RedMoto

USE AND MAINTENANCE MANUAL

- CRF 250 R ENDURO
- CRF 300 R ENDURO
- CRF 450 R ENDURO
- CRF 500 R ENDURO
- CRF 250 X ENDURO
- CRF 300 X ENDURO
- CRF 450 X ENDURO
- CRF 500 X ENDURO

- CRF 450 R SUPERMOTARD
- CRF 500 R SUPERMOTARD
- CRF 450 X SUPERMOTARD
- CRF 500 X SUPERMOTARD

Read this manual thoroughly to fully understand the operation of the vehicle. The operation and maintenance manual is an integral part of the vehicle and shows only the information about the road components of the bike; for any other technical information please refer to the **HONDA USER MANUAL**.

Inside the **OPERATION AND MAINTENANCE** are included the instructions for operation, testing, maintenance of the vehicle and safety conditions to be met.

The company RedMoto SRL reserves all rights to make changes to its products without compromising functionality shown here. The company RedMoto SRL assumes no responsibility for any damage caused from misunderstanding of this manual.

For every misunderstanding and doubt please contact your dealer RedMoto trusted.

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FINAL NOTE

We need to give priority to safety and to compliance with the rules both for those who lead the motorcycle and for the world around them.
And 'therefore necessary to follow some useful tips such as:

- get to know the vehicle before using
- know the traffic rules
- learn about the maintenance status of the vehicle and its planned programs
- Use protective clothing and helmet
- Be familiar during the riding of the vehicle

Each RedMoto dealer is available to suit every need of the final consumer as:

- performing periodic maintenance
- supply and install spare parts and optional

The motorcycle is delivered in accordance with the legal limit in force in the European community, therefore the user of the vehicle is required to carry out compliance audits to comply with anti-noise and anti-pollution.

To drive this motorcycle is necessary to meet the legal requirements (minimum age, insurance, license plate, state taxes).

Make sure you are psycho - physically fit to drive, avoid taking alcohol, drugs or psychotropic substances.

Know the signs and local traffic regulations is a prerequisite for driving the motorcycle.

When you are driving evaluate conditions: visibility, road grip, traffic, presence of obstacles. Respect and maintain the safety distances.

Lead the motorcycle in the correct riding position, adjust the handlebars and controls in order to avoid fatigue driving.

Eat, drink, read, use the phone, operations are highly discouraged when driving.

In case of damage caused by accidents or falls, it is necessary that one RedMoto dealer analyze the overall condition of the vehicle and check that there are no damages that compromise the general use of the medium and its security.

According to the rules of the road it is strictly forbidden to change the position, angle, and color of the plate, lights, horn and turn signals system.
No modifications are finalized to enhance and / or lighten the vehicle.
Always refer to the laws and regulations regarding the equipment of the vehicle.

Tampering and modifications to the original motorcycle will affect the operation, the warranty will lapse and consequently decrease the overall safety of the vehicle and may no longer be suitable for use on public roads.

RANGE OF VEHICLES

ENDURO

- CRF 250 R ENDURO
- CRF 300 R ENDURO
- CRF 450 R ENDURO
- CRF 500 R ENDURO
- CRF 250 X ENDURO
- CRF 300 X ENDURO
- CRF 450 X ENDURO
- CRF 500 X ENDURO

SUPERMOTARD

- CRF 450 R SUPERMOTARD
- CRF 500 R SUPERMOTARD
- CRF 450 X SUPERMOTARD
- CRF 500 X SUPERMOTARD

RANGE OF VEHICLES – CRF 250-300 R ENDURO

RANGE OF VEHICLES – CRF 450-500 R ENDURO

RANGE OF VEHICLES – CRF 250-300 X ENDURO

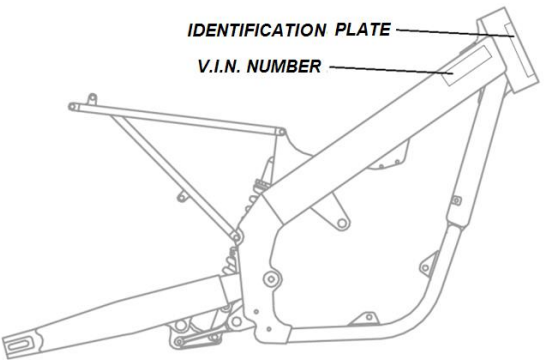
RANGE OF VEHICLES – CRF 450-500 X ENDURO

RANGE OF VEHICLES – CRF 450-500 R SUPERMOTARD

RANGE OF VEHICLES – CRF 450-500 X SUPERMOTARD

TABLE OF VEHICLE

The identification information of the vehicle are important to register the vehicle, you can ensure to get the correct spare parts and a possible complaint of theft of the vehicle itself.



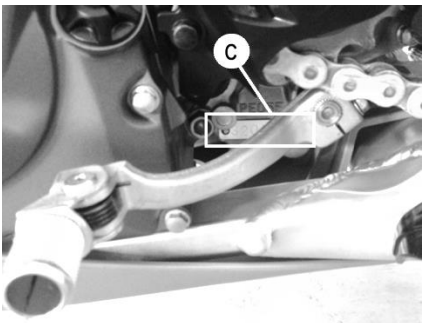
Tampering or alteration of such data may be committing a serious criminal and administrative penalties, and also results in the immediate loss of guarantee.

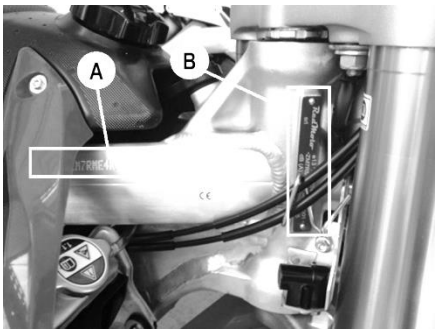
(A) Vehicle identification number:

V.I.N. It is stamped into the frame, the frame right side, in the vicinity of the headstock

(B) Model plate: it is located on the steering tube right side

(C) Engine number: stamped on the base of crankcase lower left side





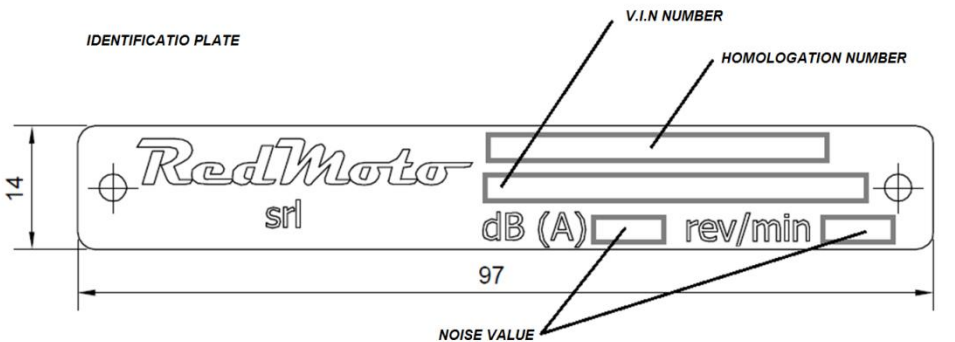
Report the information from your vehicle in the following spaces:

V.I.N. | | | | | | | | | | | | | | | | |

ENGINE NUMBER | | | | | | | |

Identification Plate

We list below the description of the summary information on the identification plate of the vehicle. We recommend photocopying this part of the manual correctly filled with VIN and engine number and keep it together with a copy of the keys lock, separate from the vehicle.



Description of the information contained in the VIN (frame number)

1	**Z**	International manufacturer number
2	**M**	
3	**7**	
4	**R**	Type: RMD Type: RME
5	**M**	
6	**E**	
7	**2**	Engine Displacement: 2=250, 3=300, 4=450, 5=500
8	**R**	Model: R, X
9	**0**	Free character
10	**E**	Type: M=supermotard, E=enduro
11	**E**	Manufacturing year: D=2013, E=2014, F=2015…….
12	**5**	Model Year: 0=2010, 1=2011, 2=2012, 3=2013, 4=2014, 5=2015……
13	**0**	Frame progressive number
14	**0**	
15	**0**	
16	**0**	
17	**1**	

TECNICHAL SPECIFICATION – CRF 250 R ENDURO

ENGINE AND WIRING SYSTEM

Type	Single cilynder, 4 stroke, liquid cooled, Unicam 4 valves	
Displacement (Bore x Stroke)	249.4 cc (76.8 x 53.8 mm)	
Compression Ratio	13.8 : 1	
Max. Power	FULL POWER 29.4 KW (40) CV @ 11.500 rpm	HOMOLOGATED 15.0 KW (20.4) CV @ 5.600 rpm
Max. Torque	FULL POWER 27.1 Nm @ 9.000 rpm	HOMOLOGATED 26.0 Nm @ 4.500 rpm
Induction System	Electronic Fuel Injection PGM-FI	
Ignition, Starter	Full Transistor with electronic advance, Kick starter	

FRAME AND SUSPENSION

Type	6° generation, Twin beam aluminium frame
Dimension (LxLxA)	2.183 x 827 x 1.271 mm
Rake (Caster Angle)	27°23’
Front Wheel trail	117 mm
Seat Height, Ground clearance	951 mm 322mm
Fuel tank capacity	6.3 l
Curb Weight	108.7 kg
Front Suspension	49 mm inverted Showa Fork SSF AIR TAC, 310mm travel
Rear Suspension	Pro link single Showa, 317.6mm travel

TRANSMISSION, BRAKE, WHEEL

Clutch	Multi disc wet clutch
Gear Box	Five – speed, close-ratio
Final drive	Roller O-ring Chain
Front tire	90/90 – 21
Rear tire	140/80 – 18
Front brake	Single disc wave 260 mm x 3 mm with twin-piston caliper and sintered metal pads
Rear brake	Single disc wave 240 mm x 4 mm with single-piston caliper and sintered metal pads

TECNICHAL SPECIFICATION – CRF 300 R ENDURO

ENGINE AND WIRING SYSTEM

Type	Single cilynder, 4 stroke, liquid cooled, Unicam 4 valves	
Displacement (Bore x Stroke)	291 cc (83.0 x 53.8 mm)	
Compression Ratio	13.5 : 1	
Max. Power	FULL POWER 30.2 KW (41) CV @ 11.500 rpm	HOMOLOGATED 15.0 KW (20.4) CV @ 5.600 rpm
Max. Torque	FULL POWER 27.9 Nm @ 8.900 rpm	HOMOLOGATED 26.0 Nm @ 4.500 rpm
Injection system	Electronic Fuel Injection PGM-FI	
Electronic, Starter	Full Transistor with electronic advance, Kick starter	

FRAME AND SUSPENSION

Type	6° generation, Twin beam aluminium frame
Dimension (LxLxA)	2.183 x 827 x 1.271 mm
Rake (Caster Angle)	27°23’
Front Wheel trail	117 mm
Seat Height, Ground clearance	951 mm 322mm
Fuel tank capacity	6.3 l
Curb Weight	108.7 kg
Front Suspension	49 mm inverted Showa Fork SSF AIR TAC, 310mm travel
Rear Suspension	Pro link single Showa, 317.6mm travel

TRANSMISSION, BRAKE, WHEEL

Clutch	Multi disc wet clutch
Gear Box	Five–speed, close-ratio
Final drive	Roller O-ring Chain
Front tire	90/90 – 21
Rear tire	140/80 – 18
Front brake	Single disc wave 260 mm x 3 mm with twin-piston caliper and sintered metal pads
Rear brake	Single disc wave 240 mm x 4 mm with single-piston caliper and sintered metal pads

TECNICHAL SPECIFICATION – CRF 450 R ENDURO

ENGINE AND WIRING SYSTEM

Type	Single cilynder, 4 stroke, liquid cooled, Unicam 4 valves
Displacement (Bore x Stroke)	449,7 cc (96.0 x 62.1 mm)
Compression Ratio	12.5 : 1
Max. Power	FULL POWER 39.5 KW (53.7) CV @ 9.000 rpm HOMOLOGATED 20.7 KW (28.2) CV @ 6.750 rpm
Max. Torque	FULL POWER 48.0 Nm @ 7.000 rpm HOMOLOGATED 29.0 Nm @ 6.000 rpm
Injection system	Electronic Fuel Injection PGM-FI
Electronic, Starter	Full Transistor with electronic advance, Kick starter

FRAME AND SUSPENSION

Type	6° generation, Twin beam aluminium frame
Dimension (LxLxA)	2.200 x 827 x 1.277 mm
Rake (Caster Angle)	27°15’
Front Wheel trail	117 mm
Seat Height, Ground clearance	955 mm 332mm
Fuel tank capacity	6.3 l
Curb Weight	114kg
Front Suspension	48 mm inverted Kayaba PFS2 air fork, 310mm travel
Rear Suspension	Pro-link single Kayaba, 315 mm travel

TRANSMISSION, BRAKE, WHEEL

Clutch	Multi disc wet clutch
Gear Box	Five–speed, close-ratio
Final drive	Roller O-ring Chain
Front tire	90/90 – 21
Rear tire	140/80 – 18
Front brake	Single disc wave 260 mm x 3 mm with twin-piston caliper and sintered metal pads
Rear brake	Single disc wave 240 mm x 4 mm with single-piston caliper and sintered metal pads

TECNICHAL SPECIFICATION – CRF 500 R ENDURO

ENGINE AND WIRING SYSTEM

Type	Single cilynder, 4 stroke, liquid cooled, Unicam 4 valves
Displacement (Bore x Stroke)	477,8 cc (99.0 x 62.1 mm)
Compression Ratio	12.5 : 1
Max. Power	FULL POWER 40.7 KW (55.3) CV @ 9.000 rpm HOMOLOGATED 18.7 KW (25.4) CV @ 6.500 rpm
Max. Torque	FULL POWER 49.0 Nm @ 6.800 rpm HOMOLOGATED 28.0 Nm @ 6.000 rpm
Injection system	Electronic Fuel Injection PGM-FI
Electronic, Starter	Full Transistor with electronic advance, Kick starter

FRAME AND SUSPENSION

Type	6° generation, Twin beam aluminium frame
Dimension (LxLxA)	2.200 x 827 x 1.277 mm
Rake (Caster Angle)	27°15'
Front Wheel trail	117 mm
Seat Height, Ground clearance	955 mm 332mm
Fuel tank capacity	6.3 l
Curb Weight	114kg
Front Suspension	48 mm inverted Kayaba PFS2 air fork, 310mm travel
Rear Suspension	Pro-link single Kayaba, 315 mm travel

TRANSMISSION, BRAKE, WHEEL

Clutch	Multi disc wet clutch
Gear Box	Five–speed, close-ratio
Final drive	Roller O-ring Chain
Front tire	90/90 – 21
Rear tire	140/80 – 18
Front brake	Single disc wave 260 mm x 3 mm with twin-piston caliper and sintered metal pads
Rear brake	Single disc wave 240 mm x 4 mm with single-piston caliper and sintered metal pads

TECNICHAL SPECIFICATION – CRF 250 X ENDURO

ENGINE AND WIRING SYSTEM

Type	Single cilynder, 4 stroke, liquid cooled, Unicam 4 valves
Displacement (Bore x Stroke)	249.4 cc (78 x 52.2 mm)
Compression Ratio	12.9 : 1
Max. Power	FULL POWER 21.9 KW (29.8) CV @ 9.000 rpm HOMOLOGATED 16.0 KW (21.8) CV @ 7.500 rpm
Max. Torque	FULL POWER 24.2 Nm @ 8.000 rpm HOMOLOGATED 21.5 Nm @ 6.000 rpm
Injection system	Keihin FCR carburetor, 37 mm flat valve with TPS sensor
Electronic, Starter	Computer controlled digital capacitor discharge with electronic advance

FRAME AND SUSPENSION

Type	Twin beam aluminium frame
Dimension (LxLxA)	2.174 x 827 x 1.261 mm
Rake (Caster Angle)	27°54'
Front Wheel trail	118 mm
Seat Height, Ground clearance	958 mm 346 mm
Fuel tank capacity	7,3 l
Curb Weight	115kg
Front Suspension	47 mm Showa inverted leading – axle twin chamber cartridges type fork
Rear Suspension	Pro-Link single Showa adjustable damper

TRANSMISSION, BRAKE, WHEEL

Clutch	Multi disc wet clutch
Gear Box	Five–speed, close-ratio
Final drive	Roller O-ring Chain
Front tire	90/90 – 21
Rear tire	140/80 – 18
Front brake	Single disc wave 240 mm x 3 mm with twin-piston caliper and sintered metal pads
Rear brake	Single disc wave 240 mm x 4 mm with single-piston caliper and sintered metal pads

TECNICHAL SPECIFICATION – CRF 300 X ENDURO

ENGINE AND WIRING SYSTEM

Type	Single cilynder, 4 stroke, liquid cooled, Unicam 4 valves
Displacement (Bore x Stroke)	296 cc (85 x 52.2 mm)
Compression Ratio	13.1 : 1
Max. Power	FULL POWER 22.5 KW (30.6) CV @ 9.000 rpm HOMOLOGATED 13.3 KW (18.1) CV @ 7.750 rpm
Max. Torque	FULL POWER 25.0 Nm @ 7.900 rpm HOMOLOGATED 18.9 Nm @ 5.750 rpm
Injection system	Keihin FCR carburetor, 37 mm flat valve with TPS sensor
Electronic, Starter	Computer controlled digital capacitor discharge with electronic advance

FRAME AND SUSPENSION

Type	Twin beam aluminium frame
Dimension (LxLxA)	2.174 x 827 x 1.261 mm
Rake (Caster Angle)	27°54’
Front Wheel trail	118 mm
Seat Height, Ground clearance	958 mm 346 mm
Fuel tank capacity	7,3 l
Curb Weight	115kg
Front Suspension	47 mm Showa inverted leading – axle twin chamber cartridges type fork
Rear Suspension	Pro-Link single Showa adjustable damper

TRANSMISSION, BRAKE, WHEEL

Clutch	Multi disc wet clutch
Gear Box	Five–speed, close-ratio
Final drive	Roller O-ring Chain
Front tire	90/90 – 21
Rear tire	140/80 – 18
Front brake	Single disc wave 240 mm x 3 mm with twin-piston caliper and sintered metal pads
Rear brake	Single disc wave 240 mm x 4 mm with single-piston caliper and sintered metal pads

TECNICHAL SPECIFICATION – CRF 450 X ENDURO

ENGINE AND WIRING SYSTEM

Type	Single cilynder, 4 stroke, liquid cooled, Unicam 4 valves
Displacement (Bore x Stroke)	449 cc (96.0 x 62.1 mm)
Compression Ratio	12.0 : 1
Max. Power	FULL POWER 33.2 KW (45.2) CV @ 7.500 rpm HOMOLOGATED 19.1 KW (26.0) CV @ 7.500 rpm
Max. Torque	FULL POWER 43.1 Nm @ 7.000 rpm HOMOLOGATED 29.1 Nm @ 4.500 rpm
Injection system	Keihin FCR carburetor, 37 mm flat valve with TPS sensor
Electronic, Starter	Computer controlled digital capacitor discharge with electronic advance

FRAME AND SUSPENSION

Type	Twin beam aluminium frame
Dimension (LxLxA)	2.178 x 821 x 1.273 mm
Rake (Caster Angle)	27°03’
Front Wheel trail	114.7 mm
Seat Height, Ground clearance	963 mm 345 mm
Fuel tank capacity	7,2 l
Curb Weight	121kg
Front Suspension	47 mm Showa inverted leading – axle twin chamber cartridges type fork
Rear Suspension	Pro-Link single Showa adjustable damper

TRANSMISSION, BRAKE, WHEEL

Clutch	Multi disc wet clutch
Gear Box	Five–speed, close-ratio
Final drive	Roller O-ring Chain
Front tire	90/90 – 21
Rear tire	140/80 – 18
Front brake	Single disc wave 240 mm x 3 mm with twin-piston caliper and sintered metal pads
Rear brake	Single disc wave 240 mm x 4 mm with single-piston caliper and sintered metal pads

TECNICHAL SPECIFICATION – CRF 500 X ENDURO

ENGINE AND WIRING SYSTEM

Type	Single cilynder, 4 stroke, liquid cooled, Unicam 4 valves
Displacement (Bore x Stroke)	487.5 cc (100.0 x 62.1 mm)
Compression Ratio	12.0 : 1
Max. Power	FULL POWER 34.0 KW (46.2) CV @ 7.400 rpm HOMOLOGATED 16.4 KW (22.3) CV @ 7.500 rpm
Max. Torque	FULL POWER 43.5 Nm @ 6.900 rpm HOMOLOGATED 26.5 Nm @ 5.500 rpm
Injection system	Keihin FCR carburetor, 40 mm flat valve with TPS sensor
Electronic, Starter	Computer controlled digital capacitor discharge with electronic advance

FRAME AND SUSPENSION

Type	Twin beam aluminium frame
Dimension (LxLxA)	2.178 x 821 x 1.273 mm
Rake (Caster Angle)	27°03’
Front Wheel trail	114.7 mm
Seat Height, Ground clearance	963 mm 345 mm
Fuel tank capacity	7,2 l
Curb Weight	121kg
Front Suspension	47 mm Showa inverted leading – axle twin chamber cartridges type fork
Rear Suspension	Pro-Link single Showa adjustable damper

TRANSMISSION, BRAKE, WHEEL

Clutch	Multi disc wet clutch
Gear Box	Five–speed, close-ratio
Final drive	Roller O-ring Chain
Front tire	90/90 – 21
Rear tire	140/80 – 18
Front brake	Single disc wave 240 mm x 3 mm with twin-piston caliper and sintered metal pads
Rear brake	Single disc wave 240 mm x 4 mm with single-piston caliper and sintered metal pads

TECNICHAL SPECIFICATION – CRF 450 R SUPERMOTARD

ENGINE AND WIRING SYSTEM

Type	Single cilynder, 4 stroke, liquid cooled, Unicam 4 valves
Displacement (Bore x Stroke)	449,7 cc (96.0 x 62.1 mm)
Compression Ratio	12.5 : 1
Max. Power	FULL POWER 39.5 KW (53.7) CV @ 9.000 rpm HOMOLOGATED 20.7 KW (28.2) CV @ 6.750 rpm
Max. Torque	FULL POWER 48.0 Nm @ 7.000 rpm HOMOLOGATED 29.0 Nm @ 6.000 rpm
Injection system	Electronic Fuel Injection PGM-FI
Electronic, Starter	Full Transistor with electronic advance, Kick starter

FRAME AND SUSPENSION

Type	6° generation, Twin beam aluminium frame
Dimension (LxLxA)	2.151 x 827 x 1.271 mm
Rake (Caster Angle)	27°15’
Front Wheel trail	117 mm
Seat Height, Ground clearance	949 mm 326 mm
Fuel tank capacity	6.3 l
Curb Weight	117kg
Front Suspension	48 mm inverted Kayaba PFS2 air fork, 310mm travel
Rear Suspension	Mono Ammortizzatore Kayaba con Honda Pro-Link escursione 315mm corsa 133.5

TRANSMISSION, BRAKE, WHEEL

Clutch	Multi disc wet clutch
Gear Box	Five–speed, close-ratio
Final drive	Roller O-ring Chain
Front tire	120/70 – 17
Rear tire	150/60 – 17
Front brake	Single disc wave 320 mm x 5 mm with 4 piston radial caliper and sintered metal pads
Rear brake	Single disc wave 240 mm x 4 mm with single-piston caliper and sintered metal pads

TECNICHAL SPECIFICATION – CRF 500 R SUPERMOTARD

ENGINE AND WIRING SYSTEM

Type	Single cilynder, 4 stroke, liquid cooled, Unicam 4 valves
Displacement (Bore x Stroke)	477,8 cc (99.0 x 62.1 mm)
Compression Ratio	12.5 : 1
Max. Power	FULL POWER 40.7 KW (55.3) CV @ 9.000 rpm HOMOLOGATED 18.7 KW (25.4) CV @ 6.500 rpm
Max. Torque	FULL POWER 49.0 Nm @ 6.800 rpm HOMOLOGATED 28.0 Nm @ 6.000 rpm
Injection system	Electronic Fuel Injection PGM-FI
Electronic, Starter	Full Transistor with electronic advance, Kick starter

FRAME AND SUSPENSION

Type	6° generation, Twin beam aluminium frame
Dimension (LxLxA)	2.151 x 827 x 1.271 mm
Rake (Caster Angle)	27°15'
Front Wheel trail	117 mm
Seat Height, Ground clearance	949 mm 326 mm
Fuel tank capacity	6.3 l
Curb Weight	117kg
Front Suspension	48 mm inverted Kayaba PFS2 air fork, 310mm travel
Rear Suspension	Mono Ammortizzatore Kayaba con Honda Pro-Link escursione 315mm corsa 133.5

TRANSMISSION, BRAKE, WHEEL

Clutch	Multi disc wet clutch
Gear Box	Five–speed, close-ratio
Final drive	Roller O-ring Chain
Front tire	120/70 – 17
Rear tire	150/60 – 17
Front brake	Single disc wave 320 mm x 5 mm with 4 piston radial caliper and sintered metal pads
Rear brake	Single disc wave 240 mm x 4 mm with single-piston caliper and sintered metal pads

TECNICHAL SPECIFICATION – CRF 450 X SUPERMOTARD

ENGINE AND WIRING SYSTEM

Type	Single cilynder, 4 stroke, liquid cooled, Unicam 4 valves
Displacement (Bore x Stroke)	449 cc (96.0 x 62.1 mm)
Compression Ratio	12.0 : 1
Max. Power	FULL POWER 33.2 KW (45) CV @ 7.500 rpm HOMOLOGATED 19.1 KW (26.0) CV @ 7.500 rpm
Max. Torque	FULL POWER 43.1 Nm @ 7.000 rpm HOMOLOGATED 29.1 Nm @ 4.500 rpm
Injection system	Keihin FCR carburetor, 40 mm flat valve with TPS sensor
Electronic, Starter	Computer controlled digital capacitor discharge with electronic advance

FRAME AND SUSPENSION

Type	Twin beam aluminium frame
Dimension (LxLxA)	2.128 x 821 x 1.273 mm
Rake (Caster Angle)	27°03’
Front Wheel trail	114.7 mm
Seat Height, Ground clearance	959 mm 341 mm
Fuel tank capacity	7,2 l
Curb Weight	124kg
Front Suspension	47 mm Showa inverted leading – axle twin chamber cartridges type fork
Rear Suspension	Pro-Link single Showa adjustable damper

TRANSMISSION, BRAKE, WHEEL

Clutch	Multi disc wet clutch
Gear Box	Five–speed, close-ratio
Final drive	Roller O-ring Chain
Front tire	120/70 – 17
Rear tire	150/60 – 17
Front brake	Single disc wave 320 mm x 5 mm with 4 piston radial caliper and sintered metal pads
Rear brake	Single disc wave 240 mm x 4 mm with single-piston caliper and sintered metal pads

TECNICHAL SPECIFICATION – CRF 500 X SUPERMOTARD

ENGINE AND WIRING SYSTEM

Type	Single cilynder, 4 stroke, liquid cooled, Unicam 4 valves
Displacement (Bore x Stroke)	487.5 cc (100.0 x 62.1 mm)
Compression Ratio	12.0 : 1
Max. Power	FULL POWER 34.0 KW (46.2) CV @ 7.400 rpm HOMOLOGATED 16.4 KW (22.3) CV @ 7.500 rpm
Max. Torque	FULL POWER 43.5 Nm @ 6.900 rpm HOMOLOGATED 26.5 Nm @ 5.500 rpm
Injection system	Keihin FCR carburetor, 40 mm flat valve with TPS sensor
Electronic, Starter	Computer controlled digital capacitor discharge with electronic advance

FRAME AND SUSPENSION

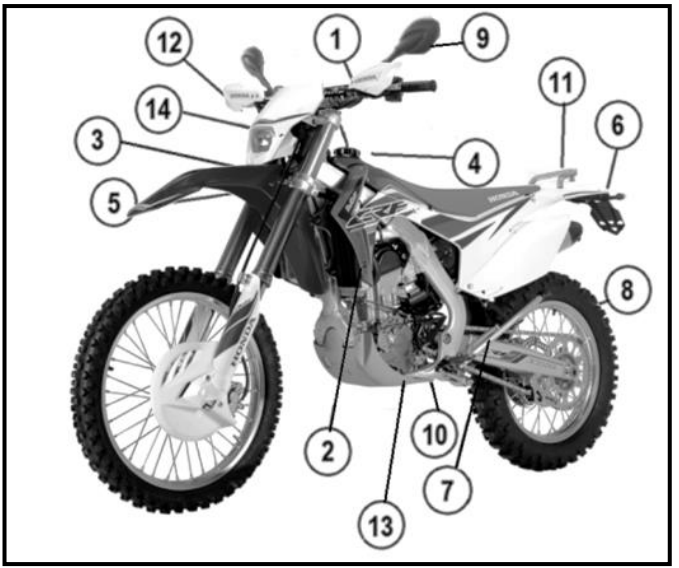
Type	Twin beam aluminium frame
Dimension (LxLxA)	2.128 x 821 x 1.273 mm
Rake (Caster Angle)	27°03’
Front Wheel trail	114.7 mm
Seat Height, Ground clearance	959 mm 341 mm
Fuel tank capacity	7,2 l
Curb Weight	124kg
Front Suspension	47 mm Showa inverted leading – axle twin chamber cartridges type fork
Rear Suspension	Pro-Link single Showa adjustable damper

TRANSMISSION, BRAKE, WHEEL

Clutch	Multi disc wet clutch
Gear Box	Five–speed, close-ratio
Final drive	Roller O-ring Chain
Front tire	120/70 – 17
Rear tire	150/60 – 17
Front brake	Single disc wave 320 mm x 5 mm with 4 piston radial caliper and sintered metal pads
Rear brake	Single disc wave 240 mm x 4 mm with single-piston caliper and sintered metal pads

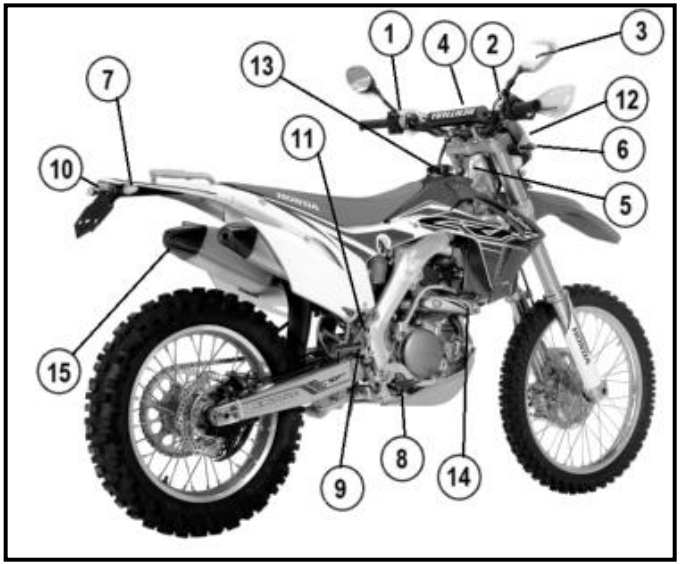
PRINCIPAL PARTS OF VEHICLES – CRF 250 300 450 500 R ENDURO left side

1	Light switch
2	Horn
3	Main light
4	Anterior left turn indicator
5	Main light adjustment screw
6	Rear left turn indicator
7	Side stand
8	Passenger foot peg left side
9	Left mirror
10	Foot peg left side
11	Passenger handle
12	Handle guard
13	Engine protection
14	Electric wiring protection fuse



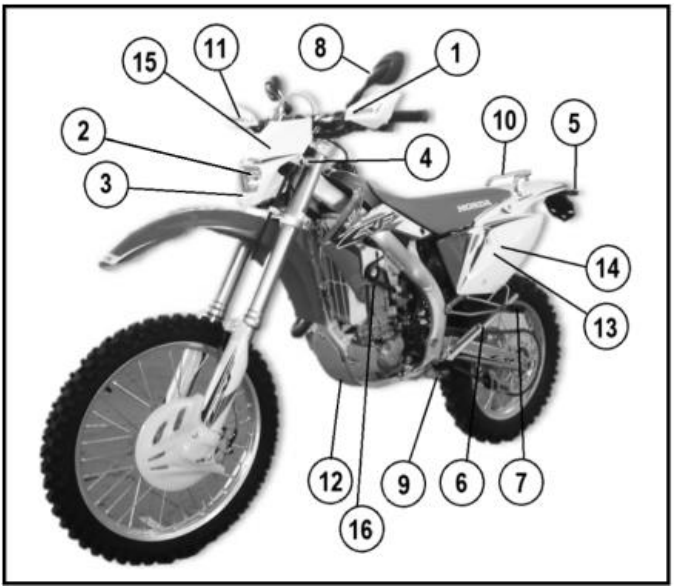
PRINCIPAL PARTS OF VEHICLES – CRF 250 300 450 500 R ENDURO right side

1	Engine stop button
2	Engine maps selection button
3	Right mirror
4	Speedometer display
5	Lock Key
6	Anterior right turn indicator
7	Rear right turn indicator
8	Foot peg right side
9	Passenger foot peg right side
10	Rear light
11	Rear brake Idro-stop button
12	Front brake idro-stop button
13	Fuel tank cap
14	Exhaust pipe with catalytic device
15	Carbon exhaust muffler



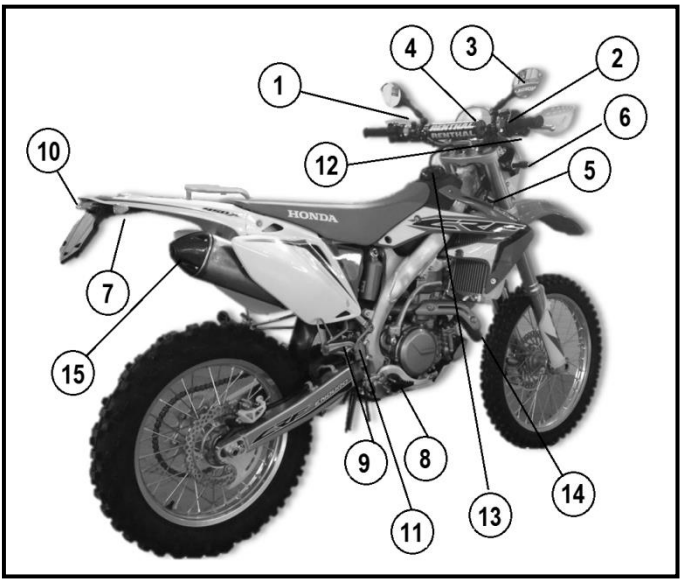
PRINCIPAL PARTS OF VEHICLES – CRF 250 300 450 500 X ENDURO left side

1	Light switch
2	Main light
3	Main light adjustment screw
4	Anterior left turn indicator
5	Rear left turn indicator
6	Side stand
7	Passenger foot peg left side
8	Left mirror
9	Foot peg left side
10	Passenger handle
11	Handle guard
12	Engine protection
13	Electric contactor
14	Electric wiring master fuse
15	Electric wiring fuse
16	Horn



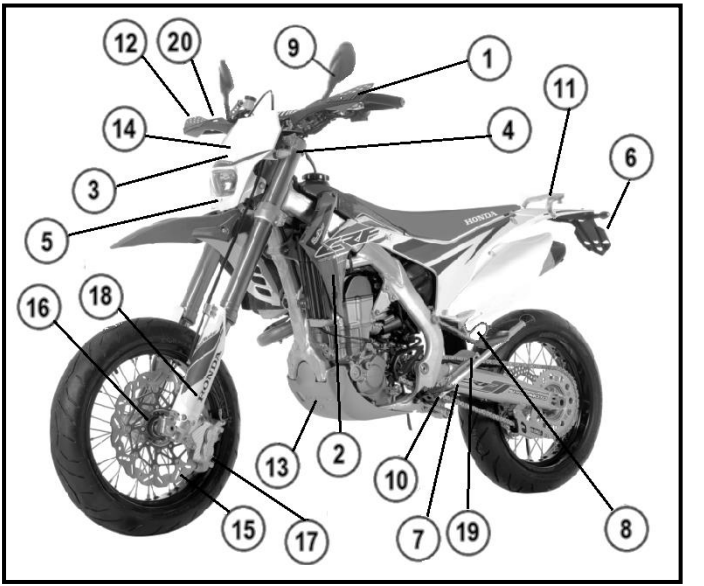
PRINCIPAL PARTS OF VEHICLES – CRF 250 300 450 500 X ENDURO right side

1	Stop engine button
2	Electric starter button
3	Right mirror
4	Speedometer display
5	Lock Key
6	Anterior right turn indicator
7	Rear right turn indicator
8	Right side foot peg
9	Right side Passenger foot peg
10	Rear light
11	Rear brake Idro-stop button
12	Front brake Idro-stop button
13	Fuel tank cap
14	Exhaust pipe with catalytic device
15	Carbon muffler final exhaust



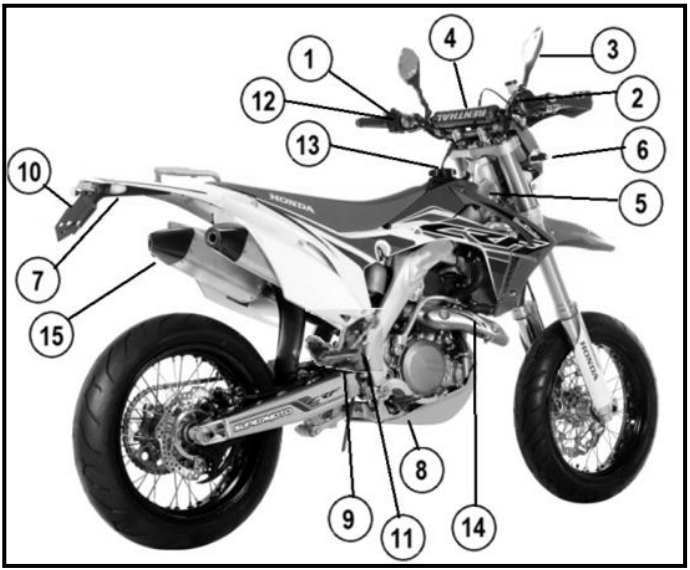
PRINCIPAL PARTS OF VEHICLES – CRF 450 500 R SUPERMOTO left side

1	Light switch
2	Horn
3	Main Light
4	Anterior left turn indicator
5	Main light Adjustment screw
6	Anterior left turn indicator
7	Side stand
8	Passenger foot peg left side
9	Left mirror
10	Foot peg left side
11	Passenger handle
12	Handle guard
13	Engine protection
14	Wiring fuse
15	Wave brake disc 320 mm
16	Wave brake disc hub support
17	Radial brake caliper
18	Brake pipe hose
19	Chain guide
20	Radial brake pump



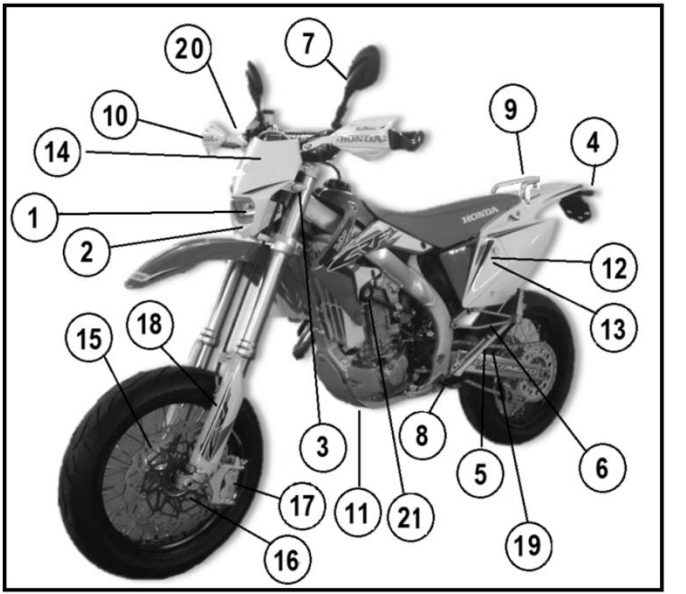
PRINCIPAL PARTS OF VEHICLES – CRF 450 500 R SUPERMOTARD right side

1	Light switch
2	Engine maps selection button
3	Right mirror
4	Speedometer display
5	Lock key
6	Anterior right turn indicator
7	Rear right turn indicator
8	Foot peg right side
9	Passenger foot peg right side
10	Rear light
11	Rear brake idro-stop button
12	Front brake idro-stop button
13	Fuel tank cap
14	Exhaust pipe with catalytic device
15	Final exhaust carbon muffler



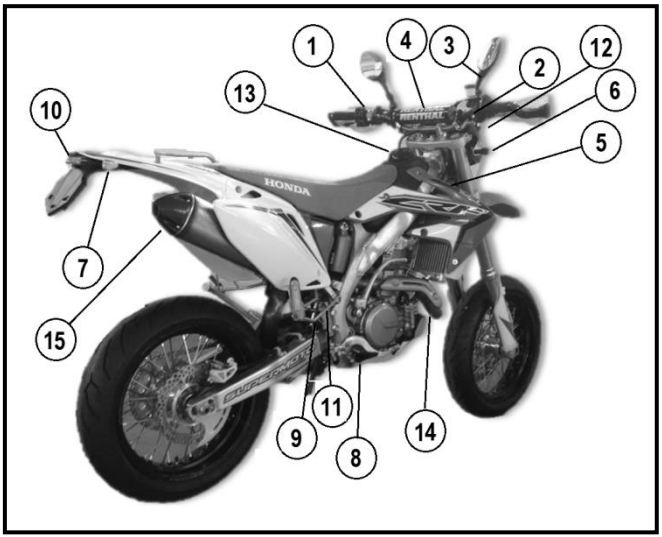
PRINCIPAL PARTS OF VEHICLES – CRF 450 500 X SUPERMOTARD left side

1	Main light
2	Main light adjustment screw
3	Anterior left turn indicator
4	Rear left turn indicator
5	Side stand
6	Passenger foot peg left side
7	Left mirror
8	Foot peg left side
9	Passenger handle
10	Handle guard
11	Engine protection
12	Electric contactor
13	Electric wiring master fuse
14	Electric wiring fuse
15	Wave brake disc 320 mm
16	Wave brake disc hub support
17	Radial brake caliper with support
18	Brake pipe hose
19	Chain guide
20	Radial brake pump
21	Horn



PRINCIPAL PARTS OF VEHICLES – CRF 450 500 X SUPERMOTARD right side

1	Light switch
2	Electric starter button
3	Right mirror
4	Speedometer display
5	Lock Key
6	Anterior right turn indicator
7	Rear right turn indicator
8	Foot Peg right side
9	Passenger foot peg right side
10	Rear light
11	Rear brake idro-stop button
12	Front brake idro-stop button
13	Fuel tank cap
14	Exhaust pipe with catalytic device
15	Final carbon muffler



Engine maps button selection

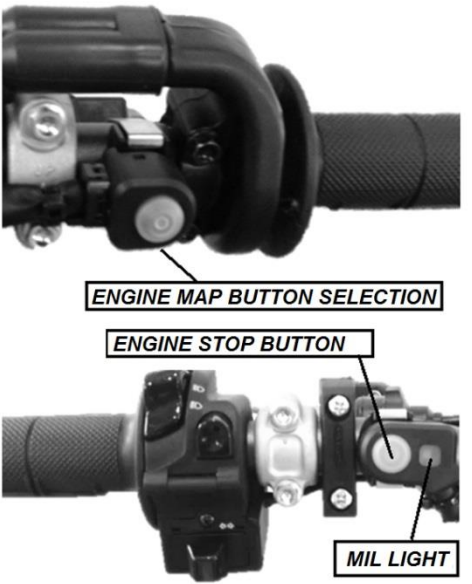
For information about the mapping light, the selection mode engine mapping, consult the **HONDA USER MANUAL**

Engine stop button

MIL light

For information regarding the engine stop button and the indication provided by the MIL light, consult the **HONDA USER MANUAL**

Don't push the button when driving , this can damage the engine and cause a loss of vehicle control



CONTROL DEVICES – CRF 250 300 450 500 X

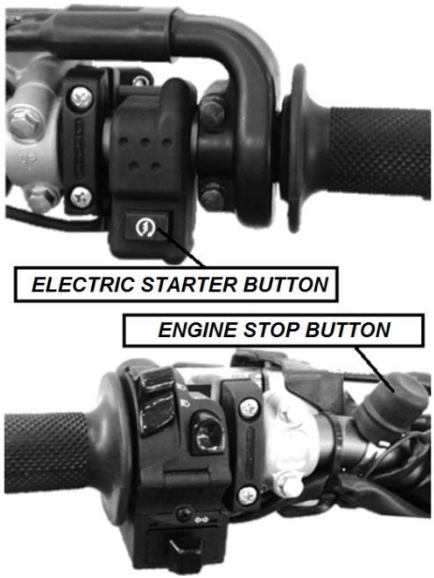
Electric starter button

For information about the Electric starter button, consult the **HONDA USER MANUAL**

Engine stop button

For information about the engine stop button, refer to the **HONDA USER MANUAL**

Don't push the button when driving , this can damage the engine and cause a loss of vehicle control.



CONTROL DEVICES – STARTING

Starting CRF 250 300 450 500 R

For information about how to start consult the **HONDA USER MANUAL**

- Start for that vehicle is ONLY by PEDAL (kick starter)
- For cold start operating the " Knob Air"
- The bike is not equipped with fuel tap

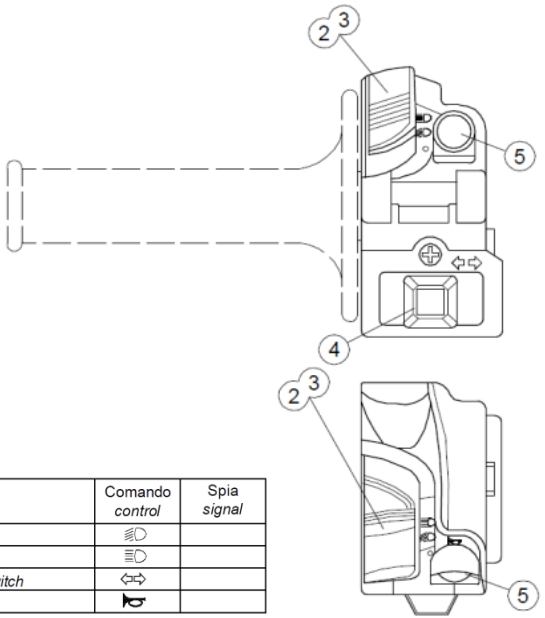
Starting CRF 250 300 450 500 X

For information about how to start consult **HONDA USER MANUAL**

- Start for that vehicle is both PEDAL (kick starter) and ELECTRIC (start button)
- For cold start operating the " fast idle knob "
- For the hot start operating the " hot start lever "
- Check the position of the fuel tap

All electrical parts work only when the engine running. When the engine running , they are always on: the main lights, position lights and license plate light .

Tampering or alteration of such a facility can be run into severe penal and administrative sanctions and also involves the immediate loss of guarantee .



Rif	Dispositivo / *device*	Comando *control*	Spia *signal*
2	Devioluci anabbaglianti / *switch low beam*		
3	Devioluci abbglianti / *switch high beam*		
4	Comando indicatori di direzione / *direction indicators switch*		
5	Comando avvisatore acustico / *horn switch*		

As regards the lighting system, refer to the following:

- In Ref.2 position is on the low beam
- In Rif.1 position is on the high beam

To sound the horn press Ref.5

The switch indicators Ref.4 has 3 positions:

- Left , starts up the left turn signal
- Right , it starts up the right turn signal
- Central , off the direction indicators

After use replace the turn signal in the center position.

The use of such devices must comply with the traffic rules and specific prohibitions and terms of use required by law.

General Information

The fluid level should always be inspected before use the motorbike.

The tank level is correct if the brake fluid is located between the lines min. and max. stamped directly on the body of the tank itself.

If you find that a level not sufficient, open the lid and top up. Always check the level with only motorcycle on a flat surface. Check also the absence of irregular clearance on the pedal or the brake lever, of sponginess or abnormal elasticity in the controls. If you feel the presence of air in the ducts braking or any other event, please contact an authorized dealer RedMoto.

Periodically check that the thickness of the brake pads is not less than 1 mm. Making the total replacement of brake fluid every two years or whenever you carry out the operations of overhaul and disassembly of the hydraulic components of the system.

In case of low level of brake fluid, used only a DOT 4 brake fluid or superior quality. Brake fluid absorbs strongly moisture and oxygen from the air: if the residue in the pan has a very dark color, please contact an authorized dealer for inspection RedMoto to possible infiltration of water or air through the plant.

For the same reasons, once the package is opened the fluid, use the necessary quantity and dispose the residue.

Remember to fully replace the brake fluid every two years. The wear of the brake components is strongly influenced by driving style: do make the replacement of worn elements or revision of the braking system by qualified personnel, as an authorized dealer RedMoto.

The brake fluids and in general all fluids and lubricants for use, are harmful and can cause irritation or other disorders. Handle with care, avoid direct contact with skin or eyes, NOT SWALLOWED any fluid or lubricant !!! After contact with skin, wash thoroughly with water and contact your doctor. Never dispose of any fluid simply emptying it in the open ground or the sewage system: fluids and lubricants are highly polluting, please contact your dealer RedMoto or any other center for collection and disposal of industrial waste.

The brake system needs a break in period both in new vehicle both when making substitutions of certain components such as brake linings or brake discs.
In these phases, the braking power can be significantly lower: required then, stopping above. To avoid accidents and damage, until you feel a power optimum braking, traveling at moderate speed and braking performed mild and slightly prolonged periods with intervals of cooling system components. This procedure ensures optimum Adjustment of the Brake components.

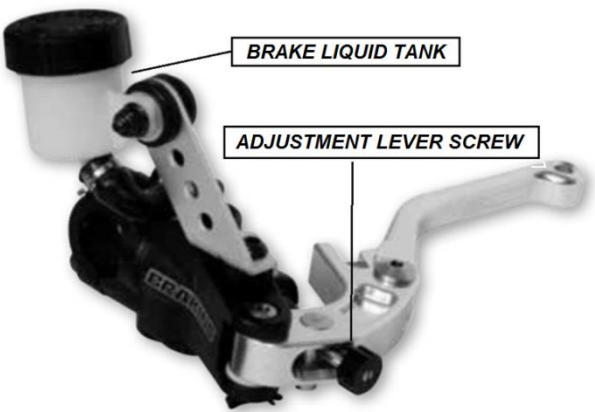
Checking the enduro brake system CRF 250 300 450 500 R e CRF 250 300 450 500 X

The braking system fitted as standard on the enduro bike, consists of front and rear brakes fully hydraulic disc, with regard to maintenance, inspections and periodic checks to refer to what is stated in **HONDA USER MANUAL**.

Checking the supermoto brake system CRF 450 500 R e CRF 450 500 X

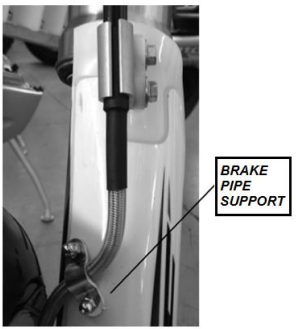
The brake system installed in series on the range supermoto , is composed of front and rear brakes fully hydraulic disc.

The front brake system is composed of a radial pump with the brake fluid tank exterior, a metal braided hose, a metal collar to lock the pipe installed on the para- fork rod, a radial caliper with four pistons / 4 pads and the relative support pliers.

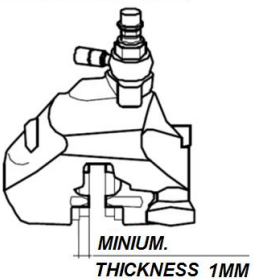


Before you get behind the wheel of the vehicle please check the oil level in the tank, adjust the brake lever according to the needs of the driver.

Make sure the brake hose is intact and not damaged, make sure that the brake hose clamp is tightened correctly and fixed the pipe in the manner shown in the figure. Check that the hose does not drag on the wheel or on the disk.

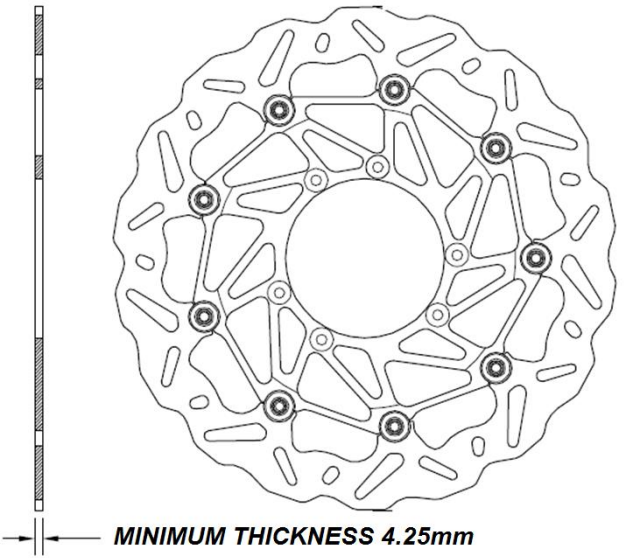


Regularly check the thickness of the brake pads , check if it is less than 1 mm, in which case it must be replaced of 4 pads.



Periodically check the thickness of the brake disk, verifying that is not less than 4.25 mm, and in that case should be immediately replaced disk.

When removing the disc, always mount the spacer interposed between disc and hub , tighten the 6 screws and nuts after applying liquid thread locker.



The radial 4-piston brake caliper is fixed to the support with 2 screws M10, the replacement of the support or the caliper, tighten the screws after applying liquid thread locker.

TORQUE TIGHTENING

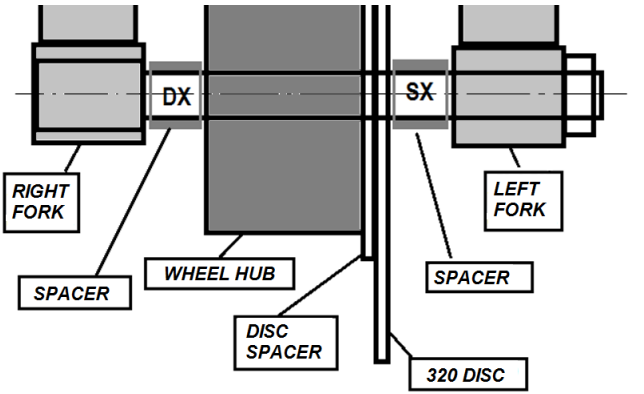
SUPPORT CALIPER SCREW M8

- 25 Nm

CALIPER SCREW

- 35 Nm

When removing the front wheel, pay special attention to the 2 spacers left and right for the pin, both identified with laser marking.



Regarding the standard maintenance, inspections and periodic checks for the rear brake system supermoto refer to what is stated in **HONDA USER MANUAL**.

The key presents more than 1000 different combinations. On the key number it is indicated that univocally distinguishes the corresponding block.
Two keys are (one spare).
Never operate the steering lock when the bike is in motion.

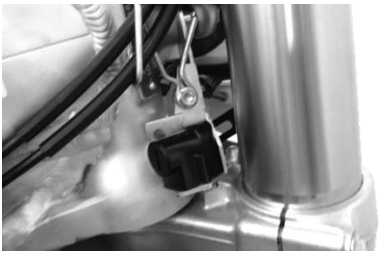
To lock the steering

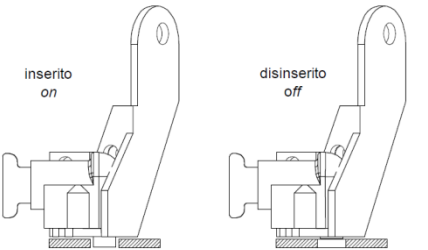
1. Turn the handlebar to the left.
2. Insert the key into the lock
3. Turn the key anticlockwise
4. Remove the key

To un-lock the steering

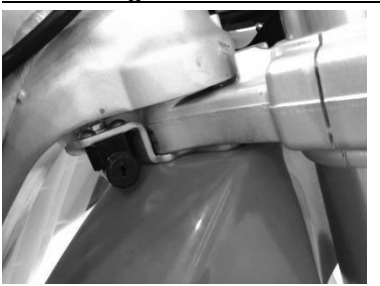
1. Insert the key into the lock
2. Turn the key clockwise
3. Remove the key

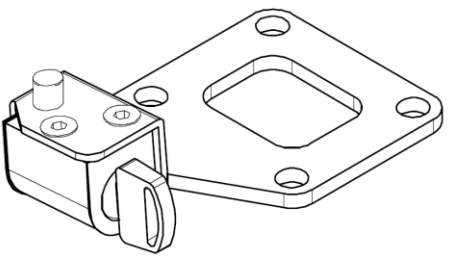
Locksteering CRF 250 300 450 500 X





Locksteering CRF 250 300 450 500 X





CONTROL DEVICES – CATALYTIC SYSTEM

The exhaust system is equipped with catalytic platinum and rhodium catalyzed at inside of the exhaust manifold which converts hydrocarbons and nitrogen monoxide into water vapor and carbon dioxide.

To generate the chemical reactions necessary to the process, the catalyst works at high temperatures which are maintained high even after stopping the engine.

To protect the catalytic exhaust system is good to follow certain rules:

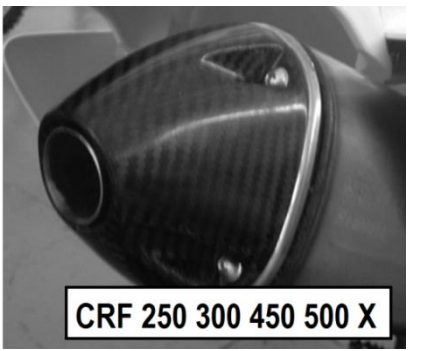
- Only use unleaded petrol
- Have your vehicle checked when high exhaust smoke, carburetion not perfect, flashbacks or irregular operation
- Do not replace / tamper with silencers

The vehicle is equipped with a secondary air system for the activation of the catalyst reaction, via the input of ambient air rich in oxygen in the exhaust manifold ("secondary air"), at that point takes place a post-oxidation ("afterburning") of harmful substances.

Tampering or alteration of such a facility can be run into severe penal and administrative sanctions and also involves the immediate loss of guarantee

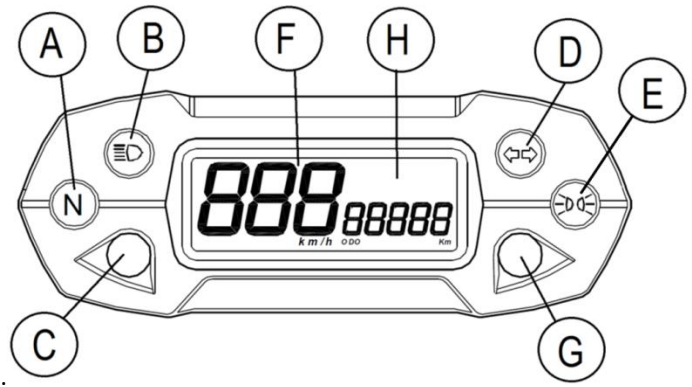
CONTROL DEVICES – NOISE REDUCTION

The silencers of CRF R motorcycles are equipped with DB - killer inserted inside the muffler itself. This device consists of a perforated sheet outbox of the silencer that by occluding the discharge port drastically reduces noise emissions.



The removal of the DB - killer can be incurring severe penal and administrative sanctions and also involves the immediate loss of guarantee. The silencers of motorcycles CRF X does not have DB - killer removable but not tampered with internal bulkheads noise.

The speedometer unit includes a speedometer, odometer, trip odometer, and some indicators of service.



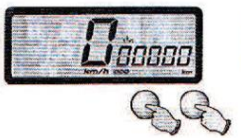
Settings for CRF models :

- SET READING 4 POINTS
- SETTING WHEEL ENDURO →2040
- SETTING WHEEL SUPERMOTO →1900

• The light beam (B) comes on when the headlight is on high beam
• The indicator of the direction indicators (D) flashes when the turn signal switch is pushed to the left or right
• The indicator lights of position (E) is always on
• Key Adjust control (C)
• Select key selection (G)
• The digital speedometer (F) indicates the driving speed from 0 to 360 km / h
• The odometer ODO (H) indicates the total distance from 0 to 99,999 km
• The trip meter (H) shows the distance traveled since the last reset 0-999.9 km

On the main screen, press the adjustment to switch to the trip meter odometer. Screen odometer, press the button for 3 seconds to reset the trip odometer adjustment.

Setting the unit of measurement of speed



In the main screen, press the select button (selection) and adjust (adjustment) for 3 seconds to enter the unit of measurement of speed.

press adjust (adjustment) to select the unit of measurement of speed.
example: Now the setting is km/h

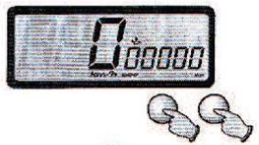
Now the unit of measurement of speed flashes

press the select button (selection) to continue with the setting of

when you leave this screen, the setting is completed

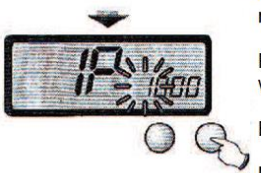
to confirm the setting of this function, press and hold the select button for 3 seconds (selection)

Setting the tire circumference 1



In the main screen, press the select button (selection) and adjust (adjustment) for 3 seconds to enter the unit of measurement of speed

Press the select button (selection) to access the circumference of the tire



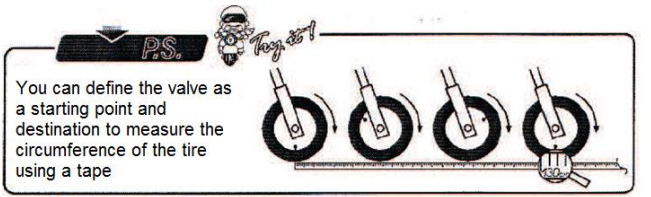
Example : the circumference of the tire is of 1.300 mm.

Press select (selection) to move to the digit you want to set .

Example : Now the original setting is 1,000 mm

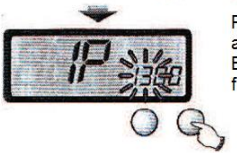
Now the No. 1 flashes

Setting the tire circumference 2



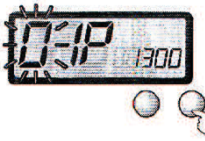
Press the adjust (adjustment) to change the setting

Now the number 0 flashes



Press three times the select button (selection) to access the data points of the sensor .
Example : the circumference of the tire has changed from 1000 to 1300

Setting the detection points 1



Example : the value of the data points from the sensor is set 6. Press the select button (selection) to move to the digit you want to set .
example : now the default setting is 1 point detection

⚠ now the number 0 flashes

NOTA Flow rate setting point detection sensor: 1-60 points of detection. The impostazone is amended in order from left to right

NOTA The sensor can be set to values h igher than 6 detection points only when used in the active sensor speed

The active sensor speed may be installed between the metal parts, such as the screws of the disk, or the disk brake to detect the disk space, or the plate of the gearbox to detect the frequency of the toothing on the gear

We recommend the use of the detection method of the screw of the disk for the speed signal, the greater the number of signals, better the accuracy of the speed. Note that 60 points per revolution is the maximum value of the signal that the active sensor can read speed

Setting the detection points 2

Press adjust (adjustment) to choose the number to setting

⚠

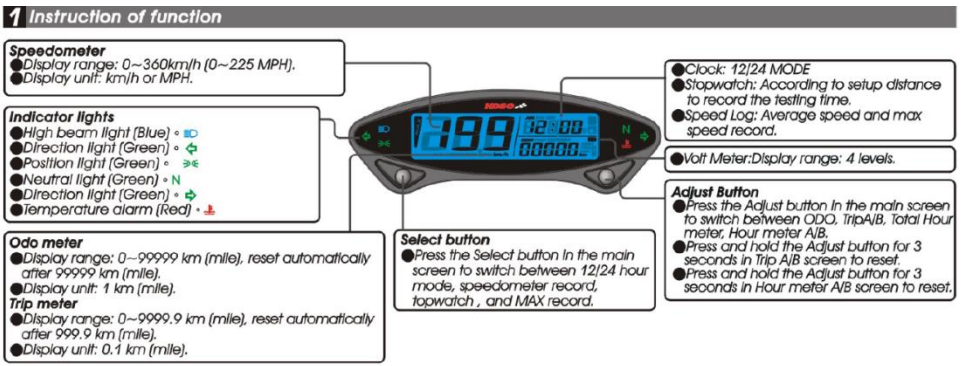
Now the number of points of the detector flashes

Press the select button (selection) to continue with the setting of the function .
Example: the setting of the detection points of the sensor has been changed from 1 to 6

NOTA when you leave the screen, the setting is completed

Per confermare l'impostazione di questa funzione, tenere premuto per 3 secondi il tasto select (selezione) e tornare alla schermata principale

The speedometer unit includes a speedometer , odometer , trip odometer, and some indicators of service .



●Adjust button function instruction

●In main screen, press the **Adjust button** once to switch the function from odometer to trip .

●In main screen, you could hold pressing the **Adjust button** for 3 seconds to change the speed unit.

●Press the **Adjust button** to switch from trip A to trip B.

●Hold pressing the Adjust button for 3 seconds to reset the trip A.

●Press the **Adjust button** to switch from trip B to total hour meter.

●Hold pressing the **Adjust button** for 3 seconds to reset the trip B.

●Press the **Adjust button** to switch from total hour meter to hour meter A.

●Press the **Adjust button** to switch from hour meter A to hour meter B.
●Press and hold the **Adjust button** for 3 seconds to reset the hour meter A.

●Press the Adjust Button to switch from Hour Meter B back to the main screen
●Press and hold the Adjust Button for 3 seconds to reset the Hour Meter B

●The main screen.

●Select button function instruction

- Press the Select button during main screen to switch from Clock to Stopwatch.
- Press and hold the Select Button for 3 seconds to change between 12/24hour mode.

NOTE If 24hour mode is chosen, then the AM/PM symbol will not be displayed.

- Press the Select button to switch from Stopwatch to Speed Record.
- Press and hold the Select Button for 1 seconds to reset the Stopwatch.

- Press the Select button to switch from Speed Record back to main screen.
- Press and hold the Select Button for 3 seconds to reset the Speed Record.

NOTE If Engine Oil Light goes up, reset the Engine Oil Light in this screen to recalculate the mileage

NOTE Average speed and the Max speed display in the 3 seconds rotation.

- The main screen.

3 To Enter the Setting Mode

●Adjust+SelectX3 function instruction

●In main screen, press down the ***Adjust+SelectX3*** to enter the tire circumference and sensing point setting (for changing different size tire.)

●The tire circumference and sensor point setting
●Press the ***Adjust Button*** to enter the tire circumference setting

●The tire circumference and sensing point setting

●EX. The tire circumference is 1,300 mm.

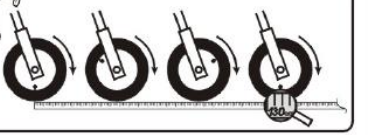
●Press the **Adjust Button** to move to the digit you want to set.

NOTE

The tire circumference setting range: 300~2,500 mm, and the digit you set is from left to right in order.

P.S.

You could define the valve as the starting point and the terminal point to measure the wheel circumference with a measuring tape.



●EX. The tire circumference setting is changed from 1,000 mm to 1,300 mm.

●Press the **Select Button** to change the setting.

●Press the **Adjust Button** for three times to enter the sensing point setting.

●Sensing point setting

●EX. The sensing point you want to set is 6.
●Press the **Select Button** to move to the digit you want to set.

NOTE

The sensing point setting range: 1~6 points. You could change the setting from left to right.

●EX. the sensing point setting is changed from 1 to 6.
●Press **Adjust Button** to go back to tire circumferences value & sensing point setting screen.

●From 0 switch to 1 screen.
●Press the **Adjust Button** to enter the the clock (Hour) setting

●Press the **Selectt Button** to enter the the clock (Hour) setting.

●**The clock (Hour) setting**

●***EX: You want to set the hour at 14.***
●*Press the **Select Button** to choose the hour you want to set.*

NOTE *Setting range: 0~24 H.*

NOTE *The sequent of cursor movement: Hour>Ten-Digit of Minute>Single Digit of Minute*

●*EX. Now the setting is changed from 0:00 to 14:00.*
●*Press the **Adjust Button** to enter the minute setting.*

●*The clock (minute) setting*

●***EX. To change the setting to 14:05.***
●*Press the **Select Button** to choose the minute you want to set.*

NOTE *Setting range: 0~59 minutes.*

●***EX. Now the minute is changed from** 14:00 to 14:05.*
●*Press **Adjust Button** to get back to Clock setting screen.*

●*Switch from a 1 to a 2 .*
●*Press **Select Button** to switch to Stopwatch distance setup entering screen.*

●*Press **Adjust Button** to enter the distance setup for Stopwatch .*

●Distance setup for Stopwatch

●Figure: Distance for Stopwatch setting value from 300 to 350.
●Press **Adjust Button** to go back to the Stopwatch setting screen.
●Ex: To set the distance to 350 for the Stopwatch
●Press the **Select Button** to change the setting.

NOTE The range of distance for Stopwatch is from 100m to 2000m.

●Switch from a 2 to a 3.
●Press **Select Button** to switch to Engine Oil Light Mileage setting screen.

●Press **Adjust Button** to enter the Engine Oil Light Mileage setting.

INSTRUMENT SETTING – SPEEDOMETER CRF R

●Engine Oil Light Mileage Setting

●Figure: Engine Oil Light Mileage setting value from 300 to 500.
●Press **Adjust Button** to go back to the Engine Oil Light Mileage Setting screen

NOTE The range of Engine Oil Light Mileage is from 300 km to 5000 km.

●Ex: To set the mileage to 500 for the Engine Oil Light.
●Press the **Select Button** to change the setting.

●From a3 switch to main screen.
●In Stopwatch screen, press **Adjust Button** to go back to main screen
●Hold pressing the **Adjust Button** for 3 seconds to go back to main screen.

●The main screen.

CHECK FUNCTIONALITY – TYRE PRESSURE

Regularly check the pressure and condition of the tires . The tire pressure should be adjusted according to the characteristics of the path that will be addressed , driving style, load conditions and the land on which it conducts the quadricycle . Replace the tires when the depth of the dowel turns out to be equal to 1.6 mm even in a single point of the tread. Always check that the tires are intact , with no injuries or objects stuck on the sides and on the tread .

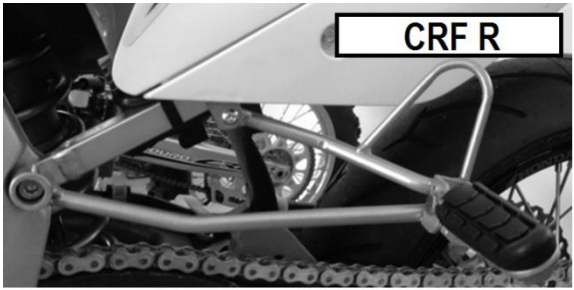
Replace tires only installing components with the same technical and regularly approved for road use . RedMoto recommended to always use the same tires fitted as standard , addressing the network of sales and service RedMoto for replacement.

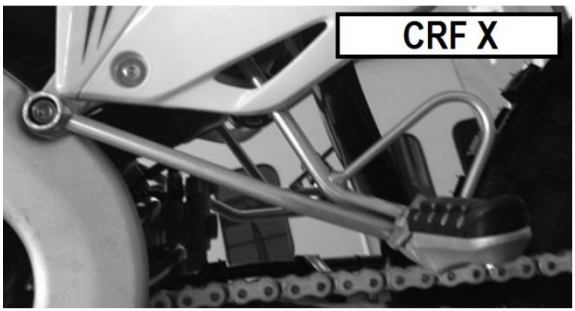
STANDARD EQUIPMENT TYRE PRESSURE:

MODEL	FRONT	Pressure kPa (BAR)	REAR	Pressure kPa (BAR)
CRF 250 300 450 500 R END.	90/90-21	140 (1.4 BAR)	140/80-18	160 (1.6 BAR)
CRF 250 300 X ENDURO	90/90-21	140 (1.4 BAR)	120/90-18	160 (1.6 BAR)
CRF 450 500 X ENDURO	90/90-21	140 (1.4 BAR)	140/80-18	160 (1.6 BAR)
CRF 450 500 X SUPERMOTO	120/70-17	180 (1.8 BAR)	150/60-17	200 (2.0 BAR)
CRF 450 500 R SUPERMOTO	120/70-17	180 (1.8 BAR)	150/60-17	200 (2.0 BAR)

CHECK FUNCTIONALITY – PASSENGER FOOT PEG

The motorcycles are equipped as standard with passenger pegs .
To remove the 2 platforms , you need to loosen the two screws , being careful not to damage the side panel.





TIGHTENING TORQUE

SCREW SUPPORT SEAT M10

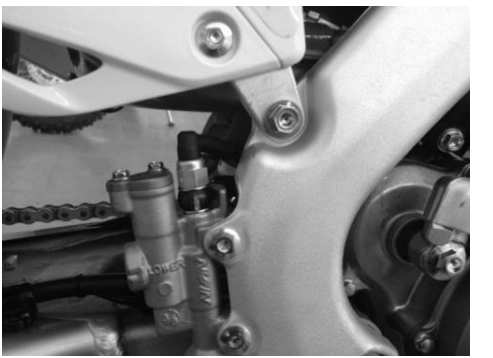
- Tightening torque 22 Nm

BOLTS SUPPORT M6

- Tightening torque 10 Nm

CHECK FUNCTIONALITY – HYDRAULIC SWITCH STOP

The vehicle is equipped with the brake light switch , is activated by the brake pedal to the rear brake cylinder .
The switch works properly when the brake light comes on just before braking
The operation of the stop is critical to the safety of the vehicle , in case of failure to review the components to an authorized dealer RedMoto



CHECK FUNCTIONALITY – SIDE STAND

Prima di utilizzare il mezzo, controllare sempre il funzionamento del cavalletto laterale, e lubrificare il perno di rotazione tra stampella cavalletto e relativo supporto.

The stand should stand freely in overrun and fall smoothly , if you can not perform them , please have it checked by an authorized dealer RedMoto .

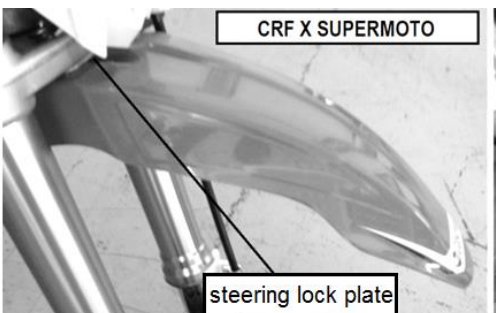
CHECK FUNCTIONALITY – SUPERMOTARD FRONT FENDER

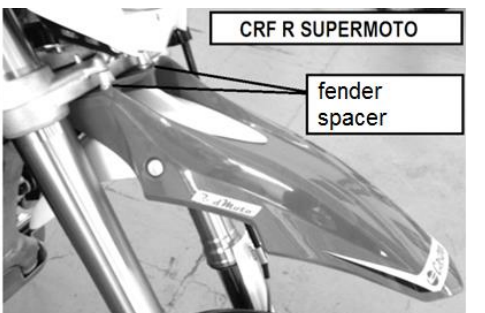
Motorcycles Supermoto model are equipped with dedicated front fender .

The wing changes depending on the model of motorcycle .

When removing the fender to the **CRF 450 500 X SUPERMOTO** sure to refit the lock plate in the specific location.

When removing the fender to the **CRF 450 500 R SUPERMOTO** sure to replace the bushings specific shims.

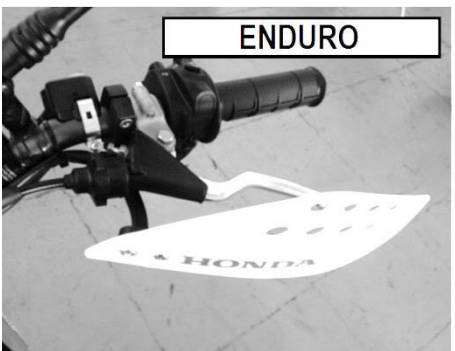




CHECK FUNCTIONALITY – HAND GUARD

The vehicle is equipped with protective guards , check the tightness of the hand guard and properly adjust the height of the same based on the location of the brake and clutch levers .

The type of hand guard installed on the vehicle varies depending on the model , the motorcycle supermoto riding a hand guard with aluminum support while the Enduro handguard is installed on a plastic support.



CHECK FUNCTIONALITY – SUPERMOTARD HAND GUARD

The vehicle is equipped with protective hand guard , check the tightness of the hand guard and properly adjust the height of the same based on the location of the brake and clutch levers.

CHECK FUNCTIONALITY – ENGINE PROTECTION

The vehicle is equipped with skid protection . For removal position the vehicle on the stand and make sure that the motor is cooled to room temperature , to avoid burns .
For CRF 250 and 300 X , remove the retaining screw and pull off the sump guard
For CRF 250 300 450 500 R , remove the two screws and remove the sump guard
For CRF 450 500 X refer to the information on the **HONDA USER MANUAL**

CHECK FUNCTIONALITY – SUPERMOTARD CHAIN GUIDE

The motorcycle supermoto model is equipped with shoe strip - chain made of anti-friction material and its metal support plate fixed to the swing arm with 2 screws, the screws are tightened with a torque of 10 Nm .

If you wear the shoe becomes important, we recommend the replacement of one of the authorized dealers RedMoto .

CHECK FUNCTIONALITY – PLATE SUPPORT

The tail is the number plate includes direction indicators , parking light and stop light . In case of malfunction of one of these components , you should do the following :

1. Verify the integrity of electrical connectors under saddle
2. Check electrical fuse under mask holder lighthouse
3. Check integrity connectors plants under mask holder lighthouse

To replace the bulb, tail and brake light , remove the tail number plate that is attached to the rear fender with 3 screws.

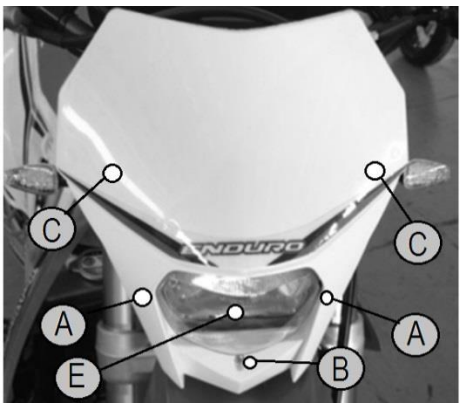
Being an LED headlamp is necessary to replace the entire light of the tail holder.

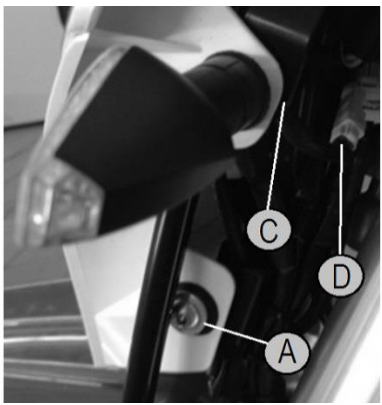
CHECK FUNCTIONALITY – MAIN LIGHT

The vehicle is provided with a mask holder with a projector headlight with position light , high and low beam (Ref . E)

For maintenance , remove the following components in the order listed :

1. Connectors arrows left and right front , under cover (Ref . D)
2. fixing nut end of the indicators (Ref . C)
3. Lower screw fixing holder lighthouse (ref . A)

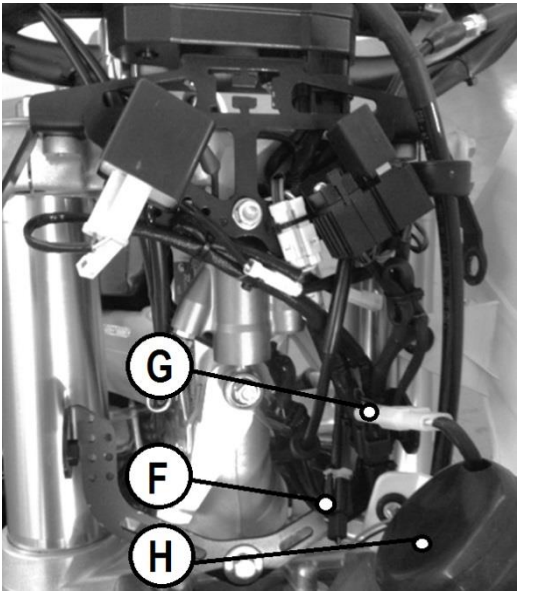




To replace the bulbs, high beam, low beam position and remove the following items :

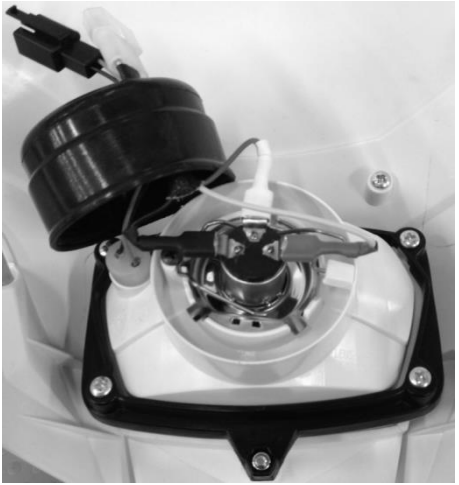
1. Connector light position (ref . F)
2. Connector front lights (Ref . G)
3. Ear Protectors lighthouse (ref . H)
4. Replace the bulbs

For the characteristics of the light bulbs and connecting the same to the door - headlight refer to the diagram on the next page .



LIGHT SPEC	
Dipped light 12V – 35 W	HS1 12V 35/35W
Dazzling light 12V - 35 W	
Position 5 W	W5X 12V 5W

NOTE : When installing the bulb HS1 12V 35 / 35W is necessary to bend the connector terminals at 90 °



CHECK FUNCTIONALITY – ELECTRICAL WIRING CRF 250 300 450 500 R

The electrical system of CRF 250 300 450 500 R consists of the following components:

CODE	DESCRIPTION	Q.TA'
RM.08.G01A.0	CENTRAL ELECTRIC WIRING CRF RG	1
RM.08.F02A.0	RETARDER ELECTRIC WIRING CRF RF	1
RM.08.E03A.0	TURN ELECTRIC WIRING	1
RM.08.E04A.0	MAIN LIGHT WIRE	1
RM.08.D01A.0	LIGHT SWITCH	1
RM.08.D06A.0	HYDRAULIC STOP BUTTON 10X1.25	2
RM.08.D07A.0	HORN	1
RM.06.G01A.0	SPEEDOMETER SLIM	1
RM.06.D02A.0	SPEEDOMETER SENSOR SLIM	1
RM.02.F01A.0	MAIN LIGHT	1
RM.04.E01A.0	PLATE SUPPORT	1
RM.10.D01A.0	COUPLE OF FRONT TURN INDICATOR	1
RM.10.D02A.0	COUPLE OF REAR TURN INDICATOR	1
RM.10.F03A.0	FLASH	1

CHECK FUNCTIONALITY – ELECTRICAL WIRING CRF 250 300 X

The electrical system of CRF 250 300 X consists of the following components:

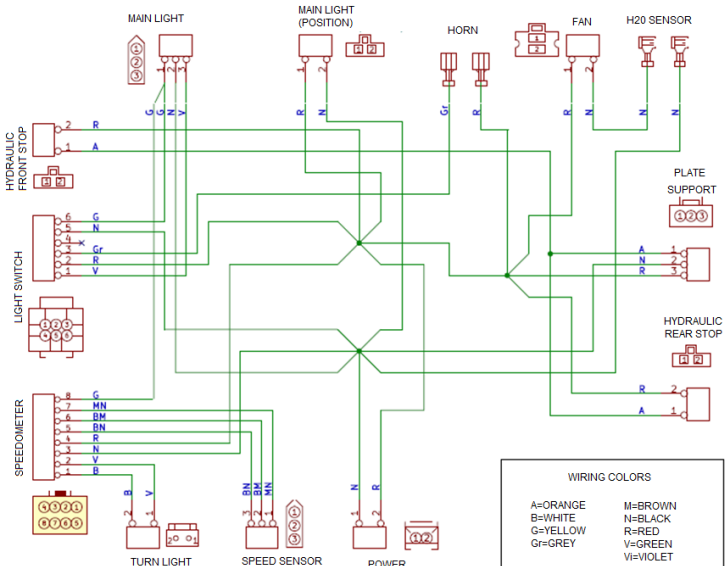
CODE	DESCRIPTION	Q.TA'
RM.08.E05A.0	CENTRAL ELECTRIC WIRING CRF 250 XF	1
RM.08.D09B.0	POWER ELECTRIC WIRING CRF 250 XF	1
RM.08.E03A.0	TURN ELECTRIC WIRING	1
RM.08.E04A.0	MAIN LIGHT WIRE	1
RM.08.D01A.0	LIGHT SWITCH	1
RM.08.D06A.0	HYDRAULIC STOP BUTTON 10X1.25	2
RM.08.D07A.0	HORN	1
RM.06.D01A.0	SPEEDOMETER	1
RM.06.D02A.0	SPEEDOMETER SENSOR	1
RM.02.F01A.0	MAIN LIGHT	1
RM.04.E01A.0	PLATE SUPPORT	1
RM.10.D01A.0	COUPLE OF FRONT TURN INDICATOR	1
RM.10.D02A.0	COUPLE OF REAR TURN INDICATOR	1
RM.10.F03A.0	FLASH	1

CHECK FUNCTIONALITY – ELECTRICAL WIRING CRF 450 500 X

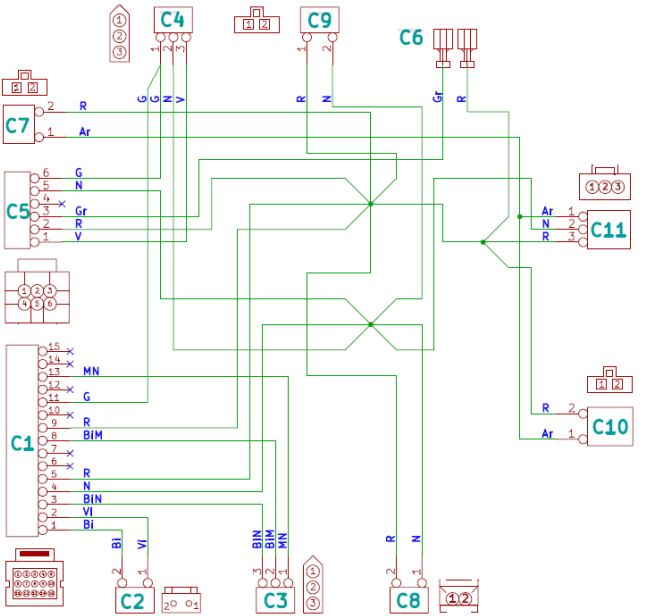
The electrical system of CRF 450 500 X consists of the following components:

CODE	DESCRIPTION	Q.TA'
RM.08.E01A.0	CENTRAL ELECTRIC WIRING CRF	1
RM.08.D09A.0	POWER ELECTRIC WIRING CRF 450 XF	1
RM.08.E03A.0	TURN ELECTRIC WIRING	1
RM.08.E04A.0	MAIN LIGHT WIRE	1
RM.08.D11A.0	HORN RECTIFIER CRF XF	1
RM.08.D01A.0	LIGHT SWITCH	1
RM.08.D06A.0	HYDRAULIC STOP 10X1.25	2
RM.08.D07A.0	HORN	1
RM.06.D01A.0	SPEEDOMETER	1
RM.06.D02A.0	SPEEDOMETER SENSOR	1
RM.02.F01A.0	MAIN LIGHT	1
RM.04.E01A.0	PLATE SUPPORT	1
RM.10.D01A.0	COUPLE OF FRONT TURN INDICATOR	1
RM.10.D02A.0	COUPLE OF REAR TURN INDICATOR	1
RM.10.F03A.0	FLASH	1

CHECK FUNCTIONALITY – CENTRAL WIRING CRF RG RM.08.G01A.0

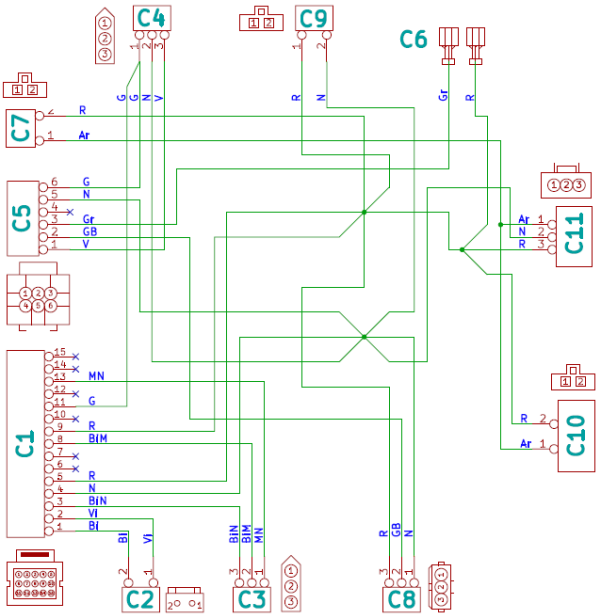


CONNECTORS	
C1	SPEEDOMETER
C2	TURN LIGHT
C3	SPEEDOMETER SENSOR
C4	MAIN LIGHT
C5	LIGHT SWITCH
C6	HORN
C7	HYDRAULIC FRONT STOP
C8	POWER
C9	MAIN LIGHT CABLE
C10	REAR HYDRAULIC STOP
C11	PLATE SUPPORT
WIRING COLORS	
Ar	Orange
Bi	White
G	Yellow
M	Browne
Gr	Grey
N	Black
R	Red
V	Green
Vi	Violet



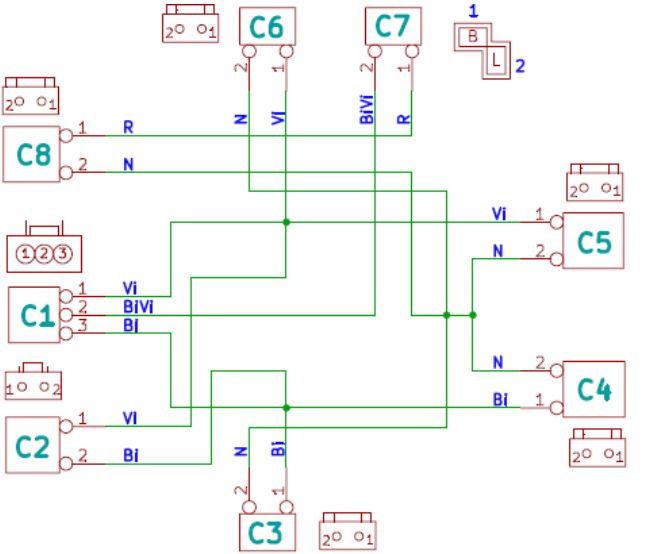
CHECK FUNCTIONALITY – CENTRAL WIRING CRF 250 XF RM.08.E05A.0

CONNECTORS	
C1	SPEEDOMETER
C2	TURN LIGHT
C3	SPEEDOMETER SENSOR
C4	MAIN LIGHT
C5	LIGHT SWITCH
C6	HORN
C7	FRONT HYDRAULIC STOP BUTTON
C8	POWER
C9	POSITION MAIN LIGHT
C10	REAR STOP
C11	PLATE SUPPORT
WIRING COLORS	
Ar	Orange
Bi	White
G	Yellow
M	Browne
Gr	Grey
N	Black
R	Red
V	Green
Vi	Violet



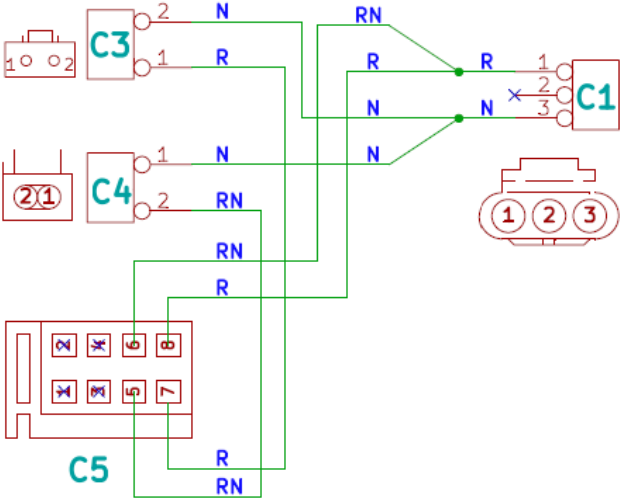
CHECK FUNCTIONALITY – TURN WIRING RM.08.E03A.0

CONNECTORS	
C1	LIGHT SWITCH
C2	DISPLAY LIGHT
C3	FRONT LEFT TURN LIGHT
C4	REAR LEFT TURN LIGHT
C5	REAR RIGHT TURN LIGHT
C6	FRONT RIGHT TURN LIGHT
C7	FLASH
C8	POWER
WIRING COLORS	
Bi	White
N	Black
R	Red
Vi	Violet



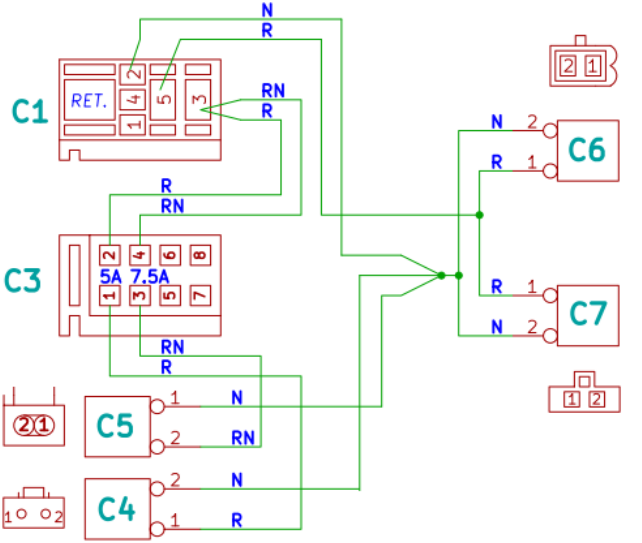
CHECK FUNCTIONALITY – POWER WIRING CRF XF 450 RM.08.D09A.0

CONNECTOR	
C1	POWER SUPPLY
C3	POWER TURN WIRING
C4	POWER CENTRAL WIRING
C5	FUSE BOX
WIRING COLOR	
N	Black
R	Red
Vi	Violet

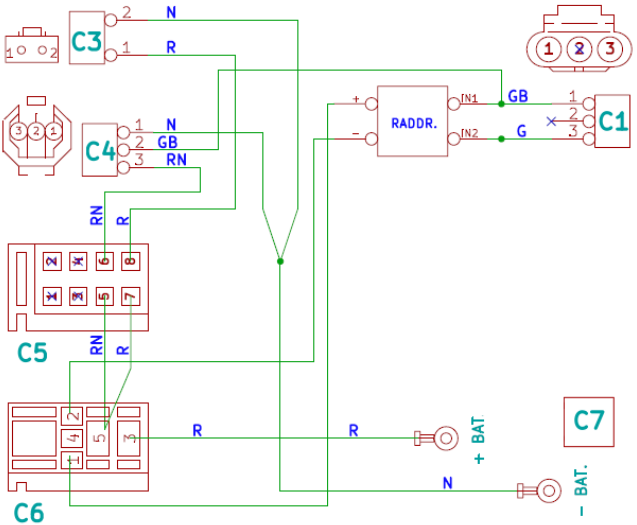


CHECK FUNCTIONALITY – RETARDER WIRING CRF RF RM.08.F02A.0

CONNECTOR	
C1	RELE' AND RETARDER
C3	FUSE BOX
C4	POWER TURN WIRING
C5	POWER CENTRAL WIRING
C6	HONDA ALTERNATOR
C7	HONDA CAPACITOR
WIRING COLOR	
N	Black
R	Red
Vi	Violet

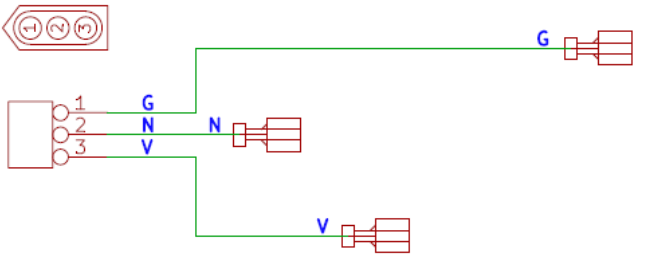


CONNETTORS	
C1	POWER SUPPLY
C3	POWER TURN WIRING
C4	POWER CENTRAL WIRING
C5	FUSE BOX
C6	RELE'
C7	BATTERY
WIRING COLORS	
N	Black
R	Red
Vi	Violet



CHECK FUNCTIONALITY – ANTERIOR LIGHT CABLE RM.08.E04A.0

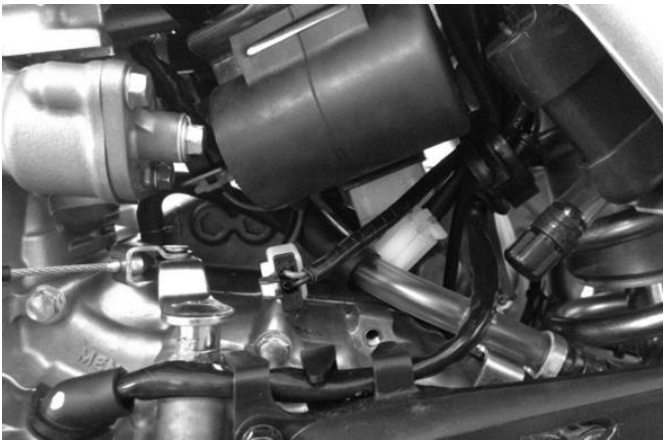
WIRING COLORS	
G	Yellow
N	Black
V	Green



CHECK FUNCTIONALITY – ELECTRIC POWER PLANT CRF 250 300 450 500 R

The electrical system of the CRF 250 300 450 500 R is fed directly to the alternator , the power supply is connected in series between the output of the alternator Honda and the entry of the capacitor Honda .

The electric power plant does not need an electric battery .



CHECK FUNCTIONALITY – MIRRORS

Before you get behind the wheel of the vehicle, adjust your mirrors correctly. For proper adjustment, climb astride the vehicle, and carefully handling the mirror adjust properly, the two joints help change angle and height of the same.

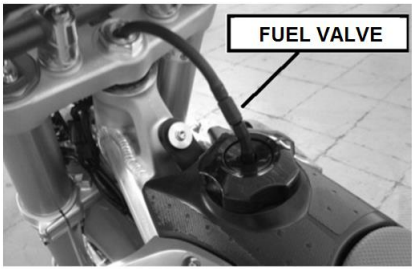
CHECK FUNCTIONALITY – SPEEDOMETER SENSOR

The vehicle is equipped with sensor - km has placed near the rear wheel , check that the sensor is centered with the bolt securing disc . In case of failure to read loosen the nut and change the relative position of the sensor .

CHECK FUNCTIONALITY – FUEL TANK

To supply to the vehicle , unscrew the fuel cap counterclockwise , make sure the tank is filled with sufficient fuel . Fill the tank to the bottom of the filler tube as shown in Figure.
The filler cap is equipped with tube vent valve.

Do not overfill the fuel tank , otherwise it may overflow when the fuel warms up and expands . Avoid spilling fuel on the hot engine.
For specifications on the type fuel tank capacity and reserves refer to the **HONDA USER MANUAL.**



PERIODIC MAINTENANCE – PREDELIVERY AND MAINTENANCE ACTIVATION

The dealer at the time of sale of the vehicle is required to perform a number of operations and inspections for the safety of the vehicle and make it suitable for use on public roads . It is therefore necessary that the dealer must perform the following tests :

- ✓ Check wheel shaft
- ✓ Check brake systems
- ✓ Check fluid level cooling system
- ✓ Check engine oil and transmission oil levels
- ✓ Installing batteries (only for CRF X) and verify operation of electrical system
- ✓ Check tire pressure
- ✓ Check for correct operation commands
- ✓ Check tightening handlebars and controls
- ✓ Check chain tension
- ✓ Adjustment devices mirrors
- ✓ Try switching on and off
- ✓ Checking the gear and clutch

The owner is responsible for the condition of the vehicle. The controls of functionality are necessary to ensure a correct and safe operation of the vehicle .
Failure to perform the checks required can cause serious damage to the vehicle and injury to the driver; therefore it is very important , as well as a visual inspection always check the following before each use.

Operations to be performed by the rider:

	CHECK
Fuel	• Check fuel level • Check that the fuel valve is open (only for CRF X) • Check integrity tubes and fuel pipes
Engine Oil	• Check engine oil level and top up with the recommended oil • Check the vehicle for leaks oil
Anterior Brake	• Check operation • Check integrity plumbing pipes • Check the oil level in the tank • Perform bleeding if there is a softness in the system • Check any games deli controls (lever ant . , Foot post .)

POSIZIONE	CHECK
Clutch	• Check operation • Lubricate cable if necessary • Check the play lever
Throttle	• Make sure that the command is free • Check the running clearance
Transmission Chain	• Check chain tension and adjust if necessary • Check the condition and lubricate or replace
Ruote e pneumatici	• Check the state of wear by measuring tread depth • Check inflation pressure
Side stand	• Make sure that operation is smooth • Lubricate the pivot point if necessary
Frame bolts	• Make sure all nuts , bolts are properly tightened • Tighten if necessary
Strumenti, luci, segnali e interruttori	• Check operation • Replace if necessary

If any one of those parties is not working correctly, perform the repair to the dealer RedMoto.

PERIODIC MAINTENANCE – TRIAL STAGE PERIOD

The break-in period of the engine is absolutely essential for a smooth operation of the same throughout his life . And ' therefore necessary to carefully follow these simple instructions . For the first two tanks of gasoline , never exceed 1/4 throttle opening and journeys made only at a moderate speed , flat , without straining the engine . Never open the throttle suddenly , is departing is recovering. And until the first service , do not open the throttle suddenly , not made -speed fully loaded with the engine strongly stress and avoid exceed 3/4 throttle opening . Do not transport passengers throughout the break-in period . During the first weeks of use of the vehicle , can occur high consumption of coolant and / or engine oil. Check with high frequency all fluid levels . Always use oil with the following characteristics:

API Classification (only 4 stroke oil)	SG o superior
Viscosità	SAE 10W-30
JASO T903 standard	MA
Oil type	No additives based on graphite and molybdenum
Oil advised	“POWER ONE RACING” Castrol

PERIODIC MAINTENANCE – CHECKING AFTER RUNNING (after 500 Km.)

Operations to be performed by the dealer

- ✓ Adjustment throttle
- ✓ Clean air filter and filter container inspection
- ✓ Adjust clutch play
- ✓ Check tightening bolts fork and levers, steer tube
- ✓ Check coolant level
- ✓ Replace engine oil and oil filter
- ✓ Replace Gear Oil
- ✓ Control and tightening battery terminals (CRF X)
- ✓ Adjust idling engine
- ✓ Check tire condition and tire pressure
- ✓ Check chain tension and lubrication distribution
- ✓ Adjust centering wheels and spoke tension
- ✓ Checking chain tension and lubrication chain
- ✓ Control and electrical height adjustment headlight

PERIODIC MAINTENANCE – OFF ROAD USE (each 200 Km)

Operations to be performed by the dealer

- ✓ Clean air filter
- ✓ Check clutch play
- ✓ Check lighting system
- ✓ Check coolant level
- ✓ Ensure been radiator and cooling system
- ✓ Check the engine oil level
- ✓ Check gearbox oil level
- ✓ Check the drive chain tension and lubrication
- ✓ Control and electrical height adjustment headlight
- ✓ Check tightening bolts and plastic chassis

NOTE : It is recommended replacement piston complete every 30 hours. This Period may vary according to driving conditions of riders

PERIODIC MAINTENANCE – 1° CHECKING (after 1500 Km. o 3m)

Operations to be performed by the dealer page 1 / 2:

- ✓ Replace spark plug
- ✓ Adjust throttle
- ✓ Clean air filter and filter container inspection
- ✓ Adjust clutch play
- ✓ Check forks games and levers , boat and steering slack
- ✓ Check coolant level
- ✓ Replace engine oil and oil filter
- ✓ Replace Gear Oil
- ✓ Control and tightening battery terminals (CRF X)
- ✓ Adjust idling engine
- ✓ Check rims and wheels
- ✓ Check tire condition and tire pressure
- ✓ Check chain tension and lubrication distribution
- ✓ Adjust centering wheels and spoke tension

Operations to be performed by the dealer page 2 / 2:

- ✓ Check brake pad wear, brake fluid level checks
- ✓ Check valve clearance
- ✓ Check clutch wear
- ✓ Check soundproofing material silencers
- ✓ Clean exhaust
- ✓ Control and electrical height adjustment headlight
- ✓ Check tightening bolts cycling
- ✓ Checking chain tension and lubrication chain

NOTE : It is recommended replacement piston complete every 30 hours. This Period may vary according to driving conditions of riders

PERIODIC MAINTENANCE – 2° CHECKING (after 3000 Km. o 6m)

Operations to be performed by the dealer page 1 / 2:

- ✓ Replace spark plug
- ✓ Adjustment throttle
- ✓ Clean injection system (CRF R) or carburetor (CRF X)
- ✓ Change air filter and filter container inspection
- ✓ Adjust clutch play
- ✓ Check forks games and levers , boat and steering slack
- ✓ Check coolant level
- ✓ Replace engine oil and oil filter
- ✓ Replace Gear Oil
- ✓ Adjust idling engine
- ✓ Check rims and wheels
- ✓ Clean wheel bearings and oil seals replacement
- ✓ Check tire condition and tire pressure
- ✓ Adjust chain tension and lubrication distribution
- ✓ Adjust centering wheels and spoke tension

PERIODIC MAINTENANCE – 2° CHECKING (after 3000 Km. o 6m)

Operations to be performed by the dealer page 2 / 2:

- ✓ Check brake pad wear, brake fluid level checks
- ✓ Check Valve Clearance
- ✓ Check clutch wear and change discs Worn
- ✓ Replace soundproofing material silencers
- ✓ Clean exhaust
- ✓ Control and electrical height adjustment headlight
- ✓ Check tightening bolts cycling
- ✓ Checking chain tension and lubrication chain
- ✓ Seal control valves
- ✓ Replace piston and piston rings
- ✓ Check clearance of the connecting rod

NOTE : It is recommended replacement piston complete every 30 hours. This Period may vary according to driving conditions of riders

TROUSSE TOOL KIT

The tool kit is supplied as standard with all vehicles enduro and supermoto.

The service information included in this manual and the tools of the kit are intended to assist in the execution of preventive maintenance and minor repairs. E 'can, however, that to successfully perform certain maintenance work, it is necessary, additional tools such as a torque wrench. The standard equipment includes:

- pliers
- wrench by 22, 32
- socket wrench 10 and from 8
- wrench 10, 12, 14
- Phillips screwdriver / cutting
- Allen wrench 5, 6
- clamp plastic off-fuse
- Key candle
- Key rays

If you did not have the tools or do not have the experience necessary for a particular job, have run from dealer RedMoto.

FINAL NOTE

The vehicle was designed, built and calibrated for use in moderate climates and moderate humidity. Carburetion and ignition devices have been optimized and calibrated for use in the following conditions: -5 ° to 26 ° C and 0 to 900 meters above sea level Outside of these operating conditions, different settings may be necessary, not included in the normal periodical maintenance plan. If you need any modification, contact an authorized dealer RedMoto.

Do not use any motorized vehicle devoid of some of the components of the extraction system: the intake part of the engine and the air filter can not be a source of failure and malfunction. For use on dusty roads made frequent cleaning of air intake system and components of the air filter. As a result of particularly heavy, obvious evidence of tampering or negligence in maintenance, authorized dealers RedMoto reserve the right to cancel the guarantee to all mechanical.

FINAL NOTE

The fluids and lubricants present or be used on this motorcycle are harmful, can be highly flammable and can cause irritation or other disorders.
Take ALWAYS with caution, avoid direct contact with skin or eyes, NOT SWALLOWED any fluid or lubricant !!! After contact with skin, wash thoroughly with water and contact your doctor.

Never dispose of any fluid simply emptying it in the open ground or the sewage system: fluids, fuels and lubricants are highly polluting. Store in a sealed container or exhausted any residual cleaning motorcycle containing traces of lubricants, fuel or other fluids; Contact your authorized dealer RedMoto or other collection points for safe disposal. The product gas from the exhaust contains TOXIC SUBSTANCES, gasoline is highly flammable, explosive and highly volatile. Always use caution when handling gasoline for refueling, which must be made with the engine off, open and airy open spaces. Let always free at least the last stretch of the neck of the tank. Do not start the motor vehicle if the body is sprinkled with abundant patches of gasoline.

Do not smoke or handle open fire while refueling.
Never start the engine or let it never turned into an enclosed gas produced by the discharge is harmful, can create disturbances, promote loss of consciousness, poisoning and can lead to death. Always close the fuel valve when the vehicle is parked. NOT ever used gasoline or other solvents to clean the motorcycle: use only specific detergents in the appropriate dilutions.

Improper installation of accessories and modifications of this motorcycle can cause changes in maneuverability and invite accidents. Any added accessories compared to the preparation of the series, even if purchased or installed by the
service network RedMoto may involve changes to the vehicle that are not compatible with the specifications of the registration certificate. In any case not before changing your vehicle with non-original components or improper. Installed in any case only the accessories and components Remote.

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