



Battery Rules For Warranty Replacement

Models: All Models

Electronic Service Bulletin SRV-ESB-17-002

Date: Monday, November 6th, 2017
To: Dealer Principal, General Manager, Service Manager, North American Dealer Network
From: Richard Kenton, Technical Director; Jonathan LaForte, Technical Manager

This Electronic Service Bulletin replaces and cancels bulletin SVC-14-016 Battery Warranty Replacement Instructions published on 5/20/2014.

Dear Dealers and Service Managers,

The purpose of this bulletin is to provide you with updated procedures to replace the batteries installed on all Ducati models. Ducati's warranty policy ensures that batteries installed on all Ducati motorcycles shall be free of manufacturing defects for the duration of 12 months from initial retail purchase, or they shall be replaced at no cost to the customer. Through the warranty, Ducati North America will cover batteries if they have been properly maintained with an appropriate charger while the motorcycle is not in regular use. (See specific instructions in the Ducati Owner's Manual). This Limited Warranty is void if the failure of the battery resulted due to a lack of maintenance. Batteries that exhibit signs of neglect (sulfation), or overcharging (mossing, shedding, or buckled positive plates) are excluded from the terms of the battery warranty.

According to Ducati's experience and the feedback provided by the supplier, battery manufacturing faults will generally occur within the first three months of battery's in service date. Ducati's Quality Department analysis has determined that the majority of batteries replaced after such a period of time did not suffer from manufacturing faults and did not conform to proper deep-cycle charging procedures using suitable chargers.



NOTE

In the North American market batteries are not purchased through the Ducati NDCS parts ordering system. The appropriate battery must be purchased through the local supply chain.

The following chargers are Ducati Service approved for lead-acid batteries:

- TecMate: BatteryMate 150-9, Optimate Pro 4.
- For lithium-ion batteries use ONLY the Ducati Service approved charger part no. 69924821A.

Instructions concerning lead-acid batteries

Lead-acid batteries are subject to sulfation (formation of lead sulfate crystals on the plates) when they are discharged deeply and quickly (example: use of non-original electronic equipment devices like aftermarket anti-theft systems, etc.) or when they are not charged periodically (battery self-discharge and motorcycle natural electric consumption).



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The battery can be charged periodically either through the motorcycle charging system or the Ducati approved charge maintainer no. 69924601A when the vehicle is not used for extended periods of time.

Customers are provided this information in the vehicle Owner's Manual, and in "Exclusions" section of the "General Warranty Conditions" in the Warranty Certificate.

Always bear in mind that improper battery preparation methods used during the pre-delivery phase negatively affect battery life as they reduce battery capacity from the nominal value. For this reason, the guidelines to perform correct activation of the lead-acid batteries have been included below.

Lead-Acid Battery Initiation



WARNING

Carefully read the filling, charging and installation instructions below before operating the battery.

1. Remove the filler cap protections from the battery;
2. Add acid to the battery (check that all acid is poured into the battery);
3. Allow battery to rest for at least 30 minutes (this process is essential to ensuring correct battery performance);
4. Place the bar with the caps on the battery filler holes without securing it.
5. Keeping the bar in place without fastening it, charge the battery for the first time.



NOTE

Check that battery terminals are properly connected to the battery charger.

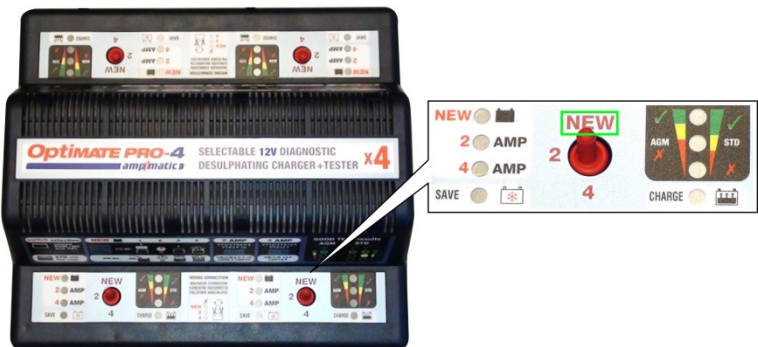


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For the initial recharge, follow the instructions of the manual present inside the acid box, making sure to use one of the Ducati approved chargers listed below.

BatteryMate 150-9	
	Position the yellow knob on "NEW". Position the red knob on the correct battery nominal charge "RANGE". E.g.: Range 4 → 10÷16 Ah
Optimate Pro 4	
	Position the knob on "NEW".

6. At the end of the initial charge, press down firmly with both hands to ensure caps properly seat (do not strike or hammer caps).



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Instructions concerning lithium-ion batteries

If lithium-ion batteries undergo a high charge voltage or if they are left to discharge over time, they can become permanently damaged. For this reason they must be charged and/or kept charged when the motorcycle is not in use, using the specific charger for this type of battery (charge maintainer no. 69924821A). **Never use battery chargers meant for lead-acid batteries.**

- For the battery currently in use (HJT7B-FPZ), never exceed 15 Volts during the charge cycle and 8 Volts upon discharge. In any case, the charge current shall never exceed $0.5 C = 2 \text{ Amperes}$ ($C=4\text{Ah}$ corresponds to the battery's nominal capacity).



NOTE

Lithium-ion batteries with voltages lower than or equal to 8 Volts shall never be charged and must be replaced.



NOTE

Ensure no accessory is directly connected to the battery or to the motorbike diagnostic socket.

New Warranty Authorization Process for Batteries

Send all battery warranty requests to your Service Area Manager; the request must include the Technical Sheet (SRV-ESB-17-002 ING_Annex.pdf) for the request of battery replacement under warranty. This enables us to better identify and analyze reported faults.

This Technical Sheet must be completed thoroughly and attached to the warranty pre-authorization request. Please remember that the PDF file can be modified to enter the required information. Printing is not required; simply open and edit it directly via a PDF viewer. Once edited, save and attach the document.

Your Service Area Manager will assess the request according to the information specified in it and may request the dealer to send the battery to the factory to have it analyzed.

When the battery has been permanently damaged as the result of a fault in the vehicle electric system, it will be replaced under warranty. In these cases, it is necessary that the battery be included in the repair request for the electric system and that the fault's cause, and resulting collateral damage, is clearly indicated (e.g. voltage regulator failure has caused the excessive consumption, etc.).



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Assessment Criteria of Lead-Acid Battery Efficiency

If a lead-acid battery is still efficient in terms of residual charge, its inrush current after the charge cycle must adhere to the values below:

Measurement (1)	(B) ≥ 12.5 Volts
Measurement (2)	C_1 and $C_2 \geq 12.5$ Volt
Measurement (3)	$(C_1) - (C_2) \leq 0.2$ Volt

Where:

- **(A):** is the battery no-load voltage measured before the charge cycle (battery disconnected from electric charges).
- **(B):** is the battery no-load voltage measured after a 10-hour charge cycle and a 2-hour "stabilization" period.
- **(C):** is the battery no-load voltage measured after a 15-second cranking cycle and a 5-minute "waiting" time.

The voltage value of 12.5 Volts corresponds to 75% of the nominal charge of a VRLA battery in good condition.



NOTE

If value **(A) is < than 10 Volts**, the conditions of **measurement (1)** could not be met. In that case, perform a second Standard (STD) charge of the battery.

First take **measurement (1)** and ONLY IF the specified conditions are met, proceed with **measurement (2)**; otherwise replace the battery.

The measurement of value (C) must be performed 2 times; therefore two values of no-load voltage (C_1) and (C_2) will be detected and reported in the technical sheet.



NOTE

Should the C_1 and C_2 values NOT be ≥ 12.5 Volt, do not perform **measurement (3)** and replace the battery.

Assessment Criteria of Lithium-Ion Battery Efficiency

Lithium-ion batteries feature a "quite low" voltage drop during the discharge, until the battery residual charge is close to 20% of the nominal one. For this reason it is not possible to infer the residual charge or the inrush current by monitoring the no-load voltage or after the cranking cycle (as can be done for the lead-acid batteries).



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As previously stated, Lithium-ion batteries with a rated no-load voltage lower than or equal to 8 Volts must be replaced.

Lithium-ion batteries with a no-load voltage above 8 Volts must be charged using the Ducati approved charger no. 69924821A.

After the complete charge cycle, wait 1 hour and check that:

- 1) $(B) \geq 12.7$ Volts;
- 2) It is possible to start the engine 3 times at intervals of 10 seconds. After starting the engine, let it run for 5 seconds at idle and then stop it.

If one of the 2 conditions above is not met, complete a YouTech Service Request and wait for your Service Area Manager's feedback before completing a warranty pre-approval request.

Assessment Criteria of the Generator/Regulator Charge System Efficiency

The battery charge system can be considered efficient if while using a battery with no-load voltage ≥ 12.8 Volts, the 2 values (D) and (E), corresponding to the regulated voltage, are adhered to:

- 1) $(D) \geq 13.5$ Volts;
- 2) $13.5 \text{ Volts} \leq (E) \leq 15.0 \text{ Volts}$;

Where:

- (D): is the measured battery voltage, regulated by the charge system with engine at idle; auxiliary electric devices such as fans, turn indicators, heated handgrips, high beams, etc. (if any) must be disabled.
- (E): is the measured battery voltage, regulated by the charge system with engine at 4000 rpm; auxiliary electric devices such as fans, turn indicators, heated handgrips, high beams, etc. (if any) must be disabled.

Assessment Criterion for Nominal Current Consumption of the Motorcycle in Key-OFF Condition

The motorcycle electric system is designed to absorb a certain value of current from the battery when the bike is off. Such value is the maximum allowed value and is calculated for each Ducati model considering production tolerances and component aging.

The electric current absorbed by the motorcycle in key-OFF indicated as (F) must be measured with the DMT instrument part no. 979000260 following the instructions indicated in the relevant technical manual.



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NOTE

The values of electric current absorbed by the motorcycle are calculated without accessories installed (both original and non-original). Disconnect all accessories before taking the measurement. After your Service Area Manager has checked the technical sheet, a new measurement of the electric consumption of Ducati original accessories may be requested.

Models	MY	Maximum value of absorbed current in key-OFF [mA]	Absorption class
SBK 848-1098-1198	07-13	(F) ≤ 2.5 mA	A3
Multistrada 1200 (all versions)	10-14		
Streetfighter 848-1098	10-15		
Hypermotard 796	10-12	(F) ≤ 0.7 mA	A2
Hypermotard 1100 Evo	10-12		
Monster 696	08-14		
Monster 795	12-15		
Monster 796	11-15		
Monster 1100 Evo	12-13	(F) ≤ 0.4 mA	A1
Multistrada 950	17-18		
Diavel (all versions)	11-18		
XDiavel (all versions)	16-18		
Hypermotard 821 (all versions)	13-15		
Hypermotard 939 (all versions)	16-18		
Monster 797 (all versions)	17-18		
Monster 821 (all versions)	14-18		
Monster 1200 (all versions)	14-18		
Multistrada 1200 (all versions)	15-18		
Multistrada 1260 (all versions)	18		
Multistrada 1200 Enduro (all versions)	16-18		
Scrambler (all versions)	15-18		
Scrambler Sixty2 (all versions)	16-17		
Supersport (all versions)	17-18		
899 Panigale	14-15		
1199 Panigale (all versions)	12-15		
1199 Superleggera	14		
959 Panigale	16-18		
1299 Panigale (all versions)	15-18		
1299 Superleggera	17		



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Please remember that the measurement must be performed with the red dissuasion LEDs off. Should it not be the case, wait for the flashing to stop (it can last up to 24 hours, refer to the Operating and Maintenance Instructions Manual of the analyzed model).

Assessment Criteria for the Battery Replacement under Warranty

The battery can be replaced under Warranty exclusively upon authorization from the Service Area Manager who will assess the associated technical sheet.

The warranty will cover the following cases:

- confirmed issues with the battery charging system and non-conforming battery according to the battery efficiency checks and the engine cranking test;
- confirmed issues resulting in a higher current self-absorption, in key-off condition (F), than specified in the table above and non-conforming battery according to the battery efficiency checks and the engine cranking test;
- faulty battery (within the first 3 months from the warranty activation date).

Ducati reserves the right to request the return of batteries replaced under warranty. Therefore, store the replaced batteries for at least 90 days.

Warranty Reimbursement Procedure

You will be reimbursed for a labor time of 18 minutes (3UL) to account for completion of the Technical Sheet for the request of battery replacement under warranty. You can request warranty reimbursement by providing the following codes for labor:

Operation Code
0 – 999 – 179

Per SVC-09-007 Bulletin
use part number
39520131C



NOTE

Ducati will not accept warranty requests unless the Technical Sheet (SRV-ESB-17-002 ING_Annex.pdf). is properly completed and attached to the request.

Please direct any questions or concerns to your Service Area Manager. We thank you in advance for your attention and cooperation.

Ducati North America
Service Department