



Technical Bulletin TB239

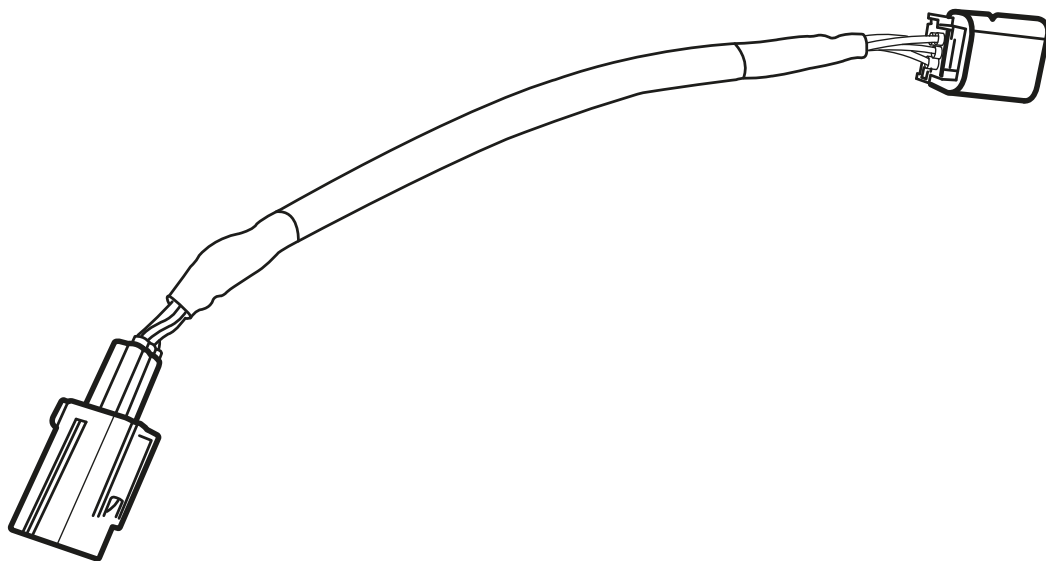
03.2024

Contents

Item	Subject	Model Affected
TB239. 1	Triumph Diagnostic Interface Adapter - T3880543	TF 250-X
TB239. 2	Electronic Systems Commissioning and Motorcycle Unlock	TF 250-X
TB239. 3	Triumph Diagnostic Tool - New Diagnostic Features for Off Road Motorcycles	TF 250-X
TB239. 4	Triumph Diagnostic Tool - Autoscan Support	Speed 400, Scrambler 400 X, TF 250-X

Item: TB239.1
Description: Triumph Diagnostic Interface Adapter - T3880543
Model Affected: TF 250-X

A new diagnostic Interface adaptor (part number T3880543) has been released for use with the above models.



NOTICE

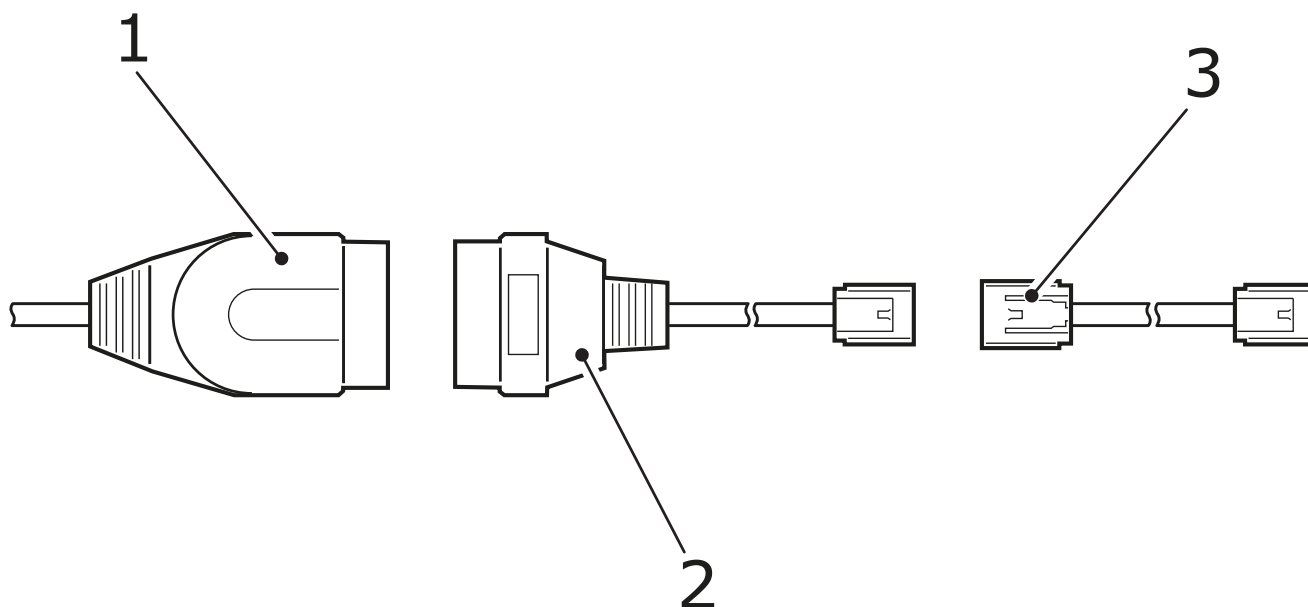
T3880543 - Diagnostic Interface Adapter is intended for use on the above Triumph Motocross motorcycle model(s) only.

The above interface must not be used on any other Triumph motorcycle models.

Connecting the above adaptor to Triumph motorcycles other than the Motocross model(s) listed above will cause DTCs to be stored, and may cause damage to electrical or electronic components.

The new diagnostic interface must be used in conjunction with the following service tools:

- T3880057 - Triumph Diagnostic Interface
- T3880538 - Diagnostic Interface Cable.



1. T3880057 - Triumph Diagnostic Interface

2. T3880538 - Diagnostic Interface Cable

3. T3880543 - Diagnostic Interface Adapter

The new diagnostic interface must be used when:

- Downloading Calibrations to the Engine ECM on the above model(s).
- Connecting to Engine ECM diagnostics on the above motorcycles when the engine is not running.

NOTICE

The motorcycle's electrical system will turn on when T3880543 - Diagnostic Interface Adapter is connected to the motorcycle.

T3880414 - Lithium Battery Charger can be used to maintain battery charge while the diagnostic interface is connected to the motorcycle.

To avoid draining the motorcycle battery, always disconnect the diagnostic interface adaptor from the motorcycle when your diagnostic session is complete.

Item: TB239.2
 Description: Electronic Systems Commissioning and Motorcycle Unlock
 Model Affected: TF 250-X

⚠ WARNING

Make sure the motorcycle is stabilised and adequately supported.
 Do not support the motorcycle on any ancillary component, the exhaust system or any other non structural parts of the motorcycle frame.
 A correctly supported motorcycle will help prevent it from falling.
 An unstable motorcycle may fall resulting in motorcycle damage, serious injury or death.

NOTICE

This process must be performed by an approved 'Off Road' motorcycle dealer.
 Access to Triumph Diagnostic Tool features for Off Road motorcycles is only available to approved Off Road motorcycle dealers.
 The following Service tools are required to connect the diagnostic tool to the motorcycle.
 T3880057 - Triumph Diagnostic Interface
 T3880538 - Diagnostic Interface Cable
 T3880543 - Diagnostic Interface Adapter.

Description

The above motorcycle(s) are delivered from the factory with the Engine ECM in a 'Transit Locked' condition. When performing a Pre-Delivery Inspection on the above models, the motorcycle's Engine ECM must be updated (if required) and unlocked before the engine can be started.

When in the transit locked condition:

- The Malfunction Indicator Lamp (MIL) will flash on and off slowly.
- The engine will crank when the Engine Start button is pressed, but it will not start.

The Transit Lock status can also be viewed using the Triumph Diagnostic Tool.

Navigate to **Diagnostics** -> **Engine Diagnostics** -> **Build data**, then use the scroll bar to scroll down and view the Transit Lock Status.

The screenshot shows the Triumph Diagnostic Tool interface with the 'ENGINE DIAGNOSTICS' menu open. The 'BUILD DATA' section is selected, displaying a table of build data. The table has two columns: 'Build Data' and 'Value'. The data is as follows:

Build Data	Value
TXT_EngineType	Not Applicable
Tester Serial Number	TDT2DIAG
Date of Last Calibration Download	30/01/2024
TXT_CalibrationPartNumber	1040000
Build Number	A013
Calibration Number	00000000104000000ZB1M24AEUA013
TXT_TuneCore1 - TBD	00000000104000000ZB1M23CEUA017
TXT_TuneCore2 - TBD	00000000104000000ZB1M24CEUA018
Model	TF250-X
TXT_ModelVariant	M
Model Year	24
Market Variant	EU
Dealer Lock Status	Unlocked
Transit Lock Status	Locked

At the bottom of the screen, a status bar indicates 'Displaying build data'.

Preparation

1. Download and install the latest version of the Triumph Diagnostic Tool to your computer as described in the Triumph Diagnostic Tool Installation Guide. Triumph Diagnostic Tool Version 2024-03 or later is required to complete this procedure.
2. Unpack the motorcycle as described in the Motorcycle Unpacking Guide.
3. Assemble the motorcycle as described in the Motorcycle Assembly Guide.

NOTICE

To complete this process, dealers must confirm that they have received the motorcycle into stock by generating a PDI form against the motorcycle VIN.

Authorisation to unlock the motorcycle will not be granted until a PDI form has been generated.

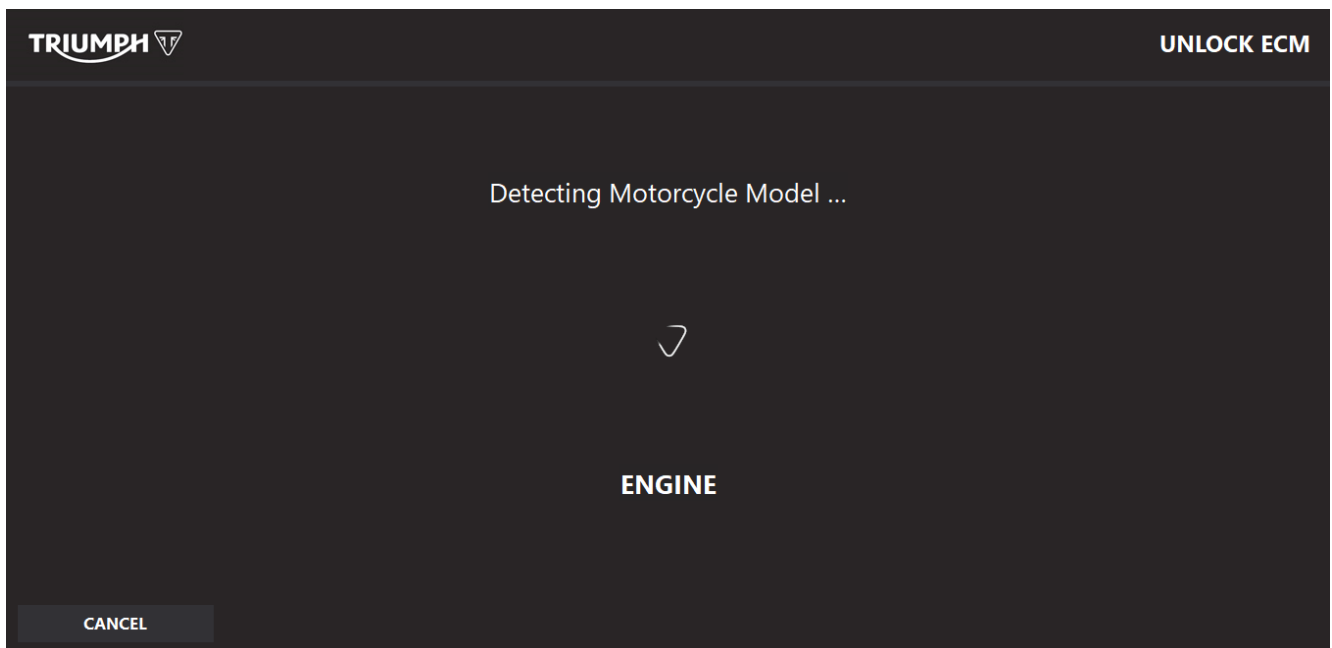
4. Visit www.triumphonline.net and generate a PDI form for your motorcycle VIN.
5. Remove the rider's seat.
6. Ensure that the motorcycle battery is fully charged and installed as described in the Service Manual.
7. Use T3880414 - Lithium Battery Charger to maintain battery charge throughout this procedure.

To clear the Transit Lock:

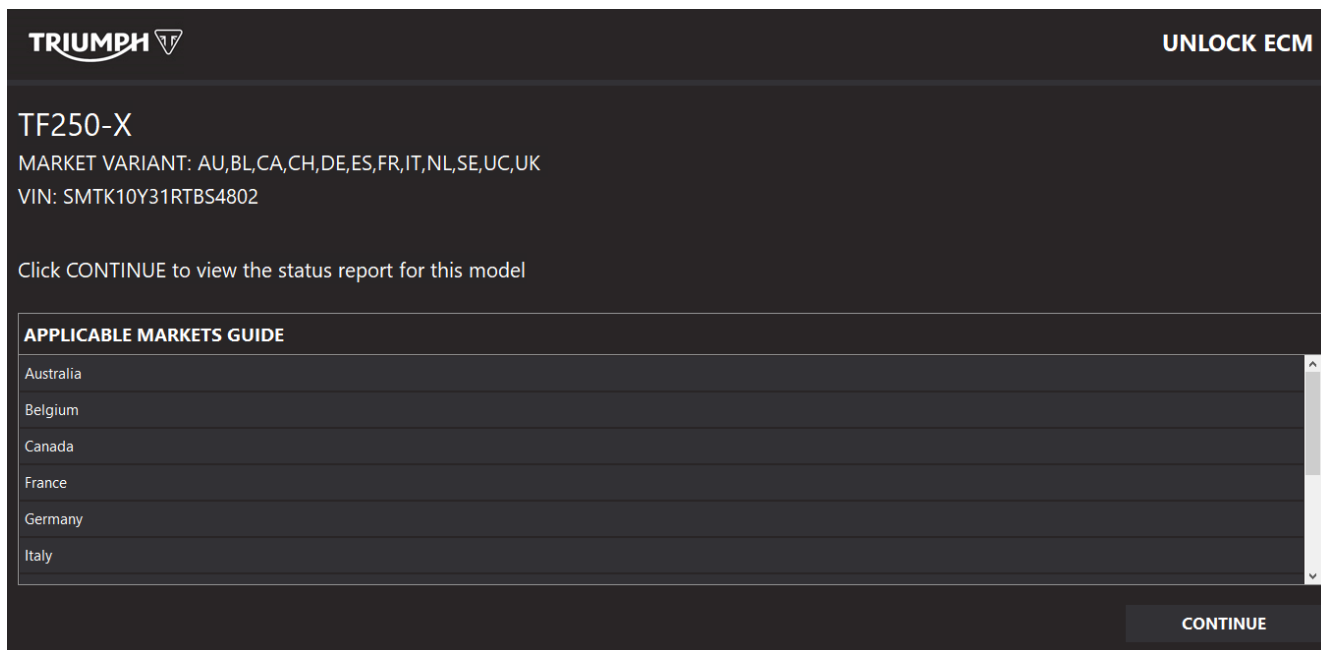
NOTICE

This process can only be performed by approved Off Road motorcycle dealers.

1. Connect the diagnostic tool to the motorcycle as described in the Service Manual.
2. Navigate to **Diagnostics** -> **Engine Diagnostics**.
3. Click **Unlock ECM**.
4. The tool will now scan the motorcycle.



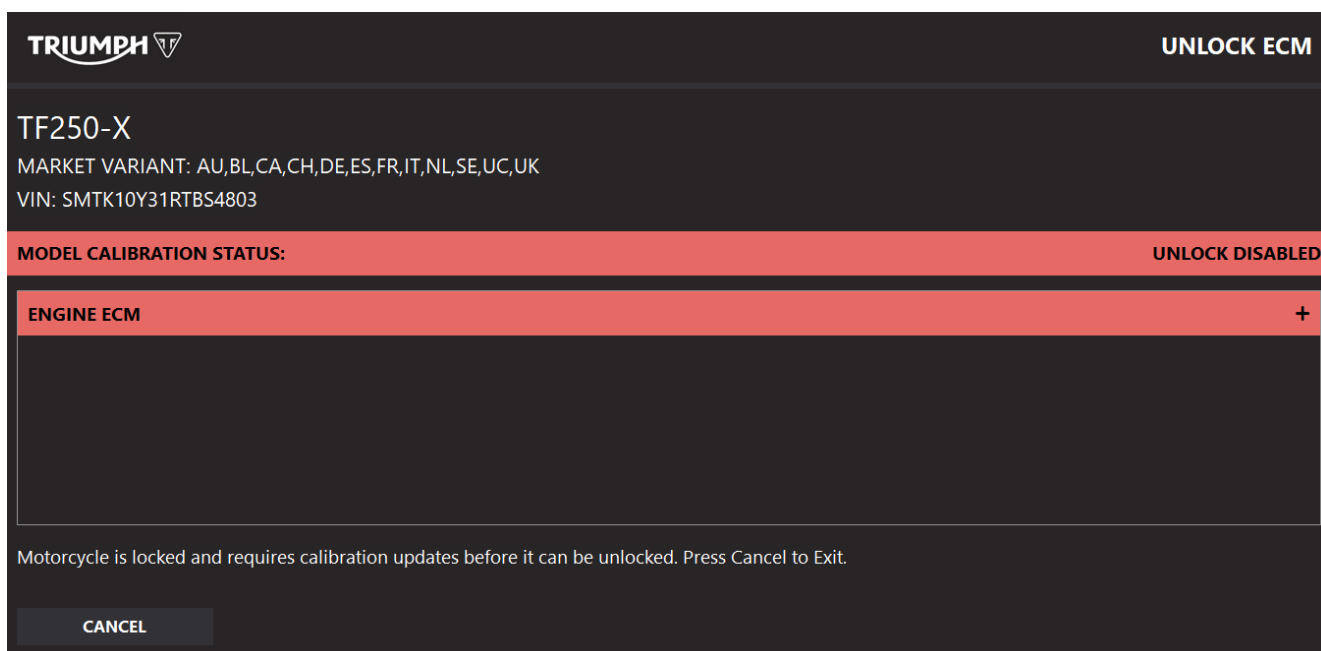
5. When the scan is complete, the model confirmation screen is displayed.



6. Check the model details are correct and click **Continue**.

7. The Calibration Status screen is displayed.

- If the Engine ECM calibration is out of date, the Engine ECM ribbon will be coloured red and the message **Unlock Disabled** will be displayed.



WARNING

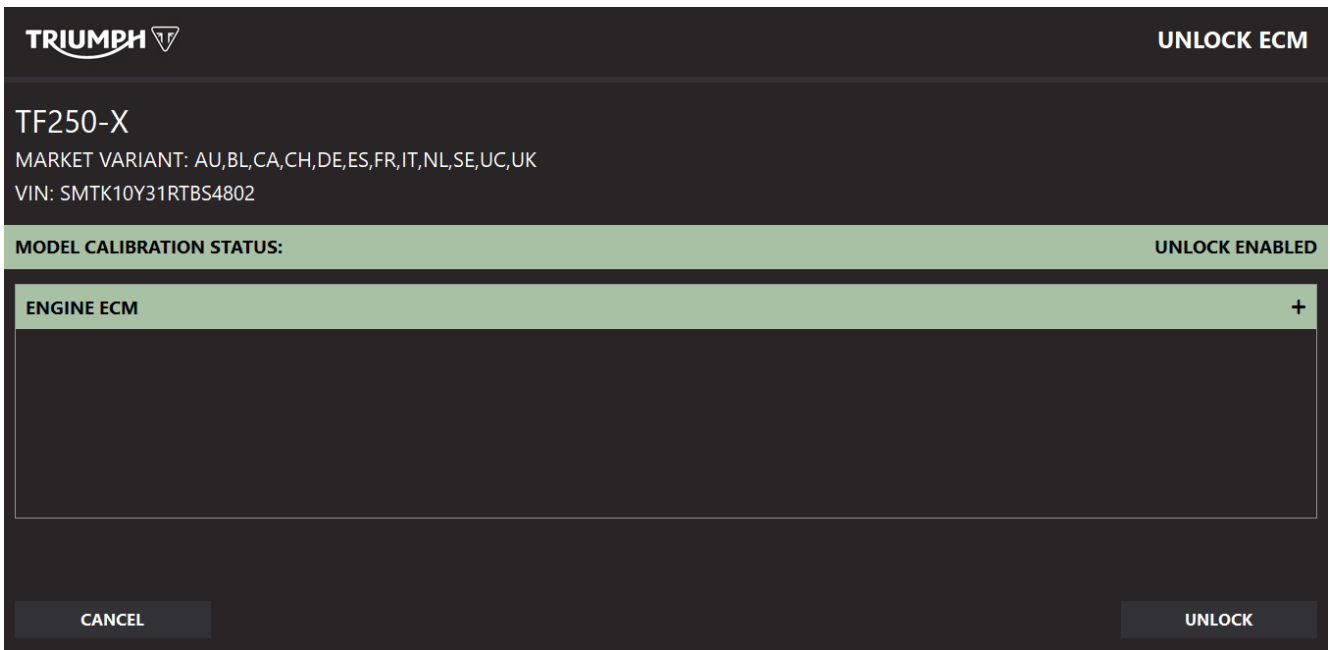
Always ensure that the correct motorcycle model name is identified and displayed before starting a calibration download.

Downloading calibrations for an incorrect model may cause motorcycle electronic systems to function incorrectly.

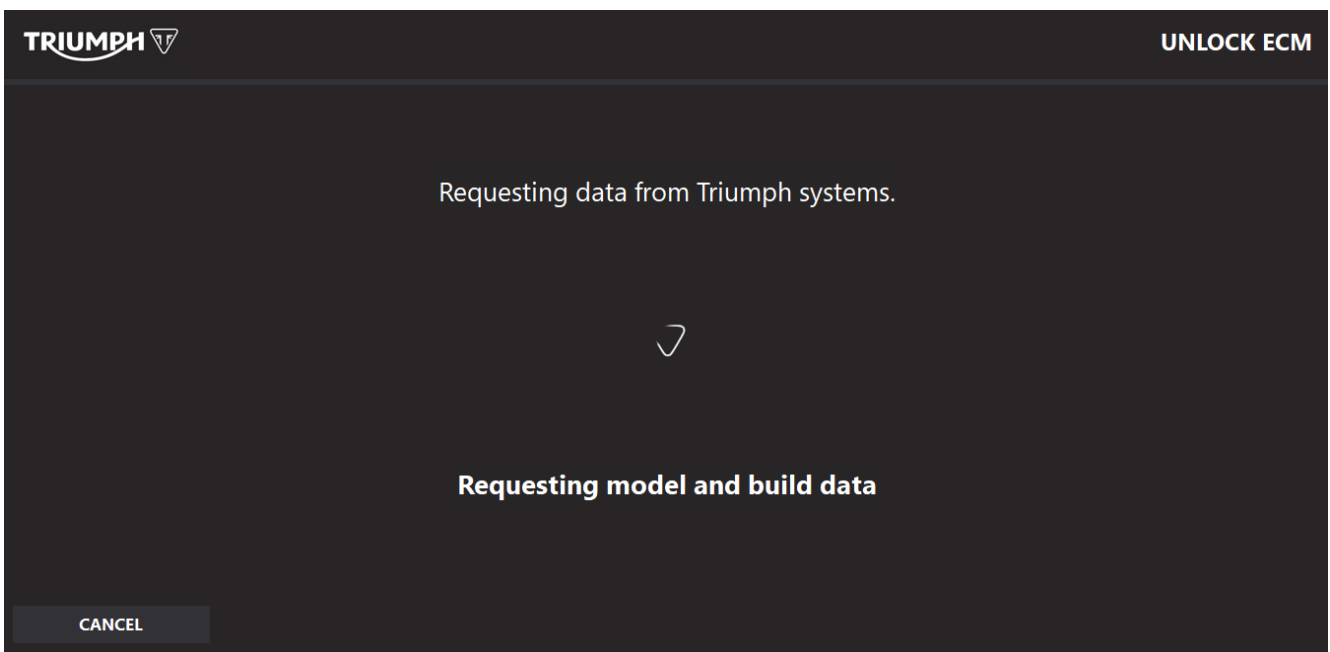
This can cause an unsafe riding condition which could lead to an accident resulting in injury or death.

- If the Engine ECM calibration is out of date, download the latest Engine ECM calibration before attempting to unlock again.

- When the Engine ECM calibration is up to date, the Engine ECM ribbon will be coloured green and the message **Unlock Enabled** will be displayed.

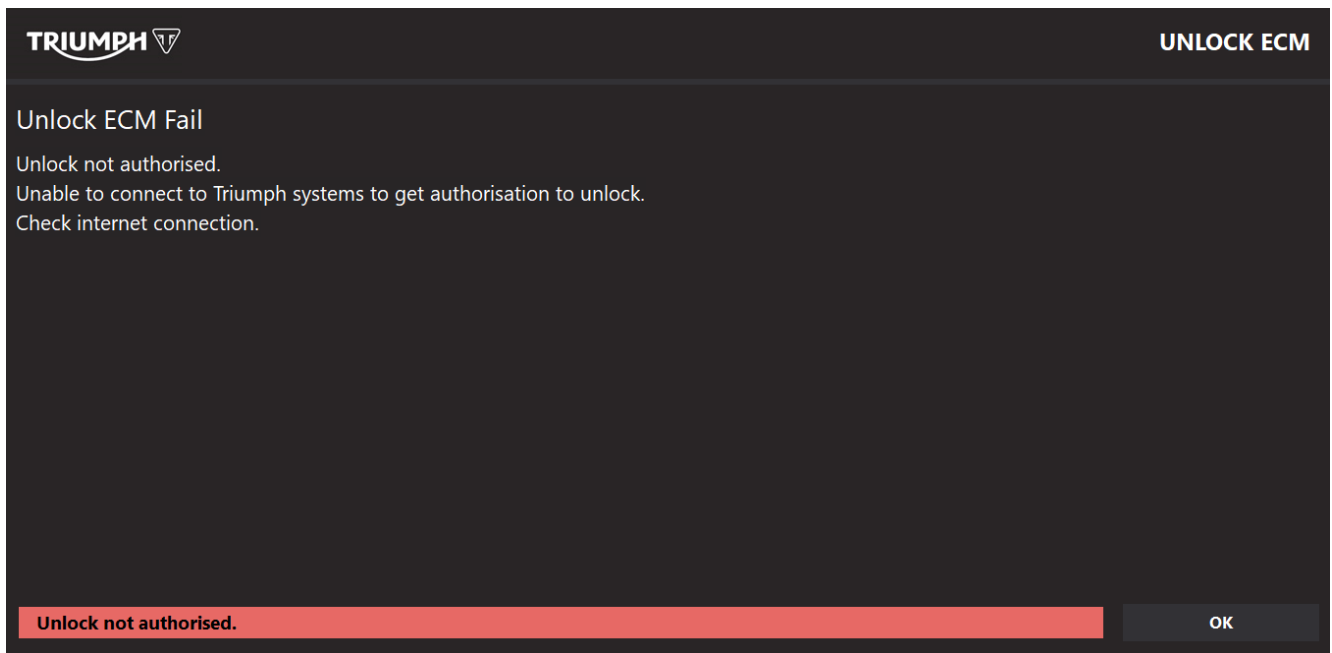


8. If the ECM calibration is up to date, click **Unlock** to continue.
9. The tool will now connect to Triumph Systems to obtain authorisation to unlock the motorcycle.



10. Unlock will not be authorised if:

- The diagnostic tool is not able to connect to Triumph Systems.



- A PDI form has not been generated for the motorcycle VIN being unlocked.



11. When unlock authorisation is obtained, the Enter Unlock Code screen will be automatically displayed.

TRIUMPH

UNLOCK ECM

Enter Unlock Code

Enter the unlock code and press the unlock button

Enter Unlock Code 00000000000000000000000000000000

CANCEL UNLOCK

NOTICE

The unlock code can be found at www.triumphonline.net.

12. Enter the 21 character unlock code and click **Unlock**.
13. If the unlock code entered is incorrect, The ECM will not be unlocked. Enter the code again making sure it is entered correctly.
14. If the unlock code entered is correct, the ECM will be unlocked and the tool will return to the Engine Diagnostics Build Data Screen.
15. Check the Engine ECM for stored DTCs. Erase any stored DTCs as necessary:

Final Steps

- Disconnect the Triumph Diagnostic Tool.
- Check that the engine can be started.
- Refit the rider's seat.

Item: TB239.3
Description: Triumph Diagnostic Tool - New Diagnostic Features for Off Road Motorcycles
Model Affected: TF 250-X

New diagnostic tool features have been released for the above model(s). The new features are detailed below.

NOTICE

Triumph Diagnostic Tool features for the above model(s) are only available to approved Off Road motorcycle dealers.

NOTICE

The following Service tools are required to connect the diagnostic tool to the above model(s).
 T3880057 - Triumph Diagnostic Interface
 T3880538 - Diagnostic Interface Cable
 T3880543 - Diagnostic Interface Adapter

Live Data

The screenshot shows the Triumph Diagnostic Tool interface with the 'ENGINE DIAGNOSTICS' header. A navigation bar at the top includes icons for Build Data, Read DTCs, Live Data, History Data, Adjust, and Configure. The 'LIVE DATA' section is active, displaying a table with the following data:

Group	Description	Value
Sensor Voltages	Total engine run hour counter	02 h 11 m
Current Data	Engine RPM	0 RPM
Periodic Data	Intake Manifold Absolute Pressure	99.9 kPa
Switches	Barometric Pressure	99.9 kPa
	Throttle Position 1	0.03 %
	Intake Air Temperature	18.0 °C
	Engine Coolant Temperature	17.0 °C
	Battery Voltage	13.17 V
	Gear Position Status	1
	Fuel Pump Activation Status	Off
	Fuel Pump Output Status	Off

At the bottom of the screen, there are 'Stop' and 'Save' buttons. A status bar at the very bottom indicates 'Reading Live Data'.

Live Data sets for the above model(s) are divided into the following groups.

- **Sensor Voltages** - displays the live Throttle Position Sensor Voltage as well as the Learned Minimum Throttle Position Voltage.
- **Current Data** - displays a list of sensor parameters available over an open OBD diagnostic session.
- **Periodic Data** - displays a list of sensor parameters available over a secure diagnostic session.
- **Switches** - displays the Push Button Position, and Push Button LED Status for each of the left hand handlebar switches.

A printable PDF Live Data Report can be generated by clicking the **Save** button while viewing the Live Data.

History Data

Group	Description	Value
General Data	0-10%	101 Minutes
TPS (Throttle Position Sensor)	10-20%	22 Minutes
Engine RPM	20-30%	4 Minutes
Engine Temperature	30-45%	0 Minutes
Air Temperature	45-60%	0 Minutes
Battery Time	60-80%	0 Minutes
Battery Min/Max	80-100%	0 Minutes

● Displaying History Data

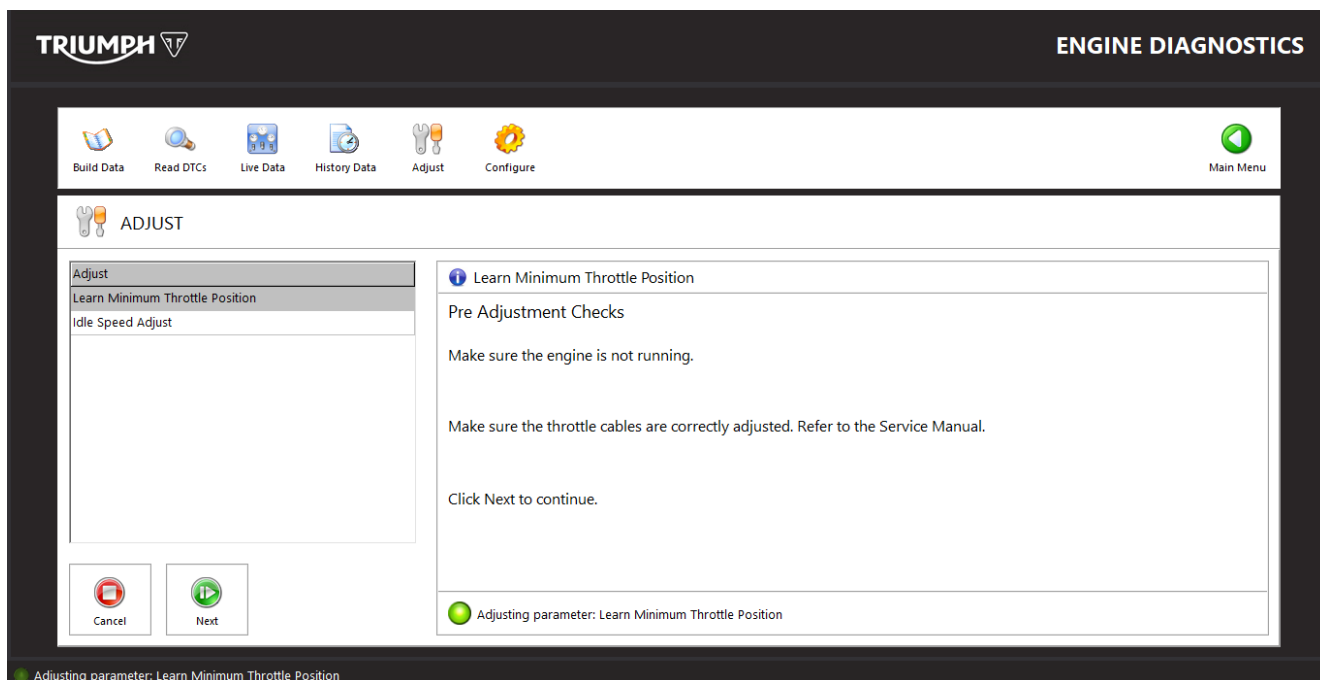
The History Data area displays information on how long the motorcycle has been operated under various conditions over its lifetime.

History Data sets for the above model(s) are divided into the following groups.

- **General Data** - Displays the total engine run hour counter.
- **TPS (Throttle Position Sensor)** - Displays how long the motorcycle has been operated under various throttle position ranges.
- **Engine RPM** - Displays how long the motorcycle has been operated under various engine speed ranges.
- **Engine Temperature** - Displays how long the motorcycle has been operated under various engine temperature ranges.
- **Air Temperature** - Displays how long the motorcycle has been operated under various air temperature ranges.
- **Battery Time** - Displays how long the motorcycle has been operated under various battery voltage conditions.
- **Battery Min/Max** - Displays the minimum and maximum battery voltages detected by the ECM over the vehicle lifetime.

A printable PDF History Report can be generated by clicking the **Save** button while viewing the History Data.

Adjust



The Adjust area provides guided adjustment processes for the following:

- Learn Minimum Throttle Position - This must be done when replacing the Engine ECM or Throttle Bodies on the above model(s).
- Adjust Idle Speed - This feature can be used to adjust engine idle speed to optimal RPM range.
- Write VIN - This feature is only available for replacement Engine ECMs and must be done when fitting and commissioning a replacement.

Select the Adjust feature you require, then click Start and follow the onscreen instructions.

Configure - Dealer Lock Feature

NOTICE

This process can only be performed by approved Off Road motorcycle dealers.

The Engine ECM on the above model(s) also provides a 'Dealer Lock/Unlock' function.

This function enables dealers to lock the motorcycle and prevent the engine from being started, after the initial Transit Lock has been cleared at PDI.

The feature can be used to lock motorcycles if they are to be kept in dealer storage after PDI has been completed.

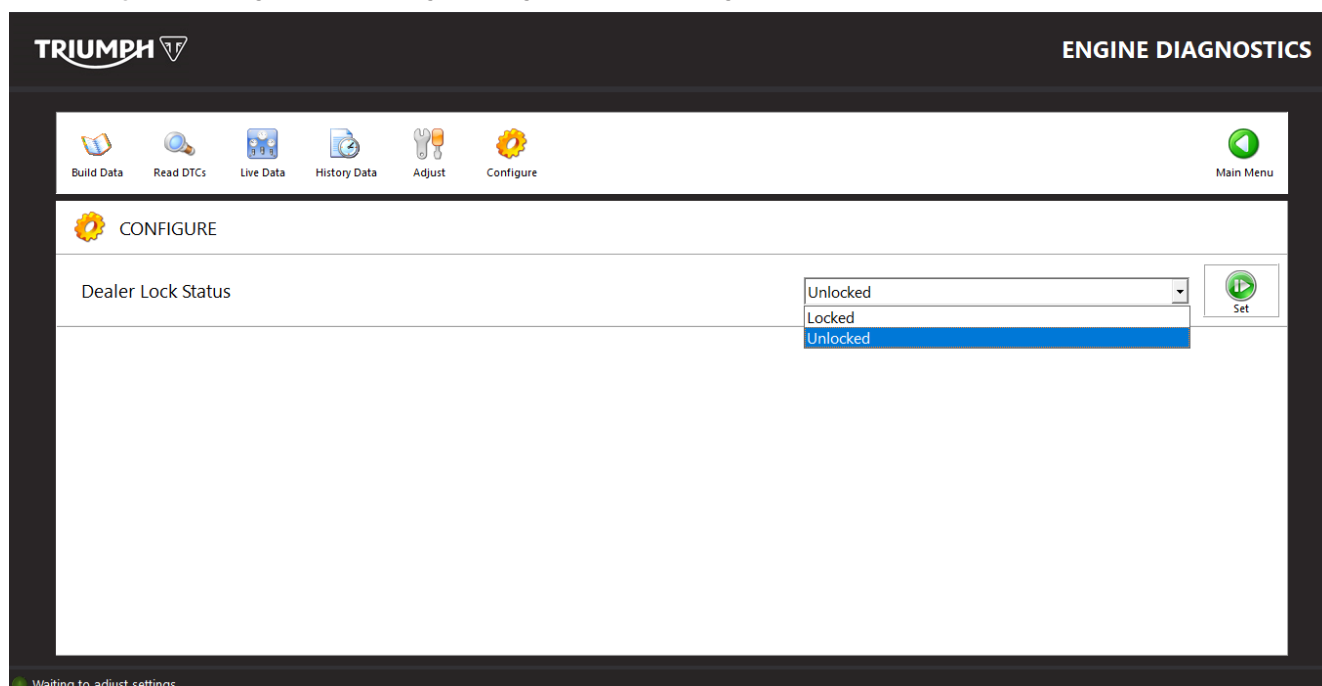
The Dealer Lock function does not require further authorisation or entry of an unlock code.

NOTICE

Care must be taken to ensure that both the Transit and Dealer locks have been unlocked on the above motorcycle(s) before handover to the customer.

To set the Dealer Lock to Locked:

1. Navigate to **Diagnostics** -> **Engine Diagnostics** -> **Configure**.



2. Use the pull down menu to change the Dealer Lock Status to **Locked**.
3. Click the **Set** button to store the setting.
4. Navigate to the **Build Data** screen and confirm the Dealer Lock Status is reported as Locked.

NOTICE

The Malfunction Indicator Lamp (MIL) will flash on and off slowly when the Dealer Lock is set.

5. Return to the diagnostic tool Main Menu.
6. Disconnect the diagnostic interface and all diagnostic interface adapters from the motorcycle.
7. Check the motorcycle is locked by attempting to start the engine.

NOTICE

The engine may start on the first attempt after setting the dealer lock.

If the engine starts on the first attempt, turn the engine off and wait for 30 seconds.

Attempt to start the engine again. The engine will crank when the engine start button is pressed, but it should no longer start.

To Set the Dealer Lock to Unlocked:

1. Follow steps 1 to 3 in the dealer locking procedure above, but set the Dealer Lock Status to **Unlocked**.
2. Navigate to the **Build Data** screen and confirm the Dealer Lock Status is reported as Unlocked.
3. After unlocking, the MIL should return to normal operation and it should be possible to start the engine.

Item: TB239.4
Description: Triumph Diagnostic Tool - Autoscan Support
Model Affected: Speed 400, Scrambler 400 X, TF 250-X

We would like to advise dealers that the Triumph Diagnostic Tool Autoscan feature does not currently support the above models.

The ECM Status feature is currently available for the above models and includes checks for latest calibrations and stored DTCs.

Dealers are requested to perform an ECM Status Report on the above models at PDI and at every service or visit to the dealership. Dealers must ensure that all motorcycle calibrations are up to date and that there are no DTCs stored before customer handover.