# Wholesale
## AUTOMATIC TRANSMISSIONS
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# Nomad Lock-Up Kit
# UPGRADE Instructions
## Suitable for:

# Toyota LandCruiser 100 Series with A750 5 Speed Auto

WITH THE FOLLOWING ENGINES:
1HD-FTE (August 2002 - July 2007)
2UZ-FE (August 2002 - July 2007)

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.
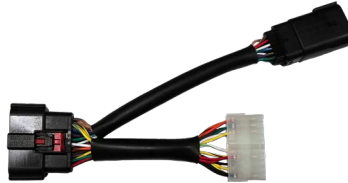
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LOCK UP    TCC

LOCK UP TCC

**Vertical Switch**
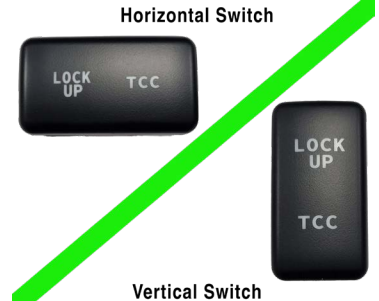
### Nomad Analogue Power Interface Loom

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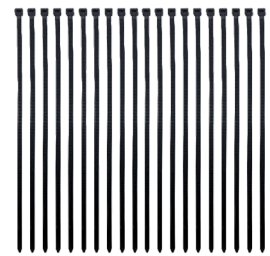
### Getting Started Manual

Installation Instructions
Getting Started Guide

Every year, thousands of unwanted printed pages ship with products that just end up in landfill. All of those documents took energy and resources to print - and 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: 2 Hours

# 2. Information to note prior to starting

2.0.1 These instructions have all the information necessary to install the Nomad Lockup Kit in both the Diesel and Petrol variants of the 5 speed LandCruiser 100 Series.

2.0.1.1 The wiring diagrams for the 1HD-FTE Diesel start on page 9.

2.0.1.2 The wiring diagrams for the 2UZ-FE Petrol start on page 15.

## 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 You can mount the Nomad module anywhere inside or outside the vehicle. The Nomad 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 that the further away from the driver the module is mounted the lower the Bluetooth signal strength will be.

We recommend mounting the Nomad module inside the cabin.

2.1.3 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 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 Upgrade Parts

2.2.1 There are four main parts of the Nomad Lock-Up Upgrade Harness that you need to be aware of.

2.2.2 **Nomad Upgrade Adapter**

This adapter allows you to re-use the existing Gen2 Lock-Up Kit wiring with the Nomad Lock-Up module for its power and solenoid connections. Simply remove the Gen2 module and plug in the white connector on the upgrade adapter to allow the Nomad module to be installed.
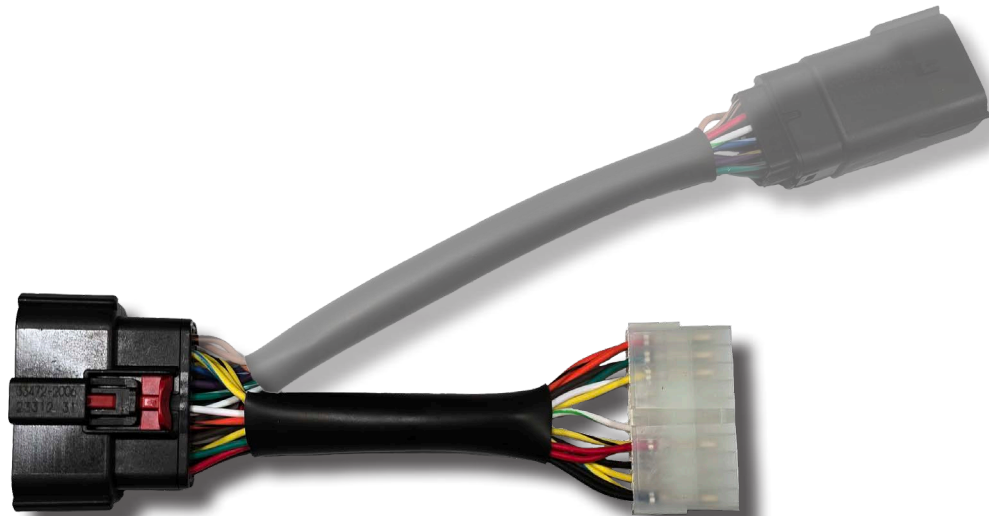


2.2.3 **Vehicle Leg**

The Nomad module requires access to more vehicle data than the Gen2 module does in order for the automatic lockup functionality to work correctly. In the 100 Series LandCruiser this is accomplished with analogue connections to the vehicle's PCM. The vehicle leg allows the harness to be adapted to the Nomad Analogue Power Interface Loom.
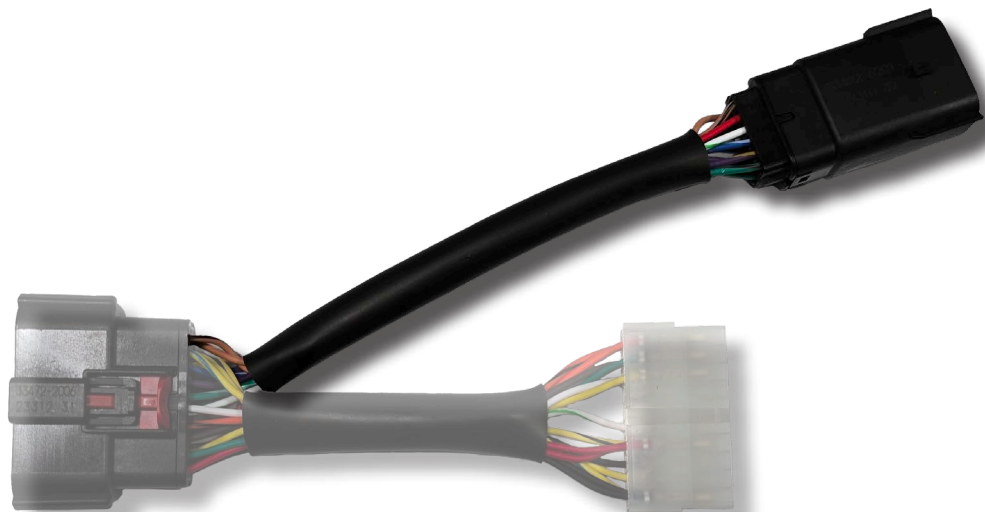
### 2.2.4 Momentary Switch

The Gen2 module requires a latching switch to function correctly, but the automatic control of the Nomad module means a momentary switch is necessary. It is important that the switch is changed when you upgrade from the Gen2 to the Nomad Lock-Up Kit, as the Nomad Lock-Up Kit will not function correctly with the Gen2 switch.

**Horizontal Switch**

**Vertical Switch**
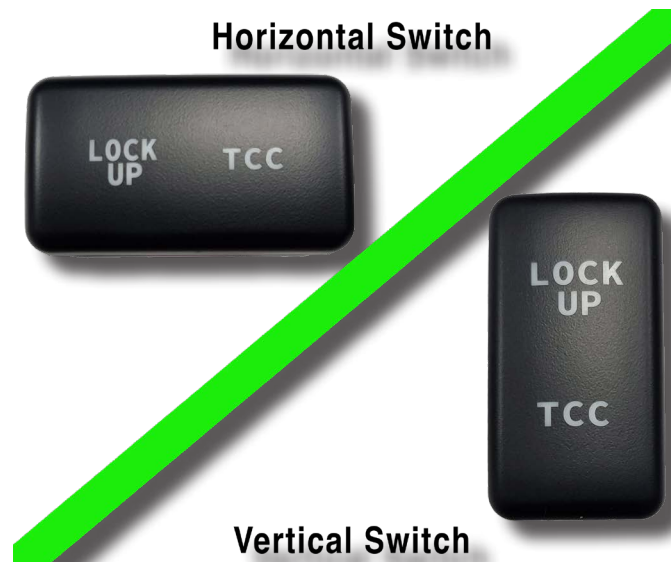


### 2.2.5 Nomad Analogue Power Interface Loom (Vehicle Harness)

This harness is designed to allow the Nomad module access to the vehicle signals it requires.

# 3. Upgrading to the Nomad Lock-Up Kit

**Disconnect all vehicle power sources including starting and auxiliary batteries, chargers and solar systems before starting the installation process.**

## 3.1. Installing the Nomad Upgrade Adapter

3.1.1   Find where your Gen2 module has been installed. These are usually installed either behind the kick panel on the left hand side of the passenger footwell, or under the trim surrounding the shifter assembly, but there other places the module could be mounted.

If you are unable to locate your Gen2 module we recommend following the wiring from the Gen2 TCC switch as this will lead you to the module.

3.1.2   Unplug the Gen2 module from the Gen2 harness and remove the module from the vehicle.

3.1.3   Plug the white connector from the Gen2 harness into the corresponding white connector on the Nomad Upgrade Adapter.

3.1.4   Plug the Nomad module into the Nomad Upgrade Harness and secure the red Connector Position Assurance (CPA).

3.1.5   Secure the Nomad module with the two long self tapping screws provided.
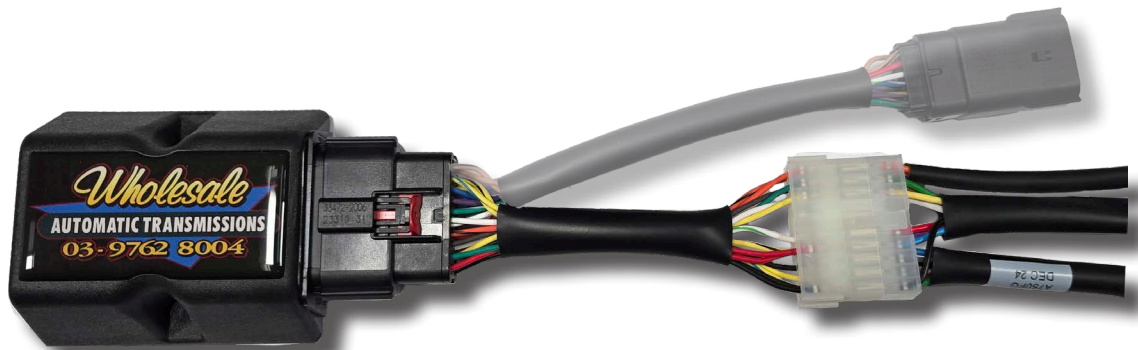
## 3.2.   Installing the Nomad Lock-Up Switch

The switch included with the Gen2 lock up kit will not work correctly with the Nomad module, so we have included a replacement switch that will need to be installed in its place.

3.2.1   Gain access to the Gen 2 TCC switch and unplug it from the Gen 2 switch harness.

3.2.2   Remove the Gen 2 TCC switch from the panel it is installed in. You might need to use a flat blade screwdriver to push down on the clips at the top and bottom of the switch in order to push it out of the panel from behind.

3.2.3   Replace the latching Gen 2 TCC switch with the new momentary Nomad TCC switch, and plug the Gen 2 switch harness into it.

## 3.3.   Accessing OEM Wiring

**Disconnect all vehicle power sources including starting and auxiliary batteries, chargers and solar systems before starting the installation process.**

3.3.1   Start by gaining access to the OEM Powertrain Control Module (PCM). Remove the two Phillips head screws from the bottom of the glove box. Open the glove box, then squeeze the sides gently together to release the locking tabs and remove the glove box from the dash.

Remove these two screws before removing the glove box

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3.3.2 Remove the three Phillips screws holding the rear glove box surround. Be careful of the wiring for the glove box switch, as it won't allow you to pull this piece out far without first unplugging the connector.

There is an airbag connector behind an access panel on the right hand side of the panel. The connector is mounted to the access panel and they can be removed while still connected by un-clipping the panel and feeding it back through the hole.



Remove these three screws

Unplug the connector on the back side

Be careful of the airbag connector behind this access panel
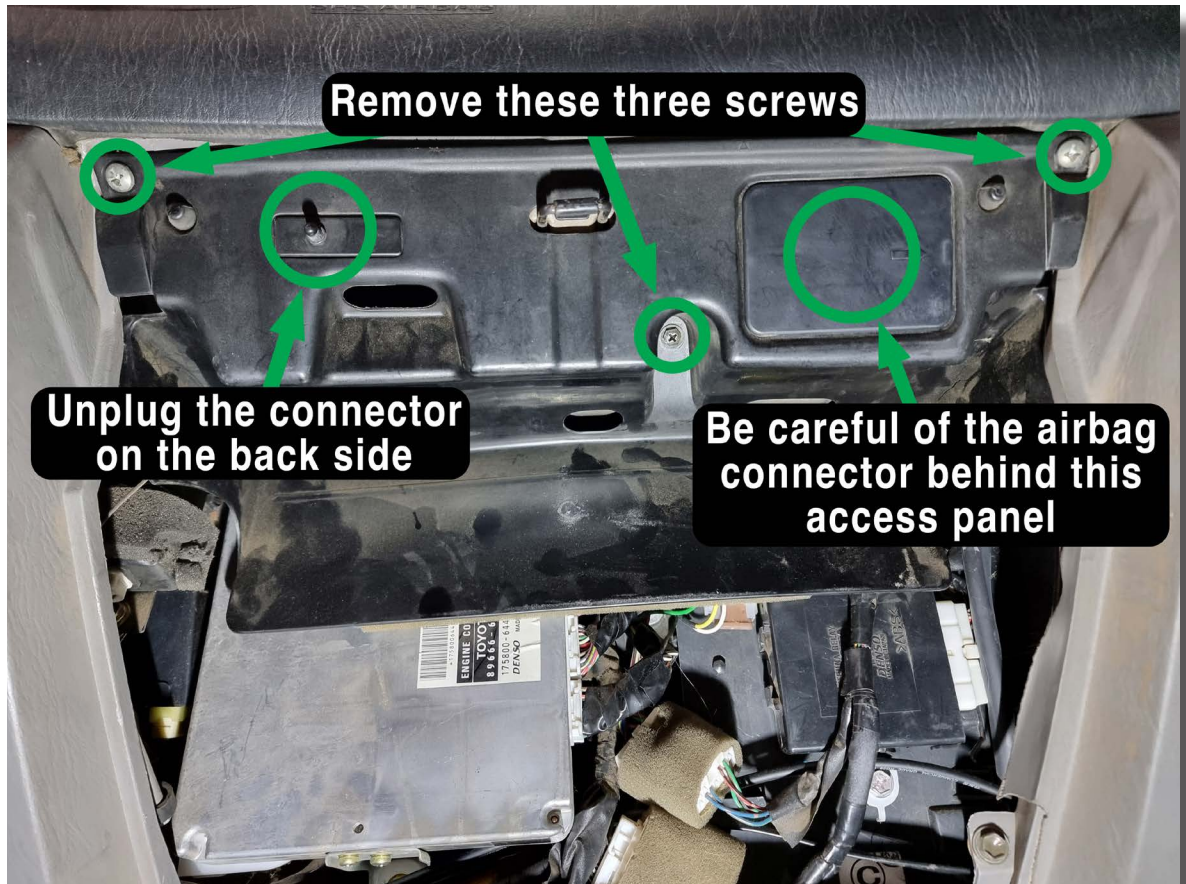
## 3.4. Installing the Vehicle Harness - 1HD-FTE 4.2L Diesel

3.4.1 **This section applies to the 1HD-FTE LandCruiser 100 Series.**
Skip to page 14 for the wiring diagrams if your vehicle has the 2UZ-FE Petrol V8.

3.4.2 The PCM is mounted vertically under the dash, behind the glove box on the passenger side of the vehicle with 4 connectors plugged into it. Make sure there are no power sources connected to the vehicle (including auxiliary batteries and solar panels) before removing any of these connectors.

The wiring diagram on the following page shows the PCM connectors when looking at them from the harness side.
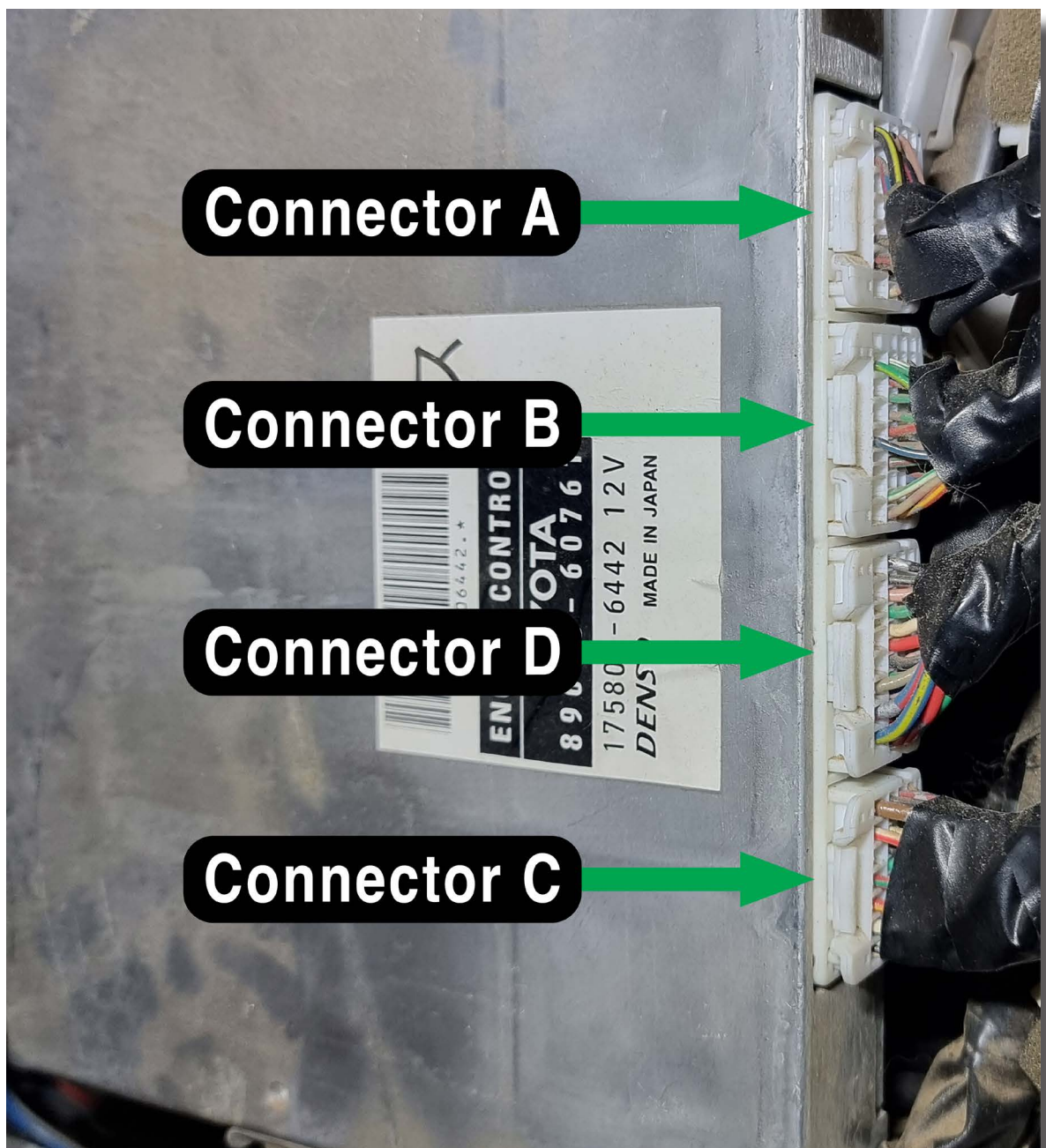
## 3.5.    PCM Wiring Diagram - 1HD-FTE 4.2L Diesel

### Toyota 100 Series LandCruiser UPGRADE 1HD-FTE Diesel Wiring Diagram

**If the wiring in your vehicle does NOT match the information below, please STOP and contact Wholesale Automatics support.**



OEM Transmission Wiring Loom

Analogue Signal Wires

**Analogue Power Interface Loom**
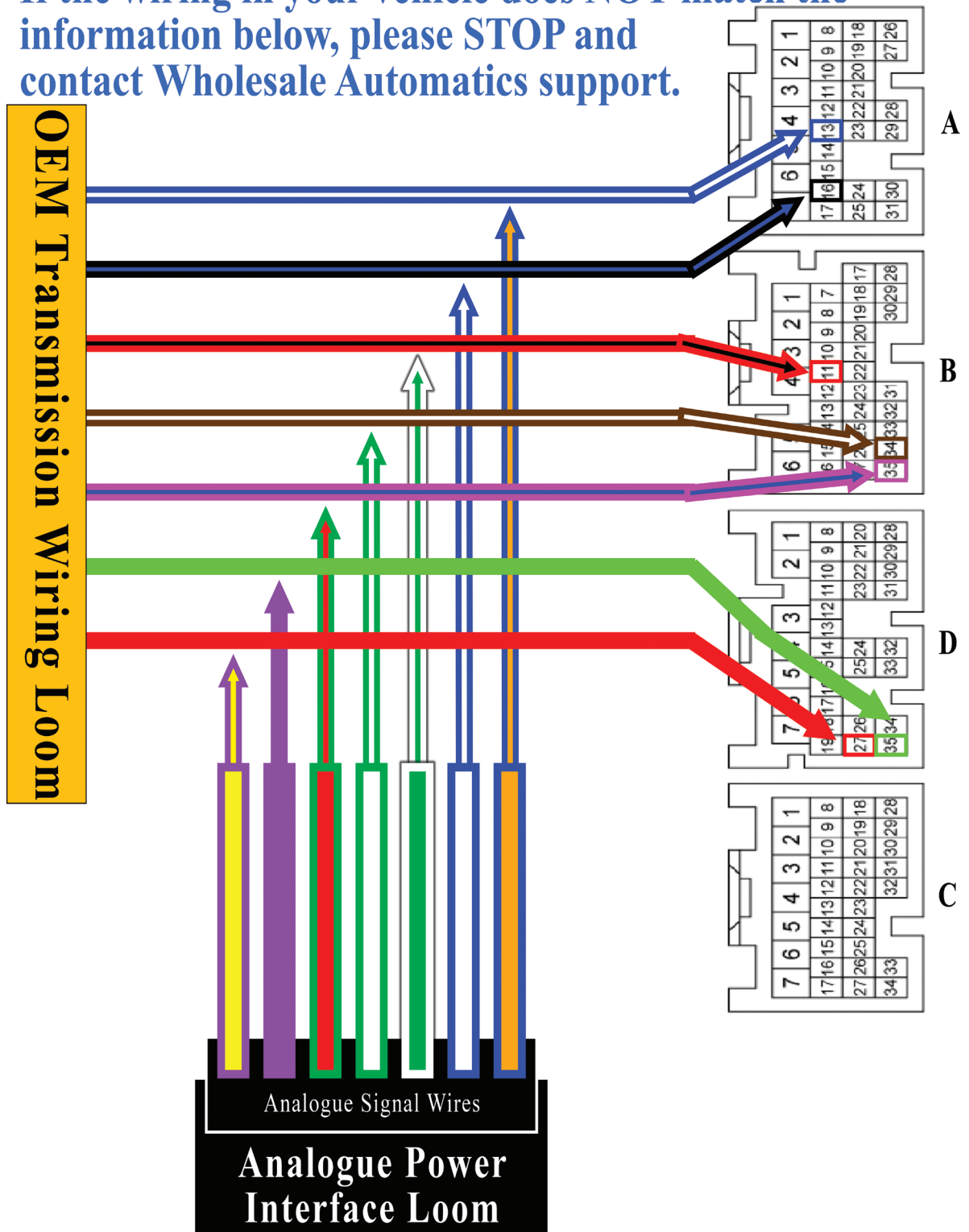
3.5.1   We suggest working on the PCM wiring one connector at the time. You can do these in any order, but make sure all power sources in the vehicle are disconnected before unplugging any of the connectors.

3.5.2   Please DO NOT use wire splicers, quick connects or scotch locks to join these wires. They MUST be soldered for reliable operation.



### 3.5.3   Soldering to Signal wire in pin A13

3.5.3.1   Select the OEM wire in pin A13. Remove approximately 1cm of the wire sheath to expose the copper conductors about 5cm away from the connector. DO NOT cut this wire.

3.5.3.2   Select the Blue-Orange wire from the Nomad Analogue Power Interface Loom. Solder this wire to the OEM wire in pin A13.

3.5.3.3   Use electrical tape to insulate the join and prevent shorting.

### 3.5.4   Soldering to Signal wire in pin A16

3.5.4.1   Select the OEM wire in pin A16. Remove approximately 1cm of the wire sheath to expose the copper conductors about 5cm away from the connector. DO NOT cut this wire.

3.5.4.2   Select the Blue-White wire from the Nomad Analogue Power Interface Loom. Solder this wire to the OEM wire in pin A16.

3.5.4.3   Use electrical tape to insulate the join and prevent shorting.

### 3.5.5   Soldering to Signal wire in pin B11

3.5.5.1   Select the OEM wire in pin B11. Remove approximately 1cm of the wire sheath to expose the copper conductors about 5cm away from the connector. DO NOT cut this wire.

3.5.5.2   Select the White-Green wire from the Nomad Analogue Power Interface Loom. Solder this wire to the OEM wire in pin B11.

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3.5.5.3    Use electrical tape to insulate the join and prevent shorting.

### 3.5.6    Soldering to Signal wire in pin B34

3.5.6.1    Select the OEM wire in pin B34. Remove approximately 1cm of the wire sheath to expose the copper conductors about 5cm away from the connector. DO NOT cut this wire.

3.5.6.2    Select the Green-White wire from the Nomad Analogue Power Interface Loom. Solder this wire to the OEM wire in pin B34.

3.5.6.3    Use electrical tape to insulate the join and prevent shorting.

### 3.5.7    Soldering to Signal wire in pin B35

3.5.7.1    Select the OEM wire in pin B35. Remove approximately 1cm of the wire sheath to expose the copper conductors about 5cm away from the connector. DO NOT cut this wire.

3.5.7.2    Select the Green-Red wire from the Nomad Analogue Power Interface Loom. Solder this wire to the OEM wire in pin B35.

3.5.7.3    Use electrical tape to insulate the join and prevent shorting.

### 3.5.8    Soldering to Signal wire in pin D27

3.5.8.1    Select the OEM wire in pin D27. Remove approximately 1cm of the wire sheath to expose the copper conductors about 5cm away from the connector. DO NOT cut this wire.

3.5.8.2    Select the Violet-Yellow wire from the Nomad Analogue Power Interface Loom. Solder this wire to the OEM wire in pin D27.

3.5.8.3    Use electrical tape to insulate the join and prevent shorting.

### 3.5.9    Soldering to Signal wire in pin D35

3.5.9.1    Select the OEM wire in pin D35. Remove approximately 1cm of the wire sheath to expose the copper conductors about 5cm away from the connector. DO NOT cut this wire.

3.5.9.2    Select the Violet wire from the Nomad Analogue Power Interface Loom. Solder this wire to the OEM wire in pin D35.

3.5.9.3    Use electrical tape to insulate the join and prevent shorting.

## 3.6.  Installing the Vehicle Harness - 2UZ-FE 4.7L V8 Petrol

3.6.1 **This section applies to the 2UZ-FE Petrol LandCruiser 100 Series.**
Go back to page 10 for the wiring diagrams if your vehicle has the 1HD-FTE Diesel.

3.6.2 The PCM is mounted vertically under the dash, behind the glove box on the passenger side of the vehicle with 5 connectors plugged into it. Make sure there are no power sources connected to the vehicle (including auxiliary batteries and solar panels) before removing any of these connectors.

The wiring diagram on the following page shows the PCM connectors when looking at them from the harness side.
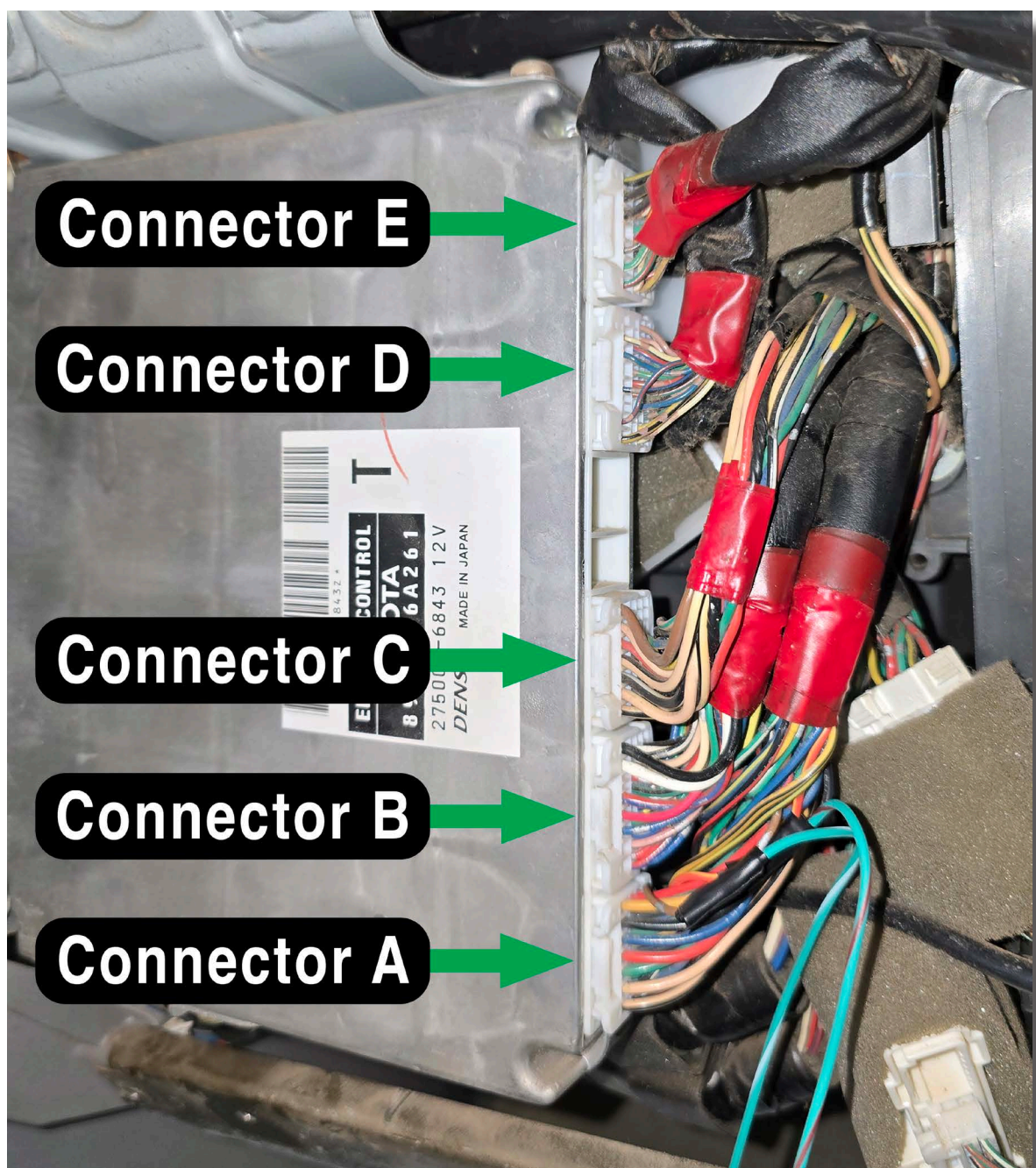
## 3.7.    PCM Wiring Diagram - 2UZ-FE 4.7L V8 Petrol

# Toyota 100 Series LandCruiser UPGRADE 2UZ-FE V8 Petrol Wiring Diagram

**If the wiring in your vehicle does NOT match the information below, please STOP and contact Wholesale Automatics support.**



OEM Transmission Wiring Loom

Analogue Signal Wires

**Analogue Power Interface Loom**
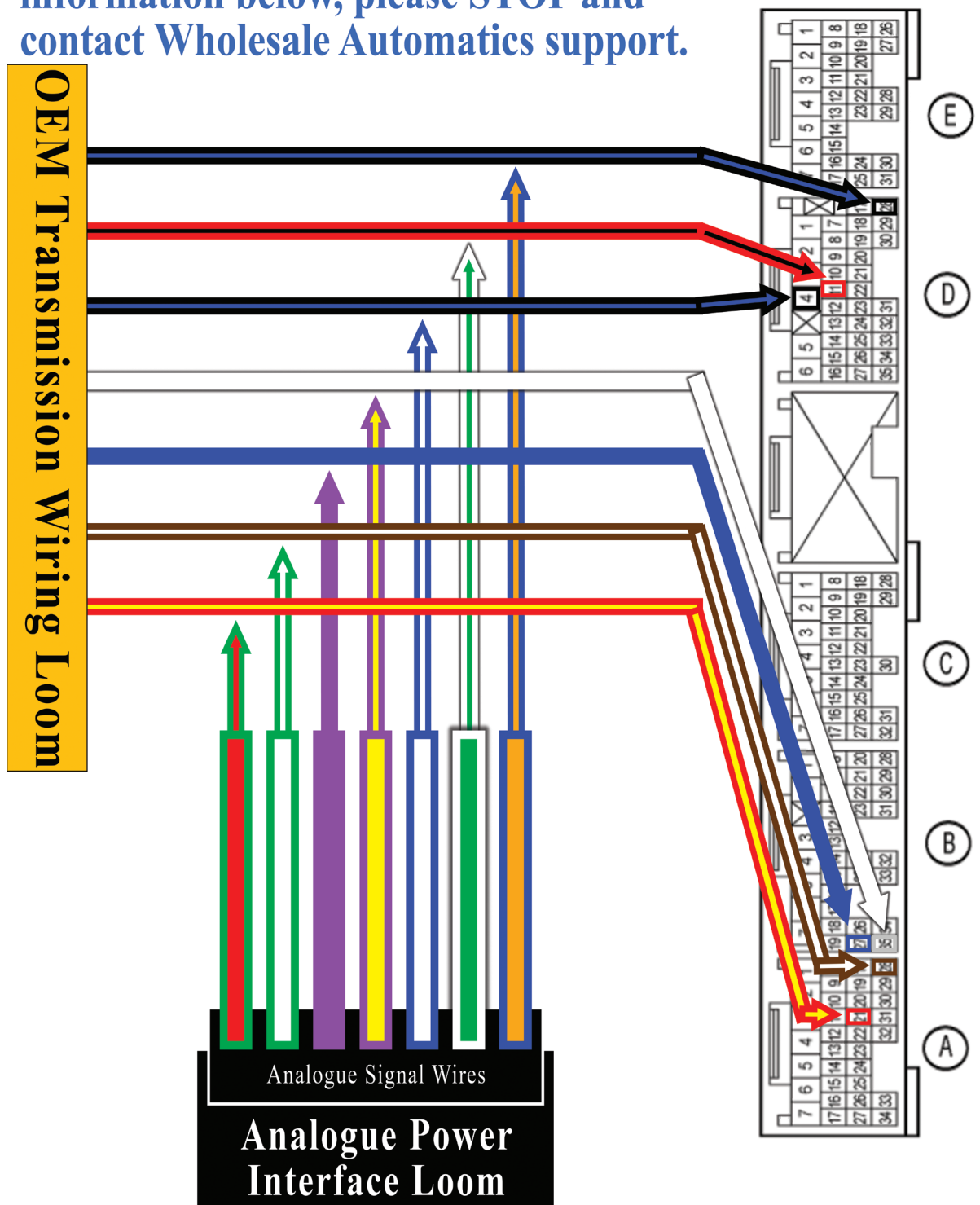
3.7.1  We suggest working on the PCM wiring one connector at the time. You can do these in any order, but make sure all power sources in the vehicle are disconnected before unplugging any of the connectors.

3.7.2  Please DO NOT use wire splicers, quick connects or scotch locks to join these wires. They MUST be soldered for reliable operation.

### 3.7.3  Soldering to Signal wire in pin D28

3.7.3.1  Select the OEM wire in pin D28. Remove approximately 1cm of the wire sheath to expose the copper conductors about 5cm away from the connector. DO NOT cut this wire.

3.7.3.2  Select the Blue-Orange wire from the Nomad Analogue Power Interface Loom. Solder this wire to the OEM wire in pin D28.

3.7.3.3  Use electrical tape to insulate the join and prevent shorting.

### 3.7.4  Soldering to Signal wire in pin D11

3.7.4.1  Select the OEM wire in pin D11. Remove approximately 1cm of the wire sheath to expose the copper conductors about 5cm away from the connector. DO NOT cut this wire.

3.7.4.2  Select the White-Green wire from the Nomad Analogue Power Interface Loom. Solder this wire to the OEM wire in pin D11.

3.7.4.3  Use electrical tape to insulate the join and prevent shorting.

### 3.7.5  Soldering to Signal wire in pin D4

3.7.5.1  Select the OEM wire in pin D4. Remove approximately 1cm of the wire sheath to expose the copper conductors about 5cm away from the connector. DO NOT cut this wire.

3.7.5.2  Select the Blue-White wire from the Nomad Analogue Power Interface Loom. Solder this wire to the OEM wire in pin D4.

3.7.5.3   Use electrical tape to insulate the join and prevent shorting.

### 3.7.6   Soldering to Signal wire in pin B35

3.7.6.1   Select the OEM wire in pin B35. Remove approximately 1cm of the wire sheath to expose the copper conductors about 5cm away from the connector. DO NOT cut this wire.

3.7.6.2   Select the Violet-Yellow wire from the Nomad Analogue Power Interface Loom. Solder this wire to the OEM wire in pin B35.

3.7.6.3   Use electrical tape to insulate the join and prevent shorting.

### 3.7.7   Soldering to Signal wire in pin B27

3.7.7.1   Select the OEM wire in pin B27. Remove approximately 1cm of the wire sheath to expose the copper conductors about 5cm away from the connector. DO NOT cut this wire.

3.7.7.2   Select the Violet wire from the Nomad Analogue Power Interface Loom. Solder this wire to the OEM wire in pin B27.

3.7.7.3   Use electrical tape to insulate the join and prevent shorting.

### 3.7.8   Soldering to Signal wire in pin A28

3.7.8.1   Select the OEM wire in pin A28. Remove approximately 1cm of the wire sheath to expose the copper conductors about 5cm away from the connector. DO NOT cut this wire.

3.7.8.2   Select the Green-White wire from the Nomad Analogue Power Interface Loom. Solder this wire to the OEM wire in pin A28.

3.7.8.3   Use electrical tape to insulate the join and prevent shorting.

### 3.7.9   Soldering to Signal wire in pin A21

3.7.9.1   Select the OEM wire in pin A21. Remove approximately 1cm of the wire sheath to expose the copper conductors about 5cm away from the connector. DO NOT cut this wire.

3.7.9.2   Select the Green-Red wire from the Nomad Analogue Power Interface Loom. Solder this wire to the OEM wire in pin 21.

3.7.9.3   Use electrical tape to insulate the join and prevent shorting.

## 3.8.    Final Tidy Up

3.8.1    Reinstall all connectors into the PCM. Use electrical tape and the included cable ties to secure the Analogue Power Interface Loom to the PCM wiring harness.

3.8.2    Secure any loose wires with electrical tape and any remaining supplied cable ties. Make sure the wires are clear of any moving parts, especially near the steering column. Reconnect the battery terminals and any other connectors that were removed.

3.8.3    We recommend running through the Nomad Setup Wizard to verify that everything is connected correctly and working properly before re-installing the any panels, just in case any wiring needs to be corrected.

3.8.4    Once the Nomad module has been confirmed to be wired correctly and the setup wizard has completed, reinstall all removed trim pieces and kick panels.

We do not recommend driving the vehicle before the setup wizard is complete.

## 3.9.    Lock-Up Module Bypass

3.9.1    If you need to remove the Nomad Lock-Up Module at any stage we have supplied a bypass connector that can take the place of the module so that your vehicle will not have faults come up while driving. Fitting this bypass will revert control of the torque converter clutch back to the OEM PCM.

If you are fitting this unit on behalf of a customer please leave this connector in the bag along with the QR code to access the User Guide. Please highlight this to your customer during handover.

3.9.2    To remove the Nomad Lock-Up Module or Bypass Connector, unlock the red CPA. Press down on the black clip to release. Then pull the two connectors apart.
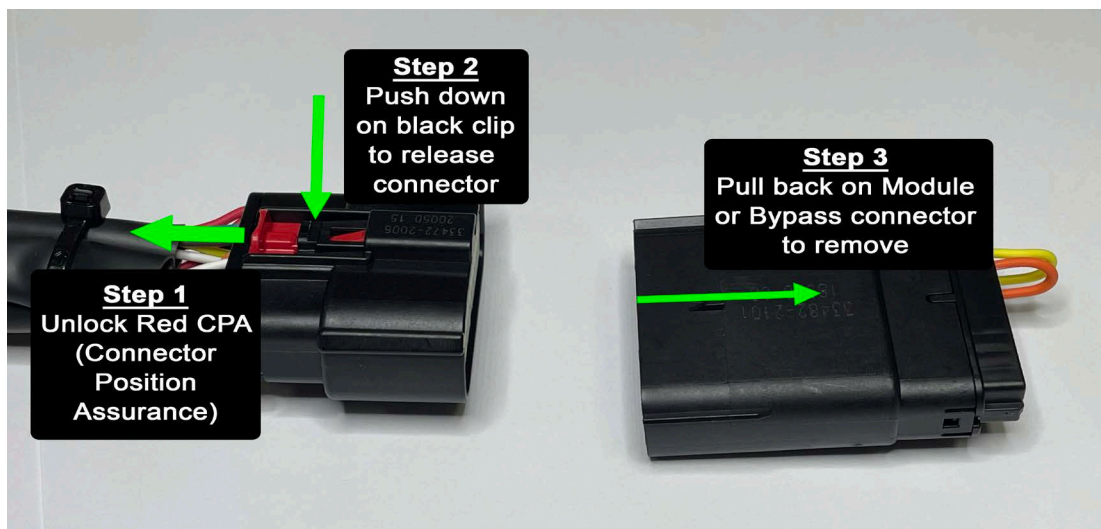
# 3.10. Installing the Nomad LockUp app on Apple Devices

This chapter will cover finding, downloading and confirming that the Nomad LockUp app is ready to communicate with your Nomad LockUp Module using an Apple mobile device.

The Nomad Lock-Up App is a free to download app available from the Apple App Store. You will 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 Nomad LockUp 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 to download the application and for firmware updates)

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 LockUp app again.
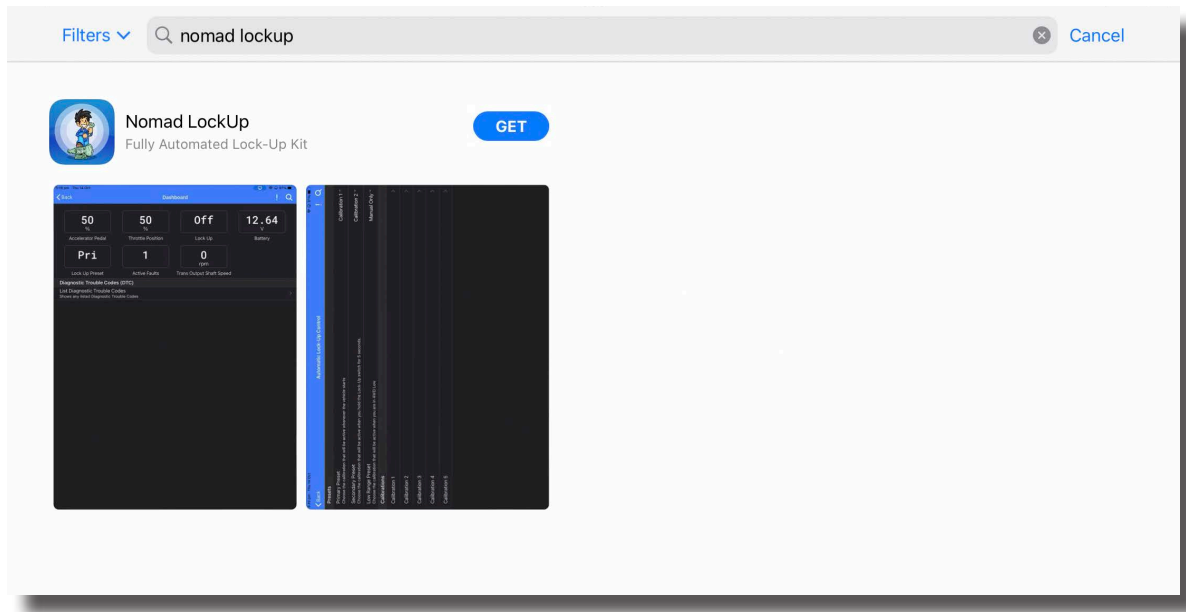
3.10.1  On your Apple device, open the **App Store** application.

3.10.2  Tap on the **Search** button at the bottom of the App Store screen.
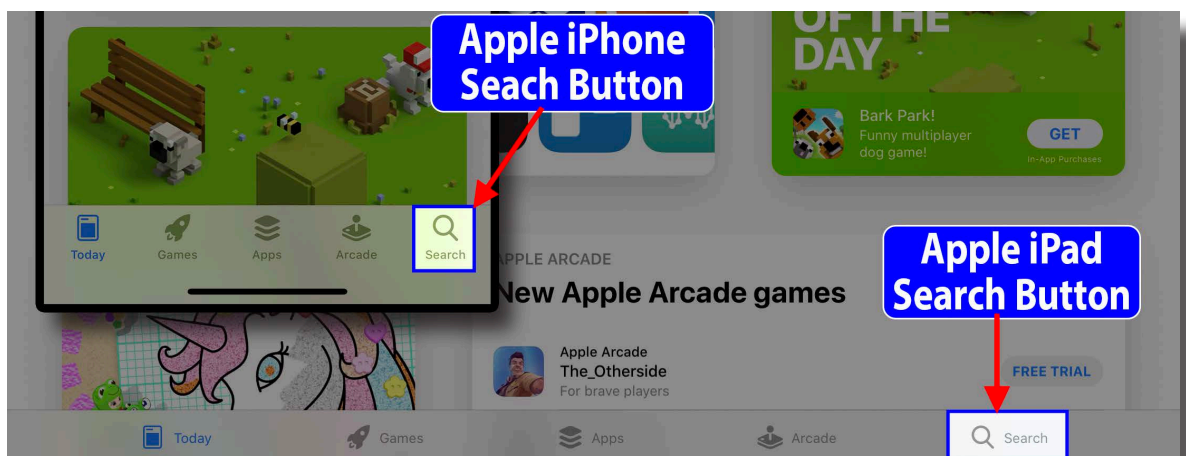
3.10.3 In the search field type "nomad lockup" and press enter/search. Locate the app called **Nomad LockUp** in the results and tap on 'Get'. You may be asked to enter your Apple ID username and password.

Filters ⌄    🔍 nomad lockup                                                    ⊗    Cancel

Nomad LockUp
Fully Automated Lock-Up Kit                                    GET

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

3.10.5 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.
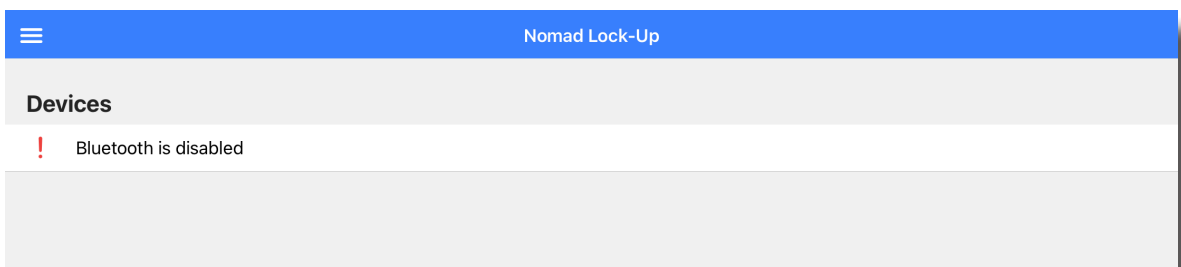
☰    Nomad Lock-Up
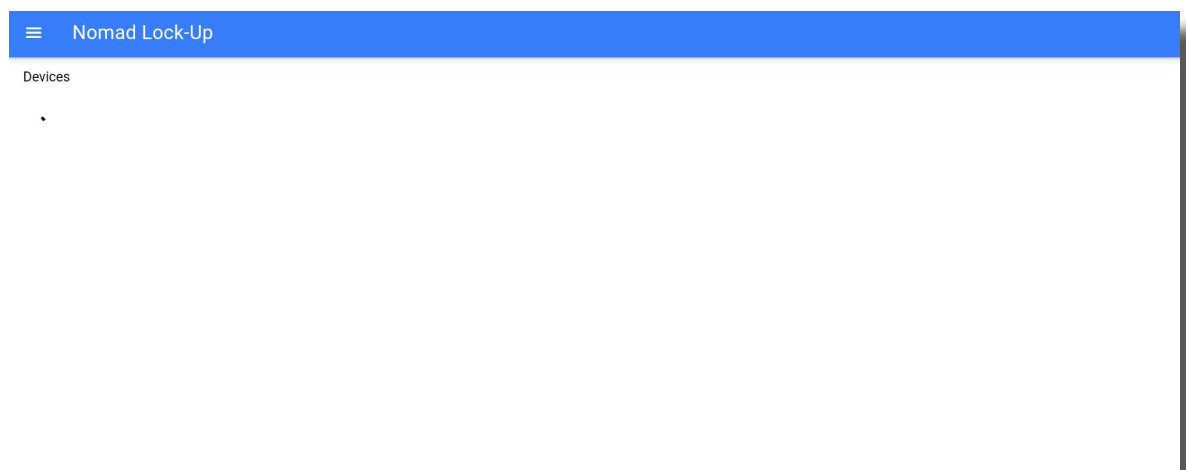
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3.10.6 If you have reached this step then the app is installed and ready to connect to your Nomad Lock-Up Module. You can now skip to step 4.

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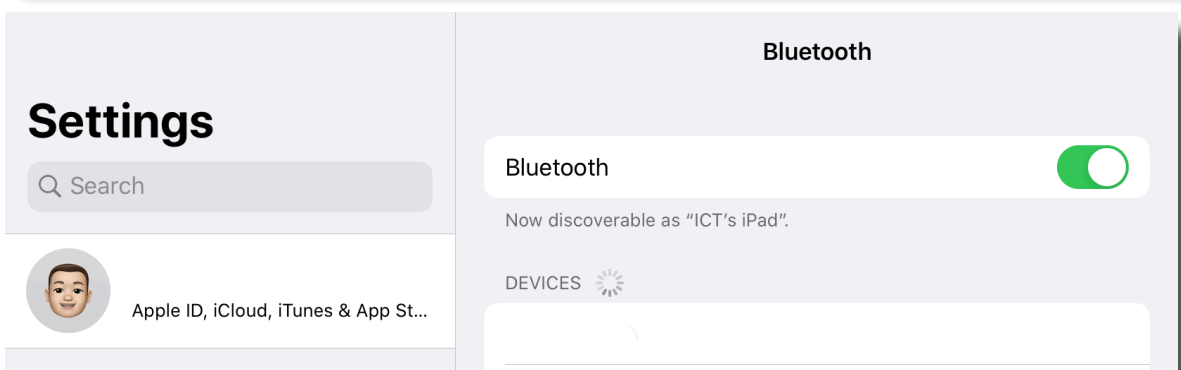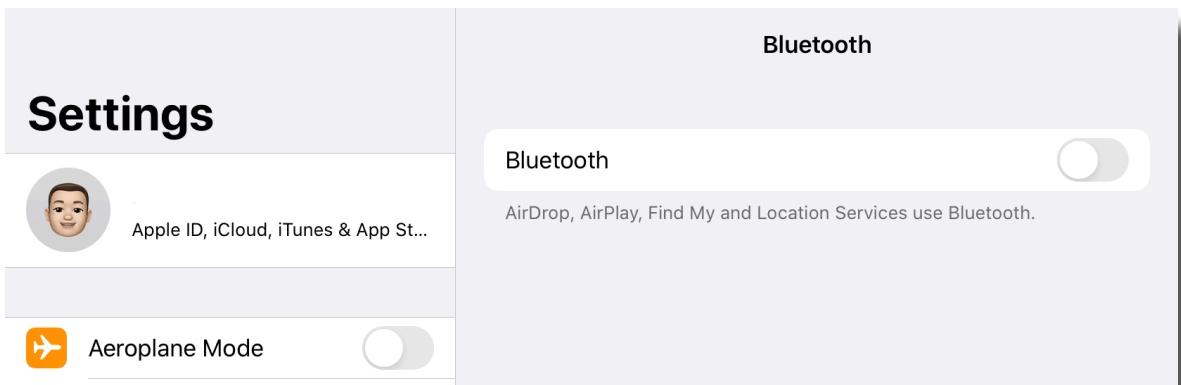AUTOMATIC TRANSMISSIONS
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# 3.11.  Troubleshooting Installation on Apple Devices

This chapter will cover some basic troubleshooting steps you can follow if you have not been able to connect your Apple device to the Nomad Lock-Up module.
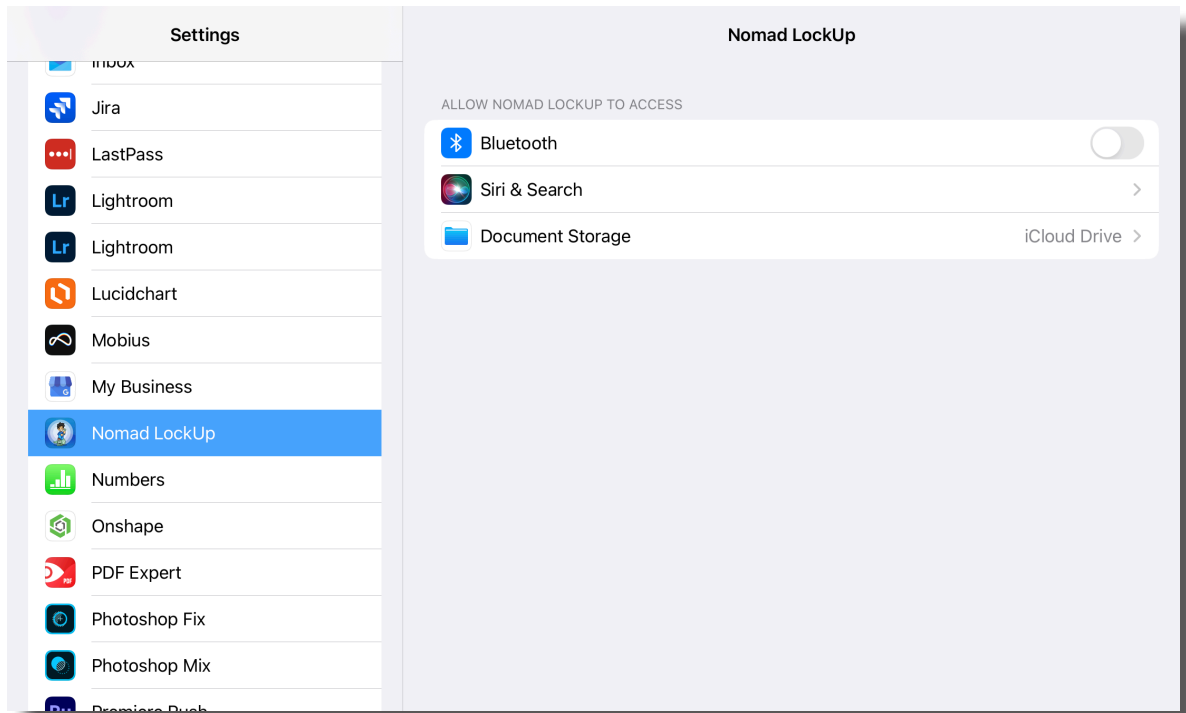
3.11.1  If the app says '**! Bluetooth is disabled**' then it means that the Bluetooth communication in your smart device is not set up correctly. Most commonly this is due to the Bluetooth being turned off completely or it could be that the Nomad LockUp app has not been authorised to use Bluetooth yet.

3.11.2  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.

| ☰ | Nomad Lock-Up |
|---|---|
| **Devices** | |
| **!**   Bluetooth is disabled | |
| | |

3.11.3  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 LockUp app. You should no longer see the '**! Bluetooth is disabled**' message, instead it should be replaced with the spinning wheel.

**Settings**

Apple ID, iCloud, iTunes & App St...

✈ Aeroplane Mode

**Bluetooth**

Bluetooth                                    ⬜

AirDrop, AirPlay, Find My and Location Services use Bluetooth.

**Settings**

🔍 Search

Apple ID, iCloud, iTunes & App St...

**Bluetooth**

Bluetooth                                    🟢

Now discoverable as "ICT's iPad".

DEVICES ⟳

3.11.4  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.

| Settings | Nomad LockUp |
|---|---|
| Inbox | |
| Jira | ALLOW NOMAD LOCKUP TO ACCESS |
| LastPass | Bluetooth ⚪ |
| Lightroom | Siri & Search  › |
| Lightroom | Document Storage   iCloud Drive › |
| Lucidchart | |
| Mobius | |
| My Business | |
| **Nomad LockUp** | |
| Numbers | |
| Onshape | |
| PDF Expert | |
| Photoshop Fix | |
| Photoshop Mix | |
| Premiere Rush | |

3.11.5  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 and reboot. Start from the beginning and download the app again. Make sure you allow the app all the permissions it requests.

3.11.6  If you are still unable to get rid of the '! Bluetooth is Disabled' message please contact Wholesale Automatic Transmissions for further assistance.

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# 3.12. Installing the Nomad LockUp app on Android™ Devices

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

The Nomad LockUp app is a free to download app available from the Google Play Store. You will 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 LockUp app are:

• Android operating system version 4.4 or later

• Internet access (only required to download the application and for firmware updates)

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 LockUp 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.

3.12.1 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 LockUp app to show the app page.
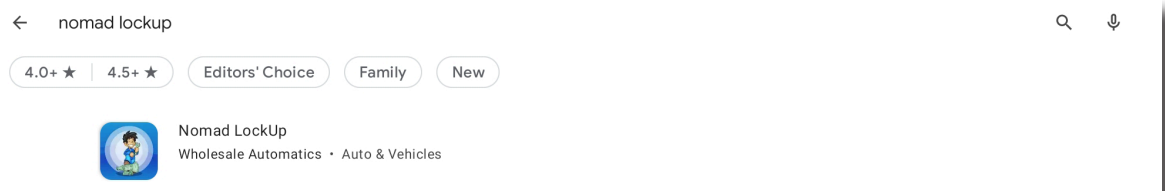


3.12.2 On the app page, tap on Install to download and install the app.
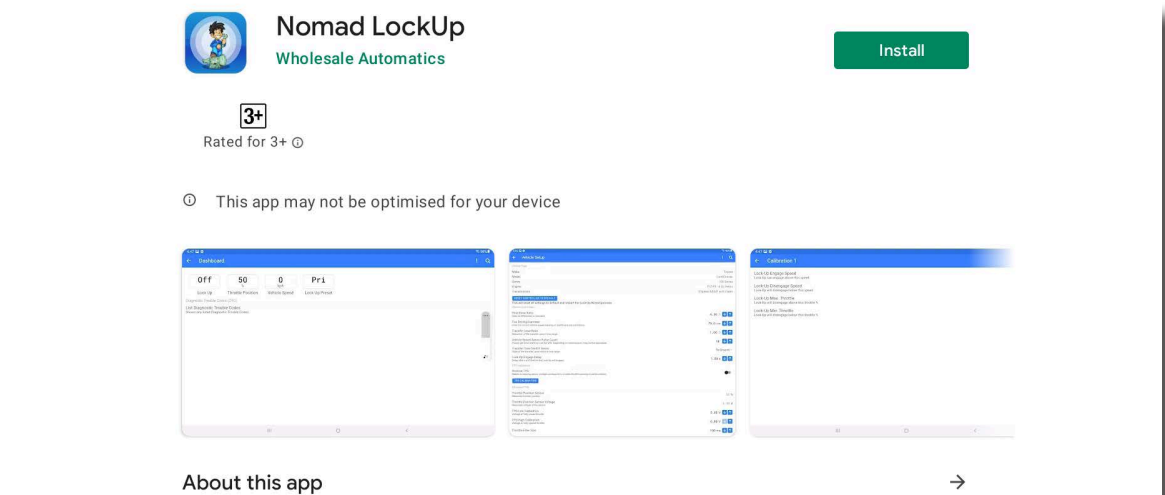
3.12.3 When the app opens for the first time you will be asked for permission for the app to access the devices location. Tap on 'While using the app' to continue. This permission is required for the Bluetooth functionality.
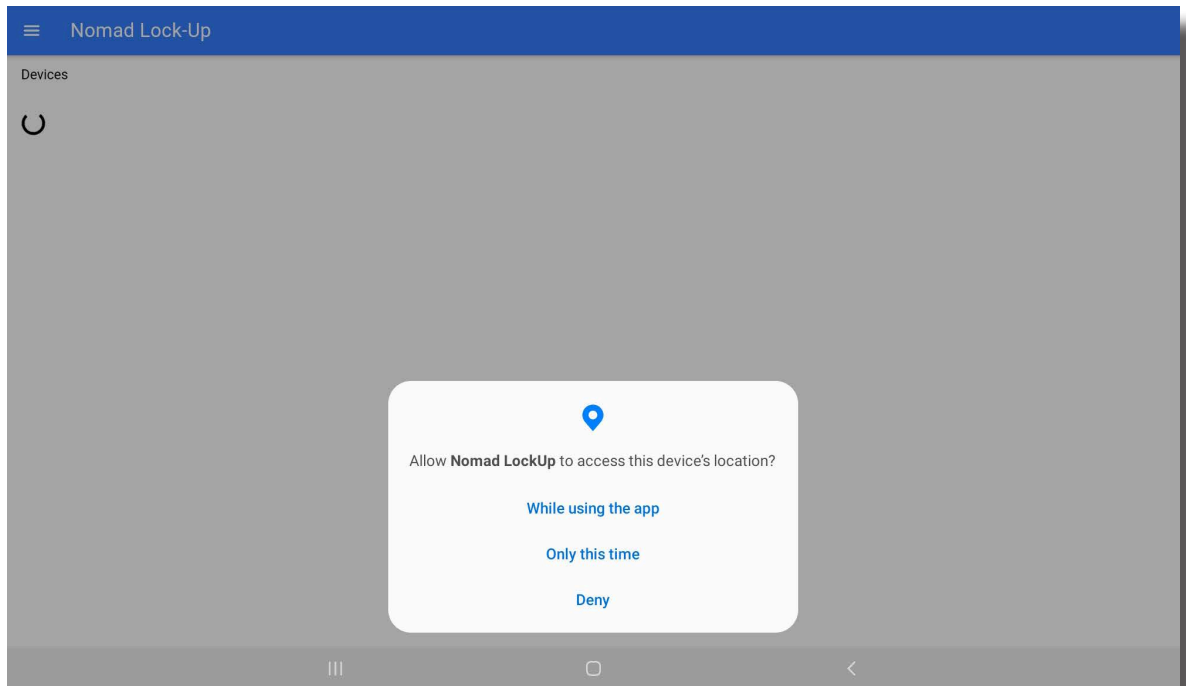


3.12.4 You should now see the devices page and a list of any Nomad Lock-Up Modules that are powered up and within range. If you are not in range of your Nomad Lock-Up Module or it is not powered up then the app will only show a spinning wheel indicating that there is no module in range.



3.12.5 If you have reached this step the app is installed and ready to connect to your Nomad Lock-Up Module. You can now skip to step 4.

# 3.13. Troubleshooting Installation on Android Devices

This chapter will cover some basic troubleshooting steps you can follow if you have not been able to connect your Android device to the Nomad Lock-Up module.

3.13.1  If the app says '**! Bluetooth is Disabled**' then it means that the Bluetooth communication in your smart device is not set up correctly. This could be because your app did not recognise that it has access to your Bluetooth system, Bluetooth is turned off completely or it could be that the Nomad LockUp app does not have the required Bluetooth permissions.

3.13.2  First, close the app and close it from the multitasking menu. Re-open the app. If the '**! Bluetooth is Disabled**' message still remains continue to the next step.
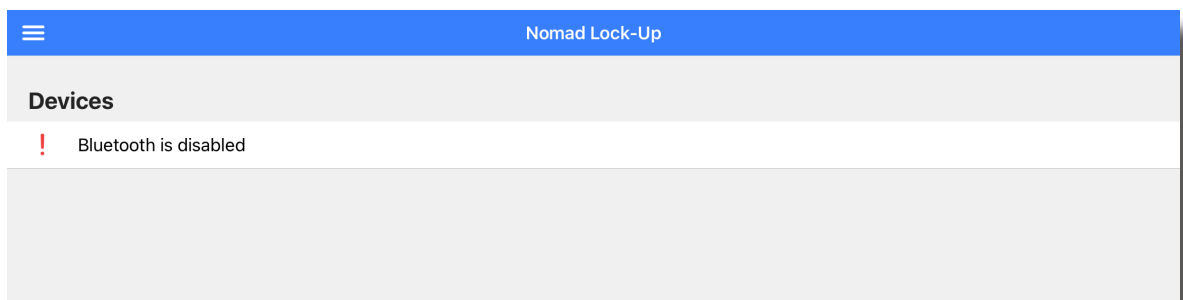


3.13.3  Swipe down from the top of the screen and tap on the grayed out Bluetooth icon. Close the settings window and force close the Nomad LockUp App. Re-open the Nomad LockUp app, you should no longer see the '**! Bluetooth is disabled**' message, instead it should be replaced with the spinning wheel.
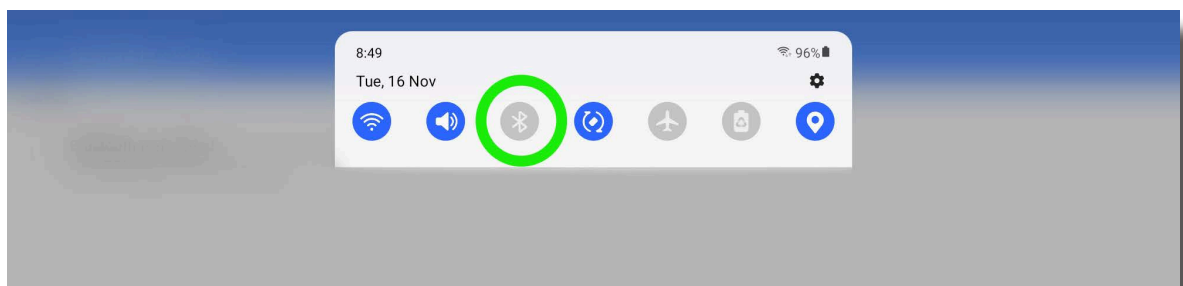


3.13.4  If you are seeing the '**Location services are disabled**' message, this means that you have locations service switch off. This service is required for the app to function correctly.
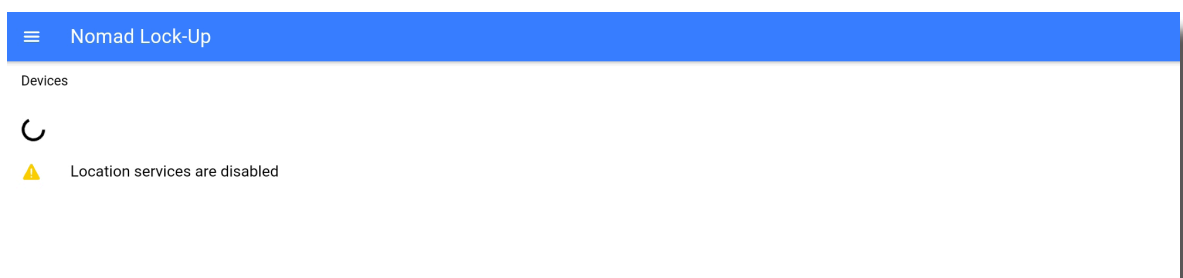
3.13.5  Swipe down from the top of the screen and tap on the grayed out locations icon. This will turn locations service on. Close the settings window and force close the Nomad LockUp app. Re-open the Nomad LockUp app, you should no longer see the '**Location services are disabled**' message. It instead should be replaced with the spinning wheel.
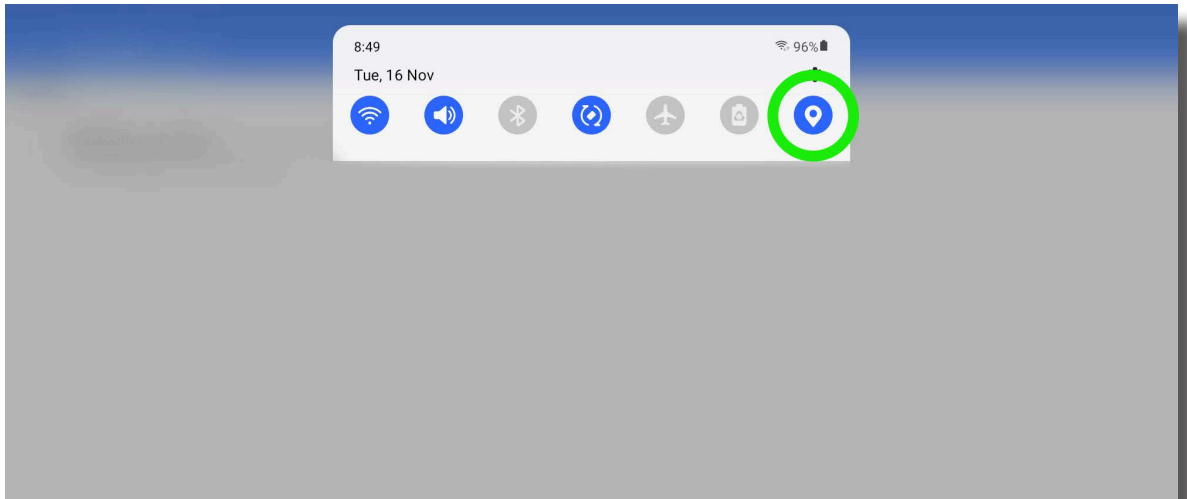


3.13.6  If none of these items have worked, please close the app. Tap and hold on the Nomad LockUp app icon and tap on Uninstall. Then power your device off and reboot. Start from the beginning and download the app again.

3.13.7  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.

# 4. Setup Wizard

## 4.1. First Connection and Firmware Update

4.1.1    Turn your vehicle's ignition on, but do not start the engine.

4.1.2    Open the Nomad Lock-Up application

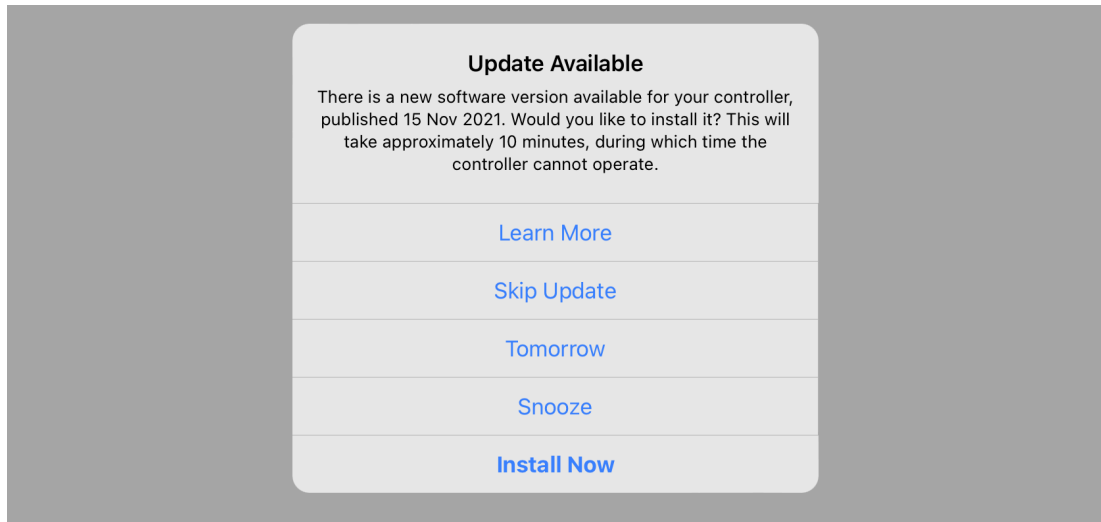4.1.3    Tap on your Nomad Lock-Up module from the Devices list.
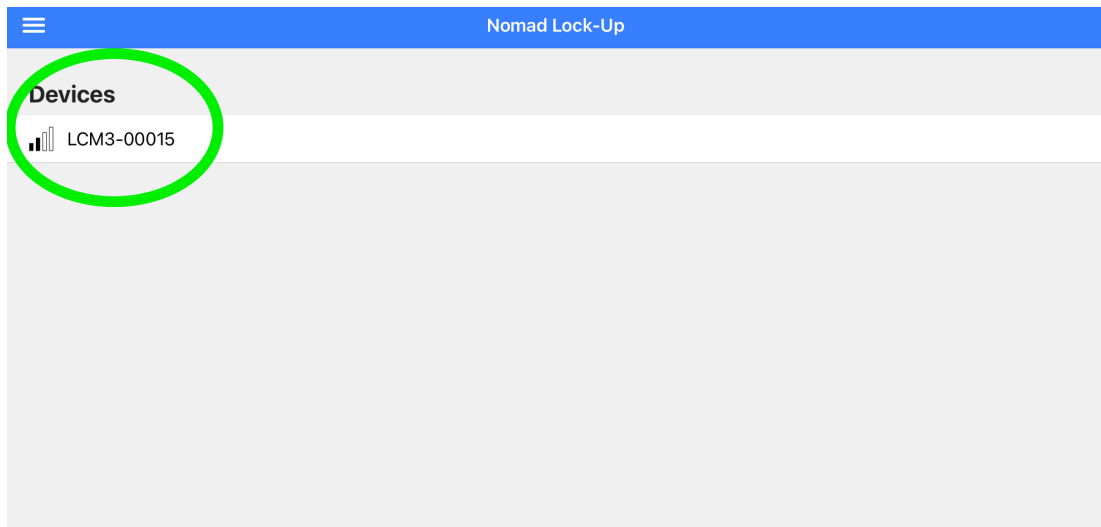


4.1.4    If this is the first time you have connected to your Nomad module you will be prompted to pair your device. Tap Pair.
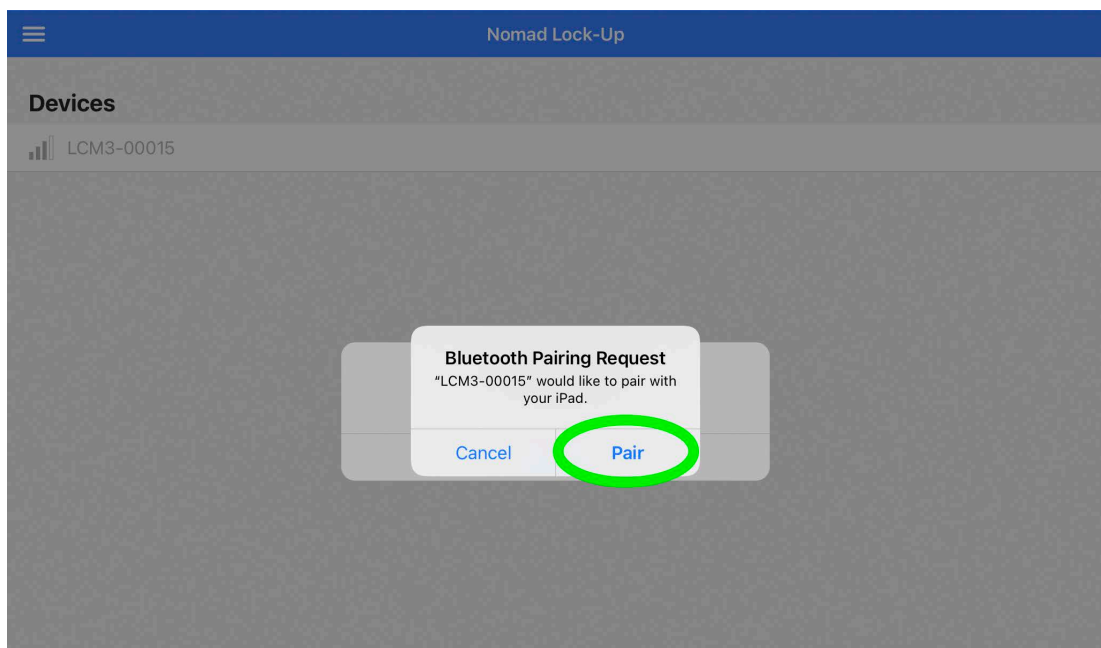
4.1.5    Upon initial connection the Nomad LockUp app will check if there is a new version of firmware for the module. As we develop new vehicles and add features we will provide the ability to update firmware as needed.

You will see the following prompt if there is new firmware available for your Nomad module. If your Nomad Lock-Up module is running the latest firmware, you can skip to the vehicle setup step.

**Update Available**

There is a new software version available for your controller, published 15 Nov 2021. Would you like to install it? This will take approximately 10 minutes, during which time the controller cannot operate.

Learn More

Skip Update

Tomorrow

Snooze

**Install Now**

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

4.1.7    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 may cause the update to fail.
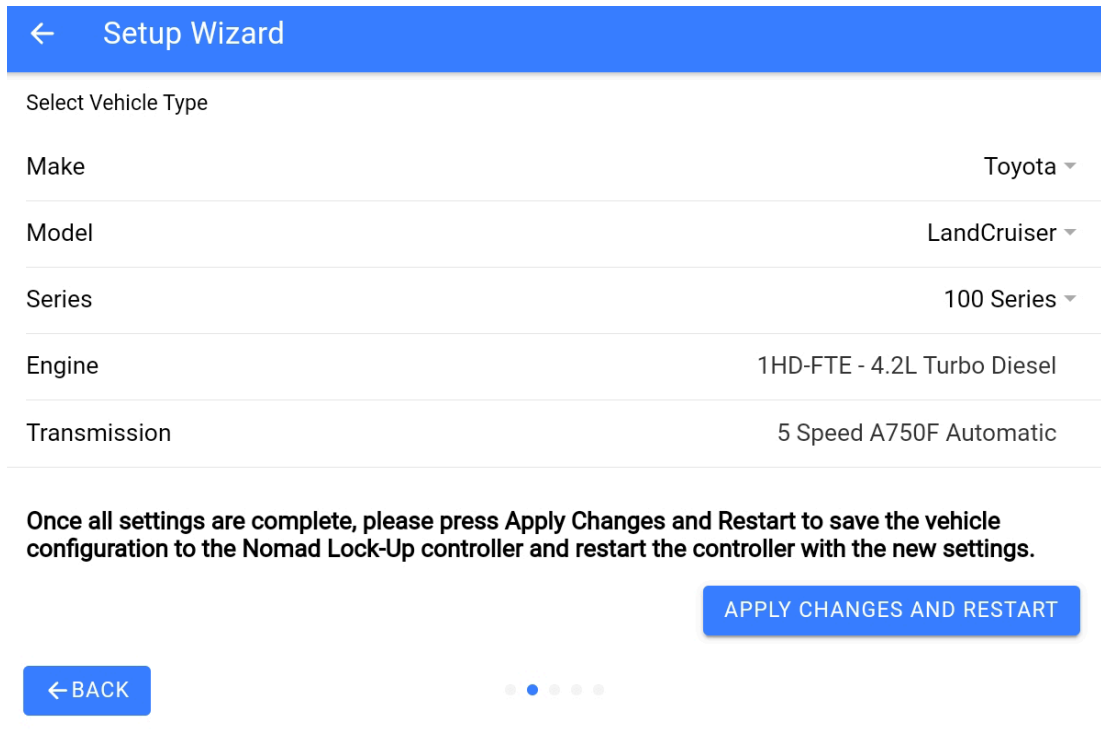
**Programming LCM3-00112**

15.2%

Programming flash

← Cancel
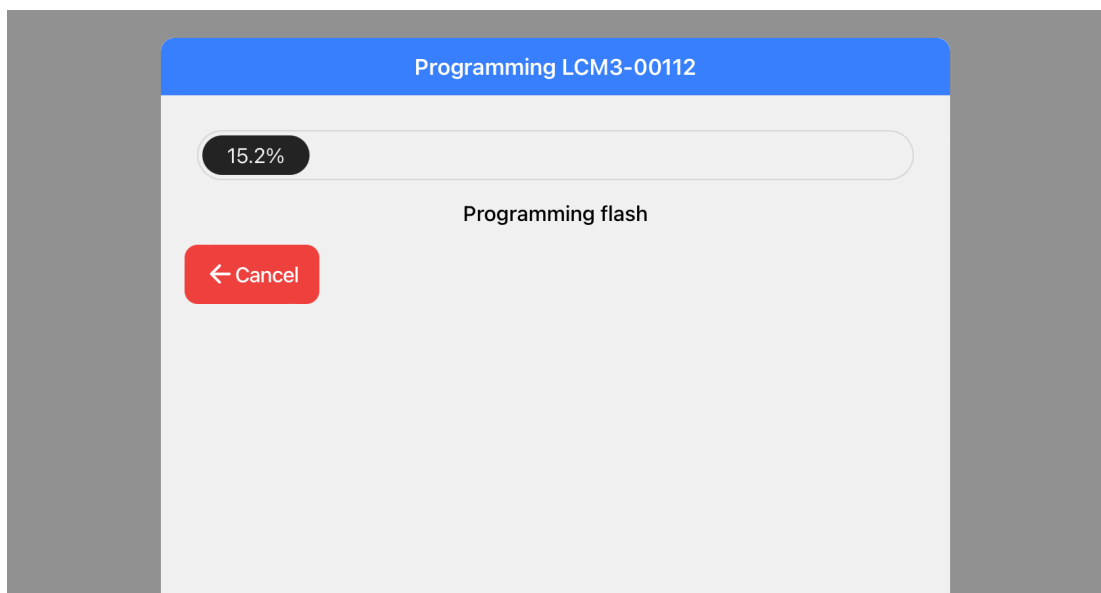
4.1.8    Once your modules firmware has been updated you will be returned to the devices page. Tap on your device once more to connect to continue the Setup Wizard.

## 4.2. Vehicle Configuration

4.2.1 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.
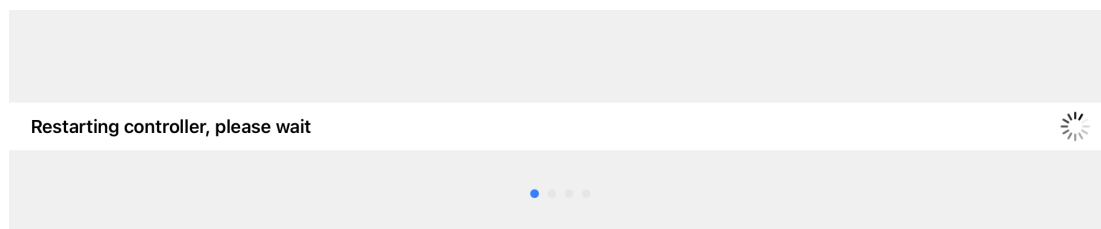
   4.2.1.1 Choose either '1HD-FTE - 4.2L Turbo Diesel' or '2UZ-FE 4.7L V8 Petrol', depending on your vehicle configuration.

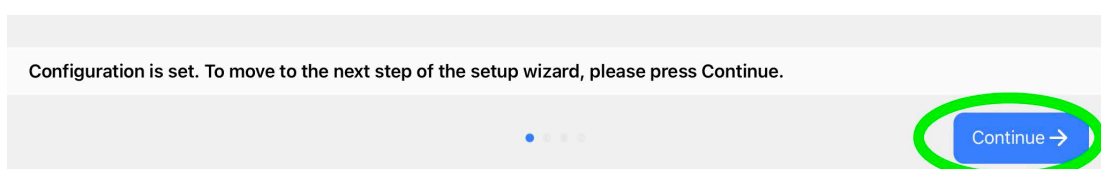4.2.2 Select "Apply Changes and Restart" to continue.

---

← **Setup Wizard**

Select Vehicle Type

| | |
|---|---|
| Make | Toyota ▼ |
| Model | LandCruiser ▼ |
| Series | 100 Series ▼ |
| Engine | 1HD-FTE - 4.2L Turbo Diesel |
| Transmission | 5 Speed A750F Automatic |

**Once all settings are complete, please press Apply Changes and Restart to save the vehicle configuration to the Nomad Lock-Up controller and restart the controller with the new settings.**

APPLY CHANGES AND RESTART

← BACK    • • • • •

---

4.2.3 Wait while the Nomad Lock-Up Module restarts.

**Restarting controller, please wait**    ☼

• • • •

4.2.4 After the Nomad Lock-Up Module has rebooted tap "Continue".

**Configuration is set. To move to the next step of the setup wizard, please press Continue.**

• • • •    Continue →

4.2.5 The Check Sensor Inputs page allows you to verify that the signals the Nomad Lock-Up module requires to operate are being decoded correctly. Check these signals with the engine off.

---

←     **Setup Wizard**

Check Sensor Inputs

Please verify that the Nomad Lock-Up Controller is receiving signals from your vehicle. If you can safely do so, activate or move the items listed below to see the signal values change. Make sure they look reasonable before proceeding.

| | |
|---|---|
| Throttle | 0 % |
| Manual Switch | Off |
| Power Mode | Off |
| Reverse | Off |
| Low Range | Off |

← BACK     • • • • •     CONTINUE →

---

4.2.5.1 **Throttle**
This value won't be correct until the Throttle Position Sensor calibration is completed in a later step.

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

4.2.5.3 **Power Mode**
Activate the transmission Power Mode to check that the Power Mode value changes from 'Off' to 'On'. If Power Mode is already on, pressing the switch should change this value to 'Off'.

4.2.5.4 **Reverse**
Move the shifter into the reverse position to check that the Reverse value changes to 'On'.

4.2.5.5 **Low Range**
Move the transfer case lever into the low range position to check that the Low Range value changes from 'Off' to 'On'.

4.2.6 Once all signals are confirmed, tap "Continue". If any of these show incorrectly this likely indicates a problem with the Vehicle Leg wiring at the PCM.

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4.2.7  Choose if you would like the Nomad Lock-Up Module to operate in Automatic or Manual Mode. Then tap continue.



4.2.7.1  **Automatic mode**
The torque converter lock-up will automatically engage and disengage at predetermined speeds and loads that we have configured for you. These values can be modified at anytime to suit your driving style.

**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.



4.2.7.2  **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.

4.2.8   Please set the Rolling Tire Diameter for your vehicle. To find the Rolling Diameter measure from the ground to the centre of the axle, then double this measurement and enter it into the app.
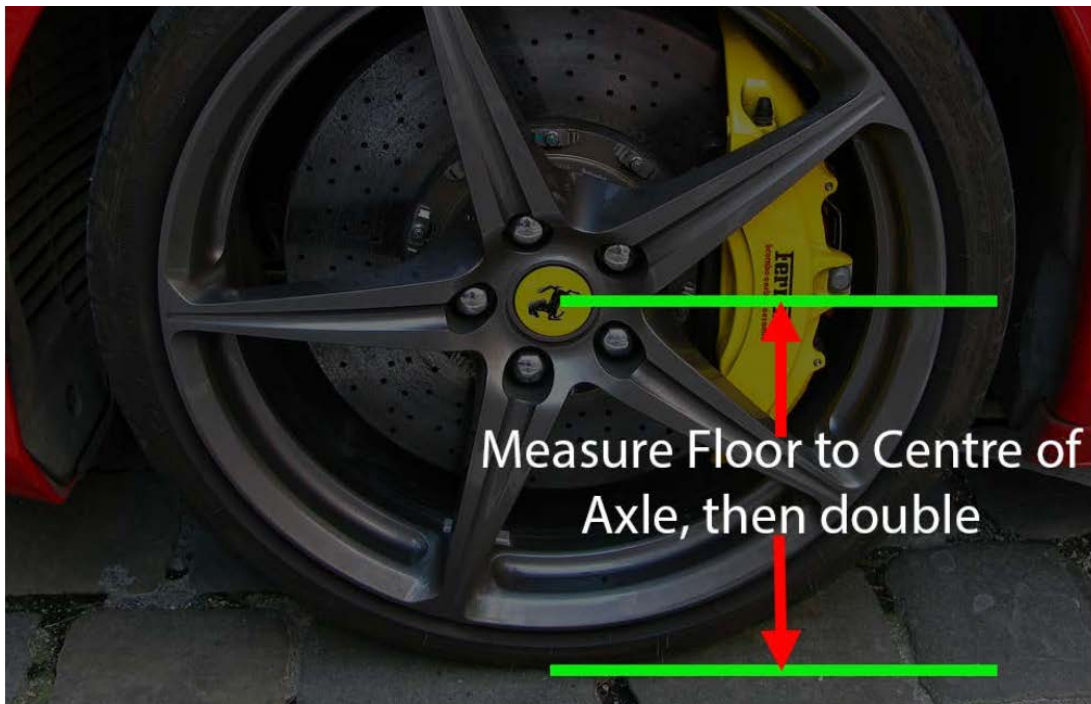
---

**‹ Disconnect**          Setup Wizard

**Set Tire Size**

Please enter the vehicle's tire rolling diameter.

Tire Diameter                                          **79.0** cm  ⬇️ ⬆️
Measure from ground to centre of axle, then double.

---



Measure Floor to Centre of Axle, then double

4.2.9   Tap "Finish" to complete the Setup Wizard

---

**‹ Disconnect**          Setup Wizard

**Setup Wizard is Complete**

You have now completed the Nomad Lock-Up Kit Setup Wizard. Please test drive the vehicle and check the operation of the Nomad Lock-Up Kit.

Thank you for choosing the Nomad Lock-Up Kit by Wholesale Automatic Transmissions.

[ Finish ]

← Back

---

4.2.10  Turn your ignition off and then back on again to power cycle the Nomad module.

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## 4.3. Throttle Position Sensor Calibration

4.3.1 Once you reconnect to your module you will likely have trouble codes related to the Throttle Position Sensor (TPS). You will need to perform a TPS Calibration in order for the Nomad module to function correctly.

4.3.2 Ensure the engine is not running but the ignition is switched on. Navigate to the Vehicle Setup page and tap on TPS Calibration.

← **Vehicle Setup**          !    Q

### Tire Rolling Diameter
Enter for correct vehicle speed reading on dashboard and calibration.

**81.0** cm    ↓  ↑

### Transfer Case Ratio
Reduction of the transfer case in low range.

**2.49** :1    ↓  ↑

### Vehicle Speed Sensor Pulse Count
Pulses per drive shaft turn on the VSS. Depending on transmission, may not be adjustable.

**18**    ↓  ↑

### Lock-Up Engage Delay
Delay after a shift before the Lock-Up will engage

**2.50** s    ↓  ↑

TPS Calibration

### Reverse TPS
Makes increasing sensor voltage correspond to smaller throttle opening or pedal position.

TPS CALIBRATION

Advanced TPS

4.3.3    With your foot off the throttle pedal, tap Start. You will have 5 seconds to press the throttle pedal as hard as you can to the floor, then release it completely. Try and do this 2 or 3 times before the timer runs out.

4.3.4    Tap OK once the TPS calibration is complete.

4.3.5    Turn your ignition off and then back on again to power cycle the Nomad module.

4.3.6    Allow time for the app to reconnect to the Nomad Lock-Up Module. Confirm there are no DTCs (Diagnostic Trouble Codes) set. If you see the tick at the top right, you have completed the installation.
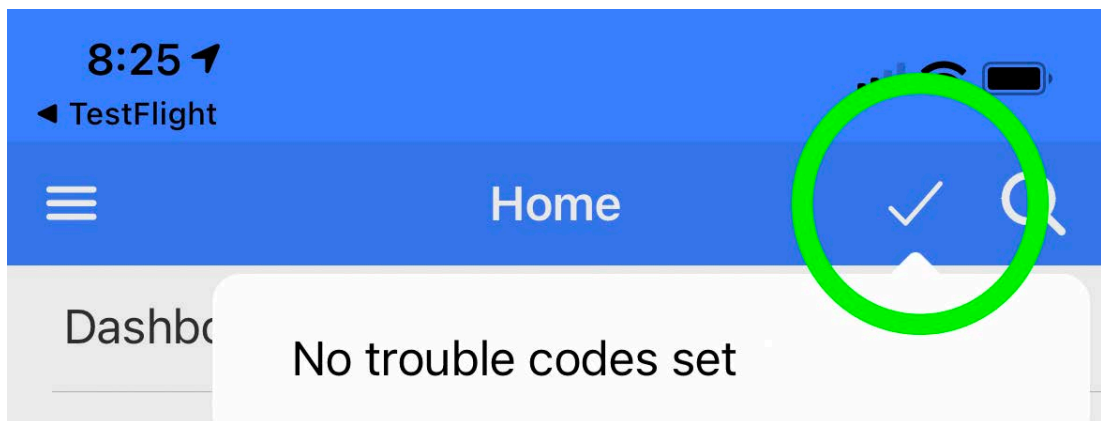


4.3.7    You can now take the vehicle for a test drive to confirm the Nomad Lock-Up kit is operating as expected. At this point, we recommend re-installing any dash panels or parts removed during the installation process of the Nomad Lockup Module.

4.3.8    After the test drive, before switching off the vehicle, connect to the Nomad Lock-Up Module with the app to confirm you still see the tick at the top right.

# 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 device's camera app to scan the QR code below. This will take you straight to our feedback page for you to choose the most appropriate feedback method.

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