



LOVED IN 70
COUNTRIES

pulsar **N160**

Owner`s Manual



FOREWORD



Welcome to the Pulsar family!

You are now the proud owner of the next generation Pulsar. It is a superb combination of performance, superior technology and evocative styling. This makes the Pulsar you ride, unbeatable and unchallenged on the road.

Before you ride out, please read this User's Guide carefully and familiarize yourself with the operating mechanism. This will ensure you a safe and trouble free ownership experience.

To keep Your bike in perfect running condition and deliver consistent performance, we earnestly advise you to avail periodic services at any of our DPMC workshops or Service Dealers, who are well equipped with all necessary facilities / genuine parts / oil and trained manpower to ensure the best care for your Pulsar.

Should you require any additional information, please approach DPMC workshops or Service Dealers, with relevant detail like Registration no. Chassis no, Engine no, Date of purchase, Kms. run, name of selling Distributor and your contact numbers.

Finally, may we request you to give your motorcycle proper care and regular maintenance, as described in this manual. We are sure it will offer you a long trouble-free ownership experience.

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Safety and Warning information :



Warning:

This indicates that a potential hazard or injury to you or other persons & to the vehicle can happen if advice provided is not followed.



Caution:

This indicates that a potential hazard that could result in vehicle damage. Follow the Advice provided with the caution.

Notice:

The description and illustration in this booklet are not to be taken as binding on the manufacturers. The essential features of the type described and illustrated herein remaining unaltered. Bajaj Auto Limited reserves the right to carry out at any moment without being obliged to bring this booklet upto-date & to do modifications on the vehicle, parts or accessories as may be convenient and necessary.

TECHNICAL SPECIFICATIONS



Parameter	Specifications
Engine	4 Stroke, Single Cylinder
Bore x Stroke	58 mm x 62.38 mm
Engine Displacement	164.82 cc
Compression Ratio	10.3 $\pm$ 0.3 :1
Idling Speed	1400 $\pm$ 100 RPM
Max. Net Power	16 PS at 8750 RPM
Max. Net Torque	14.65 Nm at 6750 RPM
Ignition System	DC, Fuel Injection
Fuel System	Fuel Injection System
Spark Plug	1 Nos.
Spark Plug Gap	0.8 ~ 0.9 mm
Lubrication	Wet sump forced Lubrication
Transmission	5 speed constant mesh
Gear Shifting Pattern	1 Down 4 Up
Engine Cooling	Oil cooled
Starting Aid	Electric start
Front & Rear Brake	Disc Brake

TECHNICAL SPECIFICATIONS



Parameter	Specifications
Fuel Tank Capacity	
Full	14 Liters (No Reserve)
Dimensions	
Length	1989 mm
Width	743 mm
Height	1050 mm
Wheel base	1358 mm
Ground Clearance	165 mm
Tyre & Tyre Pressure	
Front Tyre	100/80-17,52P Tubeless
Rear Tyre	130/70-17,62P Tubeless
Front	1.75 Kg/cm ² (25 PSI)
Rear (Solo)	2 Kg/cm ² (28 PSI)
Rear (with pillion)	2.25 Kg/cm ² (32 PSI)
Electrical System	12 Volts DC
Battery	12V 4Ah VRLA
Head Lamp	LED
Tail / Stop Lamp	LED
Side Indicator	Bulb Amber (4 Nos.)

TECHNICAL SPECIFICATIONS



Parameter	Specifications
Position Lamp	LED-DRL
Turn Signal Indicator	LED
Neutral Indicator	LED-Green
Hi-Beam Indicator	LED-Blue
Speedometer Illumination	LCD-Blue
Fuel Level Indicator	LCD Bars
Malfunction Indicator	LED-Yellow
Low Oil Pressure Indicator	LED-Red
Low Battery Indicator	LED-Red
REV Indicator	LED-Yellow
Service Reminder	LCD
Side Stand Indicator	LED-Red
ABS Indicator	LED-Yellow
Rear No. Plate Lamp	12V, 5W Bulb
Horn	12V DC
Vehicle Kerb Weight	154 kg.
Vehicle Gross Weight	304 kg.

Note : • All dimensions are under UNLADEN condition. • Above information is subject to change without any notice.

IDENTIFICATION DATA



The frame & Engine serial numbers are used to register the motorcycle. They are the unique Alpha-Numeric codes to identify your particular vehicle from others of the same model & type.



Frame Number Location

On RH Side of Steering Tube
(Alpha-Numeric - 17 Digits)

Engine Number Location

On LH Side Crankcase Near Change lever
(Alpha-Numeric - 11 Digits)



LOCATION OF PARTS

pulsar **N160**



STEERING CUM IGNITION LOCK



Steering cum Ignition Lock :

It has three positions



- **Lock** : Steering locked. Ignition OFF.
- Ⓟ **OFF** : Steering unlock. Ignition OFF.
- Ⓡ **ON** : Steering unlock. Ignition ON.

To lock the steering :

Turn the handle bar to the left side. Push & Rotate the key to "LOCK" Position & Remove the key.

Steering locking on handle position left hand side only.

To Unlock the Steering: Insert the key in steering cum ignition lock. Push & Rotate it clockwise to "OFF" or "ON" position.

Key: A common key is used for 'Steering cum Ignition lock', 'Fuel tank cap' & 'Rear Seat'.

"Cranking ON and OFF duration" control:

- During Engine crank cycle cranking is allowed only for fixed duration and in between successive cranks (in case engine does not start) here is a cooling off period.
- Cranking on-off duration control feature to avoid battery discharge-
 - 1st Crank ON (5 sec) & Disable for 2 sec.
 - 2nd Crank ON (5 sec) & Disable for 2 sec.
 - 3rd Crank ON (5 sec) & Disable for 10 sec.After a gap of 10 sec cranking cycle continues.
- Headlight control on rpm – Headlamp will be turned ON only at Engine running condition.



Fuel Tank Cap

Fuel Tank Cap

- To open the fuel tank cap, open the flap. Insert the key in the lock & turn it clockwise & lift fuel tank cap.
- To lock the 'Fuel Tank Cap' insert the key in the lock and turn it clockwise and press fuel tank cap from top giving thumb pressure on top surface. 'Click' sound ensures cap is fully locked.

Cautions :

- While operating fuel tank cap do not give pressure on tank cap flap.
- Don't attach metallic 'Key Chain' as it may damage paint of petrol tank cover.

SOP to prevent fuel stains on petrol tank

- After petrol refilling & before shutting the cap wipe the spilled petrol from the painted areas around the cap by soft dry cotton cloth.
- Shut and lock the cap fully.
- This practice needs to be followed to maintain the shine of color on petrol tank.

Glossy Finish Painted Parts CleaningDo's:

- Use Colin or caustic free detergent solution for cleaning.(1 spoon in ½ bucket)
Remove foreign substances like insect remains, road debris using a soft brush.
- Use microfiber cleaning cloths Ex.- Muslin cloth for painted parts cleaning.
- Use recommended 3M polish.

Don'ts:

- Do not use products that are even mildly abrasive, such as polishes, glazes, or rubbing compounds.
- Do not use mechanical cleaners/polishers.
- Do not use terrycloth or paper towels or shine enhancement products.
- Do not rub the finish vigorously, this will burnish the paint finish, causing a permanent shiny spot. Shiny spots cannot be removed.

SPEEDOMETER DETAILS

pulsar **N160**



SPEEDOMETER DETAILS



Speedometer display will work when Ignition switch is in 'ON' position.

- 1. Tachometer Dial:** It shows engine speed in RPM.
- 2. Gear Indication (Ⓔ):** It will display gear position from 1 to 5. It will display 0 when vehicle is in neutral position.
- 3. High Beam Indicator (Ⓓ):** It glows when Headlight is ON & High beam is selected with engine running.
- 4. Turn Signal Indicator (⚡):** When Turn signal switch is pushed to Left or Right, Turn Signal Indicator - LH or RH will flash.
- 5. Side Stand Indicator:** It glows when side stand is down

Side Stand Condition	Gear position	Remark
Down	Engine in neutral gear position	Self-start possible
	Shifting gear from 'N' to 1st gear in engine start condition by pressing clutch lever	Engine will get cut off
Down	Engine in gear position	Engine will not start by self-start.

- 6. Malfunction Indicator (⚠):** It glows whenever any abnormality is noticed in functioning of FI system related components.
- 7. Low Battery Indicator:(⚡) :** It indicates battery needs charging.
- 8. Low Oil Pressure Indicator (⚡):** It glows when engine oil pressure is low.
- 9. Mode Button:** Mode button used for toggling between different modes e.g. ODO, Trip1, Trip2, DTE and clock setting.

10. Set Button: Set button used for toggling between ODO to IFE, Trip1 to AFE1, Trip2 to AFE2, DTE to distance to next service and clock setting.

11. Engine REV Indicator: (Ⓔ) It glows when engine RPM exceed 9000 RPM, It indicates customer "Not to REV up engine beyond safe engine operating RPM.

12. ABS Indicator (Ⓔ): With Ignition switch ON the ABS indicator glows. When vehicle speed is more than 5 Km/h the ABS indicator goes off, if this indicator glows while vehicle is running, it means there is problem in ABS.

13. Neutral Indicator: (N) When the transmission is in Neutral, Neutral indicator will glow.

14. Odometer: The Odometer shows the total distance that the vehicle has covered. Odometer can not be reset to 'Zero'.

15. Trip Meter: Selected Trip meter shows the distance traveled since it was last reset to zero. Both trip meters can be reset to zero by pressing the Set button. After completion of max value of 999,9 Km, selected trip display will get freezed and will not get set automatically to zero.

16. Fuel Level Indicator:(⚡) : It shows available fuel in fuel tank.

SPEEDOMETER DETAILS



17. Service Reminder (🔧): 'Wrench' symbol glows when ODO meter reading reaches to set Kms. It indicates vehicle is due for periodic service.

This Icon will flash at -

1st : 450 km 2nd : 4450 km,

3rd : 9450 km 4th : 14450km

and subsequently at each 5000 kms, Icon will continue to glow till it is reset. This icon is to be reset after service is carried out. Service reminder reset is to be done at zero vehicle speed & zero engine speed.

18. Low Fuel Level Indicator: (⛽) It blinks incase of low fuel level (1 bar or less)

19. Digital Clock: It indicates time in HR: MM (AM/PM)

20. Speedometer: Vehicle speed will be displayed in digital form in Km/h

Note :

After switching 'ON' the ignition switch, the following indications will remain 'ON' till engine is started.

- Low Battery Indicator
- Low Oil Pressure
- Malfunction Indicator

Instructions :

Incase Low battery indicator, Low oil pressure indicator, Malfunction indicator, ABS indicator gets ON during vehicle running, bring the vehicle to nearest DPMC workshops or Service Dealers for inspection/repair.

DETAILS - IFE & ODO



Condition

Ignition switch is ON & Set push button not pressed. Following display will be shown by digital speedometer.

1. **IFE (Instantaneous Fuel economy):** This will indicate fuel economy in km/L. at any given time. Value will be displayed only when vehicle speed & Engine RPM is more than zero.
If vehicle speed is zero then IFE will be displayed "--km/L"
2. **ODO:** The Odometer shows the total distance that the vehicle has travelled.

3. **Fuel Level Indicator:** Fuel level is shown by digital LCD bars with (E) empty, (F) full & (🛢️) fuel tank LCD symbol.

Low fuel level icon blinks if number of bars on the fuel gauge are 1 bar or less.

Note:

IFE (Instantaneous fuel economy) / AFE (Average fuel economy) / DTE (Distance to empty) readings are indicative & may vary due to driving and road conditions.



Procedure to set AFE1 & TRIP1:

Ignition switch is ON & Set push button pressed for less than 1 sec. - TRIP1 mode gets selected & following display will be shown by digital speedometer

1. **AFE1 (Average Fuel economy1):** This will indicate the average fuel economy in km/L in TRIP1 mode.
2. **TRIP1:** The Trip meter shows the total distance that the vehicle has travelled in TRIP1 mode. If TRIP1 is reset, average fuel economy (AFE1) will reset.

Procedure to set AFE2 & TRIP2:

Ignition switch is ON & Set push button pressed for less than 1 sec. - TRIP2 mode gets selected & following display will be shown by digital speedometer

3. **AFE2 (Average Fuel economy2):** This will indicate the average fuel economy in km/L. in TRIP2 mode.
4. **TRIP2:** The Trip meter shows the total distance that the vehicle has travelled in TRIP2 mode. If TRIP2 is reset, average fuel economy (AFE2) will reset.

Note: AFE will be updated every 60 sec. AFE will be reset if corresponding TRIP1 or TRIP 2 is reset or battery disconnected.

DTE & TRIP



DTE (Distance to empty):

It indicates the estimated distance that the vehicle can travel under current fuel economy & fuel level condition.

DTE calculation is independent of TRIP and based on AFE for distance covered for last 25 Kms.

Max count of DTE is 990 Km. speedometer will display values in multiple of 10.



TRIP Setting:

If Set button is pressed more than 3 sec.in TRIP1 or TRIP 2 mode, then respective AFE & trip distance will reset to Zero while DTE will continue to show earlier value.

Note:

After completion of max value of 999.9 Km, selected trip display will get freezed and will not get set automatically to zero.

However speedometer will continue to calculate and display AFE value.

Note:

If vehicle is driven by ignoring fuel level display & Tank symbol () blinking after reaching fuel unutilized level DTE will be shown as '---' Km.

During Petrol Refilling:

If petrol filled is more than 1 Liter then DTE will be calculated based on the revised fuel volume.

If petrol filled less than 1 Liter then there will be no change in DTE value.

SPEEDOMETER SETTING



1. Trip Meter Reset:

Mode & set push button is provided for selecting & resetting "ODO/ TRIP1/TRIP2/ Distance to next service".

1. Press mode button for less than 1 sec.
2. Press set push button for more than 3 sec.

Mode changes from "ODO/ TRIP1/TRIP2/ Distance to next service".

Selected TRIP1/ TRIP2' will reset.
Other TRIP mode will continue updating.

2. Service Reminder Reset (🔧): 'Wrench' symbol glows when ODO meter reading reached to set Kms.

This icon will glow at-

- | | |
|---------------|----------------|
| 1st : 450 Kms | 2nd: 4450 Kms |
| 3rd: 9450 Kms | 4th: 14450 Kms |
- & subsequently at each 5000 Kms.

Note: Bring the motorcycle at DPMC workshops or service Dealers for re-setting the service reminder icon.



3. Clock Reset:

- Digital clock indicates time in HR & MM separated by colon ':' It is 12 hour clock.
- For entering clock setting mode - press mode & set button together for 3 sec.
- Initially ':' will be blinking.
- Clock setting is possible in TRIP 1 mode only.

SPEEDOMETER SETTING / MOBILE CHARGER



Press mode & set button together for more than 3 sec.	'.' stops blinking Digits HH starts blinking.
Press mode button for less than 1 sec	Hour digits will increase.
Press set button for 1 sec.	HH value will be stored while MM starts blinking.
Press mode button for 1 sec.	Minute digits will increase.
Press set button for 1 sec.	HH and MM value will be stored & AM starts blinking
Press mode & set button together for more than 2 sec.	Set value will be saved Exit clock setting mode Digits stop blinking '.' start blinking.
Clock set mode is selected & no ending is carried out for more than 5 sec,	Auto exit without saving set value. If engine / vehicle rpm is given then system will exit from clock set mode without saving set value.

Mobile Charger

- Mobile charging socket has been provided on fuel tank cover
- The charger socket has been provided with cap to protect charger socket from dust & water entry during washing / during rain.
- Always ensure charger cap is firmly fitted on socket when charger socket is not in use.



- The mobile charger will supply output voltage only in engine running condition.
- Customer to use suitable USB cable for mobile charging.



Caution:

Do not use mobile phone while driving. Momentary lapse in concentration might result in an accident.

CONTROL SWITCH - LH



- A. **High/Low Beam Switch:** When headlight is ON, High or Low beam can be selected with this switch. Hi beam indicator light located on Speedo console will light up when high beam is selected.
: High Beam  : Low beam 
- B. **Turn Signal Switch:** When the turn signal knob is turned to Left  or Right  respective indicator will start blinking, to stop blinking push the knob in & release.
- C. **Horn Button** (): Press button for sounding horn.

D. Pass Switch : Press the switch to put 'ON' Hi Beam. It is used to give signal to vehicles coming from opposite side while overtaking.



CONTROL SWITCH RH - DRL



Applicable for N160 Dual channel ABS vehicles

E. Starter Button:

Starter button operates the electric starter. It is recommended to start the engine with the transmission in neutral. Vehicle in Gear - Press clutch lever & operate starter button to start the engine.

F. Engine Kill Switch:

The engine kill switch is used for switching ON & OFF the engine. :

☒ : Engine OFF

☑ : Engine ON

G. Light Switch: It has 2 positions. When ignition switch is 'ON', lighting system will work as per given table.

● : Tail lamp will get 'ON'. DRL 'ON' (High Intensity)

⚙ : Head lamp, Tail lamp, Number Plate lamp & Speedometer illumination will get 'ON'. DRL remains 'ON' (Low intensity)

Day Time Running Light Feature:

- Day Time Running light is provided inside headlamp.
- Day Time running light gets 'ON' (High intensity) when ignition switch turned to 'ON' position.
- After headlight is turned to 'ON' position with **engine running** intensity of DRL LED's will get reduced.

Ignition Switch	Light Switch	DRL	Head Light
ON	OFF	ON High Intensity	OFF
ON	ON	ON Low Intensity	ON

PILLION SEAT / TOOL KIT



Removal of Pillion Seat

- Insert Key into lock (A).
- Turn the key clock wise.
- Lift front end of 'Pillion seat'
- Pull 'Pillion seat' toward front side.
- Take out 'Pillion seat'.



Tool Kit Location

- Screw driver is kept in seat cowl RH as shown in photograph. Spanner is kept in rider seat & fitted with tie band as shown in photograph.



Removal of Rider Seat

- First remove 'Pillion seat'.
- Lift & pull backward rear end of 'Rider Seat'.
- Take out 'Rider seat'.

Battery

- It is located below rider seat.

Fitment of 'Rider Seat'

- Match the mating part (A) of 'Rider seat' with slot (B).
- Push 'Rider seat' towards petrol tank.
- Match 'Rider seat' rear Lugs (C) with the holes (D) provided on chassis.

Fitment of 'Pillion Seat'

- First make sure 'Rider seat' is fitted properly.
- Match the bracket of 'Pillion seat' (H) with Hook (I).
- Insert lock rod (F) of seat into hook (G).
- Press front portion of seat.

ANTILOCK BRAKING SYSTEM (ABS)



- Dual channel ABS System is fitted in these vehicles
- Dual channel ABS means ABS is fitted on front & rear wheels
- Always maintain a safe distance between you and objects ahead. Vehicle speeds should always be reduced during extreme road conditions. The braking distance for motorcycle equipped with an anti-lock braking system may be longer than for those without it on rough road conditions. During these conditions the vehicle should be driven at reduced speeds
- When you apply Front brake / Rear brake by pressing Front brake lever/Rear brake pedal under conditions which may lock the wheels, you feel a corresponding sensation (pulsation) in Front brake lever/ Rear brake pedal. (as applicable to model) This is normal and it means ABS is active.
- Also it is recommended to use both front and rear brakes simultaneously.
- Always slow down when cornering. The anti-lock brake system cannot prevent accidents resulting from excessive speeds.
- Never drive by disconnecting wheel speedometer sensor.



Before riding motorcycle be sure to check following items. Please give proper importance to these checks and perform all of them before riding motorcycle. If any irregularities are found during these checks, refer to the Maintenance chapter & see your dealer for the action required to return the motorcycle to a safe operating condition.

 **Warning:** Failure to perform these checks every day before you ride may result in serious damage or severe accident.

- Enough **fuel level** for planned distance of journey. No fuel leakage in fuel lines.
- **Engine oil** level (between upper and lower level mark)
- **Throttle cable** play of 2 - 3 mm. Smooth operation and positive return to closed position,
- **Brake Fluid** level above MIN mark provided on Front & rear reservoir
- **Drive Chain** slack of 20-30 mm adequately lubricated. • Function of all lights & horn
- **Clutch lever** play - 2 to 3 mm
- Smooth **steering movement** without restriction.
- **Side stand** return to It's fully up position.

- Correct **inflation pressure** in both tyres. Adequate tyre tread depth - no cracks / cuts.
- Correct **rear viewing** span adjustment of mirror.
- Cleaning cloth not to be kept in vicinity of high temperature zone e.g. Oil cooler, engine, silencer assembly, starter motor etc.
- Cleaning cloth to be kept in LH/RH seat cowl.

Instructions for Customer

- There is no fuel cock.
- Always maintain minimum 3 Liters petrol in fuel tank.
- Don't use fuel additives as it will result in rusting & clogging of Injector, Fuel pump module & catalytic convertor.
- If vehicle is tilted beyond 60 Deg, then Roll over sensor cuts off Ignition system as a safety feature.
- Never drive by disconnecting wheel speed sensor as ABS unit will not function.

HOW TO RIDE YOUR BIKE



1. Starting The Engine:

- Ensure minimum 3 liters petrol is available in fuel tank.
- Turn ignition switch key to 'I' position.
- Put kill switch in 'O' position.
- Confirm that transmission is in neutral / press the clutch lever if transmission is in gear.
- Keep throttle closed & press starter button,
- Release starter button as soon as engine starts.

"Cranking ON and OFF duration" control –

Cranking ON-OFF duration control feature to avoid battery discharge-

- 1st Crank ON (5 sec) & Disable for 2 sec.
- 2nd Crank ON (5 sec) & Disable for 2 sec.
- 3rd Crank ON (5 sec) & Disable for 10 sec. After a gap of 10 sec cranking cycle continues.

Note:

- The motorcycle is equipped with a clutch switch. This switch facilitates engine starting in neutral and gear position.

Gear Position	Clutch lever Position
Neutral	Released
Gear	Fully pressed

- In case of battery discharged condition please bring the vehicle to DPMC workshops or Service Dealers for repairs.

2. Shifting Gears:

- Close throttle and depress the clutch lever fully.
- Shift into next higher or lower gear.



Gear shifting Lever



Gear Shifting Pattern

3. Moving Off:

- Check that side stand is up.
- Depress the clutch lever.
- Shift into 1st gear.
- Open the throttle and release the clutch lever slowly and simultaneously.
- As the clutch starts to engage, open the throttle a little more, giving the engine just enough rpm to keep it from stalling.

HOW TO RIDE YOUR BIKE



Recommended Speed for Shifting Down

From 5th to 4th Gear	57 km/h
From 4th to 3rd Gear	45 km/h
From 3rd to 2nd Gear	33 km/h
From 2nd to 1st Gear	17 km/h

▲ Warning: When shifting down to lower gear, do not shift at such high speed that engine rpm jumps excessively. This may cause engine damage, & rear wheel may skid. Downshifting should be done at recommended speeds as shown in table above.

4. Braking & Stopping the Vehicle:

- Close the throttle completely, leaving the clutch engaged (except where shifting gears) so that the engine braking will help slow down the motorcycle.
- Shift down one gear at a time so that you are in Neutral when you come to a complete stop.
- When stopping, always apply both brakes at the same time.

5. Parking Using Side Stand:

- Support the motorcycle on a firm level surface with the side stand.
- Lock the steering on LHS.

Caution: Do not park on a soft or steeply inclined surface as the motorcycle may fall over.

HOW TO RIDE YOUR BIKE



Whenever vehicle is fallen down, remove plug of 'Y' connector drain tube & drain out accumulated petrol.

7. Running IN

Proper running-in is important for the better life & trouble free performance of the vehicle.

- During first 2000 kms running-in period do not exceed following speed limits.

Kms	1st	2nd	3rd	4th	5th
0-1000	10	20	30	40	50
1000-2000	20	30	40	50	60

- Always keep speed below the limits given in table.
- Do not race the engine excessively.
- Do not start moving or race the engine immediately after starting. Run the engine for a minute at idle speed to give the oil a chance to work up into the engine.



CAUTION

Always ensure side stand is UP while starting off. Under condition-side stand down & vehicle is in gear, self start will be disabled. 'side stand' Indication will be displayed in speedometer.

- Do Not REV engine in standstill condition.
- Always maintain engine oil between MIN & MAX mark at vehicle upright position on level surface.
- Always maintain Brake Fluid is above MIN mark at on front & rear brake reservoir keeping vehicle upright position on level surface.

LED Headlamp Condensation:

Condensation inside headlamp is a natural phenomenon.

Condensation occurs when atmospheric air containing water vapor or humidity enters the headlamp through the vents due to temperature difference. A thin film of fog can form on the inside surface of the headlamp lens. The thin fog will clear and exit through the vents during normal operating condition.

Condensation & fogging of headlamp lens may happen during rain or after washing. Moisture condensation inside the headlamp lens will disappear gradually by switching ON the headlamp in high beam and driving the vehicle at 30 to 40 Km/h speed for about 15 minutes. Time for evaporation will vary depending on the humidity of the ambient air.

HOW TO RIDE YOUR BIKE



Ensure following maintenance points to get optimum performance from your bike.

Fuel	Always maintain minimum 3 Liter Petrol in fuel tank.
Spark Plugs	Inspect and clean spark plugs. Adjust electrode gap. Replace spark plugs as per P.M. Chart.
Air Filter	Replace as per Periodic Maintenance Chart.
Engine Oil	Check engine oil level. Always use recommended grade and quantity.
Brakes	Ensure that the brakes are not dragging / binding.
Clutch	Ensure correct clutch lever play.
Tyre Air Pressure	Always maintain recommended tyre pressure.
Brake Fluid	Always maintain brake fluid level above minimum mark. Ensure no leakage of brake fluid in brake system.

Fuel Saving Tips:

A well maintained vehicle and good driving can contribute a lot to the saving of petrol. Following are a few simple fuel saving tips.

- Avoid harsh braking.
- Change the gear judiciously according to the speed and load requirement.
- Don't overload the vehicle above the specified payload.
- Use the accelerator judiciously.
- Cut off the engine if you want to stop for more than two minutes.

How to check mileage (Fuel efficiency)

Best way to calculate mileage is by following the full tank to full tank method.

- Fill fuel tank up to small mouth (brim).
- Run the bike for say 100 km.
- Fill the tank again up to small mouth (brim). In same fuel filling station, probably with same fuel dispenser.
- Divide kilometer run / fuel quantity filled.

SAFE RIDING TIPS



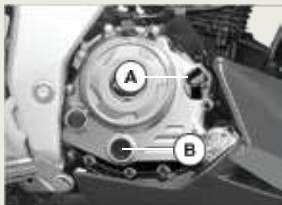
- Always wear Helmet while driving or riding.
- Read thoroughly the instructions given in this manual and follow them carefully.
- Avoid unnecessary accessories for the safety of both rider and other motorists.
- Familiarize yourself well with starting, acceleration and braking of the vehicle.
- When applying the brakes, use both front & rear brakes simultaneously. Applying only one brake may cause the vehicle to lose control.
- Riding at proper speed, avoiding unnecessary acceleration and braking are important safety, fuel consumption and longer life of the vehicle.
- During monsoon, drive vehicle more cautiously. Remember vehicle skid more easily during light showers.
- Keep both hands firmly on handle bar & both feet securely on rider footrest. Do not take away both hands & / or feet from resting area as this is very unsafe.
- Do not use mobile phones while riding as it could lead to fatal accident.

- It is suggested to customer to take appropriate care in area of heavy monsoon or high rainfall area. The appropriate surface preventive coat to avoid rusting / poor surface finish on account of adverse atmospheric conditions.
- Always carry vehicle registration & insurance papers, and a valid driving licence with you.

General Maintenance Tips:

- Vehicle cleaning to be done with soft & clean wet cloth to avoid scratches on painted parts.
- Clean & lubricate all the important parts as detailed in a periodic maintenance chart.
- Do not apply direct water jet on electrical / electronic parts.
- Do not obstruct engine cooling by adding mud protection sheet from front
- Drive cautiously. Start early & reach your destination safely.
- Avoid driving on loose sand or stones where vehicle is likely to skid.
- Properly wrap-up loose clothes while driving or riding to avoid entangling in wheel or other objects on road.
- Always concentrate on riding for safety.

ENGINE OIL



A : Oil Filler Cap
B : Oil Level Gauge

Engine Oil Level Checking:

- Check engine oil level every day. Park vehicle on center stand on level surface.
- Check oil level through oil level gauge 'B'.
- Always maintain engine oil level between upper and lower mark provided on Cover RH. Top up with specified grade of oil if the oil level is below lower level mark.

Engine Oil Capacity:

- Refill at servicing : 1300 ml
- During engine overhaul : 1450 ml

Recommended Engine Oil:

Model	Recommended Engine oil
Pulsar N160	SAE 20W50 JASO 'MA2' API SL

- **Engine oil replacement frequency : 1st service & then every 2500 Km.**



Caution:

- It is most important to adhere to recommended grade and frequency of oil change for the purpose of long life of critical engine components. For details refer periodic maintenance chart.

TUBELESS TYRE & TYRE PRESSURE



Tubeless Tyre:

The main advantage of tubeless tyres is in case of puncture the rate of air leak is very slow, hence customer can easily drive the vehicle upto nearest puncture repair shop for removing puncture.



Wheel Puncture:

- Visit nearest known tubeless tyre repair shop to remove puncture.
- Remove puncture by Filler or Plug method only.
- Do not use patch method to remove puncture of tubeless tyre.

⚠ Caution: Tubeless tyres are fitted in this motorcycle. The walls of the tyres in contact with the wheel rim should not be damaged in any way during fitment / removal of tyre. The tyre side walls in contact with wheel rim seals air.

Tyre Pressure:

Keep appropriate tyre pressure as mentioned below to increase life of the tyre & for better fuel consumption.

Model	Front Tyre	Rear Tyre
Pulsar N160	25 PSI	28 PSI (Solo) 32 PSI with Pillion

BATTERY



Battery : 12V - 4 Ah VRLA

- Battery is located below Rider Seat.

Battery Features:

- No topping-up is required
- Reduced self discharge, Enhance safety.
- No vent tube open to atmosphere hence no discharge of electrolyte through vent tube.

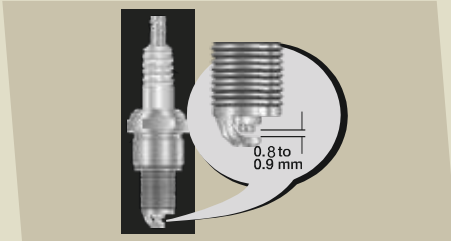
⚠ Caution:

Vehicle will not start if battery is discharged or disconnected from vehicle

- Environment care must be taken to dispose off the used battery.
- When 'Low battery icon' pop-up in speedometer display, it is advised to reach DPMC Workshops or Service Dealers & get it charged immediately.

How to keep battery healthy ?

- Switch 'Off' ignition when engine is not running.
- Get battery checked/ charged during periodic services.
- Do not add extra electrical accessories such as - Remote, Bigger Horn, Musical brake light etc. This will reduce life of battery & may damage ECU.
- Disconnect battery +ve & -ve wires if vehicle is to be stored for more than 2 weeks. This avoids self discharge.



Spark Plug

- Remove spark plug by using plug spanner.
- Clean the spark plug.
- Adjust the gaps if incorrect by bending outer electrode carefully. Spark Plug Gap : 0.8 to 0.9 mm.

Drive Chain Slackness

- Chain slackness will have to be adjusted whenever required.
- Std. Chain slackness 20-30 mm in 1st gear or both wheels touching to ground.
- Marking on chain adjusters should be identically positioned on both sides.





**Drive Chain
Cleaning**

Drive chain must be cleaned & lubricated as per periodic maintenance schedule.

Drive Chain (Sealed type)

- 'O' rings must always be kept wet for best performance hence lubricate at every 500 Km.
- Sealed chain lubrication can easily be done by owners using 'Chain Lube Spray Can'.



**Drive Chain
Lubrication**

Method of Sealed Chain Lubrication:

- Put vehicle on main stand. Clean the chain by using lint free cloth (If excessive mud / slush found approach DPMC workshops or Service Dealers for proper cleaning).
- Shake the can vigorously by holding vertically upright till the noise of steel ball inside heard uniformly.
- Hold spray can at the back of rear sprocket with extension tube nose at 5-10 cm.
- Rotate the wheel in reverse direction & spray the lube on middle portion of the chain up to full length of the chain.

BRAKE FLUID



Front & Rear Brake Fluid Level

- Front brake fluid reservoir is located on RH side of Handle bar.
- Rear brake fluid reservoir is located behind RH pillion holder bracket,
- To check brake fluid level, Park the vehicle perpendicular to the ground on level surface with handle bar in straight ahead condition,

- Always ensure that brake fluid level is above 'MIN' mark given on inspection Window.
- Incase of level drop, use only DOT-4 brake fluid (from sealed container) for top up & replacement. It is advisable that brake fluid should be replaced at every 30,000 Kms.

PERIODIC MAINTENANCE & LUBRICATION CHART



Sr. No.	Activities / Check Points	Recommended frequency - Service interval & Kms							Remarks
		1st (Free)	2nd (Free)	3rd	4th	5th	6th	7th	
		500 750	2000 2500	4500 5000	7000 7500	9500 10000	12000 12500	14500 15000	
1	Servicing with water wash	√	√	√	√	√	√	√	Protect to prevent water entry in Petrol tank, Silencer & electrical parts. Use caustic free detergent for washing.
2	Engine oil	R	R	R	R	R	R	R	SAE 20W50 JASO 'MA2' API SL. Oil level window cleaning @ 10000 kms by petrol spray & nylon brush
3	Oil strainer	CL	CL	CL	CL	CL	CL	CL	Oil strainer cleaning at the time of oil change.
4	Engine oil filter	R	R	R	R	R	R	R	Replace oil filter during every oil change
5	Air cleaner element** with 'O' ring.	CL	CL	CL	CL	CL	CL	CL	Replace Viscous air filter at every 20,000 kms.
	Drain tube cleaning.	CL	CL	CL	CL	CL	CL	CL	Replace Air filter cover 'O' ring along with air filter
6	Fuel Pump Nylon hoses with quick connector					C,R			Replace if required
7	Spark plug clean & check gap	CL,A	CL,A	CL,A	CL,A	CL,A	CL,A	CL,A	Replace at every 20000 kms
8	Valve tappet clearance					C,A			Adjust if required
9	Engine breather tube for cracks.			C,R	C,R	C,R	C,R	C,R	Replace if required. Need to remove RH Side cover. Breather Tube is visible with this cover removed.
10	EVAP system Hoses- check for cracks					C,R			Drain EVAP "Y" connection drain tube. Replace if found cut/damaged
11	Engine oil cooler fins		C,R	C,R	C,R	C,R	C,R	C,R	If found damaged, replace it.
12	Silencer drain hole cleaning			CL	CL	CL	CL	CL	

PERIODIC MAINTENANCE & LUBRICATION CHART



Sr. No.	Activities / Check Points	Recommended frequency - Service interval & Kms							Remarks
		1st (Free) 500 750	2nd (Free) 2000 2500	3rd 4500 5000	4th 7000 7500	5th 9500 10000	6th 12000 12500	7th 14500 15000	
13	Wiring harness connections, routine & Conduit / PVC sleeve / Tie band inspection.	C,A,T	C,A,T	C,A,T	C,A,T	C,A,T	C,A,T	C,A,T	Damaged conduit / PVC sleeves protection by applying electrical tape film & ensure tie bands to specific location.
14	Battery connections +ve terminal cap fitment.	C,L,T	C,L,T	C,L,T	C,L,T	C,L,T	C,L,T	C,L,T	Apply petroleum jelly on battery terminals. In case of Battery removal, 1. Battery negative terminal to be disconnected first. 2. Latch seat bracket to be removed.
15	Ignition switch contacts cleaning			CL,L	CL,L	CL,L	CL,L	CL,L	Use recommended WD40 spray
16	HT coil connections (Primary and Secondary)					C,T			
17	Starter motor & starter relay connections		C,T	C,T	C,T	C,T	C,T	C,T	
18	Oil pressure indicator check on console post ignition ON.	C,R	C,R	C,R	C,R	C,R	C,R	C,R	Icon should disappear post engine ON. After 4000 rpm, icon should not be displayed.
19	Check fault code, Clear fault history	C	C	C	C	C	C	C	
20	Sealed Drive chain wear** – Clean, lubricate & adjust. Replace if required	CL,L,A	CL,L,A	CL,L,A	CL,L,A	CL,L,A	CL,L,A	CL,L,A	Customer to use chain lub spray at every 500 kms

PERIODIC MAINTENANCE & LUBRICATION CHART



Sr. No.	Activities / Check Points	Recommended frequency - Service interval & Kms							Remarks
		1st (Free) 500 750	2nd (Free) 2000 2500	3rd (Free) 4500 5000	4th 7000 7500	5th 9500 10000	6th 12000 12500	7th 14500 15000	
21	Main Stand & Side stand pivot pin					CL,L			Use recommended AP grease.
22	Steering play	C,A	C,A	C,A	C,A	C,A	C,A	C,A	
23	Steering stem bearing & Cap steering bearing(Plastic)**					C,CL,L			Replace if required. Use AP grease for lubrication
24	Front fork oil & seals	C	C	C	C	C	C	C	Replace oil and oil seal +Dust seal in pair at every 30000kms
25	Swing arm NRB for more play								Lubricate NRB at every 40,000 kms Use AP grease.
26	Front & Rear Brake pads for wear limit.	C	C	C	C	C	C	R	Replace at every 15000 Kms
27	1.Check source of leakages if any in the brakesystem.	C,A,R	C,A,R	C,A,R	C,A,R	C,A,R	C,A,R	C,A,R	Check & Top up DOT4 brake Fluid in every service.
	2.Check Front & rear brake hose condition.								Replace DOT 4 brake Fluid & Master / Caliper seals at every 30000 kms
	3.Check Brake fluid level and top up, if needed.								
28	Rear sprocket fasteners for looseness.	C,T				C,T			Torque-3.5 to 3.8 Kgf-m
29	Rear wheel rubber shock dampers for excessplay.					C,R			Replace rear wheel rubber shock damper if required
30	Clutch & Throttle cable free play adjustment	C,A	C,A	C,A	C,A	C,A	C,A	C,A	Replace cables if operation found hard.
31	Head light focus adjustment	C,A	C,A	C,A	C,A	C,A	C,A	C,A	
32	Check & confirm all lights / LEDs / Switches /Horn working.	C,A	C,A	C,A	C,A	C,A	C,A	C,A	Contact type switches if found sticky then use recommended WD40 spray

PERIODIC MAINTENANCE & LUBRICATION CHART



Sr. No.	Activities / Check Points	Recommended frequency - Service interval & Kms							Remarks
		1st (Free) 500 750	2nd (Free) 2000 2500	3rd (Free) 4500 5000	4th 7000 7500	5th 9500 10000	6th 12000 12500	7th 14500 15000	
33	General lubrication - Clutch lever / Rear brake pedal	C,L	C,L	C,L	C,L	C,L	C,L	C,L	Use recommended AP grease.
34	Front & Rear Tyre air pressure.	C,A	C,A	C,A	C,A	C,A	C,A	C,A	Use Tyre pressure gauge
35	Mirror position & joint firmness.	C,A	C,A	C,A	C,A	C,A	C,A	C,A	
36	All fasteners tightness, few are	C,T	C,T	C,T	C,T	C,T	C,T	C,T	Recommended Torque values
	1. Front & rear axle								Front & rear axle- 8 to 10 Kgf-m
	2. Swing arm axle								Swing arm axle- 13 to 15 Kgf-m
	3. Engine foundation								Engine foundation Front bottom 4 to 4.2 Kgf-m, Front Top 2.8 to 3 Kgf-m, Rear- 4 to 4.2 Kgf-m Top- 2.2 to 2.4 Kgf-m
	4. Rider foot rest								Rider foot rest- 1.8 to 2.2 Kgf-m
	5. Pillion Stay								Pillion stay - 1.8 to 2.2 Kgf-m
37	Mobile USB port	C	C	C	C	C	C	C	Charging OK to be checked at Engine start condition using LED USB light
38	Drain hole no blockage verification below starter motor					C,CL			At every 10000 Kms.
39	Fuel tank water drain no blockage verification		C,CL	C,CL	C,CL	C,CL	C,CL	C,CL	

****More frequent cleaning may be required while driving in dusty environment.**

C: Check, A: Adjust, CL : Clean, R : Replace, T: Tighten, L : Lubricate

Note: Periodic parts, Oil, Coolant, Filters, All types of greases, Cleaning agents, Cables, Wear & tear parts, Rubber 'O' rings / oil seals / pipes, Gaskets to be replaced as per Periodic Maintenance and Lubrication Chart are mandatory and the same are chargeable to customer.

NON USE MAINTENANCE



Non-use maintenance is necessary if a vehicle remains off road for a longer duration (more than 15 days**). The correct and careful non-use maintenance carried out before storing the vehicle will prevent the vehicle from rusting and from such other non-operational damages like fire hazards.

- Clean the entire vehicle thoroughly.
- Empty the fuel from the fuel tank and (if fuel is left in for a longer time, the fuel will break and gummy substance could clog the carburettor).
- Remove spark plug & put several drops of Engine oil into the cylinder. Crank engine over slowly a few times to coat cylinder wall with oil & install back spark plug.
- Set the vehicle on a box or a stand so that both wheels are raised off the ground.
- Spray oil on all unpainted metal surfaces to prevent rusting. Avoid getting oil on rubber parts or brake liners.
- Cover entire vehicle neatly. Make sure that storage area is well ventilated & free from any source of flames or spark.
- Fill 10% excess air pressure in both wheels.
- Do not apply oil on front brake disc, to prevent rusting. If the front brake disc rusts during storage, do not attempt to clean it with soap water. The rust will go off automatically during first application of brake.

****For Battery :**

- a. Remove battery and keep it on wooden plank, in properly ventilated area.
 - b. Before taking the vehicle for use.
- Get the battery recharged from the DPMC workshops or Service Dealers
 - Apply petroleum jelly on battery terminals.

Preparation for regular use after storage:

- Follow daily safety checklist mentioned on page No.21

