



# Nomad Lock-Up Kit Installation Instructions

**Suitable for:**



## **GEN2 Lock-Up Kit UPGRADE: Toyota LandCruiser 200 Series with 6 Speed Auto**

WITH THE FOLLOWING ENGINES:

1VD-FTV 4.5L Twin Turbo Diesel (2007 to 2021)

2UZ-FE 4.7L V8 Petrol (2007 to 2011)

1UR-FE 4.6L V8 Petrol (2011 to 2021)

Please read through all of the instructions carefully before proceeding. If any of the information does not appear correct or the diagrams don't match your vehicle, please contact Wholesale Automatic Transmissions or your place of purchase.

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# 1. Parts List

Nomad Lock-Up  
Module



Nomad Lock-Up  
GEN2 Upgrade Harness



LC200 OEM Style  
Momentary Switch



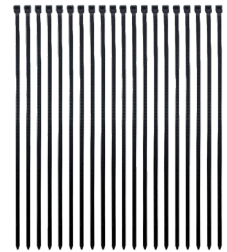
Module Bypass  
Connector



2 x Long Metal Self  
Tapping Screws



5 x Cable Ties



Getting Started Guide

The title of the Getting Started Guide, featuring the Wholesale Automatic Transmissions logo and the text "Getting Started Guide".

Every year, thousands of unwanted printed pages slip with products that just end up in landfill. All of those documents took energy and resources to print - and helped to pollute the earth. This is why Wholesale Automatic Transmissions are moving to electronic documentation for all our products.

Find your Product and use your smart device's camera to scan the QR code on that page



## Estimated Install Time: 1 Hour

## 2. Information to note prior to starting

### 2.1. Electrical Safety

- 2.1.1 Disconnect all vehicle power sources including batteries, chargers and solar systems before starting the installation process.
- 2.1.2 The Load Resistor **MUST** be mounted to a metal surface clear of carpet, plastic or any material that could melt. This resistor can reach temperatures over 50°C when in operation. In the upgrade kit, this resistor should already be mounted in place however we recommend checking that it is mounted correctly for reliable operation.



- 2.1.3 You can mount the Module anywhere inside or outside of the vehicle. The Module is IP68 rated, so it can be mounted in the engine bay, however it must be away from heat sources such as turbos, exhausts and the engine block. Also take into consideration, the further away from the driver, the lower the Bluetooth signal strength will be. We recommend mounting the module inside that cabin.



- 2.1.4 The installation of this kit requires the fitter to have good knowledge of 12 volt wiring, an understanding of wiring schematics and good experience with soldering wires together. If you don't feel comfortable doing any of these tasks, then please contact one of our local Authorised Fitting Agents or your local Auto Electrician to have the unit installed professionally.

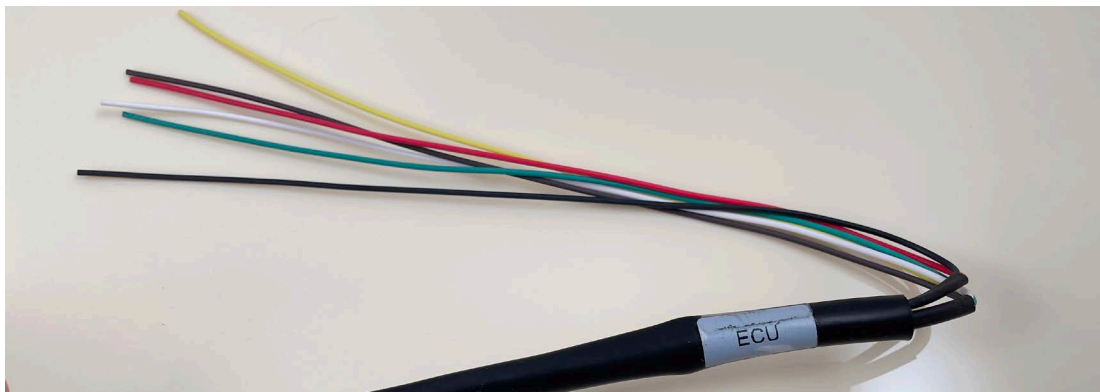
## 2.2. Identifying the Nomad Lock-Up Kit Parts

There are four (4) legs on the Nomad Lock-Up Harness (TCLU-UPG-LC200) that you need to be aware of. These legs define the purpose of the wires contained within.



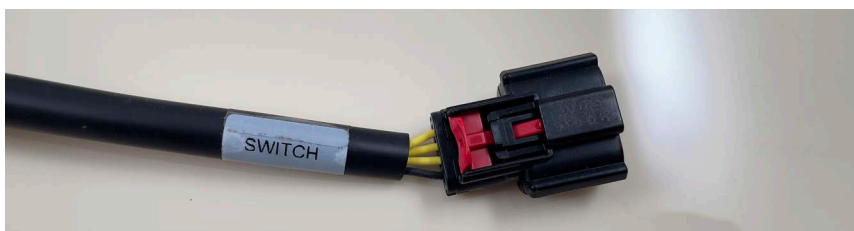
### 2.2.1 GEN2 Receptacle

This is connector plugs directly into the GEN2 Harness connector. Allowing us to pick up all the existing wiring and connections for use with the Nomad Lock-Up Module without having to re-wire the system.



### 2.2.2 CANBUS Leg

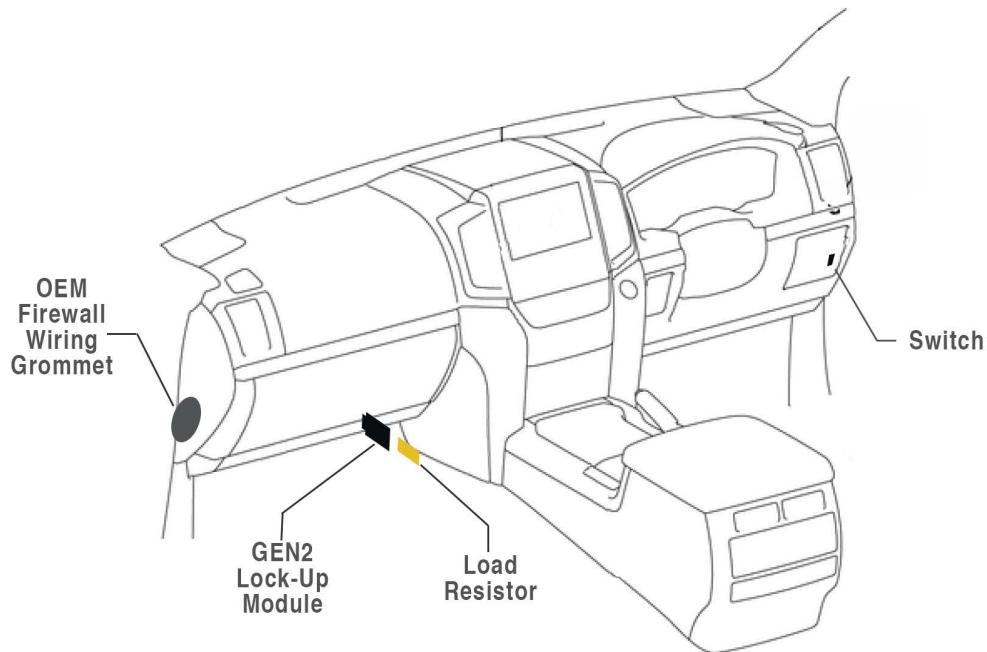
This leg runs to where ever you plan to install the manual lock-up switch. This may use either a OEM style push switch or a Carling style rocker switch, depending on your vehicles dash configuration.



## 3. Installing the Nomad Lock-Up Kit Upgrade

### 3.1. Locate and replace the GEN2 Lock-Up Module

- 3.1.1 **\*\*Disconnect all vehicle power sources including batteries, chargers and solar systems before starting the installation process.\*\***
- 3.1.2 While there is no set location for the GEN2 Lock-Up Module to be mounted, we generally recommend in the location identified below. You will need to pull back the carpet to reveal the module. To do this, start with the next step.

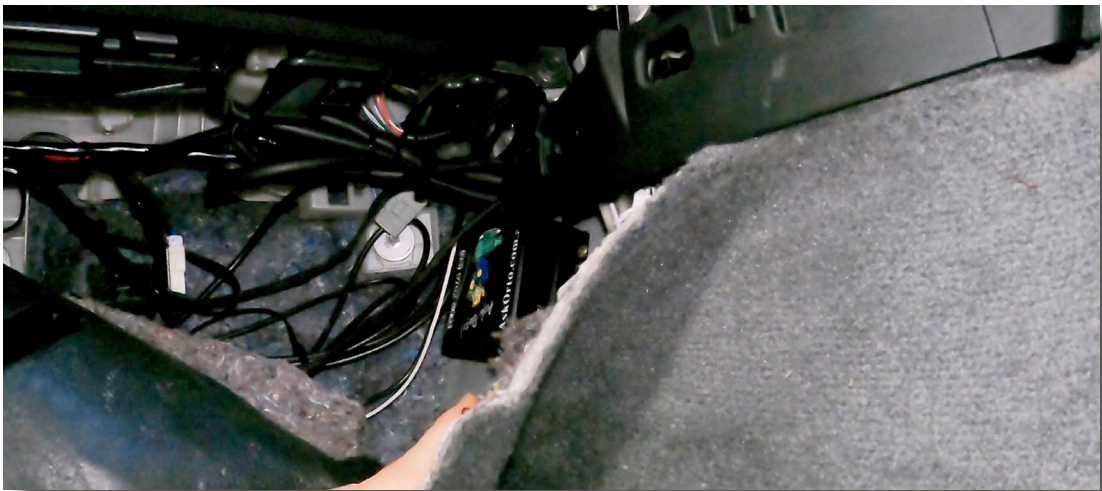


- 3.1.3 Remove the passenger side soft dash cover and passenger lower footwell cover.





- 3.1.4 Pull back on the carpet to expose the side of the transmission tunnel and the GEN2 Lock-Up Module.



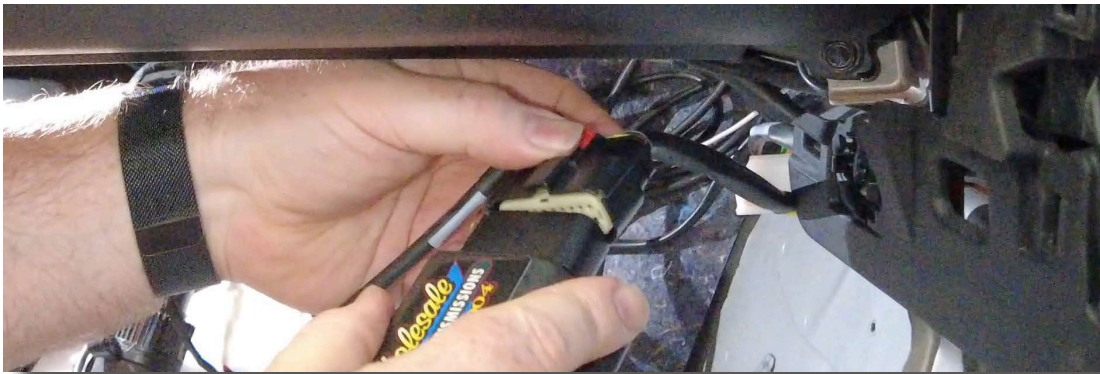
- 3.1.5 If the GEN2 Module has been screwed to the transmission tunnel, use a screwdriver or drill to remove the GEN2 Module and disconnect from loom.



- 3.1.6 Connect the TCLU-UPG-LC200 harness into the GEN2 Lock-Up harness. White connector to white connector.



- 3.1.7 Connect the Nomad Lock-Up Module to the black connector on the TCLU-UPG-LC200 harness. Lock the red CPA into place.



- 3.1.8 Prior to mounting the Nomad Lock-Up Module, we find it easier to feed the CANBUS and Switch wiring across the transmission tunnel from the passenger to the drivers side.
- 3.1.9 Before you can feed the wires across the tunnel, you will need to remove the dash panels on the drivers side, so you can gain access to the wires. We will also remove the other panels for accessing the switch and CANBUS locations.
- 3.1.10 On the drivers side footwell, remove the lower footwell cover by removing the two (2) philips head screws and releasing the three (3) retaining clips.

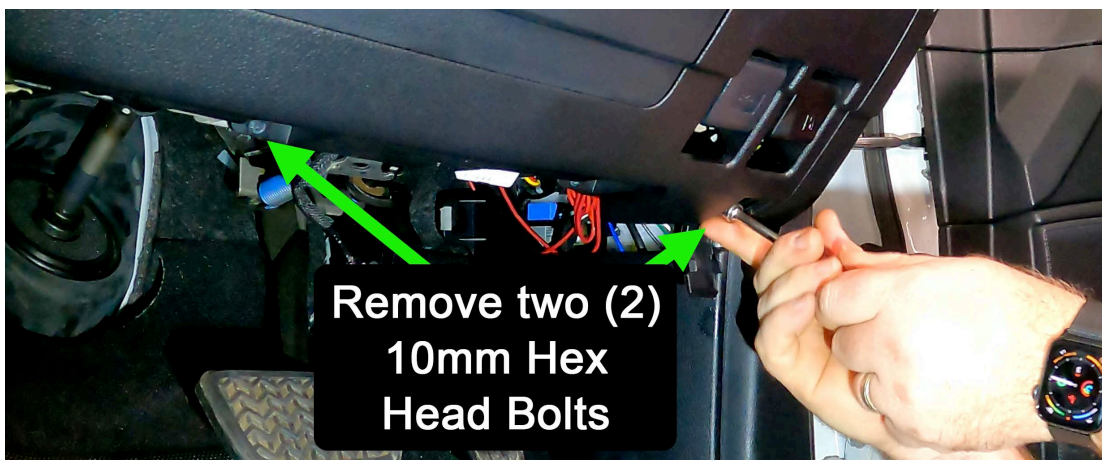




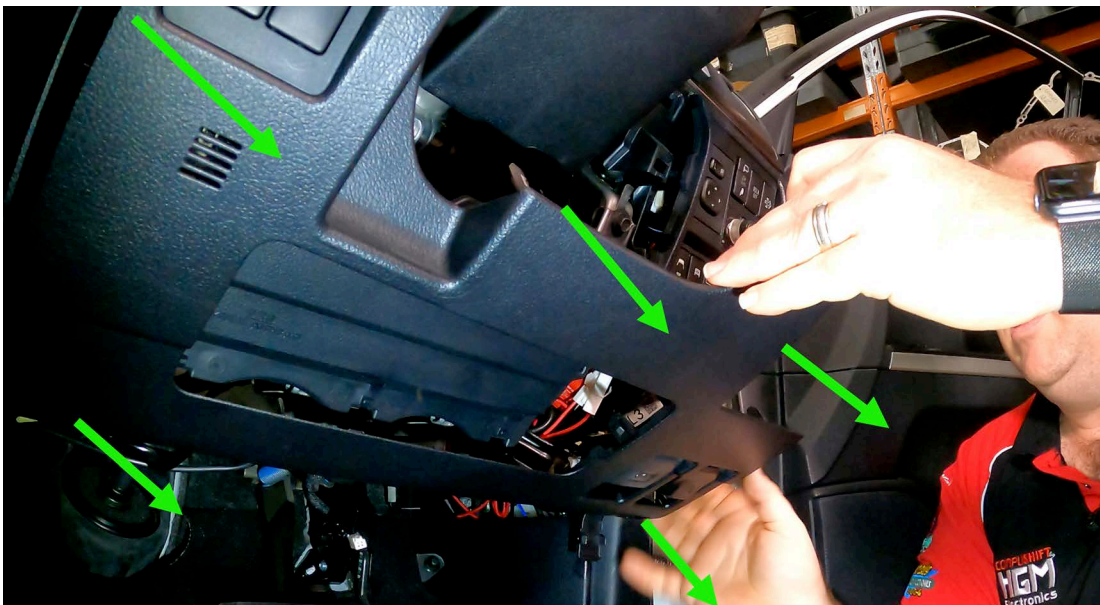
3.1.11 Also remove the wiring connector for the footwell LED and set cover aside.



3.1.12 Remove the two (2) 10mm hex bolts from the lower dash panel section.



3.1.13 Gently pull rearward on the bottom of the lower dash panel section to unclip the panel. Slowly work your way around the panel until all of the clips have released. Be careful not to pull the panel away without disconnecting the wiring and unclipping the fuel cap and hood release handles.



- 3.1.14 Starting at the bottom of the right hand side switch panel, gently pull rearward on the panel to release all of the clips. Careful not to pull too far as there are many connections on the back of the switch panel.



- 3.1.15 Now returning to passenger side, use a coat hanger or push wire, tape the CANBUS terminal ends to the coat hanger. Approx 50cm from the switch connector, loop the leg and tape to the coat hanger also.

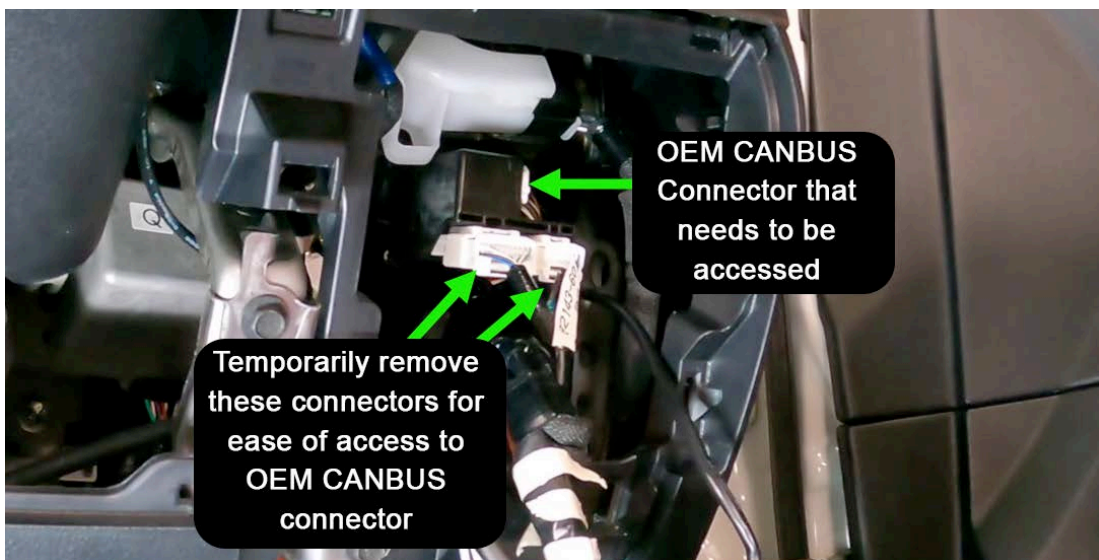


- 3.1.16 Push the coat hanger across the top of the transmission tunnel from the passenger side and retrieve from the drivers side. Pull through a sufficient amount so as to reach the switch panel on the right hand side of the steering wheel.
- 3.1.17 Remove the tape from push wire and remove push wire.
- 3.1.18 Route the loom under the dash area in a way that you can cable tie up when finished so that it won't interfere with any moving parts or prevent the cover from being replaced.

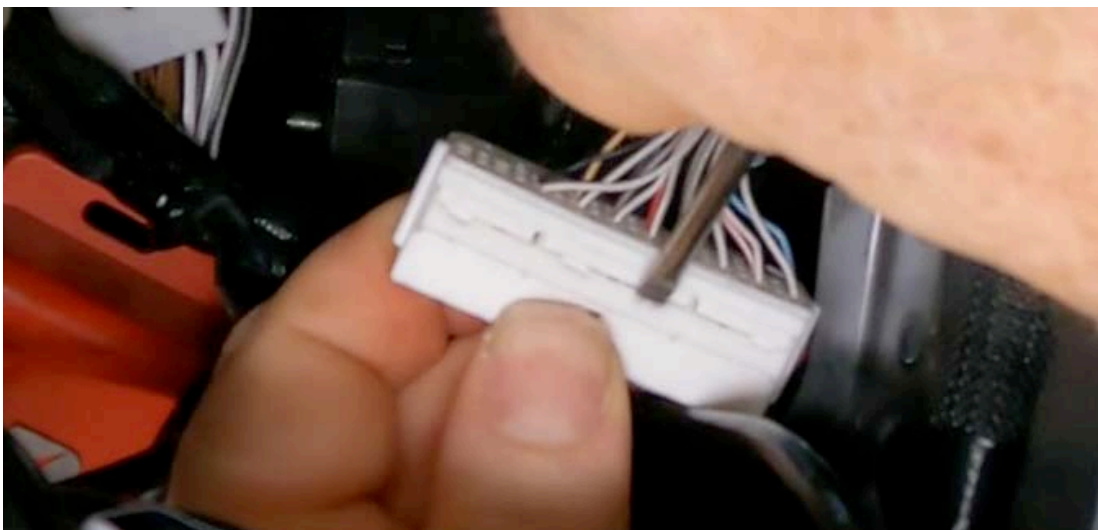
## 3.2. Installing the CANBUS wires for Diesel DPF model vehicles

- 3.2.1 If you have a non-DPF model vehicle, skip to the section **Installing the CANBUS wires for Non-DPF model vehicles**
- 3.2.2 Locate the OEM CANBUS Connector at the top of the area behind the switch panel. You need to remove this connector to add wires to the vehicle. You can aid access to the area by removing the two smaller connectors below the CAN connector.

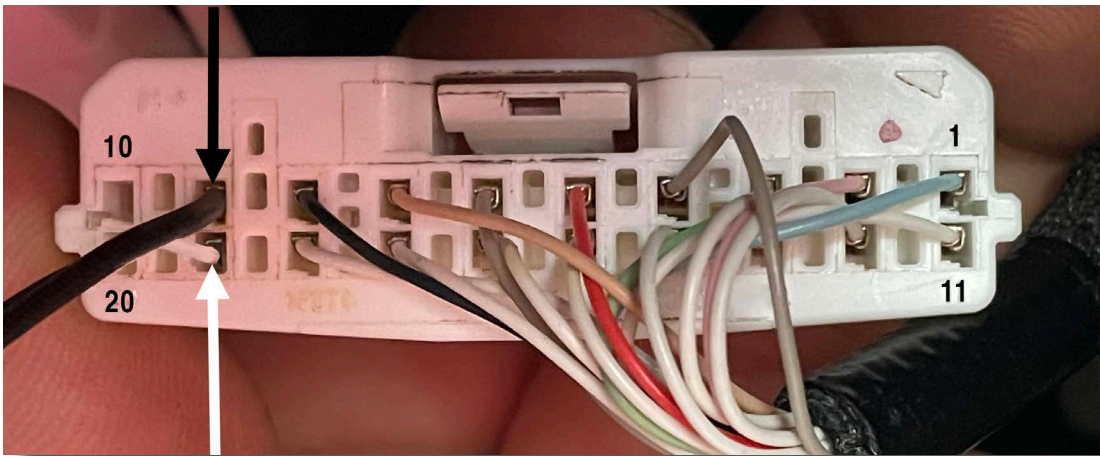
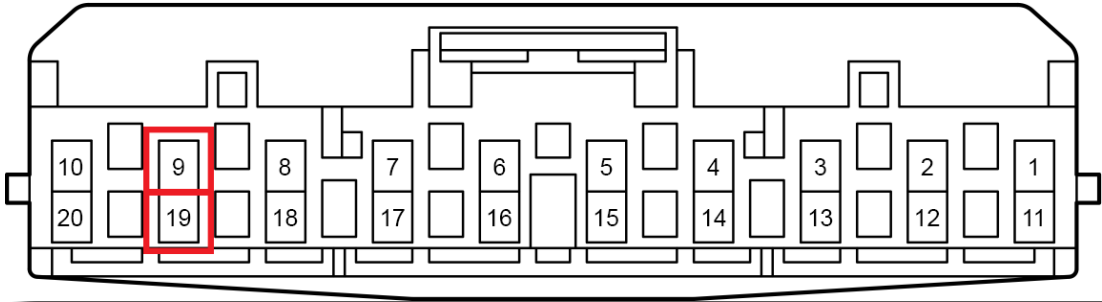
PLEASE ENSURE YOUR BATTERIES ARE DISCONNECTED BEFORE REMOVING THIS CONNECTOR



- 3.2.3 Turn the connector over to show the TPA (Terminal Position Assurance). Unlock the TPA to allow addition of new terminals to the connector, using a small flat blade screw driver. The TPA only needs to move approx 1mm.



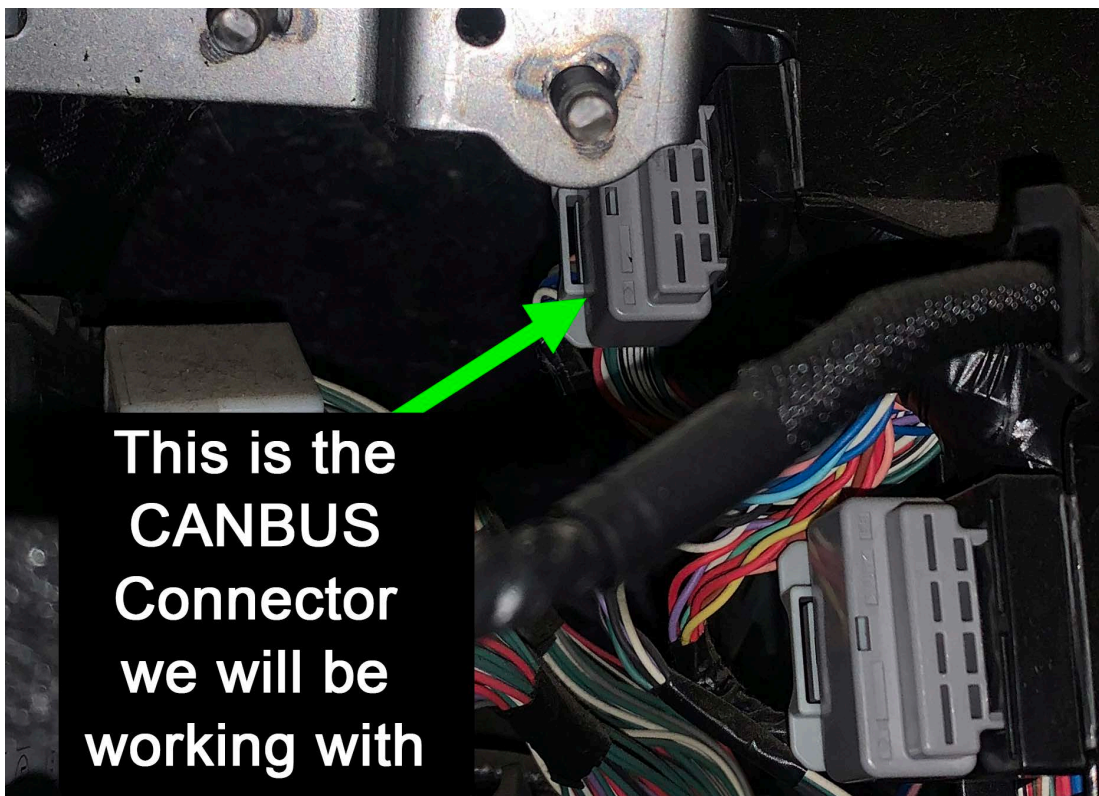
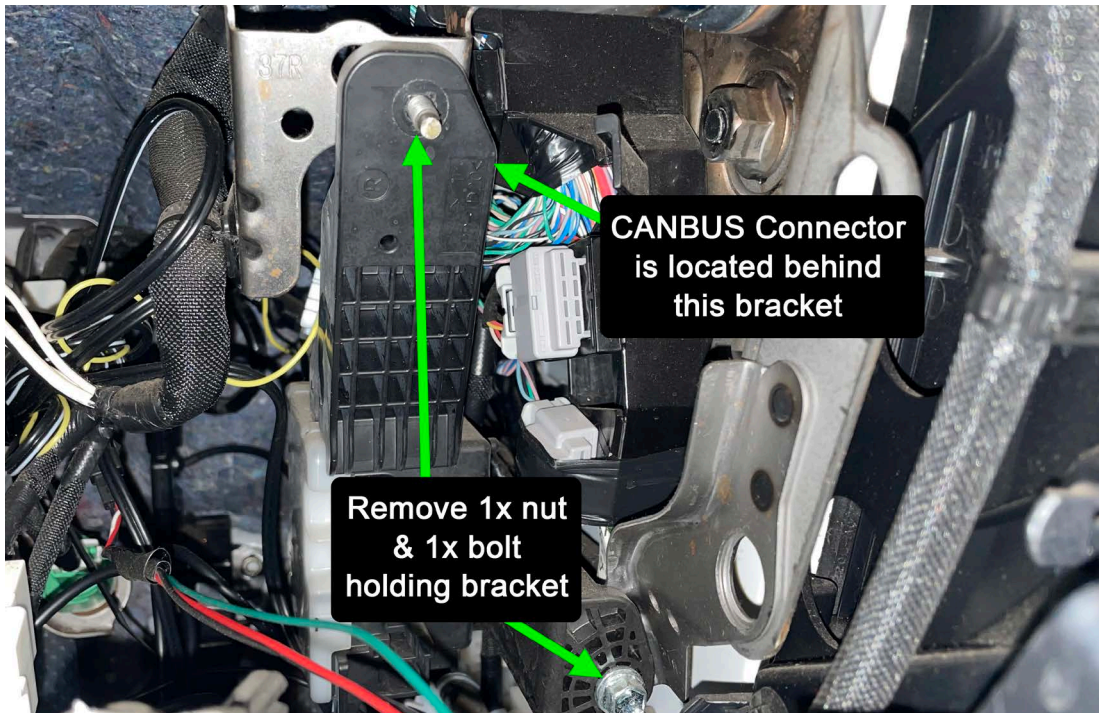
- 3.2.4 Insert the new terminals with the cutouts in the terminal facing the TPA side of the connector. Location of the correct wires in the correct pins is VITAL.  
Black Wire with terminal into Pin 9 (Top row - closest to locking clip)  
White Wire with terminal into Pin 19 (Bottom row - away from clip)  
Push both wires it until you feel a click.



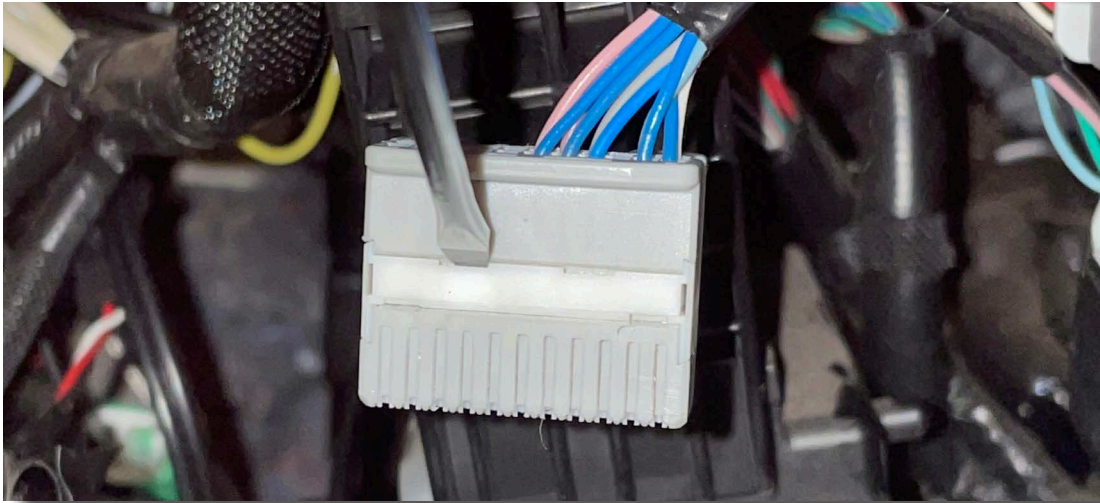
- 3.2.5 Push the TPA back into the connector so it is flush with the connector, locking the terminals in place.
- 3.2.6 Re-install the CAN Connector into its socket in the vehicle.
- 3.2.7 Re-install the two small connectors below the CAN connector that were removed previously for access.

### 3.3. Installing the CANBUS wires for Non-DPF Diesel and all Petrol model vehicles

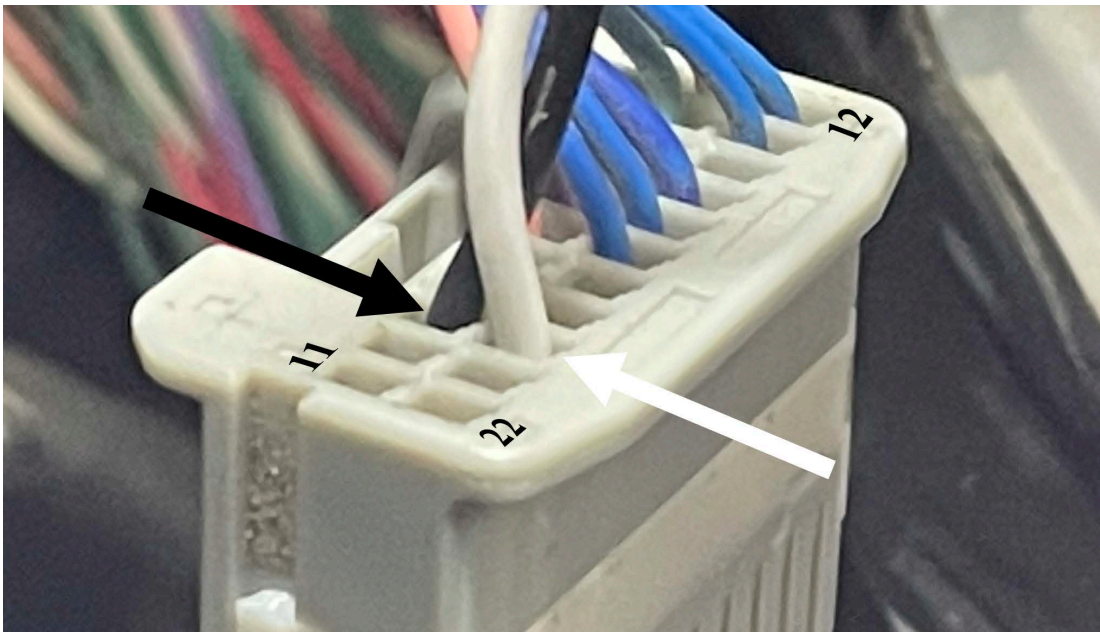
- 3.3.1 Unbolt the 1x 10mm nut and 1x 10mm bolt holding the black plastic bracket behind the switch panel to locate the OEM CANBUS Connector.



- 3.3.2 Remove CANBUS Connector from the socket and unlock the TPA (Terminal Position Assurance) using a small flat blade screw driver to allow addition of new terminals. The TPA only needs to move approx 1mm.



- 3.3.3 Locate two vertical blank locations in the connector and insert the black wire into the top row (closest) to the clip. Insert the white wire into the bottom row, directly below the black wire. Push until they have seated with a slight click.



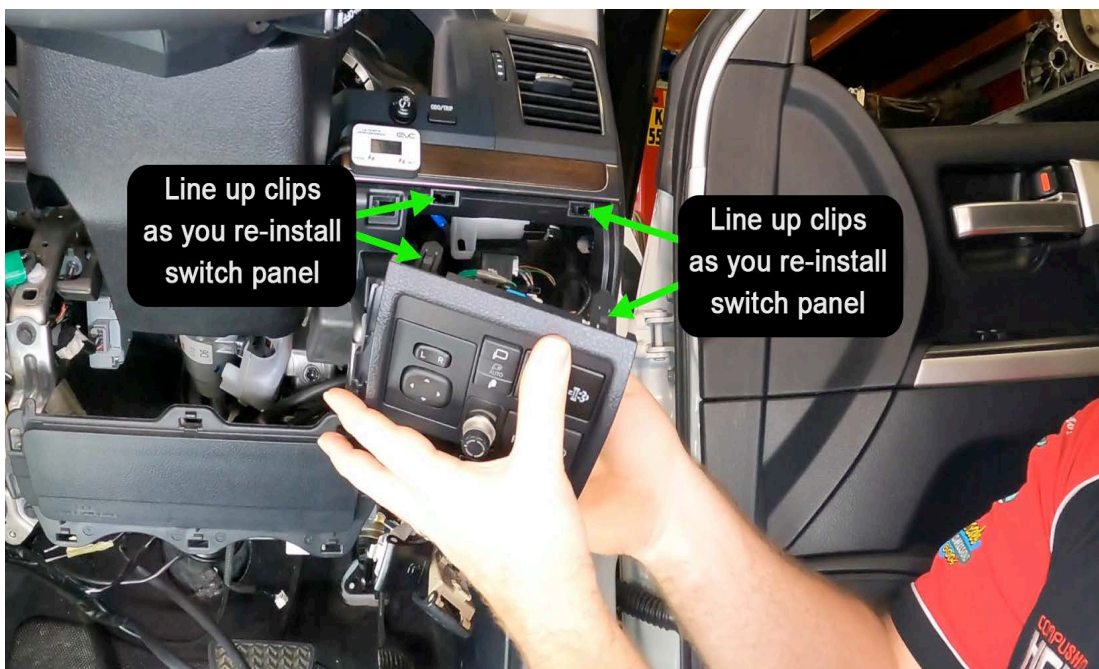
- 3.3.4 Push the TPA (terminal position assurance) clip closed so that it is flush with the connector. Then re-install the connector into the socket. Reinstall black bracket with 10mm nut & bolt removed earlier.
- 3.3.5 Cable tie the CANBUS loom under the dash to allow plenty of slack and keep away from any moving parts. Keep above the lower line of the dash as the lower foot well cover needs to go back into place.

### 3.4. Replacing the Switch and Mounting the Module

- 3.4.1 Locate the GEN2 Lock-Up switch, disconnect the green plug from the switch, and replace with the supplied Nomad Lock-Up Momentary Push switch.



- 3.4.2 Re-install switch panel by lining up the clips with the holes and pushing firmly until the switch panel is flush with the surrounding panels. Re-connect any switches that were disconnected during removal.



- 3.4.3 Re-install the lower dash panel section. Re-connect any switches or sensors that were disconnected during removal. Re-install all bolts and screws removed earlier.

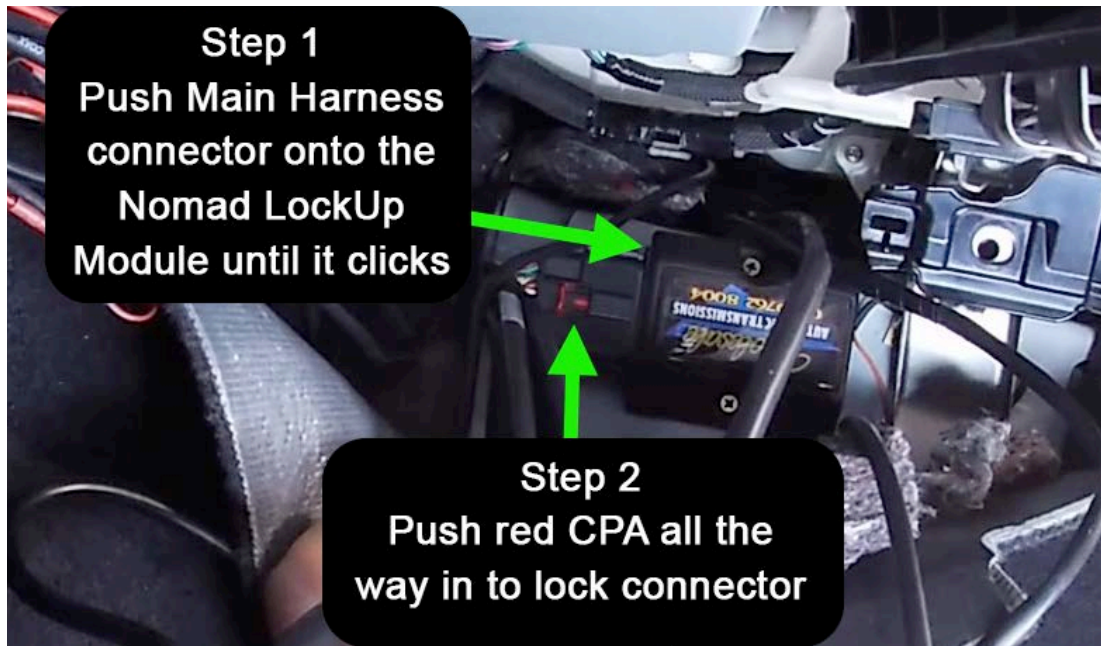


- 3.4.4 Re-connect the foot well LED wiring to the lower foot well cover, then re-install lower foot well cover making sure the three (3) clips are seated correctly. Secure with the two (2) Philips head screws removed earlier.
- 3.4.5 Check that the wiring on the drivers side is cable tied in place and won't fall down while driving.
- 3.4.6 Returning to the passenger side foot well, mount the module against the transmission tunnel using the two (2) long metal self tapping screws.





- 3.4.7 Lock the connector in place by pushing the red CPA (Connector Position Assurance) towards the module.



- 3.4.8 Using cable ties, secure the remaining wiring so that it stays hidden. There is some space above the transmission tunnel and also some space behind the carpet. You can also remove some of the carpet backing to make more space.

Please ensure that no wiring comes into contact with the Load Resistor.

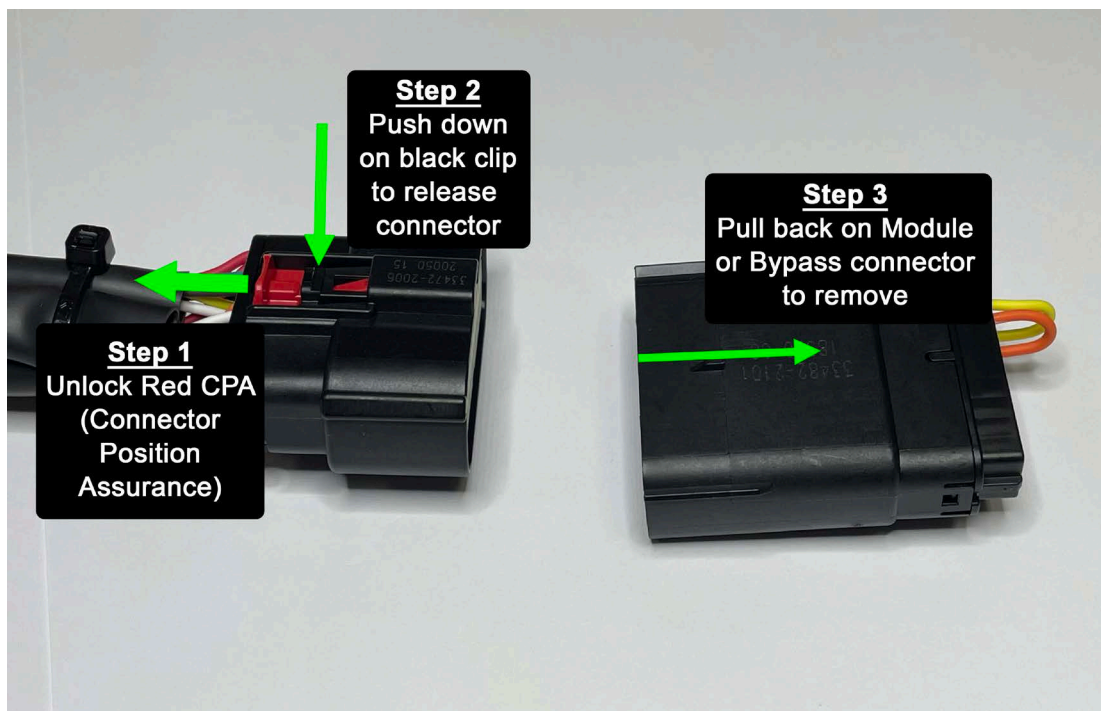
- 3.4.9 Push the carpet back into place and refit the passenger side soft dash panel.
- 3.4.10 Check that all wiring is secure and won't come into contact with Hot or Moving parts of the vehicle. Use cable ties to secure all looms.
- 3.4.11 Replace/Re-install any OEM or aftermarket items that were removed to aid access to the ECU wiring.
- 3.4.12 Reconnect the battery terminals
- 3.4.13 This completes the wiring installation.

### 3.5. Lock-Up Module Bypass

- 3.5.1 If at any stage, you need to remove the Nomad Lock-Up Module, we have supplied a bypass connector that will take the place of the module so that your vehicle will not fault code while driving.



- 3.5.2 To remove the Nomad Lock-Up Module or Bypass Connector, unlock the red CPA (Connector Position Assurance). Press down on the black clip to release. Then pull the two connectors apart.



## 4. Downloading the Nomad Lock-Up App

### 4.1. Installing Nomad Lock-Up App onto Apple Devices

This chapter will cover finding, downloading and confirming that the Nomad Lock-Up App is ready to communicate with your Nomad Lock-Up Module using an Apple® mobile device.

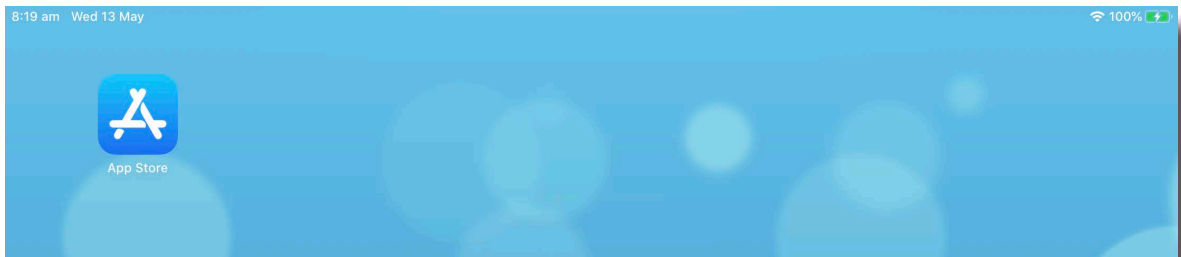
The Nomad Lock-Up App is a free to download app available from the Apple® App Store®. You may require an Apple ID in order to download applications from the Apple® App Store®.

Minimum system requirements for your Apple mobile device to run the COMPUSHIFT Setup App are:

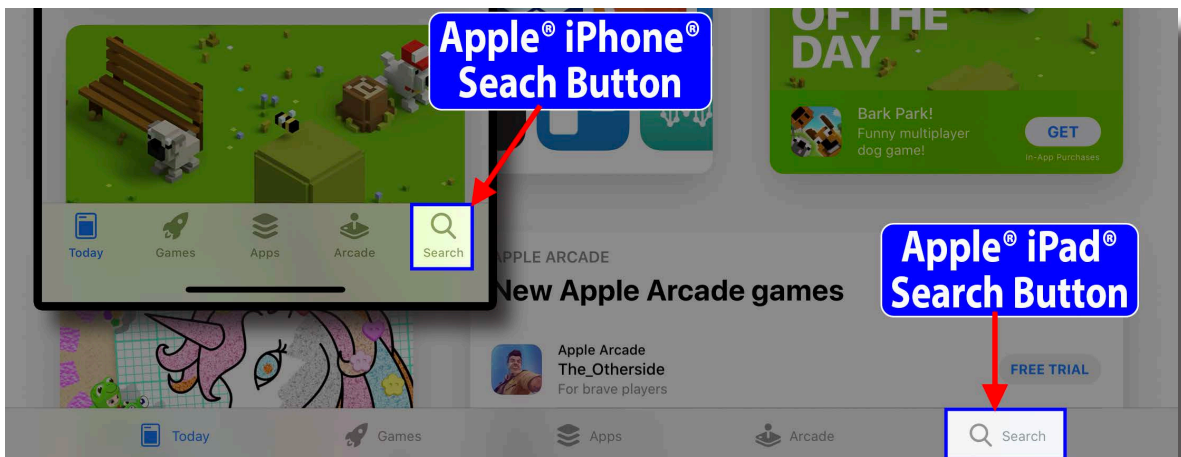
- Apple® iPhone® mobile digital device with iOS version 11 or later
- Apple® iPad® mobile digital device with iPadOS® version 11 or later
- Internet Access (only required for Firmware Update)

If your Apple mobile device operating system does not meet these requirements, you may not be able to download the app. Please follow the instructions provided by Apple® to update your devices operating system first then try downloading the Nomad Lock-Up app again.

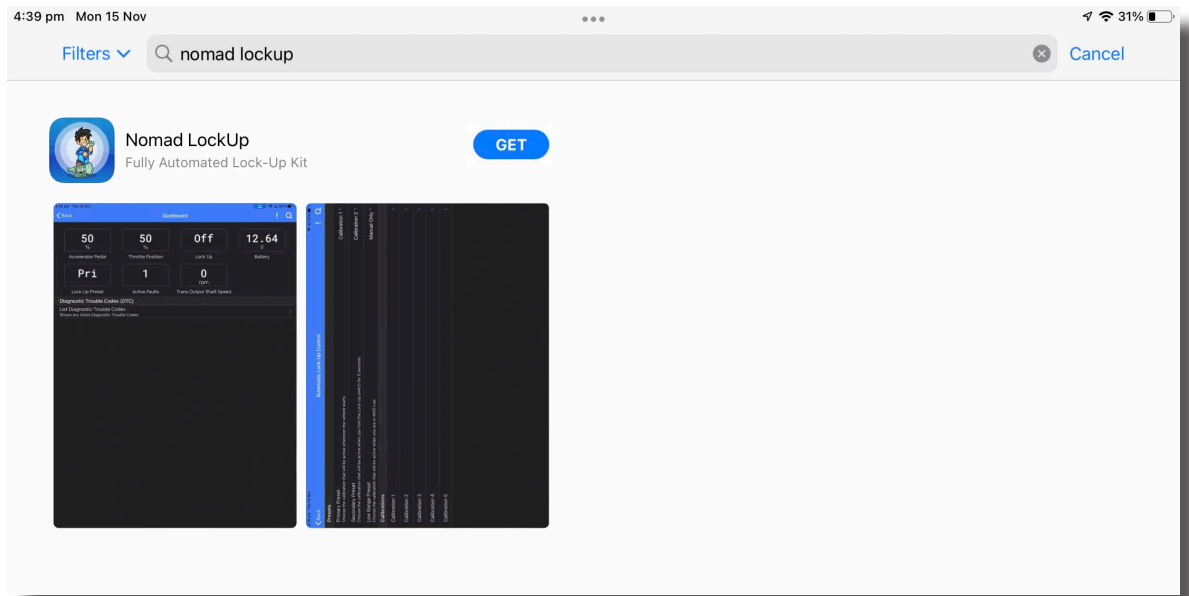
4.1.1 On your Apple device, open the **App Store®** application.



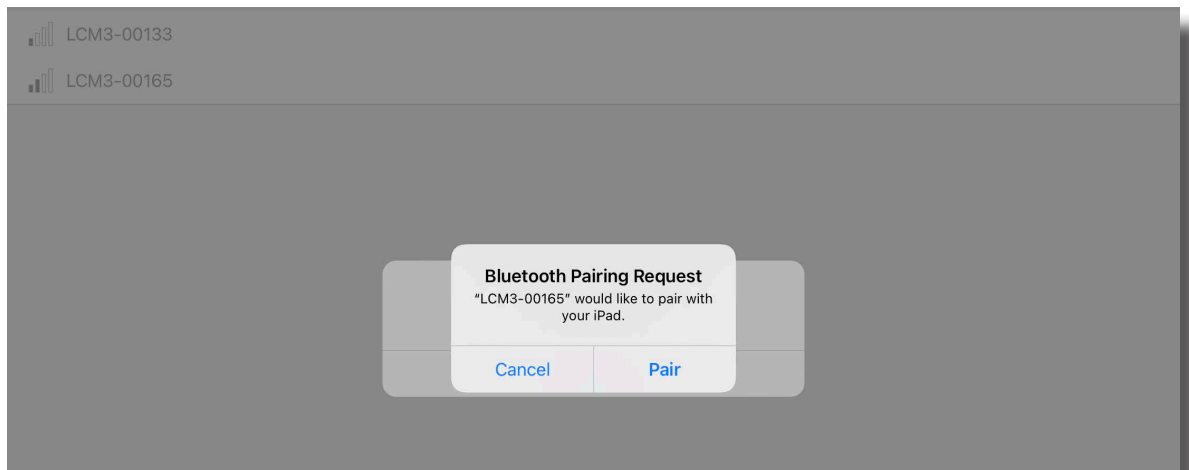
4.1.2 Tap on the **Search** button at the bottom of the App Store screen.



- 4.1.3 In the search field type “nomad lock” and press enter/search. Locate the app called **Nomad LockUp** in the results and tap on Get. You may be asked to enter your Apple ID® username and password details to download.



- 4.1.4 Once the App has finished downloading, tap on the icon to open. The first time you open the Nomad Lock-Up app, it will ask permission to use the device's Bluetooth® communication system to access the Nomad Lock-Up Module. Please select OK.

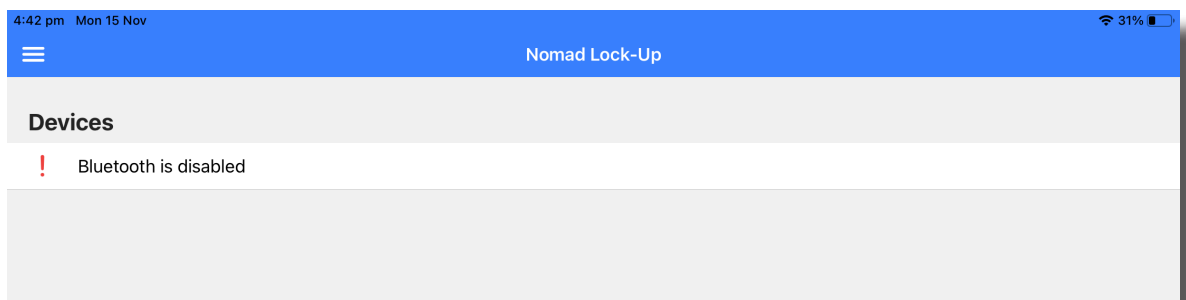


- 4.1.5 The App will now search for any Nomad Lock-Up Modules within range that are powered up. If you are not in range of your Nomad Lock-Up Module or it is not powered up, then the app will only show a spinning wheel indicating that there is no module in range.
- 4.1.6 If you have reached this step, then the app is installed and ready to connect to a Nomad Lock-Up Module.

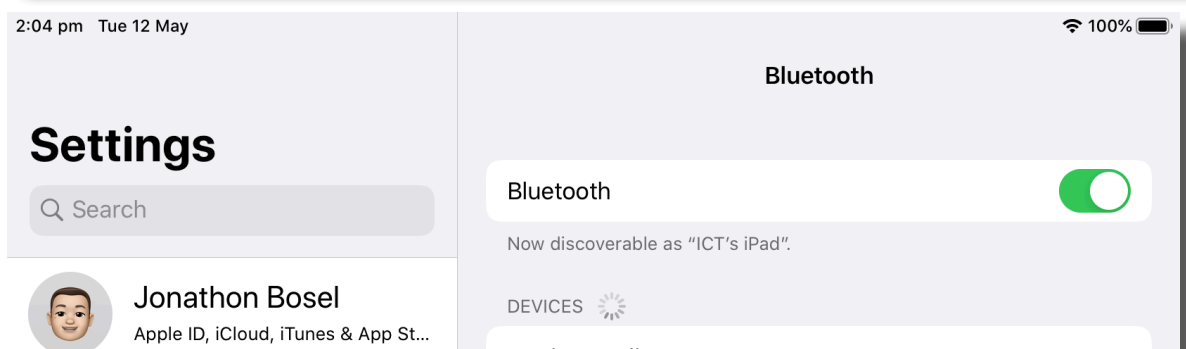
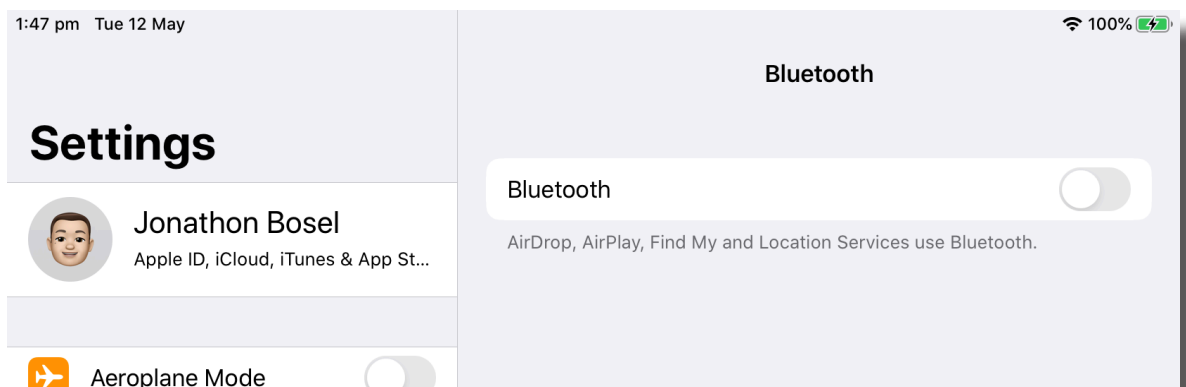
## 4.2. Troubleshooting Installation on Apple Devices

If you have not made it to the final steps for the installation process, the following chapter will cover some basic troubleshooting steps to get you sorted.

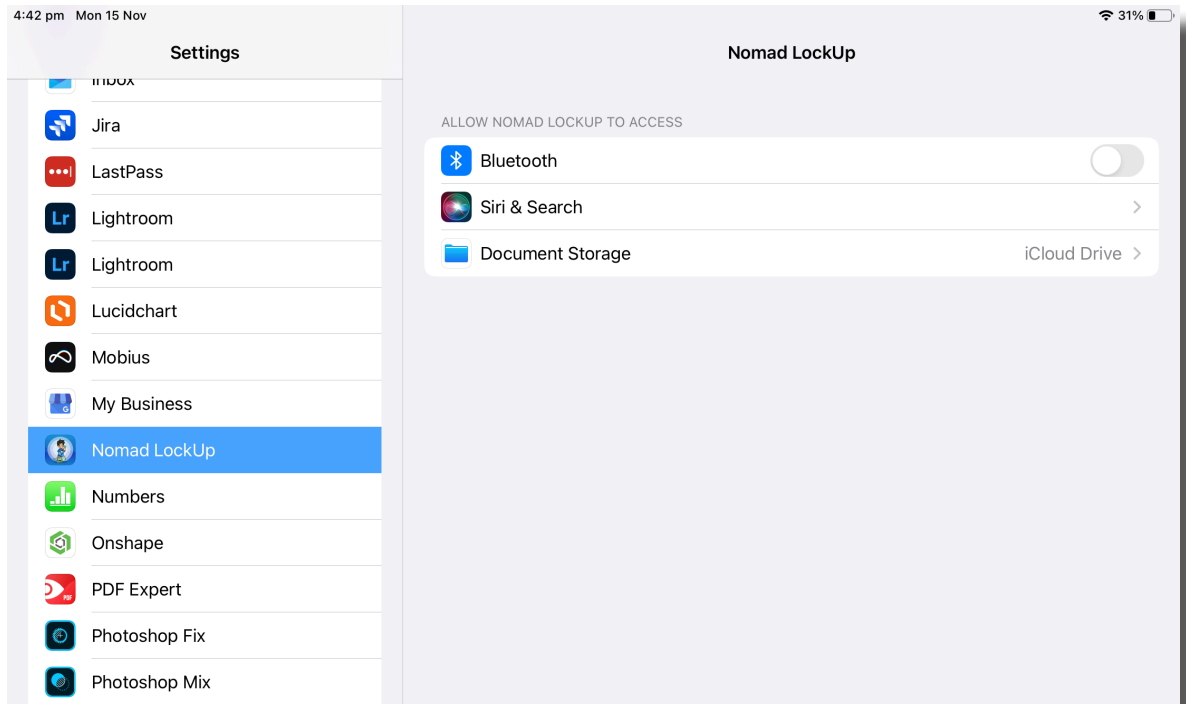
- 4.2.1 If the App says '**! Bluetooth is Disabled**' then it means that the Bluetooth communication in your smart device is not functioning correctly. Most commonly this is due to the Bluetooth being turned off completely or it could be that the Nomad Lock-Up App has not been authorised to use Bluetooth yet.
- 4.2.2 First, close the app down and then quit the app by swiping up from the bottom or double pressing the home button and then swipe up on the app. Re-open the App. If the '**! Bluetooth is Disabled**' message still remains continue to the next step.



- 4.2.3 Open the Settings App and select Bluetooth. If Bluetooth is switched off, please turn it on. Close the settings app and re-open the Nomad Lock-Up App. You should no longer see the '**! Bluetooth is Disabled**' message, instead it should be replaced with the spinning wheel.



- 4.2.4 If you are still seeing the '**! Bluetooth is Disabled**' message, open the Settings App and scroll down the menu to Nomad LockUp. Tap on Nomad LockUp and verify that the Bluetooth access is enabled for the App. If not, switch access on. Return to the Nomad Lock-Up App and check you are no longer seeing the '**! Bluetooth is Disabled**' message, instead you should be seeing the spinning wheel.



- 4.2.5 If none of these items have worked, please close the App. Tap and hold on the Nomad Lock-Up app icon and select Delete App. Then power your device off then on. Start from the beginning and download the app again.
- 4.2.6 If you are still unable to get rid of the '**! Bluetooth is Disabled**' message, please contact Wholesale Automatic Transmissions for further assistance.

## 4.3. Installing Nomad Lock-Up App onto Android Devices

This chapter will cover finding, downloading and confirming that the Nomad Lock-Up App is ready to communicate with your Nomad Lock-Up Module using an Android® mobile device.

The Nomad Lock-Up App is a free to download app available from the Google Play Store®. You may require a Google Account in order to download applications from the Google Play Store®.

Minimum system requirements for your Android® mobile device to run the Nomad Lock-Up App are:

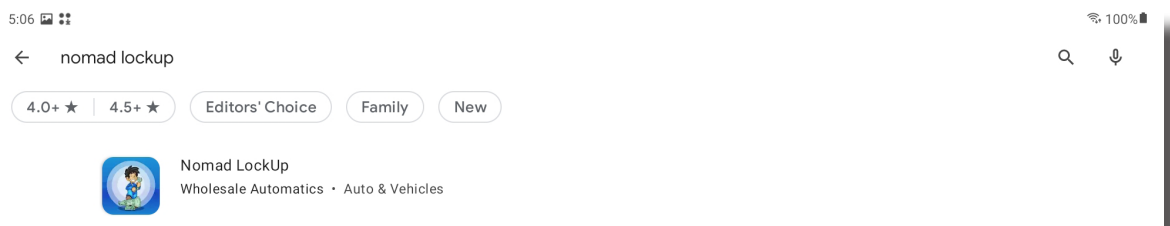
- Android™ operating system version 4.4 or later
- Internet Access (only required for Firmware Update)

If your Android mobile device operating system does not meet these requirements, you may not be able to download the app. Please follow the instructions provided by your device manufacturer to update your devices operating system first then try downloading the Nomad Lock-Up app again.

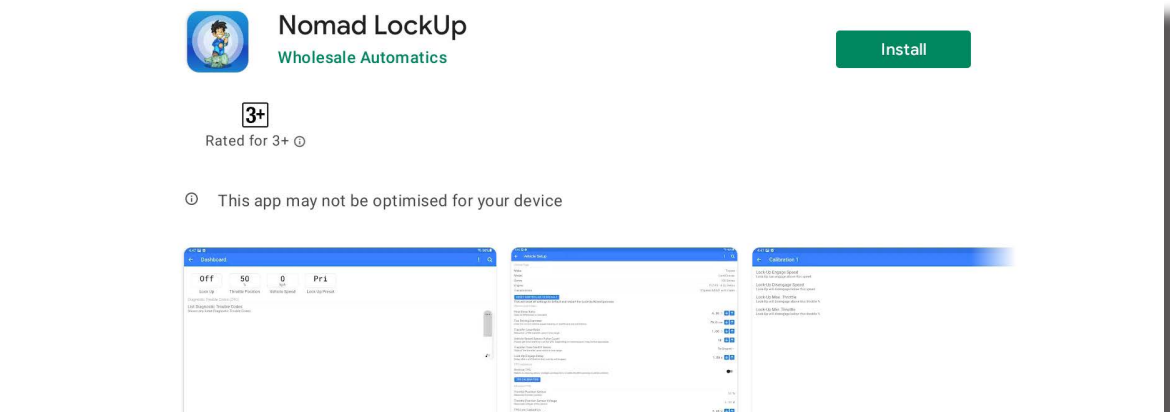
If the operating system on your Android mobile device is unable to be updated to a compatible version, you will need to locate an alternative smart device that does meet the requirements.

You will require Internet access on your Android mobile device to download the Nomad Lock-Up app.

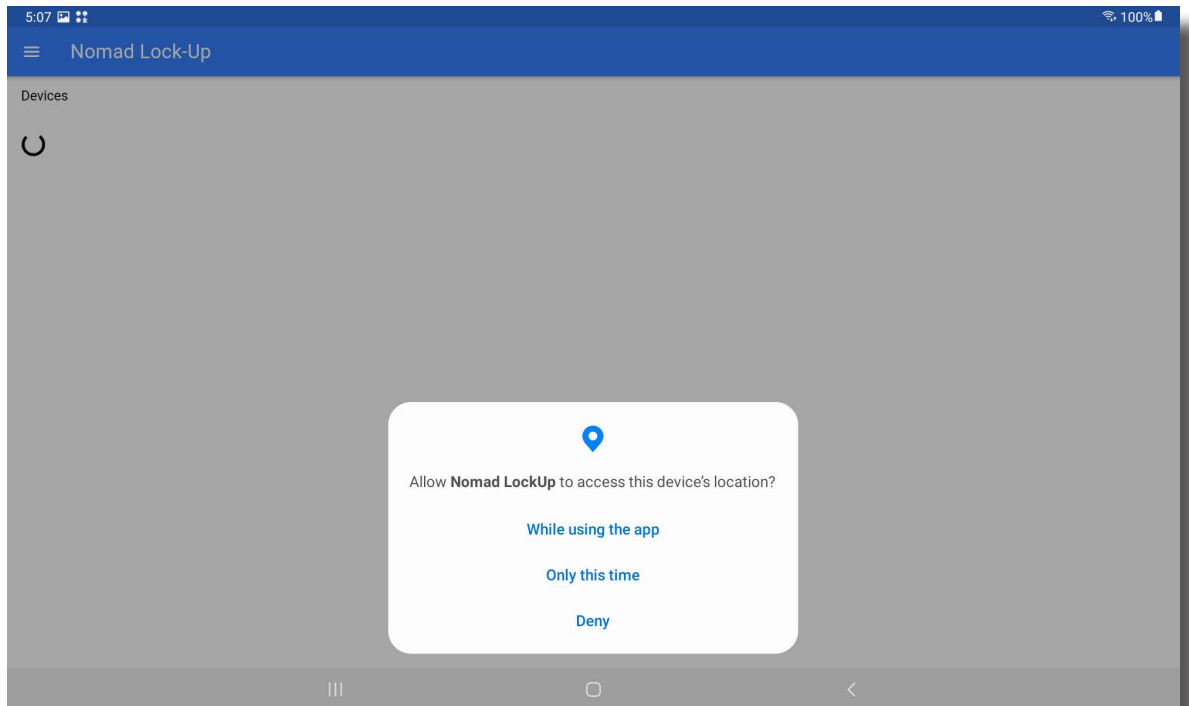
- 4.3.1 On your Android device, open the **Google Play Store®** application. Tap on the **Search** field at the top of the Google Play Store screen and type “nomad lockup”. Tap on the Nomad Lock-Up app to show the App page.



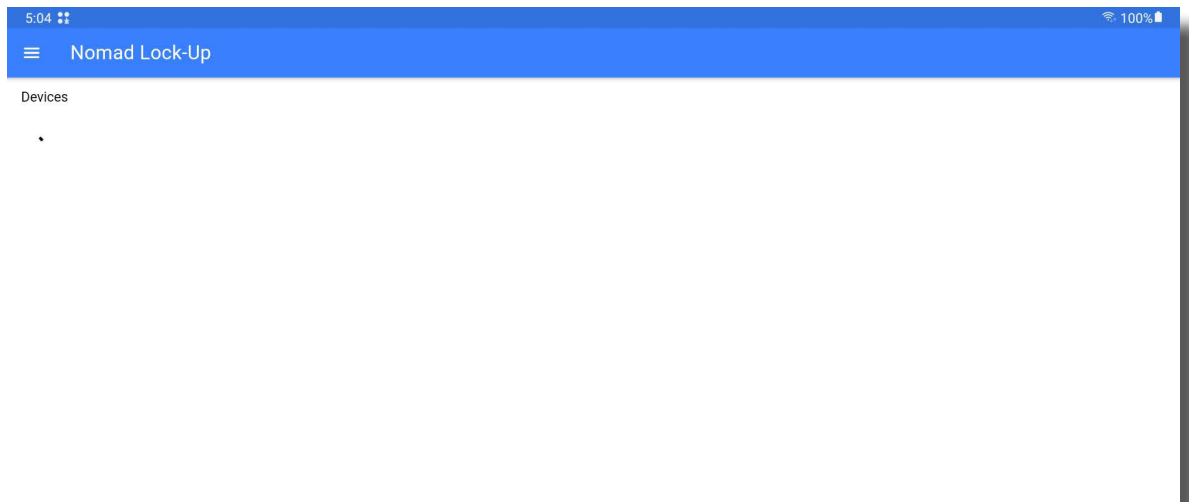
- 4.3.2 On the App page, tap on Install. This is a free app, you will not be charged.



- 4.3.3 When the App opens for the first time, you will be asked to permission for the app to access the devices location. Tap on While using the App to continue.



- 4.3.4 You should now see the devices page and a list of any Nomad Lock-Up Modules that are powered up and within range. If you are not in range of your Nomad Lock-Up Module or it is not powered up, then the app will only show a spinning wheel indicating that there is no module in range.



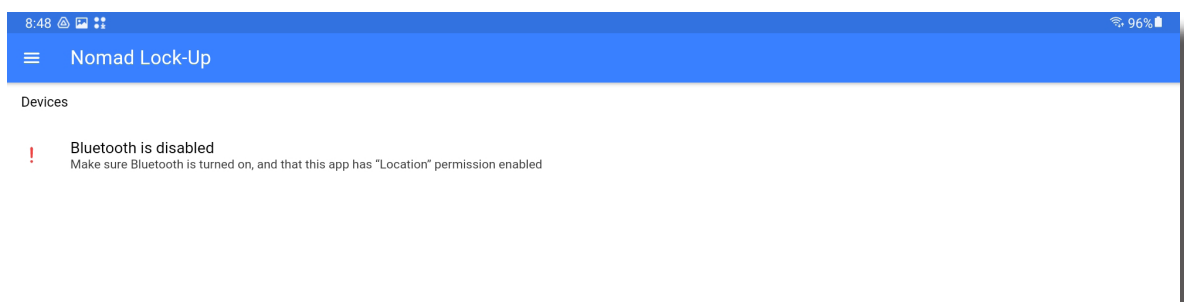
- 4.3.5 If you have reached this step, then the app is installed and ready to connect to a Nomad Lock-Up Module.



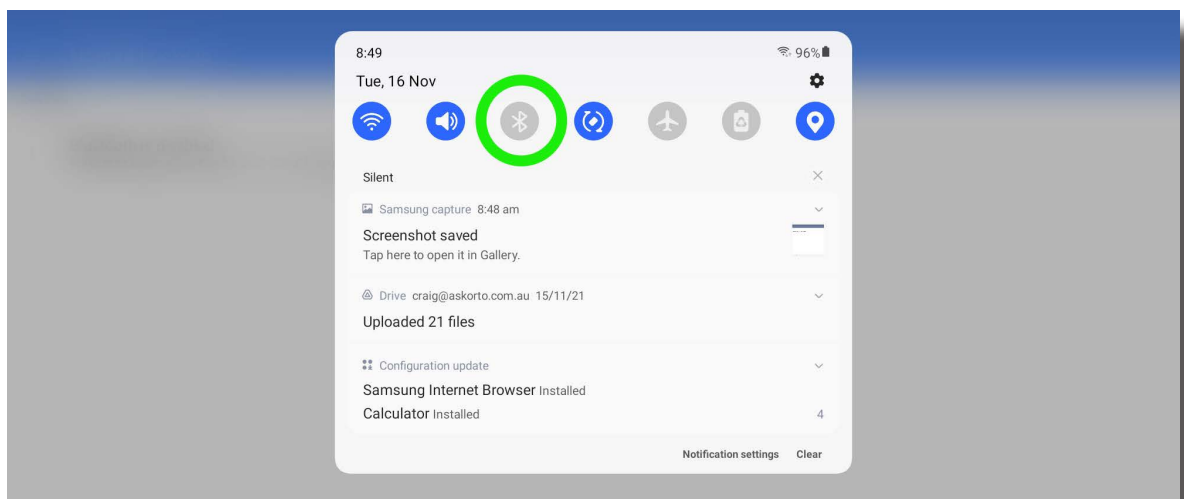
## 4.4. Troubleshooting Installation on Android Devices

If you have not made it to the final steps for the installation process, the following chapter will cover some basic troubleshooting steps to get you sorted.

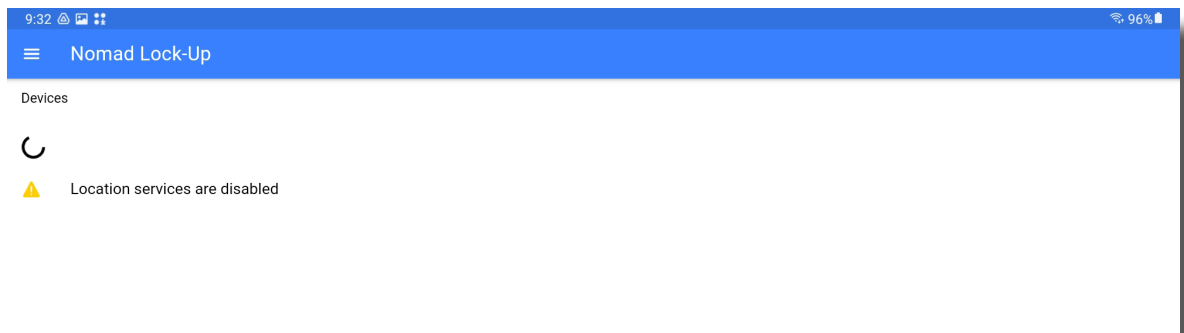
- 4.4.1 If the App says '**! Bluetooth is Disabled**' then it means that the Bluetooth communication in your smart device is not functioning correctly. This could be because you app did not recognise that it has access to your Bluetooth system, Bluetooth is turned off completely or it could be that the Nomad Lock-Up Setup App has not been authorised to use Bluetooth yet.
- 4.4.2 First, close the app down completely by quitting the App. Re-open the App. If the '**! Bluetooth is Disabled**' message still remains continue to the next step.



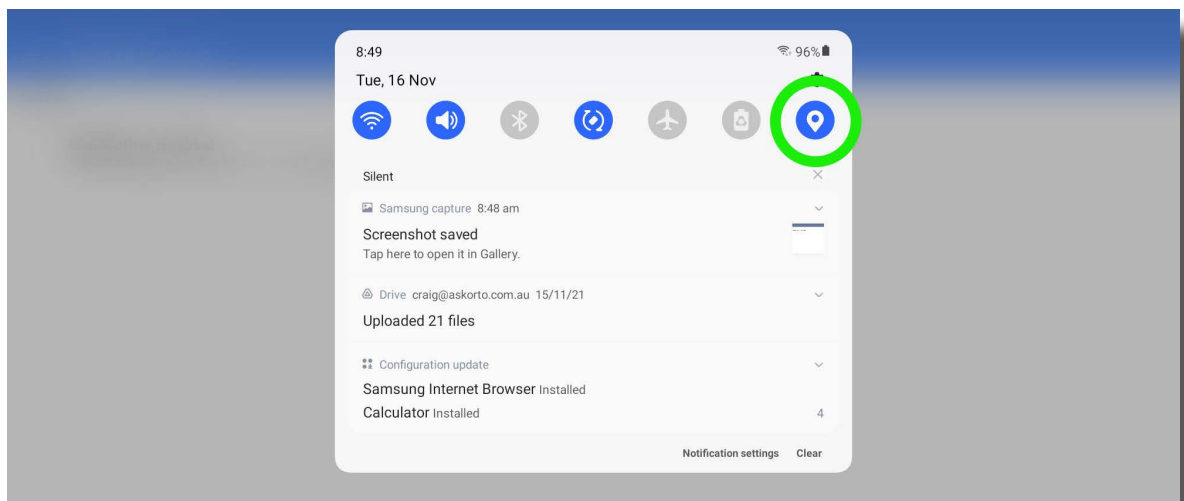
- 4.4.3 Swipe down from the top of the screen and tap on the grayed out Bluetooth icon. Close the settings window and force close the Nomad Lock-Up App. Re-Open the Nomad Lock-Up App, you should no longer see the '**! Bluetooth is Disabled**' message, instead it should be replaced with the spinning wheel.



- 4.4.4 If you are seeing the '**Location services are Disabled**' message, this means that you have locations service switch off. This service is required for the app to function correctly.



- 4.4.5 Swipe down from the top of the screen and tap on the grayed out Locations icon. This will turn Locations service on. Close the settings window and force close the Nomad Lock-Up App. Re-Open the Nomad Lock-Up App, you should no longer see the '**Location services are Disabled**' message, instead it should be replaced with the spinning wheel.

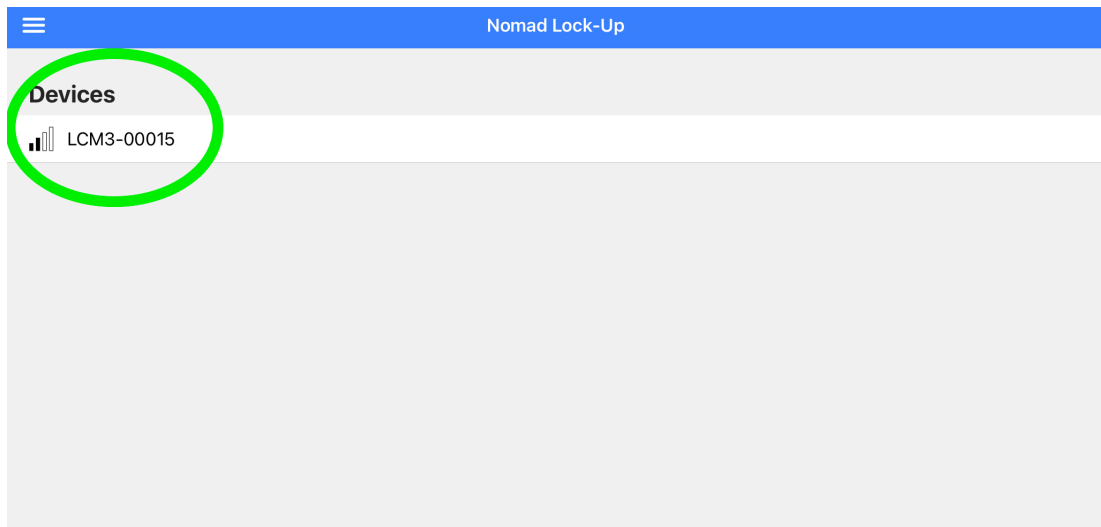


- 4.4.6 If none of these items have worked, please close the App. Tap and hold on the Nomad Lock-Up app icon and drag to the trash. Then power your device off then on. Start from the beginning and download the app again.
- 4.4.7 If you are still seeing the '**! Bluetooth is Disabled**' message or the '**Location services are Disabled**' message, please contact Wholesale Automatic Transmissions for further assistance.

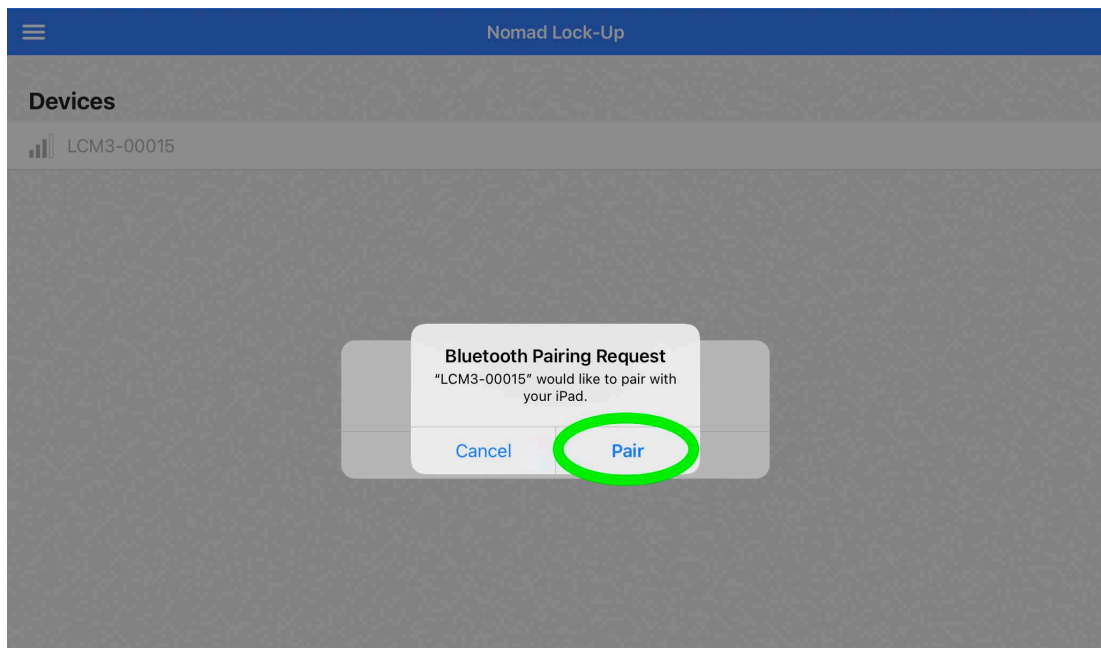
## 5. Setup Wizard

### 5.1. First Connection and Firmware

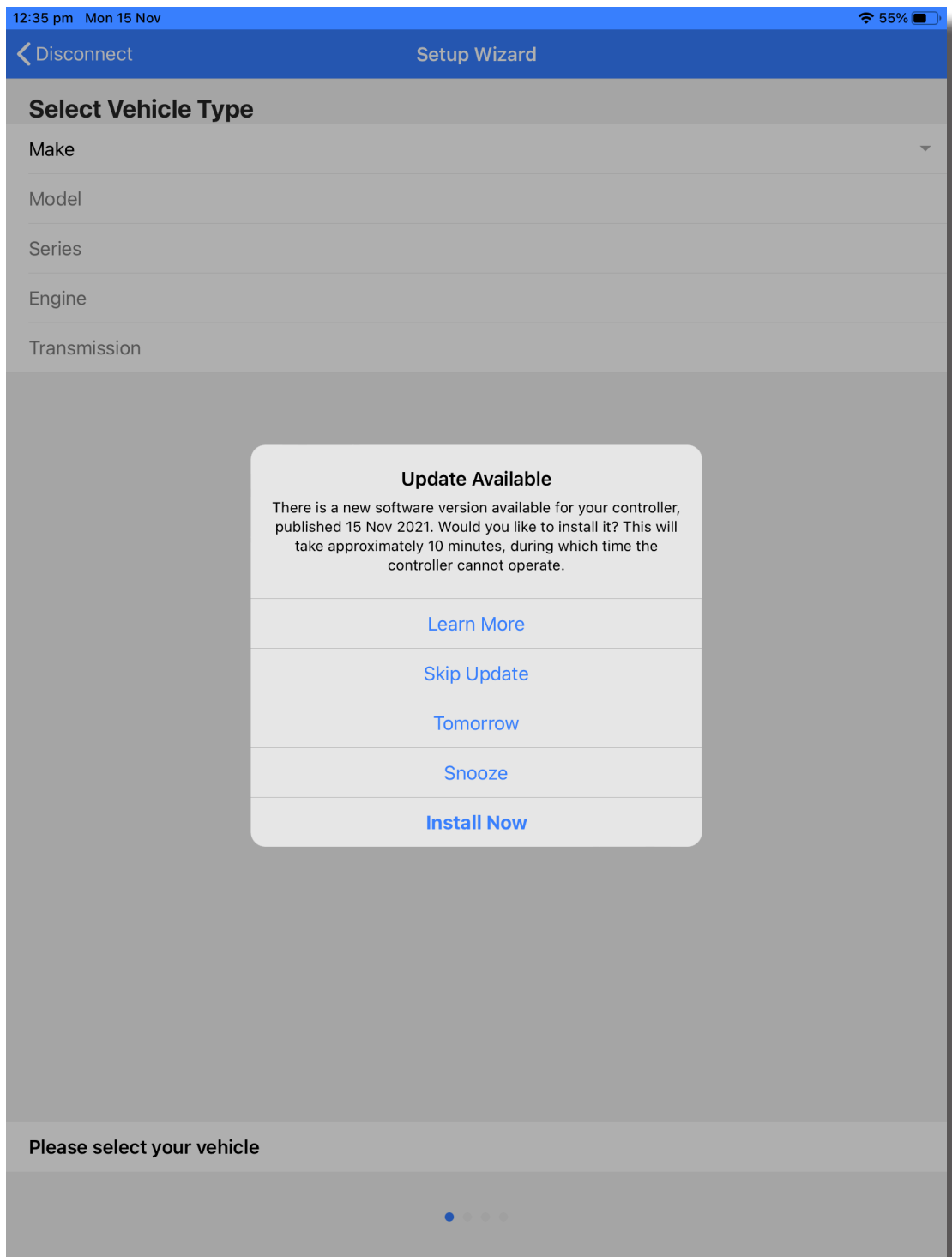
- 5.1.1 Turn your vehicle's ignition on, but do not start the engine.
- 5.1.2 Open the Nomad Lock-Up Application
- 5.1.3 Tap on your Lock-Up module from the Devices list.



- 5.1.4 If this is the first time you have connected to the module you will be prompted to pair your device. Tap Pair.

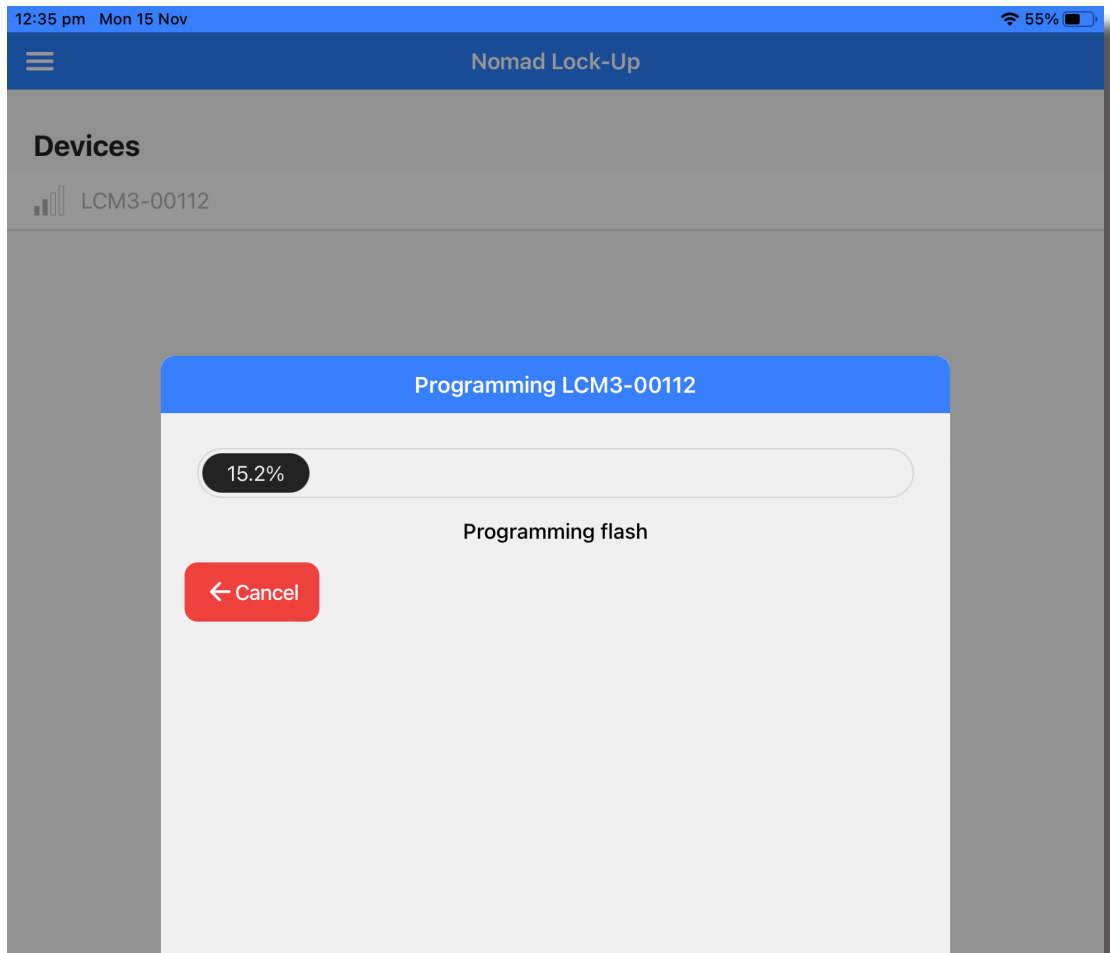


- 5.1.5 On initial connection, the Nomad Lock-Up app will check if there is a new version of firmware for the module. As we develop new vehicles and add features, we will provide the ability to update firmware as needed. If there is new firmware, you will see the following prompt. If your Nomad Lock-Up module is running the latest firmware, you can skip to the vehicle setup step.



- 5.1.6 Tap on Install Now. This will take approx 10mins to download and install the latest firmware to ensure your Nomad Lock-Up module is up to date.

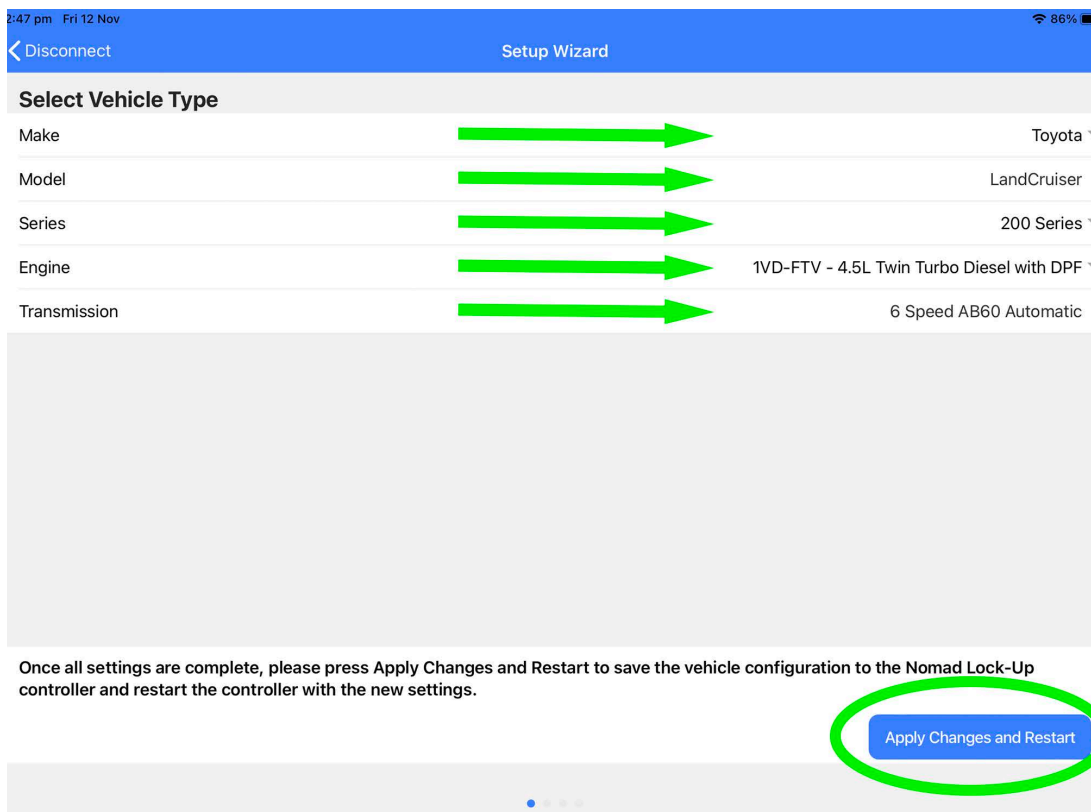
- 5.1.7 Please ensure your device does not go to sleep during this process. Also if you are using a phone, do not answer a call during this process as it will cause it to fail.



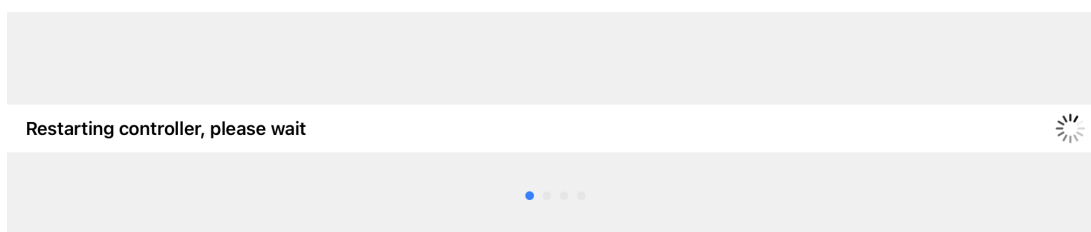
- 5.1.8 Once your modules firmware has been updated, you will be returned to the devices page. Tap on your device once more to connect.

## 5.2. Vehicle Configuration

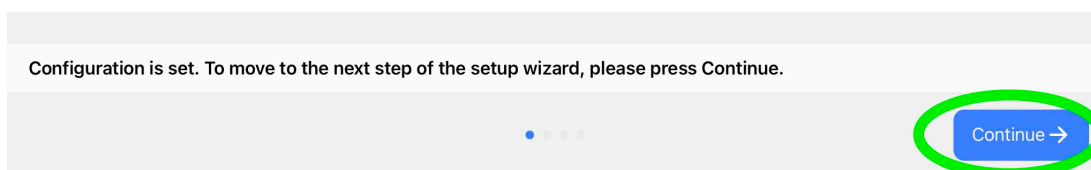
- 5.2.1 The Setup Wizard, will ask you to select your vehicle configuration. In some cases we may prefill the following values due to them being the only option. Select “Apply Changes and Restart” to continue.



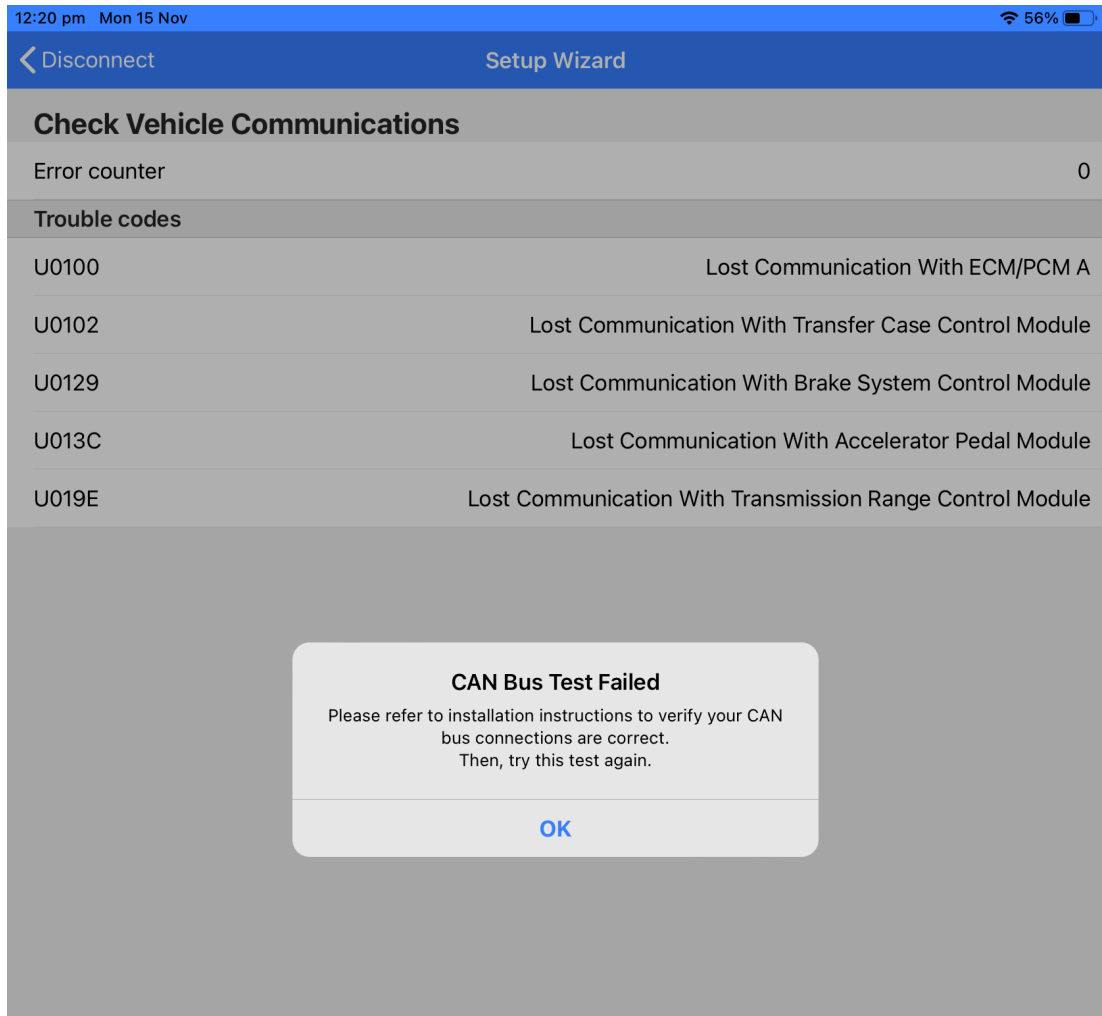
- 5.2.2 Wait while the Nomad Lock-Up Module restarts



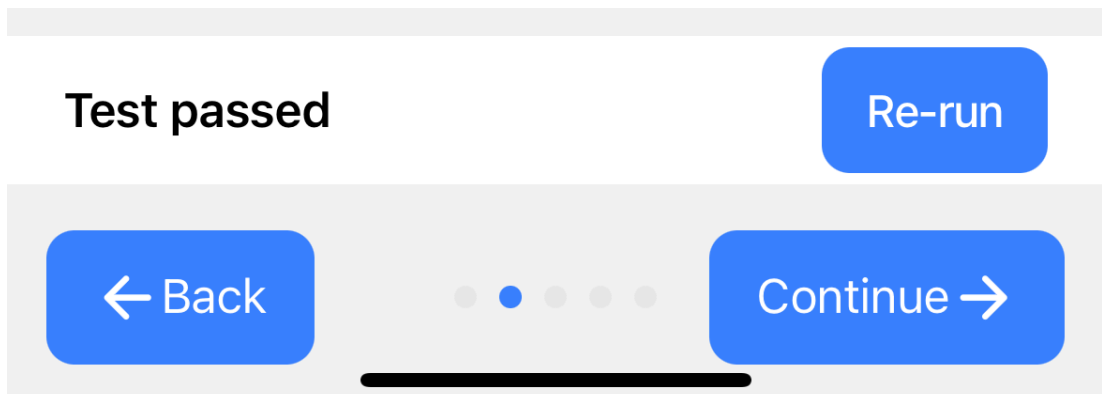
- 5.2.3 After the Nomad Lock-Up Module has rebooted, tap “Continue”



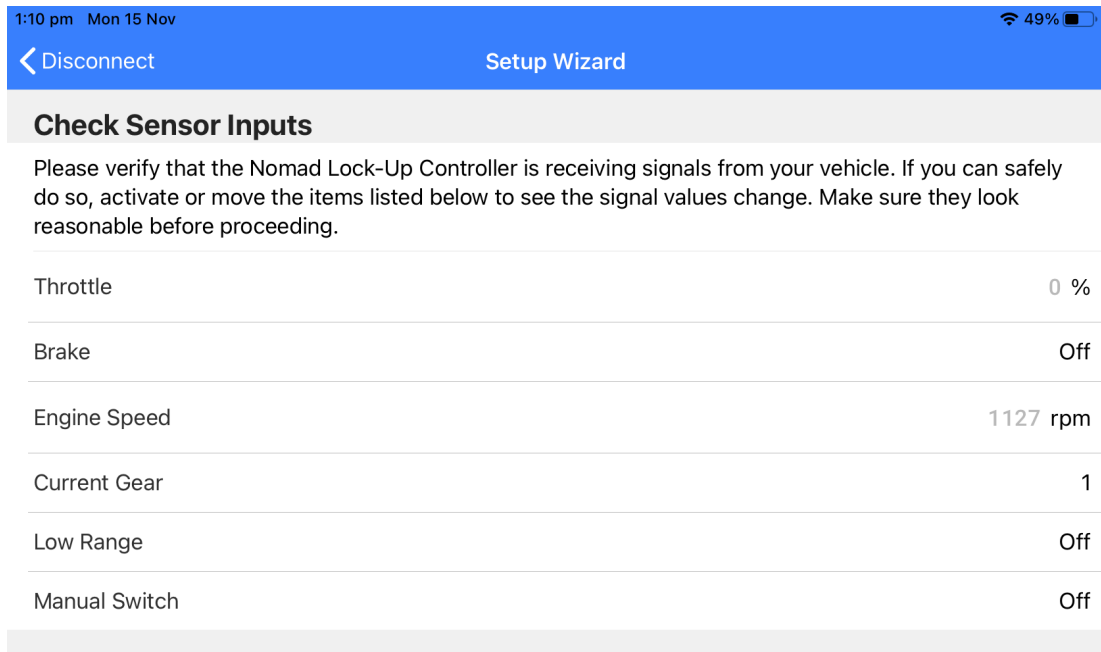
- 5.2.4 The Nomad Lock-Up Module will check for the necessary CANBUS signals that match your vehicle configuration. If Nomad Lock-Up Module detected issues, it will list the errors on the app. We recommend confirming that you have chosen the correct vehicle configuration. Also check that the CANBUS connections are correct and the position of the two wires in the CANBUS connector is correct. You can run the test again by tapping on Try Again.



- 5.2.5 If all the CANBUS signals check out, you will see Test Passed and the continue button will be shown. Tap Continue.



- 5.2.6 Checking Sensor Inputs allows you to verify that the signals the Nomad Lock-Up module requires to operate are being decoded correctly.



#### 5.2.6.1 Throttle

Press down on the Accelerator Pedal and you should see the Throttle value increase and decrease according to the percentage of pedal movement.

#### 5.2.6.2 Brake

Push down on the brake pedal to confirm we are receiving that signal.

#### 5.2.6.3 Engine Speed

While you engine should be off, this should read 0. This confirms that the CANBUS signal is correct.

#### 5.2.6.4 Current Gear

Move your shifter to Drive position and tap up/down to check the gear changes. You may have to press 2nd Start button in some variants.

#### 5.2.6.5 Low Range

Check that the Module can detect when the vehicle is in Low Range. The Low Range value will change from "Off" to "On"

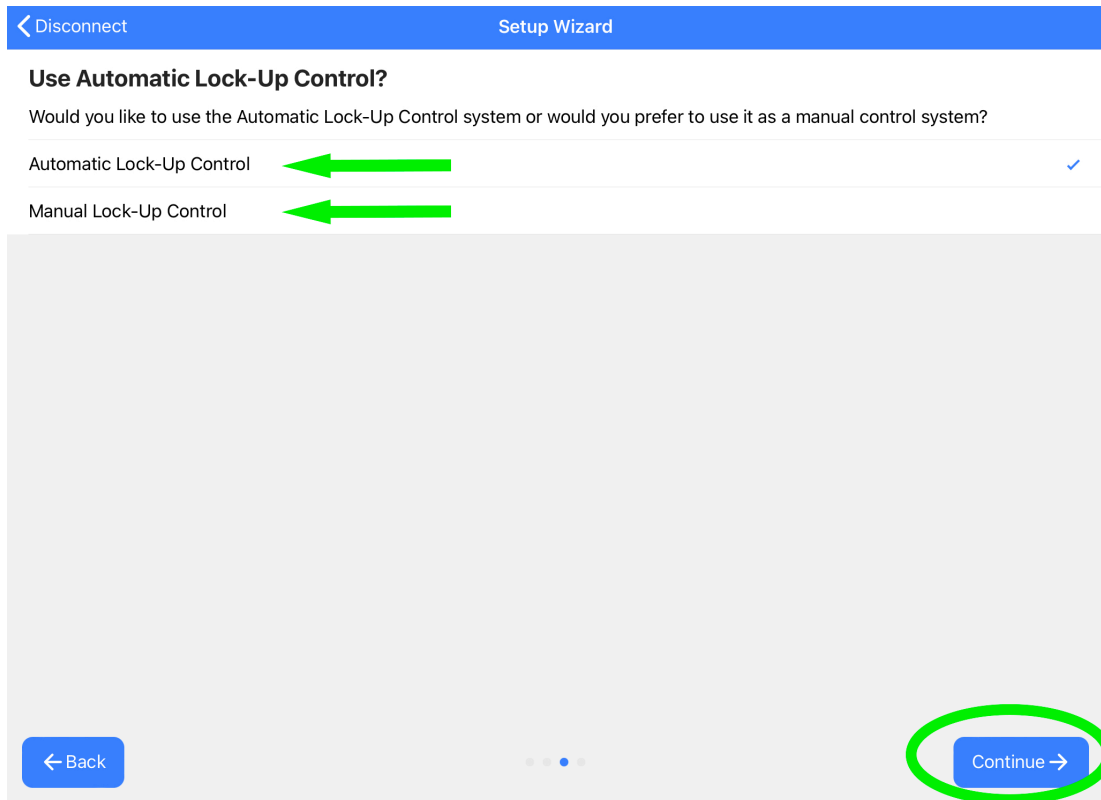
#### 5.2.6.6 Manual Switch

Push the Lock-Up switch to check that the Manual Switch value will change from "Off" to "On"

- 5.2.7 Once all signals are confirmed, tap "Continue".



- 5.2.8 Choose if you would like the Nomad Lock-Up Module to operate in Automatic or Manual Mode. Then Tap continue. (more information below)



#### 5.2.8.1 Automatic mode

The torque converter lock-up will automatically engage and disengage at predetermined speeds that we have configured for you. These values can be modified at anytime to suit your driving style. In Low Range the lock-up is still controlled manually via the switch.

**This is the recommended setting for most people.**

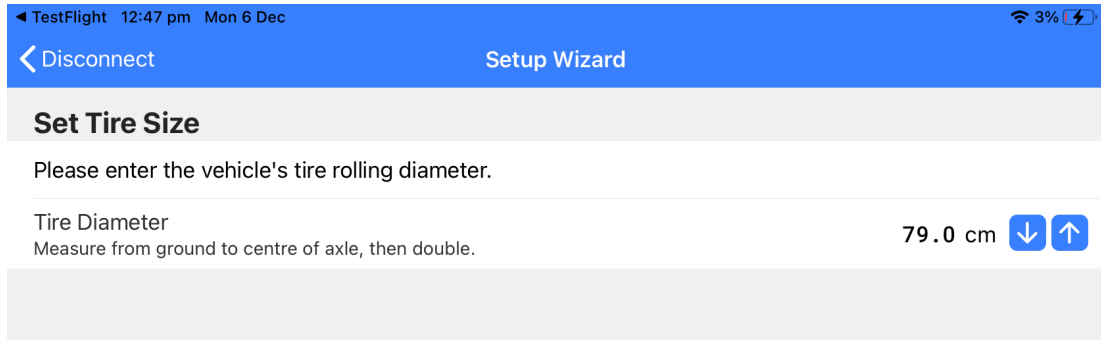
For more information about configuring the Nomad Lock-Up system, please check out our Nomad Lock-Up Users Guide. Link below.



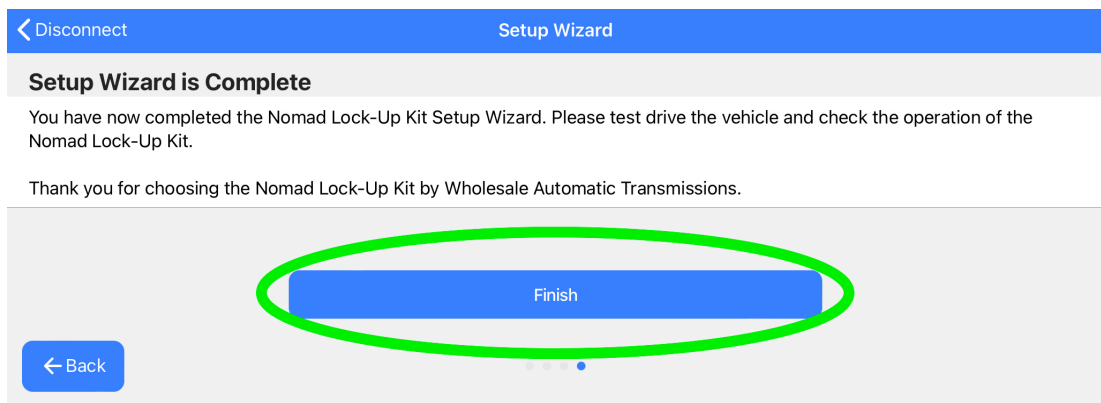
#### 5.2.8.2 Manual mode

You decide when the lock-up is engaged by toggling lock-up on and off via the manual switch. This will make the Nomad Lock-Up Module operate the same way as our previous GEN2 Lock-Up Kit.

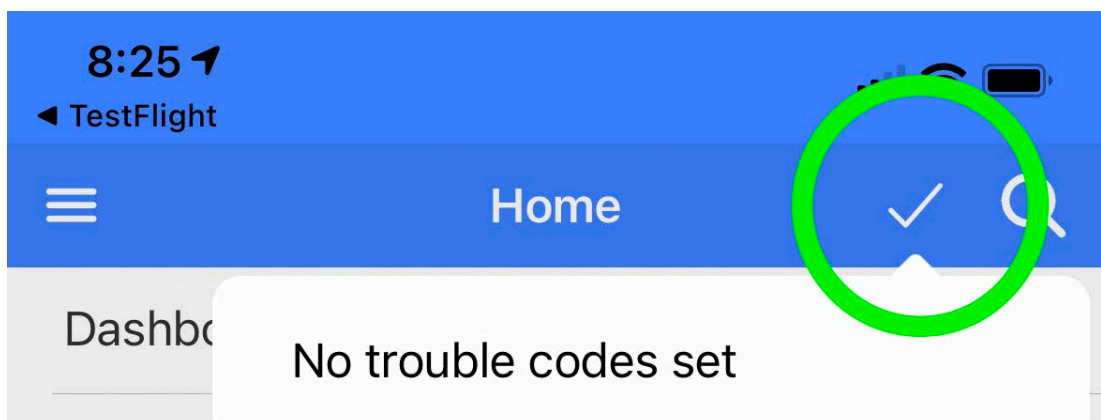
- 5.2.9 Please set the Rolling Tire Diameter for your vehicle. To find Rolling Diameter, measure from the ground to the centre of the axle, then double.



- 5.2.10 Tap "Finish" to complete the Setup Wizard



- 5.2.11 This completes the installation and setup of the Nomad Lock-Up Module. Please take the vehicle for a test drive to confirm the Nomad Lock-Up kit is operating as expected.
- 5.2.12 After you test drive, connect to the Nomad Lock-Up Module with the app to confirm there is no DTCs (Diagnostic Trouble Codes) set. If you see the Tick at the top right, you have completed the installation.



## This completes the Installation of the Nomad Lock-Up Kit

If you would like further information  
on how to adjust all of the  
calibration settings, please see  
User Guide documentation on our  
website using the QR code below or  
tapping on the QR code.



## Please Provide us with Feedback

If you have a minute to provide us with some feedback about your experience with Wholesale Automatic Transmissions and our products, that would be greatly appreciated.

Using your smart phone or device's camera app, point at the QR code below to take you straight to our feedback page for you to choose the most appropriate feedback method.

