

AUTOBOOM XRT ABM SOFTWARE UPDATE INSTRUCTIONS

VERSION: 1.5.3.4

RELEASE DATE: APRIL 24, 2020

This software package provides procedures to update firmware for AutoBoom XRT ABM nodes via the Raven Viper 4 monitor (if running version 2.7 software or greater) or the Raven Service Tool if running a Universal Terminal other than the Viper 4. CRX software version 2.0 or higher is required for updating ISO nodes using this process on the CR7 field computer. All CAN Nodes will require a Raven Service Tool.

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RELEASE NOTES

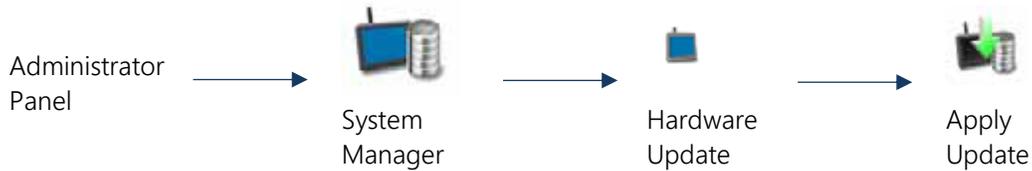
Full release notes are included in the software package.

- 1.AutoFold Out requires higher tilt position prior to driving Fold1 out, to avoid scraping cradle. This does result in the boom coming closer to the mirror. (Patriot only)
- 2.AutoFold In, Fold1 will come all the way in if tilt and center are at proper locations, will not wait for Fold2. (Patriot only)
- 3.AutoFold In, will wait for opposite boom to be at the cradle before lowering into cradle. (Patriot only)
- 4.Reduced delay for audible feedback when AutoFold is complete in both directions.
- 5.Fixed issue with Percent Spray positions not being saved properly from calibrated positions.
- 6.Reduced delay between booms settling into cradle and the audible beep at the end of an AutoFold IN sequence.
 - a. Previous versions required the tilt joints to be stationary. That is, nearly all of the pressure relieved from the lift cylinder. This version will provide the audible beep when the tilt joints are 2% lower than the calibrated position. If the user continues to hold the button after the beep, the load will continue to transfer from tilt cylinder to cradle. This reduces the delay for beep by about 1.5 seconds.
7. Added CAN fix to prevent object pool transfer failures.
8. Added interlocks for RoGator machine profiles to prevent center rack down movement via unintentional joystick down presses.
- 9.Disabled center rack controls on machine selection page.
- 10.Added thread timeout fix to prevent controls from hanging.

INSTALLING CANBUS OR ISOBUS FIRMWARE UPDATES VIA VIPER 4

NOTE: The node firmware can be transferred from the USB flash drive onto the ROS device before the firmware updates can be applied to nodes connected to the system using the System Manager utility. Refer to Import CAN Node Updates section for assistance copying CAN Node Update files.

To apply a firmware update to a CANbus system component:



1. Insert the USB flash drive with the firmware update files into the ROS device.
NOTE: Review the CANbus Firmware Download Example section for more information on the folder structure required for performing the update.
2. Use the USB Manager utility within the File Manager to import the CAN node updates. Refer to Chapter 7, File Manager, for additional assistance using the USB Manager.
3. Touch the Administrator or User Panel along the top of the Main Panel display to expand the panel.
4. Select the System Manager utility and touch the Hardware Update tab.
5. In the upper portion of the Hardware Update tab, select a specific node to be updated.
NOTE: Note the program number (PGM #) for the node selected. In case of problems with the node update, this number will be required to select the appropriate program number for recovering the node. Refer to the Node Recovery Mode section or contact a local Raven dealer for additional assistance.
6. Select the appropriate update from the Versions Available list for the selected node.
7. Touch the apply update button to update the firmware on the selected node. The ROS device will install the selected firmware update. Repeat the process to update any other nodes as necessary or required.
NOTE: If a problem is encountered during the firmware update process, refer to the Raven CANbus Installation Manual for information on troubleshooting the node and use the recovery mode to attempt to restore the CANbus node. Refer to the Node Recovery Mode section for additional information on using the recovery mode with a Raven CANbus system.

NODE RECOVERY MODE

NOTE: The node program number is required to properly recover the node. If the program number is unknown, contact a local Raven dealer or the Raven Technical Support Center for additional assistance with appropriate program numbers for recovering a CANbus node.

To attempt to recover a CANbus node on which a failed update has occurred:



1. Insert the USB flash drive with the firmware update files in the required folder into the ROS device.

NOTE: Review the CANbus Firmware Download Example section for more information on the folder structure required for performing the update.

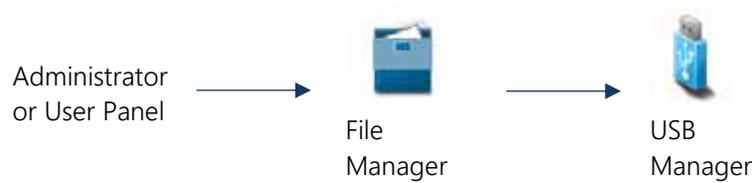
2. Use the USB Manager utility within the File Manager to import the CAN node updates. Refer to Chapter 7, File Manager, for additional assistance using the USB Manager.
3. Touch the Administrator or User Panel along the top of the Main Panel display to expand the panel.
4. Select the system manager utility and touch the hardware update tab.
5. Disconnect the rectangular connectors on the node for approximately five seconds to cycle power to the node. Ensure any status LEDs are off or stop flashing before reconnecting the node.
6. On the ROS device, touch the versions field and use the scrolling list to select the appropriate node program to reset the node. The node program and version numbers will be displayed in the following format:
Program Number → **P###V#_#_#** ← **Version Number**
7. Touch the Apply Update button to attempt to recover the node. If the node recovery fails, or for additional support, contact a local Raven dealer.

IMPORTANT CAN NODE UPDATES

NOTE: Review the Installing CANbus or ISOBUS Firmware Updates section for additional information on downloading and applying updates to Raven CANbus hardware.

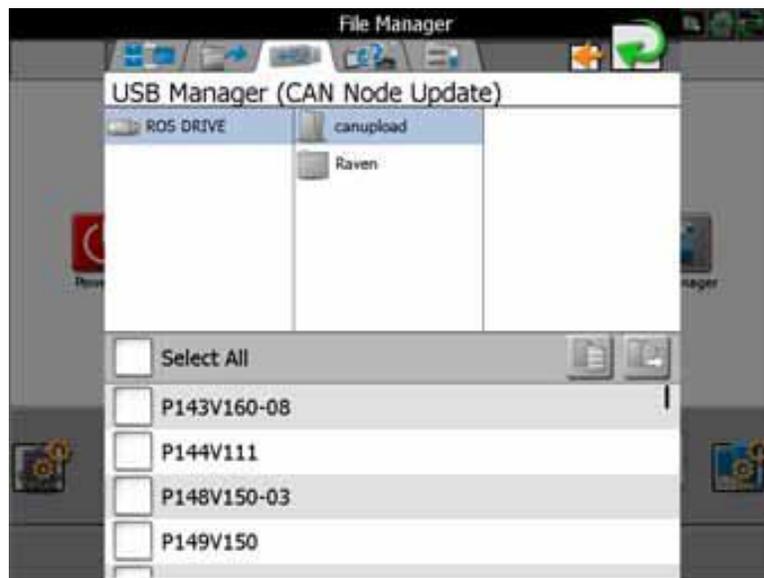
Any node firmware updates copied or moved to the ROS device will be saved on the device until deleted using the file maintenance feature. Refer to the Delete Files section for assistance with deleting node update files from the ROS device.

To import CAN/ISO node firmware updates from a USB flash drive:



1. Insert a USB flash drive used with the ROS device and containing the CAN node updates.
2. Press the Administrator or User Panel along the top of the Main Panel display to expand the panel.
3. Select the File Manager utility and touch the USB Manager tab.
4. Touch the USB drop down and select the connected USB flash drive from which to import files.
5. Touch the File Type drop down and select the "Node Update" option.
6. Touch the Next button on the USB manager tab. The USB flash drive and folder structure will display.
7. Use the displayed browser to locate and select the "canupload" or "ISOUpload" folder downloaded from the Raven web site. Node update files currently stored on the USB flash drive will be displayed in the lower portion of the USB manager tab.

Example: "USB Drive Name" > canupload (or ISOUpload)



NOTE: Review the Installing CANbus or ISOBUS Firmware Updates section for additional information on downloading and applying updates to Raven CANbus hardware.

8. Press Select All at the top of the file list to import all node updates from the USB flash drive. Node updates may be removed or deleted after the CANbus hardware update process has been completed. Alternatively, touch the box displayed to the left of the node update file name to import only a specific node update if the file name is known.
9. With at least one CAN node update file selected, select one of the following import actions:



Copy – create a duplicate of the selected information on the ROS device.



Move – import the selected information on the ROS device and remove the information from the USB flash drive.

The Import Files Prompt will display

10. Verify the list of files to be imported is correct. If the list requires further configuration, touch the Cancel button to return to the USB Manager tab.
11. Touch the Import button to begin the file transfer process.

HOW TO UPDATE ISO NODES WITH THE CRX FIELD COMPUTER

NOTE: 2.0 or higher CRX software is required for updating ISO nodes using this process. All CAN nodes will require a [Raven Service tool](#).

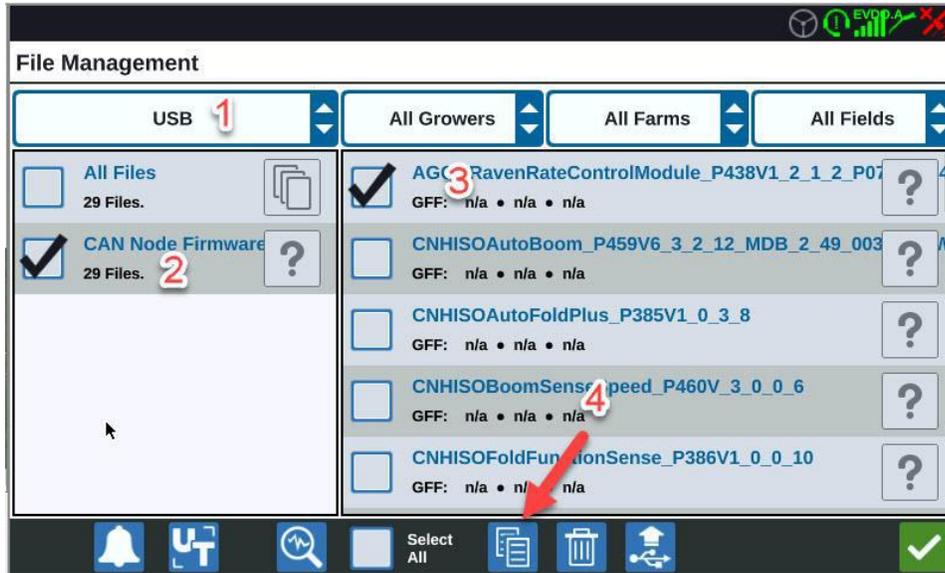
The download will be a compressed file, which will need to be extracted to the root directory of your USB drive. The HEX files should be on the root directory of the USB. (Do not need ISOupload folder to import node updates)

IMPORTING NODE UPDATES

1. From the Settings page, go to the File Manager tab



2. Choose your USB drive
 - a. Select CAN Node Firmware as your file type
 - b. Select the node update you want to import
 - c. Select the “copy files” button at the bottom of the screen



UPDATING NODE FIRMWARE

1. From the Settings page, go to the "Software Update" tab
2. Once in "Software Update", go to the Hardware tab on the left side of the screen
 - a. Select the hardware you want to update
 - b. After highlighting, "Versions Available" will show up at the bottom of the screen
 - c. Choose the version you wish to update to
 - d. Press "Start Update" to begin update process

