



Technical Bulletin 179

08.2017

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Item: .1
Description: Dual Seat and Single Seat Configurations
Model Affected: Street Scrambler

We would like to inform dealers that parts are provided with the above motorcycle to enable it to be configured as a single seat motorcycle with a luggage rack, or as a dual seat motorcycle.
Parts are also included to enable the removal of the rear footrest hangers if required, when using the motorcycle in the single seat and luggage rack configuration.

Warning

Do not attempt to carry a passenger with the the motorcycle in the single seat and luggage rack configuration and/or with the rear footrest hangers removed.

The rear footrest hangers and passenger seat must be fitted in order to carry a passenger.

Carrying a passenger with the passenger seat and/or rear footrest hangers not correctly installed will cause dangerous riding condition which could lead to loss of motorcycle control and an accident.

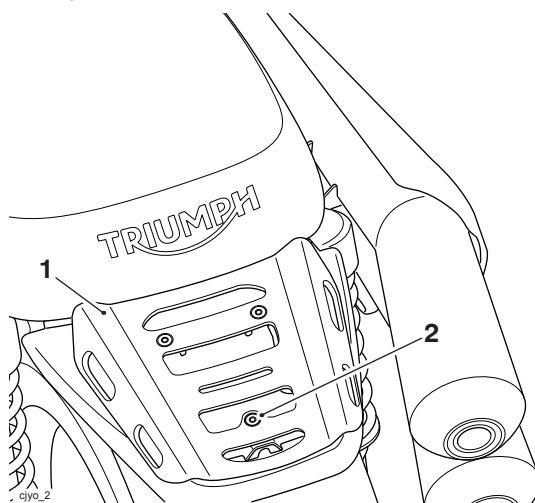
Note:

- **The motorcycle is delivered from the factory in the single seat and luggage rack configuration, with the rear foot rest hangers fitted.**

Dual Seat Configuration

To convert the motorcycle to its dual seat configuration:

1. Remove the luggage rack rear fixing. Retain the fixing so the motorcycle can be returned to its single seat and luggage rack configuration.



1. **Luggage rack**
2. **Rear fixing**

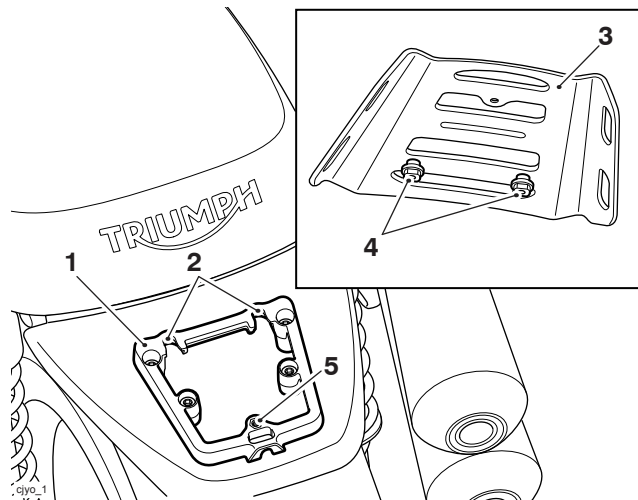
2. Lift the rear of the luggage rack and slide rearwards to remove it from the motorcycle.
3. Install the passenger seat as described in the Service Manual.

Single Seat and Luggage Rack Configuration

To covert the motorcycle back to the single seat and luggage rack configuration:

1. Remove the passenger seat as described in the Service Manual.

2. Position the luggage rack to the motorcycle ensuring that the front mounting bobbins align with their slots on the luggage rack subframe.



1. Luggage rack subframe

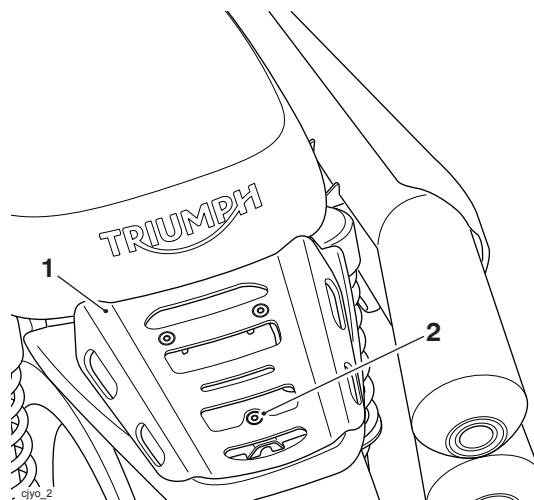
2. Front mounting bobbin slots

3. Luggage rack

4. Front mounting bobbins

5. Rear mounting hole

3. Gently push the luggage rack forward until the front mounting bobbins are fully engaged into their slots and the rear fixing hole is aligned with its mounting hole on the luggage rack subframe.
4. Secure the luggage rack rear mounting with the fixing retained during removal. Tighten the fixing to **8 Nm**.



1. Luggage rack

2. Rear fixing

Note:

- The maximum load for the luggage rack is 3 kg. Observe the warnings given in the Accessories, Passengers and Loading section of the Owner's Handbook.

Rear Footrest Hanger Assemblies

It is possible to remove the rear footrest hanger assemblies when using the motorcycle in the single seat and luggage rack configuration.

To remove the rear footrest hanger assemblies:

-
1. Remove the two fixings securing each rear footrest hanger assembly to the rear frame and remove the assemblies. Retain the fixings and rear footrest hanger assemblies so the motorcycle can be returned to its original condition if necessary.

Note:

- **Four M8 x 12 mm button head fixings are provided in the screw pack to blank off the rear footrest hanger mounting holes.**
2. Fit the four M8 x 12 mm button head fixings provided in the screw pack to the rear footrest hanger mounting holes on the rear frame. Tighten to **15 Nm**.

To refit the rear footrest hanger assemblies:

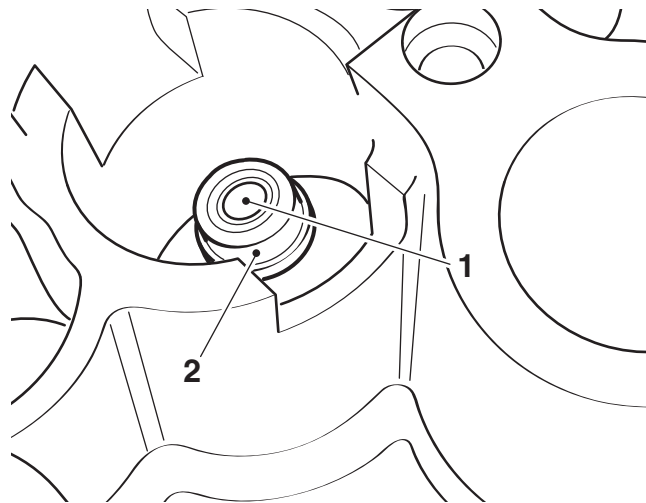
1. Remove and retain the rear footrest mounting hole blanking fixings.
2. Position the footrest hanger assemblies to the motorcycle and secure with the original fixings. Tighten to **24 Nm**.

Item:	.2
Description:	Cylinder Head Valve Guide Wear
Model Affected:	Tiger Explorer XR, Tiger Explorer XRX, Tiger Explorer XRX-LRH, Tiger Explorer XRT, Tiger Explorer XC, Tiger Explorer XCX, Tiger Explorer XCX-LRH, Tiger Explorer XCA

A method for measuring the cylinder head valve guide has been introduced. To measure the valve guide wear follow the procedure described below.

Note:

- **A flat ended contact point must be fitted to the dial gauge.**
1. Remove the cylinder head as described in the Service Manual.
 2. Remove the camshafts as described in the Service Manual.
 3. Remove the cylinder head valve springs as described in the Service Manual.
 4. Position the valve so that the valve stem end is level with the valve stem seal (the valve must remain in this position for the duration of the test).



1. **Valve stem end**
2. **Valve stem seal**

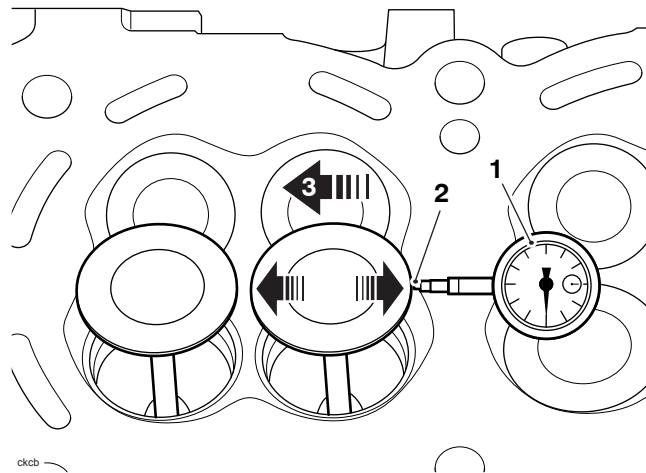
Note:

- **Excessive force must not be used when measuring the valve guide wear. Excessive force will bend the valve stem and give a false reading.**
5. The valve should be gently rocked to one side of the valve guide in line with the camshaft.

Note:

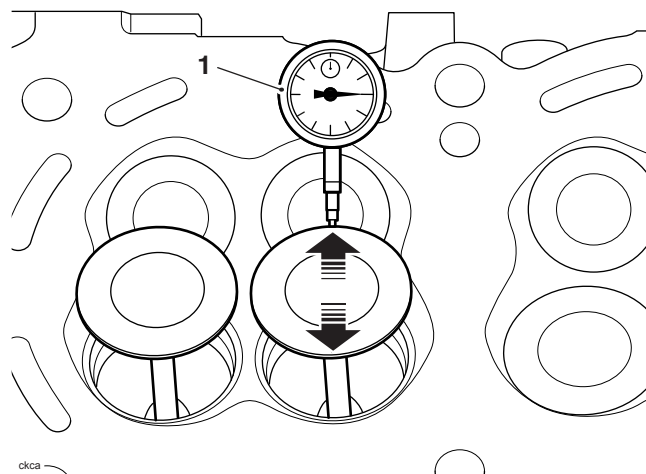
- **Ensure the dial gauge is level and is in line with the directional movement of the valve being checked.**
6. Secure a dial gauge to the cylinder head such that the clamping device will not damage any of the cylinder head surfaces.

7. Position the dial gauge to the valve head on the opposite side to where the valve has made contact to the valve guide, as shown in the illustration below.



1. Dial gauge
2. Flat ended contact point
3. Direction valve rocked to valve guide

8. Zero the dial gauge.
9. Gently rock the valve to the opposite side of the valve guide in line with the camshaft and note the reading on the dial gauge.
10. Repeat steps five to eight but with the rocking of the valve head at 90° to the original measurement, as shown in image below. Note the reading on the dial.



1. Dial gauge

11. The maximum movement of the valve in either direction must be less than 0.5 mm.

Note:

- Due to the methods used to assemble the valve guides, these parts cannot be replaced. If the maximum movement of the valve exceeds 0.5 mm in either direction, the cylinder head must be replaced.

Please mark your copy of the Service Manual with this information. For electronic service manuals, store this information in a readily accessible place and refer to it often. This information will be included in the next service manual update.

Item: .3

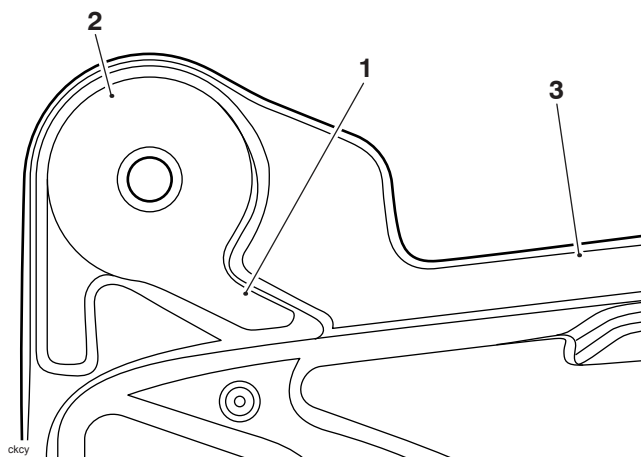
Description: Fuel Tank Removal and Installation

Model Affected: Street Triple models from VIN 560477, Daytona 675 models from VIN 564948

The method for the removal and installation of the fuel tank has changed. The fuel tank must not be pivoted up to release the fuel lines and the electrical connectors.

The new method for the removal and installation of the fuel tank will require the aid of an assistant.

From VIN 850800 the rear mounting for the fuel tank on the rear subframe has an additional lug to prevent the full pivot of the fuel tank.



1. New lug
2. Rear mounting for fuel tank
3. Rear subframe

For the removal and installation of the fuel tank follow the procedure described below.

Removal

⚠ Warning

Observe the warning advice given in the General Information section on the safe handling of fuel and fuel containers.

A fire, causing personal injury and damage to property could result from spilled fuel or fuel not handled or stored correctly.

⚠ Warning

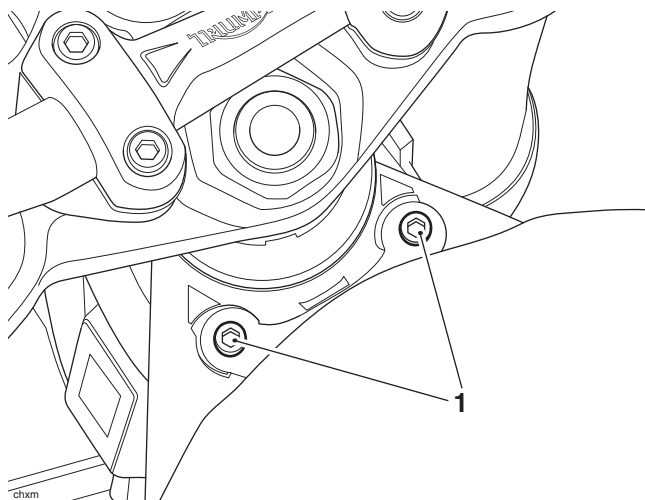
Before starting work, ensure the motorcycle is stabilised and adequately supported. This will help prevent it from falling and causing injury to the operator or damage to the motorcycle.

1. Remove the seat, as described in the service manual.
2. Disconnect the battery, negative (black) lead first.

⚠ Warning

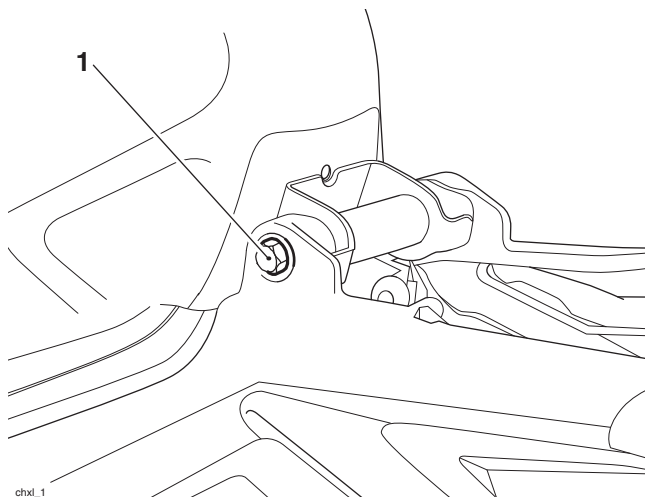
Never drain fuel from the tank using non-approved, non-professional standard fuel handling equipment. A fire causing destruction of property and injury to persons may result from use of non-approved fuel handling equipment.

-
3. Using proprietary professional automotive workshop equipment approved for fuel handling, drain all fuel from the fuel tank.
 4. Remove the fixings securing the front of the fuel tank to the frame.



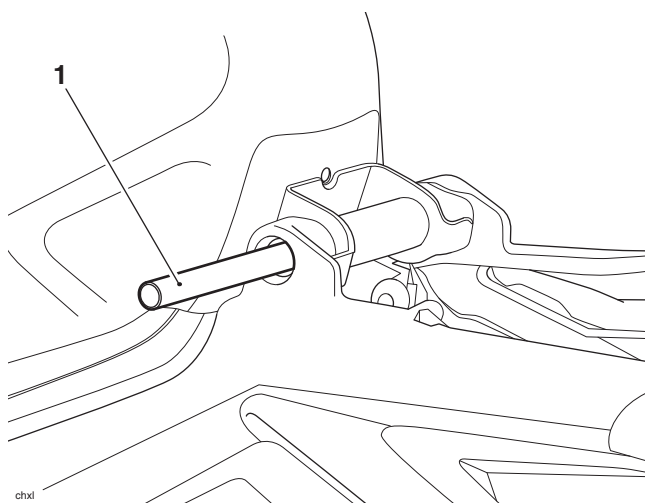
1. Fixings

5. Remove the fixing securing the rear of fuel tank to the rear subframe.



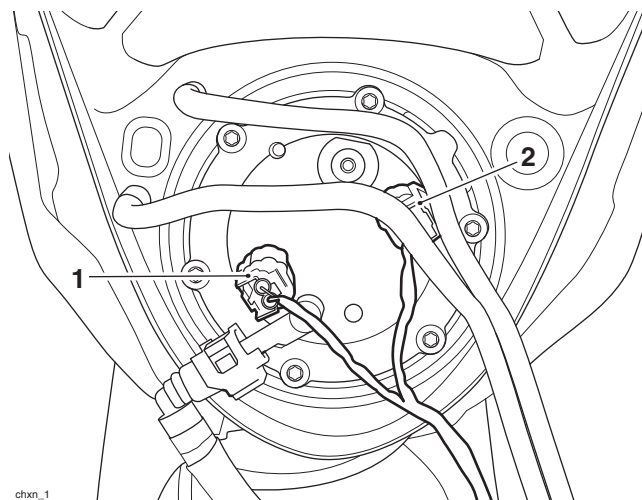
1. Fixing

6. Withdraw the spacer sleeve from the rear subframe.



1. Spacer sleeve

7. Slightly raise the front of the fuel tank, no greater than 20°, and then lift the fuel tank horizontally to gain access to fuel lines and electrical connectors.
8. Have an assistant disconnect the electrical connections to the fuel pump and the fuel level sensor.



1. Fuel pump electrical connection
2. Fuel level sensor connection

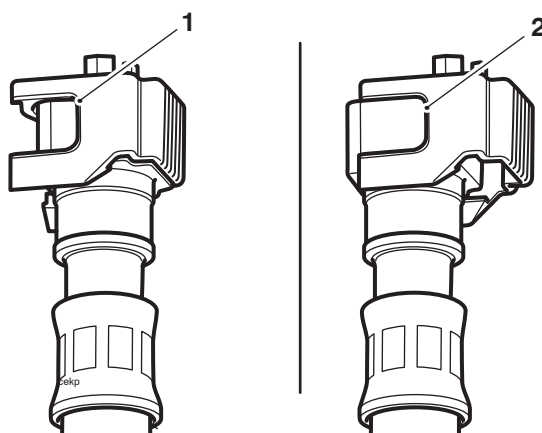
Warning

If the fuel rail is dismantled without first reducing pressure, fuel may escape causing clothing and components to be coated with fuel.

This would represent a serious fire hazard which could lead to burn injuries and damage to property.

Note:

- Because fuel stored in the fuel rail will be at 3.5 bar pressure, it is essential that the fuel pressure is reduced before any dismantling of the fuel rail takes place. To reduce pressure, briefly crank the engine with the fuel pump disconnected.
 - When disconnected, the fuel tank is self-sealing but a small amount of fuel may dribble from the hose.
9. Have an assistant reconnect the battery, positive (red) lead first, and crank the engine to reduce pressure in the fuel rail.
 10. Disconnect the battery, negative (black) lead first.
 11. Ease the latch away from the connector until the release buttons are exposed.



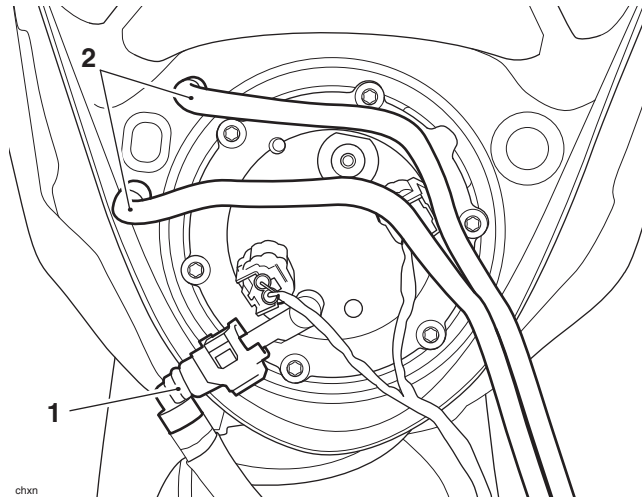
1. Locked position
2. Unlocked position

-
12. Disconnect the fuel hose by squeezing the sides of the connector and pulling the hose free from its spigot on the fuel pump plate.

Note:

- **Before disconnection, note the position of the two breather hoses so that they can be returned to the same locations when refitting the tank.**

13. Disconnect the two breather hoses.



1. **Fuel line**
2. **Breather hoses**

14. Remove the fuel tank.

Installation

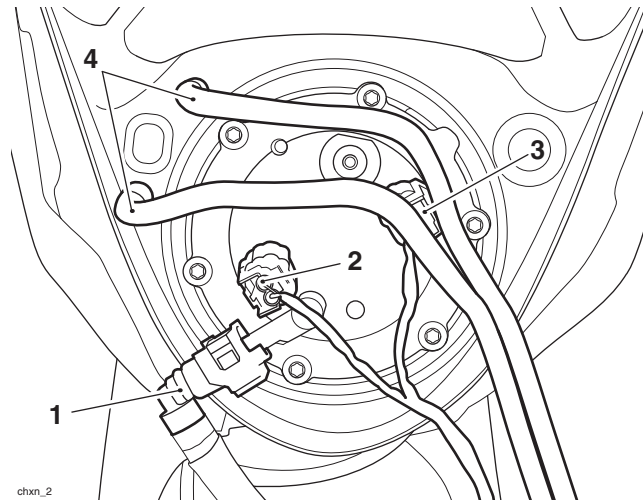
1. Have an assistant position the fuel tank above its mountings to connect the fuel lines and electrical connectors.
2. Connect the two breather hoses as noted for removal.

Note:

- **The fuel hose has different coloured connectors on each end, to aid orientation. The orange end must be fitted to the fuel tank, the grey end must be fitted to the fuel rails.**

3. Reconnect the fuel feed hose by gently pushing inwards until the hose engages with a click.
4. Slide the double check latch down (towards the spigot) until the release buttons are covered. If the latch will not slide into position, then the fuel hose is not fully home on its spigot and must therefore be refitted correctly.
5. Reconnect the fuel pump electrical connection.

-
6. Reconnect the fuel level sensor.



- 1. Fuel hose
- 2. Fuel pump electrical connection
- 3. Fuel level sensor connection
- 4. Breather hoses

- 7. Carefully lower the fuel tank onto its mountings.
- 8. Refit the rear spacer sleeve. Fit and tighten the rear bolt to **8 Nm**.
- 9. Refit the two bolts for the fuel tank front mounting and tighten to **9 Nm**.
- 10. Using proprietary professional automotive workshop equipment approved for fuel handling, refill the fuel tank with the fuel previously removed.
- 11. Reconnect the battery, positive (red) lead first. Tighten the battery terminals to **4.5 Nm**.
- 12. Start the engine and check carefully for fuel leaks. Rectify as necessary.
- 13. Refit the seat, as described in the service manual.

Item:	.4
Description:	Fuel Gauge and Range to Empty Strategy
Model Affected:	Bonneville Bobber

We have received reports that some owners have questioned the accuracy of the fuel gauge and Range to Empty feature of the instruments on the above model.

When full, the fuel level sender does not reach the top of the fuel tank. Therefore the fuel level sender cannot accurately measure the amount of fuel in the fuel tank until 45% (approximately 4.0 litres (1.05 US gallons)) of the fuel has been used.

The fuel gauge and Range to Empty values for a full fuel tank are calculated by the engine ECM until the fuel level falls below 5.0 litres (1.3 US gallons); at this point the actual fuel level can be accurately measured.

The fuel gauge reading and Range to Empty calculation may appear inaccurate if the fuel tank is fully or partially refilled in the following circumstances:

Less than Five Litres of Fuel Remaining in the Fuel Tank

A **partial refill** of more than 1.5 litres (0.4 US gallons) when the fuel level is less than 5.0 litres (1.3 US gallons) will affect the fuel gauge and Range to Empty as follows:

- The fuel gauge will read full if more than 5 litres (1.3 US gallons) in the fuel tank. (The fuel gauge will remain at full until 5 litres (1.3 US gallons) or less is in the fuel tank.)
- The range to empty will show approximately 120 miles (195 km), and will count down steadily until the fuel level reaches 5.0 litres (1.3 US gallons). At this point it will start to count down quicker than expected for a short distance until the correct range is recalculated from the accurate fuel level reading.

The above circumstances are because the system registers the fuel level has increased, but cannot determine how much fuel has been added. The system assumes the fuel tank has been filled.

More Than Five Litres of Fuel Remaining in the Fuel Tank

A **full or partial refill** before the fuel level drops below 5.0 litres (1.3 US gallons) will affect the fuel gauge and Range to Empty as follows:

- The fuel gauge will display between full and half full (same level as prior to refuelling) until the fuel level reaches 5.0 litres (1.3 US gallons). At this point it will display the correct fuel level after a short distance.
- The Range to Empty will show between 120 miles (195 km) and 60 miles (130 km) (the value depends on the fuel level in the tank before refuelling) until the fuel level reaches 5.0 litres (1.3 US gallons). At this point it will start to count down quicker than expected for a short distance until the correct range is recalculated from the accurate fuel level reading.

The above circumstances are because the system cannot determine that fuel has been added as the fuel level sender voltage has not changed.

Note:

- **All figures given are approximate, and will vary according to factors such as how the motorcycle is ridden, and manufacturing tolerances of the individual parts.**

Item:	.5
Description:	Calibration Downloading
Model Affected:	All Models

Due to the increasing number of various calibration downloads and subtle differences between the calibration download processes, Triumph have released the following flowcharts to help guide operators through the various calibration download processes:

Tiger Explorer Range from VIN 740277

- Instrument Calibration Download Flow Chart, page 15
- Replacement Chassis ECM Setup Flow Chart, page 16
- Chassis ECM Calibration Download Flow Chart, page 17
- Chassis ECM Calibration - Failed Download Recovery Flow Chart, page 18

900cc and 1200cc Modern Classics

- Instrument Calibration Download Flow Chart, page 19

Street Triple Models with TFT Instruments

- Instrument Calibration Download Flow Chart, page 20
- Instrument Calibration - Failed Download Recovery Flow Chart, page 21

All Models

- Engine ECM Calibration Download Flow Chart, page 22

Before starting a calibration download procedure, please read the following.

 Caution

Failure to precisely follow the procedures detailed in the flow charts listed above may result in permanent damage to the component receiving the calibration download.

 Caution

When downloading a calibration, always ensure the calibration selected is correct for your model and region. Failure to select the correct calibration may result in permanent damage to the component receiving the calibration download.

 Caution

When downloading an engine ECM calibration, always ensure the correct calibration is selected for your fuel type. Engine damage may result if a calibration for an incorrect fuel type is installed.

Note:

- Some calibration downloads can take up to 20 minutes to complete. Before starting a download, ensure the battery voltage is at least 12.4 Volts.
- The headlight fuse may be removed prior to starting a download to prevent the headlight draining the battery. Refer to the label on the fuse box cover for the fuse location.
- Ensure the ignition and engine Start/Stop switches are set to the positions detailed at the beginning of each download process flowchart.
- Once the calibration download has been started, do not switch the ignition or engine Start/Stop switches to a different position unless instructed to do so by the Triumph Diagnostic Tool/download process flow chart.
- Do not disconnect the diagnostic interface during the calibration download.

Note:

- During a calibration download, multiple files are downloaded and the progress bar displayed will repeatedly rise from 0% to 100% as each file is downloaded. Always wait for the Verifying Download screen to appear to confirm that the full calibration has downloaded successfully and click the Finish button to end the process. Do not click the Cancel button while the download is still in progress.

Instrument Calibration Downloads

Following an instrument calibration download, the following items (if fitted) may return to their factory default settings. Before starting an instrument calibration download, record the settings of each item where applicable so that the settings can be restored after the download has finished.

- Time/date
- Distance/time to next service
- TPMS instrument display (enabled/disabled)
- All riding mode settings
- Self canceling indicators (enabled/disabled).

Downloading Sequence - Models Requiring Calibration Downloads to Multiple ECMs

When downloading calibrations on the following models, the current calibration should be checked on all ECMs. Where calibration updates are available, they should be downloaded in the order shown.

Tiger Explorer Range from VIN 740277

1. Instruments
2. Chassis ECM
3. Engine ECM

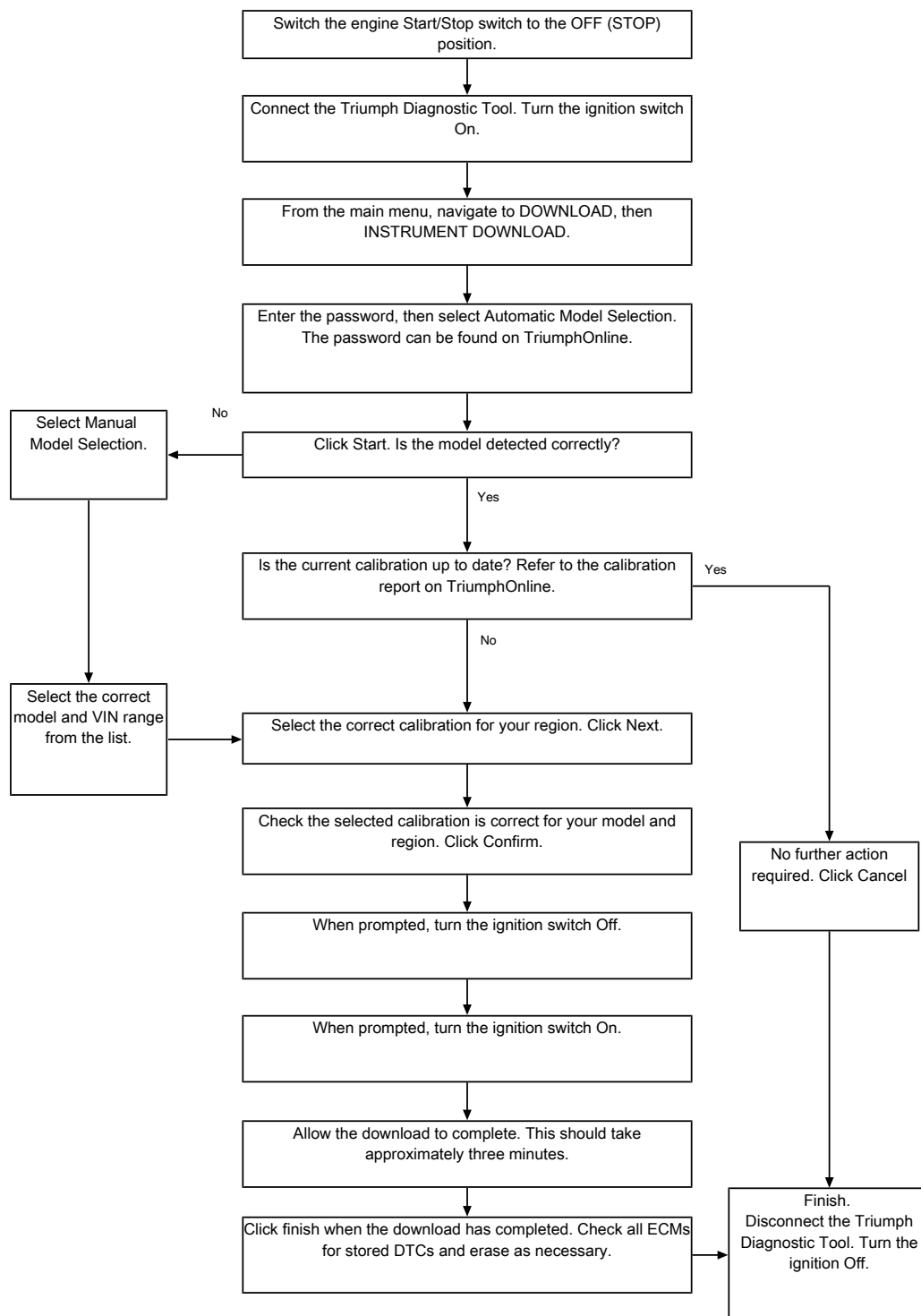
900cc and 1200cc Modern Classics, Street Triple Models with TFT Instruments

1. Instruments
2. Engine ECM

Item: .6

Description: Instrument Calibration Download Flow Chart

Model Affected: Tiger Explorer Range From VIN 740277



Note:

- If the download fails to complete, turn the ignition Off and disconnect the Diagnostic Tool. Allow the motorcycle to power down (approximately one minute) before restarting the download.

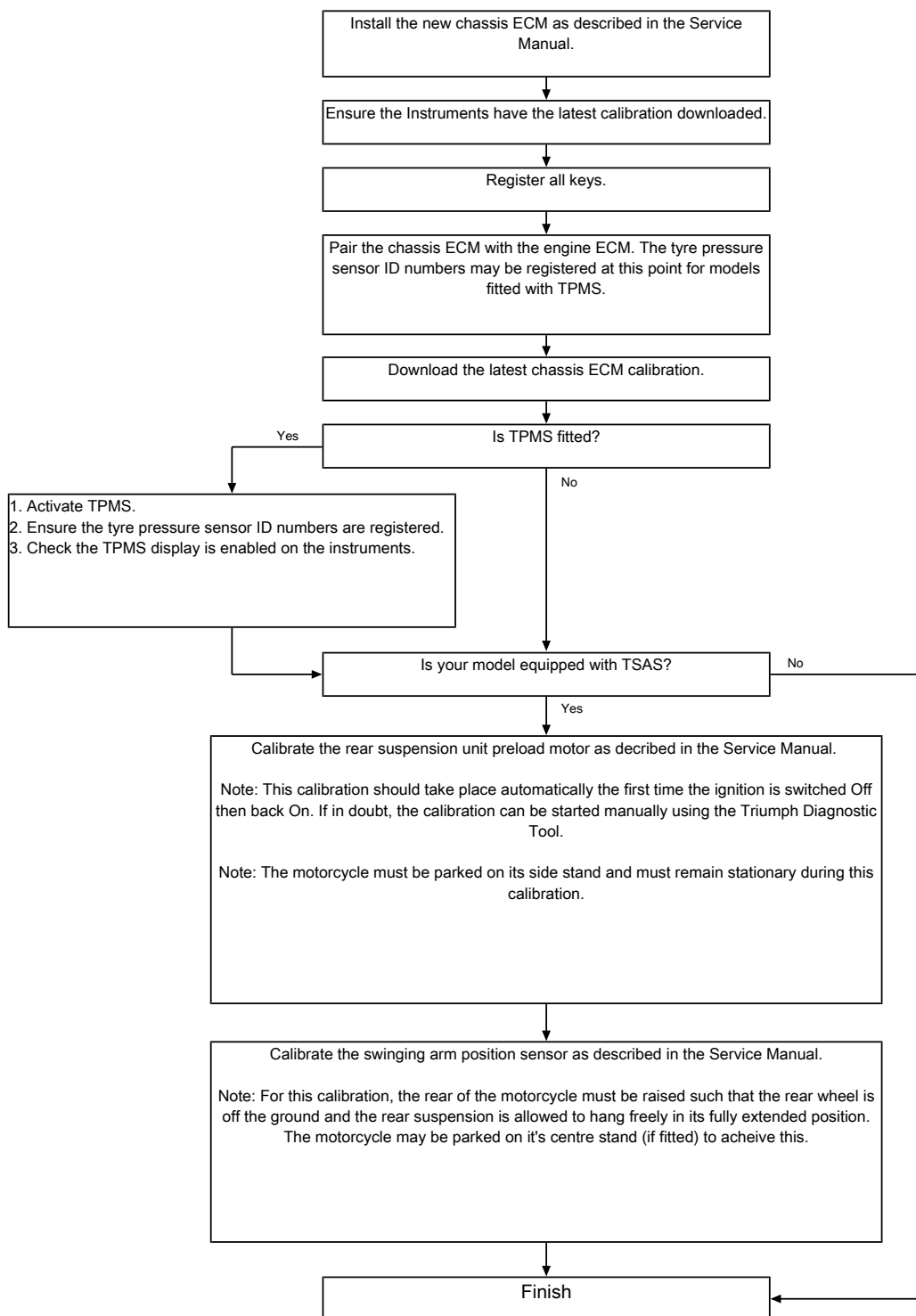
Item: .7

Description: Replacement Chassis ECM Setup Flow Chart

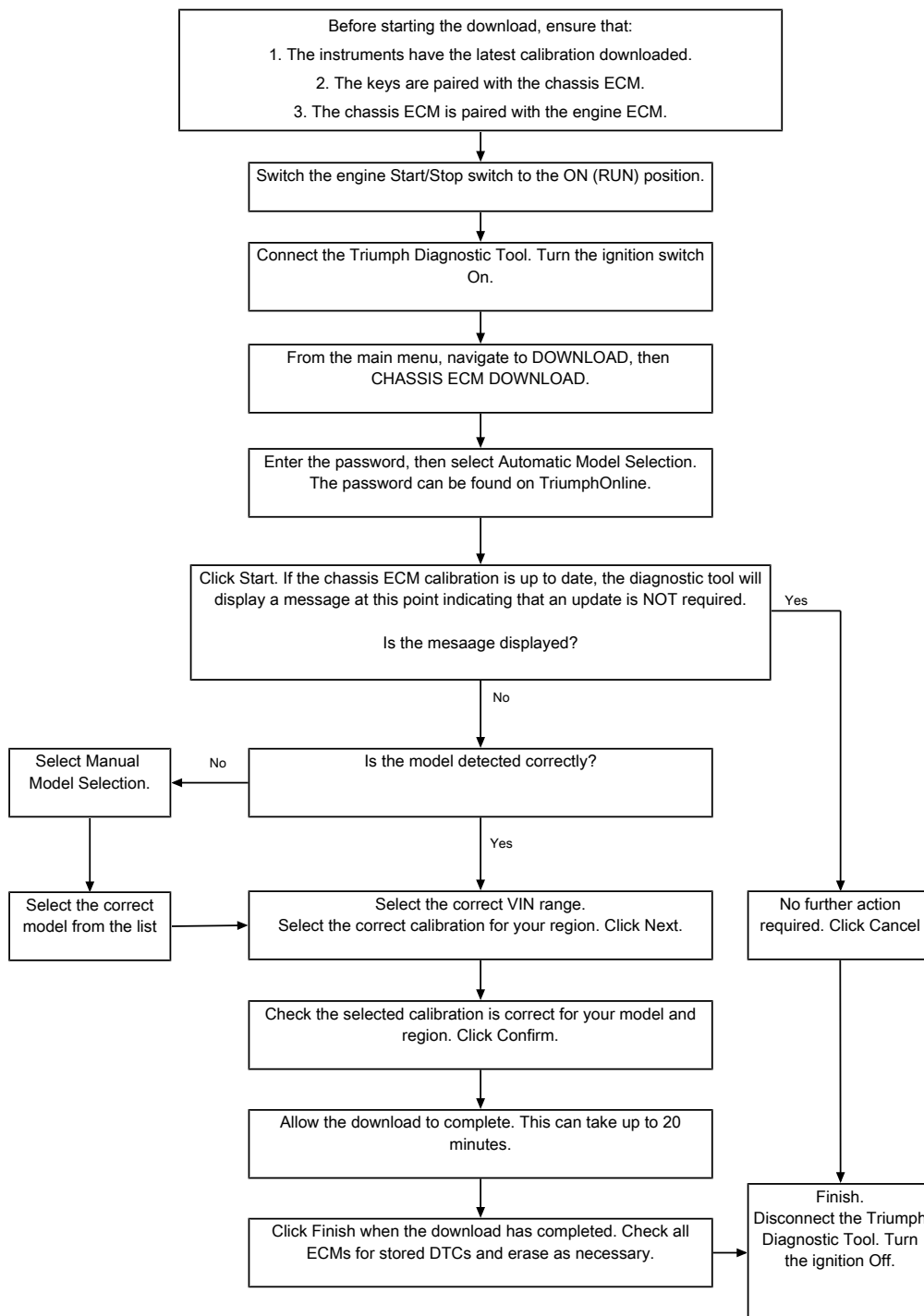
Model Affected: Tiger Explorer Range From VIN 740277

Note:

- When installing a new chassis ECM, it is necessary to perform the following operations in order.



Item: .8
Description: Chassis ECM Calibration Download Flow Chart
Model Affected: Tiger Explorer Range From VIN 740277



Note:

- If the download fails to complete, turn the ignition Off, disconnect the diagnostic tool and allow the motorcycle to power down (approximately one minute) before restarting the download. If the download continues to fail, see Chassis ECM Calibration - Failed Download Recovery Flow Chart, page 18.

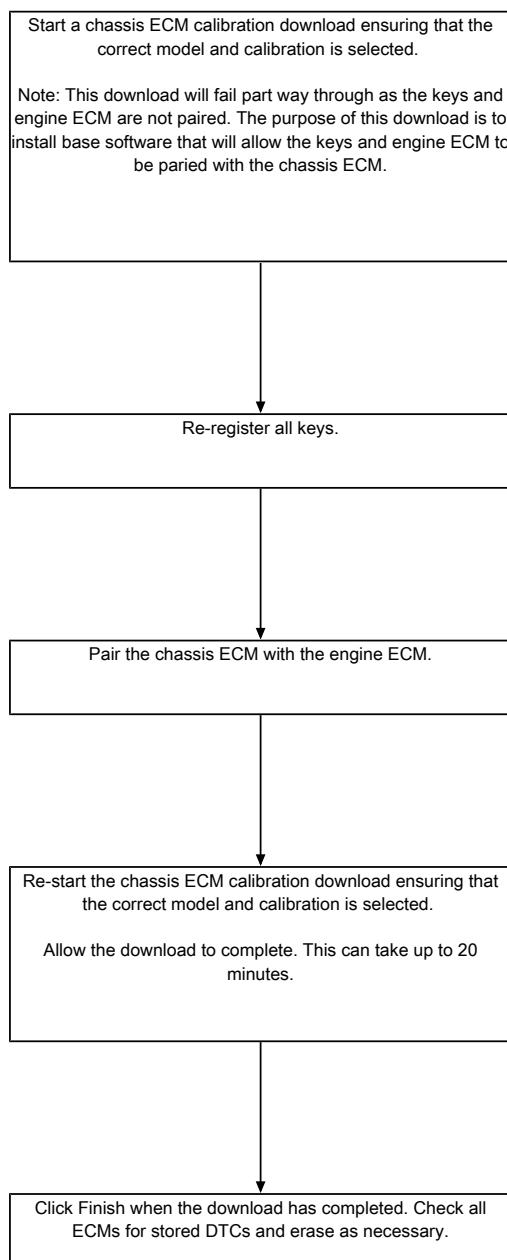
Item: .9

Description: Chassis ECM Calibration - Failed Download Recovery Flow Chart

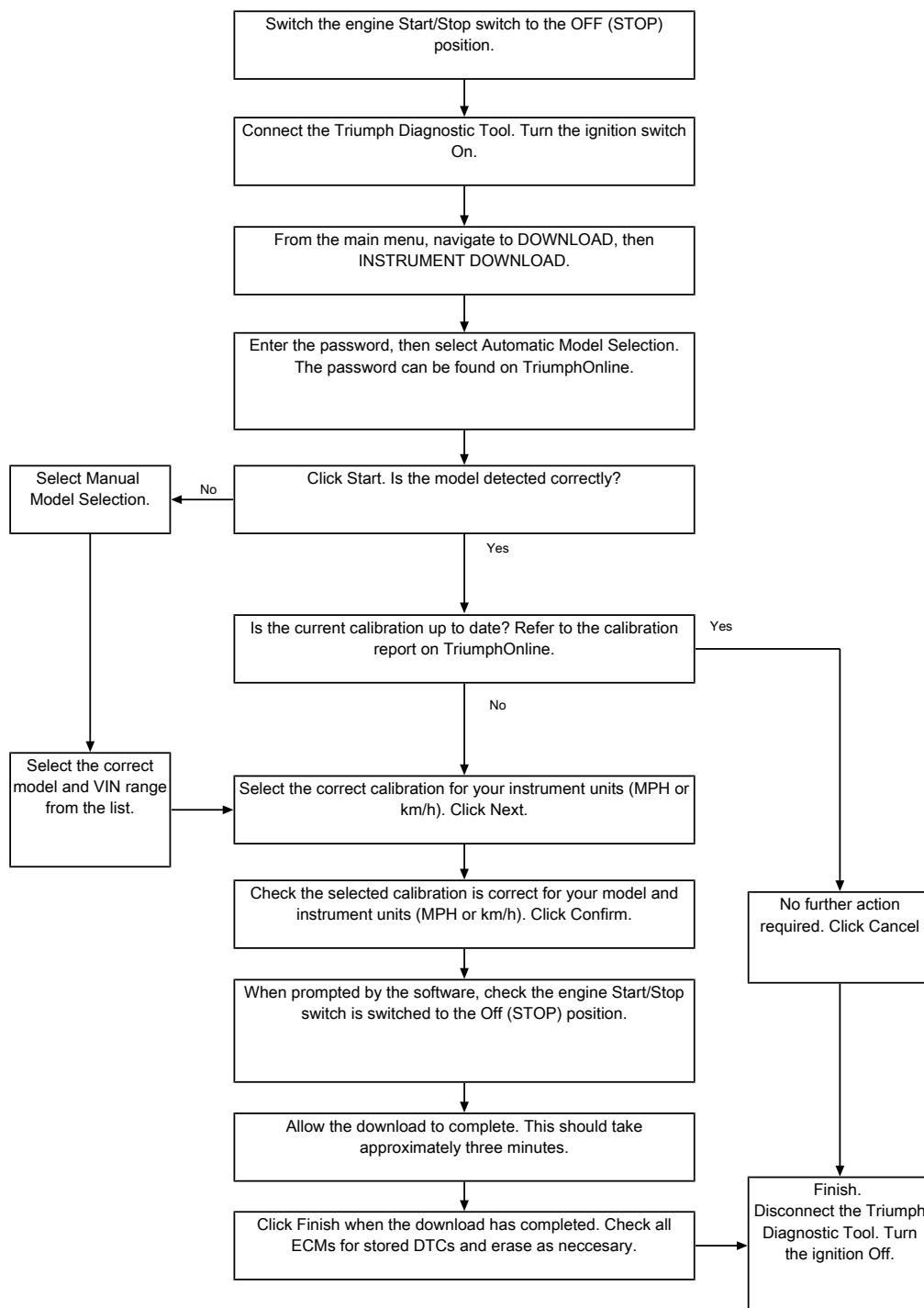
Model Affected: Tiger Explorer Range From VIN 740277

Note:

- If a chassis ECM calibration download fails for any reason, it is possible that any existing software and immobiliser system pairings may have been erased from the chassis ECM's memory. Where this is the case, the chassis ECM can be recovered as described below.
- If after completing this procedure, the download continues to fail, contact Triumph Service.



Item: .10
Description: Instrument Calibration Download Flow Chart
Model Affected: 900cc and 1200cc Moden Classics



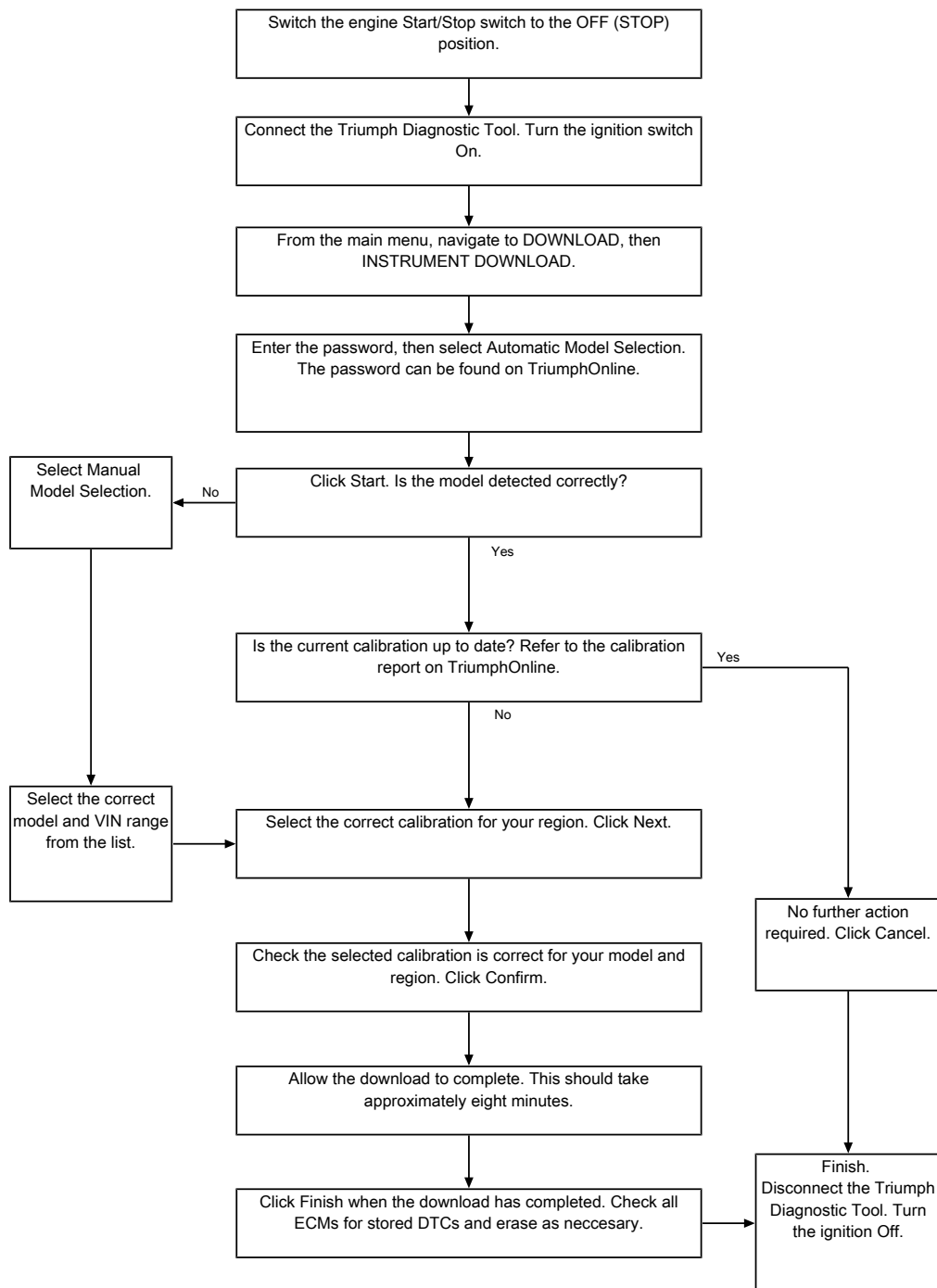
Note:

- If the download fails to complete, turn the ignition Off and allow the motorcycle to power down (approximately one minute) before restarting the download.

Item: .11

Description: Instrument Calibration Download Flow Chart

Model Affected: Street Triple Models with TFT Instruments



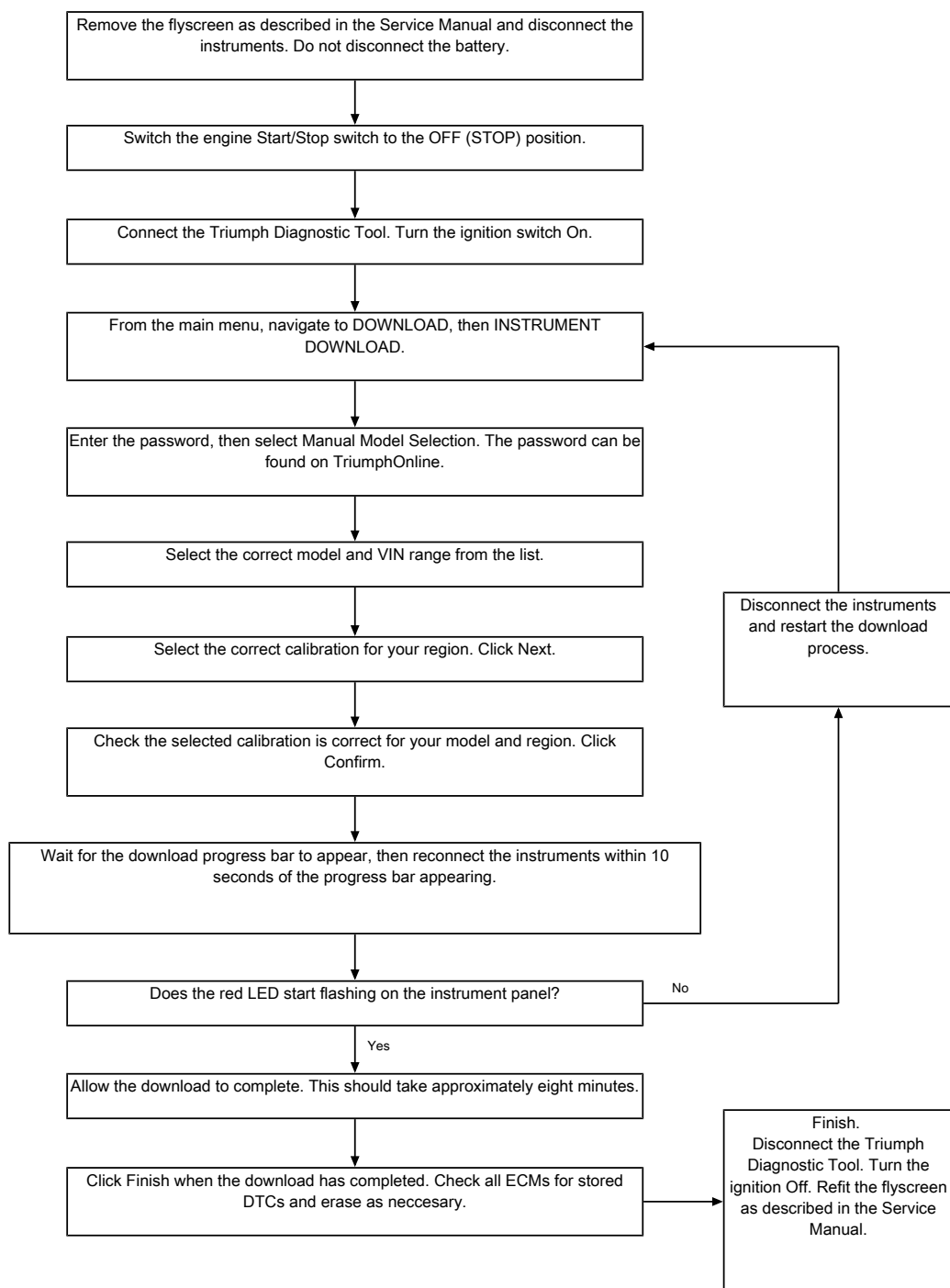
Note:

- If the download fails to complete, turn the ignition Off and allow the motorcycle to power down (approximately one minute) before restarting the download. If the download continues to fail, see Instrument Calibration - Failed Download Recovery Flow Chart, page 21.

Item: .12

Description: Instrument Calibration - Failed Download Recovery Flow Chart

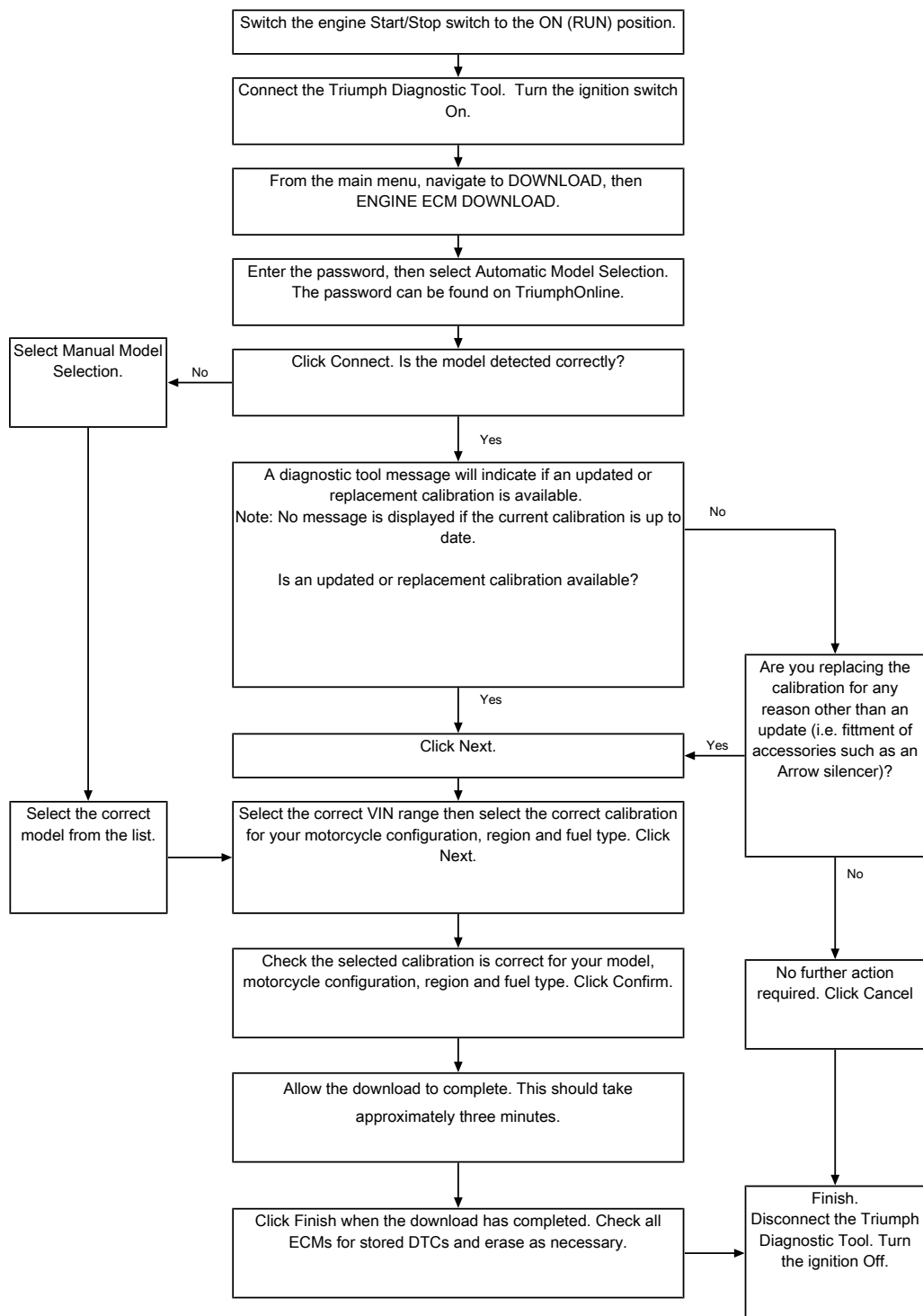
Model Affected: Street Triple Models with TFT Instruments



Note:

- If the instruments fail to recover after repeated attempts, contact Triumph Service.

Item: .13
Description: Engine ECM Calibration Download Flow Chart
Model Affected: All Models



Note:

- If the download fails to complete, turn the ignition Off and allow the motorcycle to power down (approximately one minute) before restarting the download.

Circulation

Initial and date when read and return to central file holder

Service Manager	Parts Manager	Sales Manager	Workshop Supervisor	Technician 1	Technician 2