

DATE: 30-Jun-2021

TO: Auto Crane Dealers

**SUBJECT: NexStar™ 4 – Updating Remote Software**

PART NUMBERS OF AFFECTED PRODUCTS:

All NexStar 4 Cranes

SERIAL NUMBERS OF AFFECTED PRODUCTS

All cranes





## Overview

The following procedure describes how to update the software on the NexStar 4 Remote.

Contact Joshua Morton if you need assistance with this procedure at 918.234.2191 or [joshuamorton@ramseyindustries.com](mailto:joshuamorton@ramseyindustries.com).



## Required Tools

<p><b><u>1</u></b></p> 	<p>MC-2100 Remote USB-RS485 Programming Cable</p> <p>Powered by two (2) 9V batteries</p>
<p><b><u>2</u></b></p> 	<p>Windows computer a USB port with an admin account for installing software</p> <p>Cavotec SafeLoad Software</p> <p>Cavotec Setup File</p>
<p><b><u>3</u></b></p> 	<p>NexStar 4 Tether Cable</p>
<p><b><u>4</u></b></p> 	<p>Cavotec Programming Flash Drive</p> <p><b><u>OR</u></b></p> <p>Contact Auto Crane Engineering if you need these files</p>

## Install USB Cable Driver

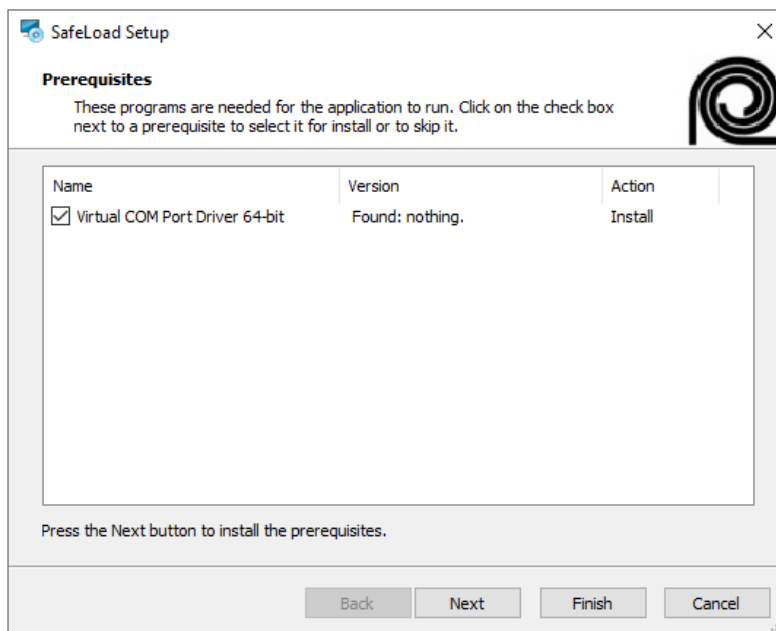
Included in the program package (4) is the FTDI Chip driver install file (.exe) for the USB-RS485 driver. The file is located in the ..\Cavotec Program Package\02\_Drivers folder of the USB thumb drive. Alternately, download the latest Windows Driver Installer (VCP & D2XX) driver from <https://ftdichip.com/drivers/>

- Run the CDM21228\_Setup.exe using an admin account

## Install SafeLoad

Included in the program package (4) is the install file (.exe) for SafeLoad.

- Run the SafeLoad-Setup-2.3.exe using an admin account
- SafeLoad setup will install initial drivers before installing the SafeLoad application.
  - These drivers need to be installed before continuing



- Upon completion, a new SafeLoad Setup window will pop up.



## Programming Mode

The Programming mode requires the use of the MC-2100 Programming Cable (**1**) and a windows PC (**2**) loaded with Cavotec SafeLoad. Before attempting to program the remote, ensure the PC has SafeLoad and the USB cable drivers installed properly.

## Enter “Programming” Mode

### Set-Up:

- Plug the MC-2100 Programming Cable (**1**) into the computer and MC-2100
- Double click the supplied program file (**4**)
- SafeLoad will open and start scanning for a valid target
- Read sequence process before starting. Sequence must happen within set timing.

### Sequence Process:

- Push and hold **HORN** button while switching the Remote ON
- Release **HORN** button when the logo appears
- When STATUS LED flashes twice, acknowledge this by two quick pushes on the **HORN**
- Repeat the acknowledge step above 4 more times (5 times total) to enter Programming mode

Tip: Count each **HORN** press. The tenth horn press is end of the sequence.

- Programming mode:
  - Remote will restart when download has finished.
  - After programming is complete, Cable Pair to the base is required.

## Remote and Base Station Pairing

The Pairing mode requires the use of the NexStar 4 tether cable for communication. Before entering the Pairing mode, connect the tether cable to the Remote and the NexStar crane. The tether connection on the crane is in the crane compartment on the bottom side of the crane.

### Setup

- Ensure the Crane (**2**) is powered up by observing the LED light on the bottom of the boom
- Plug the Tether Cable (**3**) into the Crane (**2**) and Remote (**1**)
- Read following steps before starting. The sequence must happen within set timing.

### Enter the Pairing Mode

- Push and hold **HORN** button on the Remote while switching the Remote power switch ON by lifting out and up
- Release **HORN** button when the Auto Crane logo appears

### Initiate the Pairing

- When the Status LED flashes twice, acknowledge by two quick presses on the **HORN** button
- Repeat the acknowledge step above two more times (three acknowledges total) to initiate the Pairing

Tip: Count each **HORN** press in pairs (e.g. one, two... three, four... five, six). The sixth horn press is end of the sequence.

### Pairing

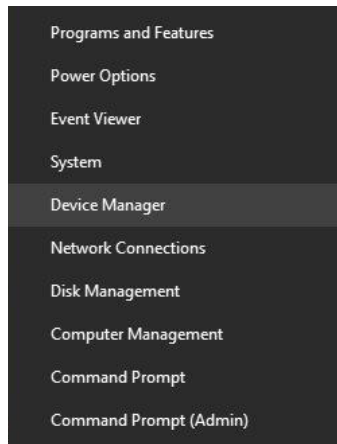
- The Remote will pair with the Base Station automatically
- Successful pairing will be indicated on the display and the status LED will blink
- The Remote automatically restarts and enters normal operation



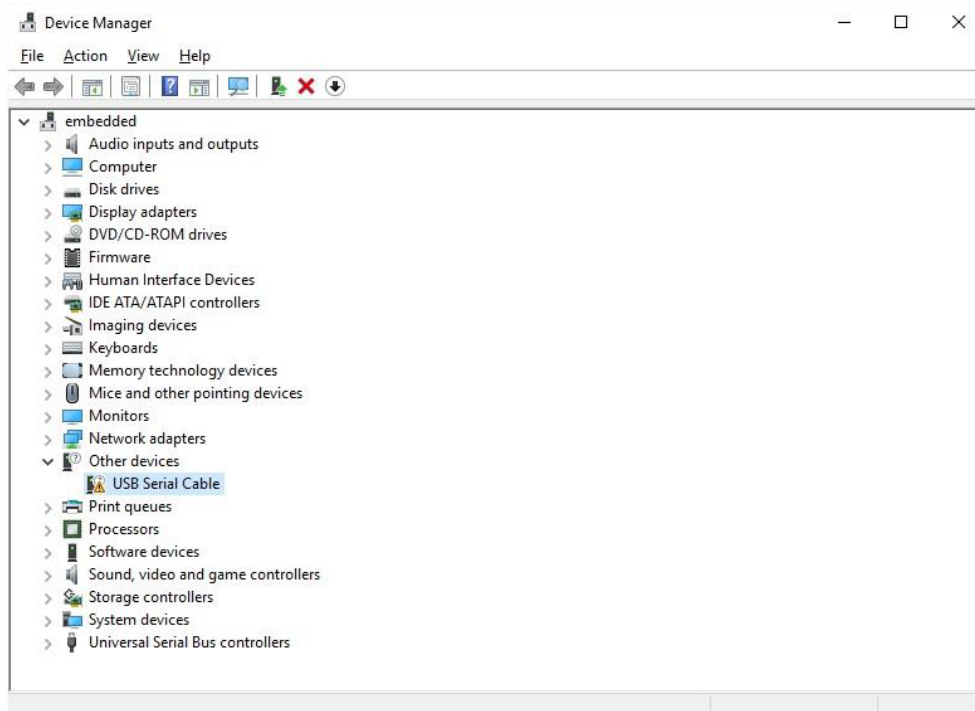
## Troubleshooting

### SafeLoad Will Not Program the Remote

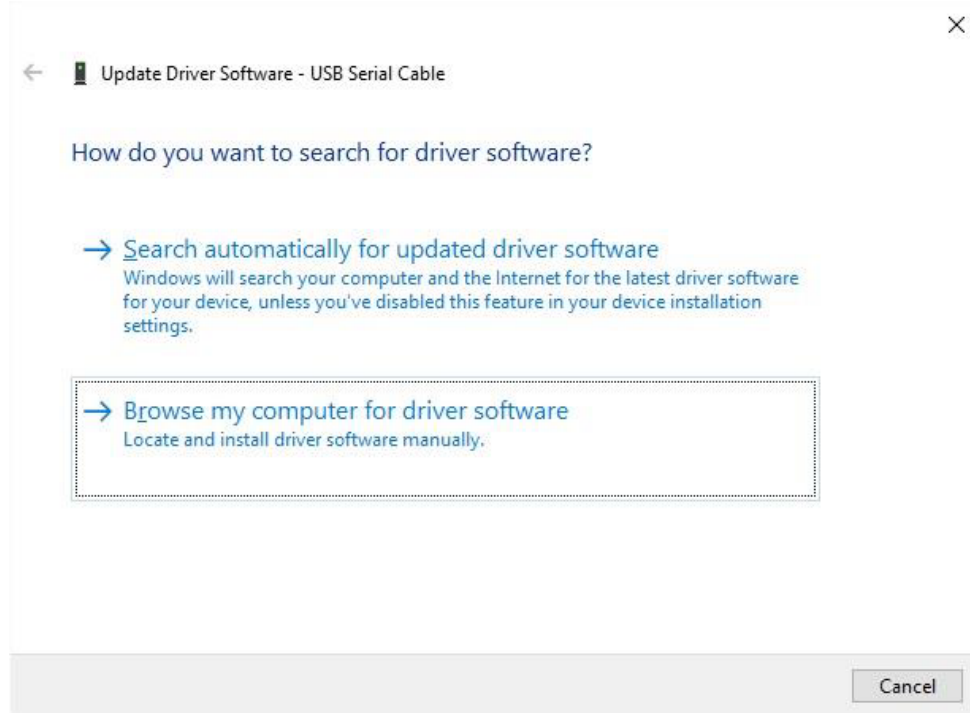
- 1) Disconnect the USB cable and restart computer and try again.
- 2) Reinstall the USB driver using an admin account.
- 3) Plug the Programming Cable (**1**) into the computer.
- 4) Locate the device manager in Windows 10 by right clicking on the Microsoft logo at the corner of the screen and select Device Manager



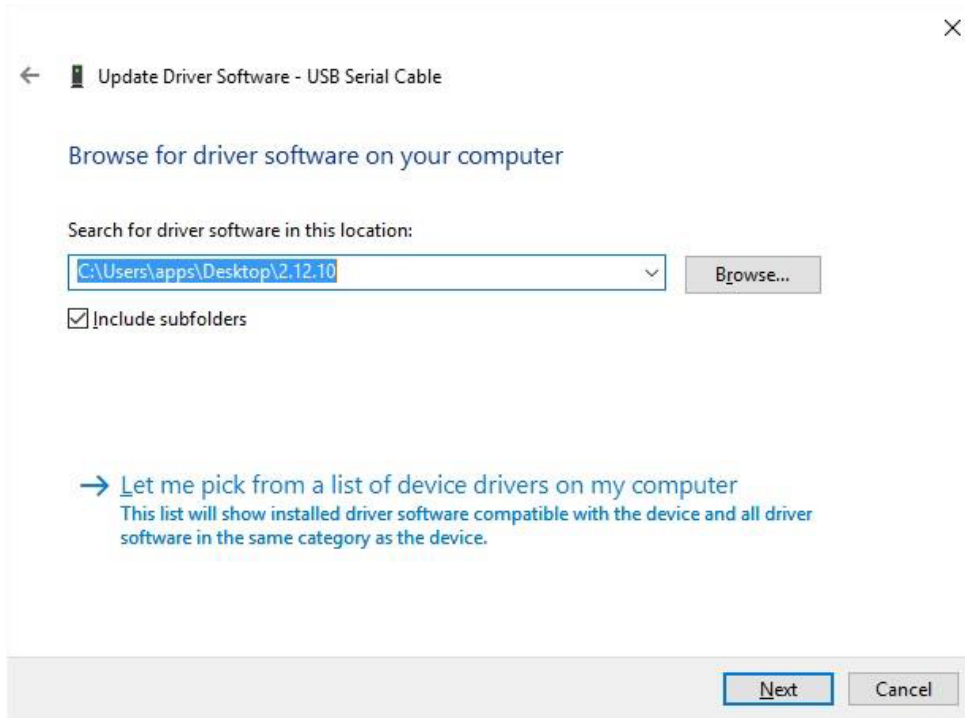
- 5) In the Device Manager window there may be a device under Other Devices with a yellow warning symbol to indicate a problem (i.e. no driver installed) as shown. The text next to this device will depend on the device attached. In this example the device was a USB Serial Cable.



- 6) The warning symbol confirms a driver error. Extract the required driver files off the manufacturers website (<https://ftdichip.com/drivers/vcp-drivers/>), supplied USB drive, or the Cavotec link provided in this document.
- 7) Right click on the device (i.e. USB Serial Cable) to bring up the menu. From the displayed menu select "Update Driver Software..." This then displays the option for an automatic search or a manual search. Select the Manual Search option to browse to the driver location.

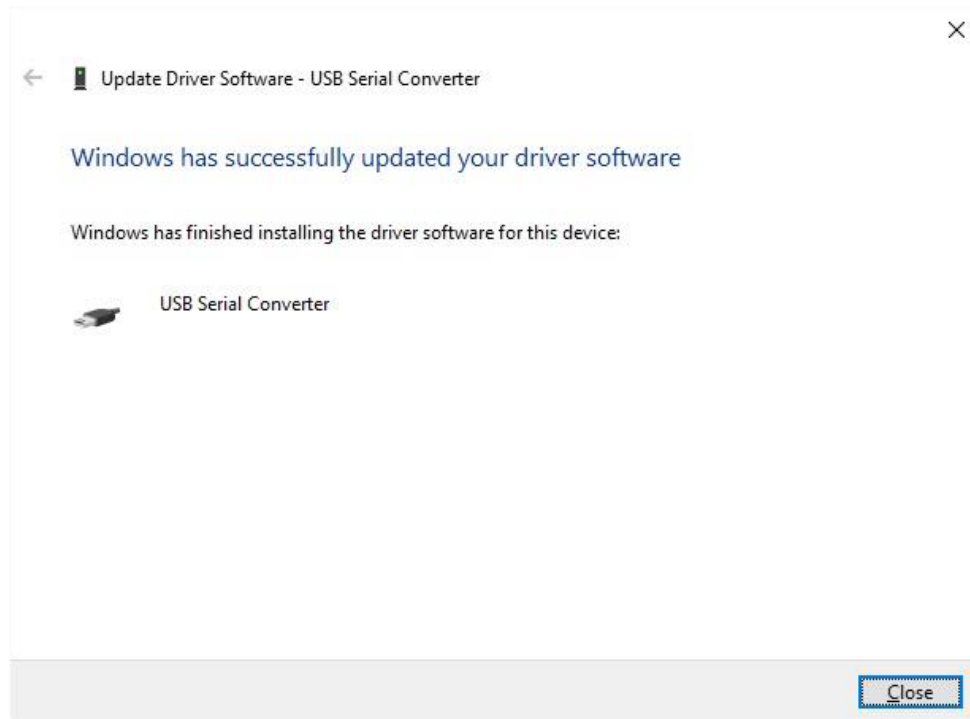


- 8) In the Location box, enter the path where the drivers have been saved to or Browse to the path. The location should be the top level folder of the extracted files and contain two \*.INF files. The drivers can be saved anywhere on the PC. Click “Next” to start the installation.



- 9) When the installation has finished a completion screen is displayed as shown





10) Press Close and go back to the Device Manager window.

11) **Repeat steps 6-8**

\*The Device Manager will show a device under Other Devices but in addition to this there is a new entry under Universal Serial Bus Controllers as the USB Serial Converter. This indicates the bus layer of the driver is installed. The second update is installing the Virtual Com Port layer of the driver.

## SafeLoad Stopped Working

SafeLoad previously worked, but then stopped working.

- 1) Measure and if necessary replace the 9V batteries
- 2) Disconnect the USB cable and reconnect