

Owner's manual

MULTISTRADA

MULTISTRADA
1200 S PIKES PEAK



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We'd like to welcome you among Ducati enthusiasts and congratulate you on your excellent choice of motorcycle. We imagine you'll be riding your Ducati motorcycle for long trips as well as short daily excursions. Ducati Motor Holding S.p.A. wishes you smooth and enjoyable riding.

Your motorcycle is the result of constant research and development by Ducati Motor Holding S.p.A., so it's important that the standard of quality is upheld through careful observance of the scheduled maintenance chart and the use of original spare parts. In the Owner's Manual you'll find instructions for performing small maintenance procedures. The most important servicing and maintenance procedures are contained in the Service Manual available at Authorized Service Centers of Ducati Motor Holding S.p.A..

In your own interest, for your safety and in order to guarantee product reliability, we strongly recommend that you go to an Authorized Dealer or Service Center for any servicing included on the scheduled maintenance chart (see page 254).

Our highly skilled staff has access to the special tools and equipment needed to perform any servicing procedure with expertise. They use only Ducati original spare parts as the best guarantee for full interchangeability, smooth running and long life.

All Ducati motorcycles come with a Warranty Booklet. The Warranty does not extend to motorcycles used in competitions or competitive trials. Any tampering or even partial modification of the components will result in automatic invalidation of Warranty rights. Incorrect or insufficient servicing procedures, use of non-original spare parts or parts not explicitly approved by Ducati may lead to the invalidation of the Warranty, besides potential damage and reduced performance.

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Routine maintenance record 274

Foreword

Safety guidelines

Your safety and that of others are very important. Ducati Motor Holding S.p.A. urges you to ride your motorcycle responsibly.

Before using your motorcycle for the first time, please read this manual carefully from start to finish and closely follow the guidelines. This will allow you to obtain all information regarding a correct use and maintenance. If you have any doubts or questions, consult a Dealer or Authorized Service Center.

Safety alerts

Different forms of information regarding potential hazards that may affect you or others have been used. These include:

- Safety stickers on the motorcycle;
- Safety warnings preceded by a warning symbol and by one or the two words Caution or Important.



Attention

Failure to observe these instructions may lead to a hazardous situation and cause severe injury to the rider or others, or even death.



Important

Possibility of damaging the motorcycle and/or its components.



Note

Additional information regarding the job being performed.

The terms RIGHT and LEFT are referred to the motorcycle viewed from the riding position.

Permitted use

This motorcycle may be used on dirt roads or for off-road riding.



Attention

This motorcycle must not be used for towing or for the addition of a sidecar, since this may cause a loss of control and consequent accident.

This motorcycle carries the rider and can carry a passenger.



Attention

The total weight of the motorcycle in running order with rider, passenger, baggage and additional accessories must not exceed 948 lb/ 430 kg.



Attention

The maximum weight permitted for the side panniers, top case and the tank bag must never exceed 77 lb (35 kg), divided as follows:

22 lb (10 kg) max. per side pannier;

22 lb (10 kg) max. for the top case;

11 lb (5 kg) max. for the tank bag.

Rider's obligations

All riders must hold a driver's license.



Attention

Riding without a license is illegal and punishable by law. Make sure you always have your license on you when setting out on the motorcycle. Do not allow inexperienced riders or those not in possession of an authorized driver's license to ride the motorcycle.

Do not ride the motorcycle when under the influence of alcohol or drugs.



Attention

Riding under the influence of alcohol or drugs is illegal and punishable by law.

Avoid taking medication before riding the motorcycle if you have not consulted your doctor about potential side effects.



Attention

Some medications may induce sleepiness or other effects that impair reflexes and the ability of the rider to control the motorcycle, which may lead to accident.

Some countries require mandatory insurance coverage.



Attention

Check the laws applicable to your country. Take out an insurance policy and keep the policy in a safe place along with the other motorcycle documents.

To protect the safety of the rider and/or passenger, some countries have made it a law to wear a homologated helmet.



Attention

Check the laws applicable to your country. Riding without a helmet may be punishable by a fine.



Attention

Failure to be wearing a helmet in case of accident increases the chance of serious injury and even death.



Attention

Make sure that the helmet is in compliance with safety specifications, provides excellent visibility, is the correct size for the head, and has the DOT (Department of Transportation) label affixed to the helmet surface. Laws regulating traffic vary from country to country. Check the laws in force in your country before riding the motorcycle and pay strict adherence to them .



Attention

Tampering with Noise Control System Prohibited. Federal Law prohibits the following acts or causing thereof:

- 1) the removal or rendering inoperative by any person, other than for purposes of maintenance, repair, or replacement, of any device or element of design incorporated into any new vehicle for the purpose of noise control prior to its sale or delivery to the ultimate purchaser or while it is in use; or
- 2) the use of the vehicle after such device or element of design has been removed or rendered inoperative by any person.

Among the acts presumed to constitute tampering are those listed below:

- 1) Removal of, or puncturing the muffler, baffles, header pipes or any other component that conducts exhaust gases.
- 2) Removal or puncturing of any part of the intake system.
- 3) Lack of proper maintenance.
- 4) Replacing any moving part of the vehicle, or parts of the exhaust or intake system, with parts other than those specified by the manufacturer.

This product should be checked for repair or replacement if the motorcycle noise has increased

significantly through use. Otherwise, the owner may become subject to penalties under state and local ordinances.

Reporting of safety defects

If you believe that your vehicle has a defect which could cause a crash or could cause injury or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA) in addition to notifying Ducati North America, 10443 Bandle Drive Cupertino, California, 95014, Tel: 001.408.253.0499, Fax: 001.408.253.4099. If NHTSA receives similar complaints, it may open an investigation, and if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy campaign. However, NHTSA cannot become involved in individual problems between you, your dealer, or Ducati North America. To contact NHTSA, you may either call the Auto Safety Hotline toll-free at 1-800-424-9393 (or 366-0123 in Washington, D.C. area) or write to: NHTSA, 1200 New Jersey Avenue SE W43-488, Washington, D.C. 20590. You can also obtain other information about motor vehicle safety from the Hotline.

Rider training

Accidents are frequently due to inexperience. Riding, maneuvering and or braking are carried out differently from other vehicles.



Attention

A rider's lack of preparation or an inappropriate use of the vehicle may result in a loss of control, death or serious damage.

Be sure you know the "RULES OF THE ROAD", carefully read and familiarize with the contents of the M.O.M. (Motorcycle Operator Manual) for information on your State and which can be viewed on the M.S.F. (Motorcycle Safety Foundation) website (www.msf-usa.org).

You are strongly recommended to take a riding course approved by the M.S.F. (Motorcycle Safety Foundation).

Riding gear

Clothing in the use of the motorcycle plays an important role in safety, as the motorcycle provides a person no protection from impact in the same way as an automobile.

Suitable clothing includes: helmet, eye protection, gloves, boots, long-sleeved jacket and long pants.

- The helmet must have the requirements listed in page 9; if your helmet does not have a visor, use suitable eye wear;
- Gloves must have five fingers and be made of leather or other abrasion-resistant material;
- Boots or shoes used for riding must have non-slip soles and ankle protection;
- Jacket and pants, or even riding suits, must be made of leather or abrasion-resistant material and in a color with inserts that are very visible.

Important

In any case, avoid wearing loose or floppy clothing that can become stuck in the motorcycle parts.



Important

For your safety this type of clothing must be used in both summer and winter.



Important

For the safety of the passenger, make sure that he or she also wears appropriate clothing.

Best practices for motorcycle safety

Before, during and after use, remember to follow some simple rules that are extremely important for safety and for maintaining the motorcycle at top efficiency.

Important

During the whole running-in period, the indications recommended in section "Riding the Motorcycle" shall be observed carefully. Failure to follow these instructions releases Ducati Motor Holding S.p.A. from any liability whatsoever for any engine damage or shorter engine life.

Attention

Do not ride the motorcycle unless you are well familiarized with the controls to be used during the ride.

Before starting the motorcycle, always performs the checks detailed in this manual (see page 208).

Attention

Failure to perform checks may cause damage to the vehicle and serious injury to the rider and/or passenger.

Attention

Start the engine when outdoors or in a well ventilated place. Never start the engine in a closed environment.

Exhaust gases are poisonous and may lead to loss of consciousness or even death within a short time. During the ride, assume a correct body position and make sure the passenger does the same.

Important

The rider should ALWAYS keep both hands on the handlebar.

Important

Both rider and passenger should keep their feet on the footpegs when the motorcycle is in motion.



Important

The passenger should always hold on to the grab handles under the seat with both hands.



Important

Be very careful when maneuvering intersections or when riding in areas near exits from private grounds, parking lots or access roads to highways.



Important

Be sure you are clearly visible and do not ride in the blind spot of the vehicles ahead.



Important

ALWAYS signal your intention to turn or pull over to the next lane with due warning using the turn indicators.



Important

Park your motorcycle where no one is likely to hit it, and use the side stand. Never park on uneven or soft ground or your motorcycle may fall over.



Important

Visually inspect the tires at regular intervals for cracks and cuts, especially on sidewalls, bulges or large spots which are indicative of internal damage. Replace them if badly damaged. Remove any stones or other foreign bodies caught in the tread.



Attention

The engine, exhaust pipes and mufflers stay hot for a long time after the engine has been turned off. Be especially careful not to touch the exhaust system with any part of the body and never park the motorcycle near flammable materials (wood, leaves, etc.).



Attention

When you leave the motorcycle unattended, always remove the ignition key and make sure it is inaccessible to anyone unsuitable to ride the motorcycle.

Refueling

Refuel the motorcycle in an open area and with the engine switched off.

Do not smoke or ever use flames during refueling. Be careful never to drop fuel on the engine or exhaust pipe.

When refueling, do not fill the tank completely: fuel should never be touching the rim of filler recess.

When refueling, avoid inhaling fuel vapors and take care that they do not come in contact with eyes, skin or clothing.

Attention

The vehicle is compatible only with fuel having a maximum content of ethanol of 10% (E10).

Using fuel with ethanol content over 10% is prohibited. Using it could result in severe damage of the engine and motorcycle components. Using fuel with ethanol content over 10% will render the Warranty null and void.

Attention

In case of malaise caused by prolonged inhalation of fuel vapors, stay outdoors and consult a physician. In case of contact with eyes, rinse eyes thoroughly with water. In case of contact with skin, wash the area immediately with soap and water.

Attention

Fuel is highly flammable. If it accidentally spills onto clothes, change them.

Carrying the maximum load allowed

Your motorcycle is designed for long-distance riding with the maximum load allowed carried in full safety. Even weight distribution is critical to preserving these safety features and avoiding difficulties when performing sudden maneuvers or riding on bumpy roads.



Attention

Do not ride the motorcycle above 112 mph (180 km/h) when side panniers and top case are installed, and in any case ride within the speed limits prescribed by the law at all times.



Attention

Do not exceed the total permitted weight for the motorcycle and pay attention to the information below regarding load capacity.

Information about carrying capacity



Important

Arrange your luggage or heavy accessories in the lowest possible position and close to motorcycle center.



Important

Never fix bulky or heavy objects to the steering head or front mudguard, as this would affect stability and be dangerous.



Important

Be sure to secure the luggage to the supports provided on the motorcycle as firmly as possible. Improperly secured luggage may affect stability.



Important

Do not insert any objects you may need to carry into the gaps of the frame, as these may interfere with moving parts.



Attention

Make sure the tires are inflated to the proper pressure and that they are in good condition.

Please, refer to paragraph "Tires" in page 245.



Important

If the side panniers are fitted (available upon request from the Ducati spare parts service), divide the baggage and accessories based on their weight and place them uniformly inside the side panniers. Lock both side panniers using the suitable key lock.

Dangerous products - warnings

Used engine oil



Attention

Prolonged or repeated contact with used engine oil may cause skin cancer. If exposed to used engine oil on a daily basis, make it a rule to wash your hands thoroughly with soap immediately after use. Keep away from children.

Brake lining debris

Never attempt to clean the brake assembly using compressed air or a dry brush.

Brake fluid



Attention

Avoid spilling brake fluid onto plastic, rubber or painted parts of the motorcycle to avoid the risk of damage. Protect these parts with a clean shop rag before servicing the motorcycle. Keep away from children.



Attention

The brake fluid used in the brake system is corrosive. In the event of accidental contact with eyes or skin, wash the affected area with generous quantities of running water.

Coolant

Engine coolant contains ethylene glycol, which may ignite under particular conditions, producing invisible flames. Although the flames from burning ethylene glycol are not visible, they are still capable of causing severe burns.



Attention

Take care not to spill engine coolant on the exhaust system or engine parts.

These parts may be hot and ignite the coolant, which will subsequently burn with invisible flames. Coolant (ethylene glycol) is an irritant and is poisonous when ingested. Keep away from children. Never remove the radiator cap when the engine is hot. The coolant will be scalding hot and is under high pressure. The cooling fan operates automatically: keep hands well clear and make sure your clothing does not get caught in the fan.

Battery



Attention

The battery gives off explosive gases; keep it away from any source of ignition such as sparks, flames and cigarettes. Charge the battery in a well-ventilated area.

Vehicle identification number

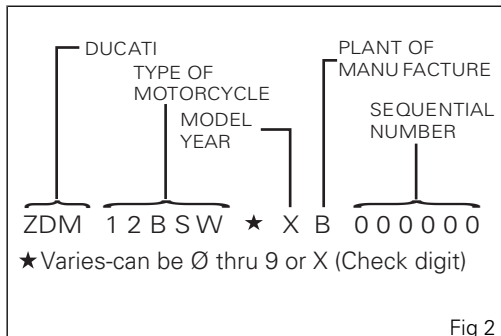
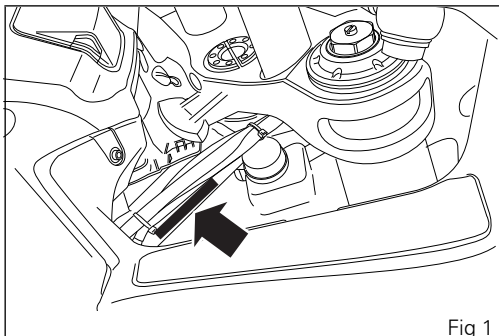


Note

These numbers identify the motorcycle model and should always be indicated when ordering spare parts.

We recommend that you note the frame number of your motorcycle in the space below.

Frame number



Engine identification number



Note

These numbers identify the motorcycle model and should always be indicated when ordering spare parts.

We recommend that you note the engine number of your motorcycle in the space below.

Engine number

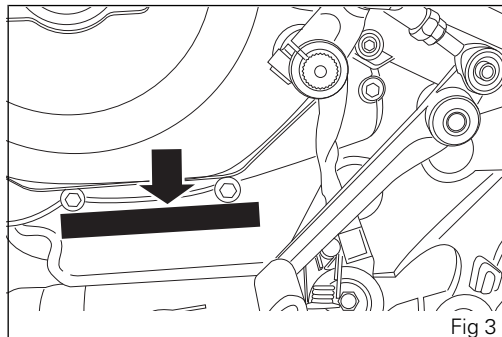


Plate positioning

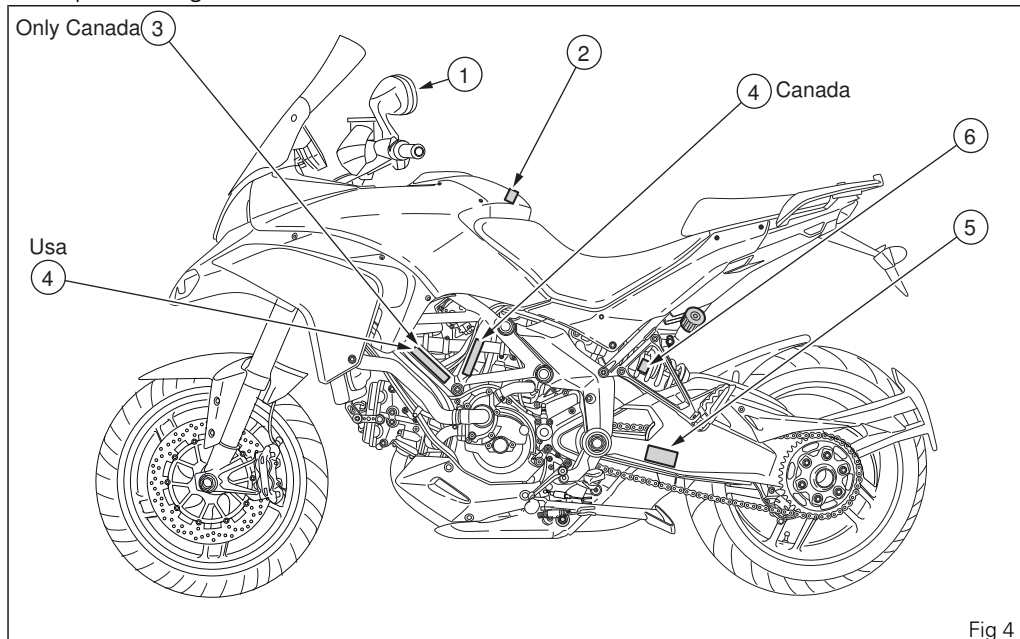


Fig 4

WARNING

DO NOT ATTEMPT TO LOOK THROUGH THIS FAIRING. THIS IS NOT A WINDSHIELD, BUT AN AERODYNAMIC FAIRING ONLY; FAILURE TO OBSERVE THIS WARNING COULD RESULT IN A COLLISION OR UPSET AND CONSEQUENT SERIOUS BODILY INJURY. GSA 402 1 002 14

1

CAUTION

NEVER FILL TANK SO FUEL LEVEL RISES INTO FILLER NECK. IF TANK IS OVERFILLED, HEAT MAY CAUSE FUEL TO EXPAND AND FLOW INTO EVAPORATIVE EMISSION CONTROL SYSTEM RESULTING IN HARD STARTING AND ENGINE HESITATION.

2

MANUFACTURED BY / FABRIQUÉ PAR: **DUCATI MOTORHOLDING spa**
 TYPE OF VEHICLE / TYPE DE VÉHICULE: MC DATE: **/****
 GVWR / PNBV *** KG. VIN / N.I.V.: ZDM*****

GVWR / PNBV KG	TIRE/PNEU - DIMENSION - RIM/JOINTE	COLD INFL. PRESS. / PRESS. DE GOUFL. A FROID / PSI/KPa
***	**/*****	*****
***	**/*****	*****

THIS VEHICLE CONFORMS TO ALL APPLICABLE STANDARDS PRESCRIBED UNDER THE CANADIAN MOTOR VEHICLE SAFETY REGULATIONS IN EFFECT ON THE DATE OF MANUFACTURE.
 CE VÉHICULE EST CONFORME À TOUTES LES NORMES QUI LUI SONT APPLICABLES EN VERTU DU RÈGLEMENT SUR LA SÉCURITÉ DES VÉHICULES AUTOMOBILES DU CANADA EN VIGUEUR À LA DATE DE SA FABRICATION. *** - ***

MOTORCYCLE NOISE EMISSION CONTROL INFORMATION

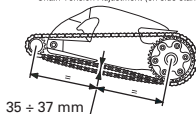
THIS [REDACTED] MOTORCYCLE, [REDACTED] MEETS EPA NOISE EMISSION REQUIREMENTS OF [REDACTED] dBA AT [REDACTED] RPM BY THE FEDERAL TEST PROCEDURE. MODIFICATIONS WHICH CAUSE THIS MOTORCYCLE TO EXCEED FEDERAL NOISE STANDARDS ARE PROHIBITED BY FEDERAL LAW. SEE OWNER'S MANUAL.

GSA 402 1 002 14

4

3 (Only Canada)

Tensione catena (sul cavalletto laterale)
 Chain Tension Adjustment (on side stand)



5

WARNING

CONTAINS HIGHLY COMPRESSED GAS. USE ONLY PERFECTLY DRY NITROGEN GAS. OTHER GASES MAY CAUSE EXPLOSION. DO NOT INCINERATE. REFER TO OWNER'S MANUAL FOR REGULATING GAS.

6

Fig 5

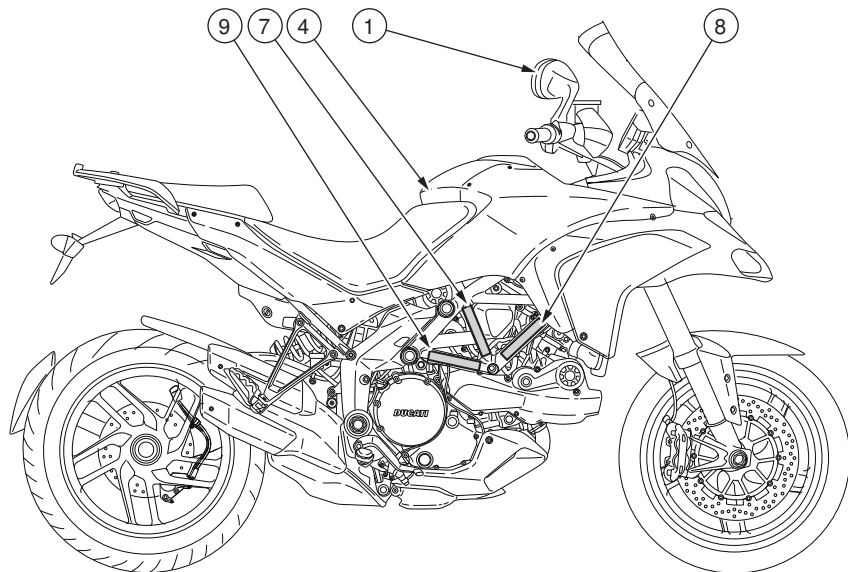


Fig 6

WARNING

DO NOT ATTEMPT TO LOOK THROUGH THIS FAIRING. THIS IS NOT A WINDSHIELD, BUT AN AERODYNAMIC FAIRING ONLY; FAILURE TO OBSERVE THIS WARNING COULD RESULT IN A COLLISION OR UPSET AND CONSEQUENT SERIOUS BODILY INJURY.

CAG 402 1 109 14

1

VEHICLE EMISSION CONTROL LABEL

ENGINE DISPLACEMENT: 1196 cc ENGINE FAMILY: ADUCU1.20MTS
THIS VEHICLE CONFORMS TO U.S. EPA AND CALIFORNIA REGULATIONS
APPLICABLE TO 2010 MODEL YEAR NEW MOTORCYCLES.
EVAP FAMILY: ADUCU0018234



DUCAIT
Via A. C. Ducait, 3
40132 BOLOGNA
ITALY

402.1.004.10

7

Manufactured by **DUCAIT**/MOTORHOLDING spa

DATE: ■/■/■

GVWR: ■ Lbs (■ kg)

GAWR front: ■ Lbs (■ kg) with ■ tire, ■ RIM at ■ PSI cold.

GAWR rear: ■ Lbs (■ kg) with ■ tire, ■ RIM at ■ PSI cold.

This vehicle conforms to all applicable Federal Motor Vehicle Safety standards in effect on the date of manufacture shown above. Type classification: Motorcycle

Vehicle I.D. No.: ■■■■■■■■■■

CAG 402 1 109 14

9

CAUTION

NEVER FILL TANK SO FUEL LEVEL RISES INTO FILLER NECK. IF TANK IS OVERFILLED, HEAT MAY CAUSE FUEL TO EXPAND AND FLOW INTO EVAPORATIVE EMISSION CONTROL SYSTEM RESULTING IN HARD STARTING AND ENGINE HESITATION.

4

VEHICLE EMISSION CONTROL INFORMATION

ENGINE DISPLACEMENT: xxxxx

ENGINE FAMILY: xxxxxxxxxxxxxx

ENGINE EXHAUST CONTROL SYSTEM:

xxxxxxxxxx AND x xxxxx

EVAP FAMILY: xxxxxxxxxxxxxx

PERMEATION FAMILY: xxxxxxxxxxxx

THIS VEHICLE CONFORMS TO U.S. EPA AND CALIFORNIA REGULATIONS APPLICABLE TO xxxxx MODEL YEAR NEW MOTORCYCLES AND IS CERTIFIED TO xx HC+NOx G/KM ENGINE FAMILY EXHAUST EMISSION STANDARD IN CALIFORNIA

ENGINE TUNEUP SPECIFICATIONS

ITEM	SPECIFICATIONS	INSTRUCTIONS
IGNITION TIMING: xx° BTDC AT IDLE SPEED		NON-ADJUSTABLE
IDLE SPEED (RPM)	xxx ± xxx	NON-ADJUSTABLE
IDLE MIXTURE		NON-ADJUSTABLE
VALVE CLEARANCE (IN & EX):		
OPENING xxxxx mm		OIL : xxxxxxxxxxxxxxxxxxxx
CLOSING xxxxxxx mm		FUEL : UNLEADED GASOLINE
SEE SERVICE MANUAL		
SPARK PLUG : xxxxxxxxxxxxxxxxxxxxxxxxx		
GAP (mm) : xx x xx		
DUCAIT /MOTORHOLDING spa- Bologna - ITALY		
Importer: DUCAIT North America Inc. - Cupertino - California		

xxxxxxxxxxxxxxxxxx

8

Fig 7

Noise and exhaust emission control system information

Source of Emissions

The combustion process produces carbon monoxide and hydrocarbons. Control of hydrocarbons is very important because under certain conditions, they react to form photochemical smog when subjected to sunlight.

Carbon monoxide does not react in the same way, but is toxic. Ducati utilizes lean carburetor settings and other systems to reduce carbon monoxide and hydrocarbons.

Exhaust Emission Control System

Exhaust Emission Control System is controlled by an Electronic Control Unit (ECU), and no adjustments should be made except idle speed adjustments with the throttle stop screw. The Exhaust Emission Control System is separate from the crankcase emission control system.

Crankcase Emission Control System

The engine is equipped with a closed crankcase system to prevent discharging crankcase emissions into the atmosphere. Blow-by gas is returned to the

combustion chamber through the air cleaner and the throttle body.

Evaporative Emission Control System

The motorcycles are equipped with an evaporative emission control system which consists of a charcoal canister and associated piping. This system prevents the escape of fuel vapors from the engine and fuel tank.

Problems that may affect motorcycle emissions

If you are aware of any of the following symptoms, have the vehicle inspected and repaired by your local Ducati dealer.

Symptoms:

Hard starting or stalling after starting.

Rough idle.

Misfiring or backfiring during acceleration.

After-burning (backfiring).

Poor performance (drivability) and poor economy.

California emission control warranty statement

Your warranty rights and obligations

The California Air Resources Board is pleased to explain the emission control system warranty on your MY 2014 motorcycle. In California, new motor

vehicles must be designated, built and equipped to meet the State's stringent anti-smog standards. Ducati North America, Inc. must warrant the emission control system on your motorcycle for the periods of time listed below provided there has been no abuse, neglect or improper maintenance of your motorcycle.

Your emission control system may include parts such as fuel-injection system, the ignition system, catalytic converter, and engine computer. Also included may be hoses, belts, connectors and other emission-related assemblies. Where a warrantable condition exists, Ducati North America, Inc. will repair your motorcycle at no cost to you including diagnosis, parts and labor.

Manufacturer's warranty coverage

Manufacturer's warranty coverage

- 5 years or 30,000 kilometers (18641 miles), whichever first occurs.

Owner's warranty responsibilities:

- As the motorcycle owner, you are responsible for the performance of the required maintenance listed in your owner's manual. Ducati North America, Inc. recommends that you retain all receipts covering maintenance on your motorcycle, but Ducati North America, Inc. cannot deny warranty solely for the lack of receipts or for your failure to ensure the performance of all scheduled maintenance.
- You are responsible for presenting your motorcycle to a Ducati dealer as soon as a problem exists. The warranty repairs should be completed in a reasonable amount of time, not to exceed 30 days.
- As the motorcycle owner, you should also be aware that Ducati North America, Inc. may deny you warranty coverage if your motorcycle or a part has failed due to abuse, neglect, improper maintenance or unapproved modifications.

If you have any questions regarding your warranty rights and responsibilities, you should contact Ducati North America, Inc. at 001.408.253.0499 or the California Air Resource Board at 9528 Telstar Avenue, El Monte, CA 91731.

California evaporation emission system

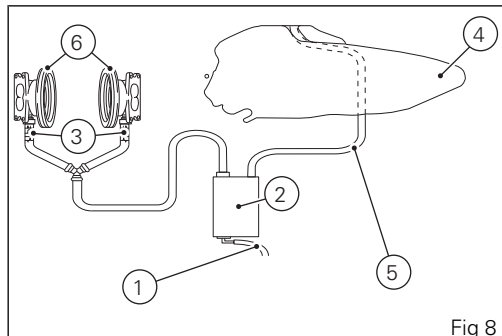
This system consists of:

- 1) Warm air inlet;
- 2) Canister;
- 3) Dell'Orto jet;
- 4) Fuel tank;
- 5) Breather pipe;
- 6) Intake manifolds.



Attention

In the event of a fuel system malfunction, contact a Ducati Authorized Service Center.



Ducati limited warranty on emission control system

Ducati North America, Inc., 10443 Bandle Drive
Cupertino, California, 95014 warrants that each new
1998 and later Ducati motorcycle, that includes as
standard equipment a headlight, taillight and
stoplight, and is street legal:

A) is designed, built and equipped so as to conform
at the time of initial retail purchase with all applicable
regulations of the United States Environmental
Protection Agency, and the California Air Resources
Board; and

B) is free from defects in material and workmanship
which cause such motorcycle to fail to conform with
applicable regulations of the United States
Environmental Protection Agency or the California Air
Resources Board for a period of use of 30,000
kilometers (18,641 miles) or 5 (five) years from the
date of initial retail delivery, whichever first occurs.

I. Coverage

Warranty defects shall be remedied during
customary business hours at any authorized Ducati
motorcycle dealer located within the United States of
America in compliance with the Clean Air Act and

applicable regulations of the United States
Environmental Protection Agency and the California

Air Resources Board. Any part or parts replaced under
this warranty shall become the property of Ducati. In
the state of California only, emissions related
warranted parts are specifically defined by that
state's Emissions Warranty Parts List. These
warranted parts are: carburetor and internal parts;
intake manifold; fuel tank, fuel injection system; spark
advance mechanism; crankcase breather; air cutoff
valves; fuel tank cap for evaporative emission
controlled vehicles; oil filler cap; pressure control
valve; fuel/vapor separator; canister; igniters; breaker
governors; ignition coils; ignition wires; ignition
points, condensers, and spark plugs if failure occurs
prior to the first scheduled replacement, and hoses,
clamps, fittings and tubing used directly in these
parts. Since emission related parts may vary from
model to model, certain models may not contain all
of these parts and certain models may contain
functionally equivalent parts. In the state of California
only, Emission Control System emergency repairs, as
provided for in the California Administrative Code,
may be performed by other than an authorized Ducati
dealer. An emergency situation occurs when an

authorized Ducati dealer is not reasonably available, a part is not available within 30 days, or a repair is not complete within 30 days. Any replacement part can be used in an emergency repair. Ducati will reimburse the owner for the expenses, including diagnosis, not to exceed Ducati's suggested retail price for all warranted parts replaced and labor charges based on Ducati's recommended time allowance for the warranty repair and the geographically appropriate hourly labor rate. The owner may be required to keep receipts and failed parts in order to receive compensation.

II. Limitations

This Emission Control System Warranty shall not cover any of the following:

- A. Repair or replacement required as a result of
 - (1) accident,
 - (2) misuse,
 - (3) repairs improperly performed or replacements improperly installed,
 - (4) use of replacement parts or accessories not conforming to Ducati specifications which adversely affect performance and/or
 - (5) use in competitive racing or related events.

B. Inspections, replacement of parts and other services and adjustments required for routine maintenance.

C. Any motorcycle on which odometer mileage has been changed so that actual mileage cannot be readily determined.

III. Limited liability

A. The liability of Ducati under this Emission Control Systems Warranty is limited solely to the remedying of defects in material or workmanship by an authorized Ducati motorcycle dealer at its place of business during customary business hours. This warranty does not cover inconvenience or loss of use of the motorcycle or transportation of the motorcycle to or from the Ducati dealer. Ducati shall not be liable for any other expenses, loss or damage, whether direct, incidental, consequential or exemplary arising in connection with the sale or use of or inability to use the Ducati motorcycle for any purpose. Some states do not allow the exclusion or limitation of any incidental or consequential damages, so the above limitations may not apply to you. B. No express emission control system warranty is given by Ducati except as specifically set forth herein. Any emission control system warranty implied by law, including any

warranty of merchantability or fitness for a particular purpose, is limited to the express emission control systems warranty terms stated in this warranty. The foregoing statements of warranty are exclusive and in lieu of all other remedies. Some states do not allow limitations on how long an implied warranty lasts so the above limitation may not apply to you. C. No dealer is authorized to modify this Ducati Limited Emission Control Systems Warranty.

IV. Legal rights

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

V. This warranty is in addition to the Ducati limited motorcycle warranty.

VI. Additional information

Any replacement part that is equivalent in performance and durability may be used in the performance of any maintenance or repairs. However, Ducati is not liable for these parts. The owner is responsible for the performance of all required maintenance. Such maintenance may be performed at a service establishment or by any individual. The warranty period begins on the date the motorcycle is delivered to an ultimate purchaser.

Ducati North America, Inc..
10443 Bandle Drive
Cupertino, California, 95014
Tel: 001.408.253.0499
Fax: 001.408.253.4099
E-mail: customerservice@ducatiusa.com
Web site: www.ducatiusa.com

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Instrument panel (Dashboard)

Instrument panel

1) LCD Dot-Matrix.

2) REV COUNTER (rpm).

Indicates engine revs per minute.

3) NEUTRAL LIGHT N (GREEN).

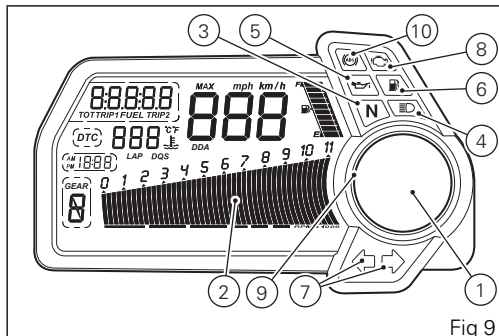
Comes on when in neutral position.

4) HIGH BEAM LIGHT  (BLUE).

Turns on to indicate that the high beam lights are on.

5) ENGINE OIL PRESSURE LIGHT  (RED).

Comes on when engine oil pressure is too low. It must turn on at Key-On, but must turn off a few seconds after the engine has started. May come on briefly when the engine is hot, but should go off as the engine revs up.



 **Important**
If ENGINE OIL light stays on, stop the engine or it may suffer severe damage.

6) LOW FUEL LIGHT (AMBER YELLOW).

Comes on when fuel is low and there is about a gallon (4 liters) of fuel left in the tank.

7) TURN INDICATOR LIGHTS (GREEN).

Illuminates and flashes when the turn indicator is in operation.

8) "ENGINE/VEHICLE DIAGNOSIS - EOBD" LIGHT (AMBER YELLOW).

Turns on in case of "engine" and/or "vehicle" errors and in some cases will lock the engine.

9) LIMITER LIGHT "OVER REV"/ TRACTION CONTROL LIGHT "DTC" (RED).

	Over rev light
No limiter	Off
1st threshold - no. RPM before limiter kicks in (*)	On - STEADY
Rev limiter (limiter engaged due to overrevving) (*)	On - Flashing

(*) depending on the model, each calibration of the Engine Control Unit may have a different "setting" for

the thresholds that precede the rev limiter and the rev limiter itself.

	DTC intervention light
No intervention	Off
DTC intervention	On - STEADY



Note

If the Over rev function light and the DTC intervention light should both come on at the same time, the instrument panel gives priority to the Over rev function.

10) ABS LIGHT (AMBER YELLOW) (Fig 9).

Engine off/ speed under 3 mph (5 km/h)		
Light off	Light flashing	Light steady
-	ABS disabled with the menu function (**)	ABS enabled but not functioning yet
Engine on/ speed under 3 mph (5 km/h)		
Light off	Light flashing	Light steady
-	ABS disabled with the menu function	ABS enabled but not functioning yet
Engine on/ speed over 3 mph (5 km/h)		
Light off	Light flashing	Light steady
ABS enabled and functioning	ABS disabled with the menu function	ABS disabled and not functioning due to problem

(**) The ABS should be considered actually disabled only if the light continues to flash after starting the engine.

Function pushbuttons

1) CONTROL BUTTON

Button used to display and set instrument panel parameters with the position "▲".

2) CONTROL BUTTON

Button used to display and set instrument panel parameters with the position "▼".

3) HIGH-BEAM FLASH BUTTON FLASH

The high-beam flash button may also be used for LAP functions.

4) TURN INDICATOR CANCEL BUTTON

The turn indicators on/off button may also be used for navigating through the MENU and for activating the "Riding Mode".

Press this button for 3 seconds to the left side to activate the Hazard lights.

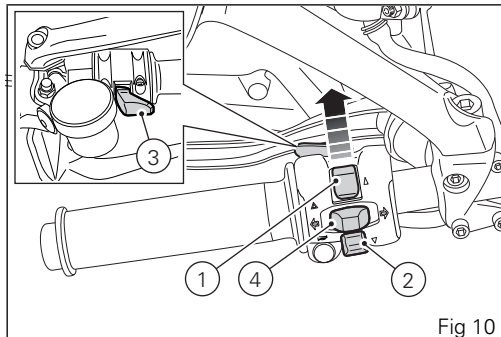


Fig 10

Acronyms and abbreviations used in the Manual

ABS

Anti-lock Braking System

BBS

Black Box System

CAN

Controller Area Network

DDA

DUCATI Data Acquisition

DSS

DUCATI Skyhook Suspension

DSB

Instrument panel

DTC

DUCATI Traction Control

HF

Hands Free

ECU

Engine Control Unit

Technological Dictionary

Riding Mode

The rider can choose from four different preset bike configurations (Riding Modes) and pick the one that

best suits his/her riding style or ground conditions. The Riding Modes allow user to instantly change the engine power delivery (ENGINE), the ABS settings, the DTC settings as well as, on the "Sport" versions, the suspension settings (DSS).

Available riding modes are: Sport, Touring, Urban and Enduro.

Within every Riding Mode, the rider can customize any settings.

DSS (Ducati SkyHook System)

Multistrada 1200 is equipped with the brand new suspension control system called DSS (Ducati Skyhook System): DSS is a dynamic suspension damping control system. By selecting a certain Riding Mode, the rider can establish the base suspension behavior, suspension response and hence the motorcycle response.

DSS default setting can be changed using the corresponding menu through the instrument panel. This menu allows the rider to increase or decrease the base damping settings characterizing the operation of fork and rear shock absorber for every Riding Mode.

Ducati Traction Control (DTC)

The Ducati Traction Control system (DTC) supervises the rear wheel slipping control and settings vary through eight different levels that are programmed to offer a different tolerance level to rear wheel slipping. Each Riding Mode features a preset intervention level. Level eight indicates system intervention whenever a slight slipping is detected, while level one is for very expert riders because it is less sensitive to slipping and intervention is thus rarer.

Anti-lock Braking System (ABS)

The ABS system fitted to Multistrada 1200 is a system that actuates combined braking with anti lift-up function for the rear wheel so as to guarantee not only a reduced stopping distance, but also a higher stability under braking. The ABS features 3 levels, one associated to each Riding Mode.

Hands Free (HF)

The Hands free system allows the rider to start the motorbike without actually using the ignition key. The key must simply be within a certain range from the motorbike, for instance in the rider's pocket. The electric steering lock used by the Hands free system locks the handlebar on the right or on the left, making for a more versatile parking solution.

The Hands free system is connected to the other control units on the bike and to the instrument panel via the CAN line.

The system can enable ignition (key present and acknowledged) or disable it (key not present or not acknowledged - immobilizer function) thanks to this line. The instrument panel displays any notice, such as the warnings concerning low key battery or key not present.

LCD unit functions



Attention

Adjustments/settings on the instrument panel are strictly to be carried out when the motorcycle is stationary. Never operate the instrument panel controls while riding the motorcycle.

1) SPEEDOMETER.

Indicates road speed.

2) ODOMETER.

Gives total distance covered.

3) TRIP METER.

Indicates distance covered since the meter (TRIP 1 and TRIP 2) was last reset.

4) CLOCK.

5) FUEL LEVEL.

6) ENGINE RPM INDICATOR (RPM).

7) LAP TIME, MAXIMUM SPEED AND MAXIMUM RPM RECORDING (LAP).

8) DTC INDICATOR ACTIVE/NOT ACTIVE.

9) GEAR INDICATOR.

10) WATER TEMPERATURE INDICATOR.

Indicates engine coolant temperature.

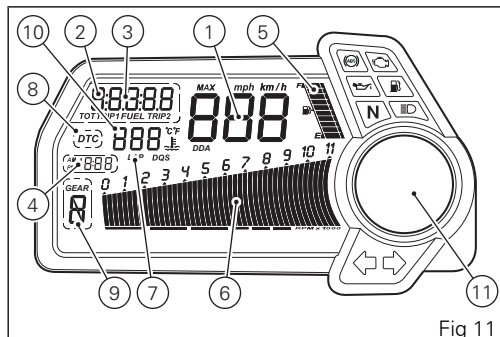


Fig 11



Important

Stop riding if the temperature reaches the maximum value, otherwise the engine might be damaged.

11) LCD Dot-Matrix.

LCD - How to set/display parameters

At the end of the check, the instrument panel always displays the Odometer (TOT) as the "main" indicator on the main display and the "riding mode" on the round display..



Note

The check can be interrupted by pressing button (1).

At the end of the initial check, the instrument panel will always show the "main" display. The main LCD (A) indicates the following information:

- Vehicle speed indication;
- Engine rpm indication (RPM);
- Gear indication;
- Clock indication;
- Fuel level indication;
- Coolant temperature indication;
- TOT - Odometer.

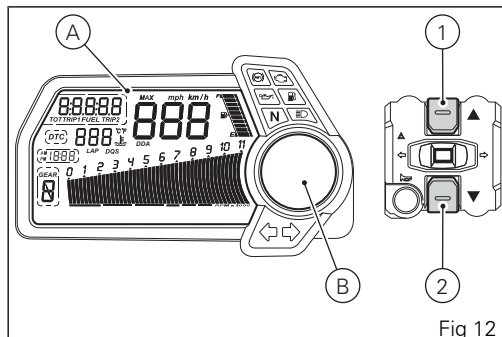


Fig 12

The Dot-Matrix LCD (B, Fig 12) indicates the following information:

- WARNING (only if active);
- ERRORS (only if active);
- DESMO SERVICE (only if active);
- SET UP - "Riding Mode" set indication.

At this point, by pressing button (1, Fig 12) it is possible to switch to the following functions, displayed on the main LCD (A, Fig 12):

- TRIP1 - Trip meter 1;
- TRIP2 - Trip meter 2.

At this point, by pressing button (2, Fig 12) it is possible to switch to the following functions, displayed on the Dot-Matrix LCD (B, Fig 12):

- RANGE - Remaining range;
- CONS. - Current fuel consumption;
- CONS. AVG - Average Fuel Consumption;
- SPEED AVG - Average speed;
- AIR - Air temperature;
- TRIP TIME - Trip time.

Vehicle speed indicator

This function displays vehicle speed (mph or km/h depending on the set measurement system)) on main LCD.

The instrument panel receives information about the actual speed (calculated in km/h) and displays the number increased by 5%.

Maximum speed displayed is 186 mph (299 km/h).

Over 186 mph (299 km/h) a series of dashes will be displayed "- - -" (not flashing).

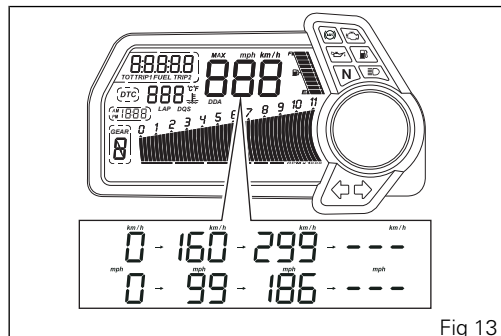


Fig 13

Engine rpm indicator (RPM)

This function displays the rpm on the main LCD.

The instrument panel receives the engine rpm information and displays it.

This information on rpm is displayed progressively from left to right.

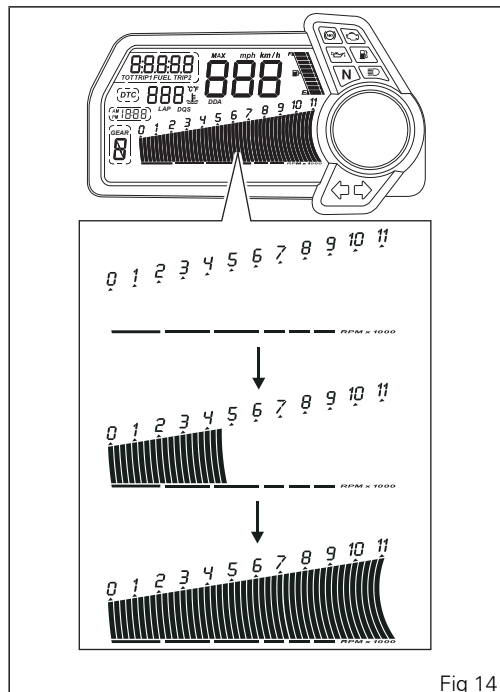


Fig 14

Engaged gear indicator

This function displays the gears.

The instrument panel receives information and indicates the engaged gear or "N" for neutral.



Note

In the case of a gear sensor "error", a dash "--" (not flashing) will be displayed.

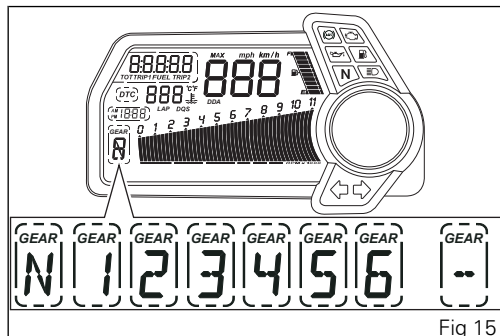


Fig 15

Clock

This function displays the time.

Time is always displayed as follows:

AM from 0:00 to 11:59;

PM from 12:00 to 11:59.

If battery power is suddenly cut off (Batt-OFF): when battery power is restored and upon next Key-On, the clock is reset and restarts operating from "0:00".

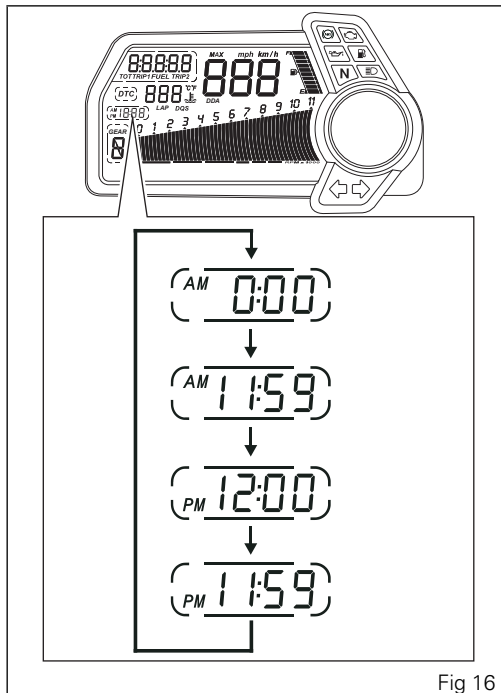


Fig 16

Fuel level indicator

This function displays the fuel level. The low fuel light turns on when the level goes down to 2 marks and there are still 4 liters in the tank; if the level goes down further, the last mark will be displayed flashing.



Important

If the vehicle enters the reserve status and the light has turned on, it is recommended to turn the vehicle off when refueling (Key-Off); if fuel is added without turning it off (Key-On and engine off) the data may not be immediately updated.



Note

In the case of a level sensor "error", the bargraph without marks is displayed and the rest of the digit will flash.

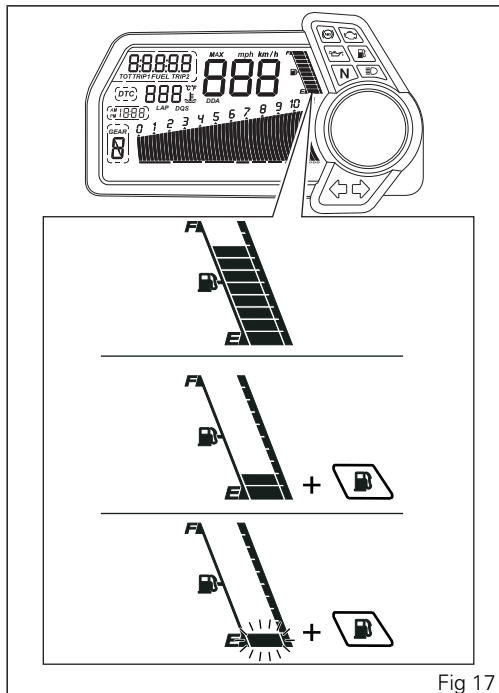


Fig 17

Coolant temperature

This function indicates engine coolant status.

The temperature unit of measure can be selected (°F or °C):

The default unit is °F.

The reading is indicated as follows:

- if the reading is between -38°F and +102°F (-39°C and +39°C) "LO" is shown on the instrument panel (steady);
- if the reading is between +104°F and +248°F (+40°C and +120°C), the reading appears on the instrument panel (steady);
- if the reading is +250°F (+121°C) or higher, "HI" is shown flashing on the instrument panel.

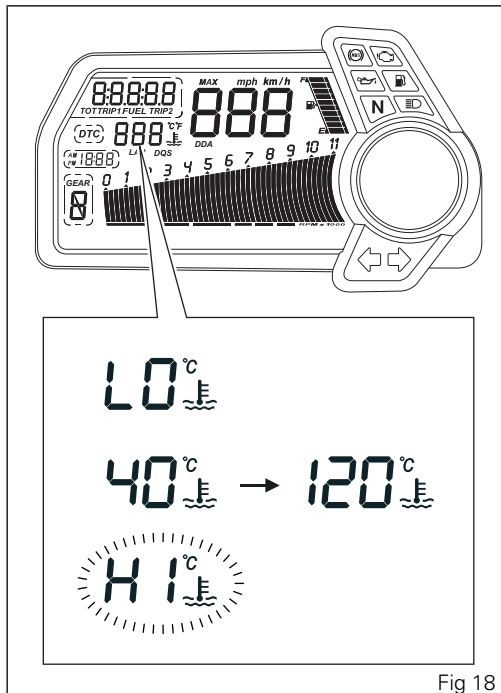


Fig 18



Note

In the event of a sensor "error", a string of flashing dashes ("---") is shown and the "Engine/ Vehicle diagnosis - EOBD" light comes on.

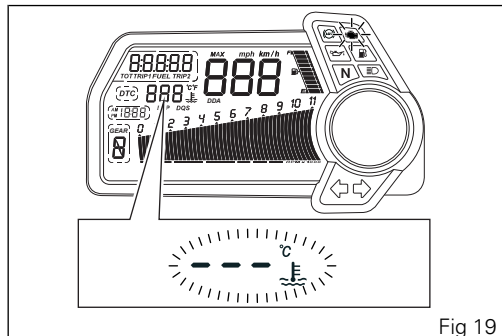


Fig 19

Total distance covered indicator:

"Odometer"

This function shows the total distance covered by the vehicle.

At Key-On the system automatically enters this function.

The odometer reading is stored permanently and cannot be reset.

If the distance traveled exceeds 99999 mi (or 99999 km), the value "99999" will be displayed permanently.

The default unit is mi.



Note

If a string of flashing dashes "----" is displayed within odometer function, please contact a Ducati Dealer or Authorized Service Center.

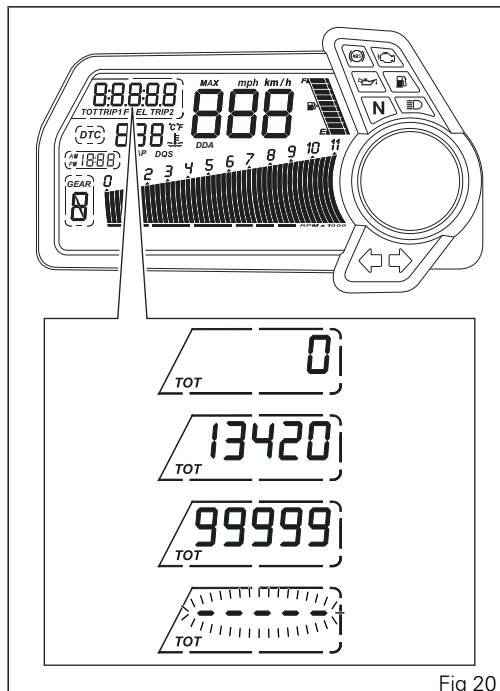


Fig 20

"Trip 1" meter

This function shows the partial distance covered by the vehicle.

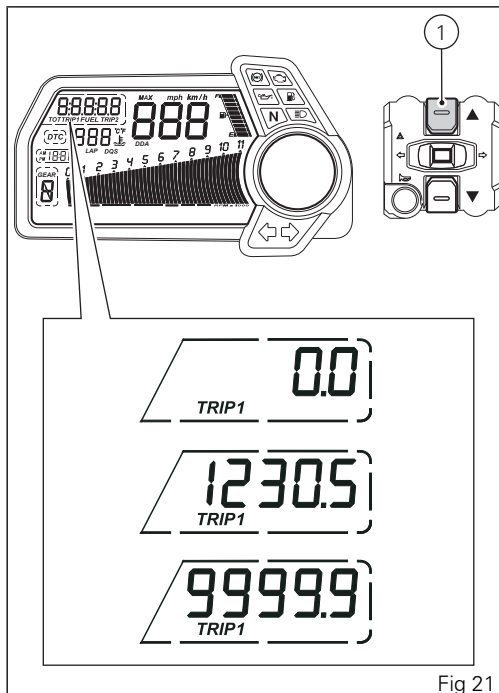
Holding the (1) button pressed for 3 seconds when this function is displayed resets the trip meter. When the reading exceeds 999.9, distance traveled is reset and the meter automatically starts counting from 0 again. If the system measurement units are changed at any moment, or if there is an interruption in the power supply (Battery Off), the distance traveled is reset and the count starts from zero (considering the newly set unit of measurement).



Note

When this value is reset, the "Average fuel consumption", "Average speed" and "Trip time" functions are also reset.

The default unit is mi.



"Trip 2" meter

This function shows the partial distance covered by the vehicle.

Holding the (1) button pressed for 3 seconds when this function is displayed resets the trip meter. When the reading exceeds 999.9, distance traveled is reset and the meter automatically starts counting from 0 again. If the system measurement units are changed at any moment, or if there is an interruption in the power supply (Battery Off), the distance traveled is reset and the count starts from zero (considering the newly set unit of measurement).

The default unit is mi.

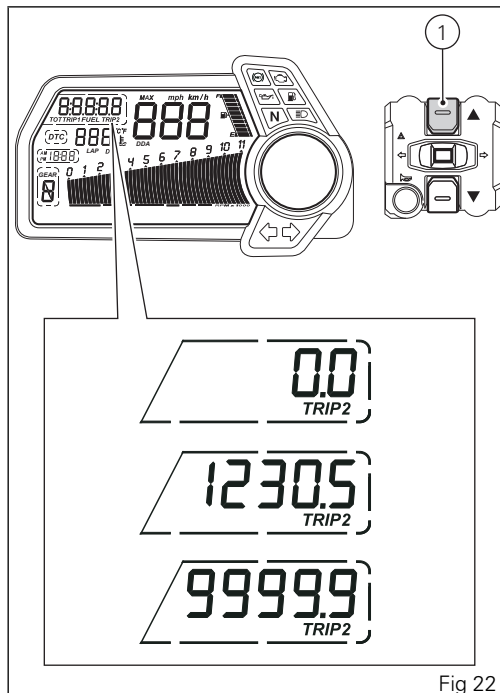


Fig 22

Indication if the DTC function is active/not active

This function indicates if DTC (Ducati Traction Control) is active.

When “DTC” is not lit up inside the rim, this means that the function is disabled.

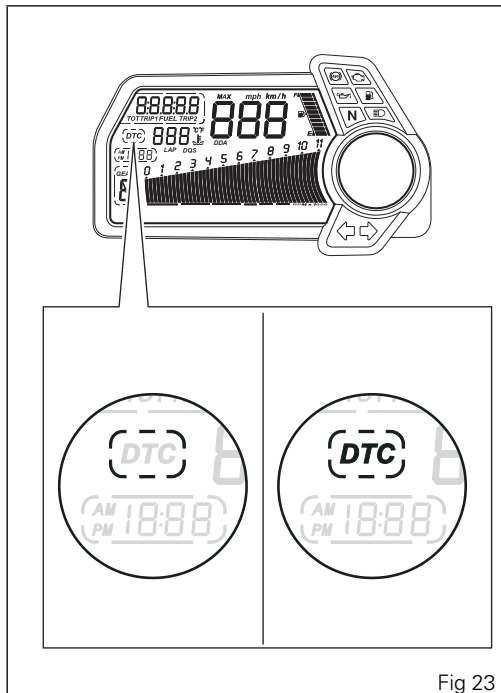


Fig 23

Indication if the LAP function is active/not active

This function indicates if “LAP” (Lap number) is active.

When “LAP” is not lit up, this means that the function has been switched off.

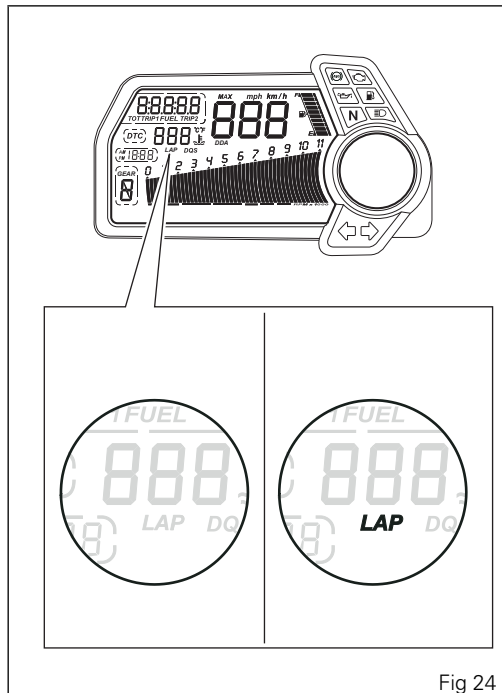


Fig 24

Warning indication (Alarms/Signals)

The instrument panel shows some signals/malfuncions in real time on the round "Dot-Matrix" display (B) that are not dangerous for correct vehicle operation.

At Key-On (at the end of the check) one or more "warnings" are displayed if they are active.

If a "warning" is activated during operation, the current indication on the round "Dot-Matrix" display (B) will switch automatically to the indicator.

If there are multiple indicators, they will scroll automatically every 3 seconds.



Note

No signal lights turn on if one or more "warnings" are activated.

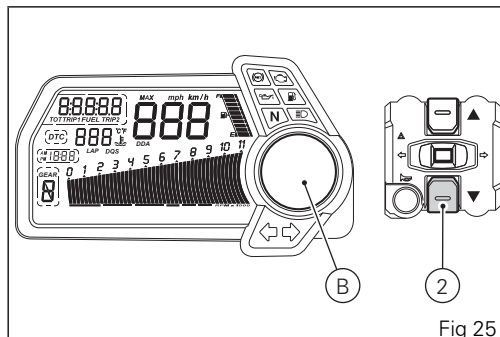


Fig 25

The following “warnings” could be displayed:

- Battery level;
- Traction control;
- Hands free key;
- Hands free key battery level;
- Coolant temperature;
- Steering release error;
- DTC off road setting (DTC OFF ROAD);
- ABS disabled (ABS OFF).

When one or more “warnings” are active, it is possible to go to other functions by pushing button (2, Fig 25).

“Low” battery level

The activation of this “warning” indicates that the status of the vehicle battery is low.

It is activated when the battery voltage is equal to or below 11.0 Volt.



Note

In this case, Ducati recommends charging the battery as soon as possible with the specific device, since it may not be possible to start the vehicle.

Two conditions are provided in order to save battery charge:

- 1) when engine is running, if engine is stopped but instrument panel is not turned off, the suspension system power is cut after 30 seconds;
- 2) when engine is stopped, if instrument panel is turned on but engine is not started, the suspension system power is cut after 30 seconds.

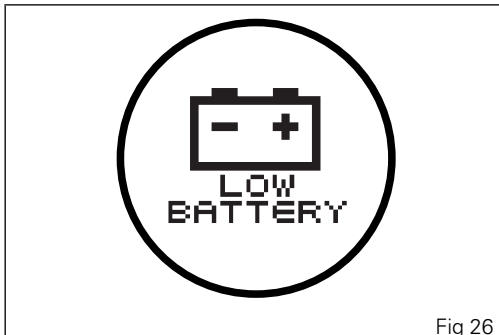


Fig 26



Note

When the suspension system is not powered it is quite hard due to the considerable hydraulic damping it offers and this is true even when the motorcycle is off. This means that the rider will feel very well when suspension power is cut off.

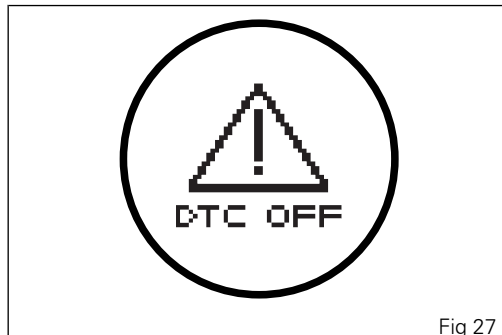
Traction Control (DTC) deactivated

The activation of this “warning” indicates that DTC (Ducati Traction Control) has been turned off.



Note

In this case, Ducati recommends being very careful when riding because vehicle behavior will be different as opposed to operating with the Traction Control activated.



Hands Free key (HF) not recognised

The activation of this “warning” indicates that the Hands Free system does not detect the active key (1, Fig 69) near the vehicle.



Note

In this case, Ducati recommends checking that the active key is near the vehicle (and has not been lost) and that it functions properly.



Fig 28

"Low" Hands Free key (HF) battery level

The activation of this "warning" indicates that the Hands Free system has detected that the battery that permits the active key (1, Fig 69) to communicate and turn the vehicle on is almost discharged.



Note

In this case, Ducati recommends replacing the battery as soon as possible.

Replace the battery as described in the paragraph "Replacing the active key battery" page 137.

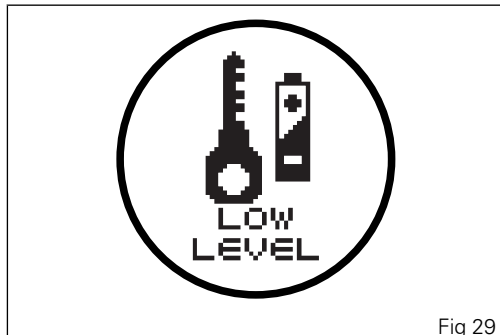


Fig 29

"High" engine coolant temperature

The activation of this "warning" indicates that the engine coolant temperature is high. It is activated when the temperature reaches 250°F (121°C).



Note

In this case, Ducati recommends stopping and shutting off the engine immediately; ensure that fans are on.

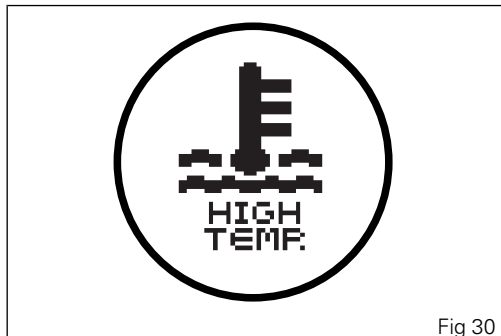


Fig 30

Steering release error - Steering still locked

The activation of this “warning” indicates that the Hands Free System was not able to extract the steering lock.



Attention

In this case, Ducati recommends turning the vehicle off and on (Key-Off / Key-On) holding the handlebar pressed down to the end stop. If the signal remains (and the steering does not “release”) contact a Ducati Dealer or Authorized Service Center.

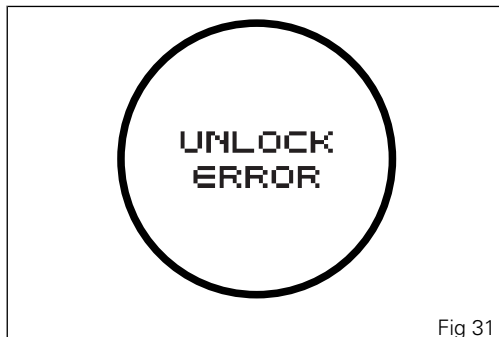


Fig 31

DTC off-road setting (DTC OFF ROAD)

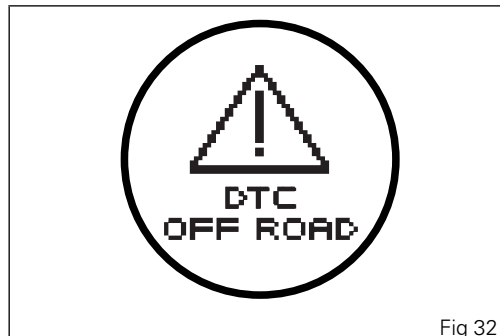
Activation of this warning indicates that it is necessary to ride carefully on asphalt because this Traction control setting is "extreme" (designed for off-road use).

This warning is displayed whenever DTC (Ducati Traction Control) levels 1 and 2 are used.



Attention

In this case Ducati recommends to ride very carefully and use a DTC (Ducati Traction Control) setting of this kind only OFF road.



ABS disabled (ABS OFF)

Activation of this warning indicates that it is necessary to ride carefully because the ABS is disabled.



Attention

In this case Ducati recommends you pay utmost attention when riding and especially while braking.

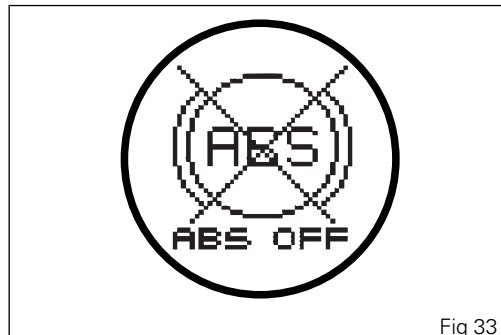


Fig 33

Indication function - Rear suspension preload setting in progress

This function warns user that system is currently "calibrating" rear shock absorber preload.

"Calibration" is performed automatically upon the first "Key-On" after battery is reconnected.



Note

During "calibration" the message on display reads "DSS – PRE LOAD CALIBRATION WAIT..." and in this period Ducati recommends to avoid starting the vehicle and/or changing "Riding Mode".



Fig 34

Instrument panel diagnosis

This function identifies any abnormal vehicle behavior. The instrument panel activates any abnormal vehicle behavior in real time (ERRORS). At Key-On (at the end of the check) one or more "ERRORS" are displayed (only if they are active). If an "error" is activated during operation, the current indication on the round "Dot-Matrix" display (B) will switch automatically to the indicator. If there are multiple errors, they will scroll automatically every 3 seconds. The "Engine/vehicle diagnosis - EOBD" light always turns on when one or more errors are activated. When one or more "errors" are active, it is possible to go to other functions by pushing button (2). The table below shows the errors that can be displayed.

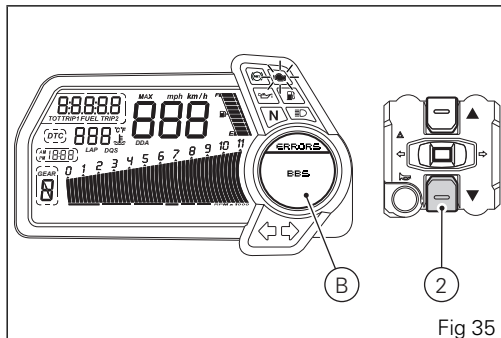


Fig 35



Attention

When one or more errors are displayed, always contact a Ducati Dealer or Authorized Service Center.

ERROR MESSAGE	ERROR
CAN LINE	CAN line "BUS Off" (communication line of the several control units)
UNKNOWN DEVICE	Control unit not acknowledged by the system - wrong SW
ABS (Antilock Braking System)	ABS control unit faulty communication / operation
BBS (Black Box System)	BBS control unit faulty communication / operation
BBS (Black Box System)	BBS control unit general malfunction
BBS (Black Box System)	Exhaust valve motor malfunction EXVL
INSTRUMENT PANEL	DSB control unit faulty communication / operation
HANDS FREE	HF control unit faulty communication / operation
HANDS FREE	General malfunction of the HF control unit
HANDS FREE	Malfunction of key and/or antenna (Immobilizer)
ENGINE	ECU control unit faulty communication / operation
ENGINE	General malfunction of the ECU control unit
ENGINE	throttle position sensor malfunction
ENGINE	Throttle motor and/or relay malfunction
ENGINE	pressure sensor malfunction

ERROR MESSAGE	ERROR
ENGINE	engine coolant temperature sensor malfunction
ENGINE	intake duct air temperature sensor malfunction
ENGINE	injection relay malfunction
ENGINE	ignition coil malfunction
ENGINE	injector malfunction
ENGINE	engine rpm sensor malfunction
ENGINE	lambda sensor or lambda sensor heater malfunction
ENGINE	vehicle starting relay malfunction
ENGINE	secondary air sensor malfunction
DSS (Ducati Skyhook Suspension)	Front suspension compression general malfunction
DSS (Ducati Skyhook Suspension)	Front suspension rebound general malfunction
DSS (Ducati Skyhook Suspension)	Rear suspension compression general malfunction
DSS (Ducati Skyhook Suspension)	Rear suspension rebound general malfunction
DSS (Ducati Skyhook Suspension)	Rear suspension spring preload general malfunction
DSS (Ducati Skyhook Suspension)	Front and/or rear accelerometer general malfunction
GEAR SENSOR	gear sensor malfunction
FUEL SENSOR	reserve NTC sensor malfunction
SPEED SENSOR	front and/or rear speed sensor malfunction

ERROR MESSAGE	ERROR
BATTERY	battery voltage too high or too low
STOP LIGHT	stop light not working
FAN	electric cooling fan malfunction

Maintenance indicator

This function indicates that the vehicle is about to or has traveled a distance for which an Authorized Ducati Service Center should be contacted to have the general maintenance or oil change performed.

Residual range indication when the SERVICE is due

When 621 miles (1000 Km) are left until reaching the mileage programmed by Ducati for having the "SERVICE" performed, the instrument panel activates (at the end of the initial check) the indication of which type of service should be performed and the residual range (count-down).

The indication is activated each time the motorcycle is turned on (Key-On) for 5 seconds (flashing).

The residual range is updated every 100 Km (-1000, -900, -800, -700, etc.).



Attention

This message can only be reset by the Ducati Dealer or Authorized Service Center that performs the maintenance.

Indication of range reached for SERVICE

If you reach the mileage programmed by Ducati, the instrument panel will activate (at the end of the initial check) the indication that you should go to a Ducati Dealer or Authorized Service Center to have the scheduled maintenance "DESMO SERVICE" or "OIL SERVICE" performed.

The indication is activated each time the motorcycle is turned on (Key-On) (not flashing); pressing the button (2) the other functions can be displayed. The indication will remain until it is reset and it can be displayed at any moment by scrolling the functions.



Attention

This message can only be reset by the Ducati Dealer or Authorized Service Center that performs the maintenance.

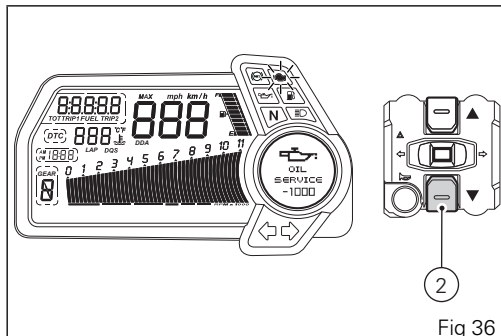


Fig 36



Note

The distance traveled thresholds are defined in an "absolute" sense and do not account for when the "reset" request for the indication is made by the Authorized Ducati Service Center.

Maintenance table

Indicator	Mileage traveled	Miles traveled	count down -1000 Desmo service	count down -1000 Oil service	DESMO SERVICE	OIL SERVICE
1	1000	621				•
2	11000	6835		•		
	12000	7456				•
3	23000	14291	•			
	24000	14912			•	
4	35000	21748		•		
	36000	22369				•
5	47000	29204	•			
	48000	29826			•	
6	59000	36661		•		
	60000	37282				•
7	71000	44117	•			
	72000	44739			•	
8	83000	51574		•		
	84000	52195				•

Indicator	Mileage traveled	Miles traveled	count down -1000 Desmo service	count down -1000 Oil service	DESMO SERVICE	OIL SERVICE
9	95000	59030	●			
	96000	59651			●	

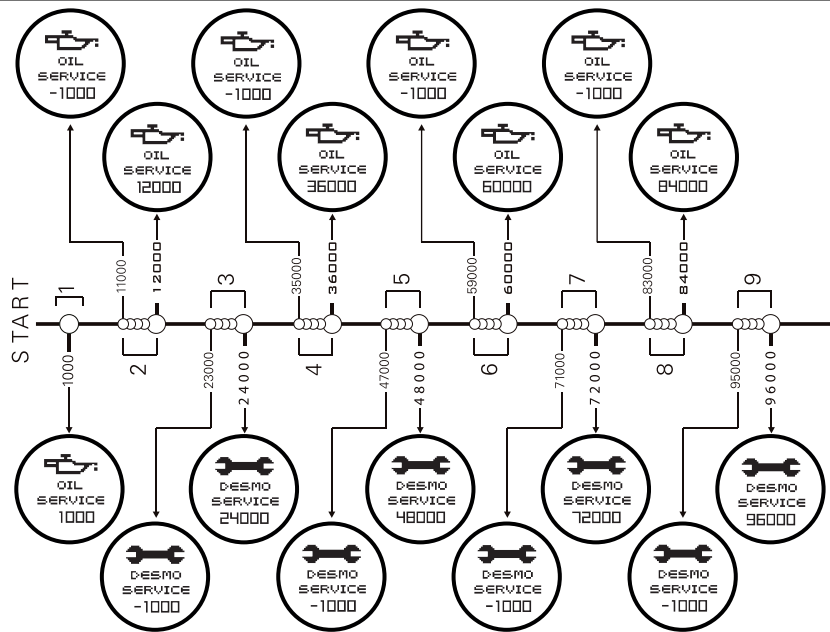


Fig 37

SET UP - "Riding Mode set" indication

This function indicates the "Riding Mode" set for the vehicle. Four "Riding Modes" are available: SPORT, TOURING, URBAN and ENDURO. Each riding mode can be changed using the "Riding Mode" function. The default "Riding Mode" is Touring with motorcycle setup for rider only.

The following are indicated:

- the set Riding Mode;
- the maximum engine power associated to it: 150 HIGH, 150 LOW and 100 HP;
- the Traction Control level (DTC) associated to it;
- the ABS level associated to it;
- the motorcycle setup.

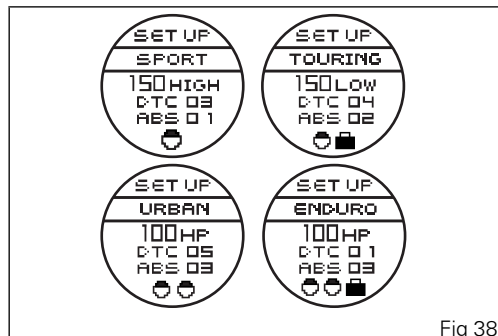
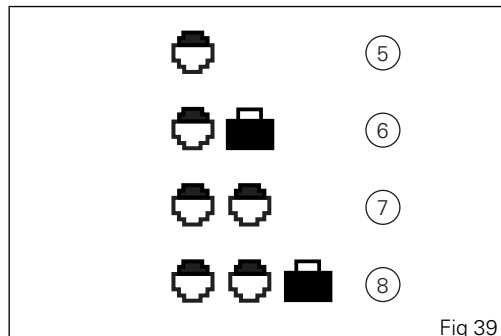


Fig 38

The available setup settings are as follows:

- rider only (5);
- rider with luggage (6);
- rider with passenger (7);
- rider with passenger and luggage (8).



Indicator "RANGE" - Fuel range

This function indicates the distance that can be traveled with the fuel currently in the tank. The calculation is made based on the fuel level and an average consumption in reference to the last 30 seconds of driving (not the average fuel consumption "CONS.AVG").

The default unit is mi.

If you refuel adding more than 1.06 gallons (4 liters) of fuel with the vehicle switched off (key-off), at the subsequent key-on, the remaining range reading will be updated instantaneously and will be calculated based on the new fuel level and an average fuel consumption of 42.3 mph/gallon (18.0 Km/L); otherwise (that is, if you add less than 1.06 gallons (4 liters)) the reading will only be updated after the vehicle is in movement (not instantaneously).

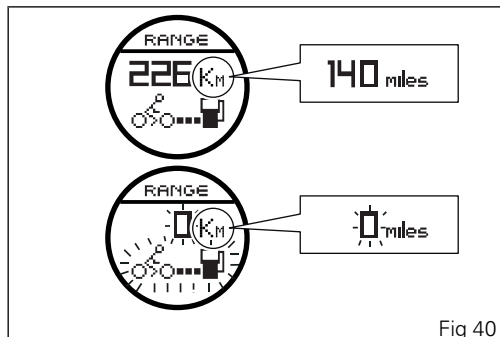


Fig 40

When the range arrives to "0" the indication will flash together with the symbol (motorcycle + fuel pump). The active calculation phase occurs when the engine is running and the vehicle is moving (moments when the vehicle is not moving when speed is equal to 0 and/or when the engine is off are not considered).



Attention

It is recommended to turn off the motorcycle (Key-Off) when refueling; if adding fuel without turning off the motorcycle (Key-On/engine off), the reading will be updated as soon as the vehicle starts to move (speed greater than zero).



Attention

Ducati recommends not trying to use all the residual range indicated.

Indicator "CONS." - Instantaneous fuel consumption

This function indicates the "instantaneous" fuel consumption.

The calculation is made considering the quantity of fuel used and the distance traveled during the last second.

The reading is in "mpg" (miles per gallon).

The unit of measurement can be changed through the "Setting special" function.

The active calculation phase only occurs when the engine is running and the vehicle is moving (times when the vehicle is not moving when speed is equal to 0 and/or when the engine is off are not considered). Dashes "--.-" are shown on the display when the calculation is not being made.

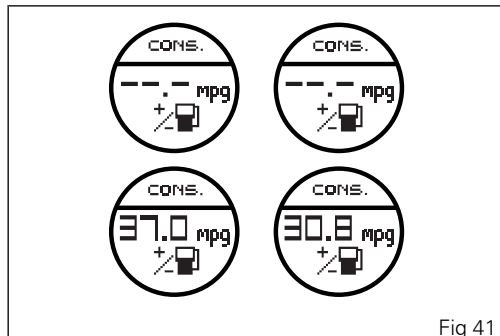


Fig 41

Indicator "CONS.AVG" - Average fuel consumption

This function indicates the "average" fuel consumption. The calculation is made considering the quantity of fuel used and the distance traveled since Trip 1 was last reset. When Trip 1 is reset, the value is reset and the first value available is displayed 10 seconds after the reset. Dashes "---" are shown on the display during the first 10 seconds when the value is not yet available.

The reading is in "mpg" (miles per gallon).

The unit of measurement can be changed through the "Setting special" function.

The active calculation phase occurs when the engine is running and the vehicle is stopped (moments when the vehicle is not moving and the engine is off are not considered).

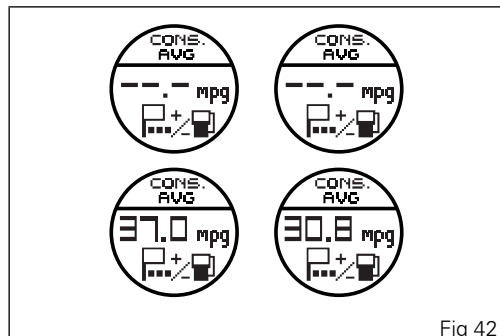


Fig 42

Indicator "SPEED.AVG" - Average speed

This function shows the average speed of the motorcycle.

The calculation considers the distance and time since Trip 1 was last reset. When Trip 1 is reset, the value is reset and the first value available is displayed 10 seconds after the reset. Dashes "--" are shown on the display during the first 10 seconds when the value is not yet available. The active calculation phase occurs when the engine is running and the vehicle is stopped (moments when the vehicle is not moving and the engine is off are not considered). The calculated value is displayed increased by 5% to align it with the indicated speed of the vehicle. The default unit is mph.

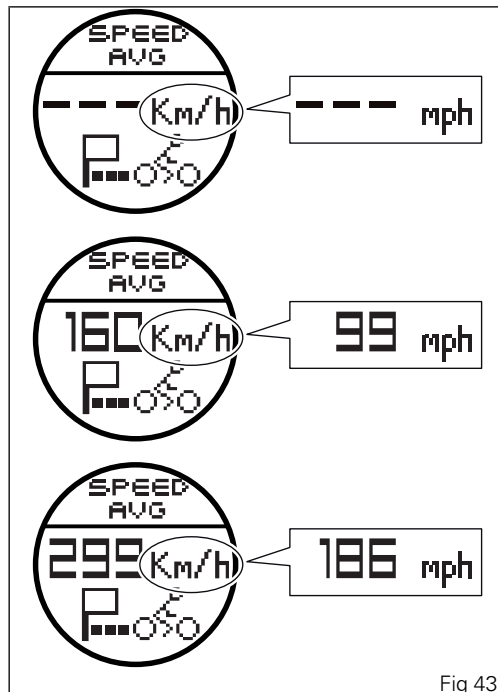


Fig 43

Air temperature indicator

This function shows the external temperature.

Display limits: -38°F to +102°F (-39°C to +124°C).

In the event of a sensor FAULT (-40°F ÷ +102°F (-40°C, +125°C) or disconnected), a string of dashes " - - - " (not flashing) is displayed, the "Engine Diagnosis - EOBD" light comes on and an error is indicated inside "Errors" Menu.



Note

When the vehicle is stopped, the engine heat could influence the displayed temperature.

The default unit is °F.

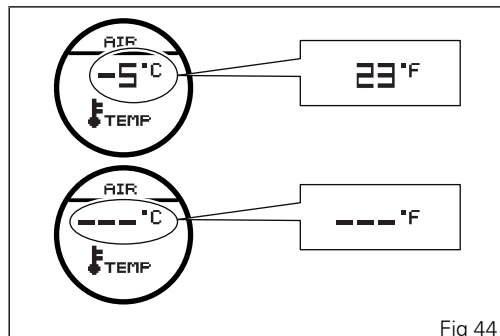


Fig 44

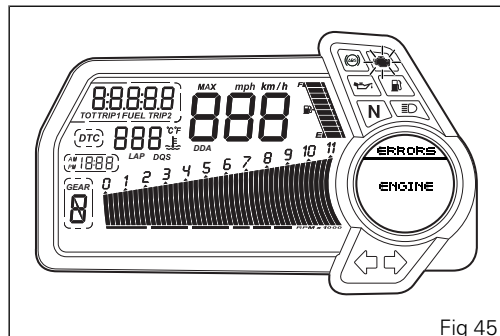


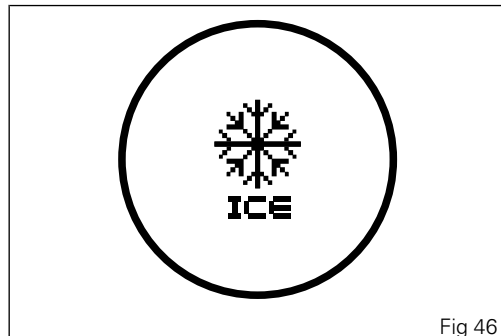
Fig 45

When the detected temperature drops to 39°F (4°C), the display warns that the formation of ice is possible. The indication turns off when the temperature rises to 43°F (6°C).



Attention

This warning does not exclude the possibility of icy road sections even at temperatures above 39°F (4°C); when external temperatures are "low" it is always recommended to ride carefully, particularly on sections that are not exposed to the sun and/or on bridges.



Indicator "TIME TRIP" - Trip time

This function shows the vehicle trip time.

The calculation considers the time since Trip 1 was last reset. When Trip 1 is reset, this value is reset as well.

The calculation active phase occurs when the engine is running and the vehicle is stopped (when the vehicle is not moving and the engine is off the time is automatically stopped and restarts when the counting active phase starts again).

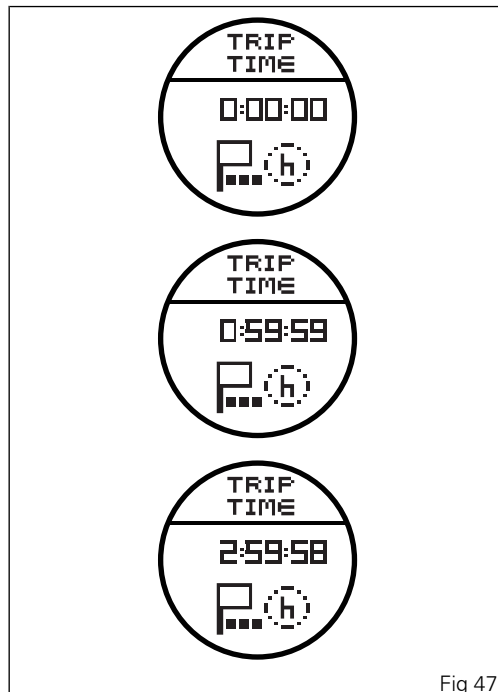


Fig 47

"Riding Style" function (riding style change)

This function changes the motorcycle riding mode (SET UP).

Each riding mode is associated with a different intervention level of the traction control (DTC - Ducati Traction Control), a different level of brake control (ABS - Antilock Braking System) and different engine power and output (Engine).

Each riding mode change is also associated with a different motorcycle setup.

To change the motorcycle riding mode, press the reset button once (4) and the "SET UP" menu will appear on the round display.

Every time the reset button (4) is pressed, the instrument panel scrolls through all the available riding modes; once the desired riding mode is highlighted, press the reset button (4) for 3 seconds and the Instrument panel will check the position of the throttle control and front and rear brake pressure:

- if throttle is closed and brakes are released or vehicle is at a standstill, the Instrument panel confirms the selected riding mode (*) and displays the "standard page";

- if throttle is open or brakes are applied and vehicle is not at a standstill, the instrument panel displays the warning "CLOSE THROTTLE AND RELEASE BRAKES" and only when all required conditions are verified (throttle closed and brakes released or vehicle at a standstill) (9) the instrument panel confirms the selected riding mode (*) and displays the "standard page".



Note

(*) If the change of Riding mode involves a change in the ABS status (on-off or off-on), as soon as the selected riding mode is confirmed, the instrument panel also starts the "procedure for enabling/disabling the ABS".

If you do not close the throttle and release the brakes or stop the vehicle (zero speed) within 5 seconds from the "CLOSE THROTTLE AND RELEASE BRAKES" warning, the procedure for changing the "Riding Mode" is aborted and the instrument panel displays the "standard page" without changing any setting.

If the "SET UP" menu is activated and the reset button is not pressed (4) for 10 consecutive seconds, the

instrument panel will automatically exit the display mode without making any change.



Attention

Ducati recommends changing the Riding mode when the vehicle is stopped. If the riding mode is changed while riding, be very careful (it is recommended to change the Riding mode at a low speed).

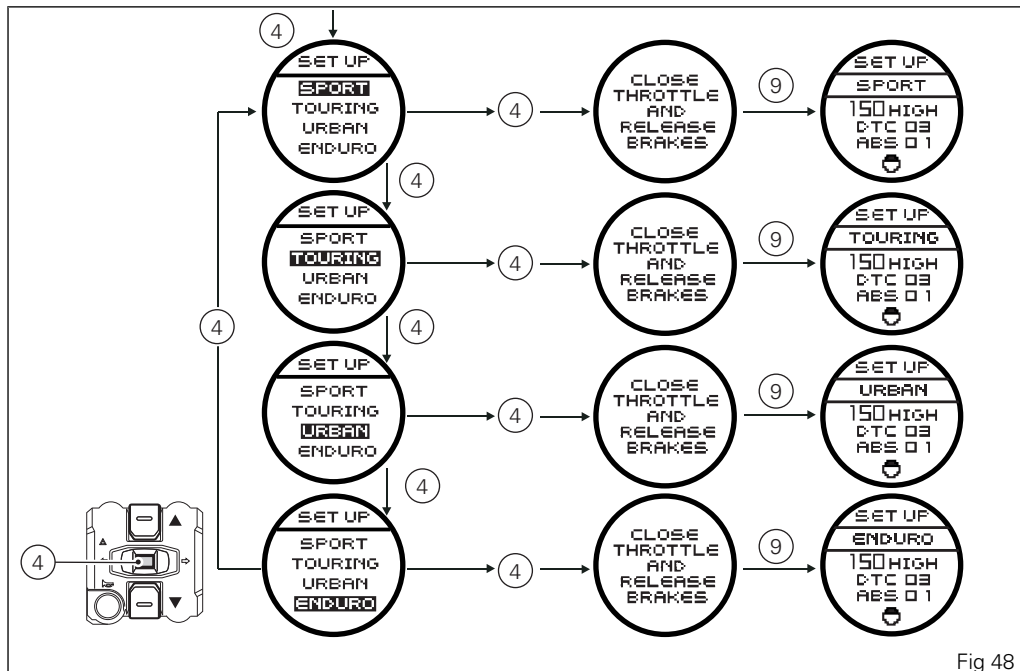


Fig 48

"LOAD" function (bike setting change)

This function changes vehicle setup.

Each individual riding mode is associated with four different setups:

- rider only (5);
- rider with luggage (6);
- rider with passenger (7);
- rider with passenger and luggage (8).

To change the vehicle setup, press the reset button (4) for 3 seconds consecutively and the "LOAD" menu will appear on the round display (B). The desired setup can be selected by pressing the same reset button multiple times (4). To confirm the setup, press the same reset button again for 3 seconds (4). At the end of the 3 seconds, the change occurs immediately and the instrument panel exits the display mode automatically. Example: if a setup change is made from "rider only" (5) to "rider with luggage" (6), the change may vary depending on the set riding mode (the "rider with luggage" setup (6) may have different adjustments depending on the riding mode that is set: SPORT, TOURING, URBAN or ENDURO). If the "LOAD" menu is activated and the reset button is not pressed (4) for 10 consecutive seconds, the

instrument panel will automatically exit the display mode without making any change.



Attention

The setup change can lead to a different motorcycle riding style; it is recommended to be careful if changing the setup while riding (it is recommended to change the setup at a low speed).

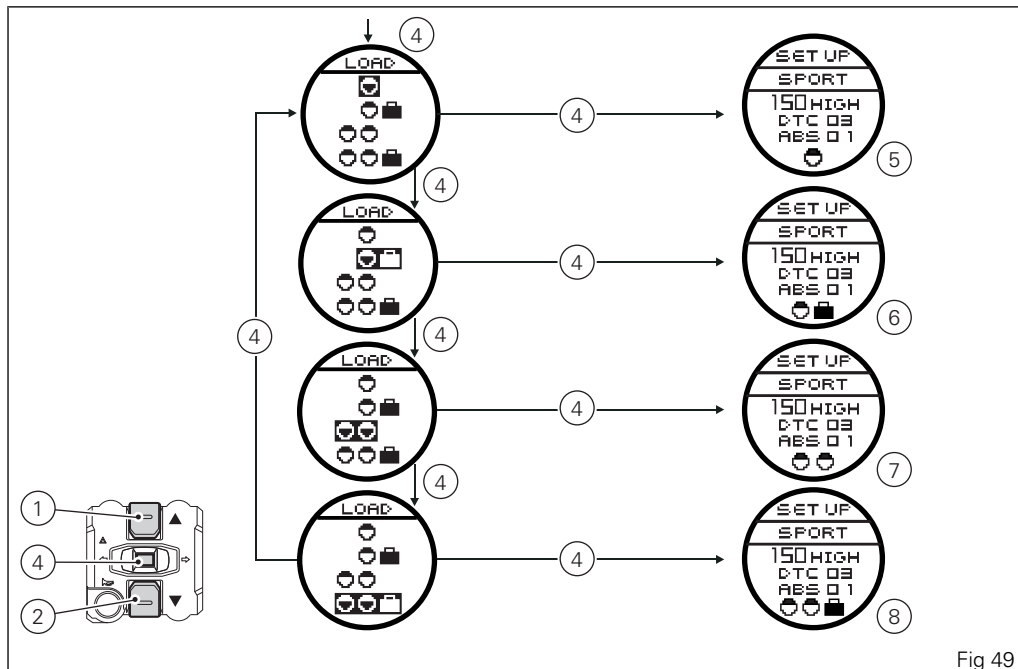


Fig 49

“Setting” menu

This menu is used to set/enable some motorcycle functions. Press button (2) to enter the “setting menu”.



Note

Once this menu has been accessed, it is not possible to scroll the functions on the main display (A).



Important

For safety reasons, the setting menu can only be accessed when motorcycle speed is lower than or equal to 12.43 mph (20 km/h). If this menu is open and the speed of the motorcycle exceeds 12.43 mph (20 km/h) the instrument panel automatically exits the menu and returns to the "main" display.

- CLOCK;
- PIN CODE;
- EXIT.

To exit the setting menu, use button (1) or button (2) to select “EXIT” (present at the beginning and end of the menu item list) and press the reset button (4).

The setting menu contains the following "items":

- EXIT;
- BATTERY;
- SETUP;
- B.LIGHT;
- LAP;
- RPM;

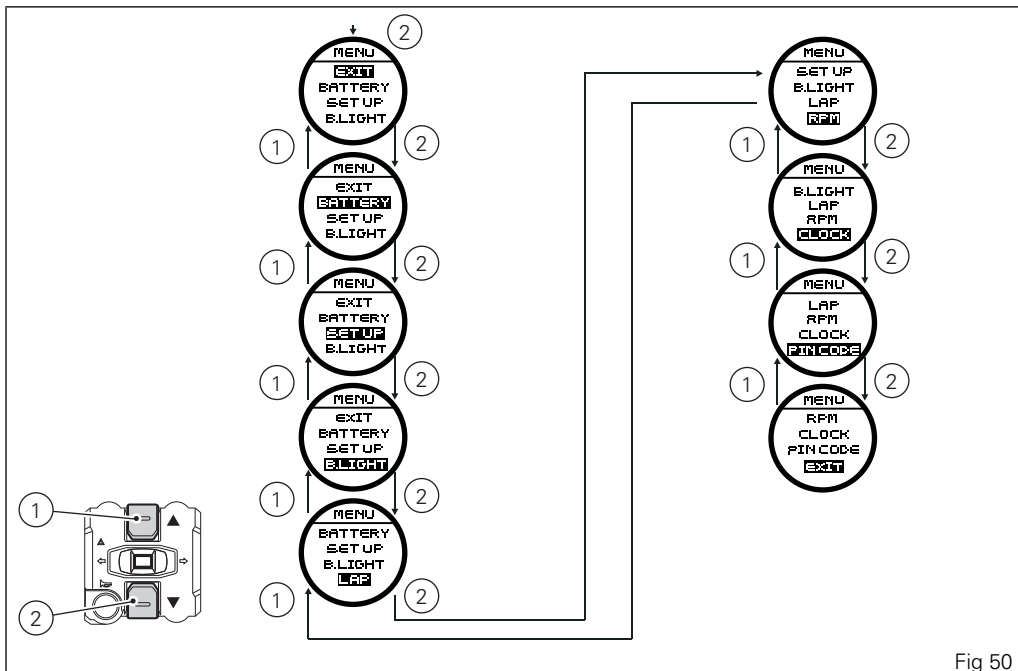


Fig 50

Battery voltage indicator (BATTERY)

This function describes the battery voltage indicator.

To display the function, enter the "setting" menupage 88 and access the "BATTERY" page.

The information will be displayed as follows:

- if battery voltage is between 11.8 and 14.9 Volt the reading will be displayed steady;
- if battery voltage is between 11.0 and 11.7 Volt the reading will be displayed flashing;
- if battery voltage is between 15.0 and 16.0 Volt the reading will be displayed flashing;
- if battery voltage is equal to or less than 10.9 Volt, "LOW" is shown flashing;
- if battery voltage is equal to or more than 16.1 Volt, "HIGH" is shown flashing;.



Note

Dashes "--" appear if the reading is not available (9).

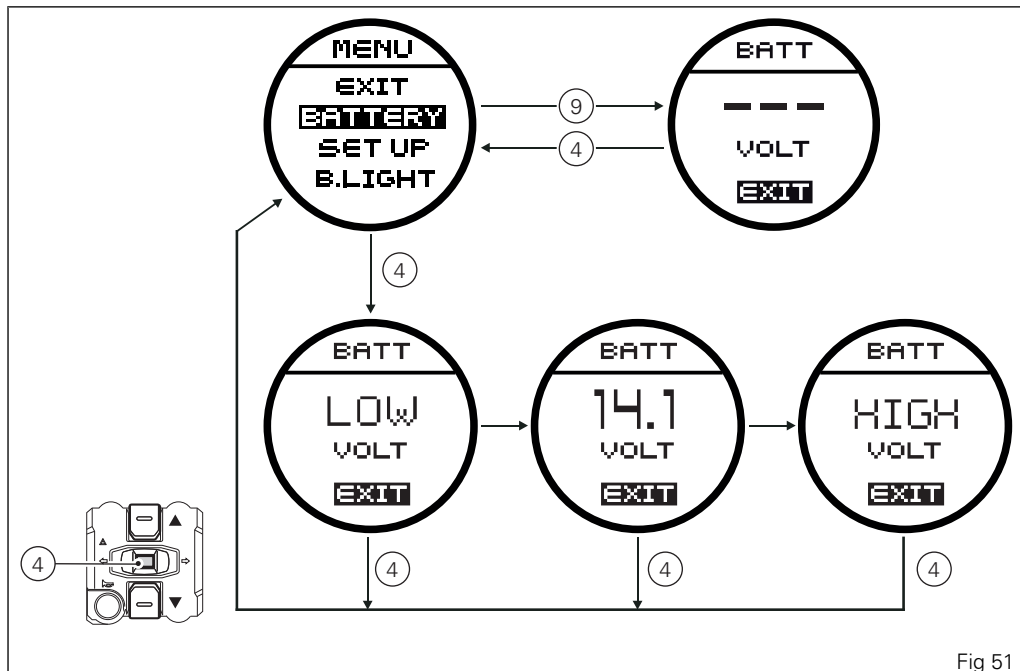


Fig 51

“Riding Mode” customization

This function customizes each riding style.

To display the function, enter the “setting” menu page 88 and access the “SET UP” page.

When accessing the function, the four riding modes appear on the round display (SPORT, TOURING, URBAN and ENDURO); to customize the parameters, use buttons (1 or 2) to select the riding mode to be changed and press the reset button (4) to confirm. The parameters that can be customized are "DTC" (Ducati Traction Control), "ABS" (Antilock Braking System), "ENGINE" and the electronic suspension settings “DSS”.

Any parameter change made is saved and remains in the memory also after a Battery-Off.

To change the DTC parameters see the “DTC (Ducati Traction Control)” paragraph page 94.

To change the ABS parameters see the "ABS setting function" paragraph page 101.

To change the Engine parameters see the “ENGINE (engine power control)” paragraph page 105.

To change the electronic suspension parameters see the "DSS setting function" paragraph page 107.

The parameters set by Ducati for each individual riding mode can be restored with the “DEFAULT” function.

To reset the “default” parameters see the “DEFAULT (Resetting Ducati default parameters)” paragraph page 119.



Attention

Changes should only be made to the parameters by people who are experts in motorcycle setup; if the parameters are changed accidentally, use the “DEFAULT” function to reset the parameters.

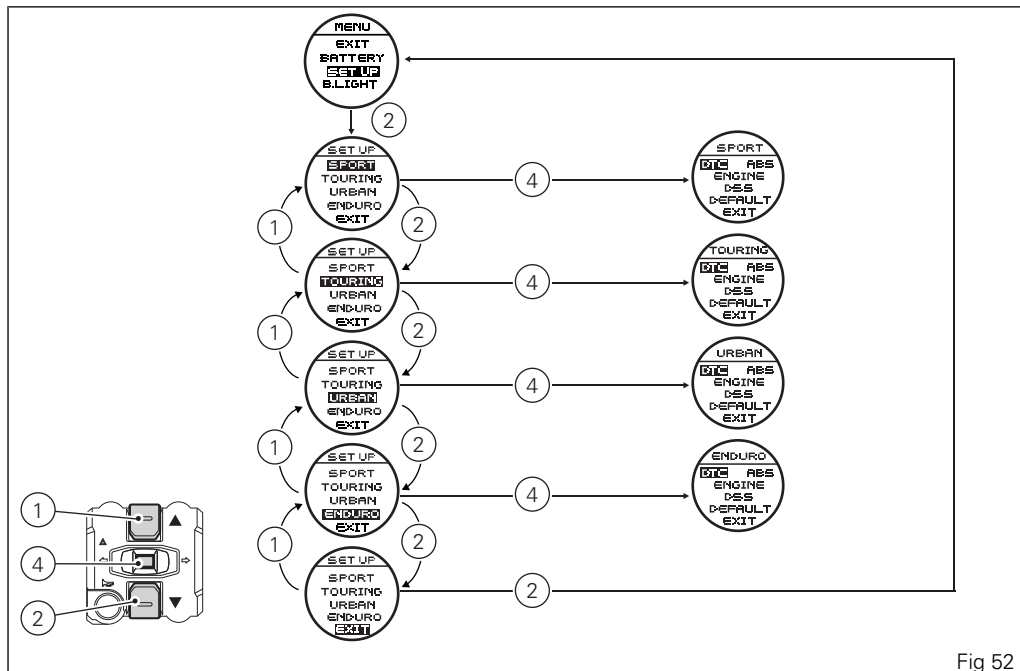


Fig 52

DTC (Ducati Traction Control) setting function

This function customizes the intervention level of the DTC (Ducati Traction Control).

To display the function, enter the "setting" menu page 88 and access the "SET UP" page.

Use buttons (1) and (2) to select the riding mode to be changed and press the reset button (4) to access the "DTC" function.

When accessing the function, the set DTC level "LEVEL" will appear at the top of the round display. The intervention levels range from "1" to "8"; the higher the number, the greater the intervention of the Traction Control system.

To change the DTC intervention level, use buttons (1) and (2) to select the "LEVEL" indication and press the reset button (4). The number to be set is shown on the display; buttons (1) and (2) can increase or decrease the number; press the reset button (4) to confirm the new level.

If you set it to "OFF" the DTC is disabled.

At this point, store the new setting by pressing the reset button (4) with "MEMORY" displayed.

The upper indication "LEVEL" will be updated to confirm that the new setting was "received" and stored.

To exit the function, select "EXIT" and press the reset button (4). The DTC intervention increases, passing from level 1 to level 8.



Attention

When you select and store DTC levels 1 or 2, the system automatically triggers the "DTC OFF ROAD" warning; in this case Ducati recommends you pay utmost attention when riding and use this type of DTC setting OFF road only.

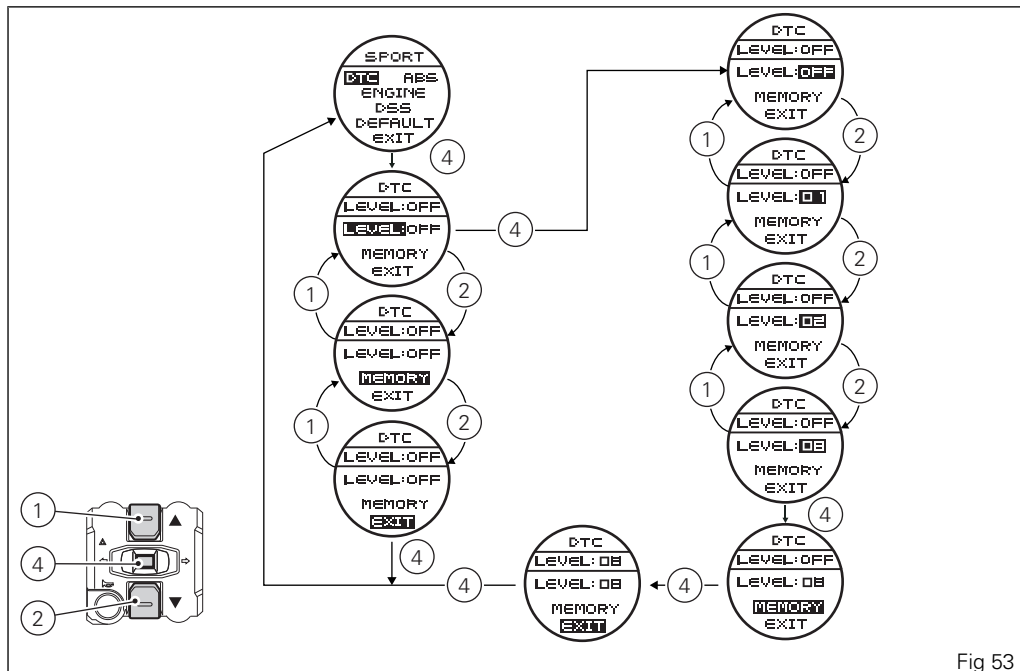


Fig 53

The following table indicates the most suitable level of DTC intervention for the various riding types as well as the default settings in the "Riding Modes" that can be selected by the rider:

DTC LEVEL	RIDING MODE	USE	DEFAULT?
1	ENDURO Professional	Off-road for very expert riders. It allows considerable spinning of the rear wheel. It does not ensure a suitable control of poor grip on asphalt.	NO
2	ENDURO	Off-road for less experienced riders. It does not ensure a suitable control of poor grip on asphalt.	It is the default level for the "ENDURO" Riding Mode
3	TRACK	Track for very expert riders. Permits sliding sideways	NO
4	SPORT	Sporty driving on a road or track	It is the default level for the "SPORT" Riding Mode
5	TOURING	Normal riding	It is the default level for the "TOURING" Riding Mode

DTC LEVEL	RIDING MODE	USE	DEFAULT?
6	URBAN	“Very safe” riding together with the use of 100 HP ENGINE (maximum power 100 HP)	It is the default level for the “URBAN” Riding Mode
7	RAIN	Wet road	NO
8	HEAVY RAIN	Wet road and slippery asphalt	NO

Tips on how to select the sensitivity level



Attention

The 8 level settings of the DTC were calibrated using tires of the same make, model and size as those originally fitted on the motorcycle.

Using tires of a different size from the original tires may alter the operating characteristics of the system. In the case of minor differences, such as tires of a different make and/or model than the original, but with the same dimensions (rear = 190/55-17; front = 120/70-17), it may be sufficient to select the most suitable level setting from those available to restore optimal system operation.

If tires of a different size class are used or if the tire dimensions differ significantly from the original tires, it may be that the system operation is affected to the point where none of the 8 available level settings will give satisfactory results. In this case it is advisable to deactivate the traction control system.

If level 8 is selected, the DTC control unit will kick in at the slightest hint that the rear wheel is starting to spin.

Between level 8 and level 1 there are an additional 6 intermediate levels. The level of DTC intervention decreases in equal steps from level 8 to level 1. Levels 1 and 2 are specifically designed for OFF-ROAD conditions and do not ensure a suitable control with poor grip on asphalt.

When level 3 or 4 is selected the DTC control unit will allow the rear wheel to spin and also slide sideways on exiting a corner; we recommend that this setting is only used by very experienced riders on the track. The choice of the correct level depends on 3 main variables:

- 1) The grip (type of tire, amount of tire wear, the road/track surface, weather conditions, etc.);
- 2) The characteristics of the path/circuit (bends all taken at similar speeds or at very different speeds);
- 3) The riding mode (whether the rider has a "smooth" or a "rough" style).

The relation of the DTC intervention level to grip conditions:

The choice of level setting depends greatly on the grip conditions of the track/circuit (see below, tips for use on the track and on the road).

The relation of the DTC intervention level to the circuit characteristics:

If all the corners on the track/circuit can be taken at a similar speed, it will be easier to find an intervention level that is satisfactory for every bend; on the other hand, if the track has, for example, one corner that is much slower than all the others, it will be necessary to find a compromise level (on the slow corner the DTC will tend to control more than on the faster corners).

The relation of the DTC intervention level to riding mode:

The DTC will tend to kick in more with a “smooth” riding mode, where the bike is leaned over further, rather than with a “rough” style, where the bike is straightened up as quickly as possible when exiting a turn.

Tips for use on the track

We recommend that level 6 be used for a couple of full laps (to allow the tires to warm up) in order to get used to the system. Then try levels 5, 4, etc., in succession until you identify the DTC sensitivity level that suits you best (always try each level for at least two laps to allow the tires to warm up).

Once you have found a satisfactory setting for all the corners except one or two slow ones, where the system tends to kick in and control too much, you can try to modify your riding style slightly to a “rougher” approach to cornering i.e. straighten up more rapidly on exiting the corner, instead of immediately trying a different level setting.

Tips for use on the road

Activate the DTC, select the URBAN Riding Mode (preset DTC level 6) and ride the motorcycle in your usual style; if the level of DTC sensitivity seems excessive, try swapping to TOURING Riding Mode (preset DTC level 5), if you still feel the system is too much sensitive try the SPORT Riding Mode (preset DTC level 4). If no Riding Mode meets your requirements, you can still customize the settings following the instructions in the table above until you find the level that best suits your riding style.

If changes occur in the grip conditions and/or circuit characteristics and/or your riding style, and the level setting is no longer suitable, switch to the next level up or down and proceed to determine the best setting (e.g. if with level 7 the DTC intervention seems excessive, switch to level 6; alternatively, if on

level 7 you cannot perceive any DTC intervention, switch to level 8).

Abs setting function

This Function allows customization of the ABS (Antilock Braking System) level as well as its disabling.

To display the function, enter the "setting" menu page 88 and access the "SET UP" page.

Select the "riding mode" to be changed and enter the "ABS" function. When accessing the function, the set ABS level "LEVEL:" will appear at the top of the display.

To change the ABS intervention level, use buttons (1) and (2) to select the "LEVEL:" indication and press button (4).

The number to be set is shown on the display; buttons (1) and (2) can increase or decrease the number; press the button (4) to confirm the new level.

If you set it to "OFF" the ABS is disabled.

At this point, store the new setting by pressing the button (4) for 3 seconds with "MEMORY" displayed. The upper indication "LEVEL" will be updated to confirm that the new setting was "received" and stored.

To exit the function, select "EXIT" and press the button (4).



Attention

When the ABS status "OFF" is selected and stored, the warning "ABS OFF" will be automatically displayed; in this case Ducati recommends you pay utmost attention when riding and especially while braking.

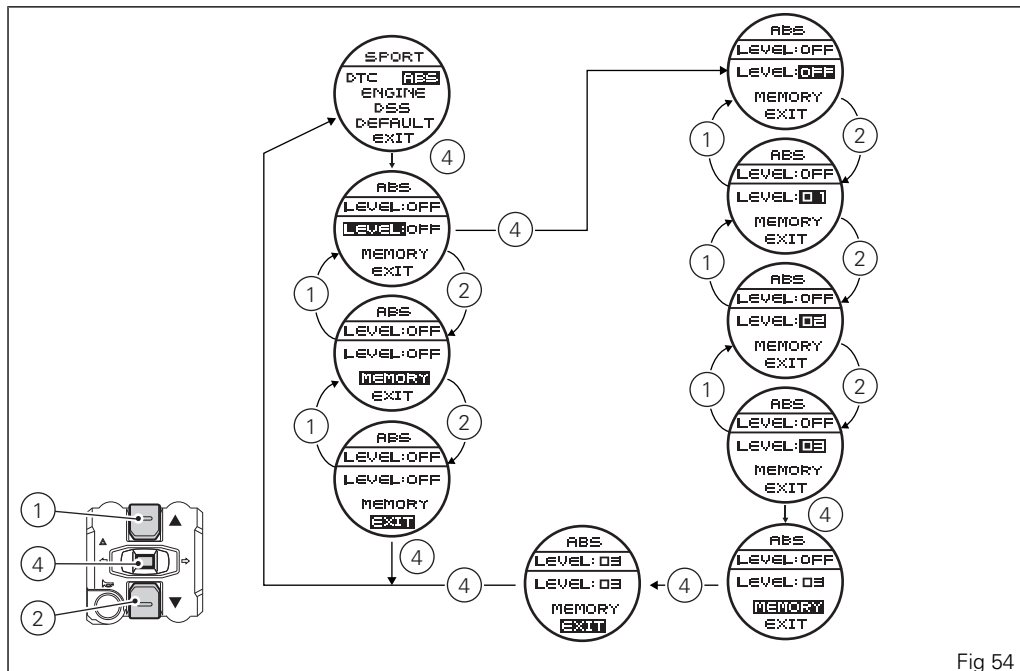


Fig 54

The following table indicates the most suitable level of ABS intervention for the various riding types, as well as the default settings in the "Riding Mode" that can be selected by the rider:

LEVEL	STYLE	USE	DEFAULT?
OFF		The ABS is disabled.	NO
1	ENDURO	Exclusively for off road use, for expert riders (not recommended for road use). Both wheels are controlled by the ABS system (preventing them from locking), but on the rear wheel the system control allows the wheel to lock for long periods (to improve braking in off-road conditions). System does NOT control lift-up, but implements a light combined braking (front and rear).	It is the default level for the "ENDURO" Riding Mode.
2	SPORT	For road use in good grip conditions. Both wheels are controlled by the ABS system which combines braking power and lets generates pressure even on the rear caliper when using the front brake only. Anti lift-up control is NOT active since this setting mostly focuses on braking power and lets the rider control any lift-ups.	It is the default level for the "SPORT" Riding Mode.
3	ROAD	For use under any riding condition. Both wheels are controlled by the ABS system which combines braking power generating pressure even on the rear caliper when using the front brake. The system controls lift-up in most cases and ensures safe and consistent braking performance.	It is the default level for the "TOURING" and "URBAN" riding modes.

Tips on how to select the sensitivity level



Attention

The ABS system levels of your vehicle were calibrated using the same tires as those originally supplied with your motorcycle.

If tires of a different size class are used or if the tire characteristics differ significantly from the original ones, system operation could be affected so much and no longer be safe. We do not recommend using tires having a different size class from those approved for your vehicle.

The originally supplied tires are: (front 120/70ZR17 - rear 190/55ZR17).

- Pirelli Scorpion Trail.
- Pirelli Angel GT;

Selecting level 3, the ABS will intervene to ensure a very stable braking, good lift-up control, allowing the vehicle to keep a good alignment during the whole braking. Switching from level 3 to level 2, braking power is given priority over stability and lift-up control: level 2 provides no lift-up control.

Level 1 is designed for off-road use. This level provides no lift-up control, while the rear brake is controlled so as to guarantee prolonged slipping of the rear wheel. Front and rear combined braking is active.

The choice of the correct level mainly depends on the following parameters:

- 1) The tire/road surface grip (type of tire, amount of tire wear, type of road/track surface, weather conditions, etc.).
- 2) The rider's experience and sensitivity: expert riders can tackle a lift-up in trying to reduce the stopping distance to a minimum, while less expert riders are recommended to use setting 3, that will help them keep the vehicle more stable even in emergency braking.

ENGINE setting function (Engine Power Control)

This function customizes engine power and output. To display the function, enter the "setting" menu page 88 and access the "SET UP" page.

Use buttons (1) and (2) to select the riding mode to be changed and press the reset button (4) to access the "ENGINE" function.

When accessing the function, the Engine setting appears at the top of the round display:

- 150 HIGH, 150 LOW, or 100 HP;

To change the engine "power", use buttons (1) and (2) to select the "NEW SET" indication and press the reset button (4).

Use buttons (1) and (2) to select one of the three options (150 HIGH, 150 LOW or 100 HP); press the reset button (4) to confirm the new level.

At this point, store the new setting by pressing the reset button (4) for 3 seconds with "MEMORY" displayed.

The upper indication will be updated to confirm that the new setting was "received" and stored. To exit the function, select "EXIT" and press the reset button (4).

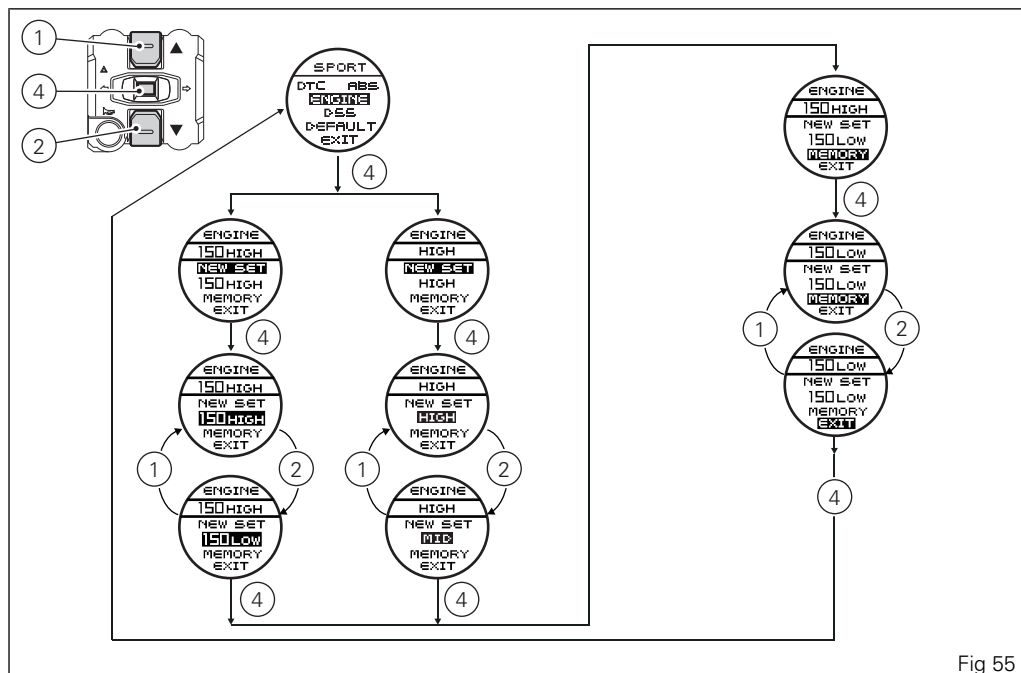


Fig 55

DSS setting function

To display the DSS (Ducati Skyhook Suspension) function, enter the "setting" menu page 88 and access the "SET UP" page.

Use buttons (1) and (2) to select the riding mode to be changed and press the reset button (4) to access the "DSS" function.

When accessing the function, the four different types of setup appear on the round display:

- rider only;
- rider with luggage;
- rider with passenger;
- rider with passenger and luggage.

Use buttons (1) and (2) to select the setup to customize and press the reset button (4).

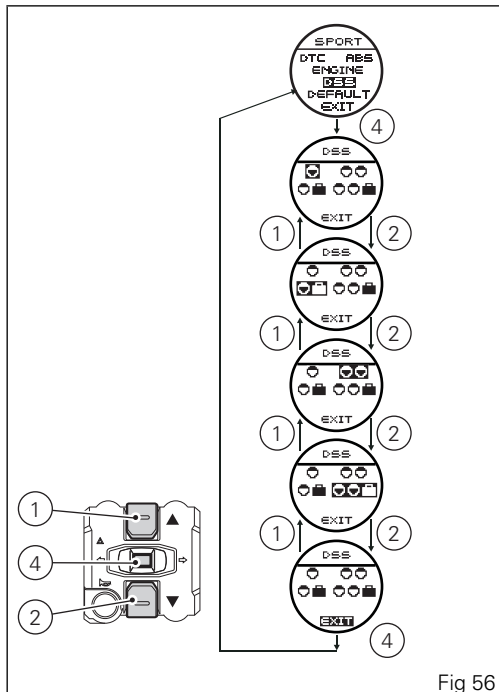


Fig 56

The three parameters to change appear on the round display:

- FRONT: adjustment of the front suspension rebound and compression;
- REAR: adjustment of the rear shock absorber rebound and compression;
- PRE-LOAD: adjustment of the rear shock absorber spring preload.

Use buttons (1) and (2) to select the parameter to change and press the reset button (4).

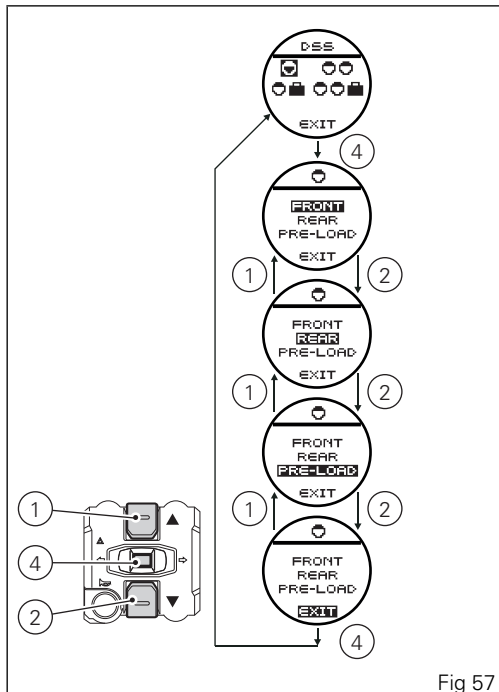


Fig 57

“FRONT” adjustment

The display shows 5 blocks in vertical, on the left, the arrow on the right side of the block indicates the last setting stored

The following options are available (reading the list from top to bottom):

- HARD (Hard level);
- Hard Medium (Hard Medium level);
- MEDIUM (Medium level);
- Soft Medium (Soft Medium level);
- SOFT (Soft level).

Use buttons (1) and (2) to select the block corresponding to the new level to be set; press button (4) for 3 seconds to confirm the new level. After these 3 seconds the block corresponding to the new level set will flash for 3 seconds (indicating system is changing the setup), then it will stop flashing and the arrow will indicate the new level set. To exit the function, select “EXIT” and press the reset button (4).

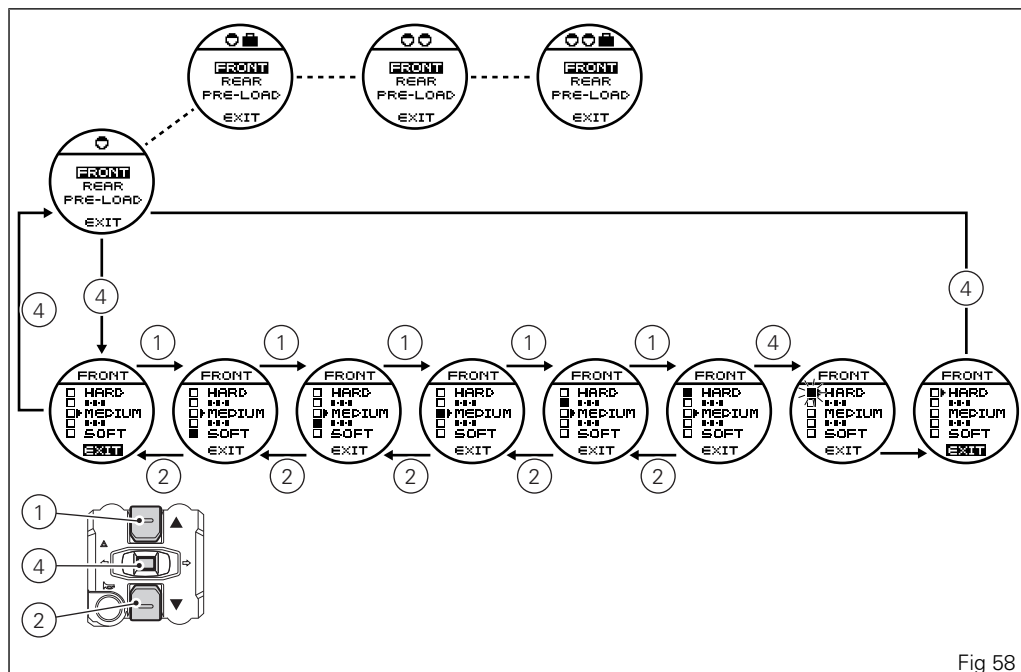


Fig 58

“REAR” adjustment

The display shows 5 blocks in vertical, on the left, the arrow on the right side of the block indicates the last setting stored

The following options are available (reading the list from top to bottom):

- HARD (Hard level);
- Hard Medium (Hard Medium level);
- MEDIUM (Medium level);
- Soft Medium (Soft Medium level);
- SOFT (Soft level).

Use buttons (1) and (2) to select the block corresponding to the new level to be set; press button (4) for 3 seconds to confirm the new level. After these 3 seconds the block corresponding to the new level set will flash for 3 seconds (indicating system is changing the setup), then it will stop flashing and the arrow will indicate the new level set. To exit the function, select “EXIT” and press the reset button (4).

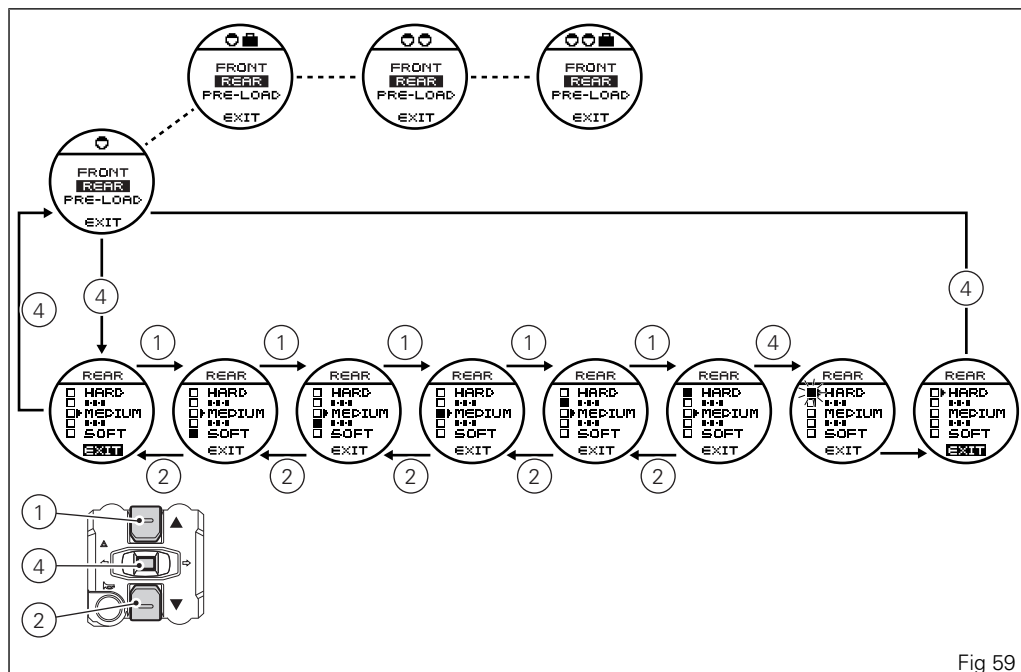


Fig 59

“PRE-LOAD” adjustment

- the top of the round display will show the “preload” and a bargraph indicating the set value;
- use buttons (1) and (2) to select “NEW SET” and press the reset button (4);
- the number to be changed is shown on the display;
- buttons (1) and (2) can increase or decrease the number (between 1 and 16);
- press the reset button (4) to confirm the new level.

At this point, store the new setting by pressing the reset button (4) for 3 seconds with “MEMORY” displayed. The upper indication and the bargraph will be updated to confirm that the new setting was “received” and stored.

To exit the function, select “EXIT” and press the reset button (4).

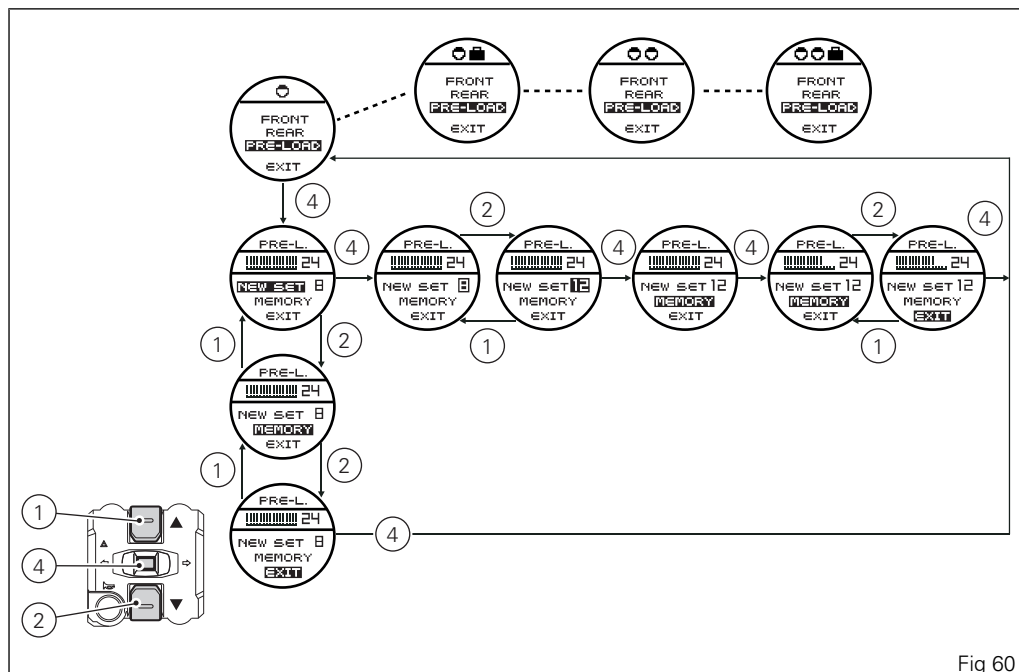


Fig 60

DSS (Ducati SkyHook System)

Multistrada 1200 is equipped with the brand new suspension control system called DSS (Ducati Skyhook System): DDS is a dynamic suspension damping control system.

Dynamically, the purpose of a vehicle suspension is generally twofold: to allow the vehicle to absorb the surface bumps by "filtering" their effects on vehicle chassis (and therefore on the rider) and ensure optimum contact between the wheels and the ground. The aim of the DDS is to enhance the comfort level ensured by a normal passive suspension while keeping performance unchanged.

The DSS relies on the vehicle's sensors to determine its lengthwise and vertical movements, and adjusts suspension damping settings accordingly. In particular, the DSS also communicates with the DTC and ABS control units to continuously determine the motorcycle status in real time. This results in a generally more comfortable motorcycle, able to better dampen ground bumps without affecting handling and with rider always in control. Vertical movements are minimized as well as all sinking movements (pitching) that occur under braking and acceleration.

The DSS is fully integrated with the motorcycle Riding Modes. By selecting a certain Riding Mode, the rider can establish the base suspension behavior, suspension response and hence the motorcycle response. Then, according to motorcycle dynamics, the DSS will intervene and rectify the motorcycle response, regardless of the set Riding Mode, which simply determines the base suspension behavior (i.e. more comfortable for URBAN riding mode and more precise for SPORT riding mode).

To better understand this feature, take for instance the URBAN and TOURING Riding Modes. The URBAN Riding Mode is set to offer a motorcycle handling suitable for town use: the base suspension behavior is hence focused on maximizing damping of bumps and for this reason the suspension will generally feel more comfortable.

The TOURING Riding Mode is designed for a more touring use, that is more demanding for the motorcycle and requires a more controlled and precise base suspension behavior. But in both cases the DSS kicks in if the motorcycle behavior and in particular its vertical and lengthwise movements cause poor comfort or poor vehicle performance, no matter if this occurs while riding at a consistent speed or under braking or acceleration.

Two conditions are provided in order to save battery charge:

- 1) when engine is running, if engine is stopped but instrument panel is not turned off, the suspension system power is cut after 30 seconds;
- 2) when engine is stopped, if instrument panel is turned on but engine is not started, the suspension system power is cut after 30 seconds.



Note

When the suspension system is not powered it is quite hard due to the considerable hydraulic damping it offers and this is true even when the motorcycle is off. This means that the rider will feel very well when suspension power is cut off.



Note

In key-off (motorcycle off) the motorcycle feels hard because the not powered valves allow just a minimum damping.

The table below indicates the Riding Modes of the Multistrada 1200 and the corresponding suspension behavior.

ENDURO	When the ENDURO Riding Mode is selected, the DSS will have a base suspension setting that dampens the bumps typical of any off-road tracks and ensures optimized longitudinal dynamics for the level of grip typical of off-road conditions.
SPORT	When the SPORT Riding Mode is selected, the DSS will have a hard base suspension setting, optimized for road use, with ground in good condition and few bumps. The motorcycle will be very sensitive and controlled, and rider can exploit the full potential of the vehicle.
TOURING	When the TOURING Riding Mode is selected, the DSS will have a base suspension setting optimized for a touring use, hence with a comfortable, and yet controlled, base suspension setting.
URBAN	When the URBAN Riding Mode is selected, the DSS will have a base suspension setting that will best absorb any bumps typical of town use, while yet keeping a great control on vehicle dynamic response, with a highly comfortable overall behavior.

DSS default setting can be changed using the corresponding menu through the instrument panel. This menu allows the rider to increase or decrease the base damping settings characterizing the operation of fork and rear shock absorber for every Riding Mode. When SOFT setting is selected, the DSS will change the suspension settings so as to be generally softer; while when HARD setting is selected, the DDS will change the suspension settings so as to be generally harder. The DSS also interfaces with the vehicle load setting, which can range from rider only to rider and passenger with luggage. This means that changing the load setting not only affects the rear shock absorber preload - in order to always ensure ideal handling even with luggage onboard - but it also affects the parameters determining vehicle dynamic control. So, selecting the correct load setting allows a perfect response and handling considering the dynamics generated when riding with luggage. It is possible to change the base setting even for the preload, thanks to the specific menu in the instrument panel. The preload actuator range is 12 mm, the instrument panel allows preload adjustment through 24 positions, which means that every position corresponds to a preload change of 0.5 mm.

This should ensure the rider to find the perfect setting under any load condition.



Attention

The DSS setting greatly depends on the load setting. Riding the motorcycle with a load setting that does not match the actual load conditions does not guarantee optimum operation of the system. The DSS was calibrated using the standard springs of the motorcycle. Any change to the parts involved in this system could impair optimum operation of the system and motorcycle.

DEFAULT function (Resetting Ducati default parameters)

This function resets the parameters set by Ducati for each riding mode. To display the function, enter the "setting" menu page 88 and access the "SET UP" page.

Use the buttons (1) and (2) to select the riding mode for which you want to restore the settings and access the "DEFAULT" function.

When accessing the function "DEFAULT PARAMETER?" will appear on the round display. To reset the parameters, select "YES" and press the reset button (4). To restore parameters, system needs approximately 2 seconds; meanwhile, "WAIT...." indication is displayed. Once procedure is completed, the round display shows "DEFAULT OK" to confirm that parameters have been reset to factory settings.



Important

This procedure restores the parameters for all riding modes.

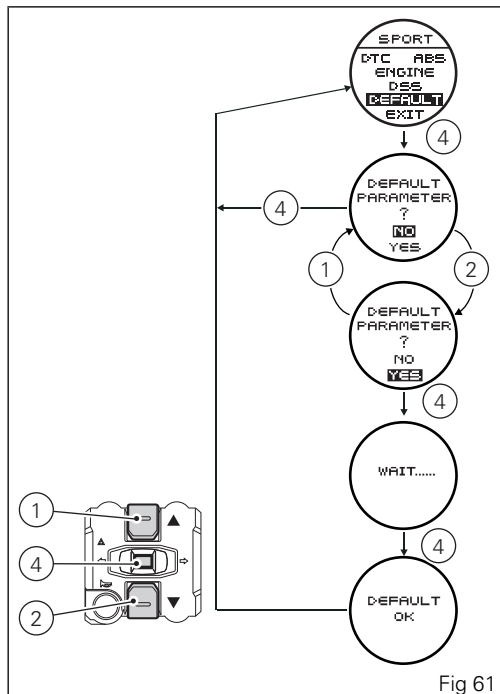


Fig 61

Instrument panel backlighting setting function

This function adjusts the instrument panel backlighting intensity.

To display the function, enter the "setting" menu page 88 and access the "B.LIGHT" page.

The information will be displayed as follows:

- the arrows indicate the setting currently in use;
- use buttons (1) and (2) to select the new setting;
- to store the new setting press the reset button (4); the arrows will move on to the stored setting.

To exit, select "EXIT" and press the reset button (4).

"MAX" setting: storing this condition, the backlighting is at maximum brightness.

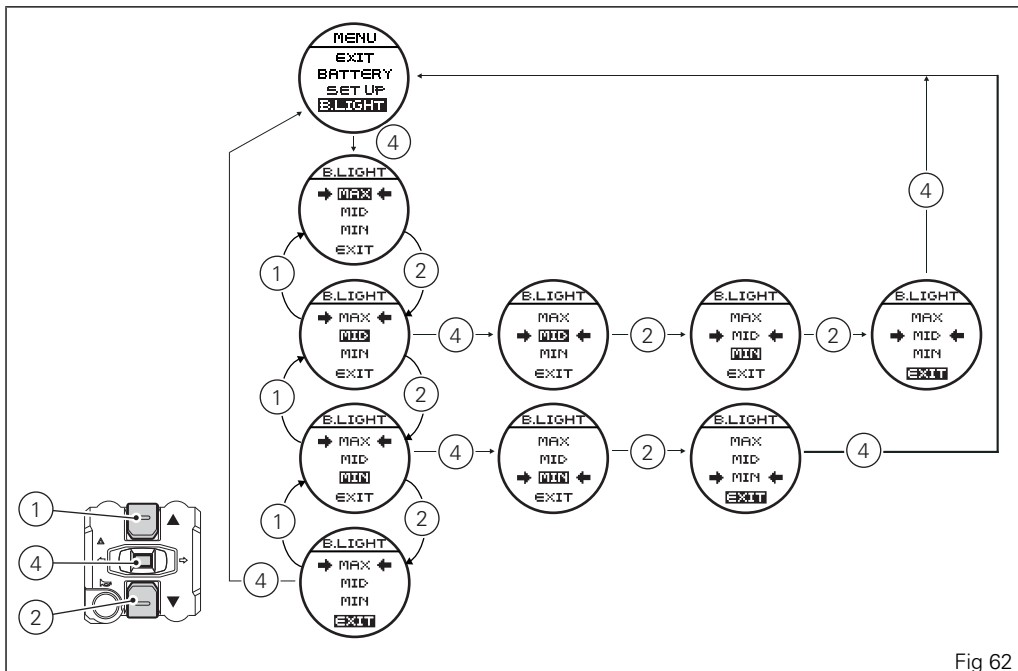
"MID" setting: storing this condition, the backlighting is reduced approximately 30% relative to maximum brightness.

"MIN" setting: storing this condition, the backlighting is reduced approximately 70% relative to maximum brightness.



Note

In the event of an interruption of the power supply from the battery, when power is restored at the next Key-On, the backlighting will always be set by default to maximum brightness.



LAP Activation/Deactivation function (lap time)

This function activates and deactivates the LAP function (lap time).

To display the function, enter the "setting" menu page 88 and access the "LAP" page.

- the arrows indicate the setting currently in use;
- use buttons (1) and (2) to select the new setting;
- To store the new setting it is necessary to press the reset button (4);
- the arrows will move to the new stored condition.

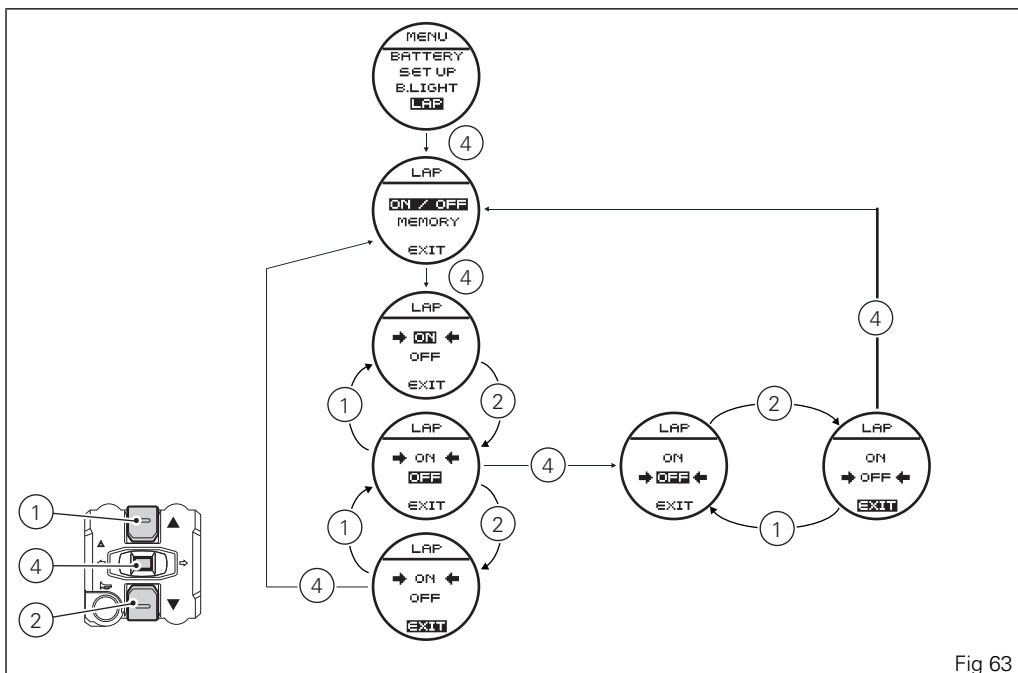
To exit, select "EXIT" and press the reset button (4).
Storing the "OFF" condition disables the LAP function.

Storing the "ON" condition enables the LAP function (see LAP registration operation page 124).



Note

When the "LAP" function is active, the flash button (3) takes on the dual function of high beam headlight "flash" and lap time Start/Stop.



LAP registration function

This function describes the "LAP" time registration.

If the function is activated (see "LAP activation/deactivation description" page 122), the lap time can be registered as follows:

- the first time the flash is pressed (3) starts the "lap timer" for the first lap and the instrument panel shows the "START LAP" indication on the round display (B) for 4 seconds and then returns to the "previous" page;
- from this moment, each time that the flash is pressed (3) the round display (B) automatically shows the lap time for 10 seconds and then returns to the "previous" page.

You can save a maximum of 30 laps in the memory. Once the memory is full, the instrument panel no longer stores lap times when the flash button (3) is pressed, and the flashing message "LAP MEMORY FULL" is shown on the round display for 3 seconds until the times are reset. When the LAP function is set disabled, the current "lap" is not stored. If the LAP function is active and the motorcycle is suddenly turned off (Key-Off), the function will be automatically

disabled (even if the lap timer was active, the current "lap" is not stored).

If the time is never "stopped", it will roll over upon reaching 9 minutes, 59 seconds and 99 hundredths; the lap timer starts counting from 0 (zero) and will keep running until the function is disabled. If, however, the LAP function is switched on and the memory has not been cleared, but fewer than 30 laps have been saved (e.g. 18 laps), the Instrument panel will store any remaining laps until the memory is full (in this case, it will store an additional 12 laps).

This function only displays lap times being recorded; but other data are also saved (MAX speed, MAX rpm, rev limiter if reached) for viewing at a later time in the Lap Memory function (stored LAPs viewing).

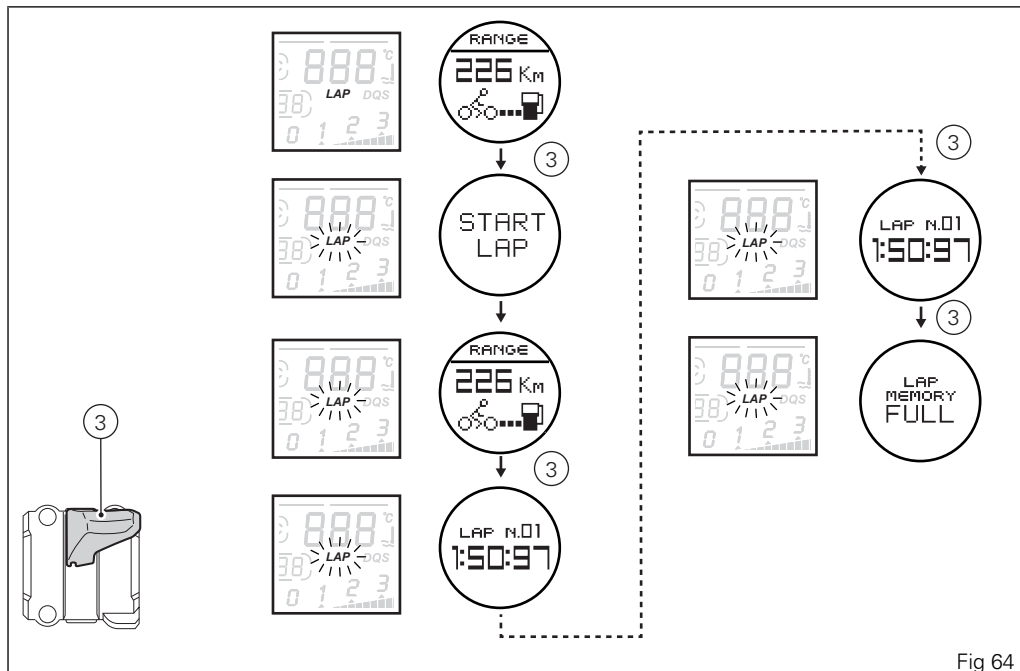


Fig 64

Stored LAP display function

This function displays the stored LAPs.

To display the function, enter the "setting" menu page 88 and access the "LAP" page.

In the next display, press the reset button (4) showing "MEMORY".

The instrument panel displays the information as follows:

Round display (B):

- the number of the displayed lap (ex: N.1);
- "NEXT" to display the next LAP;
- "RESET" to delete all the stored times.

To exit, select "EXIT" and press the reset button (4).

Main display (A):

- the time to the upper left (ex: 1:50:97);
- the maximum speed reached in the registered LAP to the upper right;
- the number of maximum RPMs reached in the registered lap at the bottom.



Note

The MAX stored speed is indicated on the main display (A) (increased by 8%). If MAX speed reading exceeds 186 mph (299 Km/h) while the information is stored, actual speed reading is displayed (example: 316 Km/h).

If the memory is empty, the display shows the 30 lap times with the lap timer reading "0.00.00", MAX RPM = 0 and MAX speed = 0. If while registering the LAP the engine reaches the threshold that precedes the rev limiter or rev limiter threshold, the relative light "Over Rev" (9) will turn on when displaying the stored times. To display other stored times, select "NEXT" and press the reset button (4); the next lap will be displayed each time the reset button (4) is pressed. To delete all the stored times, select "RESET" and press the reset button (4) for 3 seconds.



Note

If the stored times are deleted while the LAP function is active, it will be automatically deactivated.

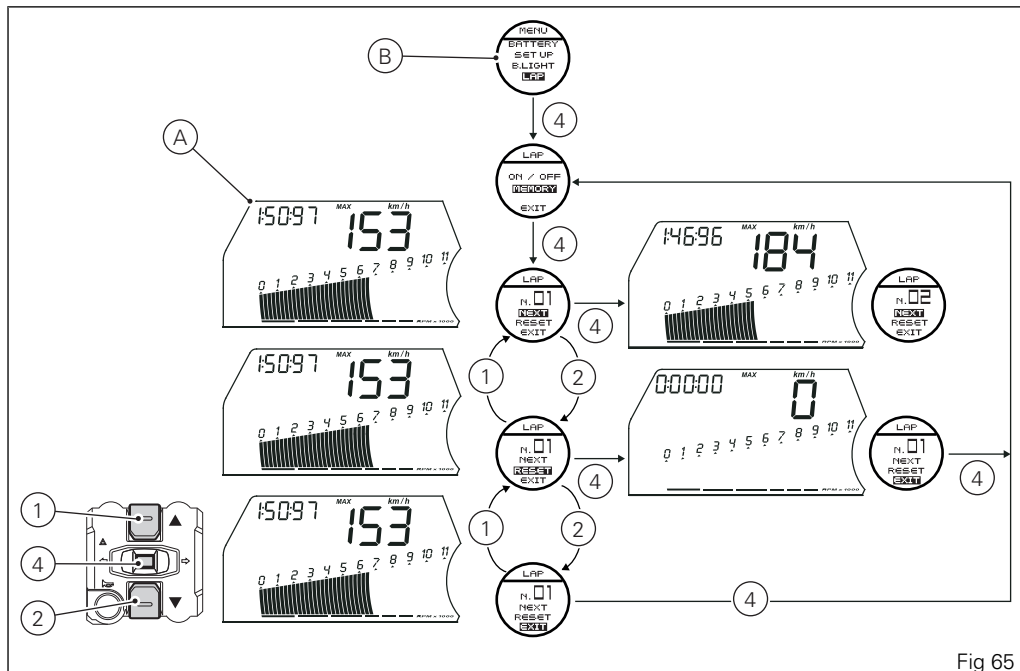


Fig 65

Digital RPM indication function

This function displays the number of RPM for improved accuracy when setting idle rpm.

To display the function, enter the "setting" menu page 88 and access the "RPM" page.

The display shows the numerical value of the RPM with a precision of 50 rpm.

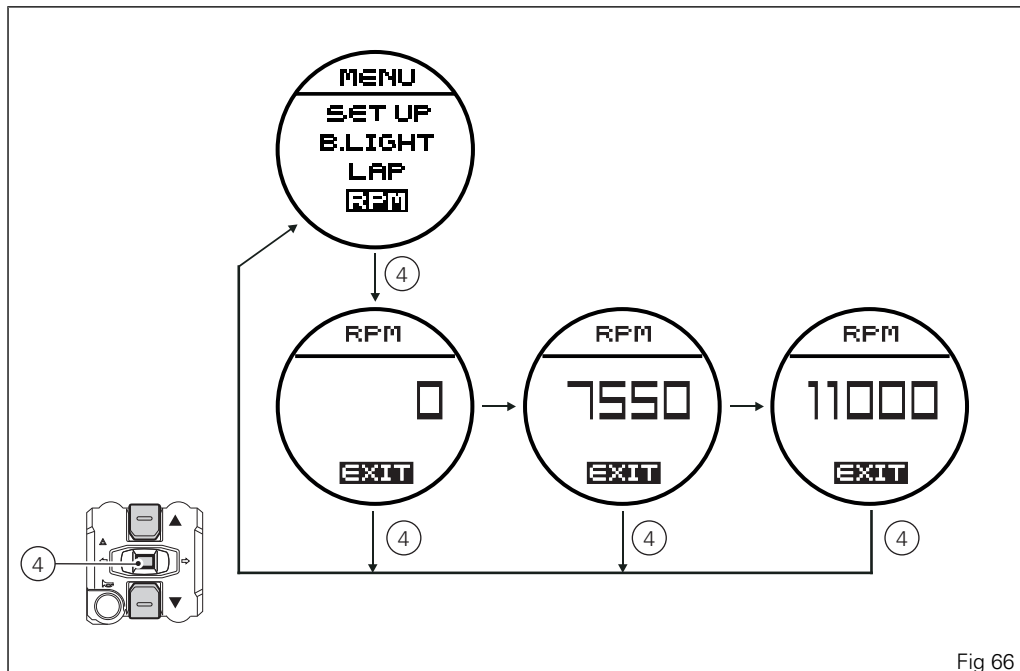


Fig 66

Clock setting function

This function sets the clock.

To display the function, enter the "setting" menu page 88 and access the "CLOCK" page.

In the next display, press the reset button (4) showing "SET UP" for 3 seconds to proceed with the actual setting.

"SET CLOCK" appears on the round display (B) to indicate that the clock is being set; the time is set on the main display (A).

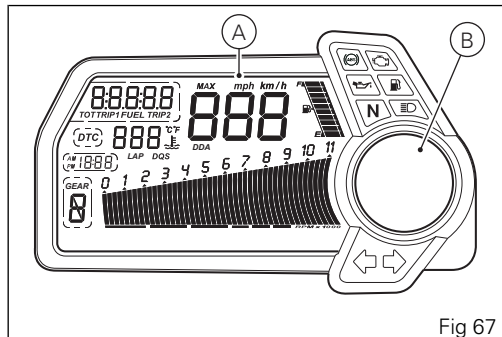


Fig 67

Clock setting

When you access this function, the text "AM" flashes;
if you press the button (2) "PM" flashes;
if you press the button (2) you will return to the previous step (if it is 00:00, when switching between "AM" to "PM", 12:00 will be displayed);
pressing button (1) accesses the hour setting mode; the hours start to flash.

each time you press the button (2) the digit will increase by 1 hour; if the button is held pressed down (2) the digit will increase by 1 hour every second (when the button is held depressed, the hours do not flash).

Pressing button (1) gives access to the minute setting mode; minutes start to flash. Each time you press the button (2), the digit will increase by 1 minute. If you

hold the button (2) down, the count increases cyclically in steps of 1 minute every second.
if the button (2) is held down for more than 5 seconds the steps increase by 1 every 100 m (during prolonged pressing of the button (2) the seconds will not flash). Pressing button (1) the indication of the new time will flash and "MEM" will appear on the round display.

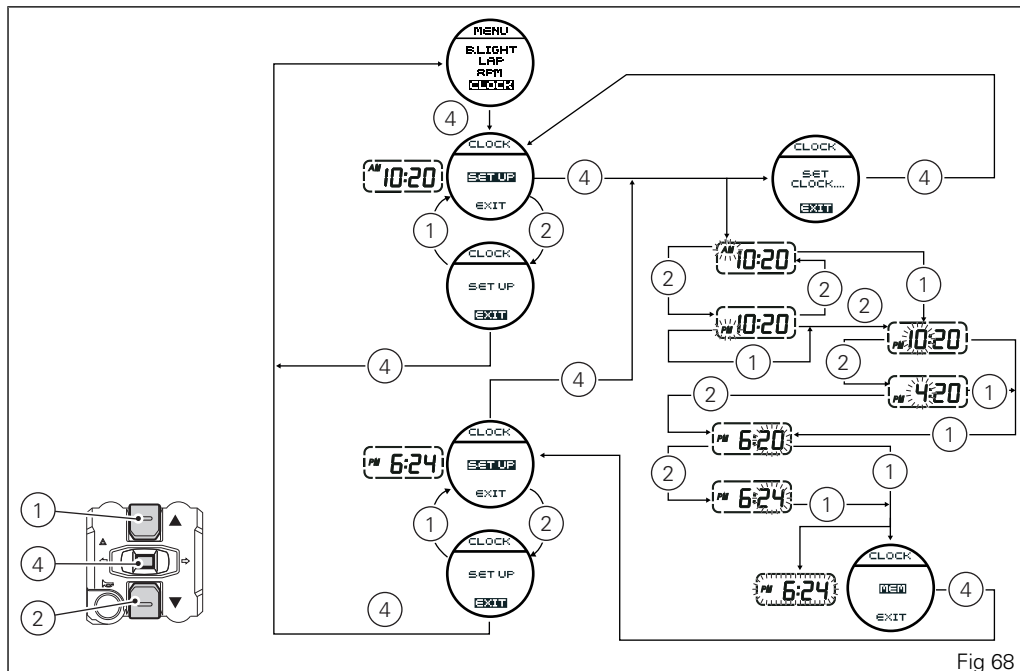
To confirm (store) the new set time press the reset button (4).

To exit, select "EXIT" and press the reset button (4).



Note

If the battery is cutoff, when the voltage is restored and at the next Key-On, the clock must be reset (it starts automatically from 00:00).



Immobilizer system

For improved anti-theft protection, the motorcycle is equipped with an IMMOBILIZER, an electronic system that inhibits engine operation whenever the ignition switch is turned off.

The grip of each ignition key contains an electronic device that modulates the output signal from a special antenna in the headlight fairing when the ignition is switched On. The modulated signal represents the “password” (which is changed at each start-up) by which the ECU recognizes the ignition key. The ECU will only allow the engine to start if it recognizes this password.

Keys

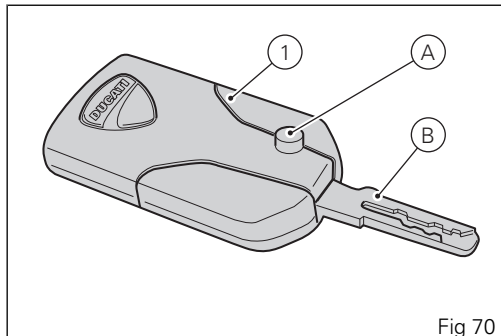
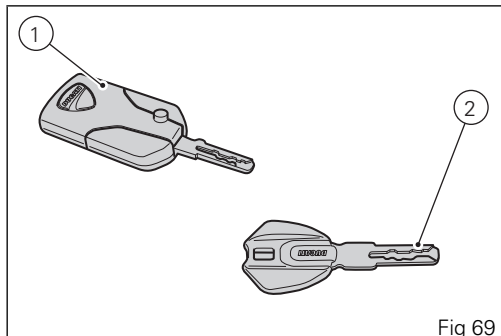
The Owner receives a set of keys comprising:

- 1 active key (1);
- 1 passive key (2).

The keys contain the code used by the “Hands Free” system for the Key-On, in different modes.

The active key (1) is the one that is normally used and has a button (A) that when pressed makes the metal part (B) exit.

The metal part returns inside the grip by pushing it in.



The key contains a battery that must be replaced when the message "low level" is displayed under the key and battery symbols when the instrument panel is turned on.



Note

In this case, replace the battery as soon as possible.

When the charge level goes below a certain limit, the key can only work in passive mode, like the passive key: in this case, the instrument panel will not display any message.



Fig 71



Attention

Do not ride with the key (active or passive) inserted in the lock of the tank cap or in the seat lock as it could come out and represent a potential danger. Furthermore, if bumped, the key mechanism and the integrated circuit could be damaged.

Also riding in poor weather conditions with the key inserted could cause damage to its integrated circuit.

Do not leave the key on the motorcycle when it is being washed; it is not watertight and could be damaged.

Replacing the battery in the active key

Only use 3 Volt CR 2032 lithium ion batteries.



Note

The keys do not need to be reprogrammed after replacing the battery.

Remove the metal part of the battery.

Use a large sized coin to pry open the shells of the plastic grip (2 Euro coin) as shown in the figure.



Important

Insert the coin only in the indicated point. Do not use other objects inserted in points different from what is indicated as this could damage the integrated circuit and/or the protective gasket.

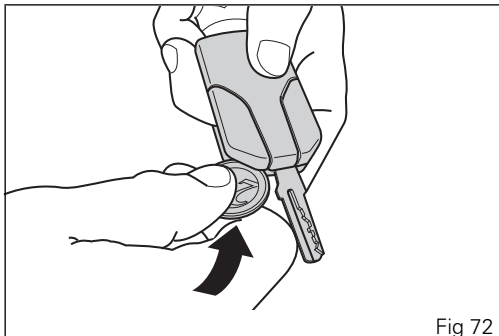


Fig 72

Once the plastic shells have been separated, remove the printed circuit board (1) prying it up GENTLY with a small flat screwdriver, as shown in the figure.



Important

Insert the point of the flat screwdriver just under the printed circuit board and be very careful not to damage it. Do not apply force on the battery or battery holder.

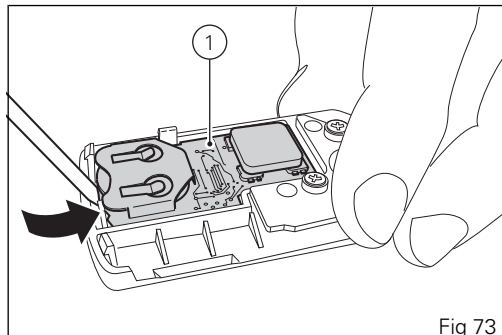


Fig 73

Remove the battery (2) from the printed circuit board (1) and replace it with a new one.

Pay attention to polarity: the positive pole (+) must face upward.



Important

Only use the required type of battery.

Reinsert the printed circuit board (1) from the side with the battery (2) into the plastic shell.

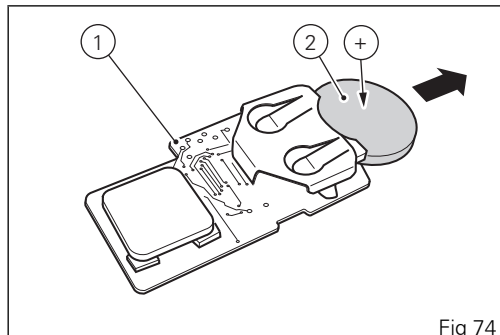


Fig 74

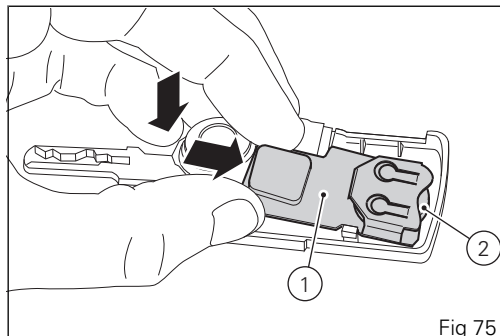


Fig 75

Apply slight pressure on the antenna (3) of the printed circuit board until you hear a click.

Align the two shells of the grip and press on the area indicated by the arrows to close them.

Make sure that you hear a “click” upon closing and that the key is well closed.

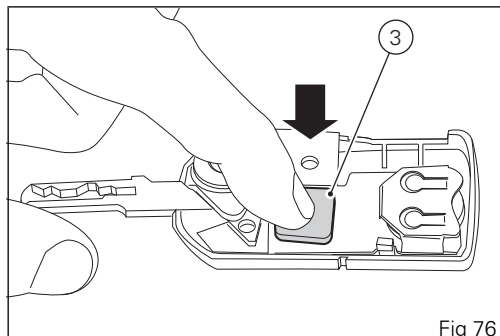


Fig 76

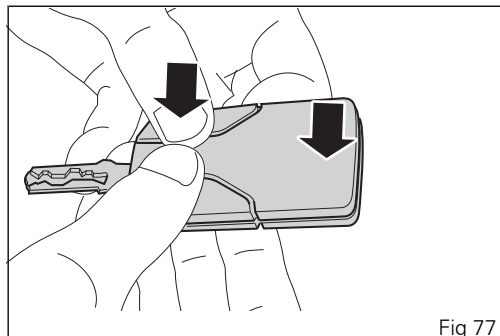


Fig 77

Duplicate keys

If you need any duplicate keys, contact the Ducati Service network with all the keys you have left.

The Ducati Service Center will program all the new keys as well as any keys you already have.

You may be asked to provide proof that you are the legitimate owner of the motorcycle.

The codes of any keys not submitted will be wiped off from the memory to make those keys unserviceable in case they have been lost.

Immobilizer override procedure

This procedure makes it possible to "temporarily" turn on the motorcycle if the HF (Hands Free) System is not working.



Note

The PIN CODE function must be activated by entering your 4 digit PIN in the instrument panel, otherwise the vehicle cannot be turned on temporarily in the case of a malfunction.



Attention

The motorcycle owner must activate (store) the PIN code; if there is already a stored PIN, contact an Authorised Ducati Dealer to have the function "reset". To perform this procedure, the Authorised Ducati Dealer may ask you to demonstrate that you are the owner of the motorcycle.

PIN CODE activation function

To display the function, enter the "setting" menu page 88 and access the "PIN CODE" page.



Note

If "MODIFY" appears when accessing this function, this means that there is already a stored PIN and therefore the function is already active.

When accessing the function, "NEW PIN" and four dashes "- - - -" will appear on the round display; now enter a 4 digit code.

Entering the code:

each time you press the button (2) the displayed number increases from "0" to "9" and then returns to "0"; to confirm the number, press the reset button (4).

Repeat the procedure until inserting the fourth digit.

Press the reset button (4) again to confirm.

"OK" and "EXIT" will appear on the display. To confirm the PIN that was entered, press the reset button (4) again showing "OK". "NEW PIN MEM" will appear on the display for 3 seconds to confirm that the PIN was stored. At the end of the 3 seconds, the instrument panel exits automatically from the display

and returns to the "setting" menu. From this moment, "MODIFY" will be displayed when accessing the "PIN CODE" function and the PIN can be changed again.

Pin code stored (10).

Pin code not stored (11).

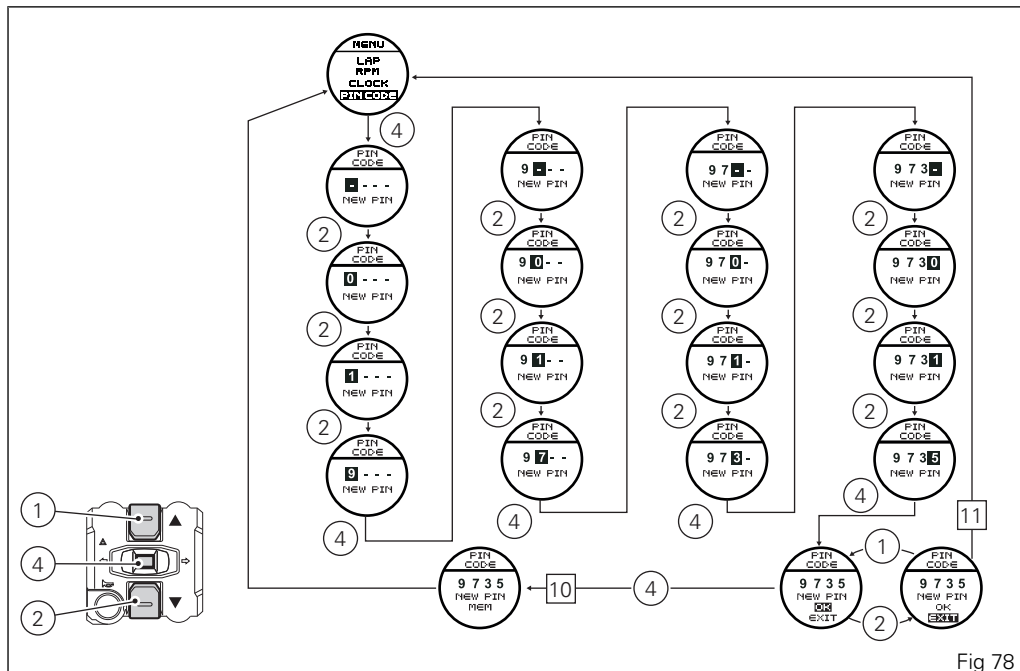


Fig 78

PIN CODE change function

This function changes your four number PIN CODE. To display the function, enter the "setting" menu page 88 and access the "PIN CODE" page.



Note

If "NEW PIN" and the dashes "- - - -" appear when accessing this function, this means that the function was not active as the PIN CODE was never entered. Enter your PIN as described in the previous paragraph "PIN CODE activation function".

When accessing the function, "MODIFY" will appear on the round display; press the reset button (4) showing "MODIFY" to modify the PIN.



Note

To change the PIN, you must know the currently stored PIN.

"OLD PIN" and four dashes "- - - -" will appear on the round display; now enter the previously stored 4 digit code.

Entering the "old" PIN: each time you press the button (2) the displayed number increases from "0" to "9" and then returns to "0".

To confirm the number, press the reset button (4). Repeat the procedure until entering the fourth digit. Press the reset button (4) again to confirm. "OK" and "EXIT" will appear on the display.

To confirm the "old" PIN that was entered, press the reset button (4) again showing "OK".

If the code is not correct, "OLD PIN WRONG" will appear for 3 seconds and then the instrument panel will return displaying "MODIFY" so you can repeat the attempt of entering the "old" code.

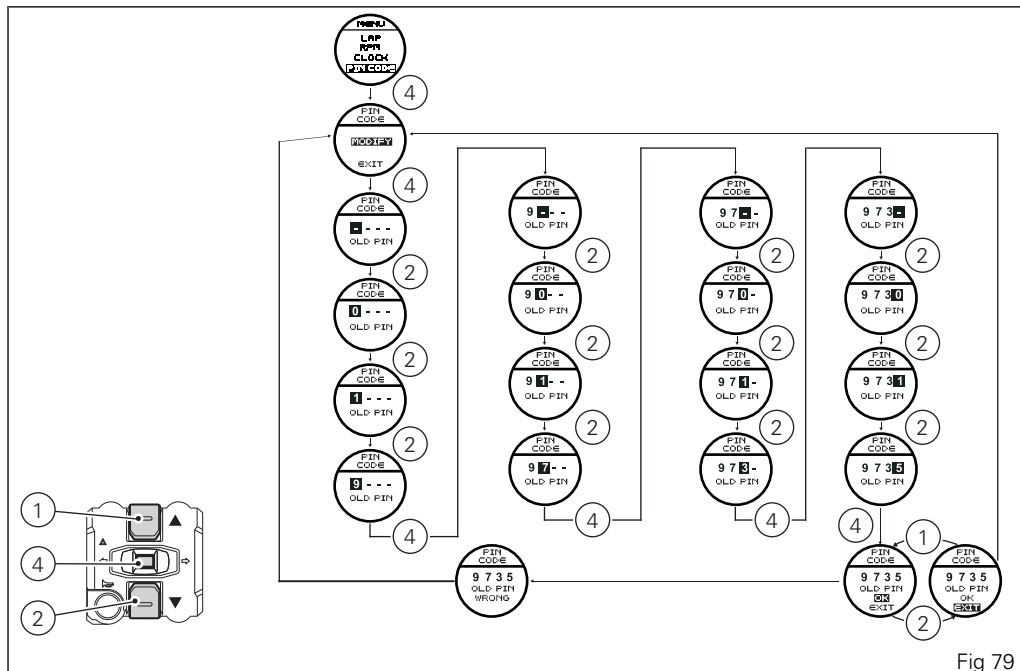


Fig 79

If the code was entered correctly the message "NEW PIN" and four dashes "----" will appear on the round display; now enter the "new" 4 digit code. Entering the "new" PIN: each time you press the button (2) the displayed number increases from "0" to "9" and then returns to "0".

To confirm the number, press the reset button (4).

Repeat the procedure until inserting the fourth digit.

Press the reset button (4) again to confirm.

"OK" and "EXIT" will appear on the display.

To confirm the PIN that was entered, press the reset button (4) again showing "OK".

"NEW PIN MEM" will appear on the display for 3 seconds to confirm that the PIN was stored.

At the end of the 3 seconds, the instrument panel exits automatically from the display and returns to the "setting" menu.

The PIN CODE modification procedure is complete.



Note

There is no limit to the amount of times you can change your PIN CODE.

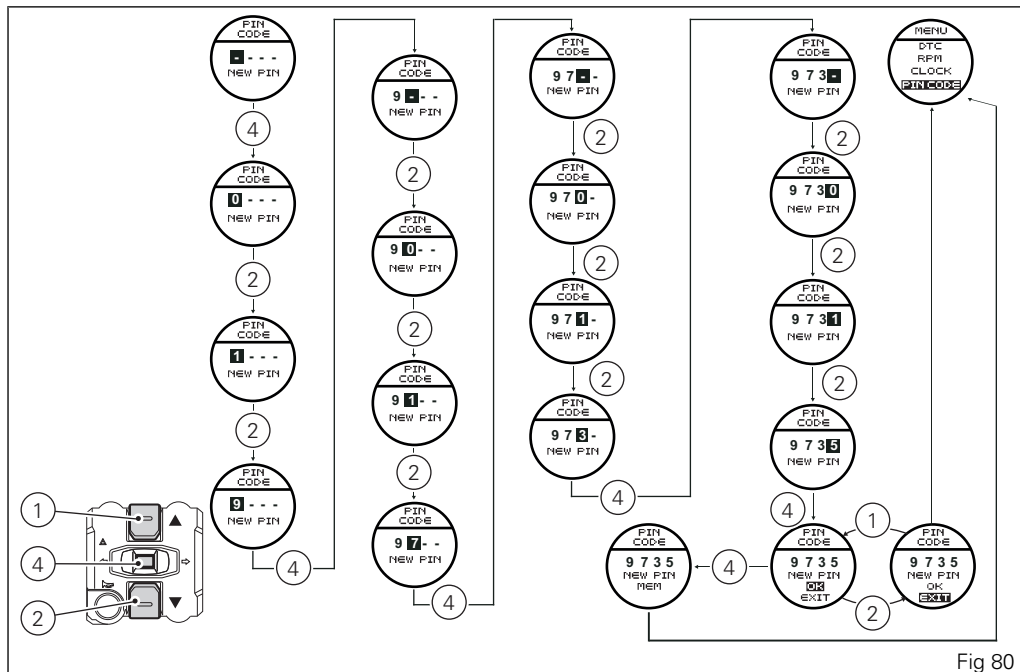


Fig 80

Light control

Headlight control

This function allows you to reduce current consumption from the battery by automatically managing headlight switching-off.

At Key-On, the high beam and low beam lights are off. When the engine is started, the low beam lights turn on automatically; from this moment, "normal" operation is activated: it will be possible to switch to high beam - i.e. high beam light will turn on together with low beam light using button (3) - or operate the "FLASH" signal (using button 3). If engine is not started upon key-on, it is anyway possible to switch the lights on by pushing the button on the LH high/low beam switch (button 3).

The low beam lights are turned on the first time it is pressed; from this moment, the same button can be used to switch on (and off) the high beam light (if the engine is not started within 60 seconds, the low beam or high beam light that was turned on will turn off).

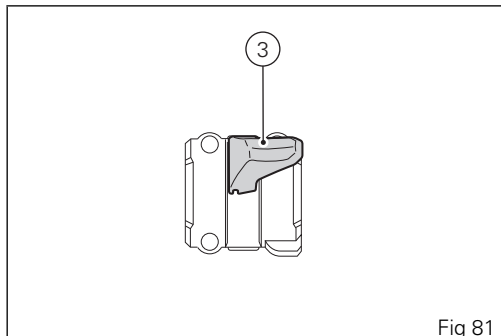


Fig 81

If the headlight was turned on before starting the engine with the procedure described above, the headlight turns off automatically when starting the vehicle and will turn on again when the engine has been completely started.

Turn indicators (automatic reset)

Turn indicators are automatically reset by the instrument panel.

After activating one of the two turn indicators, they can be deactivated using the reset button (4). If the turn indicator is not "reset" manually, the instrument panel will automatically switch it off after the motorcycle has traveled 0.3 miles (500 m) from the time the turn indicator was activated.

The counter for the distance traveled for automatic deactivation is activated at speeds below 50 mph (80 km/h).

If the calculation of the distance for automatic deactivation is activated and then the motorcycle exceeds a speed of 50 mph (80 km/h), the calculation is interrupted and will restart when the speed returns below the indicated threshold.

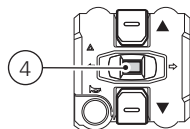


Fig 82

Hazard

All the turn indicators can be turned on together (Hazard function) as emergency indicator.

To activate the Hazard function (i.e., all 4 turn indicators) you must hold for 3 seconds the switch that normally activates the left turn indicator (switch (4) in position (6)).

The Hazard function can only be activated with Key-On (not with Key Off).

When the Hazard function is active, both warning lights (5) on the Instrument panel will flash at the same time.

To disable the Hazard function (switch off the 4 turn indicators) just press the switch that normally activates the left turn indicator once (switch (4) in position (6)) or press the turn indicator cancel button (switch (4) in central position).

The Hazard function can also be disabled with Key-Off: just press the switch that normally activates the left turn indicator once (switch (4) in position (6)).

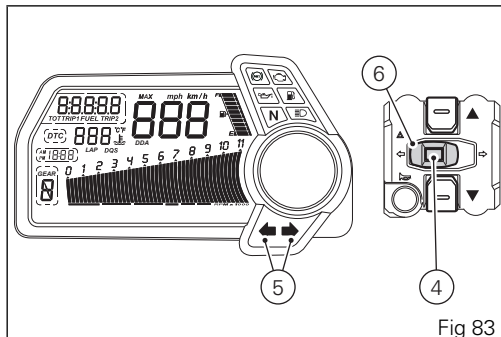


Fig 83

As soon as the Hazard function is activated, the 4 turn indicators will stay on even if rider turns the key Off. They will turn off automatically after 120 minutes (2 hours), unless the rider “manually” turns them off earlier thereby stopping the automatic countdown.

“Parking” function

This function activates the “PARKING” mode.

The “PARKING” function activates the front and rear parking lights when the vehicle is turned off so it is visible when parked.

The function is activated by pressing the button (2) for 3 seconds during the first 60 seconds after the motorcycle was turned off.

Once the function is activated, the indication will remain on the circular display for 5 seconds and the lights will remain on for 2 hours. After 2 hours, they will turn off automatically.

To interrupt the function, turn the vehicle on and off.



Note

If there is a sudden interruption in the battery while the function is active, the dashboard will disable the function when the voltage is restored.

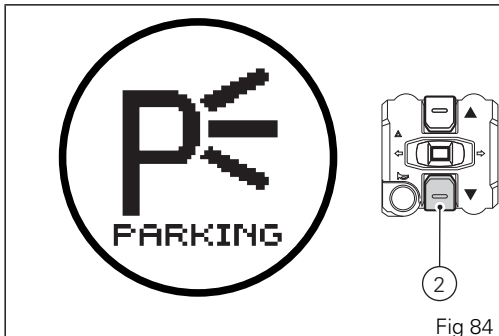


Fig 84



Attention

The frequent use of this function can considerably reduce the battery charge. Ducati recommends using this function only when really necessary.

Warning reading “Hold the button to lock the steering”

This indicates that rider must hold button (1) depressed to engage the steering lock.

The warning stays displayed for 2 seconds; after this time, if steering is in the correct position (fully turned to the right or left), system locks it and the display will read "STEERING LOCKED", as described on the following page.



“Steering lock” on indication

This function tells you that the steering lock was turned on.

The steering lock can be turned on during the first 60 seconds after turning off the vehicle by pressing down the “RUN” button for 3 seconds.

If the steering lock was enabled correctly, the instrument panel will show the indication in the round display for 5 seconds.



Note

The steering lock can only be turned on when the steering is in position.



Fig 86

Indication of incorrect position of the red starter button

This message tells you that the button should be returned to the "top" position in order to ensure that there is not an excessive current absorption by the system.



Important

This could lead to battery discharge within a short time.

Any incorrect position is detected within the first 60 seconds after vehicle switch-off (Key-Off).

If you press the starter button (1) to switch off (Key-Off), or engage the steering lock, after 5 seconds the system activates the warning "RED SWITCH NOT RELEASED" as a flashing message.



Fig 87

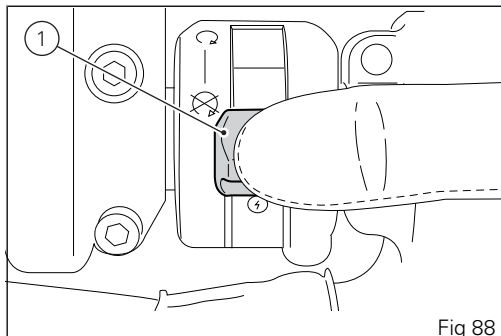


Fig 88

Button (1) must be taken back to its top position in order to avoid any power absorption which could drain the battery.
In this case, report the fault to Dealer or Authorized Service Center.

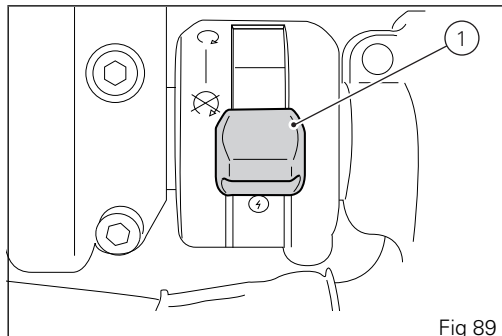


Fig 89

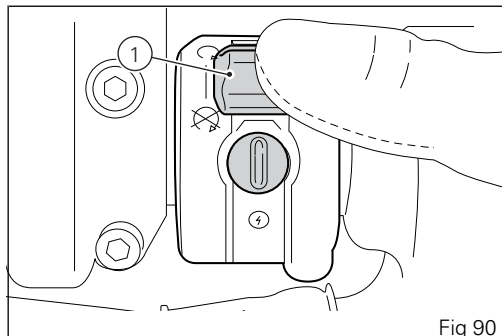


Fig 90

Changing unit of measurement

This function allows you to change the units of measurement of the displayed values.

In order to enter this menu it is necessary to start the vehicle by holding down simultaneously both the flash button (3) and the reset button (4) for at least 3 seconds.

After entering this menu, "UNITS" is displayed; to set the units of measurements press the reset button (4). The instrument panel displays the values that can be modified; use buttons (1) and (2) to select the value to modify and press the reset button (4) again.



Note

In this MENU all other functions are disabled.

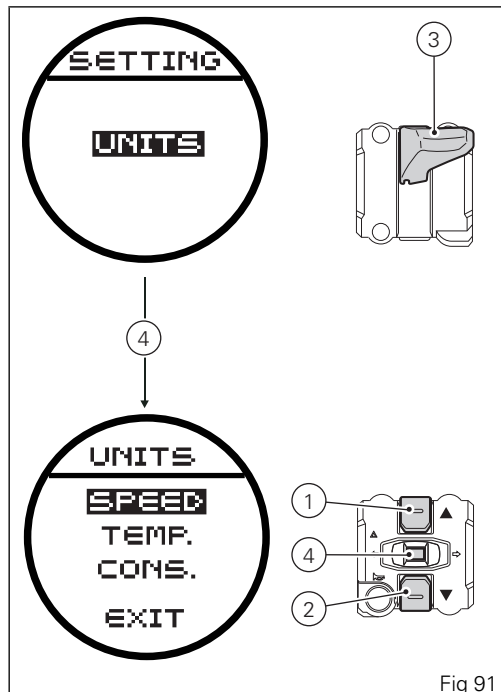


Fig 91

"SPEED" setting

The arrows indicate the current setting, with buttons (1 and 2) it is possible to select the new setting.

To store the new setting it is necessary to press the reset button (4) for 3 seconds.

After the setting is stored, system quits the page and rider should do a Key-Off; upon next Key-on any new unit of measurement will be set.

1) Km/h: by setting this condition the following values will have the same units of measurement:

- TOT, TRIP1, TRIP2, RANGE: Km
- Vehicle average speed: Km/h

2) mph : by setting this condition the following values will have the same units of measurement:

- TOT, TRIP1, TRIP2, RANGE: miles
- Vehicle average speed: mph

"TEMP." setting

The arrows indicate the current setting, with buttons (1 and 2) it is possible to select the new setting.

To store the new setting it is necessary to press the reset button (4) for 3 seconds.

After the setting is stored, system quits the page and rider should do a Key-Off; upon next Key-on any new unit of measurement will be set.

3) °C: by setting this condition the following values will have the same units of measurement:

- Engine coolant temperature and T_AIR: °C

4) °F: by setting this condition the following values will have the same units of measurement:

- Engine coolant temperature and T_AIR: °F

"CONS." setting

The arrows indicate the current setting, with buttons (1 and 2) it is possible to select the new setting.

To store the new setting it is necessary to press the reset button (4) for 3 seconds.

After the setting is stored, system quits the page and rider should do a Key-Off; upon next Key-on any new unit of measurement will be set.

5) Km/L: by setting this condition the following values will have the same units of measurement:

- CONS. and CONS. AVG: Km/L

6) L/100: by setting this condition the following values will have the same units of measurement:

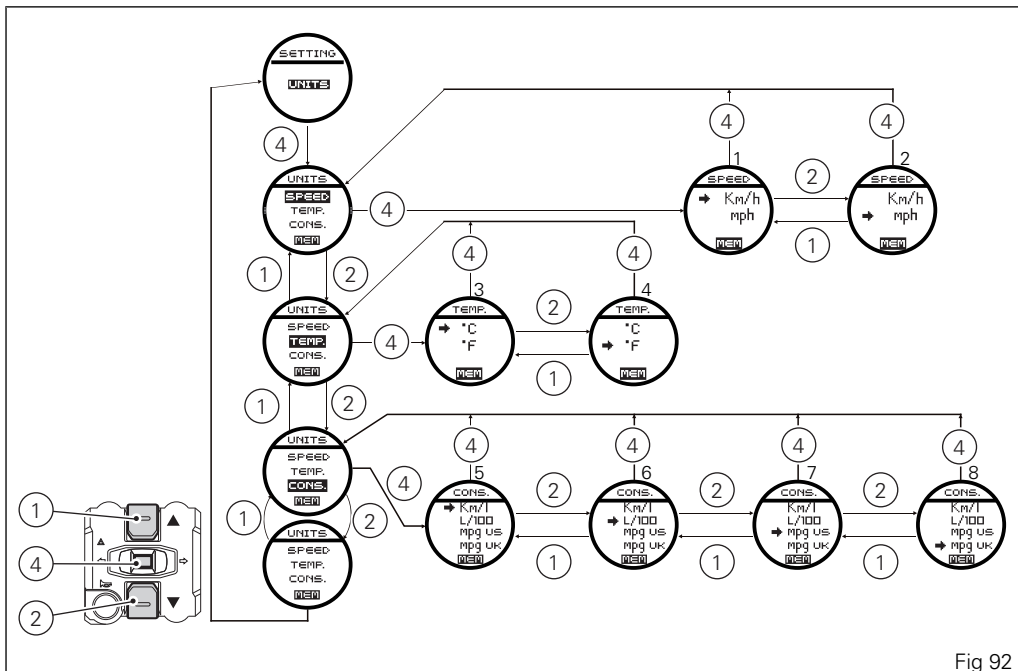
- CONS. and CONS. AVG: L/100

7) mpg UK : by setting this condition the following values will have the same units of measurement:

- CONS. and CONS. AVG: mpg UK

8) mpg USA: by setting this condition the following values will have the same units of measurement:

- CONS. and CONS. AVG: mpg USA



Other functions

UP-MAP

This function is used as an interface when downloading the Performance settings from the UP-MAP (key) to the engine control unit, after installing the Racing exhaust kit (part no. 96480021A).

When the UP-MAP is connected to the vehicle, these conditions are checked and, if they are all verified, the UP-MAP, engine control unit and instrument panel will start communicating.



Attention

FOR COMPETITION USE ONLY.

This product is legal for closed-course competition use only. Road use is forbidden.



Note

The Racing exhaust kit (part no. 96480021A) can be purchased at a Ducati Dealer or Authorized Service Center.



Attention

To install the Racing exhaust kit (part no. 96480021A) you shall contact a Ducati Dealer or Authorized Service Center.

The device can be used with key ON but engine stopped.

The presence of the UP-MAP is notified by the "UP-MAP CONNECTED" indication displayed on the instrument panel.

If the device authentication is not successful, the indication UP-MAP NOT COMPATIBLE is displayed for 3 seconds, and then display will read "UNPLUG UP-MAP" to urge the user to remove the device from the vehicle.



Fig 93

If the download is possible, the instrument panel will show the indication "PERF.RAC.2";

- the indication DOWNLOAD;
- button OK.

Press button (4) to allow the download of the specified settings.



Attention

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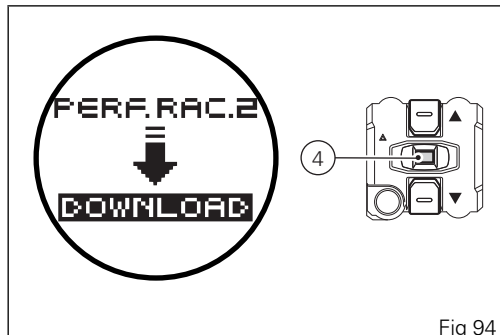


Fig 94

If the download is not possible and the setting to be downloaded is already present in the control unit, the instrument panel will read "MAP ALREADY PRESENT" and display the EXIT button.

Press button (4) to quit.

After pressing button (4) or after 10 seconds without pressing button (4), the instrument panel will read "UNPLUG UP-MAP" to urge the user to remove the device from the vehicle.

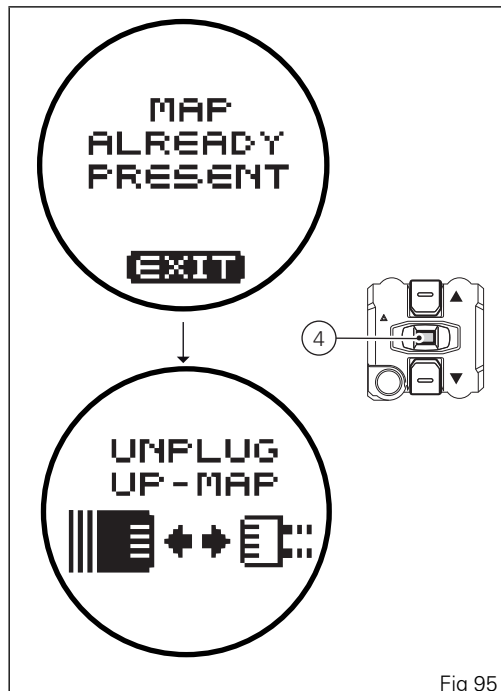


Fig 95

During the download, the display shows the indication "PERF.RAC.2", the indication "WAIT" and the download progress bar that progressively fills up (for approximately 5 seconds).

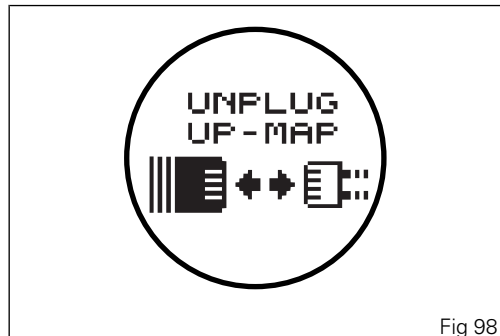
Once the download is completed, the display will show the indication "COMPLETED" and the full download progress bar.



After 3 seconds, if the whole process was successful, the display will read "UNPLUG UP-MAP" to urge the user to remove the device from the vehicle.

The indication "UNPLUG UP-MAP" is displayed until the UP-MAP is physically disconnected from the vehicle.

When the UP-MAP is disconnected, the display shows the "standard screen".



Any time a malfunction of the UP-MAP is found or the download procedure is not successful, the instrument panel displays "DOWNLOAD ABORTED" for 3 seconds, and then the indication "UNPLUG UP-MAP".



Note

In case of accidental key-off or disconnection of the UP-MAP before the download is completed, the procedure is considered not valid.



Note

When the UP-MAP is connected to the vehicle, engine starting is inhibited. It is not possible to ride the vehicle with the UP-MAP device connected.



Attention

FOR COMPETITION USE ONLY.

This product is legal for closed-course competition use only. Road use is forbidden.

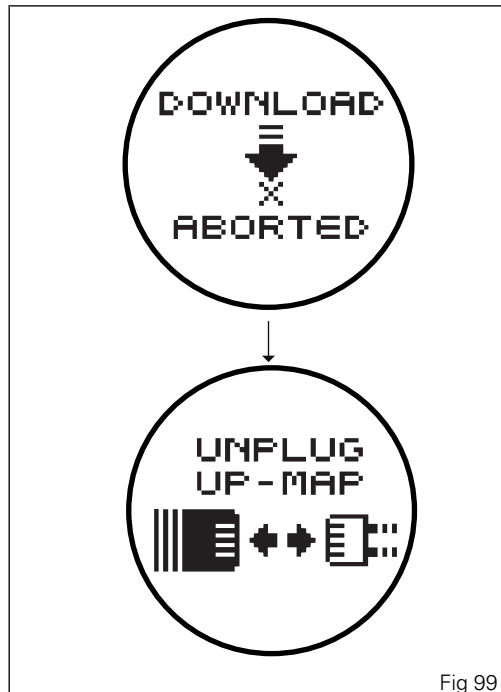


Fig 99

Controls

Position of motorcycle controls



Attention

This section shows the position and function of the controls used to ride the motorcycle. Be sure to read this information carefully before you use the controls.

- 1) Instrument Panel.
- 2) "Hands Free" system.
- 3) LH switch.
- 4) Clutch lever.
- 5) Rear brake pedal.
- 6) RH switch.
- 7) Throttle twistgrip.
- 8) Front brake lever.
- 9) Gear change pedal.

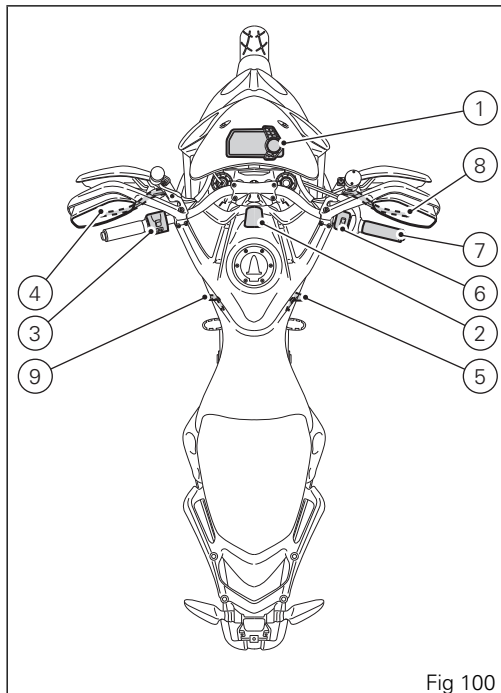


Fig 100

"Hands free" system

The Hands Free system consists of:

- 1) Hands Free lock;
- 2) Antenna;
- 3) Active key;
- 4) Passive key;
- 5) Electric cap (optional).

The "Hands free" lock (1) is located on the front of the tank.

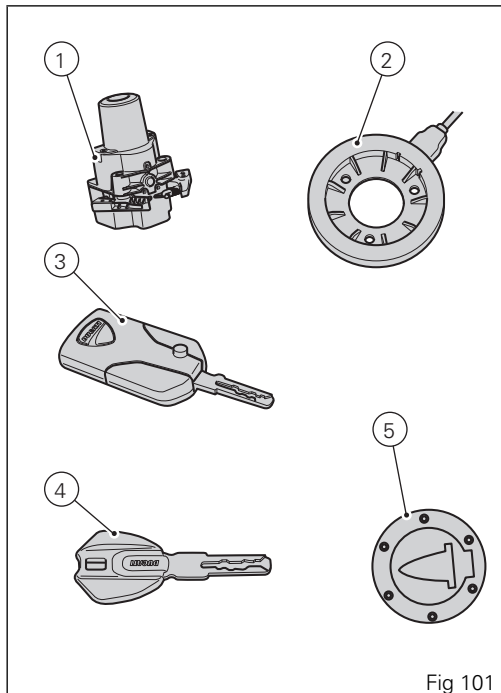


Fig 101

Hands Free system Key-On and Key-Off

Key-On consists of turning on the Hands Free system and all electronic devices. Key-Off consists of turning off the Hands Free system and all electronic devices, and makes sure the engine is turned off. Key-On is done using the button (6) on the handlebar on the right switch or using the emergency button (7) on the Hands free lock. Key-Off is done using the button (6) on the handlebar on the right switch or using the button (7) on the Hands free lock.



Note

Using one of the two buttons (6) or (7) does not exclude the other, e.g. if you turn it on with one, you can turn it off with the other and vice versa

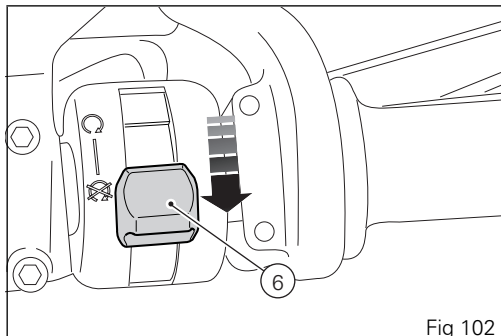


Fig 102

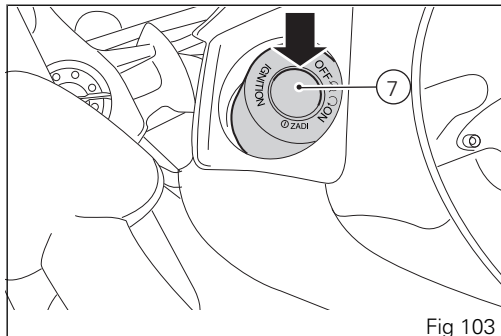


Fig 103

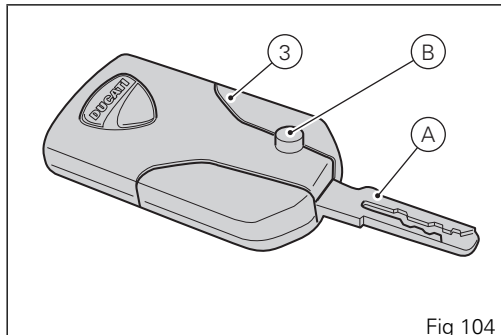
Key-On can only occur in the presence of one of the two keys (3) or (4) or using the pin code. Key-Off can also occur without a key (3) or (4). Key-Off occurs when the speed of the motorcycle is equal to zero, pressing the button (6) on the handlebar or by pressing the Hands Free button (7); at a speed other than zero, only by pressing the Hands Free button (7).



Note

When its battery is discharged, the active key (3) acts like a passive key (4). The instrument panel displays the discharged battery status.

The mechanical part (A) of the key (3) is used to open the fuel cap and the seat and bag lock. The metal part (A) of the key (3) remains hidden inside its housing, it exits by pressing the button (B).



Note

With the vehicle in "key-On" and "engine off", if the presence of the active key (3) is not detected for thirty consecutive seconds, the motorcycle will turn off automatically without any action by the rider.

Key-On/Key-Off using the red button on the handlebar with the active key

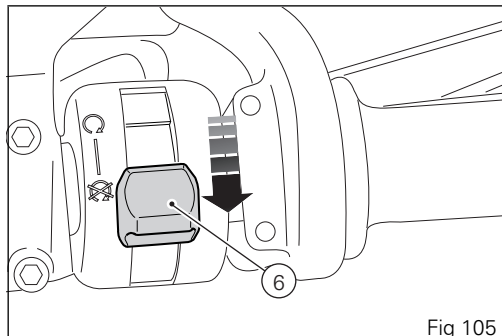
A key-On can be performed by pressing the red button (6) on the handlebar in the HANDS FREE ON/OFF position and in the presence of the active key (3, Fig 101).



Note

The active key (3) has a range of approx. 1.5 m, therefore it must be located within this range.

Key-Off can be performed by pressing the red button (6) on the handlebar in the HANDS FREE ON/OFF position. It can be done also without the key (3, Fig 101) only if the motorcycle speed is equal to zero.



Key-On/Key-Off using the key on the Hands Free lock with the active key

Key-On can be performed by pressing the button (7) on the Hands Free lock (1, Fig 101) and with the presence of the active key (3, Fig 101) .



Note

The active key (3) has a range of approx. 1.5 m, therefore it must be located within this range.

Key-Off is performed by pressing the button (7) on the Hands Free lock (1, Fig 101) , also without the key (3, Fig 101) .

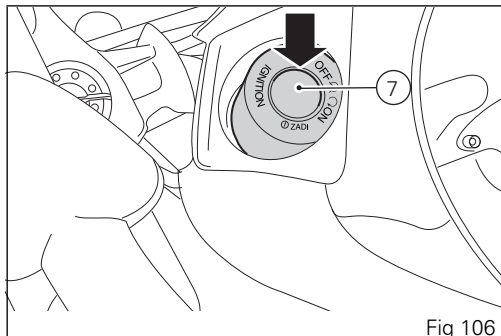


Fig 106

Key-On/Key-Off using the red button on the handlebar with the passive key

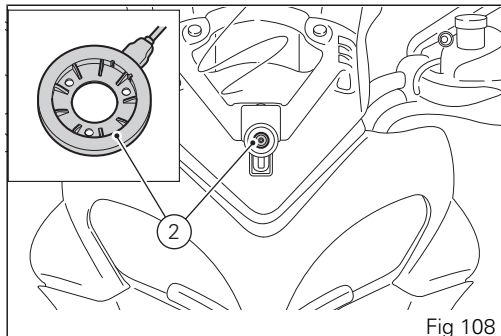
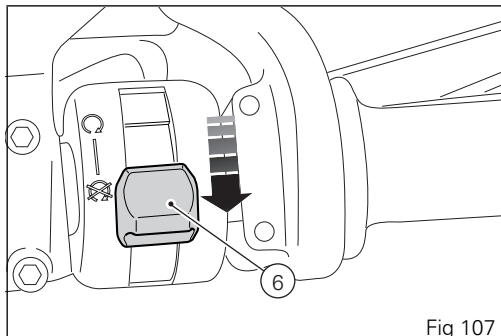
A key-On can be performed by pressing the red button (6) on the handlebar in the HANDS FREE ON/OFF position and in the presence of the passive key (4, Fig 101).



Note

The passive key (4) has a range of a few cm, therefore the key (4) must be positioned near the antenna (2).

Key-Off can be performed by pressing the red button (6) on the handlebar in the HANDS FREE ON/OFF position. It can be done also without the key (4, Fig 101) only if the motorcycle speed is equal to zero.



Key-On/Key-Off using the key on the Hands Free lock with the passive key

Key-On is performed by pressing the button (7) on the Hands Free lock and with the presence of the passive key (4, Fig 101) .



Note

The passive key (4) has a range of a few cm, therefore the key (4) must be positioned near the antenna (2).

Key-Off is performed by pressing the button (7) on the Hands Free lock (1, Fig 101) , also without the key (4, Fig 101) .

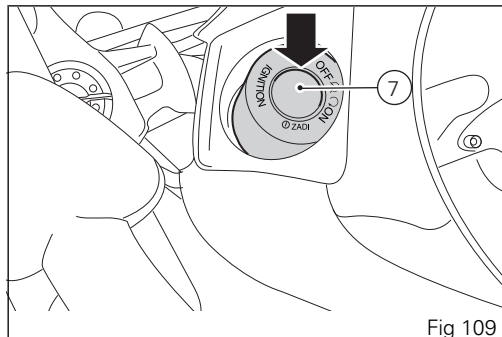


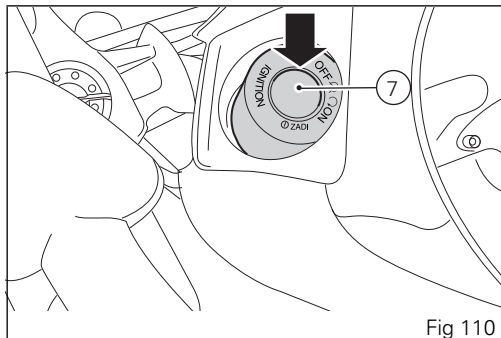
Fig 109

Key-On/Key-Off using the pin code (immobilizer release)

Key-On can be performed by pressing the button (7) on the Hands Free lock (1, Fig 101) without the presence of the keys (3, Fig 101) and (4, Fig 101) and entering the pin code on the instrument panel.

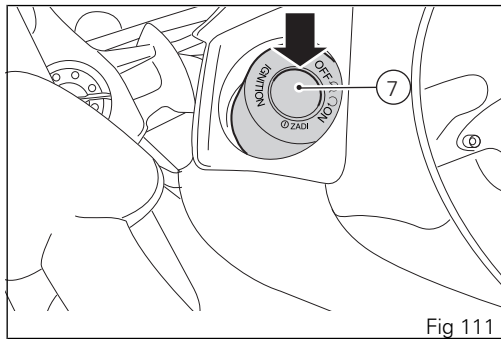
Key-Off can be performed by pressing the button (6) on the handlebar / Hands Free key (7) / engine off no key.

After each Key-Off, at the next Key-On if the key is not present the pin code must be entered. The pin code is entered by the customer when receiving the motorcycle. The function is not enabled without the pin code. When the Hands Free button is pressed (7) the instrument panel activates the backlighting and the circular display to be able to enter the four digit pin code. Entering the correct pin turns on the instrument panel and enables engine starting. The pin must be entered within 120 sec, after which a Key-Off occurs automatically.



Entering PIN CODE function for vehicle release

This function turns on the motorcycle "temporarily" in the case of HF (Hands Free) system "malfunctions". To activate the function, press the "emergency" Hands Free button (7) if the motorcycle cannot be turned on using the normal starter button. After pressing the button, the instrument panel activates only the round display (B) (and the backlighting) to be able to enter the 4 digit PIN code.



Entering the code:

each time you press the button (2) the displayed number increases from "0" to "9" and then returns to "0"; to confirm the number, press the reset button (4). Repeat the procedure until inserting the fourth digit. Press the reset button (4) again to confirm. If the code is incorrect (A), the instrument panel will return to the initial indication in order to enter the code again.



Note

There is no limit to the number of times the code can be reentered; the instrument panel will turn off automatically 120 seconds after an attempt to enter the code.

If the code was entered correctly (B), the message "PIN OK" will flash on the display for 4 seconds. After 4 seconds, the instrument panel will return to the "normal" view (with all indications active). From this moment, the vehicle can be started using the start button (Key-On).



Note

The vehicle can be started until a Key-Off is performed; if the problem still persists upon the next starting attempt, repeat the procedure from the beginning in order to start the motorcycle "temporarily".



Important

If this procedure is necessary in order to start the vehicle, contact an Authorized Ducati Service Center as soon as possible to fix the problem.

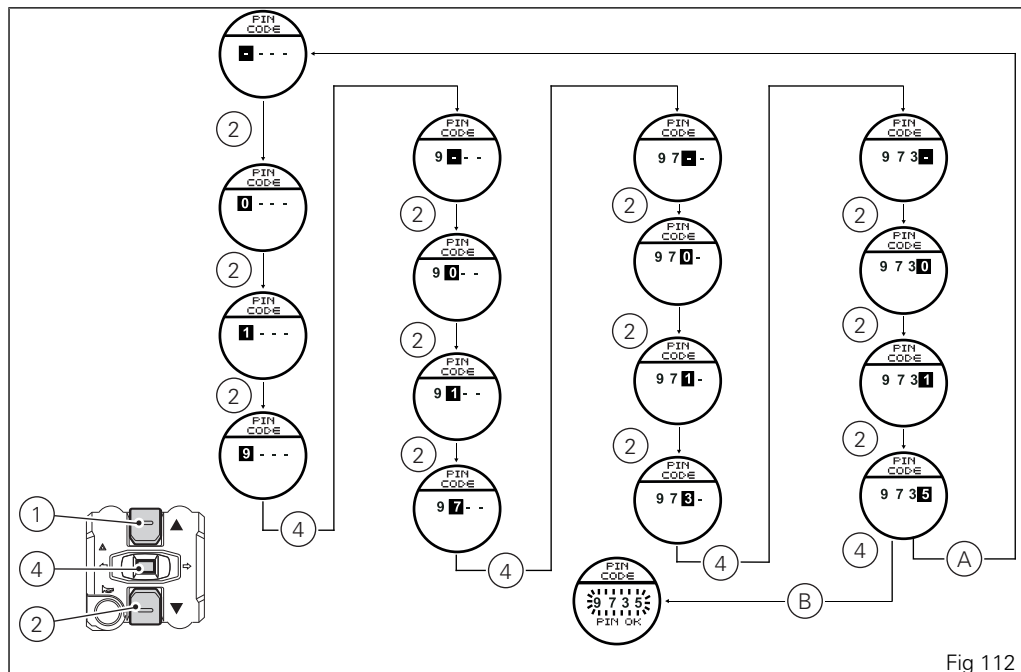


Fig 112

Left-hand switch

1) Dip switch, two-position light selector switch:

(A) pushed up, low beam on ();

(B) pushed down, high beam on ();

(C) pushed to the side, high beam flasher ();
(FLASH), "Start-Stop lap" function.

2) 3-position turn indicator switch ():

central position = off;

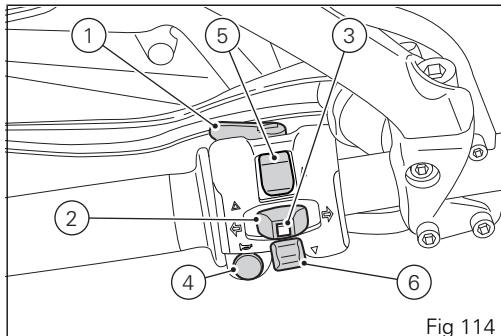
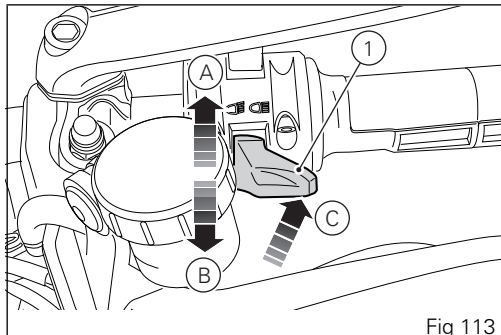
position () = left turn;

3) Turn indicator off, "Riding mode" activation and menu navigation button.

4) Button () = warning horn.

5) Navigation menu, main display scroll and TRIP1 and TRIP2 reset button.

6) Navigation menu, round Dot-Matrix display scroll button.



Clutch lever

Lever (1) disengages the clutch. It features a dial adjuster (2) for lever distance from the twistgrip on handlebar. The lever distance can be adjusted through 10 clicks of the dial (2). Turn clockwise to increase lever distance from the twistgrip. Turn the adjuster counterclockwise to decrease lever distance. When the clutch lever (1) is operated, drive from the engine to the gearbox and the drive wheel is disengaged. Using the clutch properly is essential to smooth riding, especially when moving off.



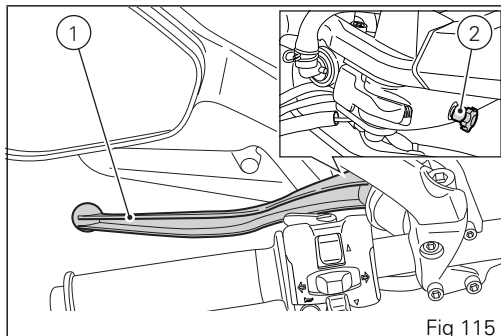
Attention

Set clutch lever when motorcycle is stopped.



Important

Using the clutch properly will avoid damage to transmission parts and spare the engine.



Note

The engine can be started with the side stand down and the gearbox in neutral. If starting with a gear engaged, pull in the clutch lever (in this case the side stand must be up).

Right-hand switch

- 1) Red ON/OFF switch.
- 2) Black ENGINE START button.

The switch (1) has three positions:

- A) center: RUN OFF. In this position, the engine cannot be started and all electronic devices are off.
- B) pushed down: ON/OFF. In this position, the system can be turned on (Key-On) and off (Key-Off).
- C) pushed up: RUN ON. The engine can only be started in this position, pushing the black button (2).

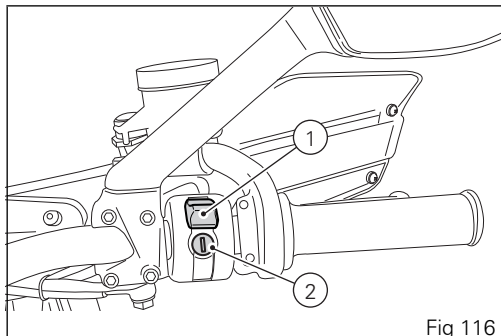


Fig 116

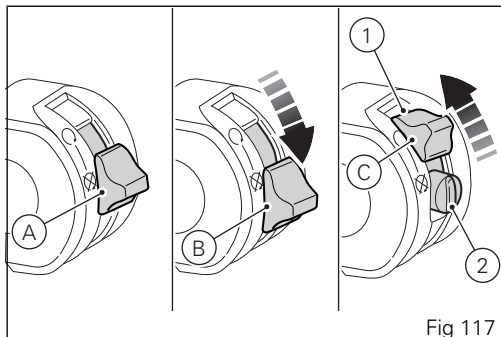


Fig 117

Throttle twistgrip

The twistgrip on the right handlebar opens the throttles. When released, it will spring back to the initial position (idling speed).

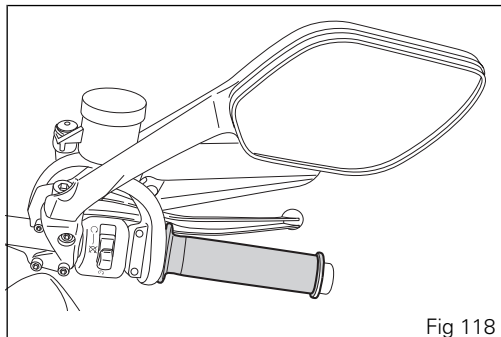


Fig 118

Front brake lever

Pull in the lever (1) towards the twistgrip to operate the front brake. The system is hydraulically operated and you just need to pull the lever gently.

The control lever (1) features a dial adjuster (2) for lever distance from the twistgrip on handlebar adjustment.

The lever distance can be adjusted through 10 clicks of the dial (2).

Turn clockwise to increase lever distance from the twistgrip. Turn the adjuster counterclockwise to decrease lever distance.

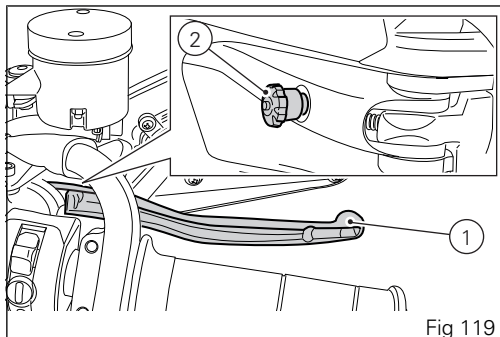


Fig 119

Rear brake pedal

Push down on the pedal to apply the rear brake.
The system is hydraulically operated.

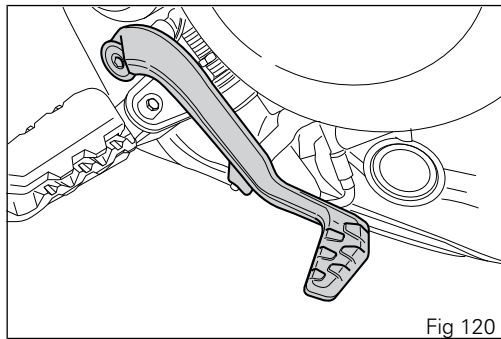


Fig 120

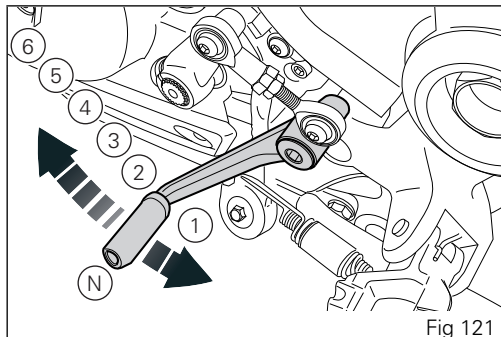
Gear change pedal

When released, the gear change pedal automatically returns to rest position N in the center. This is indicated by the instrument panel light N (3, coming on.

The pedal can be moved:

- down = press down the pedal to engage the 1st gear and to shift down. The N light will go out;
- upwards= lift the pedal to engage 2nd gear and then 3rd, 4th, 5th and 6th gears.

Each time you move the pedal you will engage the next gear.



Adjusting the position of the gearchange and rear brake pedals

The position of the gearchange and rear brake pedals in relation to the footrests can be adjusted to suit the requirements of the rider.

Adjust the pedals as follows:

Gear change pedal

Use an open ended spanner to hold the spherical end on the rod (1) on the flat (2) and loosen the counter nut (3).

Turn the screw (4) to detach the rod completely from the gear change lever.

Turn the rod (5), until the gear change pedal is set to the desired position.

Tighten the screw (4) to secure the gearchange lever to the rod (5).

Tighten the counter nut (3) onto the spherical end (1).

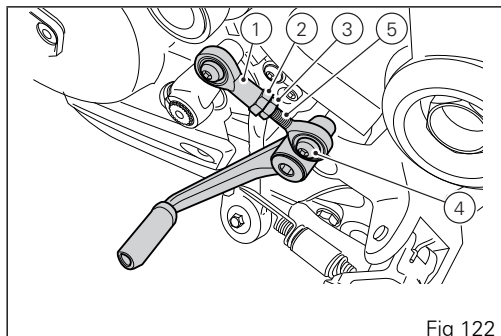


Fig 122

Rear brake pedal

Loosen counter nut (7).

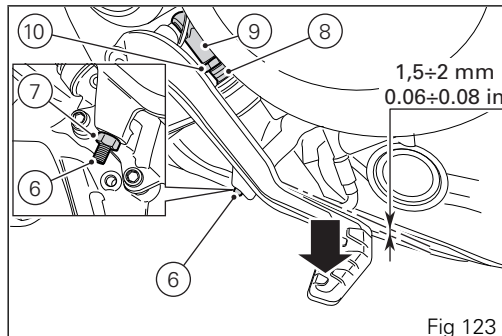
Turn pedal stroke adjusting screw (6) until pedal is in the desired position. Tighten the counter nut (7).

Operate the pedal by hand to check that there is $0.06 \div 0.08$ in ($1.5 \div 2$ mm) of free play before the brake bites. If not, adjust the length of the master cylinder pushrod as follows.

Slacken the counter nut (10) on the pushrod.

Screw the pushrod (8) into the front fork (9) to increase the freeplay, or screw it out to reduce it.

Tighten the counter nut (10) and recheck the pedal freeplay.



Main components and devices

Position on the vehicle

- 1) Fuel tank plug.
- 2) Seat lock.
- 3) Side stand.
- 4) Power outlet.
- 5) Rearview mirrors.
- 6) Front fork adjusters.
- 7) Rear shock absorber adjusters.
- 8) Catalytic converter.
- 9) Exhaust silencer.

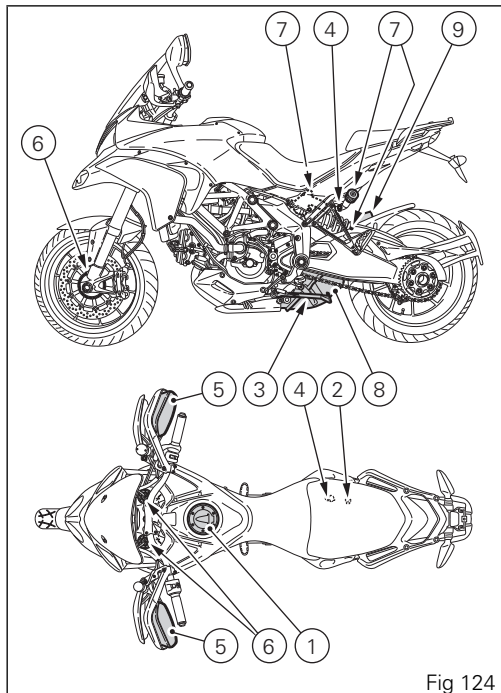


Fig 124

Tank filler plug

Opening

Lift the cover (1) and insert the active or passive key into the lock. Turn the key clockwise 1/4 turn to unlock.

Lift the plug (2).

Closing

Close the cap (2) with the key inserted and press it into its seat. Remove the key and replace the lock cover (1).



Note

The plug can only be closed with the key in.



Attention

Always make sure you have properly refitted and closed the plug after refueling.

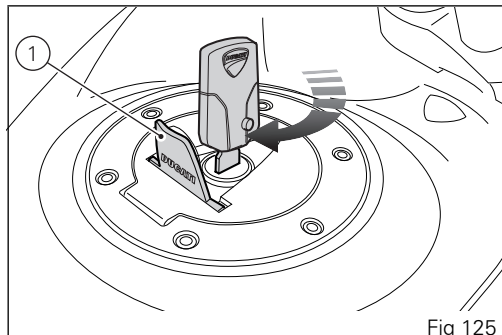


Fig 125

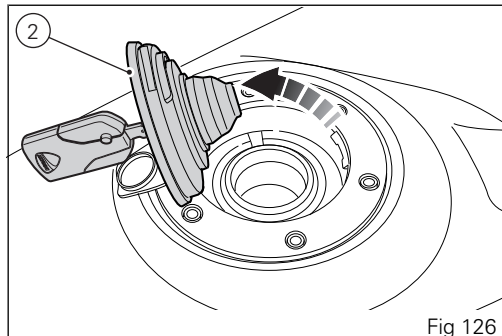


Fig 126

Electric fuel cap opening (optional)

The electric cap (2, Fig 126) opens after every key-off within 60 seconds operating the lever (1, Fig 125) located on it.

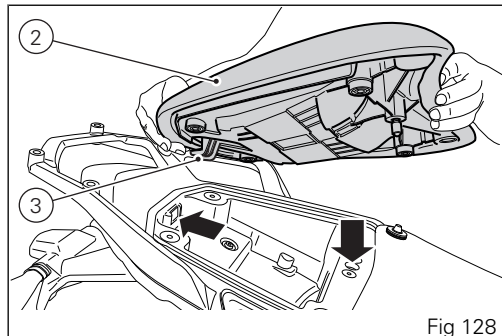
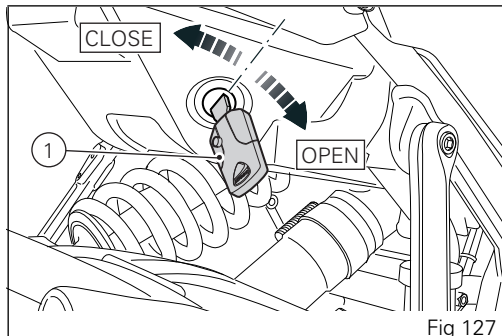
Seat lock

By operating the lock (1) the passenger seat can be removed to access the tool kit compartment and the rider seat to access the battery and other devices.

Removal of the seats

Insert the active or passive key into the lock (1) and rotate it clockwise until you hear the release click in the passenger seat.

To remove the passenger seat (2) lift up the front part and pull it forward to free the rear hook (3) on the bottom of the seat.



To remove the rider seat (4) remove the rear part from the pin (5) on the frame. Pull it backwards and at the same time push the front part of the rider seat downwards to unhook it from the pins (6) on the tank.

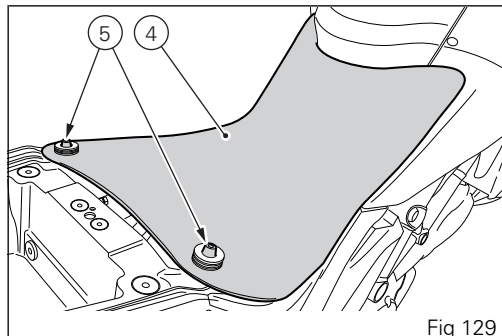


Fig 129

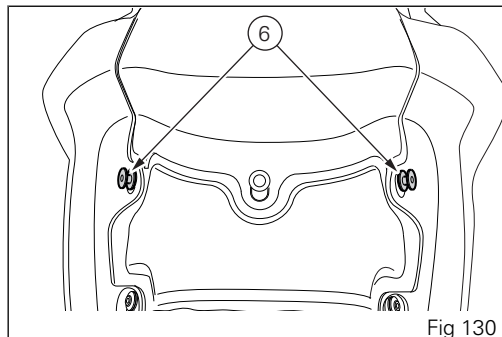


Fig 130

Refitting the seats

Position the front part of the rider seat (4), with slots (7), in the pins (6, Fig 130) of the tank.

Push on the front end of the rider seat to move the pins (6) to the bottom of the slots (7).

Insert the rear part of the rider seat into the pin (5, Fig 129) of the frame.

Insert the rear hook (3, Fig 128) into the opening in the tail guard and lower the front part of the passenger seat (2) until you hear the pin click in the latch.

Pull the passenger seat moderately upwards to make sure it is correctly and firmly engaged.

Remove key from the lock (1, Fig 127).

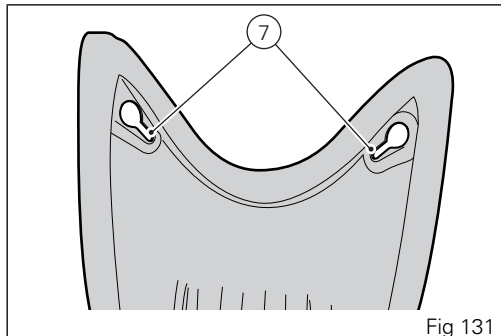


Fig 131

Helmet cable

Remove the passenger seat and the rider seat as described in the paragraph "Removal of the seats" page 191.

Pass the cable (1) through the helmet and insert the ends of the cable in the frame pin (2).

Leave the helmet hanging and refit the passenger seat and the rider seat to hold it in place.



Attention

This device protects the helmet against theft when the motorcycle is parked. Do not leave the helmet attached when riding the motorcycle; it could interfere with your movements and cause loss of control of the motorcycle.

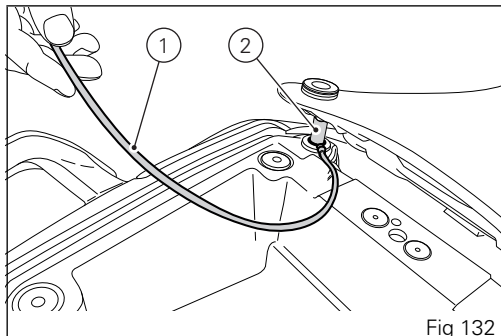


Fig 132

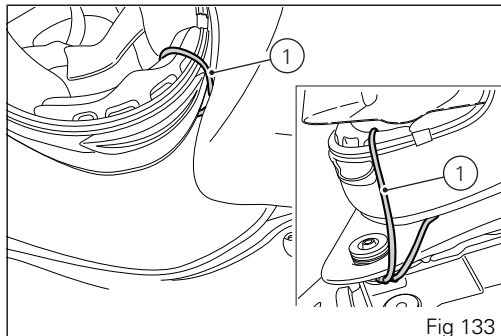


Fig 133

Side stand



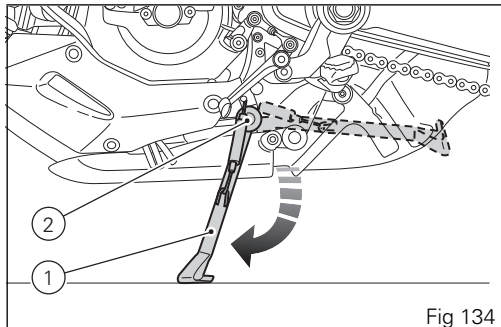
Important

Use the side stand to support the motorcycle only during short stops. Before lowering the side stand, make sure that the supporting surface is hard and flat.

Do not park on soft or pebbled ground or on asphalt melted by the sun, etc. or else the motorcycle may fall over. When parking downhill, always position the motorcycle with the rear wheel facing downhill.

To pull down the side stand, hold the motorcycle handlebars with both hands and push down on the side stand (1) with your foot until it is fully extended. Tilt the motorcycle until the side stand is resting on the ground.

To move the side stand to its resting position (horizontal position), lean the motorcycle to the right while lifting the thrust arm (1) with your foot.



Attention

Do not sit on the motorcycle when it is supported on the side stand.



Note

Check for proper operation of the stand mechanism (two springs, one into the other) and the safety sensor (2) at regular intervals.



Note

The engine can be started with the side stand down and the gearbox in neutral. If starting with a gear engaged, pull in the clutch lever (in this case the side stand must be up).

Power outlet

The motorcycle is equipped with two 12 V power outlets protected by a fuse located in the rear fuse box. It is possible to connect to each power outlet loads up to 4 A (if both are used at the same time) or up to 8 A if only one is in use.

The power outlets are positioned on the left (1) and right (2) sides of the motorcycle behind the passenger pedal support bracket.



Important

When the engine is off, do not leave accessories connected to the power outlets for a long period of time as the motorcycle battery could run flat.

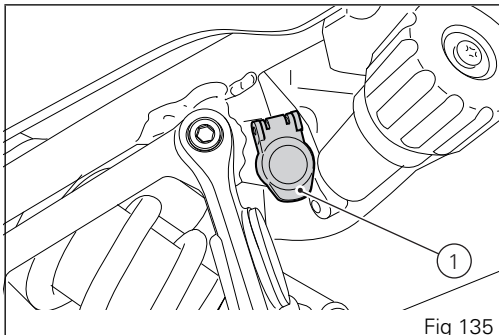


Fig 135

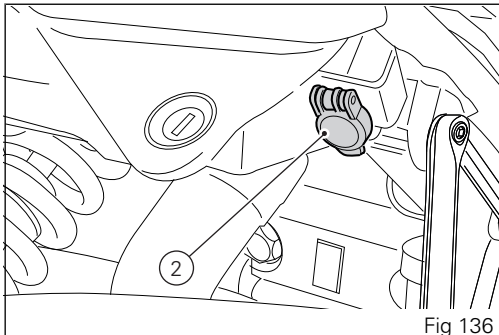


Fig 136

Adjusting the front fork

The front fork used on this motorcycle has rebound, compression and spring preload adjustment. The fork is adjusted for rebound and compression by electric impulses sent by the instrument panel to the adjusters inside the fork legs; spring preload adjustment is manual.



Attention

Have the spring preload adjusted at a Ducati Dealer or authorized Service Center.

For fork adjustment, follow the description at page 107 "DSS setting function".
For more details on operation of the fork and the DSS (Ducati SkyHook System) please refer to page 36 and page 94.

Spring preload default settings:

- 8 mm (left leg);
- 2 mm (right leg);

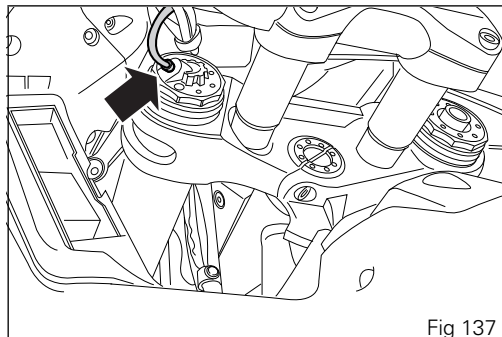


Fig 137

Adjusting the rear shock absorber

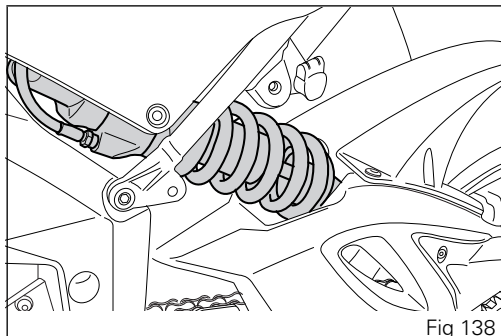
The rear shock absorber has commands that enable you to adjust the setting to suit the load on the motorcycle.



Attention

The shock absorber is filled with gas under pressure and may cause severe damage if taken apart by someone who is unskilled.

If you intend to transport a passenger and baggage, preload the shock absorber spring to the maximum to improve the dynamic performance of the motorcycle and to avoid possible interference with ground. You may find that rebound damping needs adjusting as well. The shock absorber is adjusted by electric impulses sent by the instrument panel to the adjusters inside the shock absorber body.



Changing the motorcycle track alignment

Motorcycle setup is the optimal result of tests carried out under different riding conditions by our technical staff. The rider can set four different setup configurations on the instrument panel:

- Rider only (1);
- Rider with luggage (2);
- Rider with passenger (3);
- Rider with passenger and luggage (4).

For each of these settings, four riding modes (SPORT, TOURING, URBAN and ENDURO) can be selected and within each of these, the initial settings for traction control (DTC), engine power, suspension damping control and ABS level can be modified. To change the setup, proceed as described on page 92 "Riding Mode Customization".

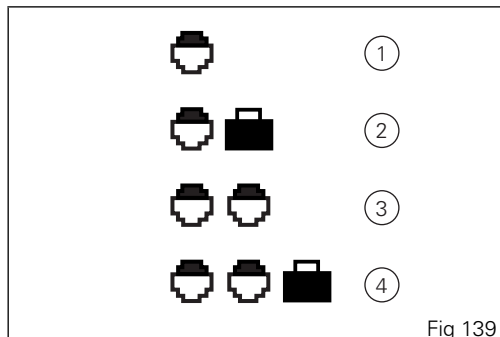


Fig 139

Riding the motorcycle

Running-in recommendations

Maximum rpm

Rotation speed for Break-in period and during standard use (rpm):

- 1) Up to 621 mi (1000 km);
- 2) 621 mi (1000 km) to 1553 mi (2500 km).

Up to 621 mi (1000 km)

During the first 621 mi (1000 km) keep an eye on the rev counter, it should never exceed 5,500÷6,000 ^{rpm}. During the first few hours of riding, it is advisable to run the engine at varying load and rpm, though still within recommended limit.

To achieve this, roads with plenty of bends and even slightly hilly areas are ideal for the most efficient break-in of the engine, brakes and suspensions. For the first 62 mi (100 km), use the brakes gently. Avoid sudden or prolonged braking. This will allow the friction material on the brake pads to bed in against the brake disks.

For all mechanical parts of the motorcycle to adapt to one another and above all not to adversely affect the life of basic engine parts, it is advisable to avoid harsh accelerations and not to run the engine at high rpm for too long, especially uphill.

It is also advisable to inspect the drive chain frequently and lubricate as required.

621 mi (1000 km) to 1553 mi (2500 km)

At this point, you can ask for more power from the engine. However, never exceed 7,000 rpm.



Important

During the entire Break-in period, carefully observe the indications on the scheduled maintenance chart and servicing recommendations in the Warranty Booklet. Failure to follow these instructions releases Ducati Motor Holding S.p.A. from any liability whatsoever for any engine damage or shorter engine life.

Strict observance of Break-in recommendations will ensure longer engine life and reduce the likelihood of overhauls and tune-ups.

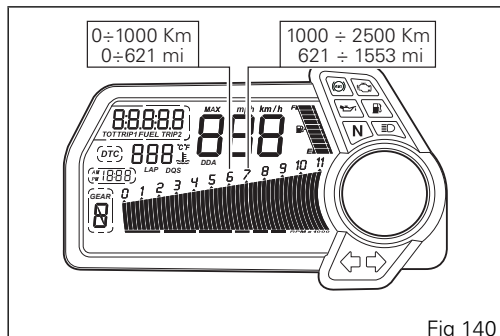


Fig 140

Pre-ride checks



Attention

Failure to carry out these checks before riding may lead to motorcycle damage and injury to rider and passenger.

Before riding, perform a thorough check-up on your bike as follows:

- **FUEL LEVEL IN THE TANK**
Check the fuel level in the tank. Fill tank if needed (page 215).
- **ENGINE OIL LEVEL**
Check oil level in the sump through the sight glass. Top up if needed (page 248).
- **BRAKE AND CLUTCH FLUID**
Check fluid level in the relevant reservoirs (page 222).
- **COOLANT**
Check coolant level in the expansion reservoir. Top up if needed (page 220).
- **TIRE CONDITION**
Check tire pressure and condition (page 245).

- **CONTROLS**
Work the brake, clutch, throttle and gear change controls (levers, pedals and twistgrip) and check for proper operation.
- **LIGHTS AND INDICATORS**
Make sure lights, indicators and horn work properly. Replace any burnt-out bulbs (page 237).
- **KEY LOCKS**
Ensure that fuel filler plug (page 189) and seat (page 191).
- **SIDE STAND**
Make sure side stand operates smoothly and is in the correct position (page 195).

ABS light

After Key-On, the ABS light (10, stays on.

When the vehicle speed exceeds 5 km/h, the warning light switches off to indicate the correct operation of the ABS system.



Attention

In case of malfunction, do not ride the motorcycle and contact a Ducati Dealer or authorized Service Center.

ABS device

Check that the front (1) and rear (2) phonic wheels are clean.



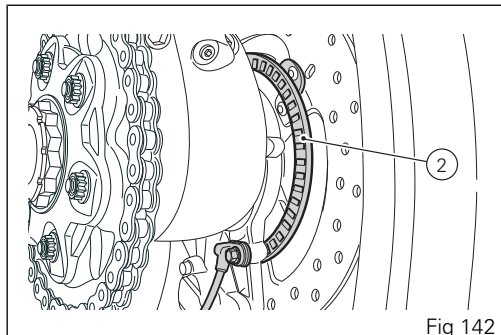
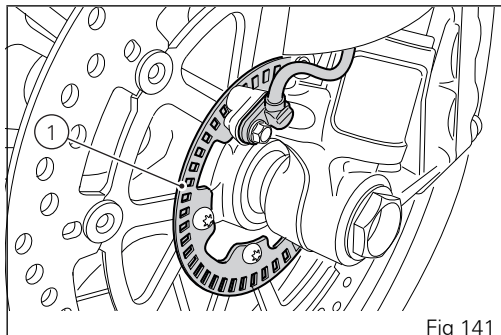
Attention

Clogged reading slots would compromise system proper operation. It is advisable to disable ABS in case of very muddy road surfaces, as in these conditions the system might be subject to sudden faults.



Attention

Prolonged rearing could deactivate the ABS system.



Engine on/off



Attention

Before starting the engine, become familiar with the controls you will need to use when riding.



Attention

Never start or run the engine indoors. Exhaust gases are poisonous and may lead to loss of consciousness or even death within a short time.

In the presence of the active or passive key, perform a Key-On (turning on the "Hands Free" system and all onboard electronic devices) by pushing downward on the red switch (1) on the right side of the handlebar. The instrument panel will perform the initialization and will control the onboard systems, turning on all lights in sequence, from the bottom to the top, for a few seconds. After this control, only the green light (2), and the red light (3) must remain on.

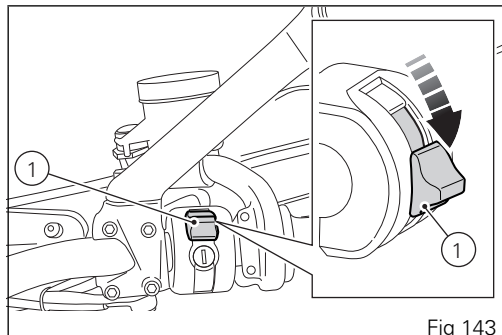


Fig 143

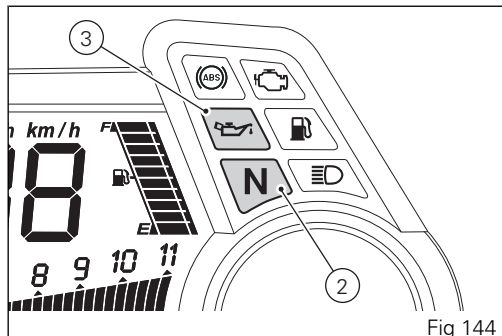


Fig 144



Attention

The side stand must be fully up (in a horizontal position), as its safety sensor prevents engine start when down.

After Key-On, but with the engine not yet started, the system will perform a Key-Off automatically if the presence of the active key is not detected within 10 seconds.



Note

The engine can be started with side stand down and the gearbox in neutral. When starting the bike with a gear engaged, pull the clutch lever (in this case the side stand must be up).

Move the red switch (1) up to uncover the black button (4). Push the button (4) to start the engine.

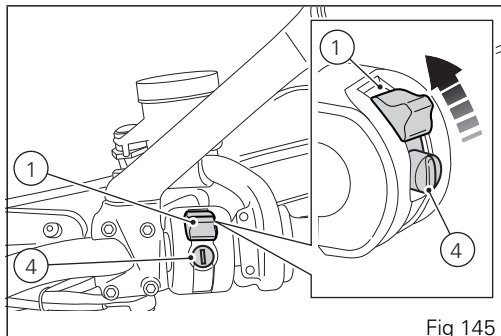


Fig 145



Important

Do not rev up the engine when it is cold. Allow some time for the oil to warm up and reach all points that need lubricating.

The red oil pressure warning light (3, Fig 144) should go out a few seconds after the engine has started. The engine will shut off by setting the red button (1, Fig 145) on the handlebar to RUN OFF. To turn on the "Hands Free" system and all electronic onboard systems, refer to page 168 "Hands Free System".

Moving off

- 1) Disengage the clutch by squeezing the clutch lever.
- 2) Push down the gear change lever firmly with the tip of your foot to engage first gear.
- 3) Raise the engine revs by turning the throttle twistgrip while gradually releasing the clutch lever. The motorcycle will start moving.
- 4) Release the clutch lever completely and accelerate.
- 5) To shift up, close the throttle to slow down engine, disengage the clutch, lift the gear change lever and let go of clutch lever. To shift down, proceed as follows: release the twistgrip, pull the clutch lever, shortly speed up to help gears synchronize, shift down (engage next lower gear) and release the clutch.

The controls should be used correctly and with promptness. When riding uphill do not hesitate to shift down as soon as the motorcycle tends to slow down. This will avoid undue stress on the engine and motorcycle.



Attention

Avoid harsh accelerations, as this may lead to misfiring and transmission snatching. The clutch lever should not be pulled longer than necessary after gear is engaged or else friction parts may overheat and wear out.



Attention

Prolonged rearing could deactivate the ABS system.

Braking

Slow down in time, shift down to engine-brake first and then brake applying both brakes. Pull the clutch lever before stopping the motorcycle, to avoid sudden engine stop.

ABS system

Using the brakes correctly under adverse conditions is the hardest – and yet the most critical - skill to master for a rider. Braking is one of the most difficult and dangerous moments when riding a two-wheeled vehicle: the possibility of falling or having an accident during braking is statistically higher than at any other moment. A locked front wheel leads to loss of traction and stability, resulting in loss of control.

The Anti-lock Brake System (ABS) has been developed to enable riders to use the vehicle's braking force to the fullest during emergency braking, adverse weather conditions or when pavement is compromised.

ABS uses hydraulics and electronics to limit pressure in the brake circuit when a special sensor mounted to the wheel signals the electronic control unit that the wheel is about to lock up.

This avoids wheel lockup and preserves traction.

Pressure is raised back up immediately and the control unit keeps controlling the brake until the risk of a lockup disappears. Normally, the rider will perceive ABS operation as a harder feel or a pulsation of the brake lever and pedal.

The front and rear brakes use the same control systems: the ABS fitted to this motorcycle features a combined braking action connecting the rear

braking circuit to the front one when using the front brake. The opposite is not true: the rear brake control does not affect the front braking system.

The system can be disabled from the instrument panel, by setting it OFF within the required Riding Mode.



Attention

Although the system has a combined braking feature (rear brake activation when using the front brake only), using one brake control or the other separately will decrease the motorcycle braking efficiency.

Never use the brake controls harshly or suddenly as you may cause the rear wheel lift up and lose control of the motorcycle.

When riding in the rain or on slippery surfaces, braking will become less effective. Always use the brakes very gently and carefully when riding under these conditions. Any sudden maneuvers may lead to loss of control. When tackling long, high-gradient downhill road tracts, shift down gears to use engine braking. Apply one brake at a time and use brakes sparingly. Keeping the brakes applied all the time would cause the friction material to overheat and reduce braking power dangerously. Underinflated or overinflated tires reduce braking efficiency, handling accuracy and stability in a bend.

Stopping the motorcycle

Reduce speed, shift down and release the throttle twistgrip. Shift down to engage first gear and then neutral.

Apply the brakes and bring the motorcycle to a complete stop.

Turn off the engine moving the red switch downward (1).

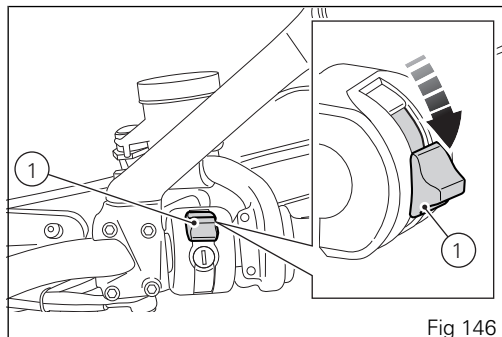


Fig 146

Parking

Park the stopped motorcycle on the sidestand. Turn the handle completely to the left or right. The steering lock can be engaged if this is done within 60 seconds from engine stop.

If you wish to lock the steering during this period of time, move down the red switch (1) again and hold it pressed for 3 seconds with the steering fully turned to the left or right. After one second, the instrument panel reads "KEEP PRESSED FOR LOCK", this message will stay displayed for 2 seconds and the steering lock engages after this time. If the steering lock is correctly engaged, the instrument panel displays the message: "STEERING LOCKED". While if it fails to engage, after 5 seconds the instrument panel displays the message: "RED SWITCH NOT RELEASED".

If this is the case, release the switch and try locking the steering again within 60 seconds from Key-off. In case of failed locking, contact a Ducati authorized Service Center.

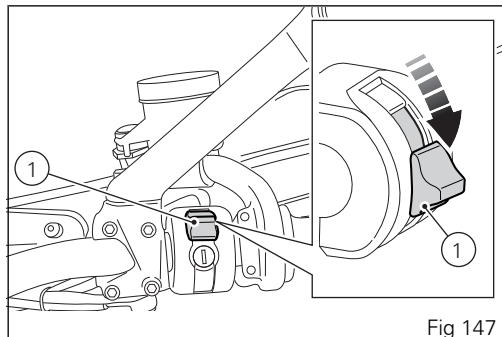


Fig 147

Press button (2, Fig 148) for at least 3 seconds: the indication of the activated function (Fig 149) will appear on the round display of the instrument panel for 5 seconds and the lights will remain on for 2 hours. After this period of time, they will turn off automatically.



Note

If there is a sudden interruption in the battery voltage during the "Parking" function, the instrument panel will disable this function when the voltage is restored.



Important

The frequent use of this function can considerably reduce the battery charge; it is recommended to use this function only when necessary.

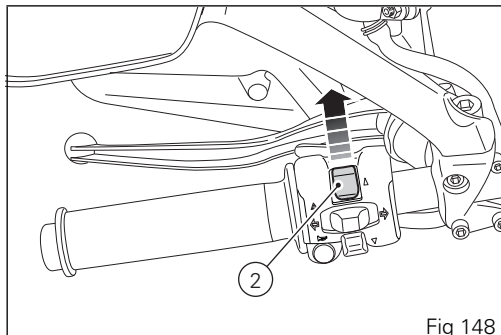


Fig 148



Fig 149



Attention

The exhaust system might be hot, even after engine is switched off; take special care not to touch the exhaust system with any body part and do not park the vehicle next to flammable material (wood, leaves etc.).



Attention

Using padlocks or other locks designed to prevent motorcycle motion, such as brake disk locks, rear sprocket locks, etc. is dangerous and may impair motorcycle operation and affect the safety of rider and passenger.

Refueling

Never overfill the tank when refueling. Fuel should never be touching the rim of filler recess.



Attention

Use fuel with a minimum octane rating of 90 (RON+MON)/2



Attention

The vehicle is compatible only with fuel having a maximum content of ethanol of 10% (E10). Using fuel with ethanol content over 10% is prohibited. Using it could result in severe damage of the engine and motorcycle components. Using fuel with ethanol content over 10% will render the Warranty null and void.

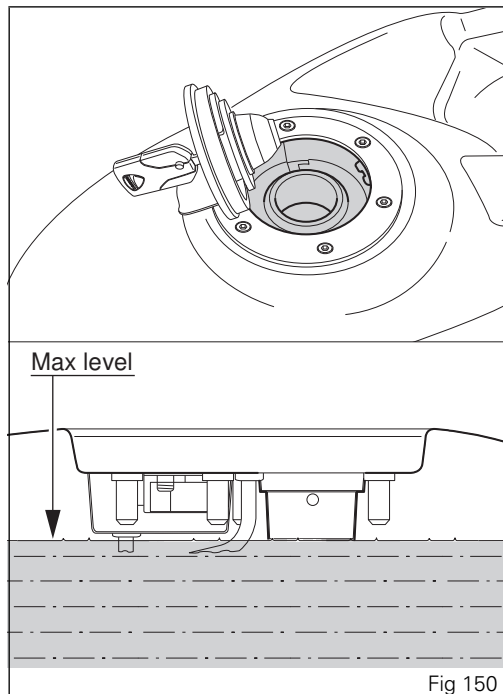


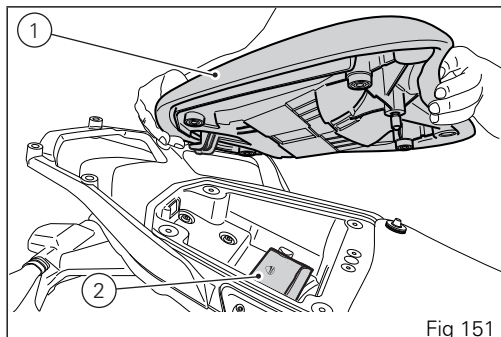
Fig 150

Tool kit and accessories

The compartment under the passenger seat (1) holds:
an Owner's manual and tool kit (2) including:

- 1 90° needle with rubber scraper;
- 2 rubber cylinders for punctures;
- 2 high pressure spray cans;
- 2 valve adaptors (if not provided with the spray cans);
- 1 0.20 in (5 mm) Allen wrench for gravel guard;
- 1 0.39 in (10 mm) Allen wrench for eccentric clamp;
- 1 pin wrench for the eccentric;
- 1 extension per pin wrench, 0.39 in (10 mm) Allen wrench, screwdriver;
- 1 chain tensioning gage (for its use refer to the instructions on page 235);
- 1 Phillips screwdriver or 0.39 (10 mm) wrench for battery;

To access the compartment, remove the seat (see page).



The following are also provided as standard:

- front semi-mudguard kit;
- long rear mudguard kit;
- Carbon windscreen;

Front half-mudguard kit



Important

To fit the front semi-mudguard kit, ALWAYS contact a Ducati Dealer or Authorized Service Center.

Remove the pipe grommet (1) unscrewing the two screws (2).

Position the front semi-mudguard kit (3) on the front mudguard, housing the front brake pipe (4) and the front phonic wheel cable (5) as shown in the figure (Fig 153).

Fasten tab (A) into slot on front mudguard (3).

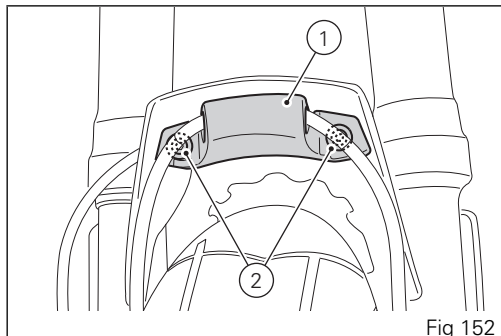


Fig 152

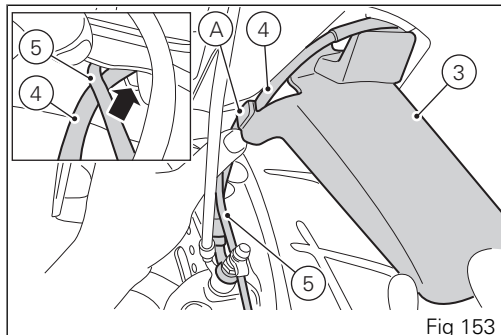
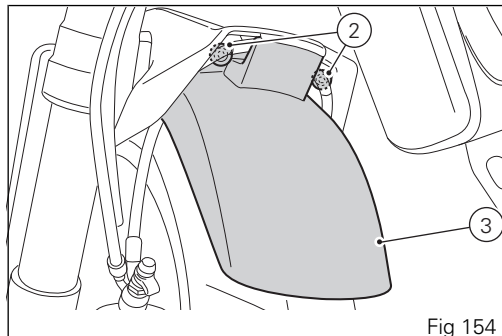


Fig 153

Fit the screws (2) previously removed and tighten them to a torque of $3.5 \text{ Nm} \pm 10\%$.



Rear long mudguard kit



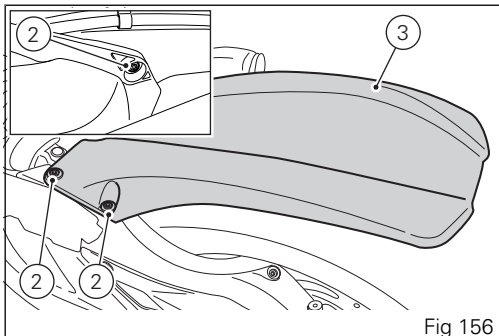
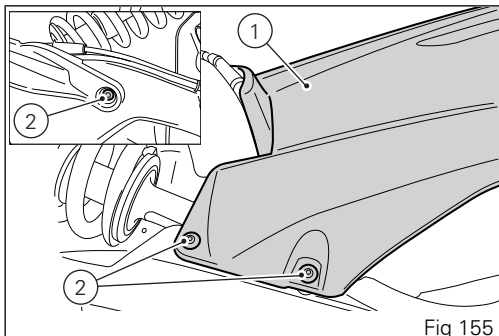
Important

To fit the long rear mudguard kit, ALWAYS contact a Ducati Dealer or Authorized Service Center.

Remove the rear mudguard (1) unscrewing the three screws (2).

Position the long rear mudguard kit (3) on the swingarm, starting the previously removed screws (2).

Tighten the screws (2) to a torque of $5 \text{ Nm} \pm 10\%$.



Main maintenance operations

Checking and topping up coolant level

Check the coolant level in the expansion reservoir on the right-hand side of the headstock.

Steer the handlebar completely to the left and check that the level is between the MIN and MAX marks on the side of the expansion reservoir.

Top up if the level is below the MIN mark.

Unscrew the filler plug (1) and add ENI Agip Permanent Spezial antifreeze, which is not to be diluted, up to MAX level.

Refit the plug (1).

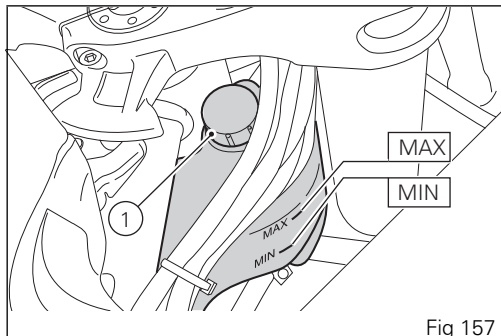


Fig 157

This type of mixture ensures the best operating conditions (the coolant starts to freeze at $-4^{\circ}\text{F}/-20^{\circ}\text{C}$).
Cooling circuit capacity: 0.61 gallons (2.3 cu. dm (liters)).



Attention

Make sure the engine is cold before proceeding.
A warm engine could provoke the ejection of coolant
or hot vapor resulting in serious burns.

Checking brake and clutch fluid level

The level must not go below the MIN mark shown on the respective reservoirs ((Fig 158) shows the front and rear brake fluid reservoirs, (Fig 159) shows the clutch fluid reservoir).

If level drops below the limit, air might get into the circuit and affect the operation of the system involved.

Brake and clutch fluid must be topped up and changed at the intervals specified in the scheduled maintenance table contained in the Warranty Booklet; please contact a Ducati Dealer or Authorized Service Center.



Important

All brake and clutch lines should be changed every four years.

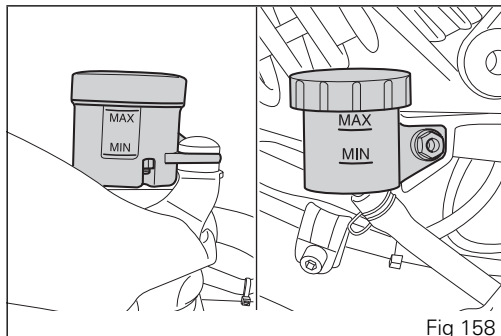


Fig 158

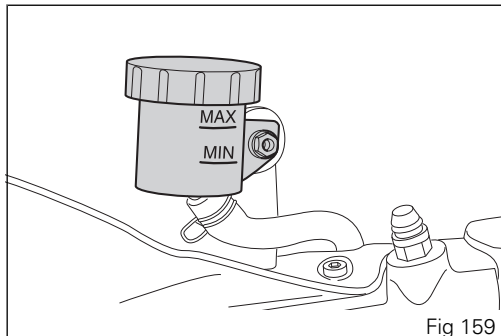


Fig 159

Brake system

If you note too much play on brake lever or pedal and brake pads are still in good condition, contact your Ducati Dealer or Authorized Service Center to have the system inspected and any air drained out of the circuit.



Attention

Brake and clutch fluid can damage paintwork and plastic parts, so avoid contact. Hydraulic oil is corrosive; it may cause damage and lead to severe injuries. Never mix fluids of different qualities. Check seals for proper sealing.

Clutch system

If the control lever has too much play and the transmission snatches or jams as you try to engage a gear, it means that there might be air in the circuit. Contact your Ducati Dealer or Authorized Service Center to have the system inspected and air drained out.



Attention

Clutch fluid level will increase as clutch plate friction material wears down. Do not exceed the specified level (3 mm above the minimum level).

Checking brake pads for wear

Check brake pads wear through the inspection hole in the calipers.

If the thickness of the friction material, even in just one pad, is about 0.04 in (1 mm), replace both pads.



Attention

Friction material wear beyond this limit would lead to metal support contact with the brake disc and compromise braking efficiency, disc integrity and rider safety.



Important

Have the brake pads replaced at a Ducati Dealer or Authorized Service Center.

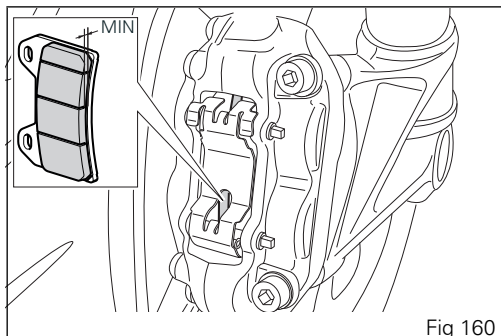


Fig 160

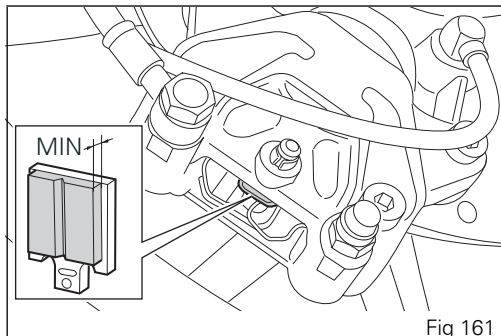


Fig 161

Lubricating cables and joints

Check the outer sheath of the throttle and cold start control cables for damage at regular intervals. The outer plastic cover should not be flattened or cracked. Operate the controls to make sure the inner cables slide smoothly inside the outer sheath: if you feel any friction or catching, have the cable replaced by a Ducati Dealer or Authorized Service Center. To avoid this kind of problem with the throttle cable, unscrew the two retaining screws (1), to open the case and then grease cable ends and pulley (2) with SHELL Advance Grease or Retinax LX2 grease.



Attention

Close the twistgrip housing carefully, inserting the cable in the pulley.

Refit the cover and tighten the screws (1) to 10 lbf ft (10 Nm).

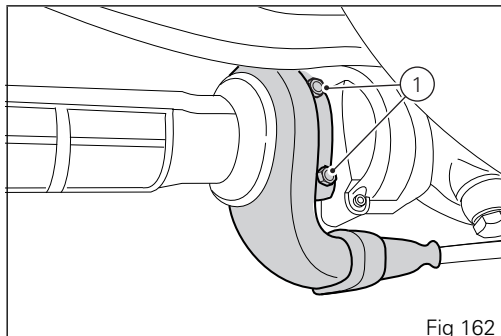


Fig 162

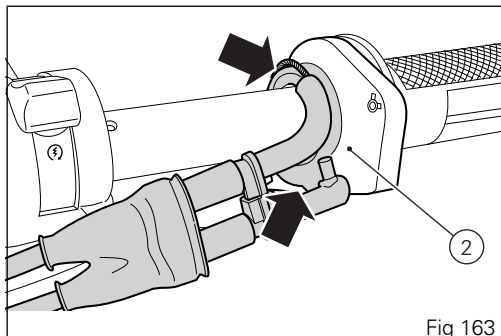
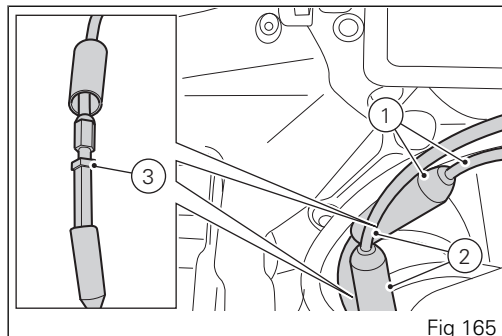
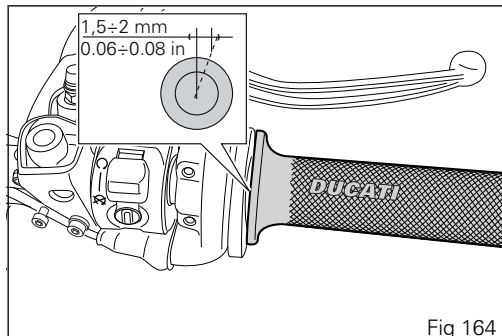


Fig 163

To ensure smooth operation of the side stand pivot, remove dirt and apply SHELL Alvania R3 grease to all friction points.

Adjusting throttle control free play

The throttle twistgrip must have free play of $0.06 \div 0.08$ in ($1.5 - 2.0$ mm) in all steering positions, measured on the outer edge of the twistgrip. If necessary, adjust it using the adjusters (1 and 2) located on the steering tube on the left-hand side of the vehicle. Adjuster (1) is for throttle opening, and adjuster (2) is for throttle closing. Slip the rubber gaiters off the adjusters and loosen the counter nuts (3). Adjust both adjusters by the same amount: turn clockwise to increase free play and counterclockwise to reduce free play. When finished, tighten the counter nuts (3) and refit the rubber gaiters to the adjusters.



Charging the battery

Before charging the battery, it is best to remove it from the motorcycle.

Remove the rider seat, unscrew the screw (1) and remove the bracket (2). Loosen the screws (3), to remove the positive cable (4) and (ABS) (5) from the positive terminal and the negative cable (6) from the negative terminal always starting from the negative one (-) and remove the battery by sliding it outwards.



Attention

The battery gives off explosive gases; keep it away from any source of ignition such as sparks, flames and cigarettes. Charge the battery in a well-ventilated area.

Charge the battery in a ventilated room.

Connect the battery charger leads to the battery terminals: the red one to the positive terminal (+), the black one to the negative terminal (-).

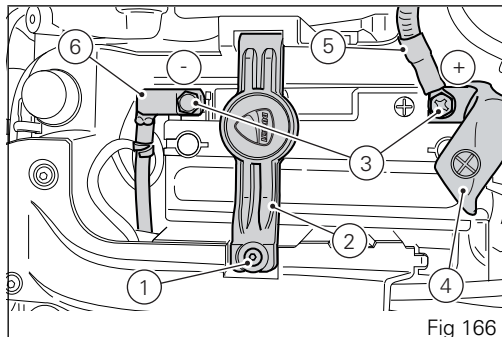


Fig 166



Important

Make sure the charger is off when you connect the battery to it, or you might get sparks at the battery terminals that could ignite the gases inside the cells. Always connect the red positive (+) terminal first.

Grease the screws (3).

Refit the battery on the support, connect the positive cable (4) and ABS (5) to the positive terminal and the negative cable (6) to the negative terminal of the battery, by starting always from the positive (+), and fit the screws (3).

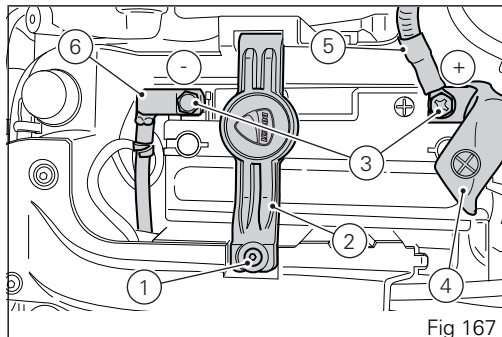
Place the battery retaining bracket (2) and tighten the screw (1).



Attention

Keep the battery out of the reach of children.

Charge the battery at 0.9 A for 5-10 hours.



Charging and maintenance of the battery during winter storage

Your motorcycle is equipped with a connector (1) under the seat to which you can connect a special battery charger (2) (Battery maintainer kit part no. 69924601A - various countries; Battery maintainer kit part no. 69924601AX - for Japan, China and Australia only) available from our sales network.



Note

The electric system of this motorcycle is designed so as to ensure there is a very low power drain when the motorcycle is off. Nevertheless, the battery features a certain self-discharge rate that is normal and depends on ambient conditions as well as on "non-use" time.

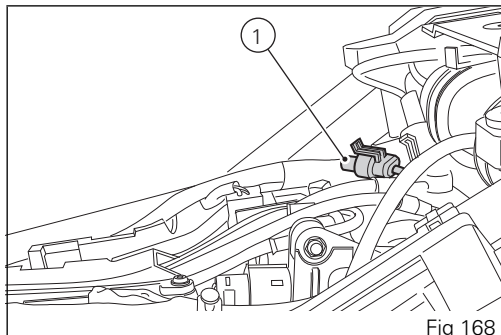


Fig 168

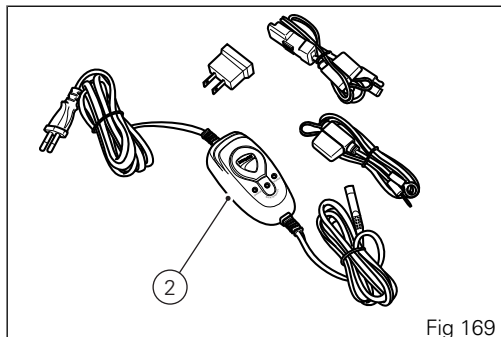


Fig 169



Important

If battery minimum voltage is not ensured by a suitable battery charge maintainer, sulfation may occur. This is irreversible and will lead to decreasing battery performance.



Note

When the motorcycle is left unused (approximately for more than 30 days). We recommend owners to use the Ducati battery charge maintainer (Battery maintainer kit part no. 69924601A - various countries; Battery maintainer kit part no. 69924601AX - for Japan, China and Australia only) since its electronics monitors the battery voltage and features a maximum charge current of 1.5 Ah. Connect the maintainer to the diagnostics socket located in the rear end of the bike.



Note

Using charge maintainers not approved by Ducati could damage the electric system; vehicle warranty does not cover the battery if damaged due to failure to comply with the above indications, since it is considered as wrong maintenance.

Checking drive chain tension



Important

Have chain tension adjusted by a Ducati Dealer or Authorized Service Center.

With the motorcycle on its side stand, measure chain tension as follows: press with a finger in the center of the bottom run of the chain, release it and measure the distance (A) between the center of chain link pins and the swingarm aluminum part.

It must be: $A = 1.38 \div 1.46$ in ($35 \div 37$ mm).

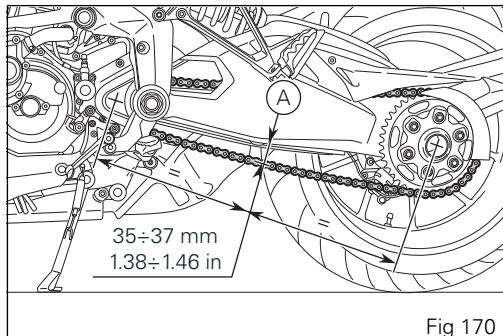


Fig 170



Attention

Correct tightening of swinging arm screws (1) is critical to rider and passenger safety.



Important

Improper chain tension will lead to rapid wear of transmission parts.

To access the screws (1), remove the rear gravel guards (2) and chain guard (3), unscrewing the three screws (4).

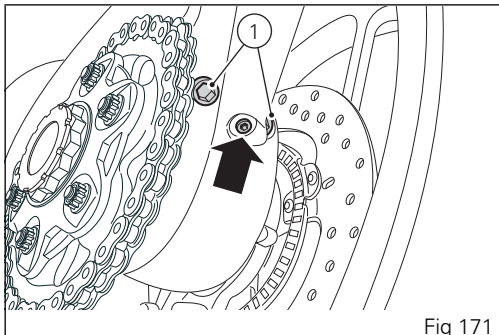


Fig 171

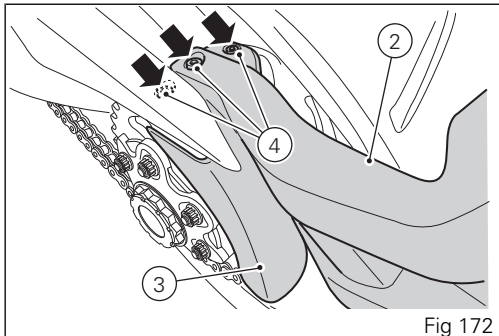


Fig 172

Chain lubrication

The chain fitted on your motorcycle has O-rings to protect its moving parts from dirt and to hold the lubricant inside.

The seals might be irreparably damaged if the chain is cleaned using any solvent other than those specific for O-ring chains or washed using steam or water cleaners.

After cleaning, blow the chain dry or dry it using absorbent material and apply SHELL Advance Chain or Advance Teflon Chain on each link.



Important

Using non-specific lubricants may lead to severe damage to chain, front and rear sprocket.

Using the supplied chain tension gauge

For a correct measure the bike must be placed on the side stand. Always check the chain correct tensioning in the point where it is stretched the most (repeat the gaging on more equidistant points of the chain).



Note

Chain tension changes according to the set Riding Mode. We recommend to carry out the gaging with load setting at Level 1 ("URBAN" Riding Mode and bike set on "RIDER ONLY").

Before proceeding lower the chain with your finger, release it and fit the instrument (1). The chain tensioning gage (1) must be inserted between the swingarm and the lower chain slider in correspondence of the slider central fixing point page 232.

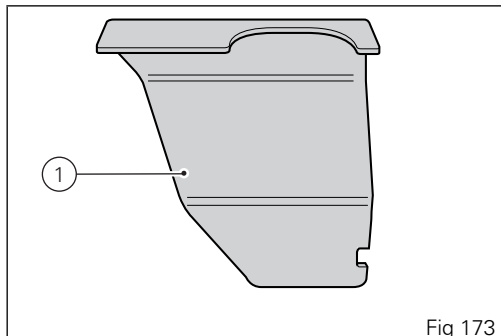


Fig 173

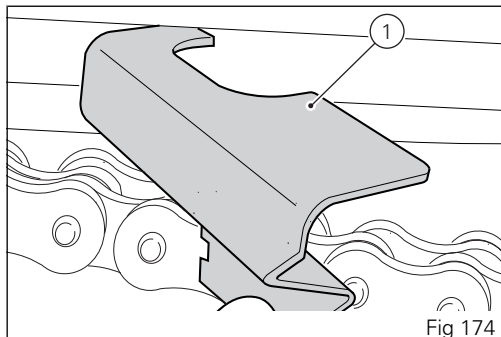


Fig 174

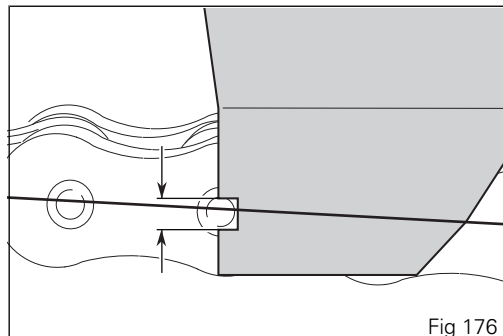
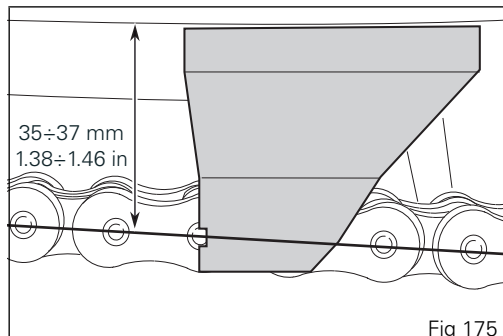
To detect the correct chain tensioning check the correspondence of the chain pins axle (black line in (Fig 175)), inside the reference notch on the chain tensioning gage (interval delimited by the arrows in (Fig 175)).

In case the chain pins are above or below such notch (Fig 176), you will have to tension the chain page 232.



Important

Have chain tension adjusted by a Ducati Dealer or Authorized Service Center.



Replacing the high and low beam bulbs

Before replacing a burnt-out bulb, make sure that the new one matches the voltage and wattage specifications in paragraph "Electric System". Always check that the bulb functions before reassembling removed parts.

(Fig 177) shows the locations of the parking light LED unit (1), low beam LED unit (2) and high beam lights (3).

To access the right or left side headlight bulbs, remove the corresponding panel, proceeding as follows.



Note

The figures show the replacement of the lights on the right side of the headlight: the procedure is the same for the left side ones.

Remove the panel cover (2).

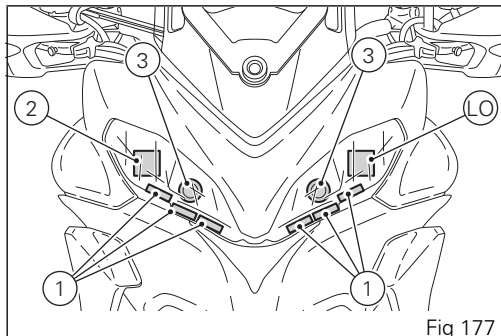


Fig 177

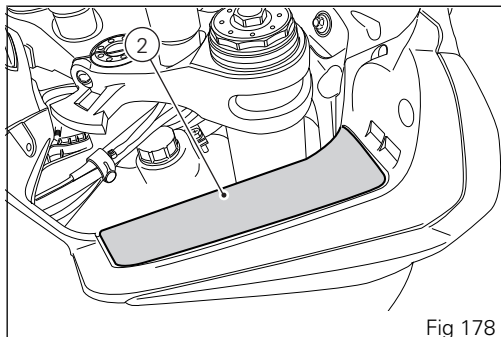


Fig 178

Unscrew the four screws (3) that fasten the panel (4) to headlight fairing. Remove the panel (4), lifting the rear part to unhook the tabs from the slots (A) in the headlight fairing.



Note

Do not touch the transparent part of the new bulb with the hands. This would cause it to blacken thereby reducing bulb brilliancy.

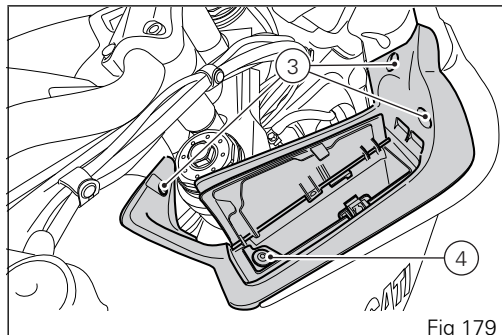


Fig 179

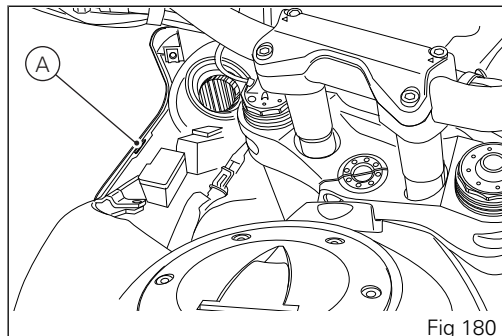


Fig 180

Detach the connector (5) from the bulb holder (6). Turn the bulb holder with the burnt-out bulb counterclockwise and remove it. Replace the bulb with an identical one.

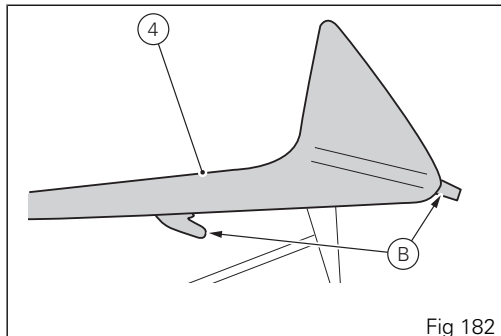
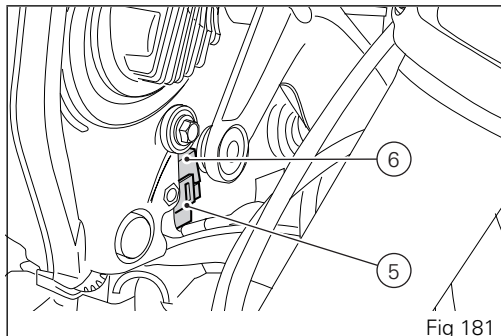
When refitting, turn the bulb holder (6) clockwise to lock it into the headlight body.

Reconnect the connector (5) and refit the panels (4) that were removed being careful to insert the tabs (B) into the slots A, (Fig 180) made in the headlight fairing.



Note

To replace the parking light LED bulb, contact an Authorized Ducati Service Center.



Rear turn indicators

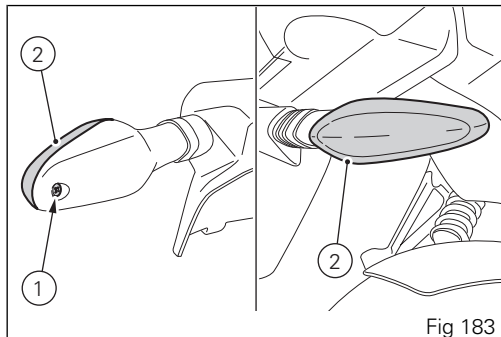
Loosen the screw (1) and detach the lens (2) from the turn signal support.

The bulb is the banjo-type: press and rotate counterclockwise to remove.

Fit the spare bulb by pressing and turning clockwise until it clicks.

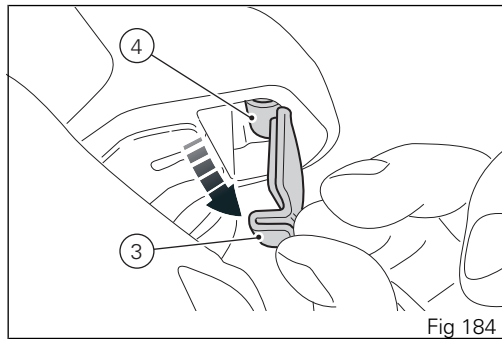
Refit the cup (2) by inserting the tab into the corresponding slot in the turn indicator support.

Refit and tighten the screw (1).



Number plate light

To access the bulb in the number plate light open the number plate lens (3), pull the bulb (4) out of the holder and replace it.



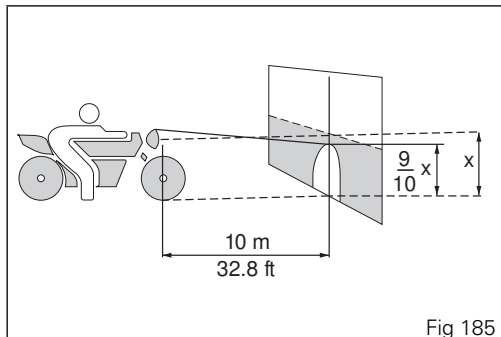
Beam setting



Note

The headlight features a double beam adjustment, one for the right beam and one for the left beam

To check the headlight aim, place the motorcycle upright with the tires inflated to the correct pressure and one person sitting astride the motorcycle. The motorcycle should be perfectly vertical, with its longitudinal axis at right angles to a wall or screen at a distance of 32.8 feet (10 meters). Draw a horizontal line corresponding to the center of the headlamp and a vertical one in line with the longitudinal axis of motorcycle. If possible, perform this check in dim light. Switch on the low beam and adjust the aiming of the left and right-hand beams. The height of the upper limit between the dark area and the lit area must not be more than nine tenths of the height from ground of headlight center.



Note

The procedure described here is in compliance with the Italian Standard establishing the maximum height of the light beam. Owners in other countries will adapt said procedure to the provisions in force in their countries.

Procedure for adjusting the low beam/high beam height

- 1) Switch on the low beam/high beam.
- 2) Fully cover and blank one of the two beams
- 3) Adjust the height of the visible beam by working the corresponding screw adjuster (1), i.e., the one located on the same side as the beam being adjusted. Turn the screw (1) of the headlight clockwise, the light beam will move downwards; turn it counterclockwise to move beam up.
- 4) Cover the adjusted beam and uncover the other one.
- 5) Adjust the height of the visible beam by working the corresponding screw adjuster (1), i.e., the one located on the same side as the beam being adjusted. Turn the screw (1) of the headlight clockwise, the light beam will move downwards; turn it counterclockwise to move beam up.

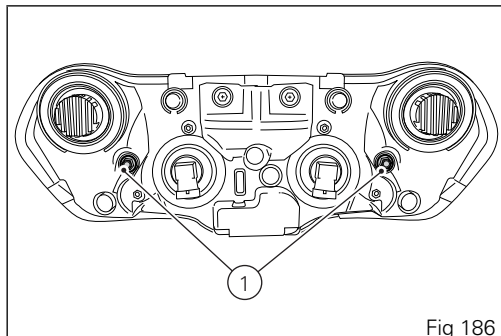


Fig 186

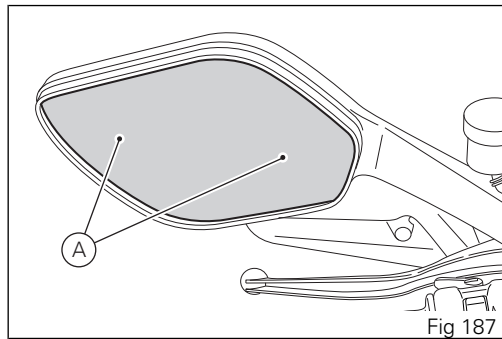


Attention

The headlight might fog up if the vehicle is used under the rain or after washing. Switch headlight on for a short time to dry up any condensate.

Rear-view mirror adjustment

The rearview mirror can be adjusted manually by pressing on points (A).



Tubeless tires

Front tire pressure:

2.50 bar (rider only) - 2.9 bar (with passenger and/or bags).

Rear tire pressure:

2.50 bar (rider only) - 2.9 bar (with passenger and/or bags).

Because tire pressure is affected by temperature and altitude variations, you are advised to check and adjust it whenever you are riding in areas where ample variations in temperature or altitude occur.



Important

Check and set tire pressure when tires are cold. To avoid front wheel rim distortion, when riding on bumpy roads, increase tire pressure by 0.2 - 0.3 bar.

tire repair or change (Tubeless tires)

In the event of a tiny puncture, tubeless tires will take a long time to deflate, as they tend to keep air inside. If you find the pressure low in one tire, check the tire for punctures.



Attention

Punctured tires must be replaced. Replace tires with recommended standard tires only. Be sure to tighten the valve caps securely to avoid leaks when riding. Never use tube type tires. Failure to heed this warning may lead to sudden tire blowout and serious danger to rider and passenger.

After replacing a tire, the wheel must be balanced.



Attention

Do not remove or shift the wheel balancing weights.



Note

Have the tires replaced at a Ducati Dealer or Authorized Service Center. Correct removal and installation of the wheels is essential. Some parts of the ABS (such as sensors and phonic wheels) are mounted to the wheels (ABS version) and require specific adjustment.



Attention

When changing the front wheel, the Ducati Dealer or authorized Service Center must follow the instructions given in the Workshop Manual concerning removal and installation of the front wheel shaft.

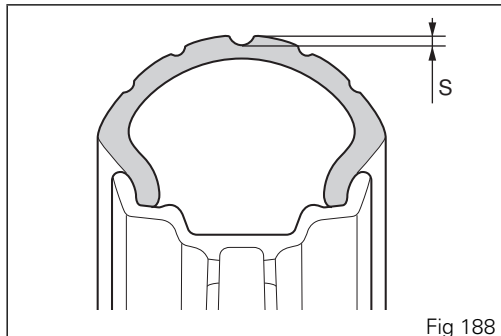
Minimum tread depth

Measure tread depth (S, Fig 188) at the point where tread is most worn down: it should not be less than 0.08 in (2 mm), and in any case not less than the legal limit.



Important

Visually inspect the tires at regular intervals for cracks and cuts, especially on sidewalls, bulges or large spots which are indicative of internal damage. Replace them if badly damaged. Remove any stones or other foreign bodies caught in the tread.



Check engine oil level

Check the engine oil level through the sight glass (1) on the clutch cover. Oil level must be checked with the motorcycle perfectly upright and the engine cold. Oil level should be between the marks on the sight glass. If the level is low, top up with SHELL Advance 4T Ultra engine oil. Remove the oil filler cap (2) and top up until the oil reaches the required level. Refit the plug.



Important

Engine oil and oil filters must be changed by a Ducati Dealer or Authorized Service Center at the intervals specified in the scheduled maintenance chart contained in the Warranty Booklet.

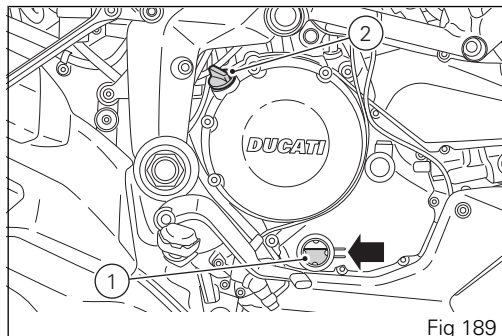
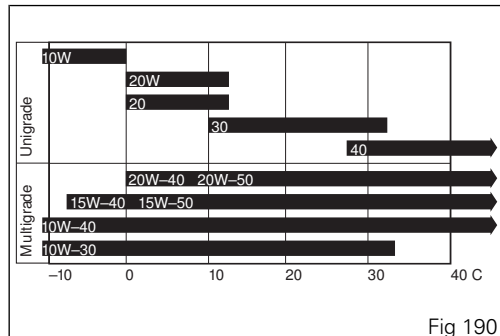


Fig 189

Viscosity

SAE 15W-50

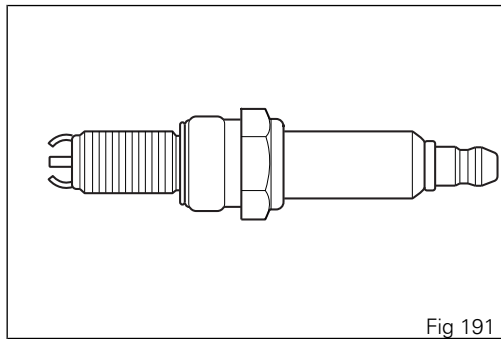
The other viscosity degrees indicated in the table can be used if the local average temperature is within the limits specified for that oil viscosity.



Cleaning and replacing the spark plugs

Spark plugs are essential to smooth engine running and should be checked at regular intervals.

Have the spark plug replaced at a Ducati Dealer or authorized Service Center.



Cleaning the motorcycle

To preserve the finish of metal parts and paintwork, wash and clean your motorcycle at regular intervals, anyway according to the road conditions you ride in. Use specific products only. Prefer biodegradable products. Avoid harsh detergents or solvents. Only use water and neutral soap to clean the Plexiglas and the seat.

Periodically manually clean all aluminum components. Use special detergents, suitable for aluminum parts FREE of abrasives or caustic soda.



Note

Do not use sponges with abrasive parts or steel wool; only use soft cloths.

In any case, the Warranty does not apply to motorcycles whenever poor maintenance status is ascertained.



Important

Do not wash your motorcycle right after use.

When the motorcycle is still hot, water drops will evaporate faster and spot hot surfaces.

Never clean the motorcycle using hot or high-pressure water jets.

Cleaning the motorcycle with a high pressure water jet may lead to seizure or serious faults in the front fork, wheel hub assembly, electric system, headlight (fogging), front fork seals, air inlets or exhaust mufflers, with resulting loss of compliance with safety requirements.

Clean off stubborn dirt or exceeding grease from engine parts using a degreasing agent. Be sure to avoid contact with drive parts (chain, sprockets, etc.).

Rinse with warm water and dry all surfaces with chamois leather.



Attention

Braking performance may be impaired immediately after washing the motorcycle. Never grease or lubricate the brake disks. Loss of braking and further accidents may occur. Clean the disks with an oil-free solvent.



Attention

The headlight might fog up due to washing, rain or moisture. Switch headlight on for a short time to dry up any condensate.

Carefully clean the phonic wheels of the ABS to ensure system efficiency. Do not use aggressive products in order to avoid damaging the phonic wheels and sensors.

Storing the motorcycle

If the motorcycle is to be left unriden over long periods, you should perform the following procedures before storing it away:

- clean the motorcycle;
- empty the fuel tank;
- pour a few drops of engine oil into the cylinders through the spark plug bores, then turn the engine over by hand a few times to form a protective film of oil on the inner walls of the cylinder;
- place the motorcycle on a service stand;
- disconnect and remove the battery.

If the motorcycle has been left unused for more than a month, the battery should be checked and recharged if necessary.

Protect the motorcycle with a specific motorcycle cover that will not damage the paintwork or retain moisture.

The canvas is available from Ducati Performance.

Important notes

Some countries, such as France, Germany, Great Britain, Switzerland, etc. have compulsory emission

and noise standards that include mandatory inspections at regular intervals.

Periodically carry out the required checks and replace parts as necessary using Ducati original spare parts to be in compliance with regulations in the given country.

Scheduled maintenance chart

Scheduled maintenance chart: operations to be performed by the Dealer

List of operations and type of intervention [set mileage (km/mi) or time interval *]	Km. x1000	1	12	24	36	48	Time (months)
	mi. x1000	0.6	7.5	15	22.5	30	
Reading of the error memory with DDS and check of Software version update on control units		•	•	•	•	•	12
Check whether there are technical updates and recall campaigns		•	•	•	•	•	12
Change engine oil and filter		•	•	•	•	•	12
Clean the engine oil intake filter		•					-
Check and/or adjust valve clearance				•		•	-
Replace the timing belts				•		•	60
Replace the spark plugs				•		•	-
Change the air filter				•		•	-
Check brake and clutch fluid level		•	•	•	•	•	12
Change brake and clutch fluid							36
Check brake disks and pad wear. Replace if necessary		•	•	•	•	•	12

List of operations and type of intervention [set mileage (km/mi) or time interval *]	Km. x1000 mi. x1000	1	12	24	36	48	Time (months)
		0.6	7.5	15	22.5	30	
Check tightening of the safety components (brake disc flange screws, brake caliper screws, front/rear wheel nuts, sprocket and final drive sprocket nuts)		●	●	●	●	●	12
Check and lubricate the rear wheel shaft				●		●	-
Check the drive chain tension and lubrication		●	●	●	●	●	12
Check final drive wear (chain, front and rear sprockets) and chain sliding shoes			●	●	●	●	12
Visually check the front fork and rear shock absorber seals		●	●	●	●	●	12
Change the front fork fluid					●		-
Check the freedom of movement and tightening of side and central stand (if installed)		●	●	●	●	●	12
Check rubbing points, clearance, freedom of movement and positioning of hoses and electric wiring in view		●	●	●	●	●	12
Checking the coolant level		●	●	●	●	●	12
Change the coolant						●	48
Check electric fan operation		●	●	●	●	●	12
Check tire pressure and wear		●	●	●	●	●	12

List of operations and type of intervention [set mileage (km/mi) or time interval *]	Km. x1000 mi. x1000	1	12	24	36	48	Time (months)
		0.6	7.5	15	22.5	30	
Check the battery charge level		●	●	●	●	●	12
Check idling		●	●	●	●	●	12
Check the operation of the safety electrical devices (side stand sensor, front and rear brake switches, engine stop switch, gear/neutral sensor)		●	●	●	●	●	12
Check the indicators and lighting		●	●	●	●	●	12
Reset Service indication through DDS		●	●	●	●	●	-
Road test of the motorcycle, testing the safety devices (ex. ABS and DTC)		●	●	●	●	●	12
Softly clean the motorcycle		●	●	●	●	●	12
Fill out that the service was performed in onboard documentation (Service Booklet)		●	●	●	●	●	12

Scheduled maintenance chart: operations to be performed by the customer

List of operations and type of intervention [set mileage (km/mi) or time interval *]	Km. x1000	1
	mi. x1000	0.6
	Months	6
Check engine oil level		●
Check brake and clutch fluid level		●
Check tire pressure and wear		●
Check the drive chain tension and lubrication		●
Check brake pads. If necessary, contact your dealer to replace pads		●

* Service on the set interval, whichever comes first (mileage or months).

Technical data

Weights

Weight in running order without fluids and battery:
427.7 lb (194 kg).

Carrying full load: 948 lb (430 kg).



Attention

Failure to observe weight limits could result in poor handling and impair the performance of your motorcycle, and may cause you to lose control of the motorcycle.



Attention

The maximum weight permitted for the side panniers, top case and the tank bag must never exceed 77 lb (35 kg), divided as follows:
22 lb (10 kg) max. per side pannier (1);
22 lb (10 kg) max. for the top case (2);
11 lb (5 kg) max. for the tank bag (3).

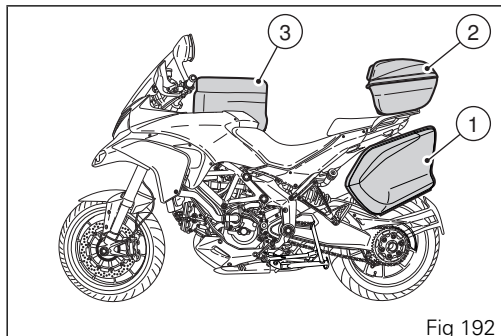


Fig 192

Overall dimensions (mm)

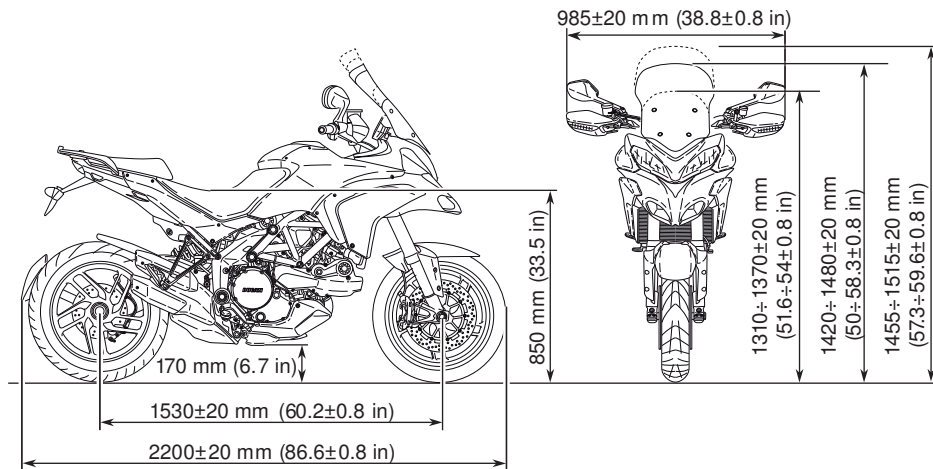


Fig 193

Top-ups

TOP-UPS	TYPE	
Fuel tank, including a reserve of 1.07 gallons (4 cu. dm (liters))	Unleaded fuel with a minimum octane rating of 90 (RON+MON)/2.	20.0 cu. dm (liters) 5.28 (gallon)
Sump and filter	SHELL - Advance 4T Ultra	4.10 cu. dm (liters) 1.07 (gallon)
Front/rear brake and clutch circuits	SHELL Advance Brake DOT 4	-
Protectant for electric contacts	SHELL Advance Contact Cleaner	-
Front fork	SHELL Advance Fork 7.5 or Donax TA	580 (g) - 20.46 (oz) 660 (cc) - 40.28 (cu in)
Cooling circuit	ENI Agip Permanent Spezial antifreeze (do not dilute, use pure)	2.3 cu. dm (liters) 0.61 (gallon)



Important

Do not use any additives in fuel or lubricants. Using them could result in severe damage of the engine and motorcycle components.



Attention

The vehicle is compatible only with fuel having a maximum content of ethanol of 10% (E10). Using fuel with ethanol content over 10% is prohibited. Using it could result in severe damage of the engine and motorcycle components. Using fuel with ethanol content over 10% will render the Warranty null and void.

Engine

Longitudinal 90° "L" twin cylinder, four-stroke.

Bore:

4.17 in (106 mm).

Stroke:

2.67 in (67.9 mm).

Total displacement, cu. cm:

1198.4.

Compression ratio:

11.5±0.5:1

Max power at crankshaft (95/1/EC), kW/HP:

110.3 kW/150 CV at 9,250 ^{rpm}.

Max torque at crankshaft (95/1/EC):

12.7 kgm/124.5 Nm at 7,500 ^{rpm}

Maximum rpm:

10,700.



Important

Do not exceed the specified rpm limits in any running conditions.

Timing system

DESMODROMIC with four valves per cylinder, operated by eight rocker arms (four opening rockers and four closing rockers) and two overhead camshafts. It is operated by the crankshaft through spur gears, belt rollers and toothed belts.

Desmodromic timing system

- 1) Opening (or upper) rocker
- 2) Opening rocker shim
- 3) Closing (or lower) rocker shim
- 4) Return spring for lower rocker
- 5) Closing (or lower) rocker
- 6) Camshaft
- 7) Valve.

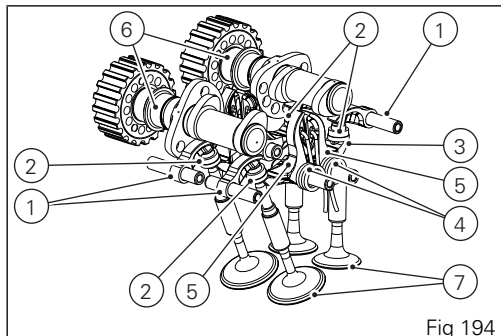


Fig 194

Performance data

Maximum speed in any gear should be reached only after a correct running-in period with the motorcycle properly serviced at the recommended intervals.



Important

Failure to follow these instructions will release Ducati Motor Holding S.p.A. from any liability for any engine damage or shortened engine life.

Spark plugs

Make:

NGK

Type:

MAR10A-J

Fuel system

MITSUBISHI indirect electronic injection.

Oval throttle body (corresponding diameter): 2.20 in (56 mm)

Injectors per cylinder: 1

Firing points per injector: 12

Fuel with a minimum octane rating of 90 (RON +MON)/2.



Attention

The vehicle is compatible only with fuel having a maximum content of ethanol of 10% (E10). Using fuel with ethanol content over 10% is prohibited. Using it could result in severe damage of the engine and motorcycle components. Using fuel with ethanol content over 10% will render the Warranty null and void.

Brakes

Separate-action anti-lock brake system operated by hall-type sensors mounted to each wheel with phonic wheel detection: ABS can be disabled.

FRONT

Semi-floating drilled twin-disc.

Braking material: steel.

Carrier material: aluminum

Disc diameter: 12.60 in (320 mm).

Hydraulically operated by a control lever on handlebar right-hand side.

Brake caliper make: BREMBO.

Type: P4-32 pistons.

Friction material: Toshiba TT 2172 HH.

Master cylinder type: PR18/19.

REAR

With fixed drilled steel disc.
Disc diameter: 9.65 in (245 mm).
Hydraulically operated by a pedal on RH side.
Make: BREMBO
Type: P34e pistons.
Friction material: FERIT I/D 450 FF.
Master cylinder type: PS 11.
2-piston fixed caliper, 0.94 in (34 mm) diameter.



Attention

The brake fluid used in the brake system is corrosive.
In the event of accidental contact with eyes or skin, wash the affected area with generous quantities of running water.

Transmission

Wet clutch controlled by the lever on left-hand side of the handlebar.
Drive is transmitted from engine to gearbox main shaft via spur gears.
Front chain sprocket/clutch gearwheel ratio: 33/61
6-speed gearbox with constant mesh gears, gear change pedal on left side of motorcycle.

Gearbox output sprocket/rear chain sprocket ratio:
15/40

Total gear ratios:

1st gear 15/37

2nd gear 17/30

3rd gear 20/27

4th gear 22/24

5th gear 24/23

6th gear 25/22

Drive chain from gearbox to rear wheel.

Make: REGINA

Type: 136ZRPB

Size: 5/8" x 1/16"

Links: 108



Important

The above gear ratios are the homologated ones and under no circumstances must they be modified.

However, if you wish to tune up your motorcycle for competitions or special tracks, Ducati Motor Holding S.p.A. will be pleased to provide information about the special ratios available. Contact a Ducati Dealer or Authorized Service Center.



Attention

If the rear sprocket needs replacing, contact a Ducati Dealer or authorized Service Center. Incorrect replacement of this component could seriously endanger rider and passenger safety and cause irreparable damage to the motorcycle.

Frame

ALS420 steel tubular trellis frame.

ALS 450 steel tube trellis frame rear subframe.

Die-cast light alloy connecting side plates, pivoted on the engine.

Steering head angle: 25°.

Wheels

Front

3-spoke, light-alloy rims.

Size: MT3.50x17"

Rear

3-spoke, light-alloy rims.

Size: MT6.00x17"

Both wheel shafts can be removed.

Tires

Front

Tubeless, radial tire.

Size: 120/70-ZR17

Rear

Tubeless, radial tire.

Size: 190/55-ZR17

Suspensions

Front

Hydraulic upside-down fork

The fork is adjusted by electric impulses sent by the instrument panel to the adjusters. Only the right-hand fork leg is equipped with external adjuster for setting the preload of the internal spring

Stanchion diameter:

48 mm.

Wheel travel: 6.69 in (170 mm).

Rear

The shock absorber is adjustable in rebound and compression and has remote control for spring preload. Its upper section is pivot-connected to the frame and the lower section is pivot-connected to a light alloy swingarm. The swingarm hinges on a pivot shaft that passes through the frame and engine. The whole system gives the bike excellent stability. Shock absorber stroke: 2.34 in (59.5 mm).

Rear wheel travel: 6.69 in (170 mm).



Note

The front fork and the rear shock absorber are adjusted by electric impulses sent by the instrument panel to the adjusters.

Exhaust system

One-piece stainless steel muffler with aluminum terminals.

Catalytic converter built into the muffler and lambda sensors on the exhaust pipes at the head outlet.

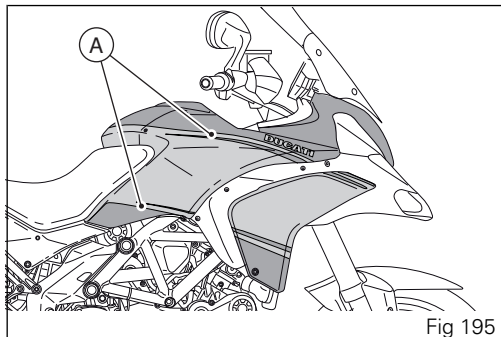
Available colors

Ducati Anniversary red 473.101 (PPG);
Tricolore White 929.D398(PALINAL);
Primer 490.019 (PPG);
Clear coat 228.880 (PPG);
red frame and black rims.



Important

Details (A) indicated in the figure are decals and not "White" paint.



Electrical system

Basic electric items are:

Headlight with:

low beam type: LED;

high beam bulb type: 2xH11 (12V-55W);

parking light type: LED.

Electrical controls on handlebars.

Turn indicators:

front: LED (9.8V- 2.2W);

rear: halogen bulb type RY10W amber (12V-10W).

Horn.

Brake light switches.

Sealed battery, 12V-10 A.

GENERATOR 12V-500W.

ELECTRONIC RECTIFIER, protected by a 30A fuse located on the solenoid starter, behind the battery (C, Fig 198).

Starter motor: 12V-0.7 kW.

Tail light and brake light: LED (13.5 V- 4.2 W/1.5 W).

Number plate light: bulb type: C5W (12-5W).



Note

For bulb replacement instructions, please refer to "Replacing the high and low beam bulbs".

Fuses

There are twelve fuses that protect the electric components located inside the front and rear fuse boxes, and one on the electric solenoid starter. There is a spare fuse in every box.

Refer to the table below to identify the circuits protected by the various fuses and their ratings.

The front fuse box (A, Fig 196) is located inside the left panel and can be accessed by removing the inspection cover. To expose the fuses, lift the box protective cover. Mounting position and ampere capacity are marked on box cover.

The rear fuse box (B, Fig 197) and ABS fuse box (C, Fig 197) are located on the right frame on the rear sub-frame, on the side of the ABS control unit. To reach the rear fuse box and ABS fuse box it is necessary to remove the rider seat, refer to page 191. To expose the fuses, remove the box protective cover. Mounting position and ampere capacity are marked on box cover.

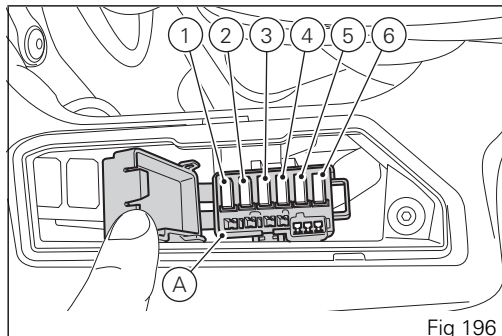


Fig 196

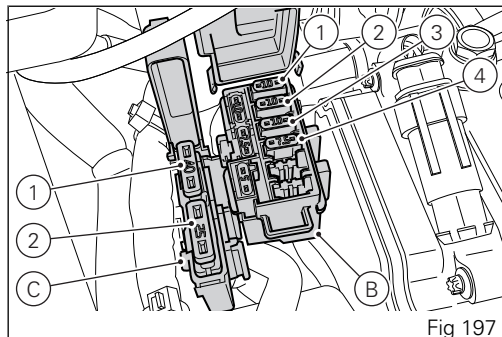


Fig 197

Front fuse box key		
Pos.	El. item	Rat.
1	Lights	20 A
2	Instrument panel	10 A
3	ECU	5 A
4	Key-sense	10 A
5	Injection solenoid	20 A
6	Throttle opening starter motor solenoid (ETV)	10 A

Rear fuse box key		
Pos.	El. item	Rat.
1	Black Box System (BBS)	10 A
2	BBS solenoid	10 A
3	Power outlets/navigation/alarms	10 A
4	Diagnosis	7.5 A

ABS fuse box key		
Pos.	El. item	Rat.
1	ABS 1	40 A
2	ABS 2	25 A

The main fuse (C), is positioned in front of the rear fuse box, on the solenoid starter (D). Remove the fuse cap (E) to reach it. A blown fuse is identified by the interrupted center link (F).



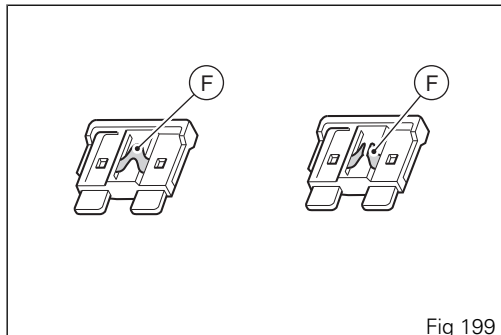
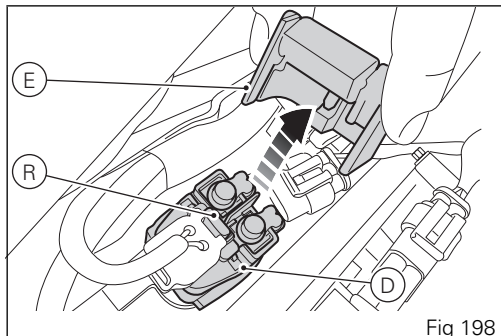
Important

To prevent short circuits, replace the fuse with Key switched to Off.



Attention

Never use a fuse with a rating other than specified. Failure to observe this rule may damage the electric system or even cause fire.



Injection /electric system diagram key

- 1) Right-hand switch
- 2) Immobilizer
- 3) Hands Free relay
- 4) Hands Free
- 5) Front fuse box
- 6) Right fan
- 7) Left fan
- 8) ABS fuse box
- 9) Fuel pump relay
- 10) Ride-by-wire relay (ETV)
- 11) Injection control unit (EMS)
- 12) Navigator
- 13) Left 12V power outlet
- 14) Right 12V power outlet
- 15) Rear fuse box
- 16) Data Acquisition/Diagnosis
- 17) Starter motor
- 18) Secondary air actuator
- 19) Fused solenoid
- 20) Battery
- 21) Wiring ground
- 22) Regulator
- 23) Generator
- 24) Fuel pump

- 25) Fuel level
- 26) Rear right turn indicator
- 27) Rear light
- 28) Rear left turn indicator
- 29) Rear wiring loom
- 30) Vehicle control unit (BBS)
- 31) Anti-theft alarm
- 32) Exhaust valve starter motor
- 33) Gear sensor
- 34) Rear speed sensor
- 35) ABS control unit
- 36) Throttle twistgrip position sensor (APS)
- 37) Potentiometer motor / ride-by-wire (TPS/ETV)
- 38) Timing/rpm sensor
- 39) Vertical MAP sensor
- 40) Horizontal MAP sensor
- 41) Engine temperature
- 42) Air temperature sensor
- 43) Vertical lambda sensor
- 44) Horizontal lambda sensor
- 45) Oil pressure switch
- 46) Rear stop
- 47) Side stand switch
- 48) Clutch switch
- 49) Front stop
- 50) Main vertical injector

- 51) Main horizontal injector
- 52) Horizontal coil
- 53) Vertical coil
- 54) Left-hand switch
- 55) Horn
- 56) Front speed sensor
- 57) Anti-theft alarm LED
- 58) Front left turn indicator
- 59) Instrument panel
- 60) Front right turn indicator
- 61) High beam relay
- 62) Low beam
- 63) Left high beam headlight
- 64) Right high beam headlight
- 65) -
- 66) Heated handgrip connector
- 67) Accelerometer 1 - front fork
- 68) Accelerometer 2 - front fork
- 69) Adjusting the front fork
- 70) Adjusting the rear suspension
- 71) Active suspension ECU
- 72) Accelerometer 3 - rear suspension
- 73) ABS serial line

Wire color coding

- B Blue
- W White
- V Violet
- Bk Black
- Y Yellow
- R Red
- Lb Light blue
- Gr Gray
- G Green
- Bn Brown
- O Orange
- P Pink



Note

The electric system wiring diagram is at the end of this manual.

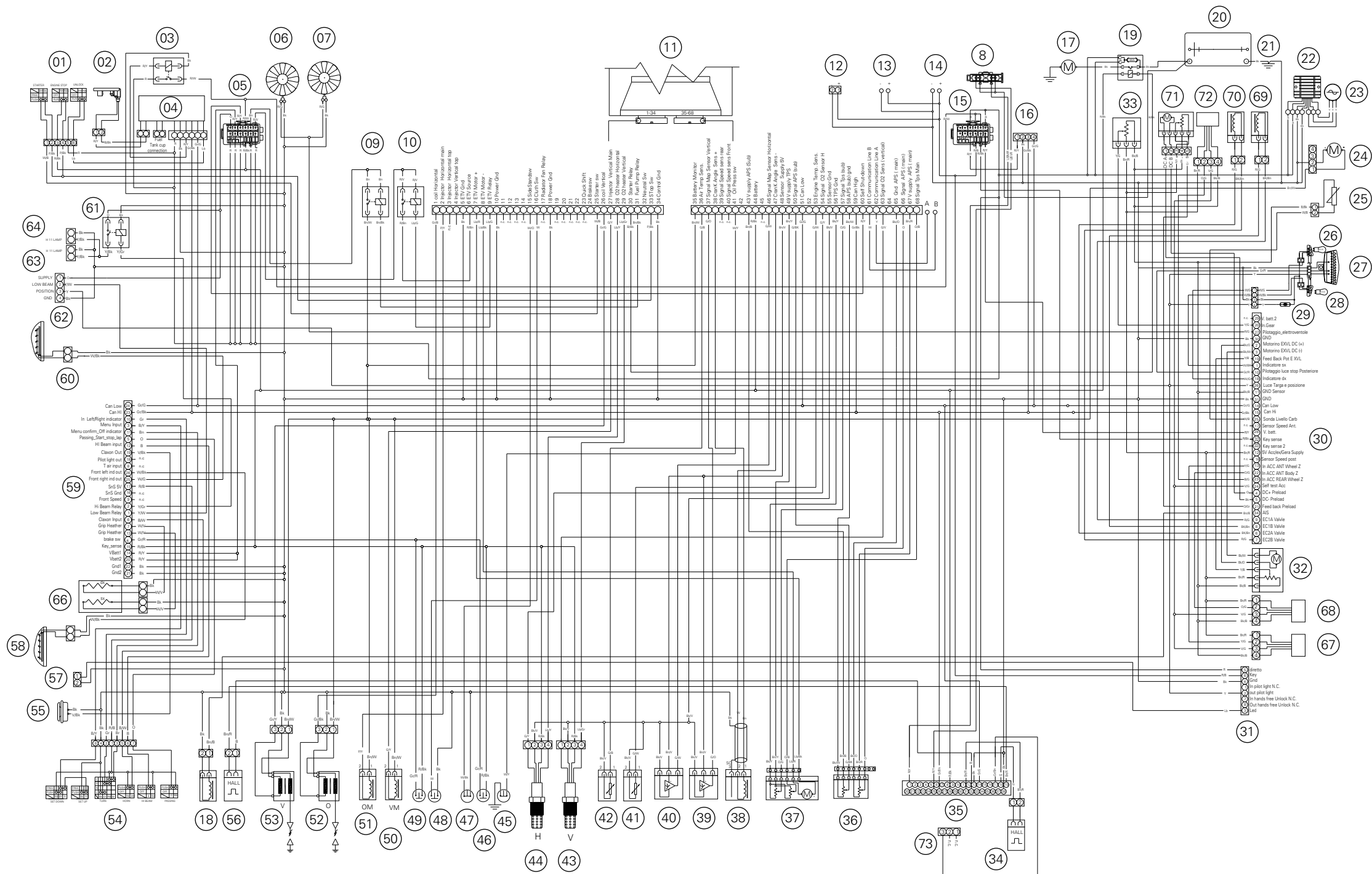
Routine maintenance record

Routine maintenance record

KM	MI	DUCATI SERVICE NAME	MILEAGE	DATE
1000	600			
12000	7500			
24000	15000			
36000	22500			
48000	30000			
60000	37500			

Stampato 07/2013

Cod. 913.7.248.1H



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