

## Technical Bulletin 214 03.2021

	Contents				
ltem	Subject	Model Affected			
214.1	Triumph Diagnostic Tool Compatibility with Windows Operating Systems	Not Applicable			
214.2	Triumph Diagnostic Tool - Instrument Diagnostics Area	Trident 660			
214.3	Triumph Diagnostic Tool (TDT) - Key Signal Detection Function Test	Rocket 3 GT, Rocket 3 R, Rocket 3 TFC, Scrambler 1200 XC, Scrambler 1200 XE, Scrambler 1200 Bond Edition, Speed Triple RS, Tiger 1200 XRX, Tiger 1200 XRX-LRH, Tiger 1200 XRT, Tiger 1200 XCX, Tiger 1200 XCA, Tiger 1200 Alpine, Tiger 1200 Desert			
214.4	Electronic Systems Commissioning and Motorcycle Unlocking	Bonneville Bobber, Bonneville Speedmaster, Bon- neville T100, Bonneville T120, Bonneville T120 Black, Street Twin, Street Twin Goldline, Thruxton RS			
214.5	Triumph D2053 OAT Coolant	All models with liquid cooling			

# Item: 214.1 Description: Triumph Diagnostic Tool Compatibility with Windows Operating Systems

#### Model Affected: Not Applicable

From February 2021 the Triumph Diagnostic Tool software will no longer operate on computers running Microsoft Windows 7<sup>®</sup>.

Triumph Diagnostic Tool users still using Microsoft Windows 7<sup>®</sup> should upgrade their operating system, and if necessary their hardware, before this date.

Details of the minimum equipment required to run the Triumph Diagnostic Tool are listed below:

- A desktop or laptop Personal Computer (PC) running 32 bit or 64 bit versions of Microsoft Windows 8<sup>®</sup>, Windows 8.1<sup>®</sup> or Windows 10<sup>®</sup>.
- Microsoft .net framework version 4.8 or later.
- A 1 GHz processor or equivalent, 10 GB of free hard disk space and a minimum of 512 to 1024 MB of memory (RAM).
- A 1024  $\times$  768 standard XGA monitor or a 1200  $\times$  800 widescreen monitor.
- A broadband internet connection.
- The PC must have a free USB (Universal Serial Bus) port.

## Item: 214.2 Description: Triumph Diagnostic Tool - Instrument Diagnostics Area

Model Affected: Trident 660

The Triumph Diagnostic Tool (TDT) 2021-01 update includes new instrument diagnostic support for the above model(s).

The instruments fitted to the above model(s) feature a new diagnostic protocol. When connecting to Instrument Diagnostics on the above model(s), a new layout will be displayed as follows:

#### **Build Data**

1. Once the diagnostic tool has connected to the motorcycle, the Build Data screen will be displayed.

NUMPH V	INSTRUMEN	T DIAGNOSTI
Image: Service       Build Data       Read DTCs       Live Data       Service	Odometer Function Test	Main Menu
🚺 BUILD DATA		
Build Data	Value	^
VIN	++4LGL10U3M000977	
Serial Number	Undefined	
Triumph Base Part Number	0	
Calibration Locked Status	Unlocked	
Application Software Part Number	02570041	
Application Software Issue Level	070000	
Application Data Software Part Number	02570641	
Application Data Software Issue Level	010000	
Boot Software Part Number	02570841	
Boot Software Issue Level	010000	
	05/01/21	
Last Programming Date		
Last Programming Date Calibration ID1	975102	
Last Programming Date Calibration ID1 Calibration ID2	975102 972103	
Last Programming Date Calibration ID1 Calibration ID2 Calibration ID3	975102 972103 022501	

- 2. The Build Data screen may display the following information where applicable:
  - VIN
  - Serial Number
  - Triumph Base Part Number
  - Calibration Locked Status
  - Application Software Part Number
  - Application Software Issue Level
  - Application Data Software Part Number
  - Application Data Software Issue Level
  - Boot Software Part Number
  - Boot Software Issue Level
  - Last Programming Date
  - Calibration ID1
  - Calibration ID2
  - Calibration ID3
  - Last Calibration Date
  - Tester Serial Number
- 3. A scroll bar is provided on the right hand side of the build data display to allow all build data items to be viewed.
- 4. Clicking on a cell in the build data table will highlight the cell. Once a table cell is highlighted, the key board cursor keys can be used to move the highlight to different cells.
- 5. From this screen it is possible to access the following additional screens by clicking the icons located along the top:
  - Read DTCs
  - Live Data
  - Service
  - Display
  - Odometer
  - Function Test

#### Read DTCs

1. Clicking on the **Read DTCs** icon at the top of the screen will display the Read DTCs screen.

TRIUM	рн √7						INSTRUMEN	<b>DIAGNOSTICS</b>
<b>W</b> Build Data	Q	्रिष्ठ त्रुष्ठि s Live Data	Service	) Display	(Constant) Odometer	<b>O</b> Function Tes	t	Main Menu
Q, R	Read DTC	S						
DTC Code	Failure Code	DTC Description		Failure	Description		DTC Status	
U0028	88	CAN 1 Bus Off		Bus off			Stored, Active	
U1208	87	Frame "ID208" on	network "CAN 1"	Missing	g Message		Stored, Active	
U1209	87	Frame "ID209" on	network "CAN 1"	Missing	g Message		Stored, Active	
U1210	87	Frame "ID210" on	network "CAN 1"	Missing	g Message		Stored, Active	
C1307	16	Battery Voltage		Circuit	Voltage Below	Threshold	Stored, Inactive	
C1307	17	Battery Voltage		Circuit	Voltage Above	Threshold	Stored, Inactive	
Erase DTG	cs Ref	(P) Tresh						
Displaying DTCs								Instruments connected

- 2. This screen will display a list of all stored Diagnostic Trouble Codes (DTCs). Also displayed for each stored DTC listed is:
  - Failure Code A two digit code that indicates the type of failure that has occurred.
  - **DTC Description** A brief description of the component, system or network feature that the DTC relates to.
  - **Failure Description** A brief description of the type of failure that has occurred (as indicated by the Failure Code above)
  - **DTC Status** The current status of the DTC.
- 3. The **DTC Status** column will display one of two statuses:
  - Stored, Active
  - Stored, Inactive.
- 4. The DTC status "Stored, Active" indicates that a fault has occurred enough times for the DTC to be stored in long term memory, and that the fault was detected on the most recent on board diagnostics monitoring cycle.
- The DTC status "Stored, Inactive" indicates that a fault has occurred enough times for the DTC to be stored in long term memory, but that the fault was **not** detected on the most recent on board diagnostics monitoring cycle.

#### Note:

- Refer to the relevant Triumph service manual for additional information on individual DTCs and for pinpoint tests to fully diagnose and repair the fault.
- 6. Click the **Erase DTCs** button at the bottom of the screen to delete **ALL** stored DTCs from instrument memory. Once all of the DTCs are erased the diagnostic tool will automatically check again for faults which might still be present on the motorcycle. Recurring DTCs will be displayed after a few seconds, and will not be erased until the fault has been repaired.

#### Note:

• It must be remembered that certain faults require the motorcycle to be ridden for a DTC to be stored; these faults may still be present on the motorcycle but the DTC will not be displayed until the motorcycle has been ridden. Always recheck for stored DTCs after a road test has been completed.

#### Live Data

Clicking on the **Live Data** icon at the top of the screen will display the first of the Live Data screens.

				l	INSTRUMENT	DIAGNOSTICS
Build Data Read DTCs	Live Data	) Display	(Colometer	<b>O</b> Function Test		Main Menu
🔢 LIVE DATA						
Group	Description				Value	^
All	Battery Voltage				14.049 V	
Voltages	Ambient Light Sens	Ambient Light Sensor Voltage			0.920 V	
Inputs	Oil Pressure Switch	Oil Pressure Switch			On	
Lighting	Brake Switch Status	Brake Switch Status			Off	
Direction Indicators	Ignition Status	Ignition Status			On	
Instrument Navigation	High/Dipped Beam	High/Dipped Beam Switch			Off	
Heating	High Beam Relay	High Beam Relay			Off	
Telltale Lights	Dip Beam Relay	Dip Beam Relay			Off	
CPU / Display	Daytime Running L	Daytime Running Light Switch			Off	
	Daytime Running L	Daytime Running Light			Off	
Direction Indicators Left Switch			Off	v .		
Stop						
🥚 Reading Live Data						Instruments connected

When using this function it is possible to check the status of various inputs and outputs controlled by the instruments. The data displayed is dependent on model.

The data sets are divided into eight groups:

- All
- Voltages
- Inputs
- Lighting
- Direction Indicators
- Instrument Navigation
- Heating
- Telltale Lights
- CPU/Display

The data contained in each group is as follows:

#### All

Selecting **All** allows you to view all available live data.

#### Voltages

The data available under **Voltages** is:

Item Checked	Result Unit
Battery Voltage	Volts
Ambient Light Sensor Voltage	Volts

#### Inputs

The data available under **Inputs** is:

Item Checked	Result Unit
Oil Pressure Switch	On/Off
Brake Switch Status	On/Off
Ignition Status	On/Off

#### Lighting

The data available under **Lighting** is:

Item Checked	Result Unit
High/Dipped Beam Switch	On/Off
High Beam Relay	On/Off
Dip Beam Relay	On/Off
Daytime Running Light Switch	On/Off
Daytime Running Light	On/Off

#### **Direction Indicators**

The data available under **Direction Indicators** is:

Item Checked	Result Unit
Direction Indicator Left Switch	On/Off
Direction Indicator Left Front	On/Off
Direction Indicator Left Rear	On/Off
Direction Indicator Right Switch	On/Off
Direction Indicator Right Front	On/Off
Direction Indicator Right Rear	On/Off
Direction Indicator Cancel Switch	On/Off
Hazard Lights Switch	On/Off

#### Instrument Navigation

The data available under **Instrument Navigation** is:

Item Checked	Result Unit
Joystick Centre	On/Off
Joystick Up	On/Off
Joystick Down	On/Off
Joystick Left	On/Off
Joystick Right	On/Off
Mode Switch	On/Off

#### Heating

The data available under **Heating** is:

Item Checked	Result Unit
Heated Grips Switch	On/Off
Heated Grips	On/Off

#### **Telltale Lights**

The data available under **Telltale Lights** is:

Item Checked	Result Unit
Malfunction Indicator Light	On/Off
ABS Telltale Light	On/Off
Traction Control Disabled Telltale Light	On/Off
Traction Control On Telltale Light	On/Off
Alarm Indicator	On/Off
High Beam Telltale Light	On/Off
Daytime Running Light Telltale Light	On/Off
Direction Indicator Left Telltale Light	On/Off
Direction Indicator Right Telltale Light	On/Off

#### CPU/Display

The data available under **CPU/Display** is:

Item Checked	Result Unit
CPU Temperature	°C
Display Temperature	°C
Display Backlight	% (Hz)

#### Service

Clicking on the **Service** icon at the top of the screen will display the service interval screen.

					INSTRUMENT DIAGNOSTICS
Build Data Read DTCs Live Dat	a Service	) Display	(Cometer )	🤣 Function Test	Main Menu
SERVICE					
Next Service Due A	At				16157 Km (16075 Remaining) 12/01/2022 (365 Days)
Reset Interval					16,000 → 12/01/2022 → Set
Make sure the time and	date is set correc	tly before r	esetting the s	ervice interval	
Current time and c	late				06:52:01 01/01/2000
Set time and date					14:20:12 12/01/2021 v Set
Waiting to set service interval					Instruments connected 🛛 🌗

From this screen it is possible to:

- View the 'Next Service Due At' details stored on the instruments.
- Reset the service interval.
- View the current instrument time and date settings.
- Adjust the instrument time and date settings.

#### Note:

- Distance values are automatically displayed in miles or kilometers (km), depending on the current units setting on the motorcycle's instruments.
- Time and date values are displayed in the same format as your local computer.

#### Service Interval

- 1. The Next Service Due At section displays the Odometer reading when the next service is due followed by the distance remaining to next service in brackets.
- 2. The service interval can be reset by using a default 6,000 or 10,000 miles (10,000 or 16,000 km) setting (depending on model).
- 3. The software will automatically select the correct standard service interval of 6,000 or 10,000 miles (10,000 or 16,000 km) depending on the motorcycle the diagnostic tool is connected to.
- 4. The software will automatically select the default time to next service setting of 365 days.

#### Note:

- The instrument time and date must be set correctly before resetting the service interval
- 5. Click the **Set** button to reset the service interval to the standard distance and time to next service settings if appropriate.

- 6. To set a service interval other than the standard interval:
  - Use the Up and Down buttons to adjust the distance to next service to the desired setting.
  - The distance to next service can be adjusted in 100 mile or 100 km increments.
  - Click the date of next service drop down button to select a service date from a calendar. The calendar will open at the date that is currently displayed in the Reset Interval date box.
  - A service date can be selected from between one month and one year from the current date.
  - Use the Left and Right buttons to select a month and year then click on the desired day. The selected date will now be displayed in the Reset Service Interval date box.
  - Click the **Set** button when the desired settings have been selected.
- 7. Upon clicking **Set**, the Next Service Due At display will update to show the new service interval settings that have been programmed to the instruments.

#### Note:

 Distance to next service settings can only be programmed to the instruments in 25 km increments. When the instruments are configured to display distance in miles, the distance to next service value selected must be converted to kilometers and rounded to the nearest 25 km before it can be programmed to the instruments. For instruments configured to display distance in miles, It is therefore normal to see a small difference between the selected distance to next service value and the value actually programmed to the instruments.

#### Time and Date

The Current Time and Date section displays the current instrument time and date settings.

- The Reset Time and Date section allows the instrument time and date settings to be adjusted.
- 1. The time and date values displayed in the Reset Time and Date section are automatically synchronised to the local computer time and date settings.
- 2. Click the **Set** button to write the computer time and date settings to the instruments if appropriate.
- 3. The time and date settings can also be manually adjusted.
- 4. To manually adjust the time:
  - Click on the hours, minutes or seconds display as required.
  - Use the Up and Down buttons to adjust to the required setting.
- 5. To manually adjust the date:
  - Click on the date pull down button to select a date from a calendar.
  - Use the Left and Right buttons to select a month and year then click on the desired day. The selected date will now be displayed set date box.
- 6. Click Set to write the time and date settings to the instruments

#### Display

Clicking on the **Display** icon at the top of the screen will display a list of instrument display configuration items.

	INSTRUMENT	DIAGNOSTICS
Build Data Read DTCs Live Data	iervice Display Odometer Function Test	Main Menu
DISPLAY		
Connectivity System	Disable	• Det
Market Variation	Metric (km/h - L/100km)	• D
Units Of Pressure	PSI	▼ D Set
Language Selection	English	• Down
🌑 System idle		instruments connected 📲

The option boxes for each item will display that item's current setting. To change an item's setting:

- 1. Use the pull down menu to select the desired option.
- 2. Click the **Set** button confirm your selection and write this configuration to the instruments.

#### **Connectivity System**

#### Note:

- The Accessory My Triumph Connectivity Module must be installed before the connectivity system can be enabled.
- The to enable the connectivity system:
- 1. Use the pull down menu to select **Enable** then click **Set**.
- 2. Follow the on screen instructions.

#### Note:

• You will be prompted to enter the download password. The current password for all downloads can be found at www.triumphonline.net.

The diagnostic tool will start a wizard which will perform the following actions:

- 1. Connectivity Module Check/Update
- 2. Instrument Check/Update
- 3. Instrument VIN Check/Update
- 4. Enable Connectivity System.

<b>e</b>
Ó
•
6 %

Full details of the Enable Connectivity System process are provided with the My Triumph Connectivity Module Accessory Fitting Instructions.

#### **Market Variation**

Select from four units display options:

- UK (MPH mpg Imperial)
- US (MPH mpg US)
- Metric (km/h L/100 km)
- Japanese (km/h km/L).

#### **Units of Pressure**

Select from three units of pressure options:

- PSI
- Bar
- kPa.

#### Language

Select from eight instrument language options:

- English
- French
- German
- Italian
- Dutch
- Portuguese
- Spanish
- Swedish.

#### Odometer

Clicking on the **Odometer** icon at the top of the screen will display the Odometer screen.

TR	RIUMP	<b>н</b> 77					•	NSTRUMENT DIA	GNOSTIC	s
	<b>W</b> Build Data	Q Read DTCs	Live Data	Service	) Display	(2) Odometer	🤣 Function Test		Main Menu	
	🕚 o	DOMETER								
		Current Od	ometer Rea	ading				82 Km	Adjust	
	•	Adjust Odome	ter function n	ot available	. The odome	ter reading is	s too high or this	function has already been per	formed.	
🍥 Waiti	ng to set od	ometer						Instru	ments connected	•

#### Note:

• Distance values are automatically displayed in miles or kilometers (km), depending on the current units setting on the motorcycle's instruments.

The current odometer reading is displayed.

Click the **Adjust** button to access the Set Odometer and Reset Odometer functions.

	NT DIAGNOSTICS
Image: Service     Image: Service     Image: Service     Image: Service     Image: Service       Build Data     Read DTCs     Live Data     Service     Display     Odometer     Function Test	Main Menu
ODOMETER	
Current Odometer Reading	82 Km
This operation can only be performed once and cannot be undone. Check the new value is correct b	before proceeding.
Set Odometer	0 Km
Set - enter an existing odometer value to a new odometer. Current odometer value must be below 120 mi	iles (200 km).
Reset Odometer	Reset
Reset - zero the odometer. Current odometer value must be below 120 miles (200 km).	
Waiting to set odometer	Instruments connected

#### Note:

- The Set Odometer and Reset Odometer functions can only be performed once and are only available if the odometer reading is lower than 120 miles (200 km).
- The Adjust button will be greyed out if either function has already been performed, or if the odometer reading is higher than 120 miles (200 km).

#### Set Odometer Function

When replacing a set of instruments, the Set Odometer function allows the new set of instruments to be programmed with the motorcycle's existing odometer value.



The Set Odometer function can only be performed once and cannot be undone. Always make sure the new odometer value is correct before pressing the Set button.

#### Note:

- The Set function can only be performed once and is only available if the odometer reading is lower than 120 miles (200 km).
- 1. After installing a new set of instruments, enter the motorcycles existing odometer reading in the Set Odometer box.
- 2. Check that the value entered is correct and make any amendments as necessary.
- 3. After ensuring the new odometer value is correct, press the **Set** button to write the new value to the instruments.

#### Note:

• It must be remembered that after pressing the Set button, no further changes can be made to the odometer value. The Set Odometer section and Set button will become greyed out.

#### **Reset Odometer Function**

The Reset function allows the odometer reading to be reset to zero following a PDI (Pre-Delivery Inspection) road test.

#### Note:

- The Reset function can only be performed once and is only available if the odometer reading is lower than 120 miles (200 km).
- 1. To reset the odometer value to zero, check that the odometer reading is lower than 120 miles (200 km) then press the **Reset** button.

#### **Function Tests**

The system allows the diagnostic software to perform a series of function tests on various instrument systems.

		INSTRUMENT DIAGNOSTICS
Image: Second system     Image: Second system       Build Data     Read DTCs     Live Data	Service Display Odometer Function	Fest Main Menu
🤣 FUNCTION TEST		
Test Description	Test Details - Instrument Display	
Function Test	Observe the instrument display	
Instrument Display		
Headlight	Refer to service manual	
· · · · · · · · · · · · · · · · · · ·		
Start Start	Showing list of function tests	

#### The Function Tests available are:

Function Examined	Report Method
Instrument Display	Observe the instrument display
Instrument Telltale Lights	Observe the instrument telltale lights
Headlight	Observe the headlight

ltem:	214.3
Description:	Triumph Diagnostic Tool (TDT) - Key Signal Detection Function Test
Model Affected:	Rocket 3 GT, Rocket 3 R, Rocket 3 TFC, Scrambler 1200 XC, Scrambler 1200 XE, Scrambler 1200 Bond Edition, Speed Triple RS, Tiger 1200 XRX, Tiger 1200 XRX-LRH, Tiger 1200 XRT, Tiger 1200 XCX, Tiger 1200 XCA, Tiger 1200 Alpine, Tiger 1200 Desert

The Triumph Diagnostic Tool (TDT) 2021-02 update includes a new Key Signal Detection Function Test. The new function test can be used on models with keyless ignition. A list of existing keyless ignition models is shown above.

The new function test is located in the Immobiliser Diagnostics area, in the Function Test menu.

	IMMOBILISER DIAGNOSTICS
Configure Function Test	Chassis Menu Main Menu
🤣 Function Test	
Test Description	Test Details
	UHF O
	🕪 💿 LF 🥥
	EF Antenna O
Start	Showing list of function tests
Showing list of function tests	Immobiliser ECM connected

The function test can be started by clicking the **Start** button.

When started, the function test will periodically check for detected keys. The test provides three coloured lights for the following:

- UHF (Ultra High Frequency key detection)
- LF (Low Frequency key detection)
- LF Antenna (LF Antenna Status).

The status reported by the coloured lights is refreshed every 2 to 3 seconds while the function test is running.

The coloured light and text displayed in the status bar at the bottom of the Test Details screen will alternate between displaying the test status and test results as follows:

- Amber = Test running
- Red = No keys detected
- Green = Key detected (by either UHF or LF).

The test can be stopped at any time by clicking the **Stop** button.

#### **UHF Key Detection**

The UHF coloured light provides indication of whether or not a paired, active smart key is being detected by the motorcycle's keyless ignition system. The smart key must be paired to the keyless ECM, and must be in Active mode to be detected by UHF.

Paired smart keys can typically be detected at a range of up to one metre from the motorcycle when in active mode.

#### When the function test is running:

- A red light indicates that no key was detected by UHF method at the last attempt.
- A green light indicates that a paired, active smart key was detected by UHF method at the last attempt.



#### LF Key Detection

The LF coloured light provides indication of whether a compatible key is being detected by the LF antenna. The LF antenna will detect any key that is compatible with keyless ignition, regardless of whether or not the key has been paired with the keyless ECM.

Compatible keys must be placed in close proximity of the LF antenna to be detected.

#### When the function test is running:

- A red light indicates that no key was detected by the LF antenna at the last attempt.
- A green light indicates that a compatible key was detected by the LF antenna at the last attempt.



#### LF Antenna Status

The LF Antenna light provides indication of the status of the LF antenna.

#### When the function test is running:

- A red light indicates that a LF antenna fault is present.
- A green light indicates that the LF antenna is functioning normally.

#### Item:

#### 214.4

#### Description: Electronic Systems Commissioning and Motorcycle Unlocking

Model Affected: Bonneville Bobber, Bonneville Speedmaster, Bonneville T100, Bonneville T120,

Bonneville T120 Black, Street Twin, Street Twin Goldline, Thruxton RS

This revised item replaces Technical Bulletin 204 item 3 (TB 204.3) dated January 2020. Changes to this revised item are as follows:

• Bonneville Bobber, Bonneville Speedmaster, Bonneville T100, Bonneville T120, Bonneville T120 Black, Street Twin, Street Twin Goldline added to list of applicable models.

## Warning

Make sure the motorcycle is stabilised and adequately supported.

A correctly supported motorcycle will help prevent it from falling.

An unstable motorcycle may fall, causing injury to the operator or damage to the motorcycle.

### Warning

Failure to download the latest calibrations to the above model(s) may cause an unsafe riding condition leading to loss of motorcycle control and an accident.

## Warning

Always use Automatic Model Selection when downloading calibrations.

Manual model selection must only be used when attempting to restart an interrupted or failed download, or if an incorrect model is detected by Automatic Model Selection.

Always ensure that the correct model is detected or selected before selecting a calibration for download and never attempt to download calibrations listed for an incorrect model.

Downloading calibrations for an incorrect model will cause a dangerous riding condition which may lead to loss of motorcycle control and an accident.

## Caution

Do not interrupt or cancel calibration downloads before they have completed.

If a calibration download is cancelled or interrupted before it has completed, the Electronic Control Module (ECM) will not operate in the normal way. This is because the operating system has been erased from ECM memory and has not yet been fully replaced. Under these circumstances, it will not be possible to use Automatic Model Detection when restarting the calibration download.

Turn the motorcycle ignition off for at least 60 seconds to allow the electronic systems to power down, then restart the calibration download using Manual Model Selection.

If a calibration download fails to restart, it may be necessary to follow a specific recovery process.

#### Note:

- The current password for all downloads can be found at www.triumphonline.net.
- It is normal for DTCs to be stored after a download has completed. This is due to the download process
  interrupting CAN communications between the ECMs.
- After a download has completed, you will be prompted to check all ECMs for stored DTCs and erase them as necessary. This must be completed after all downloads are finished.

#### Description

The instruments and Engine ECM fitted to the above motorcycle(s) are delivered in a locked condition. In this condition, the engine will not start. When performing a Pre-Delivery Inspection on the above models, the motorcycle's electronic systems must be commissioned and the motorcycle unlocked before the engine can be started.

Dealers are requested to commission the electronic systems and unlock the motorcycle by performing the following operations:

- 1. Download the latest Instrument calibration.
- 2. Download the latest Engine ECM calibration.
- 3. Unlock the Engine ECM.

#### Preparation

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 2020-01.1 or later is required to complete this procedure.

#### Note:

- It can take up to 15 minutes to complete the system downloads necessary to commission the above motorcycle.
- Please take the following precautions to avoid accidental disruption of the calibration downloads performed during this process.
- 1. If using a laptop computer to run the diagnostic software, make sure the laptop battery is fully charged. Connect a charger to avoid draining the laptop battery.
- 2. Disable any sleep and screen saver settings. The PC/laptop must remain turned on and awake for the duration of the process.
- 3. Make sure all other PC/laptop applications (including Internet browsers) are closed down.
- 4. Make sure the motorcycle battery is fully charged (battery voltage of at least 12.8 Volts). Connect an approved battery charger (suitable for use with maintenance free batteries) to maintain the battery charge during this process.
- 5. During calibration download, DO NOT do the following unless instructed to do so by the diagnostic tool:
  - Turn the ignition OFF.
  - Switch the engine stop switch to a different position.
  - Disconnect the diagnostic interface.

#### Initial Steps

- 1. Unpack the motorcycle as described in the Motorcycle Unpacking Guide.
- 2. Assemble the motorcycle as described in the Motorcycle Assembly Guide.
- 3. Remove the rider's seat.
- 4. Make sure that the motorcycle battery is fully charged and installed as described in the Service Manual.
- 5. Remove the ABS fuse. Refer to the Service Manual for the ABS fuse location.

6. Switch the engine stop switch to the STOP (OFF) position.



#### 1. Engine stop switch

#### 2. STOP (OFF) position

7. Connect the Triumph Diagnostic Tool to the motorcycle as described in the Service Manual and turn the ignition switch ON.

#### Instruments Calibration Download

#### Note:

- The instrument calibration will take approximately 4 minutes to complete.
- 1. Download the latest instrument calibration as normal, using automatic model detection.
- 2. Follow all on screen instructions during the download process.

#### Note:

- Multiple files are transferred during the download. The progress bar displayed on the diagnostic tool may repeatedly rise from 0% to 100% as each file is downloaded.
- Do not assume the download has completed when the instrument display turns back on. Always wait for the Verifying Download screen to appear to confirm the download has successfully completed.
- If the download is accidentally disrupted or does not complete for any reason, turn the ignition off for at least 60 seconds. Make sure the ABS fuse is removed and that the engine stop switch is in the STOP position before restarting the download using Manual Model Selection.
- 3. When the download has completed, turn the ignition switch OFF and refit the ABS fuse.

#### Engine ECM Calibration Download

- 1. Turn the ignition switch ON
- 2. Switch the engine stop switch to the RUN (ON) position.



#### 1. Engine stop switch

- 2. RUN (ON) position
- 3. Download the latest engine ECM calibration as normal, using automatic model detection.

#### Note:

• If the download is accidentally disrupted or does not complete for any reason, turn the ignition off for at least 60 seconds then restart the download using Manual Model Selection.

#### Unlock the Engine ECM

1. Unlock the engine ECM as described in the Triumph Diagnostic Tool User Guide.

#### Note:

- There is a small delay while the instruments are checked for up-to-date calibrations.
- The software will report if any calibrations are out of date and will prevent unlocking until the correct calibrations are installed.
- The unlock code can be found at www.triumphonline.net.

#### **Final Steps**

- Check and erase all stored Immobiliser, Engine ECM and ABS DTCs.
- Disconnect the Triumph Diagnostic Tool.
- Refit the rider's seat.

Item:

214.5

Description: Triumph D2053 OAT Coolant

Model Affected:

🛕 Warning

D2053 OAT coolant contains corrosion inhibitors and antifreeze suitable for aluminium engines and radiators. Always use the coolant in accordance with the instructions of the manufacturer.

Coolant contains toxic chemicals that are harmful to the human body.

All models with liquid cooling

Contact with skin or eyes may cause severe irritation. Wear protective gloves, clothing and eye protection when handling coolant.

If coolant is inhaled, remove the person to fresh air and keep comfortable for breathing. In case of doubt or persistent symptoms, seek medical attention.

If coolant gets on your skin, flush with water immediately. Remove contaminated clothing.

If coolant gets in your eyes, flush with water for at least 15 minutes and SEEK MEDICAL ATTENTION IMMEDIATELY.

If coolant is swallowed, rinse the mouth with water and SEEK MEDICAL ATTENTION IMMEDIATELY. KEEP COOLANT OUT OF THE REACH OF CHILDREN.

## **A** Caution

The two coolants must not be mixed together as this could result in a reduced cooling performance and a reduction in corrosion resistance.

A new coolant, Triumph D2053 OAT, has been introduced to all Triumph water cooled engines from the following VINs.

From VIN AG0784	From VIN AG2054
Daytona Moto2™ 765	Bonneville Bobber (all models)
Rocket 3 (all models)	Bonneville Speedmaster
Speed Triple (all Models)	Bonneville T100 (all models)
Street Triple (all models)	Bonneville T120 (all models)
Tiger XRX	Scrambler 1200 (all models)
Tiger XR	Speed Twin
Tiger XRT	Street Cup
Tiger XCX	Street Scrambler (all models)
Tiger XC	Street Twin (all models)
Tiger XCA	Thruxton (all models)
Tiger 800 (all models)	Trident
Tiger 900 (all models)	

Triumph D2053 OAT is coloured orange compared to the Triumph HD4X OAT which is coloured green. Triumph HD4X OAT is available until the stock is depleted then Triumph D2053 OAT must be used. Part numbers for the new coolant are:

- T4007771 for 1 litre.
- T4007777 for 12 pack.

When topping up/replacing the coolant for models up to VIN AG0783 with the new coolant (coloured orange) check the coolant in the system. The Triumph HD4X OAT coolant must be drained and the cooling system flushed through with clean water before filling with Triumph D2053 OAT.

The new coolant has a service life of 5 years. Current service schedule information will be updated shortly to reflect this change.

#### Circulation

Initial and date when read and return to central file holder

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