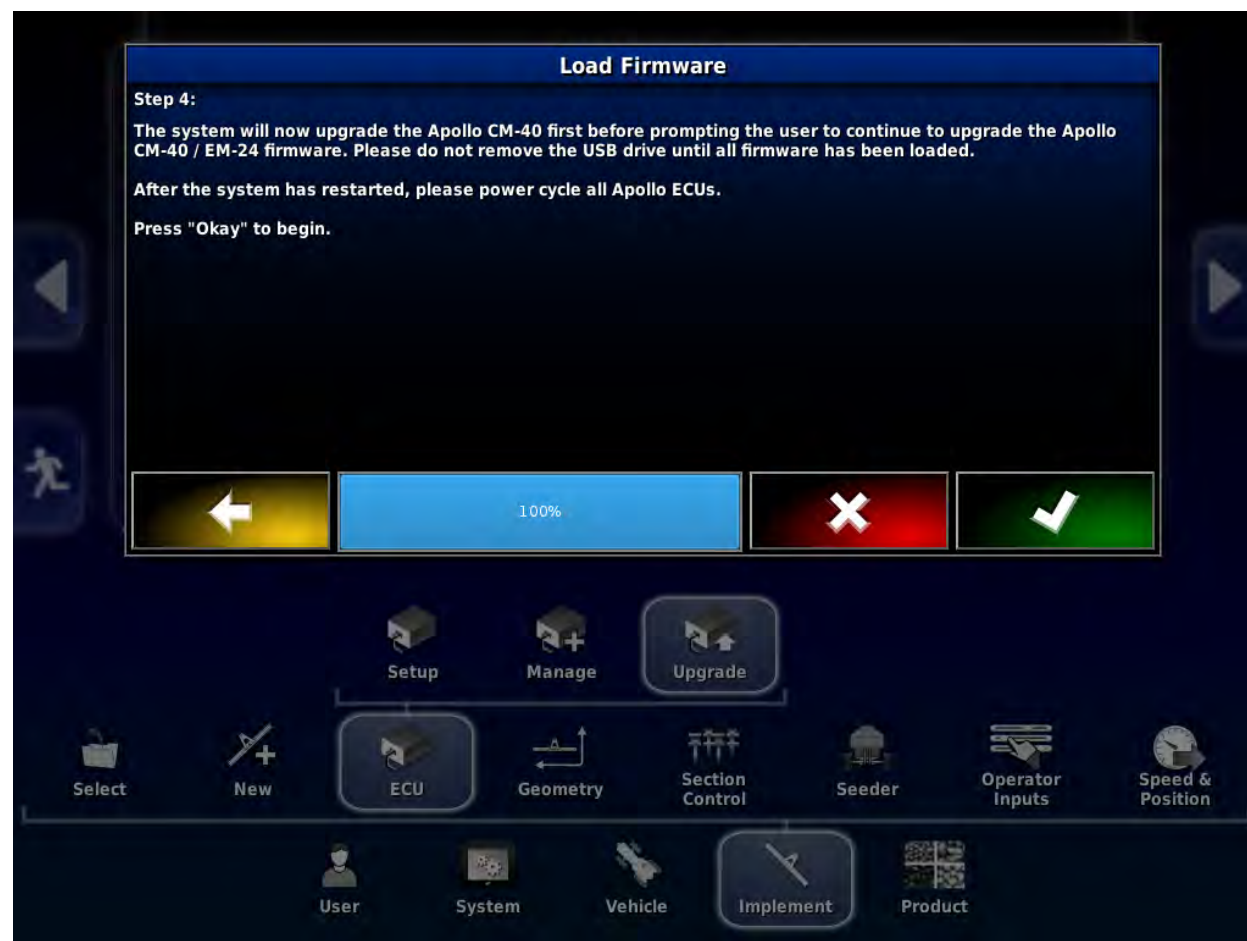


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Step 4

The upgrade will now begin

Press Check mark
To start Upgrade





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Once arrow turns yellow press to Advance to next step.

Put the USB with Firmware into USB Port press yellow arrow to advance.

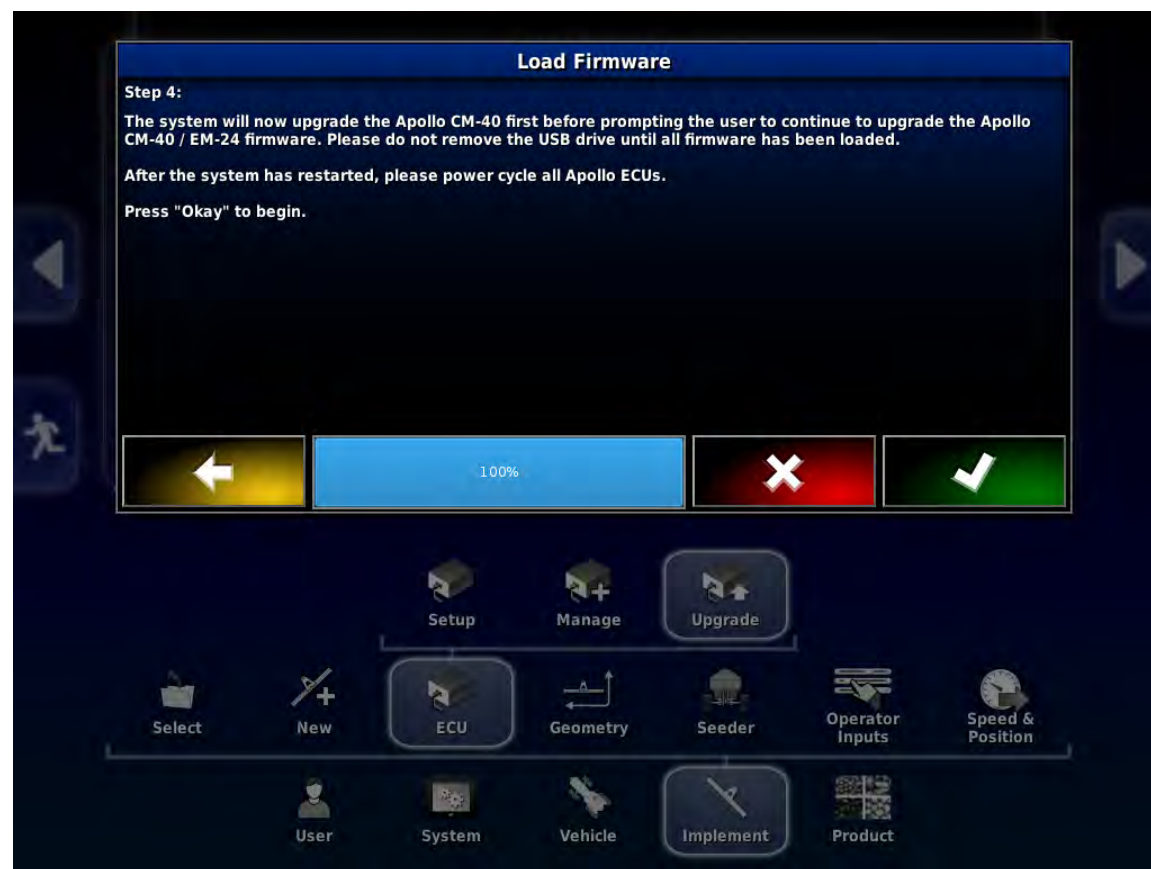
Once list is in view window and right arrow turns yellow press it to advance.





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You are now ready to start Upgrade. Press check mark to Begin.





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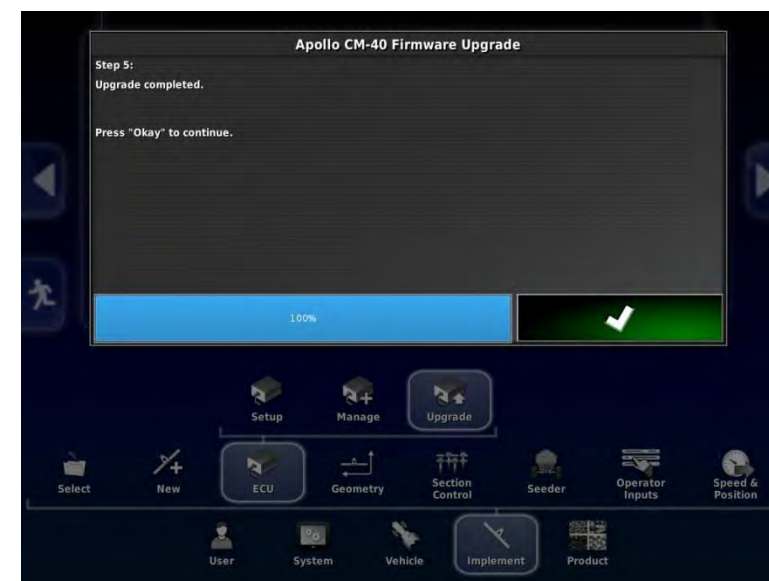
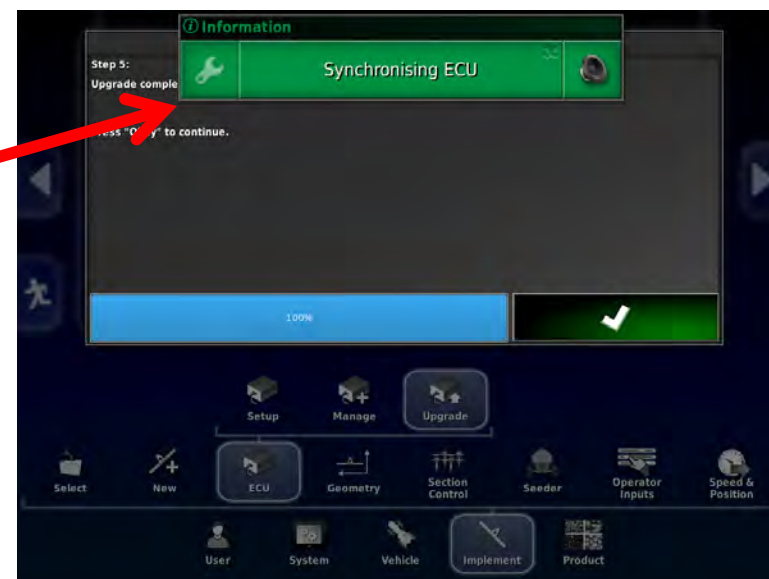
Firmware transfer will begin. (This may take 10 minutes or more to complete.). This is upgrading the main part of the ECU





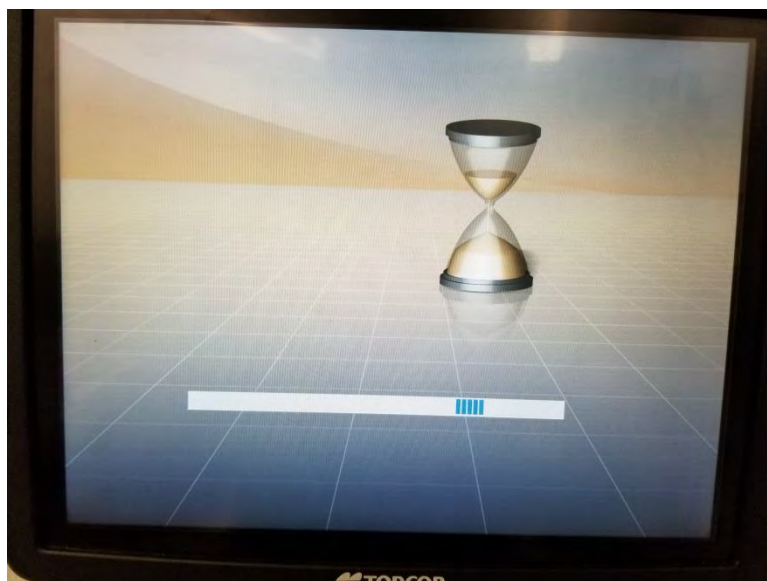
Once the Upgrade is complete you will see this screen.

Wait until the Green Synchronizing bar (this will appear at the top center of the screen) goes away before pressing check mark.



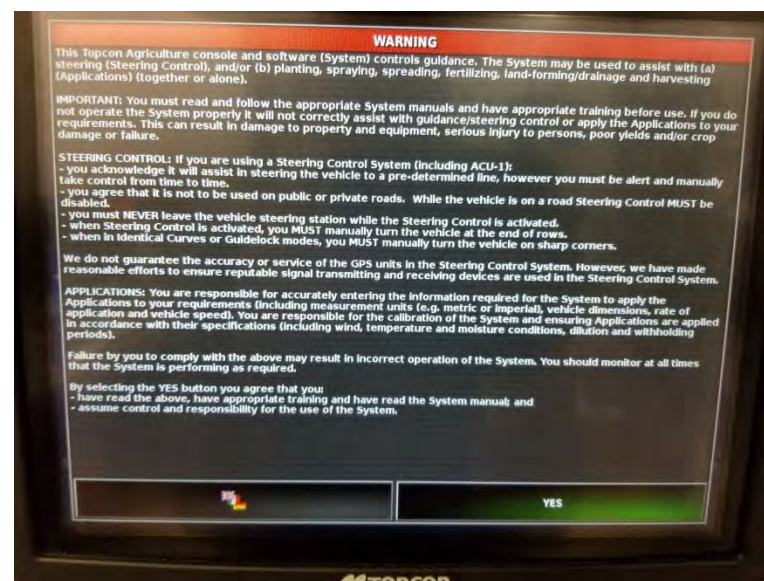


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The Auxiliary firmware will now update. It will be an hour glass on the screen but only takes a short time.

The monitor will now shut down and restart. Press the YES tab as in normal startup.





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Power cycle the ECU by shutting tractor off or unplugging the ISO plug at the back of the tractor. This will force ECU's to upload new information.





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Monitor will show that it is Synchronizing and Configuring ECU once this is complete both the Main (first number - 5.10.02 in list) and Aux. Firmware (second number – 1.6.1 in list) should be displayed and match what was uploaded. If one or both are not correct this process must be repeated for the one(s) not matching the desired firmware. You can select just Main or Aux for Upgrade.





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If both Main and Aux.
firmware are correct
the upgrade for the
Apollo CM-40 (Master)
is complete.

If you only have one ECU
on the tank, (four tank
metering or less) Upgrade
is complete.

If your tank has 5 tank
metering, sectional control,
or blockage follow
procedure following for
additional ECU's.

Main Aux

Upgrade ECU

Information

Synchronising ECU

BOARD2018

UPGRA Click to upgrade ECU firmware

ECU	Name	ID	Firmware Version
1	Apollo CM-40 1	A00880081CE57FD4	5.10.02,1.6.1
2	Apollo CM-40 2	A00880081CE67EF9	5.10.02,1.6.1
3	Apollo CM-40 3	A00880081CE27FFE	5.10.02,1.6.1
4	Apollo EM-24 1	A00880101CE47FCF	0.3.1,0.3.1
5	Apollo EM-24 2	A00880101CEA7ED2	0.3.1,0.3.1

Setup Manage Upgrade

Select New ECU Geometry Section Control Seeder Operator Inputs Speed & Position

User System Vehicle Implement Product



EXTRA CM-40

If tank has more that one CM-40 follow this upgrade procedure.

CM-40 for 5th tank or CM-40 for Packmaster

This can be done after the Main CM-40 (tank 1-4) or after doing the EM-24 Upgrade(s).

The second and or third CM-40 has to be made the Main or Master ECU to properly Upgrade. A factory profile will be in the Implements tab to allow for this. EXTRA CM-40 (Tank 5) and EXTRA CM-40 (PACKMASTER) will have been created at the factory. The EXTRA CM-40 (Tank 5) will be detected at the factory, however the EXTRA CM-40 (PACKMASTER) will need to be detected before it can be used to Upgrade the ECU.



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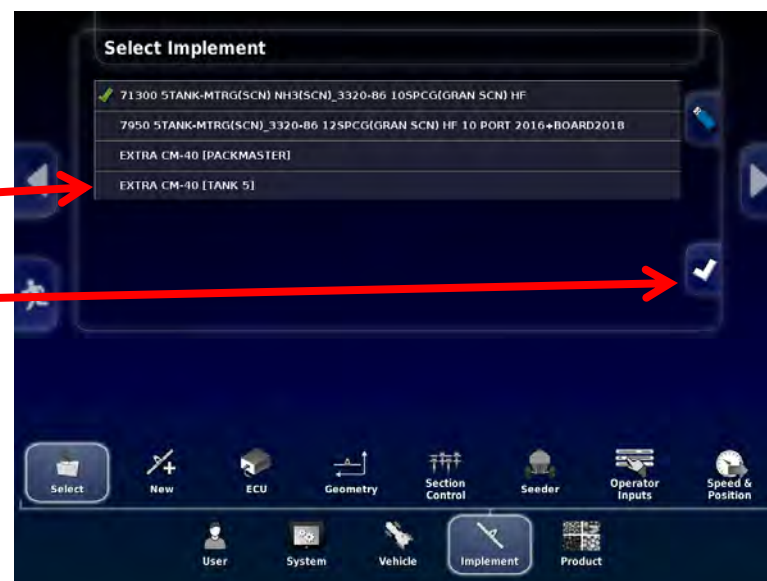
EXTRA CM-40

First unplug all of the Comms plugs from all of the ECU's except the one to be Upgraded. (tank 5 or Packmaster)



**Select ECU to Upgrade from list
Implement/Select tab
Select tank 5 first if it is on the list**

**Press the check mark on right
Monitor will need to restart to continue**





EXTRA CM-40

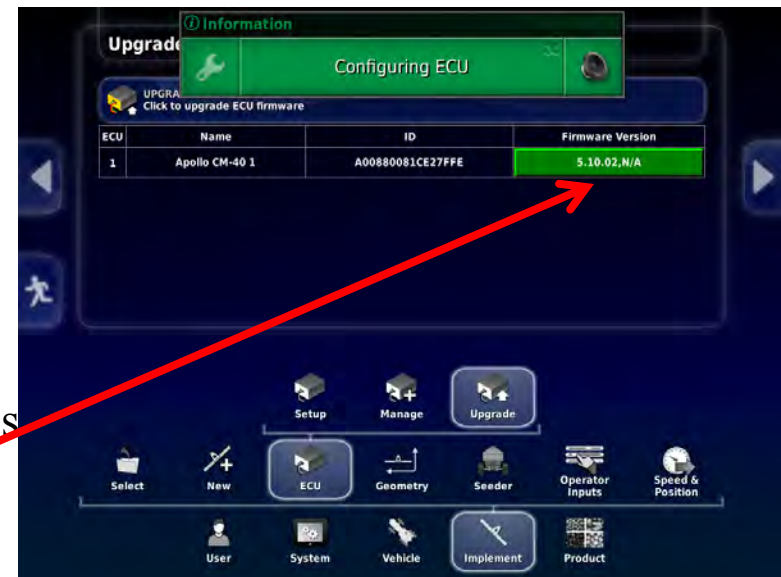
Monitor will restart and load the single ECU implement profile.

Once it has finished Configuring and Synchronizing go the Implement/ECU/Upgrade Tab and Upgrade ECU the same As for the main CM-40.

If you have more than two CM-40 ECU's make sure to unplug all Comms plugs except the ECU for Packmaster, detect Packmaster ECU if it has not been detected. Then follow same procedure as for the 5th tank Upgrade.

Once all CM-40's are Upgraded plug in all Comms plugs then switch back to the original implement profile.

Make sure both Main and Aux Firmware is correct. If not Upgrade portion that does not match correct Firmware.





EM-24

If tank has either sectional control or blockage or both Firmware for Apollo EM-24 may also need be completed.

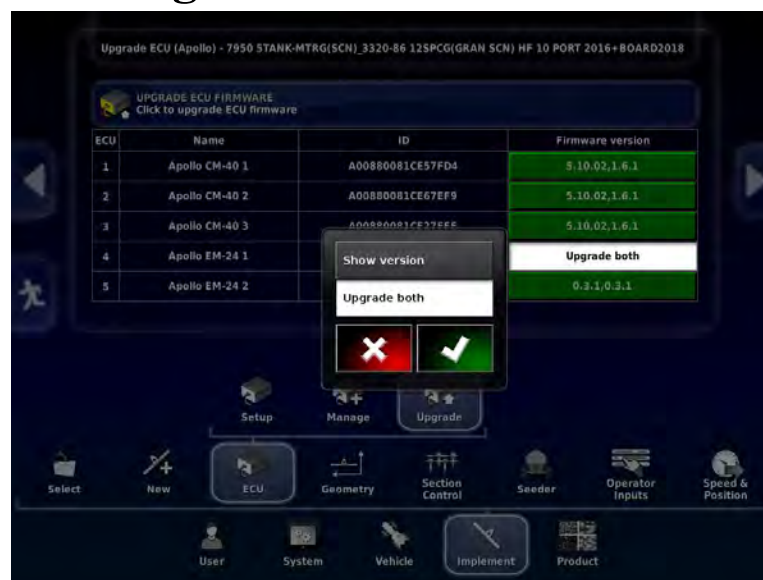
This must be done for each EM-24 on machine. There will be one EM-24 for sectional control and one EM-24 for blockage.

Trailing tank EM-24 for sectional is on tank, EM-24 for blockage is on the Drill.

For a leading tank the sectional and blockage EM-24's are both mounted on the drill)

Go to Implement/
ECU/
Upgrade ECU

Press tab to right of EM-24 to be
Upgraded, select Upgrade both,
press the check mark



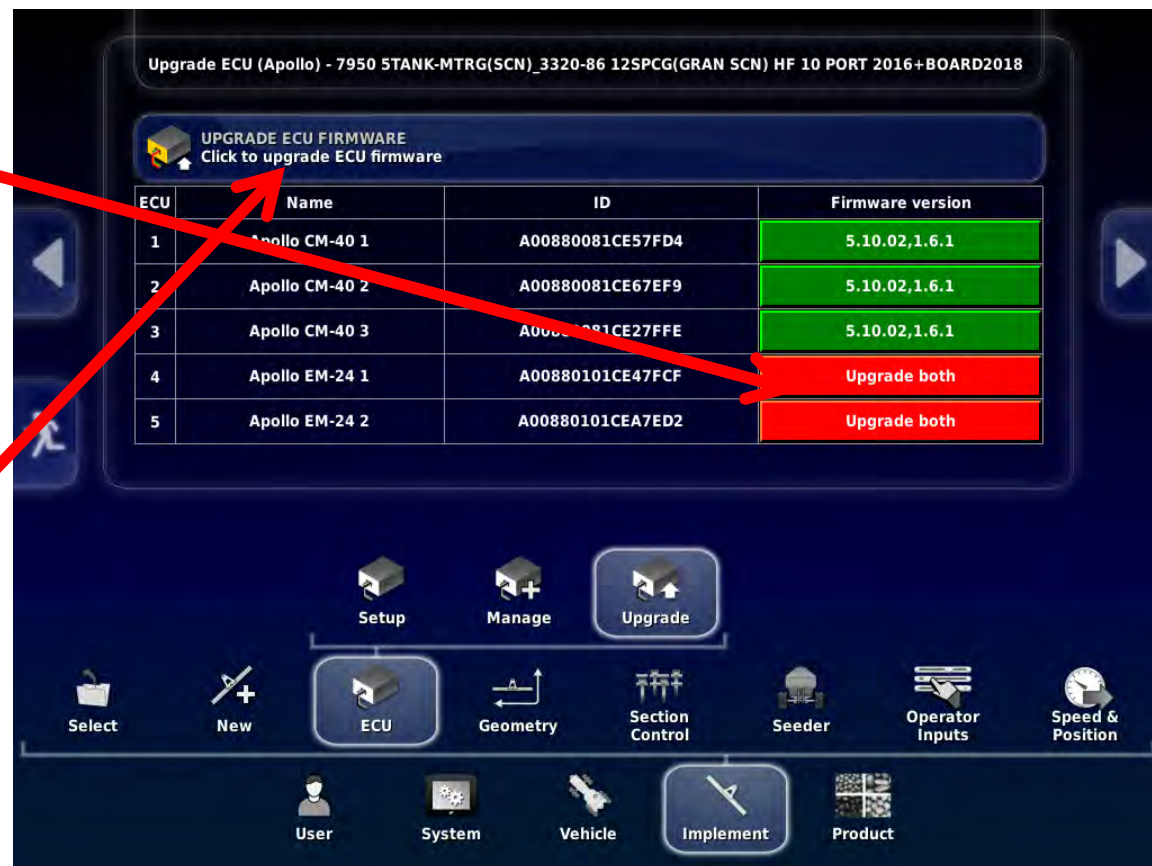


EM-24

Tab selected will turn red.

For EM-24 select Upgrade
both for all EM-24's to be
Upgraded

Press the tab labelled
Upgrade ECU Firmware
to initiate Upgrade





EM-24

You will get warning that a restart is required.

Press the check mark.

Follow steps on screen the same as for the CM-40.



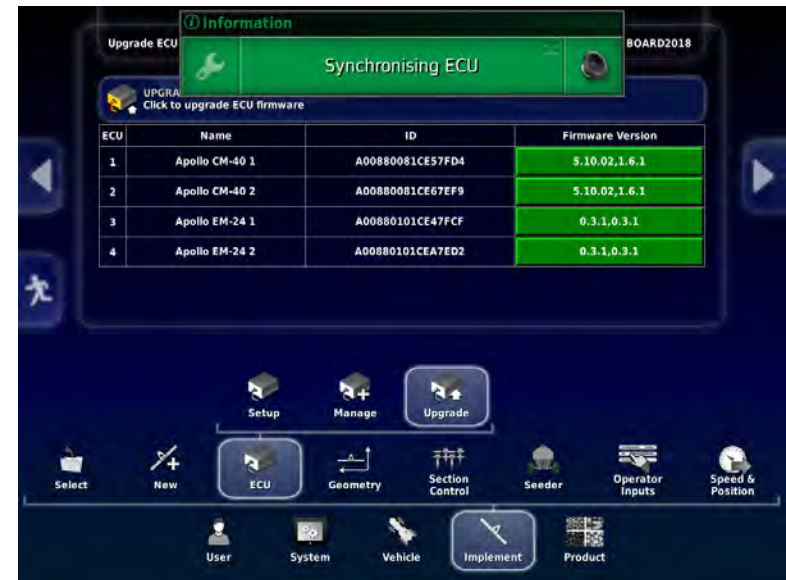


EM-24

Once firmware is loaded press the check mark at bottom right of X35 screen.



EM-24



Monitor will restart. Power cycle ECU's by shutting tractor off or unplugging the ISO plug at the back of the tractor as in previous instructions.

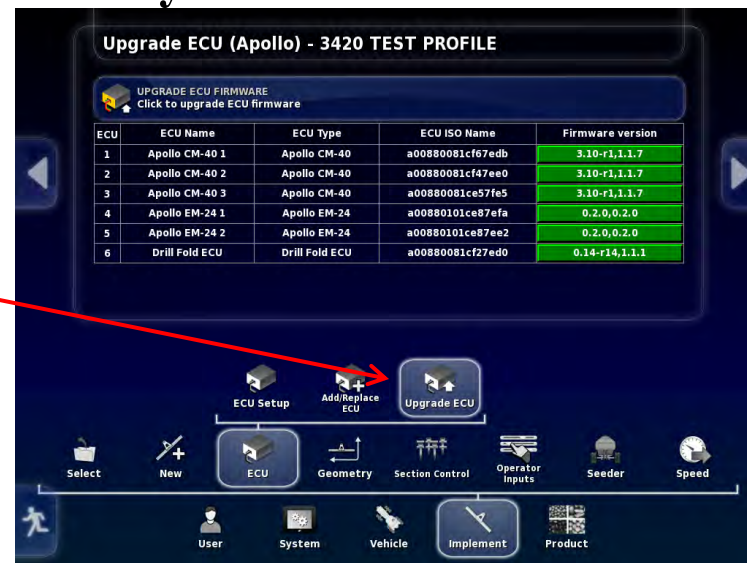
Once synchronized the firmware should be visible, Check that it is the correct version. If any of your Main or Aux Firmware versions are not correct redo Upgrade procedure but only select the portion that did not Upgrade to new Firmware.





Drill Fold ECU- 3420 only

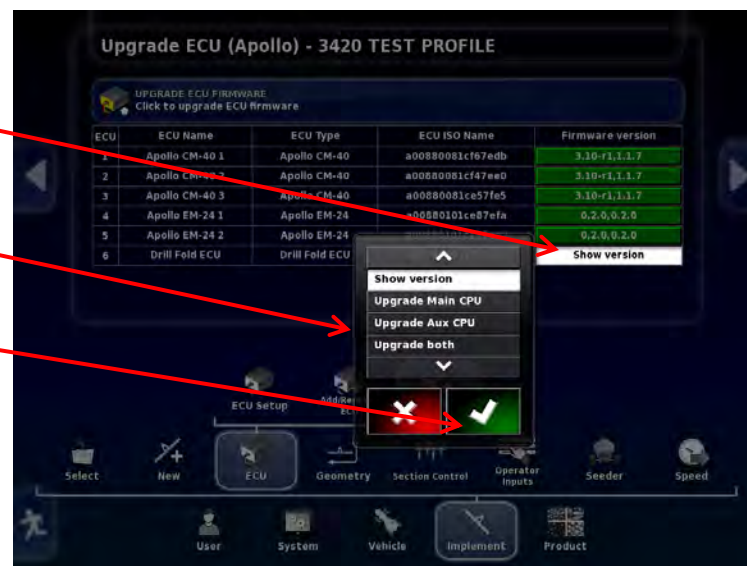
3420 Drill Fold ECU Upgrade
Go to ECU Upgrade tab



Select Firmware version tab for
Drill Fold ECU,

select upgrade both,

Select check mark





X35 Apollo system

Drill Fold ECU- 3420 only

Touch the Upgrade ECU Firmware tab

Warning screen will appear
Make sure no one is near Machine, when safe press the check mark

Upgrade ECU (Apollo) - 3420 TEST PROFILE

UPGRADE ECU FIRMWARE
Click to upgrade ECU firmware

ECU	ECU Name	ECU Type	ECU ISO Name	Firmware version
1	Apollo CM-40 1	Apollo CM-40	a00880081cf67edb	3.10-r1,1.1.7
2	Apollo CM-40 2	Apollo CM-40	a00880081cf47ee0	3.10-r1,1.1.7
3	Apollo CM-40 3			3.10-r1,1.1.7
4	Apollo EM-24 1			0.2.0,0.2.0
5	Apollo EM-24 2			0.2.0,0.2.0
6	Drill Fold ECU			Upgrade both

Operation Requires Restart

WARNING: certain functions may cycle or change state unexpectedly as the console powers down or restarts. Please ensure all people are clear of the machine before continuing.

This change requires the console to be restarted. Click OK to continue, or Cancel to undo the change.

ECU Setup Add/Replace ECU Upgrade ECU

Select New ECU Geometry Section Control Operator Inputs Seeder Speed

User System Vehicle Implement Product



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Drill Fold ECU- 3420 only

Wizard will guide you through the
Upgrade

Insert USB with firmware into monitor





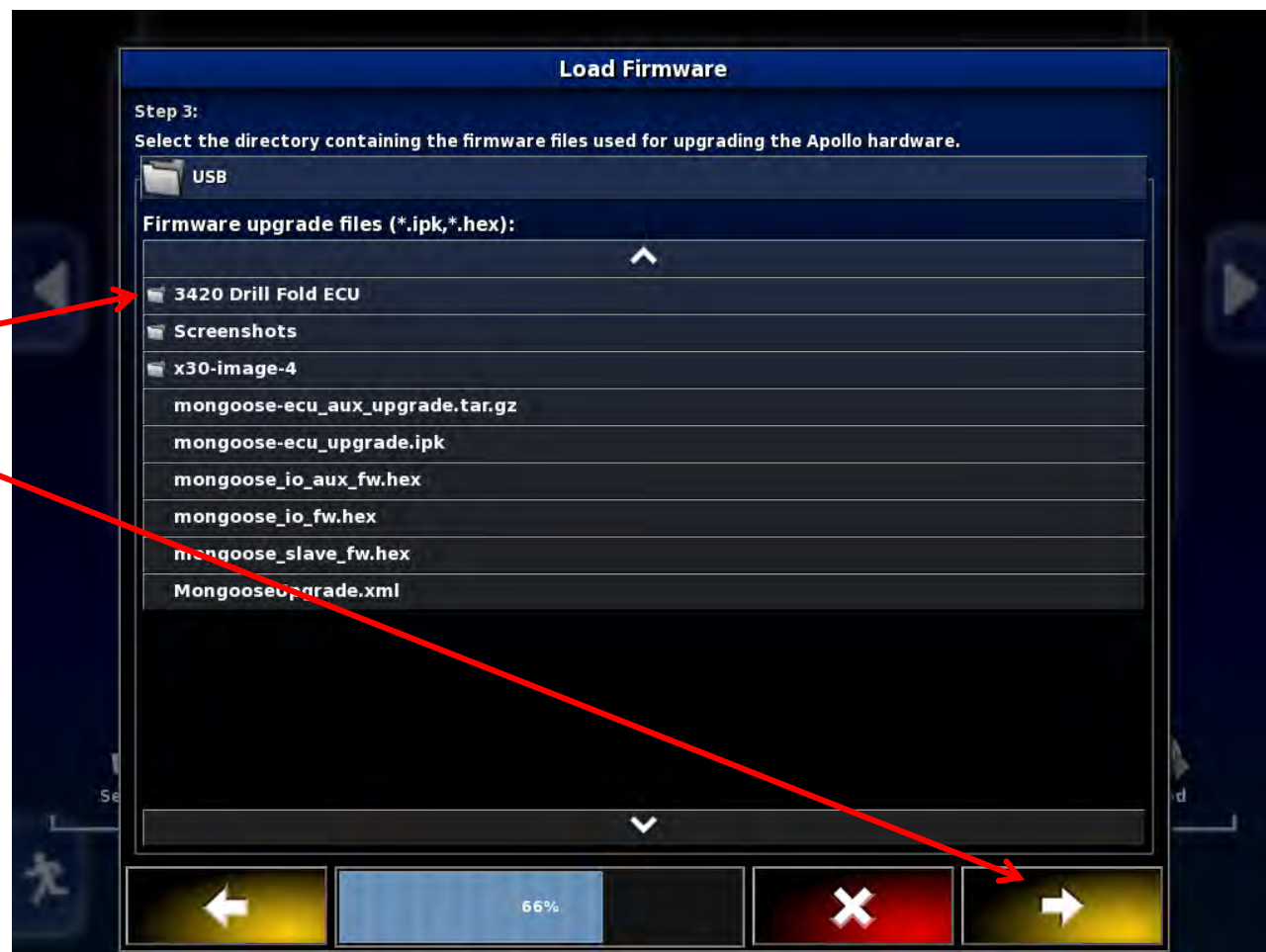
X35 Apollo system

Drill Fold ECU- 3420 only

Drill fold firmware is
Located in the 3420 Drill
Fold ECU folder.

Select this folder

Press the right arrow tab





X35 Apollo system

Drill Fold ECU- 3420 only

The screen should now
Look like this with
The 3420 Drill Fold
ECU folder open .

There should be three
Upgrade files.

Press the right arrow
Tab.



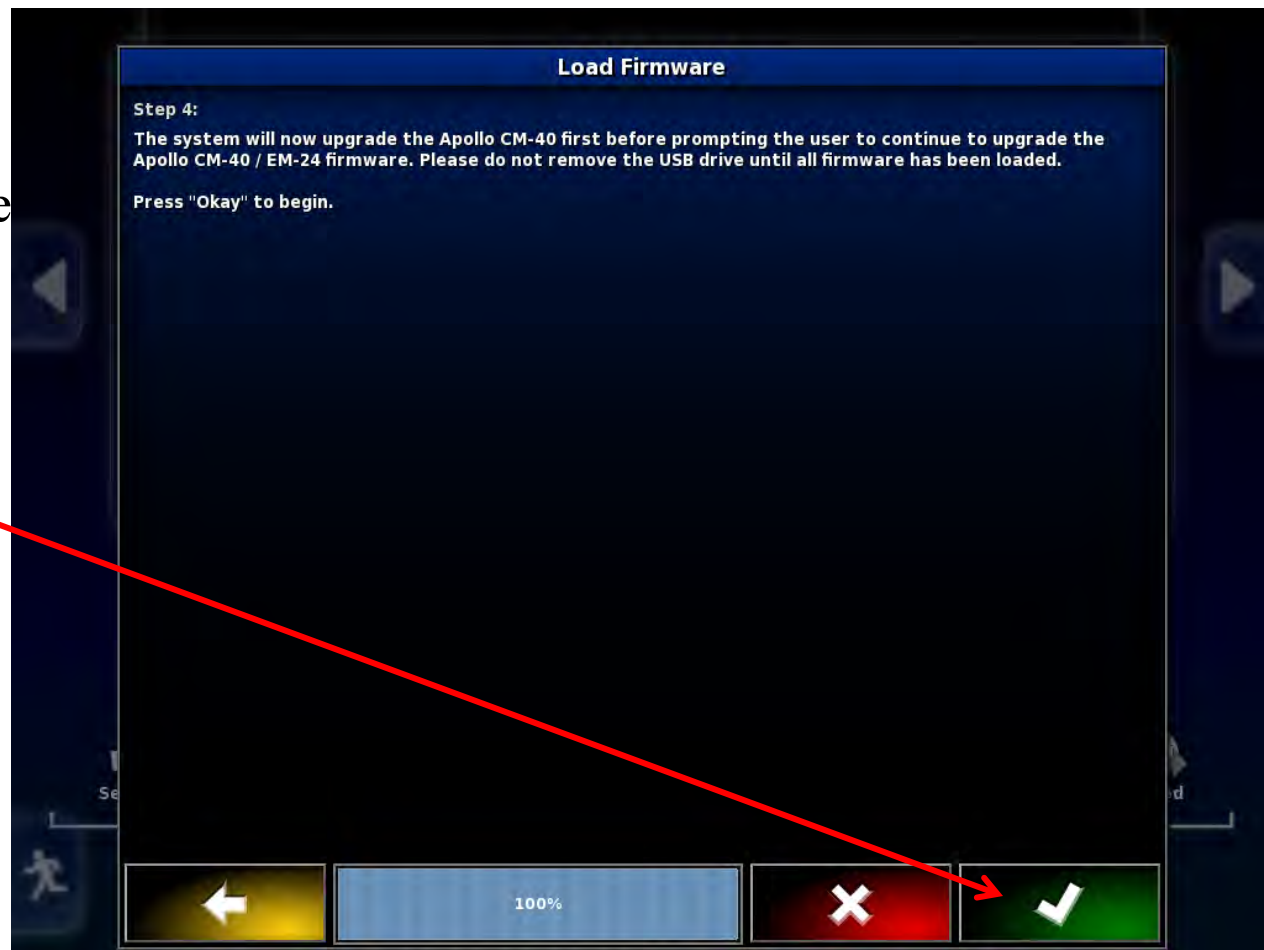


X35 Apollo system

Drill Fold ECU- 3420 only

System is ready to Upgrade
The CM-40 with Drill fold
Software.

Press check mark.





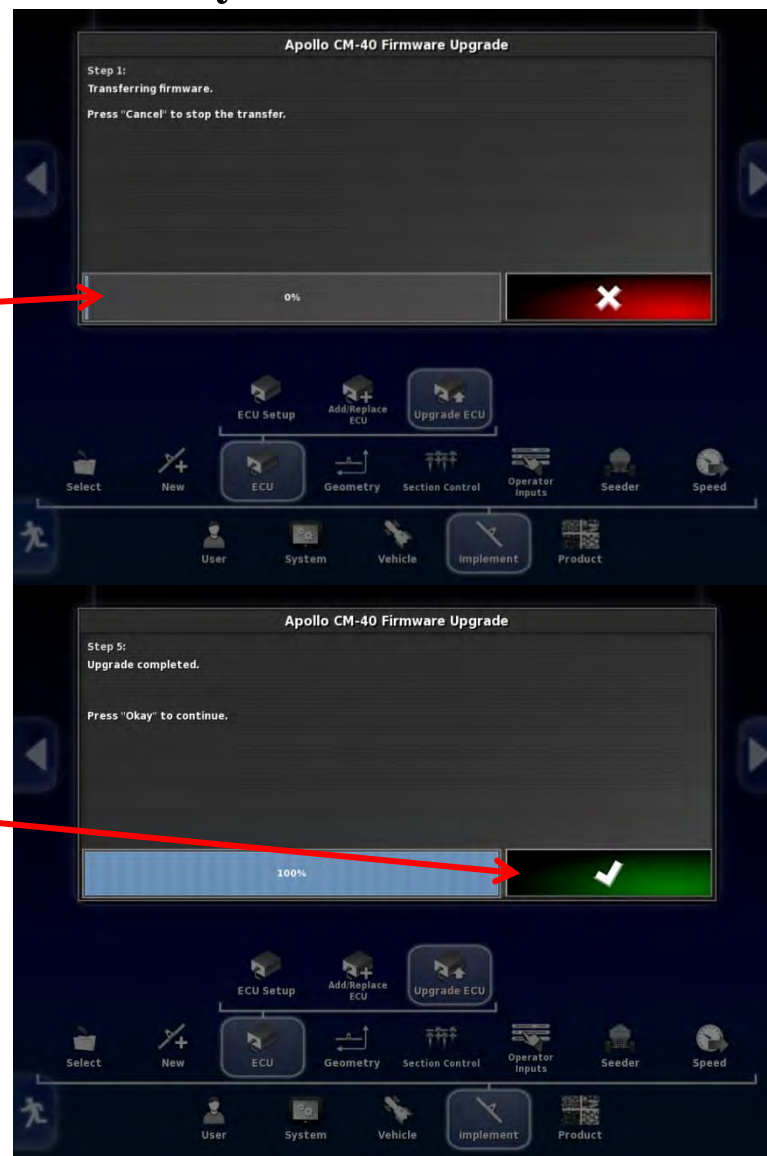
X35 Apollo system

Drill Fold ECU- 3420 only

Firmware will now be upgraded

Bar turns blue showing progress

When complete press check mark
To proceed.





X35 Apollo system

Drill Fold ECU- 3420 only

Monitor will restart,
Communication will have
To be re-established with
ECU's

Power cycle the ECU's
This can be done by shutting
tractor off or unplugging
ISO plug at rear of tractor

Warning!
No ECU Communication - Drill Fold ECU

UPGRADE
Click to upgrade ECU firmware

ECU	ECU Name	ECU Type	ECU ISO Name	Firmware version
1	Apollo CM-40 1	Apollo CM-40	a00880081cf67edb	N/A
2	Apollo CM-40 2	Apollo CM-40	a00880081cf47ee0	N/A
3	Apollo CM-40 3	Apollo CM-40	a00880081ce57fe5	N/A
4	Apollo EM-24 1	Apollo EM-24	a00880101ce87efa	N/A
5	Apollo EM-24 2	Apollo EM-24	a00880101ce87ee2	N/A
6	Drill Fold ECU	Drill Fold ECU	----	N/A

ECU Setup Add/Replace ECU Upgrade ECU

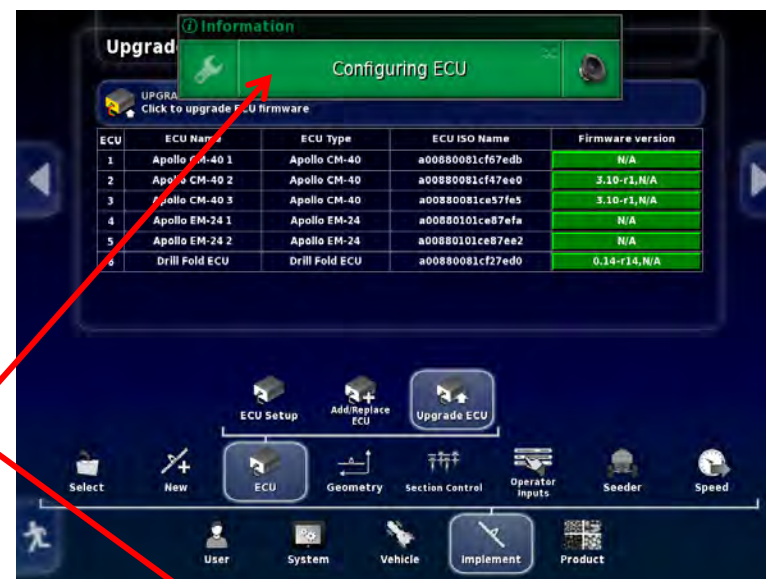
Select New ECU Geometry Section Control Operator Inputs Seeder Speed

User System Vehicle Implement Product



Drill Fold ECU- 3420 only

Allow X35 and ECU's to configure and synchronize before doing anything green status bar must not be touched or the upgrade may have to be redone.






Drill Fold ECU- 3420 only

Upgrade is complete
You can now touch
Any of the tabs.

Note: a CM-40 is turned
Drill Fold ECU by
changing the firmware,
the Drill Fold ECU can
be changed back to a
CM-40 by putting the
CM-40 firmware back
onto it.

Upgrade ECU (Apollo) - 3420 TEST PROFILE

 **UPGRADE ECU FIRMWARE**
Click to upgrade ECU firmware

ECU	ECU Name	ECU Type	ECU ISO Name	Firmware version
1	Apollo CM-40 1	Apollo CM-40	a00880081cf67edb	3.10-r1,1.1.7
2	Apollo CM-40 2	Apollo CM-40	a00880081cf47ee0	3.10-r1,1.1.7
3	Apollo CM-40 3	Apollo CM-40	a00880081ce57fe5	3.10-r1,1.1.7
4	Apollo EM-24 1	Apollo EM-24	a00880101ce87efa	0.2.0,0.2.0
5	Apollo EM-24 2	Apollo EM-24	a00880101ce87ee2	0.2.0,0.2.0
6	Drill Fold ECU	Drill Fold ECU	a00880081cf27ed0	0.14-r14,1.1.1

Navigation Menu:

- ECU Setup
- Add/Replace ECU
- Upgrade ECU
- Select
- New
- ECU
- Geometry
- Section Control
- Operator Inputs
- Seeder
- Speed
- User
- System
- Vehicle
- Implement
- Product



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Scale link ECU

Please refer to scale link Upgrade procedure.





X35 Apollo system

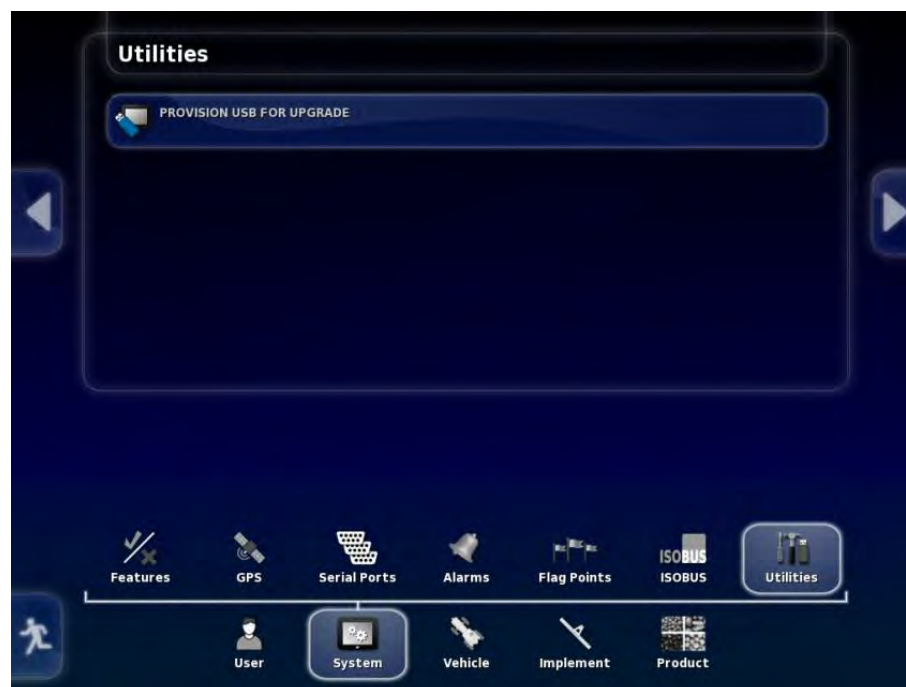
1. Download zip file attachment to a folder on your computer. File name will be 4.01.509zip
2. Extract files from the zip and put onto an empty thumb drive.
3. These are the files on the thumb drive make sure they are extracted like they are below do not leave in original file folder. There will be an additional log folder and back up files created once used to upgrade a monitor as one will be created each time an Upgrade is performed. These backup files and Log folder will not affect the upgrade, however may need to be removed once thumb drive is full. Leave the folder at the top as it is. These are for the 3420 Drill fold ECU only.

Name	Date	Type	Size
Drill Fold	12/19/2017 1:42 PM	File folder	
DS_UT_POOL.iop	12/13/2017 12:53 PM	IOP File	60 KB
image.S19	12/13/2017 12:53 PM	S19 File	2,053 KB
install_mbr.cmd	12/19/2017 11:12 AM	Windows Comma...	1 KB
install_syslinux.txt	12/19/2017 11:12 AM	Text Document	1 KB
mongoose_io_aux_f...	12/13/2017 12:50 PM	HEX File	38 KB
mongoose_io_fw.hex	12/13/2017 12:50 PM	HEX File	119 KB
mongoose_slave_f...	12/13/2017 12:50 PM	HEX File	179 KB
mongoose-ecu_aux...	12/13/2017 12:50 PM	ACDSee Photo Ma...	136 KB
mongoose-ecu_up...	12/13/2017 12:50 PM	IPK File	2,948 KB
README.html	12/13/2017 12:50 PM	HTML Document	2 KB
rootfs.ext2	12/13/2017 12:54 PM	EXT2 File	49,152 KB
SL2_K26_171110_ap...	12/13/2017 12:53 PM	S19 File	2,053 KB
syslinux.exe	12/19/2017 11:12 AM	Application	28 KB
ulImage-initramfs-x...	12/19/2017 11:12 AM	BIN File	8,533 KB
x35-install.sh	12/19/2017 11:12 AM	SH File	10 KB
x35-rootfs.img	12/19/2017 11:12 AM	Disc Image File	101,561 KB



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4. Put Thumb drive in X35 USB port to provision it for upgrade. Go to settings page by touching wrench symbol in bottom left of screen. Depending on Software version on X35 there are different locations for Provisioning USB for Upgrade, shown below.



5. Remove thumb drive
6. Turn off X35, plug thumb drive back in to X35
7. Re-start X35
8. Wait for message on screen to remove thumb drive. Remove thumb drive.



9. System will ask if you want to retain user settings. **Select YES.**



10. On main screen, click the Bourgaault button in the top left hand corner. Ensure that the software version shown is correct. (4.01.509)



11. Upgrade Complete.

12. Check your profile and timings to make sure they are set properly. **If using sectional control , section timings must be set.**

13. When updating Software in monitor the firmware in the ECU(s) must also be updated . Follow the procedure in the previous pages to upgrade firmware.

14. The procedure will be the same software and firmware versions will vary from pictures make sure you know the versions that you are installing.