For Maintenance and Safety

# INDIAN CHALLENGER OWNER'S MANUAL 2021



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Read, understand, and follow all of the instructions and safety precautions in this manual and on all product labels.

Failure to follow the safety precautions could result in serious injury or death.



Operating, servicing, and maintaining a passenger vehicle or off-road vehicle can expose you to chemicals including engine exhaust, carbon monoxide, phthalates, and lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. To minimize exposure, avoid breathing exhaust, do not idle the engine except as necessary, service your vehicle in a well-ventilated area and wear gloves or wash your hands frequently when servicing your vehicle.

For more information go to www.P65Warnings.ca.gov/passenger-vehicle.



2021 Rider's Manual

**Indian Challenger** 

All information contained within this publication is based on the latest product information available at the time of publication. Product improvements or other changes may result in differences between this manual and the motorcycle. Depictions and/or procedures in this publication are intended for reference use only.

No liability can be accepted for omissions or inaccuracies. Indian Motorcycle Company reserves the right to make changes at any time, without notice and without incurring obligation to make the same or similar changes to motorcycles previously built. Any reprinting or reuse of the depictions and/or procedures contained within, whether whole or in part, is expressly prohibited.

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Congratulations on your purchase of a new INDIAN MOTORCYCLE. You have joined an elite family of motorcycle riders who have acquired a celebrated piece of American history by choosing to own an INDIAN MOTORCYCLE.

Your new motorcycle is the end result of true dedication and craftsmanship by our engineering, design and assembly teams. It was designed and manufactured to meet our goal of providing you with a high quality motorcycle that you can ride trouble-free for many years to come. We hope you will take as much pride in riding your new motorcycle as our team did in building it for you.

We urge you to read this rider's manual thoroughly. It contains information essential to safe riding and proper maintenance of your motorcycle.

Your authorized INDIAN MOTORCYCLE dealer knows your motorcycle best and should be consulted for service and assistance. Skilled technicians using advanced equipment and methods are best qualified to perform all major repairs and service your motorcycle may require.

INDIAN MOTORCYCLE comply with all federal, state and local safety and emission regulations for the area of intended sale.

#### **CONGRATULATIONS!**

The following signal words and symbols appear throughout this manual and on your vehicle. Your safety is involved when these words and symbols are used. Become familiar with their meanings before reading the manual.

# **DANGER**

DANGER indicates a hazardous situation which, if not avoided, WILL result in death or serious injury.

**M**WARNING

WARNING indicates a hazardous situation which, if not avoided, COULD result in death or serious injury.

**A** CAUTION

CAUTION indicates a hazardous situation which, if not avoided, COULD result in minor to moderate injury.

#### NOTICE

NOTICE provides key information by clarifying instructions.

#### IMPORTANT

IMPORTANT provides key reminders during disassembly, assembly, and inspection of components.

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# INTRODUCTION IDENTIFICATION NUMBER RECORDS

Record important identification numbers below:

Vehicle Identification Number (VIN)	
Engine Identification Number	
Master PIN	
Rider PIN	
Key Fob #1 Serial Number	
Key Fob #2 Serial Number (optional)	

# SERVICE AND WARRANTY INFORMATION

Some procedures are beyond the scope of this manual. See your dealer to purchase an *INDIAN MOTORCYCLE Service Manual*. Some procedures provided in the service manual require specialized knowledge, equipment, and training. Be sure you have the required technical skills and tools that are needed before you attempt ANY service on your motorcycle. Please contact your authorized dealer before attempting any service work that is beyond your level of technical knowledge or experience, or if the work requires specialized equipment.

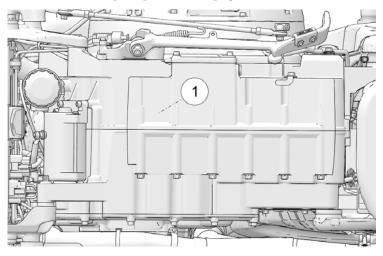
# **OPERATING MOTORCYCLE OUTSIDE THE U.S.A.**

If you plan to operate your motorcycle in countries other than the USA and Canada:

- Service facilities or replacement parts may not be readily available.
- Unleaded gasoline may not be available. The use of leaded fuels will cause engine damage, damage to your emissions systems and voiding of your warranty.
- Gasoline may have a considerably lower octane rating. Improper fuel can cause engine damage.

# **ENGINE IDENTIFICATION NUMBER**

The engine number (1) is stamped into the right crankcase beneath the balance shaft cover. The engine number is positioned behind the right floorboard with the engine installed in the frame. Record the number in the space provided on page 7.



# SAFETY ABOUT THE RIDER'S MANUAL

# **WARNING**

Failure to follow all recommended precautions and procedures could result in serious injury or death. Always heed all safety precautions and follow all operation, inspection and maintenance procedures outlined in this manual.

All references to RIGHT, LEFT, FRONT or REAR are from the operator's perspective when seated in a normal riding position. If you have questions about the operation or maintenance of your motorcycle after you've read this manual, please see your authorized dealer. To locate the nearest authorized INDIAN MOTORCYCLE dealer, visit the INDIAN MOTORCYCLE web site at www.indianmotorcycle.com.

Carefully read and understand the information found in the *Safety* section beginning on this page. To keep your motorcycle in peak condition on the road or in storage, understand and follow the procedures outlined in the *Maintenance* section beginning on page 81.

Bring the manual along when you ride. Following the precautions and procedures in the manual will add to your enjoyment and help keep you safe. If you lose or damage this manual, please purchase a new one through any authorized INDIAN MOTORCYCLE dealer. This rider's manual should be considered part of the motorcycle and should remain with the motorcycle when ownership changes.

# SAFE RIDING PRACTICES

# **WARNING**

Improper use of a motorcycle can result in serious injury or death to you, your passenger and others. To minimize the risk of injury, read and understand the information contained in this section before operating the motorcycle. This section contains safety information specific to the INDIAN MOTORCYCLE, as well as information about general motorcycle safety. Anyone who rides the motorcycle (operators and passengers) must follow these safety precautions.

# **MOTORCYCLING HAS INHERENT RISKS**

You can minimize those risks, but you can't eliminate them completely. Even if you're an experienced motorcycle operator or passenger, read all of the safety information in this manual before operating the motorcycle.

- Take a rider education course from the Motorcycle Safety Foundation® or another qualified instructor. The course will help you develop or refresh your expertise in safe riding habits through instruction and riding. For information on Motorcycle Safety Foundation® rider education courses in your area, call 1-800-446-9227 or visit www.msf-usa.org.
- Read, understand, and follow all information in this manual.
- Observe all maintenance requirements specified in this manual. See the INDIAN MOTORCYCLE Service Manual or an authorized INDIAN MOTORCYCLE dealer.

# DESIGN CHARACTERISTICS AFFECT HOW YOU SHOULD RIDE THE MOTORCYCLE

- The motorcycle is designed for on-road use with one rider (and one passenger if the motorcycle is equipped with a passenger seat). *Never exceed the GVWR or the GAWR*. Refer to the *Specifications* section, or the Manufacturing Information/VIN label on the motorcycle frame for model-specific information.
- Riding off-road, riding with more than one passenger, or carrying weight exceeding the maximum weight rating can make handling difficult, which could cause loss of control.
- During the first 500 miles (800 km) of operation, follow all break-in procedures as outlined on page 69. Failure to do so can result in serious engine damage.
- If your motorcycle is equipped with saddlebags, a windshield or a passenger backrest, be prepared to reduce operating speed to maintain stability.

# FOLLOW THESE GENERAL SAFE RIDING PRACTICES

- Before each ride, perform the Pre-Ride Inspections. Failure to do so may result in damage to the motorcycle or an accident.
- Until you're thoroughly familiar with the motorcycle and all of its controls, practice riding where there is little or no traffic. Practice riding at a moderate speed on various road surfaces and in different weather conditions.
- Know your skills and limits, and ride within them.

- Allow only licensed, experienced operators to ride your motorcycle, and then only after they have become familiar with its controls and operation. Make sure all riders read and understand this rider's manual before riding.
- Do not ride when you're fatigued, ill or under the influence of alcohol, prescription drugs, over-the-counter drugs or any other drugs. Fatigue, illness, alcohol and drugs can cause drowsiness, loss of coordination and loss of balance. They can also affect your awareness and judgment.
- If your motorcycle operates abnormally, correct the problem immediately. See the *INDIAN MOTORCYCLE Service Manual* or an authorized INDIAN MOTORCYCLE dealer.
- Ride defensively, as if you are invisible to other motorists, even in broad daylight. A motorist's failure to see or recognize a motorcycle is the leading cause of automobile/motorcycle accidents. Ride where you're clearly visible to other motorists, and observe their behavior carefully.
- Be especially cautious at intersections, as these are the most likely places for an accident.
- To prevent loss of control, keep your hands on the handlebars and your feet on the footrests.
- Be aware that a highway bar is not designed to protect the rider from injury in a collision.
- Obey the speed limit and adjust your speed and riding technique based on road, weather and traffic conditions. As you travel faster, the influence of all other conditions increases, which can affect the motorcycle's stability and increase the possibility of losing control.

- Do not move or operate the motorcycle with the steering locked (if equipped), as the severely restricted steering could result in loss of control.
- Reduce speed when:
  - The road has potholes or is otherwise rough or uneven.
  - The road contains sand, dirt, gravel or other loose substances.
  - The road is wet, icy or oily.
  - The road contains painted surfaces, manhole covers, metal grating, railway crossings or other slippery surfaces.
  - The weather is windy, rainy or otherwise causing slippery or rapidly changing conditions.
  - Traffic is heavy, congested, not allowing sufficient space between vehicles or otherwise not flowing smoothly.
  - You are being passed in either direction by a large vehicle that may produce a wind blast in its wake.
- When approaching a curve, choose a speed and lean angle that allows you to pass through the curve in your own lane without applying the brakes. Excessive speed, improper lean angle or braking in a curve can cause loss of control.
- Ground clearance is reduced when the motorcycle leans. Do not allow components to contact the road surface when leaning the motorcycle in a curve, as this could cause loss of control.
- Do not tow a trailer. Towing a trailer can make the motorcycle hard to handle.
- Retract the sidestand fully before riding. If the sidestand is not fully retracted, it could contact the road surface and cause loss of control.

- To maximize braking effectiveness, use the front and rear brakes together. Be aware of the following braking facts and practices:
  - The rear brake provides 40% of the motorcycle's stopping power, at most. Use the front and rear brakes together.
  - To avoid skidding, apply the brakes gradually when the road is wet or rough, or contains loose or other slippery substances.
  - If possible, avoid applying the brakes while making a turn. Motorcycle tires have less traction during turns, so braking will increase the possibility of skidding. Bring the motorcycle to the upright position before applying the brakes.
  - With new pads and rotors, allow up to 250 miles (500 km) of operation in urban driving conditions (not highway cruising) to allow pads to mate with new rotors. Brakes should be used frequently. During this time brake performance will be less effective. Avoid using brakes harshly unless in an emergency. Brake efficiency will gradually increase during this seating period.
- Hot engine and exhaust components can cause burns to skin and can ignite a fire if exposed to flammable materials. Always park the motorcycle clear of flammable materials and where people are not likely to contact hot components.

# **PROTECTIVE APPAREL**

#### IMPORTANT

Wear protective apparel to decrease the risk of injury and increase riding comfort.

- Always wear a helmet that meets or exceeds established safety standards. Approved helmets in the USA and Canada bear a U.S. Department of Transportation (DOT) label. Approved helmets in Europe, Asia and Oceania bear the ECE 22.05 label. The ECE mark consists of a circle surrounding the letter E, followed by the distinguishing number of the country which has granted approval. The approval number and serial number will also be displayed on the label. Laws in some areas *require* that you wear an approved helmet. Head injuries are the leading cause of fatalities in accidents involving motorcycles. Statistics prove that an approved helmet is the most effective protection in preventing or reducing head injuries. The helmet should fit snugly, be securely fastened, have no obvious defects, and have not previously been involved in an accident/crash.
- Wear eye protection to protect eyes from wind or airborne particles and objects. Wearing a face shield can help protect your face in an accident/crash and protect face from wind or airborne particles or objects. Laws in some areas *require* that you wear eye protection. We recommend that you wear approved Personal Protective Equipment (PPE) bearing markings such as VESC 8, V-8, Z87.1, or CE. Make sure protective eyewear is kept clean.

- All riders should wear bright or light-colored and/or reflective clothing to improve visibility to other motorists. A motorist's failure to see or recognize a motorcycle is the leading cause of automobile/motorcycle accidents.
- Wear gloves, a jacket, heavy boots and long pants to prevent or reduce injury from abrasions, lacerations or burns should the motorcycle fall. Wear boots with low heels, as high heels can catch on pedals or footrests. The combination of boots and pants should completely cover legs, ankles and feet, protecting skin from engine and exhaust system heat.
- Do not wear loose, flowing clothing or long boot laces, as they can catch on handlebars, levers or footrests, or they can become entangled in the wheels, causing loss of control and serious injury.

# **CARRYING A PASSENGER**

# **WARNING**

Do not carry a passenger unless the motorcycle is equipped with passenger seat and passenger footrests.

# CARRYING CARGO

Use the following guidelines when attaching cargo or accessories to the motorcycle. Where applicable, these guidelines also refer to the contents of any accessories.

- Keep cargo and accessory weight to a minimum, and keep items as close to the motorcycle as possible to minimize a change in the motorcycle's center of gravity. Changing the center of gravity can cause loss of stability and handling and could cause loss of control.
- Adjust ride height as needed. See page 107.
- Do not exceed the GROSS VEHICLE WEIGHT RATING (GVWR) or the GROSS AXLE WEIGHT RATING (GAWR) for your motorcycle.
- Distribute weight evenly on both sides of the motorcycle. Maintain even weight distribution by checking accessories and cargo to make sure they're securely attached to the motorcycle before riding and whenever you take a break from riding. Uneven weight distribution or sudden shifting of accessories or cargo while you're riding may cause difficult handling, loss of control and driving hazards for other motorists (if cargo falls from the motorcycle).
- For riding comfort and to ensure proper ground clearance, adjust rear shock air pressure (if equipped) as specified on the label located under the left side cover. See page 107.
- Do not attach large or heavy cargo such as sleeping bags, duffel bags or tents to the handlebars, front fork area or front fender. Cargo or accessories placed in these areas can cause instability (due to improper weight distribution or aerodynamic changes) and could cause loss of control. Such items can also block air flow to the engine and cause overheating that can damage the engine.

- Do not exceed the maximum cargo weight limit of any accessory (see accessory instructions and labels). Do not attach cargo to an accessory not designed for that purpose. Either circumstance could result in an accessory failure that could cause loss of control.
- Always obey posted speed limits.
- Do not attach anything to the motorcycle unless specifically designed for that purpose by INDIAN MOTORCYCLE.

# SADDLEBAGS AND OTHER STORAGE

Whenever operating a motorcycle equipped with cargo storage features such as saddlebags, racks, glove boxes or other storage compartments:

- Never ride at excessive speeds. Storage features and cargo, combined with the lifting or buffeting effects of wind, can make a motorcycle unstable and cause loss of control.
- Distribute weight evenly on each side of the motorcycle.
- Do not exceed the individual weight limit of any saddlebag or other storage compartment. Refer to the storage capacity label located on or near the storage feature.
- NEVER EXCEED the GROSS VEHICLE WEIGHT RATING (GVWR) or the GROSS AXLE WEIGHT RATING (GAWR), regardless of whether or not any storage feature is loaded to capacity. Exceeding the weight rating can reduce stability and handling and cause loss of control.
- Adjust ride height as needed. See page 107.

# **USE OF ACCESSORIES**

Because INDIAN MOTORCYCLE cannot test and make specific recommendations concerning every accessory or combination of accessories sold, the operator is responsible for determining that the motorcycle can be safely operated with any accessories or additional weight. Use the following guidelines when choosing and installing accessories:

- Do not install accessories that impair operator visibility or the stability, handling or operation of the motorcycle. Before installing an accessory, be sure that it does not:
  - reduce ground clearance when the motorcycle is either leaned or in a vertical position;
  - limit suspension or steering travel or your ability to operate controls;
  - displace you from your normal riding position;
  - obscure lights or reflectors.
- Bulky, heavy or large accessories can cause instability (due to the lifting or buffeting effects of wind) and loss of control.
- Do not install electrical accessories that exceed the capacity of the motorcycle's electrical system. Never install higher wattage light bulbs than those supplied as original equipment. An electrical failure could result and cause hazardous loss of engine power or lights, or damage to the electrical system.
- Use only genuine INDIAN MOTORCYCLE accessories designed for your model.
- Do not exceed the GROSS VEHICLE WEIGHT RATING (GVWR) or the GROSS AXLE WEIGHT RATING (GAWR) for your motorcycle.
- Adjust ride height as needed. See page 107.

# MODIFICATIONS

Modifying the motorcycle by removing any equipment or by adding equipment not approved by the manufacturer may void your warranty. Some modifications may not be legal in your area of operation. If in doubt, contact your authorized INDIAN MOTORCYCLE dealer.

# **A** CAUTION

Modifications could make the motorcycle unsafe to ride and could result in serious injury to operator or passenger, as well as damage to the motorcycle.

# PARKING THE MOTORCYCLE

When leaving the motorcycle unattended, turn the engine off.

#### NOTICE

Do not store your key fob near the motorcycle.

Park the motorcycle where people are not likely to touch the hot engine or exhaust system or place combustible materials near these hot areas. Do not park near a flammable source such as a kerosene heater or an open flame, where hot components could ignite combustible materials.

Park the motorcycle on a firm, level surface. Sloped or soft surfaces may not support the motorcycle. If you must park on a slope or soft surface, follow the precautions outlined on page 79.

# ANTI-LOCK BRAKE SYSTEM RESPONSE

When the anti-lock brakes engage during a braking event, the rider will feel pulsing at the brake levers. *Continue to apply steady pressure to the brakes for the best stopping performance.* 

# FUEL AND EXHAUST SAFETY

Always heed these fuel safety warnings when refueling or servicing the fuel system.



Gasoline is highly flammable and explosive under certain conditions.

- Always exercise extreme caution whenever handling gasoline.
- Always turn off the engine before refueling.
- Always refuel outdoors or in a well-ventilated area.
- Open the fuel cap slowly. Do not overfill the tank. Do not fill the tank neck.
- Do not smoke or allow open flames or sparks in or near the area where refueling is performed or where gasoline is stored.

# **A** WARNING

Gasoline and gasoline vapors are poisonous and can cause serious injury.

- Do not swallow gasoline, inhale gasoline vapors, or spill gasoline. If you swallow gasoline, inhale more than a few breaths of gasoline vapor, or get gasoline in your eyes, see a physician immediately.
- If gasoline spills on your skin or clothing, immediately wash it off with soap and water and change clothing.
- Exhaust gases contain carbon monoxide, a colorless, odorless gas that can cause loss of consciousness or death in a short time.
- Never start the engine or let it run in an enclosed area.
- Never inhale exhaust gases.

# SAFETY MAINTENANCE

# **WARNING**

Failure to perform safety maintenance as recommended can result in difficult handling and loss of control, which could result in serious injury or death. Always perform the safety maintenance procedures as recommended in this manual. Perform maintenance and repairs promptly. See the INDIAN MOTORCYCLE Service Manual or an authorized INDIAN MOTORCYCLE dealer or other qualified dealer.

- Before each ride, perform the Pre-Ride Inspections on page 59.
- Perform all periodic maintenance at the recommended intervals outlined in the *Periodic Maintenance* section.
- Always maintain proper tire pressure, tread condition and wheel and tire balance. Inspect tires regularly and replace worn or damaged tires promptly. Use only approved replacement tires. See the *Specifications* section.
- Always ensure proper steering head bearing adjustment. Regularly inspect the rear shock absorber and the front forks for fluid leaks or damage. Make any necessary repairs promptly. See page 109.
- Clean the motorcycle thoroughly to reveal items in need of repair.
- Fasteners must meet original specifications for quality, finish and type to ensure safety. Use only genuine INDIAN MOTORCYCLE replacement parts, and ensure that all fasteners are tightened to the proper torque.

# TRANSPORTING THE MOTORCYCLE

If you must transport the motorcycle:

- Use a truck or trailer. Do not tow the motorcycle with another vehicle, as towing will impair the motorcycle's steering and handling.
- Position and restrain the motorcycle in an upright position.
- Do not restrain the motorcycle using the handlebars.
- Loop tiedown straps (from the front) up and over the lower triple clamp, using care to not interfere with wiring and brake lines. Place tiedowns as wide apart as possible on the truck or trailer bed for best stability.
- Do not engage the side stand during truck or trailer transportation.

# ELECTROMAGNETIC INTERFERENCE

This vehicle complies with UN ECE Regulation 10 requirements and Canadian ICES-002.

# **RADIO COMPLIANCE STATEMENTS**

The following statements apply to radio components offered with this vehicle. These include but may not be limited to the touchscreen display.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This device complies with FCC RF radiation exposure limits for general population.

This device contains license-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's license-exempt RSS(s). Operation is subject to the following two conditions:

- 1. This device may not cause interference.
- 2. This device must accept any interference, including interference that may cause undesired operation of the device.

# **A** CAUTION

This equipment complies with part 15 of the Federal Communications Commission (FCC) rules. These requirements are intended to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications to this equipment not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

#### SAFETY

This vehicle contains the following radio equipment or components that contain radio equipment:

COMPONENT	<b>COMPONENT ID</b>	MANUFACTURER
Key Fob	4017761	Marquardt Switch, Inc.
Wireless Control Module (WCM)	4017762	Marquardt Switch, Inc.
Tire Pressure Monitoring System (TPMS) Sensor	2412417	Schrader
9200 Series Display (7" Ride Command Display)	RC-7	Polaris Industries Inc.

Hereby, INDIAN MOTORCYCLE declares that the above radio equipment is in compliance with EU Directive 2014/53/EU.

The full text of the EU declaration of conformity is available at the following internet address:

https://www.polaris.com/en-us/radio-conformity/

# GROSS VEHICLE WEIGHT RATING (GVWR)

# **A** WARNING

Exceeding the gross vehicle weight rating of your motorcycle can reduce stability and handling and could cause loss of control. NEVER exceed the GVWR of your motorcycle.

The *maximum load capacity* of your motorcycle is the maximum weight you may add to your motorcycle *without exceeding the GVWR*. This capacity is determined by calculating the difference between your motorcycle's GVWR and wet weight.

Refer to the *Specifications* section of this manual or the Manufacturing Information/VIN label on the motorcycle frame for model-specific information.

When determining the weight you will be adding to your motorcycle, and to ensure you do not exceed the maximum load capacity, include the following:

- Operator body weight
- Passenger body weight
- Weight of all rider's apparel and items in or on apparel
- · Weight of any post-production accessories and their contents
- · Weight of any additional cargo on the motorcycle

# **REPORTING SAFETY DEFECTS**

If you believe that your vehicle has a defect that could result in a crash or cause injury or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA) in addition to notifying INDIAN MOTORCYCLE in writing.

If NHTSA receives similar complaints, it may open an investigation, and if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy campaign. However, NHTSA cannot become involved in individual problems between you, your INDIAN MOTORCYCLE dealer or INDIAN MOTORCYCLE.

To contact NHTSA, or obtain other information about motor vehicle safety, you may either call the Vehicle Safety Hotline toll-free at 1-888-327-4236 (TTY: 1-800-424-9153), visit the NHTSA web site at www.safercar.gov, or write to:

ADMINISTRATOR, NHTSA 1200 New Jersey Avenue, SE West Building Washington, DC 20590

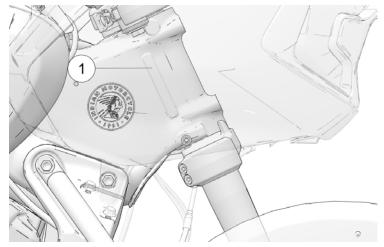
# **REPORTING SAFETY DEFECTS (CANADA)**

To report a safety defect to Transport Canada, you may either fill out an online defect complaint form at their website (English: http://www/tc/gc/ca/recalls, French: http://www.tc.gc.ca/ rappels) or contact their Defect Investigations and Recalls Division by calling toll-free 1-800-333-0510 (Canada) or 819-994-3328 (Ottawa-Gatineau area / International).

# SAFETY AND INFORMATION LABELS

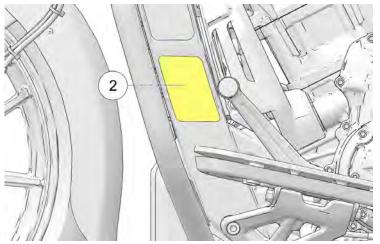
# **VEHICLE IDENTIFICATION NUMBER (VIN)**

The Vehicle Identification Number (VIN) label ① is stamped on the right side of steering head.



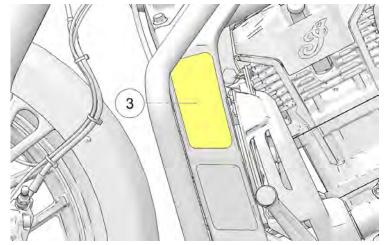
# VEHICLE EMISSION CONTROL INFORMATION (VECI)

The Vehicle Emission Control Information (VECI) label (2) is located on the left-hand side of the motorcycle.



# NOISE EMISSION CONTROL INFORMATION

The Noise Emission Control Information label  $(\ensuremath{\mathfrak{I}})$  is located on the left-hand side of the motorcycle.



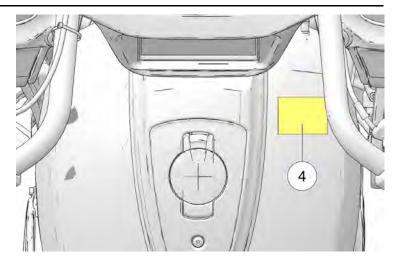
# **OPERATOR WARNING/FUEL RECOMMENDATION**

The Operator Warning/Fuel Recommendation safety label ④ is located on the fuel tank.

#### WARNING

- Read Owner's Manual and, during use, follow all safety precautions.
- Always wear an approved helmet, eye protection and protective clothing.
- If your Owner's Manual is missing, contact an Indian Motorcycle dealer for a replacement.

Never overfill fuel tank. Fuel level should not rise into fill neck funnel. Overfilling may result in degraded performance of engine and evaporative emission control system. PREMIUM UNLEADED FUEL RECOMMENDED 91 OCTANE MINIMUM



#### SAFETY

#### SHOCK PRESSURE WARNING SHOCK: HYDRAULIC ADJUSTMENT SETTING The Shock Pressure Warning (5) is located on the side cover. No Trunk **Total Cargo** Painted + Riders Settings Trunk (lbs) Settings Station

CAUTION: DO NOT USE

IMPACT

TOOLS OR EXCEED 10

FT-LBS OF

TORQUE WHEN

ADJUSTING. DAMAGE TO

COMPO-

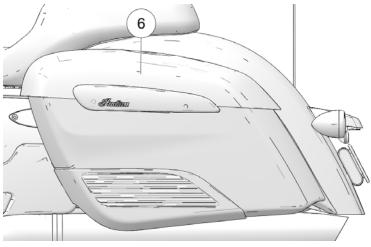
NENTS MAY OCCUR.

N/A

N/A

# **CARGO LIMIT WARNING**

The Cargo Limit warning label 6 is located inside the saddlebag.



#### WARNING

CARGO LIMIT: 10kg/22.0 lbs.

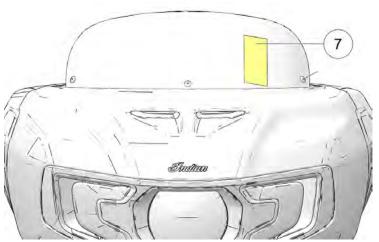
Including optional lid rack cargo. Lid rack cargo limit 2.2 kg/5.0 lbs. Including any optional accessory. Distribute weight evenly on both sides of the vehicle. Total weight of rider, passenger, accessories, and cargo must not exceed gross vehicle rating in owner's manual.

#### WARNING

Fairing Storage Cargo Limit: 1.5 lbs/0.7 kg (Per Compartment)

# WINDSHIELD WARNING

The windshield warning label  $\ensuremath{\overline{\textit{I}}}$  is located on the vehicle's windshield.



### SAFETY

ATTENTION: This item to be removed by customer only. **WARNING** 

- Do not ride with a damaged, loose, or improperly fitted windshield/wind-deflector. These conditions can reduce visibility, affect handling, or cause a loss of control.
- Regularly check the parts for damage and looseness. If you encounter an issue, contact your dealer.
- Windshields/wind-deflectors will not protect the rider in a collision.
- Dark/Smoked wind-deflectors will reduce visibility in low-light riding conditions.

#### CAUTION

- Brake fluid and alcohol will permanently damage the polycarbonate windshield.
- Do not clean the windshield/wind-deflector with glass cleaners or rain protective products.

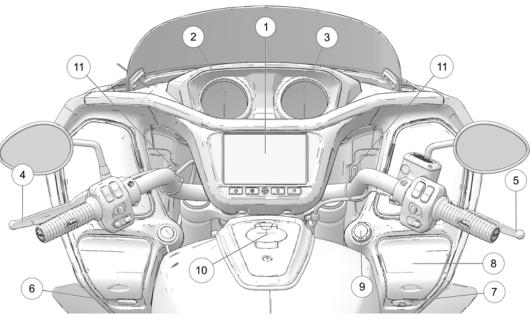
#### CLEANING

- Clean windshield or wind-deflector with a soft cloth and plenty of warm water. Dry with a soft clean cloth. Remove minor scratches with a quality plastic polishing compound.
- See windshield/wind-deflector installation instructions and the Owner's Manual for complete instructions on the proper care of your windshield or wind-deflector.

# INSTRUMENTS, FEATURES AND CONTROLS

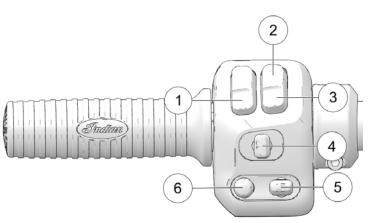
# INSTRUMENTS, FEATURES AND CONTROLS CONSOLE

- (1) Ride Command Display
- Speedometer/Fuel Gauge
- 3 Tachometer
- 4 Clutch Lever
- 5 Front Brake Lever
- **(6)** Heated Grip Switch (if equipped)
- 1 Saddlebag/Fuel Cap Lock Switch
- (8) USB Terminal
- (9) Battery Charge Port
- 10 Fuel Cap
- 1 Air Duct Doors

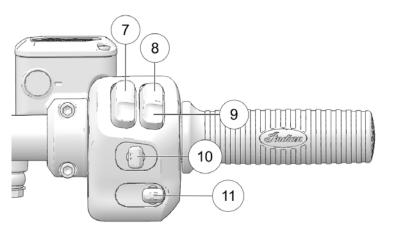


# INSTRUMENTS, FEATURES AND CONTROLS

# SWITCH LOCATIONS LEFT CONTROL



# **RIGHT CONTROL**

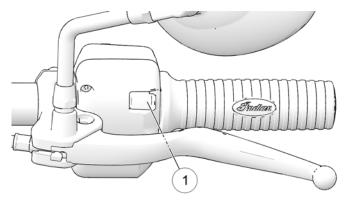


- ① Horn
- 2 Hi Beam
- 3 Low Beam/ Flash to Pass
- (4) Turn Signal/Hazard Signal
- $(\mathbf{5})$  Screen List Select
- 6 Audio Control Switch

- 1 Power Switch
- (8) Engine Stop Switch
- (9) Engine Start/Run Switch
- 10 Cruise Control Switch
- 1 Windscreen Control Switch

# **TOGGLE SWITCHES**

All models are equipped with toggle switches on the front side of the left (1) and right handlebar controls.



The power switch must be ON for the toggle switches to function. Use the right-hand switch to navigate through menus or accept dialog boxes on the Ride Command display. Use the left-hand switch to back out of menus, decline dialog boxes, hang up phone calls, and toggle through display screens.

# SWITCH SYMBOLS

SYMBOL	SWITCH	DESCRIPTION
þ	Horn Switch	Press the horn switch to sound the horn.
≣D	High Beam Headlight Switch	The high headlight beam switch activates the high headlight beam. See page 30.
≣D	Low Beam Headlight Switch	The low headlight beam switch activates the low headlight beam. Press down momentarily to activate Flash to Pass. See page 30.
夺╺	Turn Signal Switch	Move the switch to the left to activate the left turn signals. Move the switch to the right to activate the right turn signals. A signal will deactivate automatically when speed or distance reach predetermined levels. To cancel a signal manually, move the switch to the center position and push it inward.Momentary Feature: Move the turn signal switch left or right and hold it in that position for at least one second. The momentary feature will activate and the signal will then cancel when the switch is released.
	Emergency Flasher Switch (Hazard Switch)	The hazard switch activates and cancels the emergency flashers. See page 31.
	Screen List Select Switch	The Screen List Select Switch (if equipped) is used to navigate through rider screens.

## INSTRUMENTS, FEATURES AND CONTROLS

SYMBOL	SWITCH	DESCRIPTION
5	Audio Control Switch	The Audio Control Switch allows users to control the audio system features from the left control block.
$\bigotimes$	Stop Switch	Press the bottom of the switch (RUN) to allow the engine to start and run. Press the top of the switch (STOP) to stop the engine. See page 29.
<b>(</b> \$ <b>)</b>	Starter Switch	Use the starter switch to start the engine. The engine stop/run switch must be in the RUN position. See page 29.
$\bigcirc$	Power Switch	Press and release the power switch to enable or disable all electrical power to the vehicle. See page 28.
Ð	Left-Hand Trigger Switch	Use the left-hand switch to back out of menus, decline dialog boxes, hang up phone calls, and toggle through display screens. See page 27.
<b>&gt;</b>	Right-Hand Trigger Switch	Use the right-hand switch to navigate through menus or accept dialog boxes on Ride Command display.

# SWITCHES Power Switch

The power switch is located on the right control (1). Press and release the power switch to enable or disable all electrical power to the vehicle.

To disable all electrical power if the motorcycle is moving and the engine is running, press and hold the power switch for more than three seconds.



#### NOTICE

The headlights and any accessories plugged into power ports will remain on until the power switch is turned off.

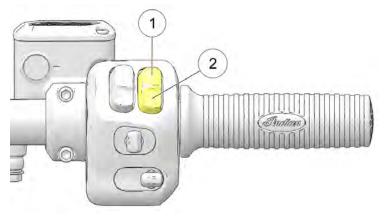
# INSTRUMENTS, FEATURES AND CONTROLS

#### NOTICE

To save battery power, the vehicle will automatically power off after five minutes of inactivity. Automatic power down can be overridden on bikes equipped with an INDIAN MOTORCYCLE Ride Command display through the Vehicle Settings menu.

# **ENGINE STOP/RUN SWITCH**

Use the engine stop/run switch to turn the engine off quickly.



Press the top of the switch (STOP) (1) to interrupt the circuits and stop the engine. The engine should not start or run when the switch is in the STOP position.

Press the bottom of the switch (RUN) (2) to complete the circuits and allow the engine to start and run. Press and Release the bottom switch (RUN) (2) to start the engine.

# **CRUISE CONTROL SWITCH**

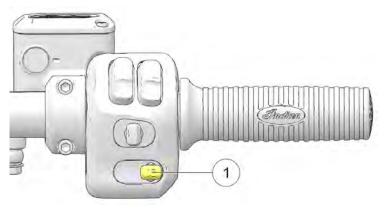
Cruise control can be activated and adjusted from the right control using the Cruise Control Switch (1). For more information about Cruise Control, see page 77.



Toggle Position	Function
Left	Set/Decelerate
Center	Off/On
Right	Resume/Accelerate

# WINDSHIELD SWITCH

Use the windshield switch 1 to adjust windshield height for the best wind deflection.



Press up on the switch to adjust the windshield upward. Press down on the switch to adjust the windshield downward. Double tap up or down on the switch to auto-adjust the windshield all the way up or down. If the windshield is traveling and the opposite direction is briefly pressed, the auto travel is canceled.

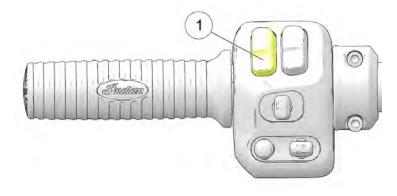
# HIGH/LOW HEADLIGHT BEAM SWITCH

The headlights automatically come on when the engine is started. See page 47.

The high/low headlight beam switch toggles the headlight between high beam and low beam. To activate the high beam, press the upper portion of the switch. To activate the low beam, press the lower portion of the switch. To momentarily flash headlights (Flash to Pass), press and hold the lower portion of the switch.

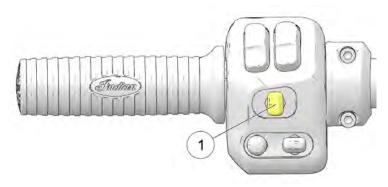
# HORN SWITCH

Press the horn switch 1 to sound the horn.



# **HAZARD SWITCH**

The power switch must be ON to activate the flashers, but once activated, the flashers will continue to flash when the power switch is turned off. When the flashers are active, all four turn signals flash.

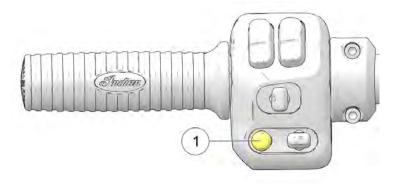


To activate the hazard switch, press on the center of the turn signal switch (1).

- · Press and hold the switch to activate the flashers.
- Press the switch again to cancel the flashers.

# AUDIO CONTROL SWITCH (IF EQUIPPED)

The Audio Control Switch 1 allows users to control the audio system features from the left control block.



### VOLUME

To increase volume, press up on the audio control switch. To decrease the volume, press down on the audio control switch. To mute the volume, push in on the audio control switch.

#### NOTICE

When using a Bluetooth® audio device, pushing down on the audio control switch will pause the audio. To resume, press down on the audio control switch again.

# TUNER

When the audio source is set to Tuner, press left or right to navigate through preset stations. Press and hold to seek.

# PERSONAL AUDIO

When audio source is set to Bluetooth® Audio or USB/iPod®, press left or right to navigate through audio tracks.

# AUXILIARY LIGHT SWITCH (IF EQUIPPED)

The auxiliary lights provide additional lighting on each side of the headlight. Some drivers prefer using the auxiliary lights when operating in foggy conditions or when passing a vehicle to help improve visibility to other motorists.

Press the auxiliary light switch to turn the auxiliary lights on or off. The switch background light changes color to indicate whether lights are on or off.

OFF: Red Light

**ON:** Green Light

The auxiliary lights turn off when the power switch is turned off. The auxiliary lights automatically turn on when the engine starts if they were on when the engine was shut down.

The switch background light flashes if a fault exists with either auxiliary light.

# **KEYLESS IGNITION**

# STARTING KEY FOB OPERATION:

When the electrical system is activated with the power switch, the key fob must be within range. If the key fob is not detected, the security light will flash. The electrical system will automatically shut down.

The starter motor will not engage during this time. If a key fob is not available, your personal identification number (PIN) can be entered using the turn signal switches, or on the Ride Command display screen (if equipped), to unlock the security system.

# DRIVING KEY FOB OPERATION:

After starting the engine, the Vehicle Control Module (VCM) will verify that the key fob is within range again when shifting from neutral into gear. The security light may turn on during this check. The VCM will not search for the key fob again after the vehicle has moved. If the key fob is lost during riding, the PIN will be needed to restart the vehicle.

If the key fob is not detected when shifting into gear:

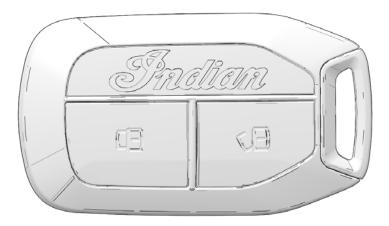
- The horn will sound and the security light will flash.
- The engine will then turn off.
- The electrical system will then automatically shut down.

# **KEY FOB STORAGE:**

The key fob should not be stored in the phone storage compartment, or near devices that can interfere with radio waves, such as cell phones, power supplies, or magnets, during operation.

# SADDLEBAG LOCK SWITCH (IF EQUIPPED)

Use the key fob or the lock switch on the console to lock and unlock the electric saddlebag locks. When using the console lock switch, the key fob must be within range. If the key fob is not detected, the security light and/or power switch will flash. The system will not perform the lock or unlock command.



# **INSTRUMENT CLUSTER**



- 1 Speedometer
- Indicator Lamps
- (3) Multi-function Display
- 4 Tachometer

# INSTRUMENTS, FEATURES AND CONTROLS

# **INDICATOR LAMPS**

LAMP	INDICATES	CONDITION
( ) ()	Cruise Control Status	Amber Lamp: Cruise control is enabled, but not set. When flashing, a cruise control related fault exists. Green Lamp: Cruise control is set to the desired speed. Read the safety and operation procedures before using cruise control.
<b>+ +</b>	Turn Signals	One arrow flashes when the corresponding turn signal is activated. Both arrows flash when the hazard signal is activated. <i>If there is a</i> <i>problem in the signal system, the</i> <i>lamps will flash at twice the normal</i> <i>rate.</i>
MPH	Vehicle Speed	When standard mode is selected, speed displays in miles per hour.
km/h		When metric mode is selected, speed displays in kilometers per hour.
<b>I</b> D	High Beam	The headlight switch is set to high beam. This indicator will flash if there is a problem with the low or high beam light.

LAMP	INDICATES	CONDITION
Ν	Neutral	The transmission is in neutral and the power switch is ON.
	Low Fuel	This lamp illuminates when approximately one gallon (3.8 liters) of fuel remains in the fuel tank. The LCD Display will switch into a Low Fuel Mileage Counter Mode to provide the rider with mileage tracking from the time the indicator was activated.
S	Sidestand Light	The sidestand light will turn on anytime the sidestand is down.
<u>_</u>	Engine Hot	This lamp illuminates to indicate an overheated engine. If the indicator flashes, a severe overheating condition exists.
$\wedge$	Chassis Fault	The alert symbol illuminates if a chassis fault occurs.

# INSTRUMENTS, FEATURES AND CONTROLS

LAMP	INDICATES	CONDITION
(!)	Tire Pressure Monitoring System (TPMS)	The TPMS indicator illuminates if low tire pressure is detected. It will also illuminate along with the Low Battery Voltage indicator when TPMS battery power is low, requiring service.
тс	Traction Control	This lamp illuminates when traction control is engaged.
Ŷ	Security	The security indicator illuminates when the security system is activated.
(ABS)	ABS Not Activated	The indicator remains on until the anti-lock system activates, which occurs when vehicle speed exceeds 6 MPH (10 km/h). When the lamp is illuminated, the anti-lock brakes will not activate, but the conventional brake system will continue to operate normally.

LAMP	INDICATES	CONDITION
¢	Check Engine	This lamp illuminates briefly when the power switch is turned ON. This indicates proper function. If this lamp illuminates while the engine is running, see an authorized dealer promptly. The light will remain on if the tilt sensor shuts down the engine. If abnormal sensor or engine operation is detected the light will remain on as long as the fault condition exists. Retrieve the error codes for diagnosis.
محته	Low Oil Pressure	This lamp illuminates when oil pressure drops below a safe operating pressure while the engine is running. If this lamp illuminates while the engine is running above idle speed, turn the engine off as soon as safely possible and check the oil level. If the oil level is correct and the lamp remains on after the engine is restarted, turn the engine off immediately. See your dealer.

## **SPEEDOMETER**

The speedometer displays forward vehicle speed in either miles per hour or kilometers per hour.

# TACHOMETER

The tachometer displays engine speed in revolutions per minute (RPM). A red line on the face of the gauge indicates the maximum safe engine speed.

Excessive engine speed can cause engine damage or failure, which could result in serious injury or death. Do not allow engine speed to exceed the red line.

# **FUEL GAUGE DISPLAY**



The fuel gauge displays fuel level. For the most accurate reading, sit on the motorcycle and bring it to the upright position.

The segments of the fuel gauge show the level of fuel in the fuel tank. When the last segment clears, a low fuel warning is activated. All segments including the fuel icon will flash. Refuel promptly.

# **REAR CYLINDER DEACTIVATION (IF EQUIPPED)**

Designed as an aid to reduce engine and exhaust heat to the rider, Rear Cylinder Deactivation turns off the rear cylinder when the engine gets hot.

The following condition must be met for Rear Cylinder Deactivation to be enabled.

- · Engine must be up to operating temperature
- Ambient Temperature must exceed 15°C (59°F)
- Engine speed must remain below 1000 rpm
- Gear position must be 1, 2, or N
- Throttle must be in the closed position (0% throttle)

Cylinder Deactivation can be turned off by accessing the settings menu in the drop-down from the top of the screen. Cylinder Deactivation controls are in the Vehicle menu. When Rear Cylinder Deactivation is functioning, an icon will illuminate at the top of the Ride Command display screen.

# RIDE COMMAND OVERVIEW



For the latest information about you INDIAN MOTORCYCLE Ride Command display, including software updates, please visit https:// ridecommand.indianmotorcycle.com

#### NOTICE

Using the display for an extended period of time while the vehicle's engine is off can drain the battery.

#### **M**WARNING

Do not enter information while operating your vehicle. Failure to pay attention to operating your vehicle could result in loss of control, injury, or death. You assume all risks associated with using this device. Read your User Guide.

### **A** WARNING

Driving while distracted can result in loss of vehicle control, crash, and injury. We strongly recommend that you use extreme caution when using any device that may take your focus off the road. Your primary responsibility is the safe operation of your vehicle. We recommend against the use of any hand-held device while driving and encourage the use of voice-operated systems when possible. Make sure you are aware of all applicable local laws that may affect the use of electronic devices while driving.

Before riding with your new display, do the following:

- Read this entire manual.
- Familiarize yourself with the features and operations of the display while the vehicle is stationary.
- Download the INDIAN MOTORCYCLE Ride Command app from the Apple® Store or Google Play® store and create your personalized account.
- Check http://www.polaris.com/en-us/rider-support/ownersmanual for the latest updates to the owner's manual.

### **RIDE COMMAND BUTTONS**

BUTTON	FUNCTION
Rider Screens	Press the Rider Screens button to access the customizable split screen menu system, access to ride data, vehicle status, and vehicle information.
Navigation	Press the Navigation button to access Ride Command navigation features (if equipped), find directions, and look up addresses, gas stations, and other points of interest.
Controls	Press the Controls Button to access the INDIAN MOTORCYCLE Badge Panel and additional settings.
Phone	Press the Phone button to pair a phone or headset to the INDIAN MOTORCYCLE Ride Command display.
Audio	Press the Audio Button to change the audio source, adjust volume level, and set radio presets.

# RIDER SCREENS

The Rider Screens are a customizable and provides unique access to ride data, vehicle status, and vehicle information. The Rider Screens also provide easy access to other often used features, such as Audio controls, Bluetooth® features, and Maps.

# NAVIGATION

Press the Navigation button to access Ride Command navigation features (if equipped), find directions, and look up addresses, gas stations, and other points of interest.





### **CONTROL PANEL**

	CONTROLS		NOTIFICATIONS	)
DISPLAY OFF	BRIGHTNESS			01UA
RIDE MO		MUST BE 044 TO LHANGE MODE	HEATED GR	IPS
	RAIN STANDARD	SPORT	1 (OFF	111
		-		
		Indian	¢ 4	LL SETTINGS
			Q A	LL SETTINGS

From the Control Panel you can access settings, adjust display brightness, select ride mode, and vehicle climate controls.

You can access the Control Panel at anytime by pressing the gear button on the gauge.

### PHONE

The Phone screen displays recent calls, contact list, key pad, and messages. The display will only show messages received while smartphone is paired via Bluetooth®.



### AUDIO SCREEN

The Audio screen allows you to access music stored on your smartphone or other music device. You can pair your device using Bluetooth®, or by connecting it to the display's USB port.

USB audio playback is only available on flash drives formatted to ex-FAT or FAT32. Playback from an iOS™ devices is only available on iPhone® 5S models or later.

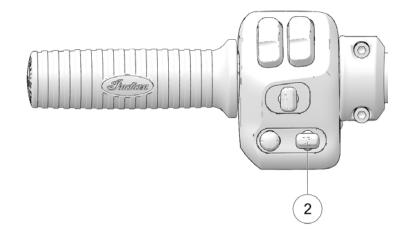


### INSTRUMENTS, FEATURES AND CONTROLS

### RIDE COMMAND HAND CONTROLS MEDIA SWITCH

Use the 5–way media switch ① to do the following:

- · Press center to mute
- Press up/down to increase/decrease volume.
- · Press left/right to move to previous/next track.

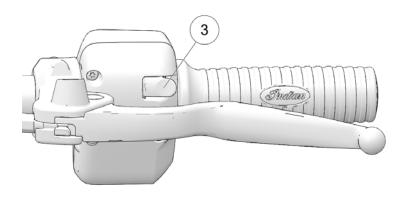


Use the 3-way select switch (2) to do the following:

- Press up and down to navigate display screen.
- Press center to select.

SELECT SWITCH

#### TRIGGER SWITCHES



### **RIDE COMMAND RIDE MODES**



There are trigger switches located on the reverse side of both the right and left (3) switch cubes.

Use the trigger switches to do the following:

- Press the right trigger switch to confirm selection.
- Press the left trigger switch to back out of menu screens.

You can choose between three ride modes, Rain, Standard, or Sport for an experience customized to your riding style. The throttle map for each ride mode was designed with a specific application in mind, resulting in one motorcycle with three distinct personalities.

#### NOTICE

For the ride mode to change the throttle must be fully disengaged. If you change the ride mode while the throttle is engaged, a spinning icon will appear indicating that the ride mode has not yet changed. Once the throttle is disengaged the icon will disappear and the ride mode will change.

### RAIN

Rain mode is ideal for rainy conditions, or when the road is wet. The throttle response is decreased, giving you more control and traction.

# STANDARD

Standard mode features a crisp throttle response and wellbalanced power delivery for responsive passing power and predictable, slow-speed handling.

# SPORT

Sport mode is designed for situations when instant response is needed. Sport mode quickens the throttle response and has a more aggressive power delivery for increased acceleration.

## **TRACTION CONTROL**

To disable the Traction Control, do the following:



- 1. Press the Menu/Control button to bring up the Control Panel.
- 2. Tap on the Traction Control toggle switch to disable Traction Control.

3. A prompt will appear asking you to confirm that you want to disable the Traction Control. Press DISABLE to confirm.

#### NOTICE

Traction Control will not become disabled until vehicle speed is at zero.

4. To re-enable Traction Control, press the Traction Control toggle switch again.

#### NOTICE

Traction Control is automatically enabled after every power cycle of the bike.

### **RIDE COMMAND SETTINGS**

From the Settings Menu you can view important details about your vehicle and personalize your touchscreen display. The settings menu is comprised of four categories: Information, General, Time, and Vehicle.

#### **GENERAL INFORMATION**

From the Information settings menu you can view the following:

- Vehicle Identification Number (VIN)
- Mileage
- Installed Software Version
- Oil Change Interval

#### **GENERAL SETTINGS**

From the General settings menu you can do the following:

- Themes (Day/Night/Auto)
- Manage Bluetooth® Devices
- Change the Language
- Set the Speed Units of Measure (MPH or KPH)
- Set the Temperature Units (F or C)
- Update Software

#### CLOCK

From the Time Settings you can do the following:

- Set the Time Format (12 hour or 24 hour)
- Enable GPS Time (automatically sets the time to the time zone you are currently in)
- Set Time (if GPS Time is not enabled)

#### **VEHICLE INFORMATION**

From the Vehicle Settings you can do the following:

- Oil Life/ Service Reset
- Access Vehicle Diagnostics

## **BLUETOOTH® PAIRING**

The INDIAN MOTORCYCLE Ride Command touchscreen display can be connected to a smart-phone and a headset simultaneously.

To pair a device, do the following:

- 1. From the Bluetooth® Devices settings screen, the Phone screen, or the Music screen, tap on the Add Device button to bring up the pairing prompt.
- 2. Put your Bluetooth® device into pairing mode.
- 3. Select the name of the device you want to pair from the touchscreen display to finish the pairing process.
- Confirm pairing (if applicable). Depending on the device you are pairing to the display you may be prompted to confirm pairing.

### **CONNECTED SERVICES**

Certain INDIAN MOTORCYCLE Ride Command equipped models include connected services, provided for a limited time starting on the date of purchase. The features include real time traffic, weather, and enhanced destination search capabilities. To check your connected service status and to renew, go to:http://ridecommand.indianmotorcycle.com.

## **UPDATE SOFTWARE AND MAPS**

For the latest software and maps for the Ride Command display, go to:

https://ridecommand.indianmotorcycle.com.

The display software and maps can be updated by connecting a USB stick containing the latest software version to the USB port located in the right-hand storage compartment. The Update Software menu in Settings will list any available updates on the USB stick. Choose the correct version and wait for the update to complete before removing the USB stick. The touchscreen display will automatically restart when software is updated.

#### NOTICE

A USB 2.0 or USB 3.0 flash drive formatted to ex-FAT or FAT32 is required to successfully perform a software update. The display will not recognize flash drives that do not meet these requirements.

#### NOTICE

For map updates, a 32GB or greater USB 2.0 or USB 3.0 flash drive formatted to exFAT is required.

#### IMPORTANT

Do not remove power from the display during the update process.

### **OVER THE AIR UPDATES**

#### NOTICE

Over the air updates are only available on models equipped with a cell modem.

If your model is equipped with a cell modem, the motorcycle will automatically download software updates from the cloud when the motorcycle is powered on and a cell modem connection is available. All downloads occur in the background and can be resumed if the connection is interrupted or if the motorcycle is turned off.



### HOW TO INSTALL SOFTWARE

Once new software has been downloaded to your display, you will be prompted with a notification.

To install new software, do the following:

- 1. Navigate to the General Settings tab in the Settings menu.
- 2. Press the "Install" button.

#### NOTICE

The following conditions must be met for the installation to initiate: the battery voltage must be greater than 12.5 V, the wheel speed must be at 0 mph, and the RPMs must equal 0.

#### NOTICE

The display will restart after the installation has successfully completed.

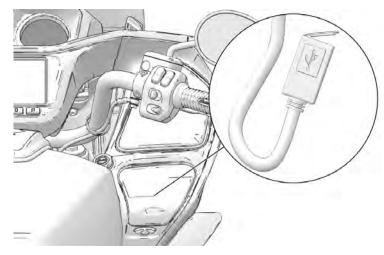
#### NOTICE

Critical updates will be installed automatically. A notification will display once the update is compete.

3. After the update had been completed, release notes will be provided on the software update screen.

# **USB PORT**

The USB Port makes it easy to power devices, such as phones, audio sources, or GPS units, in addition to allowing you to stream music through the LCD display to your Bluetooth® headset. On models equipped with a Ride Command display, the USB port is also used to update the display software. The USB port is located in the right-hand storage compartment. For the latest software, go to https://ridecommand.indianmotorcycle.com.



# **APPLE CARPLAY**

Apple CarPlay<sup>™</sup> seamlessly integrates your iPhone® with the motorcycle's Ride Command display and hand controls. Make phone calls, access your music, send and receive messages, get directions, and more while you stay focused on the road.

# **MISFIRE DETECTION**

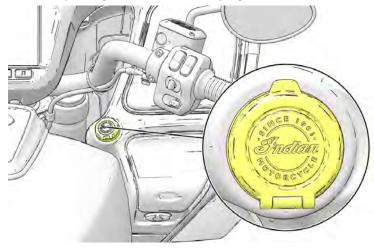
If a misfire is detected, the check engine indicator lamp will begin to flash and fuel will be cut to the affected cylinder(s). The check engine indicator lamp will continue to flash until the ignition switch has been moved to the off position. Restarting the engine will clear the flashing indicator and restore fuel to both cylinders. If another misfire occurs, the check engine indicator lamp will resume flashing and fuel will once again be cut to the affected cylinder(s). After the 3<sup>rd</sup> misfire, P0314 misfire fault is determined & set, the check engine light will remain on and fuel will be cut to the affected cylinder(s). If this occurs, your INDIAN MOTORCYCLE dealer can assist.

# HEATED GRIPS HEAT LEVEL SETTING (IF EQUIPPED)

The heated grips heat level displays momentarily after changing the heat level. A brief pop-up will appear on the touchscreen display when heat level is changed.

# BATTERY CHARGE PORT/HEATED GEAR Plug

The Battery Charge Port/Heated Gear plug is located on the dash.



# **A**CAUTION

Wait until bike cools to ambient temperature before plugging a battery charger into the battery charge port. Avoid routing charger cables over hot or sharp surfaces.

# HEADLIGHTS

The headlights automatically come on when the engine is started.

### **WARNING**

Motorcycle riders must remain as visible as possible at all times. To aid in this, the headlight must be on at all times. Do not modify the ignition/headlight wiring to circumvent the automatic headlight feature.

The headlights operate only when the engine is running. You can use the high/low headlight beam switch to override this function and allow the headlights to operate when the engine is not running. Turn the power switch on, then toggle the high/low headlight beam switch to turn the headlights on.

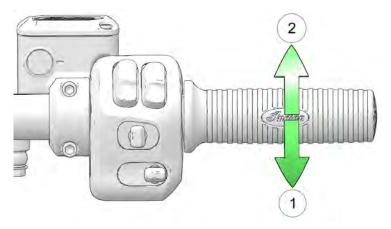
### INSTRUMENTS, FEATURES AND CONTROLS

# THROTTLE CONTROL GRIP

The throttle control grip is located on the right handlebar. Use the throttle control grip to control engine speed.

While seated in the proper riding position:

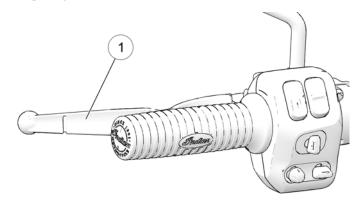
- Roll the grip rearward ① to open the throttle (increase engine speed and power).
- Roll the grip forward (2) to close the throttle (decrease engine speed and power), and cancel cruise control.



The control grip is spring loaded. When you release the grip, the throttle returns to the idle position.

# CLUTCH LEVER

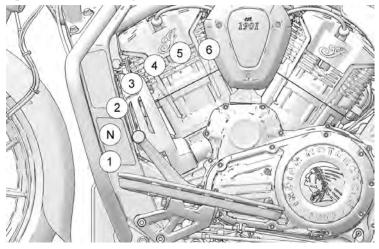
The clutch lever (1) is located on the left handlebar. Disengage the clutch before shifting gears. For smooth clutch operation, pull the lever quickly and release it in a brisk but controlled manner.



- To disengage the clutch, pull the lever toward the handlebar.
- To engage the clutch, release the lever in a brisk but controlled manner.

# **GEAR SHIFT LEVER**

The gear shift lever is located on the left side of the motorcycle. Operate the lever with your foot.



- Press downward on the toe lever to shift to a lower gear.
- Lift upward on the toe lever to shift to a higher gear.
- Release the lever after each gear shift.
- See page 74, for gear shifting procedures.

# TIRE PRESSURE MONITORING SYSTEM

#### NOTICE

On models equipped with a Tire Pressure Monitoring System (TPMS), the sensors are located 180° from the valve stem. Use caution when servicing tires. To avoid damaging a sensor, break the bead at the valve stem, then at 90° and 270° from the valve stem as required.

On models equipped with TPMS, the pressure of each tire can be viewed on the Ride Command display. If dashes display instead of a pressure value while traveling above 15 MPH (24 km/h), the system may not be functioning properly. See your dealer for service.

The TPMS warning indicator will illuminate if low tire pressure is detected. Always correct low tire pressure promptly. Always inspect tire pressure and condition before each ride. See page 63.

The TPMS display may indicate an increase in tire pressure while riding, a normal occurrence as tires warm up. Riding into colder conditions may result in a drop in tire pressure as tires cool down. Regardless of conditions, low tire pressures should always be corrected promptly.

# SADDLEBAGS

Do not exceed the weight limit of each saddlebag. Always distribute weight evenly in each of the saddlebags. Refer to the saddlebag/cargo warning label on or near the saddlebag for cargo capacity.

Hard bag capacity is 22 lbs. (10 kg) of cargo per side.

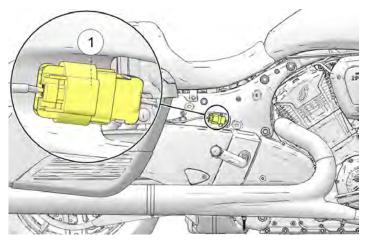
# HARD BAG REMOVAL

- 1. Remove the side cover.
- 2. Unlock the electric saddlebag locks (if equipped).

#### NOTICE

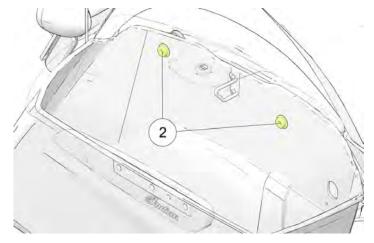
The provided key can also be used in the saddlebag latch buttons to unlock the saddlebag lids.

3. Disconnect the saddlebag lock wiring near the seat ①.



4. Press the lid latch release button and lift the lid.

5. Remove the saddlebag fastener bolts 2.



- 6. Tilt the saddlebag away from the frame of the vehicle to remove it.
- 7. To reinstall, place the hard bag in a fully seated position on the muffler.
- 8. Insert saddlebag fastener bolts and torque to specification.

TORQUE

18 ft-lbs (24 Nm)

### INSTRUMENTS, FEATURES AND CONTROLS

- 9. Reconnect the electrical wiring.
- 10. Reinstall the side panel, using care to avoid damaging electrical wires.



Improper saddlebag installation can result in loss of control, accident and driving hazards for other motorists (if saddlebag falls from the motorcycle). Always make sure saddlebag are mounted properly.

# SIDESTAND

The sidestand is equipped with a safety switch that prevents operation of the motorcycle if the sidestand is deployed.

### **WARNING**

An improperly retracted sidestand could contact the ground and cause a loss of control resulting in serious injury or death. Always retract the sidestand fully before operating the motorcycle.

To park the motorcycle, swing the end of the sidestand downward and away from the motorcycle until it is fully extended. Always turn the handlebars to the left for maximum stability. Lean the motorcycle to the left until the sidestand firmly supports the motorcycle.

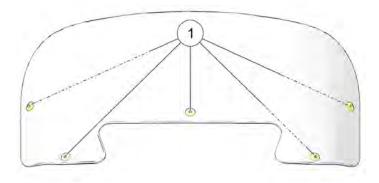
### **A**CAUTION

If the motorcycle weight is not resting on the sidestand, it will not lock. In this situation, any movement of the motorcycle could cause the sidestand to retract slightly. If the sidestand is not in the full forward position when the motorcycle weight is rested on it, the motorcycle could fall over, possibly causing injury and damage to the motorcycle.

To retract the sidestand, straddle the motorcycle and bring it to the fully upright position. Swing the end of the sidestand upward and toward the motorcycle until it is fully retracted.

# WINDSHIELD WINDSHIELD REMOVAL

- 1. Power the windshield to full up position to gain access to the five screws securing the windshield.
- 2. Remove the five screws securing the windshield ①.



- 3. Pull the windshield forward and away from the vehicle.
- 4. Reverse this procedure to reinstall the windshield.

#### TORQUE

Windshield Screws: 36 in-lbs +/- 4

## WINDSHIELD CARE

Clean the windshield with a soft cloth and plenty of warm water. Dry with a soft clean cloth. Remove minor scratches with a highquality polishing compound designed for use on polycarbonate surfaces.

#### NOTICE

Brake fluid and alcohol will permanently damage the windshield. Do not use glass cleaners, water or soil repellents, and petroleum or alcohol based cleaners on the windshield, as these products can damage the windshield.

# MIRRORS

Your vehicle is equipped with convex mirrors. Objects seen in a mirror may be closer than they appear. Always adjust mirrors before riding.

To adjust the mirrors, sit on the motorcycle in the anticipated riding position. Adjust the mirrors so that you can see a small portion of your shoulders in each mirror.

# BRAKES

The front brake lever activates the front brake calipers. The rear brake pedal activates the rear brake caliper. For maximum brake effectiveness, apply the front brake lever and the rear brake pedal together.

# ANTI-LOCK BRAKE SYSTEM (ABS)

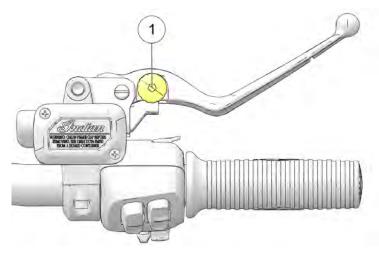
The anti-lock brake system automatically adjusts brake pressure as needed to provide optimum braking control, reducing the chance of wheel lock-up during hard braking events or when braking on rough, uneven, slippery or loose surfaces. See page 15.

- 1. The anti-lock brake system cannot be turned off.
- 2. The ABS indicator always illuminates when vehicle power is turned on. It remains illuminated until the anti-lock system activates, which occurs when vehicle speed exceeds 6 MPH (10 km/h).
- 3. When the lamp is illuminated, the anti-lock brakes will not activate, but the conventional brake system will continue to operate normally.
- 4. When the anti-lock brakes engage during a braking event, the rider will feel pulsing at the brake levers. *Continue to apply steady pressure to the brakes for the best stopping performance.*
- 5. If the ABS light does not come on when the key is turned to the ON or PARK position, your authorized INDIAN MOTORCYLE dealer can assist.

- If the lamp continues to illuminate after vehicle speed exceeds 6 MPH (10 km/h), the ABS system is not functioning. See your INDIAN MOTORCYCLE dealer or other dealer promptly for service.
- Operating with non-recommended tires or improper tire pressure may reduce the effectiveness of the anti-lock brake system. Always use the recommended size and type of tires specified for your vehicle. Always maintain the recommended tire pressure.
- The anti-lock brake system will not prevent wheel lockup, loss of traction or loss of control *under all conditions.* Always adhere to all safe motorcycle-riding practices as recommended.
- It is not unusual to leave tire marks on the road surface during a hard braking event.
- The anti-lock brake system does not compensate for or reduce the risks associated with:
- excessive speed
- reduced traction on rough, uneven or loose surfaces
- poor judgment
- improper operation

# **FRONT BRAKE LEVER**

The front brake lever is located on the right handlebar. This lever controls only the front brakes. The front brakes should be applied simultaneously with the rear brakes. To apply the front brake, pull the lever toward the handlebar. See page 76 for braking procedures.

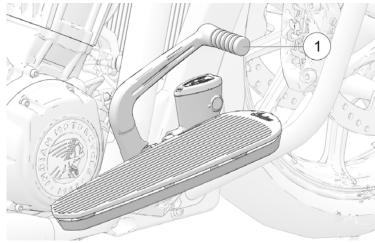


The front brake lever reach (distance to the hand grip) is adjustable. To adjust the front brake lever reach, do the following:

- 1. Gently push and hold the lever away from the hand grip. The adjuster wheel ① is located on top of the lever.
- 2. To increase reach distance, rotate the adjuster to a lower number.
- 3. To decrease the reach distance, rotate the adjuster to a higher number.

### **REAR BRAKE PEDAL**

The rear brake pedal (1) is located on the right side of the motorcycle. Press downward on the rear brake pedal to apply the rear brake.



### INSTRUMENTS, FEATURES AND CONTROLS

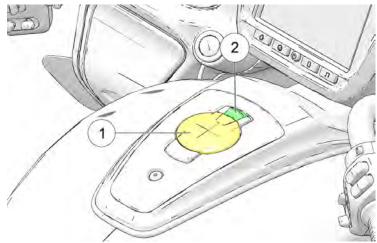
## **WARNING**

Resting your foot on the brake pedal will cause excessive and premature wear of brake pads and reduced braking efficiency, which could result in serious injury or death.

See page 76 for braking procedures.

# FUEL CAP

The fuel filler cap (1) is located on the center of the fuel tank.

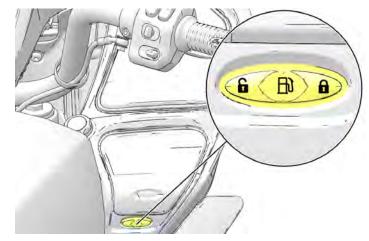


To open the fuel cap, do the following:

#### NOTICE

The fuel cap automatically locks when you start the engine.

1. Press the center of fuel cap unlock button located on the lower right fairing.



2. Press the fuel cap release button (2) (previous page) to release spring loaded cap.

#### NOTICE

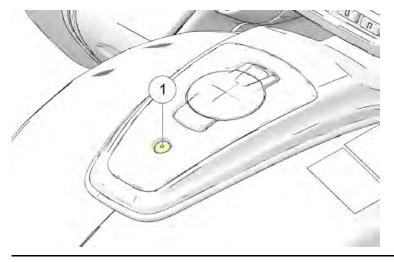
The fuel cap will not release if the engine is running.

- 3. See page 70 for fueling instructions.
- 4. To close, press fuel cap downward until it clicks.

# MANUAL OVERRIDE

#### NOTE

The manual override process should only be used in case of system lock issues or loss of bike electric power. You should use the electric unlock process detailed on page 55, or have a authorize dealer repair the system if it does not work. The manual override process shows you how to perform a 1 time manual reset of the cap lock to add fuel if stranded.



1. Ensure engine is not running before attempting to manually unlock fuel cap

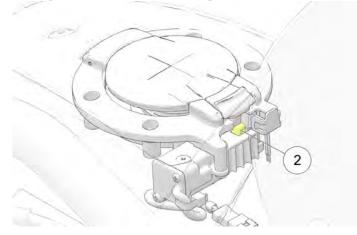
#### NOTICE

Cap will automatically lock/re-lock if closed and engine is running.

- Remove the console by unscrewing fastener at back of console

   (1).
- 3. With fastener removed, lift the rear of console enough to clear fuel cap and push forward to release front mount from keyway.
- 4. Lift console up and out, away from the fuel tank, to complete removal.

5. Use a small, narrow tool to push the lock solenoid at the front of fuel cap (under the latch) to the left position ②.



6. Reinstall console.

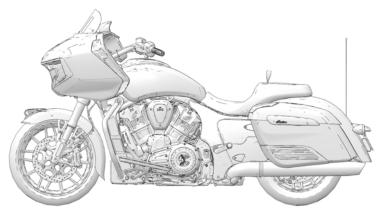
#### NOTICE

Console cannot be re-installed with fuel door open. It is recommended that the console be re-installed prior to opening the fuel cap.

7. Release Door/Cap via latch per normal operation.

# PRE-RIDE INSPECTIONS OVERVIEW

To keep your motorcycle in safe operating condition, always perform the recommended pre-ride inspections before each ride. This is especially important before making a long trip and when removing the motorcycle from storage.



### **WARNING**

Failure to perform the recommended pre-ride inspections could result in component failure while riding, which could result in serious injury or death. Always perform the pre-ride inspections before each ride. When inspection reveals the need for adjustment, replacement or repair, perform the service promptly, or your authorized INDIAN MOTORCYCLE can assist.

#### **WARNING**

Read the entire Instruments, Features and Controls section of this manual before riding your motorcycle. A complete understanding of the features and capabilities of your motorcycle is essential to its safe operation. Anything less may result in serious injury or death.

You must be familiar with all instruments and controls to perform the pre-ride inspections.

#### NOTICE

During the pre-ride inspections you may use products that are potentially hazardous, such as oil or brake fluid. When using any of these products, always follow the instructions and warnings on the product packaging.

When inspections reveal the need for adjustment, replacement or repair:

- refer to the maintenance section of this manual (page 81)
- refer to the INDIAN MOTORCYCLE Service Manual
- or see your authorized INDIAN MOTORCYCLE dealer or other dealer

### **ELECTRICAL INSPECTIONS**

Turn the power switch on and move the stop/run switch to RUN before performing the following electrical inspections. Turn the power switch off after completing these inspections. If inspection of any electrical item reveals component failure, repair or replace the component before operating the motorcycle.

ITEM	INSPECTION PROCEDURE
Head- lamp	Move the headlight switch from low beam to high beam to turn the lights on and verify operation of both beams. Start the engine. Switch to high beam. Verify that the high beam indicator comes on and that lamp brightness increases. Press and hold the low beam switch to verify "Flash to Pass" functionality.
Tail- lights/ Brake- light	Verify that the taillights and license plate light illuminate. Verify that the taillight lamps increase in brightness when the front brake lever is applied and also when the rear brake pedal is applied.
Turn Signals	Move the turn signal switch to the left. Verify that front and rear left turn signals flash, as well as the corresponding light on the indicator panel. Move the switch to the center position and push it inward to cancel the signal. Verify that the signals and the indicator light stop flashing. Repeat the procedure for the right turn signals.
Emer- gency Flashers	Press and hold the turn signal switch in for 1 second to activate flashers. Verify that all four turn signals flash, as well as the lamps on the indicator panel. Turn the flashers off. Verify that all signals and indicator lamps stop flashing.

ITEM	INSPECTION PROCEDURE	
Horn	Press the horn switch. Verify that the horn sounds loudly.	
Neutral Indica- tor	Place the transmission in neutral. Verify that the neutral indicator lamp illuminates and that the letter "N" displays in the gear position display.	
Low Oil Pressure Display	Start the engine. Verify that the low oil pressure indicator is not illuminated.	
Engine Stop/ Run Switch	Start the engine. Move the stop/run switch to the STOP position. Verify that the engine stops.	

### **GENERAL INSPECTIONS**

ITEM	INSPECTION PROCEDURE	
Engine Oil	Check the oil level. See page 61.	
Fuel	Check the fuel level. See page 36.	
Coolant	Check coolant level. See page 100.	
Fluid Leaks	Check the vehicle and the ground/floor for any fuel, oil, coolant, or hydraulic fluid leaks.	
Tires	Inspect condition, pressure and tread depth. See page 63.	
Brake Operation	Inspect pedal and lever movement.	
Brake Fluid Levels	Check front and rear brake fluid levels.	

ITEM	INSPECTION PROCEDURE
Brake Components	Inspect hoses and connections.
Throttle	Inspect hand grip and throttle movement.
Clutch	Check lever operation and freeplay.
Front Suspension	Check for leaks, debris and damage.
Steering	Check for smooth operation by turning handlebars full left and full right.
Rear Suspension	Inspect for leaks.
Ride Height	Make sure preload is adjusted properly for load.
Rear Drive Belt	Check for wear or damage. Check drive belt tension. See page 102.
Sidestand	Verify smooth operation, inspect pivot bolt and spring.
Fasteners	Inspect for loose, damaged or missing fasteners.
Mirrors	Adjust for proper rear view.
Trunk/ Saddlebags	If equipped, make sure the trunk and saddlebags are properly installed and that lids are securely closed.

# **ENGINE OIL LEVEL**

With the semi-dry sump lubrication system, the engine oil level on the dipstick will fluctuate, depending on the motorcycle's position and engine temperature when checked. To ensure a proper reading of the engine oil level, follow all inspection procedures closely.

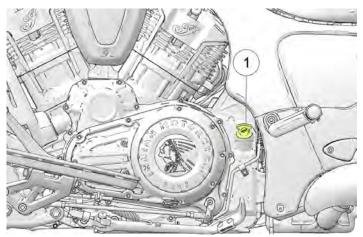
### **M**WARNING

Operating with insufficient, deteriorated or contaminated engine oil will cause accelerated wear and may result in engine or transmission seizure, which could result in loss of control and serious injury or death. Check the oil level frequently.

Always check the oil after running a cold engine at idle for 30 seconds. The oil fill/dipstick is located on the left side of the motorcycle. Always use the recommended oil. See page 153.

- 1. Position the motorcycle on level ground in the fully upright and centered position.
- 2. Start the engine (from cold) and allow it to idle for 30 seconds. Stop the engine.

3. Remove the dipstick (1) and wipe it clean.



- 4. Thread the dipstick until fully seated.
- 5. Remove the dipstick and view the oil level.

#### NOTICE

Do not overfill. Overfilling can result in loss of engine performance and an oil-saturated air filter. Use a suction device to remove excess oil if overfilled. 6. Add the recommended oil as needed to bring the level within the safe operating range (anywhere between the two marks on the dipstick). If the oil level on the dipstick is anywhere in the safe range, do not add oil. Oil should be added only if the proper oil check procedure is followed and the level is below safe mark.

#### NOTICE

Oil should be added only if the proper oil check procedure is followed and the level is below the safe mark.

#### NOTICE

The approximate volume between the FULL (2) and ADD (3) marks on the dipstick is 0.5 qts. (.47 L).



- 7. Reinstall the dipstick securely.
- 8. Repeat steps 3–7 to ensure the level is within the safe operating range.

### TIRES

## **WARNING**

Operating the motorcycle with incorrect tires, incorrect tire pressure or excessively worn tires could cause loss of control or accident. Underinflation can cause a tire to overheat and result in a tire failure. Only use tires approved by INDIAN MOTORCYCLE for the model of the motorcycle. See your dealer. Use of unapproved or an improperly mixed front and rear tire can result in decreased handling performance and stability, potentially leading to reduced control of the motorcycle. Always maintain proper tire pressure as recommended in the rider's manual and on safety labels.

# TIRE PRESSURE

Improper tire pressure can result in irregular tire wear, tire failure, reduced fuel economy and a poor riding experience. It can also affect handling and stopping ability.

Slow tire pressure loss over time is normal for a functional tire. Although a tire pressure monitoring system (TPMS) will alert the user to a low pressure condition (if equipped), always inspect tire pressure and condition before each ride.

Check tire pressure before riding, when the tires are cold. This will provide the most accurate reading, as riding warms the tires and increases tire air pressure. Tires remain warm for at least 3 hours after a ride. Do not adjust tire pressure immediately after riding. As tires cool, the pressure will drop and result in underinflation. Always check and adjust tire pressure when tires are cold. Using supplied air pressure gauge, adjust tire pressure to the recommended pressure. See page 122.

## TIRE CONDITION

Inspect the tire sidewalls, road contact surface and tread base. If inspection reveals cuts, punctures, cracks or other wear or damage, replace the tire before riding. Only use tires approved by INDIAN MOTORCYCLE for the model of the motorcycle. See your dealer. Use of unapproved or an improperly mixed front and rear tire can result in decreased handling performance and stability, potentially leading to reduced control of the motorcycle.

# TIRE TREAD DEPTH

Measure the tread depth near the center of the tread on both tires. See page 121. Replace any tire with a tread depth of less than 1/16 inch (1.6 mm).

#### PRE-RIDE INSPECTIONS

# FRONT BRAKE FLUID LEVEL

- 1. Bring the motorcycle to the fully upright position. Position the handlebars so that the fluid reservoir is level.
- 2. View the fluid level through the sight glass ①. The fluid should be clear. Replace cloudy or contaminated fluid.



- 3. The fluid level should be above the minimum indicator mark 2 in the sight glass.
- 4. If the fluid level is low, inspect brake pads as outlined on page 119. If pads are not worn beyond the service limit, inspect the brake system for leaks. Check for signs of brake fluid leaks around hoses, fittings, reservoir, and brake calipers.
- 5. Add brake fluid if necessary. See page 117.

# FRONT BRAKE LEVER

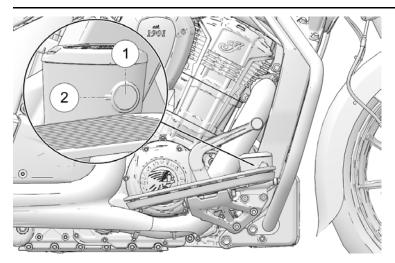
- 1. Pull the front brake lever toward the handlebar and hold it. The lever should move freely and smoothly. The lever should feel firm and continue to feel firm until released.
- 2. Release the lever. It should return to its rest position quickly when released.
- 3. If the front brake lever fails to perform as stated, service the brake lever before riding.

# **REAR BRAKE PEDAL**

- 1. Press downward on the rear brake pedal. It should move freely and smoothly. The pedal should feel firm and continue to feel firm until released.
- 2. Release the pedal. It should return to its rest position quickly when released.
- 3. If the rear brake pedal fails to perform as stated or travels too far before beginning to engage the brake, service the brakes before riding.

# REAR BRAKE FLUID LEVEL

The rear brake fluid reservoir is located near the rear brake pedal. View the reservoir level from the right side of the vehicle.



- 1. Position the motorcycle on level ground in the fully upright position.
- 2. View the brake fluid through the reservoir 1.
- 3. The fluid should be clear. Replace cloudy or contaminated fluid.
- 4. The fluid level should be above the minimum indicator mark (2) on the reservoir body. Add brake fluid as needed.

# **BRAKE LINES**

Inspect all brake hoses and connections for dampness or stains from leaking or dried fluid. Tighten any leaking connections to the proper torque values and replace components as necessary. See the *INDIAN MOTORCYCLE Service Manual* or an authorized INDIAN MOTORCYCLE dealer or other qualified dealer.

# **WARNING**

Brake fluid leaks or low brake fluid levels could cause brake system failure, which could result in serious injury or death. Do not operate the vehicle with low brake fluid levels or when leaks are evident (dampness or stains from dried fluid). See your authorized INDIAN MOTORCYCLE dealer or other qualified dealer.

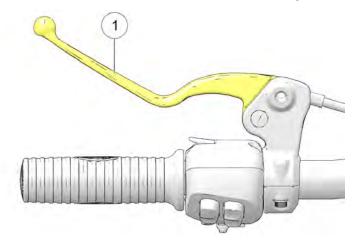
# THROTTLE

Rotate the throttle control grip. It should rotate smoothly from the rest position to the completely open position. It should return to the rest position quickly when released.

#### PRE-RIDE INSPECTIONS

# **MECHANICAL CLUTCH**

1. Squeeze the clutch lever (1) toward the handlebar and release it. It should move freely and smoothly, and it should return to the rest position quickly when released. If the lever fails to perform as stated, service the clutch lever before riding.



2. Freeplay (gap) is the amount of lever movement from the rest position to the point of cable resistance. Clutch lever freeplay should be 0.5-1.5 mm. Measure the gap between the clutch lever and the lever housing. Adjust clutch lever freeplay if necessary.

#### NOTICE

The starter interlock switch is dependent on the clutch lever freeplay being set correctly to ensure activation of the clutch safety switch.

# SIDE-STAND

- 1. On level ground, straddle the motorcycle and bring it to the fully upright position.
- 2. Move the side-stand up to the stored position and down to the fully extended position several times. It should move smoothly and quietly. Make sure the return spring holds the side-stand tightly in place when the side-stand is in the stored position. Adjust or replace a loose spring.
- 3. Inspect the side-stand pivot bolt for looseness or wear. Tighten or replace a loose or worn bolt.
- 4. Periodically test the side-stand safety switch for proper operation. With the transmission in gear and brakes applied, attempt to start the engine while the side-stand is down. The engine should NEVER start in any gear except neutral if the side-stand is down. If the engine starts during this test, see your dealer for service.

# FASTENERS

- 1. Inspect the entire motorcycle chassis and engine for loose, damaged or missing fasteners.
- 2. Tighten loose fasteners to the proper torque. See the *INDIAN MOTORCYCLE Service Manual* or an authorized INDIAN MOTORCYCLE dealer or other qualified dealer.

#### NOTICE

Always replace stripped, damaged or broken fasteners before riding. Use genuine INDIAN MOTORCYCLE fasteners of equal size and strength.

# FRONT SUSPENSION

Inspect the front forks for oil leaks or damage, and verify smooth suspension operation. See page 108.

# STEERING

- 1. On level ground, straddle the motorcycle and bring it to the fully upright position. Turn the handlebars from stop to stop. The action should be smooth, but not loose.
- 2. Make sure wires, hoses and control cables do not interfere with smooth steering.

# **REAR SUSPENSION**

Check the rear shock absorber mounting and inspect for leaks. See your dealer for service if you discover leaks or malfunction of any kind. See page 107.

#### **WARNING**

Inadequate ground clearance could result in components contacting the ground, causing loss of control and serious injury or death. Always ensure ground clearance is at specification.

# **REAR DRIVE BELT**

1. Check drive belt tension. See page 102

#### NOTICE

The drive belt system must be cool, clean and dry to accurately measure belt tension (deflection). Do not measure belt tension when the belt or drive system is wet or when it is hot (such as immediately after riding).

- 2. Check the drive belt for debris.
- 3. Inspect drive belt condition. See page 102. If you discover cracks, broken teeth or frayed edges, replace the drive belt before riding. See the *INDIAN MOTORCYCLE Service Manual* or an authorized INDIAN MOTORCYCLE dealer can assist.

#### PRE-RIDE INSPECTIONS

# FUEL LEVEL



For the most accurate reading, sit on the motorcycle and bring it to the upright position before turning it on.

The segments of the fuel gauge show the level of fuel in the fuel tank. When the last segment clears, a low fuel warning is activated. All segments including the fuel icon will flash. Refuel promptly.

# OPERATION OVERVIEW

The operation section of this manual describes how to ensure maximum performance and longevity through the proper care and operation of your motorcycle.

Important areas covered by the operation section include:

• Engine Break-In

Accelerating

Fueling

Braking

- Starting the Engine
- Shifting Gears

- Stopping the Engine
- Using Cruise Control (if equipped)
- Parking

#### NOTICE

Even if you're an experienced motorcycle operator or passenger, read all of the safety information in this manual before operating the motorcycle. See page 9.

# **ENGINE BREAK-IN**

The engine break-in period for your motorcycle is the first 500 miles (800 km) of operation. During this break-in period, critical engine parts require special wear-in procedures so they seat and mate properly. Read, understand and follow all break-in procedures to ensure the long-term performance and durability of your engine.

#### NOTICE

Failure to properly follow the engine break-in procedures outlined in this manual can result in serious damage to the engine. Avoid full throttle operation and other conditions that may place an excessive load on the engine during the break-in period.

The more cautiously you treat your motorcycle during the break-in period, the more satisfied you will be with its performance later on. Overloading the engine at low RPM and/or running the engine prematurely at high RPM may result in damage to the pistons and/ or other engine components.

Observe the following precautions during the break-in period:

- Upon initial start-up, do not allow the engine to idle for long periods as overheating can occur.
- Avoid fast starts with wide open throttle. Drive slowly until the engine warms up.
- Avoid running the engine at extremely low RPM in higher gears (lugging the engine).
- Drive within the recommended operating speeds and gears.

# **OPERATING SPEEDS AND GEARS**

ODOMETER			
MILES	KM	BREAK-IN PROCEDURE	
0-90	0-145	Do not operate for extended periods above 1/3 throttle or at any one throttle position. Vary engine speed frequently.	
91-300	146-483	Do not operate for extended periods above 1/2 throttle or at any one throttle position. Vary engine speed frequently.	
301-500	484-800	Do not operate for extended periods above 3/4 throttle.	
At 500	At 800	Perform the break-in maintenance outlined in the maintenance section of this manual. Break-in maintenance should be performed by a dealership. Break-in maintenance must include inspection, adjustments, fastener tightening and an engine oil and filter change. Performing break-in maintenance at the required odometer reading helps ensure peak engine performance, minimal exhaust emissions and maximum service life of the engine.	

# FUELING

Always dismount the motorcycle and refuel on level ground with the sidestand down. Review the fuel warnings. Use only the recommended fuel. See page 153. Hold the nozzle while filling. Do not rest the weight of the nozzle and hose on the filler neck. Do not leave the nozzle unattended.

### **WARNING**

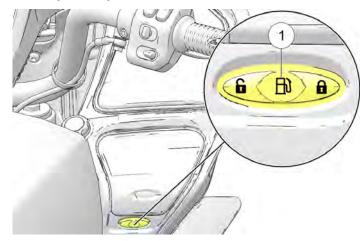
Overflows or spilled gasoline could contact a hot engine or exhaust system and cause a fire, which could result in serious injury or death. Do not allow gasoline to contact hot components.

### **WARNING**

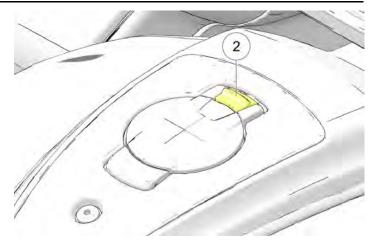
Always fill the fuel tank slowly to prevent spillage. Do not overfill the fuel tank. Leave space in the tank to allow for the fuel to expand.

#### **OPERATION**

1. Press the center of the fuel cap unlock button located on the lower right fairing ①.



2. Press the full cap release button (1) to access the fuel tank.



- 3. Insert the fuel nozzle into the fuel tank filler neck.
- 4. Add fuel to the tank until it crests the circular-shaped opening in the filler neck column. The tank is full at this level. Do not overfill the fuel tank. Fuel level should not rise into the fill neck. Overfilling may result in degraded performance of engine and evaporative emissions control system.
- 5. Always securely close the fuel cap before remounting the motorcycle.

### OPERATION

#### NOTICE

Fuel can damage painted surfaces and plastic parts. If gasoline spills on the any part of the motorcycle, immediately rinse it off with water or wipe it dry with a clean cloth.

# PRIMING THE FUEL SYSTEM

If the motorcycle runs out of fuel, prime the fuel system before attempting to restart the engine.

- 1. Fill the fuel tank.
- 2. Turn the power switch on.
- 3. Move the engine stop/run switch to the RUN position.
- 4. Allow the fuel pump to run until it stops (about 2 seconds).
- 5. Move the engine stop/run switch to the STOP position.
- 6. Repeat steps 3-5 five times.
- 7. Move the engine stop/run switch to the RUN position.
- 8. Start the engine. See page 72.

# STARTING THE ENGINE

The starter interlock system allows the engine to be started only when the transmission is in neutral, or when the transmission is in gear with the clutch disengaged (clutch lever pulled in). The engine should NEVER start in any gear except neutral if the sidestand is down. See page 51.

#### NOTICE

If the motorcycle runs out of fuel, prime the system before attempting to restart the engine.

- 1. Perform the Pre-Ride Inspections. See page 59. Properly secure any cargo.
- 2. Straddle the motorcycle and bring it to the fully upright position. Retract the sidestand.

#### NOTICE

When the electrical system is activated with either the power switch or the starter switch, the key fob must be within range.

- 3. Move the engine stop/run switch to the RUN position.
- 4. Shift the transmission to neutral.
- 5. Apply the front brakes. Disengage the clutch (pull the clutch lever fully toward the handlebar).

- 6. The motorcycle may be electrically activated by pressing either the starter switch or power switch. Then with the throttle closed, press and release the starter switch to start the engine. The starter motor will crank until the engine starts, but no more than 3 seconds. If the engine does not start, wait five seconds and try again.
- 7. <u>If starting a COOL engine</u>, DO NOT open the throttle while starting. Idle speed is computer controlled and idle speed will adjust automatically depending on engine temperature and air temperature. Allow the engine to warm up for one minute minimum at low RPM after starting. Do not run the engine above 2500 RPM. <u>If starting a WARM engine</u>, DO NOT open the throttle while starting.
- 8. If either the check engine indicator or the low oil pressure indicator (or display) remains on after the engine starts, stop the engine *immediately*. Refer to the low oil pressure indicator/ display information on page 34.

## **A** CAUTION

Operating an engine with a misfire or non-firing cylinder can overheat the catalytic converter, which could result in catalytic converter damage and loss of emission control. DO NOT OPERATE the motorcycle if a misfire or non-firing cylinder exists.

 Leave the throttle closed and allow the engine to idle. Idle speed will gradually slow to normal as the engine warms to operating temperature.

#### NOTICE

Do not rev the engine or put the transmission in gear immediately after starting the engine. Allow the engine to idle for about 30 seconds after a warm start or at least one minute after a cold start (longer in cold weather). This will allow oil to reach all areas before the engine is put under load.

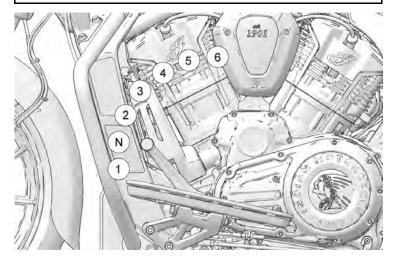
#### NOTICE

Do not run the engine at high RPM with the clutch disengaged or the transmission in neutral. Maximum safe engine speed is 5400 RPM. Never exceed the maximum safe RPM as this could result in serious engine damage.

## SHIFTING GEARS

## **WARNING**

Forced shifting (without clutch lever pulled in) could cause damage to the engine, transmission and drive train. Such damage could cause loss of control, which could result in serious injury or death. Always pull the clutch lever fully toward the handlebars to disengage the clutch before shifting gears.



This motorcycle is equipped with a six-speed transmission. Neutral is located between first and second gear.

Press downward on the toe lever to shift to a lower gear. Lift upward on the toe lever to shift to a higher gear. Release the clutch lever after each gear shift.

Shifting to neutral is easiest if the motorcycle is rolling slowly. To shift from first gear to neutral, gently lift the toe lever a half stroke.

#### NOTICE

The transmission is in neutral if you can move the motorcycle forward or rearward freely without disengaging the clutch. If the power switch is ON, the neutral indicator illuminates when the transmission is in neutral.

## SHIFTING GEARS WHILE STATIONARY

To locate neutral when the motorcycle is stationary, use one of the following techniques to load and unload the transmission:

- 1. With the clutch disengaged (lever pulled inward), shift into neutral while rocking the motorcycle forward and rearward.
- 2. With the transmission in first gear, gently release the clutch until it just begins to engage. Apply upward pressure on the toe lever and quickly pull the clutch inward.

#### NOTICE

There is a Neutral indicator light on the instrument cluster.

### SHIFTING GEARS WHILE DRIVING

- 1. Start the engine. See page 72.
- 2. With the engine at idle speed, apply the front brakes.
- 3. Disengage the clutch (pull the clutch lever fully toward the handlebar).
- 4. Push the toe lever downward until you feel it stop in first gear.
- 5. Release the brake lever.
- 6. Simultaneously release the clutch lever while opening the throttle (rolling the throttle control grip rearward) in one smooth motion. As the clutch begins to engage, the motorcycle will move forward.
- 7. To shift to a higher gear, accelerate smoothly to the recommended shift point. See *Recommended Shift Points* chart. With a quick motion, simultaneously close the throttle completely and disengage the clutch. Raise the toe shift lever until you feel it stop at the next gear. Simultaneously release the clutch lever and open the throttle in one smooth motion.

#### NOTICE

Within the recommended speed ranges (see Recommended Shift Points chart), you can downshift to slow the motorcycle or to increase power. You may want to downshift when climbing a hill or passing. Downshifting also helps to decrease speed when combined with closing the throttle. 8. To shift to a lower gear (downshift), simultaneously pull the clutch lever toward the handlebar and close the throttle. Move the toe shift lever downward until you feel it stop at the next gear. Simultaneously release the clutch lever while opening the throttle.

#### **WARNING**

Downshifting improperly could cause transmission damage, loss of traction and loss of control, which could result in serious injury or death.

- Reduce speed before downshifting. Always downshift within the recommended shift points.
- Use extreme caution when downshifting on wet, slippery or other low traction surfaces. Release the clutch lever very gradually in these conditions.
- Avoid downshifting in a curve. Downshift before entering the curve.

## **RECOMMENDED SHIFT POINTS**

### **UPSHIFTING (ACCELERATING)**

GEAR CHANGE	RECOMMENDED SPEED
1 to 2	15 MPH (24 km/h)
2 to 3	25 MPH (40 km/h)
3 to 4	35 MPH (56 km/h)
4 to 5	45 MPH (72 km/h)
5 to 6	50 MPH (80 km/h)

## DOWNSHIFTING (DECELERATING)

GEAR CHANGE	RECOMMENDED SPEED
6 to 5	40 MPH (64 km/h)
5 to 4	35 MPH (56 km/h)
4 to 3	25 MPH (40 km/h)
3 to 2	15 MPH (24 km/h)
2 to 1	10 MPH (16 km/h)

## BRAKING

Always allow sufficient stopping distance so that brakes can be applied gradually.

#### NOTICE

Applying slightly more front brake than rear brake generally provides the best braking performance.

1. To slow the motorcycle with the brakes, close the throttle and apply the front and rear brakes evenly and gradually.

#### NOTICE

If the anti-lock brakes engage during a braking event, the rider will feel pulsing at the brake levers. Continue to apply steady pressure to the brakes for the best stopping performance.

2. As the motorcycle slows, disengage the clutch, or downshift each time vehicle speed reaches a downshift point.

### **A** WARNING

Braking improperly could result in loss of control, which could result in serious injury or death. Avoid braking abruptly. Always apply the brakes gradually, especially on wet, slippery or other low traction surfaces. Avoid braking in a curve or turn. Bring the motorcycle to the upright position before applying the brakes.

# ACCELERATING

Accelerate by opening the throttle (rolling the throttle control grip rearward). For even acceleration, open the throttle with a smooth, continuous motion. When you reach the recommended speed for upshifting, shift up one gear.



Accelerating abruptly could cause your body to shift rearward suddenly, which could result in loss of control. Accelerating abruptly could also cause loss of control on low traction surfaces. Loss of control could result in serious injury or death. Always accelerate gradually, especially on wet, slippery or other low traction surfaces.

# **STOPPING THE ENGINE**

Before stopping the engine, bring the motorcycle to a complete stop. Shift to neutral or disengage the clutch.

## **WARNING**

Stopping the engine with the transmission in gear while the motorcycle is moving could cause loss of rear wheel traction or engine and transmission damage, which could cause loss of control and serious injury or death. Always stop the engine after the motorcycle is fully stopped and the transmission is in neutral. If the engine stops unexpectedly while the motorcycle is moving, guide the motorcycle to a safe location off the road and away from traffic. Turn the power switch off.

- 1. When fully stopped, shift into neutral.
- 2. Move the engine stop/run switch to the STOP position.
- 3. Turn the power switch off.

# **USING CRUISE CONTROL**

The cruise control switches are located on the right handlebar. Read this section and understand how to safely operate this feature before using the cruise control.



Cruise control can be activated and adjusted from the right control using the Cruise Control Switch (1).

Toggle Position	Function
Left	Set/Decelerate
Center	Off/On
Right	Resume/Accelerate

#### **M** WARNING

Improper operation of cruise control could cause loss of control and result in serious injury or death. Follow all cruise operation procedures carefully. Never use cruise control when roads are wet or slippery. Do not use cruise control when riding in heavy or congested traffic.

## **CRUISE CONTROL TIPS**

- Cruise control can be set in gears 3-6.
- Vehicle speed must be above 20 MPH (32 km/h).
- Set speed will vary slightly in hilly terrain.
- Cruise control will not resume a pre-set speed if the resulting acceleration or deceleration rate is too high or too low. For example, resuming a set speed of 70 MPH from 40 MPH (64 km/ h), while in 6th gear, may cause cruise to disengage.
- Cruise control will not engage if brake lights are not operating properly.
- The clutch or either brake must have been activated at least once since the engine was started for the cruise control to function.

## **SET SPEED**

- 1. Press and release the center of the cruise control switch (1). The amber cruise control indicator will illuminate in the instrument cluster. Cruise control is enabled, but not set.
- 2. Accelerate to the desired speed and press left on the cruise control switch to activate cruise control. The green cruise control indicator lamp will illuminate. Cruise control is set to the desired speed.

## **RESUME SPEED**

After disengaging the cruise control with the brake, throttle or clutch, press right on the cruise control switch to return to the set speed.

## ACCELERATE

While cruise control is engaged, tap right on the cruise control switch to increase speed in approximately 1 MPH (1-2 km/h) increments. Press and hold the right on the cruise control switch to accelerate to a new set speed (resets when switch is released).

#### NOTICE

If you use the throttle to accelerate and then release it, the cruise control will resume the previously set speed.

## DECELERATE

While cruise control is engaged, tap and release left on the cruise control switch to decrease speed in approximately 1 MPH (1-2 km/ h) increments. Press and hold left on the cruise control switch to decelerate to a new set speed (resets when switch is released), or to the minimum cruise speed of 20 MPH (32 km/h).

## **CANCEL CRUISE CONTROL**

To temporarily cancel the cruise control and allow use of the resume feature:

- · Apply the brakes, or
- · Pull the clutch lever in, or
- · Roll the throttle grip forward past the idle position

To cancel the cruise control and erase the set speed from memory, press the cruise on/off switch.

# PARKING

Choose a firm level surface to park the motorcycle.

- 1. When fully stopped, shift into neutral.
- 2. Stop the engine.
- 3. Fully extend the sidestand.
- 4. Turn the handlebars to the left and lean the motorcycle to the left until the sidestand firmly supports the motorcycle.
- 5. Turn the power switch off and ensure the run/stop switch on the right-hand control is in the *off* position.

# PARKING ON A SLOPE

If parking on a slope is unavoidable, park with the front wheel uphill from the rear wheel. Place the transmission in first gear and position the motorcycle so that it is stable when it rests on the sidestand.

# PARKING ON A SOFT SURFACE

If parking on a soft surface is unavoidable, place a sidestand footrest under the foot of the sidestand to provide a firm surface. The sidestand footrest must be strong enough and large enough to support the motorcycle's weight without sinking into the parking surface.

Asphalt becomes soft in hot weather. A sidestand can sink into soft asphalt and the motorcycle may fall. When parking on asphalt in hot weather, use a sidestand footrest.

## **A** CAUTION

Hot engine and exhaust components can cause burns to skin and can ignite a fire if exposed to flammable materials. Always park the motorcycle clear of flammable materials and where people are not likely to contact hot components.

## MAINTENANCE SAFETY DURING SERVICE PROCEDURES

### **WARNING**

Failure to follow all recommended precautions and procedures could result in serious injury or death. Always heed all safety precautions and follow all operation, inspection and maintenance procedures outlined in this manual.

- Improperly installed or adjusted components can make the motorcycle unstable or hard to handle. Improperly installed electrical components can cause engine or electrical system failure. In either event, damage or serious injury could result. If you do not have the time, tools and expertise necessary to complete a procedure properly, please see your dealer for service.
- Review the safety-related maintenance information in the Safety Maintenance section.
- Before beginning any maintenance procedure, read the instructions for the entire procedure.
- Always position the motorcycle on a firm level surface before performing service. Make sure the motorcycle will not tip or fall while elevated or while on the sidestand. See the Elevating the Vehicle section for details.

- Hot engine and exhaust components can cause burns to skin and can ignite a fire if exposed to flammable materials. Always park the motorcycle clear of flammable materials and where people are not likely to contact hot components.
- · Wear eye and face protection when using pressurized air.
- Never start the engine or let it run in an enclosed area. Engine exhaust fumes are poisonous and can cause loss of consciousness or death in a short time.
- During some procedures you may use potentially hazardous products such as oil or brake fluid. Always follow the instructions and warnings on the product packaging.

# **ROAD TESTS**

Before returning the motorcycle to regular use after performing service, road test it in a safe environment. Pay special attention to the proper fit and operation of all serviced components. Make any corrections or additional adjustments necessary to ensure safe vehicle performance.

## **MAJOR MAINTENANCE**

Major repairs typically require technical skills and specially designed tools. Emission system service requires special tools and training and should be performed by your dealer. See the *INDIAN MOTORCYCLE Service Manual* or an authorized INDIAN MOTORCYCLE dealer or other qualified dealer.

## **BREAK-IN MAINTENANCE**

Perform the break-in maintenance procedures when the motorcycle's odometer registers 500 miles (800 km). Please see your authorized dealer for this service.

Performing the break-in maintenance will help ensure optimum engine performance for the entire service life of the engine. Your dealer will change engine oil, inspect all fluids and serviceable components, ensure that all fasteners are tightened and make other adjustments as needed.

# PERIODIC MAINTENANCE

Inspect, clean, lubricate, adjust and replace parts as necessary. When inspection reveals the need for replacement parts, use genuine INDIAN MOTORCYCLE parts available from your dealer. Record service and maintenance information on page 167.

#### NOTICE

Use of non-recommended lubricants and components can result in damage to the motorcycle. Damage resulting from the use of non-recommended products is not covered by warranty.

Perform maintenance at the specified intervals. Vehicles subjected to severe use must be inspected and serviced more frequently.

### SEVERE USE DEFINITION

- · high speed operation for extended periods
- · low speed operation for extended periods
- operation in dusty or otherwise adverse conditions
- operation in cold weather (temperatures below freezing)

# MAINTENANCE INTERVALS

The maintenance interval charts outline required maintenance and inspection based on vehicle miles. Each table states the number of miles that service is required on the vehicle. Some items or components may need to be serviced more often due to severe use. When the vehicle goes beyond 50,000 miles, return to the 500 mile chart and start the interval process over.

### KEY

XU - Perform these procedures more often for vehicles subjected to severe use.

D - Have an authorized Indian Motorcycle dealer perform these services.

E - Emission Control System Service (California / International)

## 500 MILE (800 KM) SERVICE

ITE	M	REMARKS
D	Crankcase Ventilation System	Inspect; tighten, clean, adjust
D	Drive Belt	Inspect; tighten, clean, adjust
	Damper, Cushion Drive	Visual inspection for cracks or deformation is required whenever the rear wheel is removed. Replace if damage is found.
D	Engine Mount Fasteners	Inspect; tighten, adjust
XU	Engine Oil & Filter Change	Change oil and filter, inspect used oil for contaminants

ITE	M	REMARKS
Е	Evaporative Emission Control System	Inspect; clean
Е	Exhaust System	Inspect; adjust; correct; replace if necessary. Check and re-torque all sealed exhaust joints
D	Fuel System	Inspect; clean
	Key Fob Battery	Replace at specified interval or every 2 years
D	Oil Lines / Oil System Inspection	Inspect; clean, adjust if necessary
	Battery	Check terminals; clean; test
D	Brake Fluid	Change every two years (DOT 4)
XU / D	Brake Pads	Inspect pad wear; replace if worn beyond service limit
D	Clutch Lever	Lubricate with proper lubricant as directed
D	Clutch Cable Freeplay	Inspect; adjust if necessary
D	Clutch Pinion Shaft Clevis	Inspect; lubricate with proper lubricants as directed
D	Control Cable Ends	Inspect; lubricate with proper lubricant as directed
D	Fasteners	Inspect; tighten if necessary
D	Front Brake Lever	Adjust if necessary, lubricate with proper lubricant as directed

ITEM		REMARKS
D	Front Fork Oil	Inspect
D	Front Forks and Front Axle	Inspect; adjust if necessary
D	Gear Shift Pedal	Inspect; adjust if necessary
D	Head Light	Inspect; adjust if necessary
D	Rear Brake Pedal	Inspect; adjust if necessary
D	Rear Shock Absorber	Inspect; adjust if necessary
D	Rear Wheel Alignment	Inspect; adjust if necessary
	Road Test	Perform Road Test
D	Sidestand	Lubricate with proper lubricant as directed
D	Steering Bearings	Inspect
D	Suspension Linkage, Rear	Inspect
D	Swing Arm and Rear Axle	Inspect
D	Tires / Wheels	Inspect tread depth, sidewall cracking, wear patterns

# 2,500 MILE (4,000 KM) SERVICE

ITEM		REMARKS
XU	Air Filter	Inspect; clean
D	Crankcase Ventilation System	Inspect; tighten, clean, adjust
	Damper, Cushion Drive	Visual inspection for cracks or deformation is required whenever the rear wheel is removed. Replace if damage is found.
D	Drive Belt	Inspect; tighten, clean, adjust
Е	Evaporative Emission Control System	Inspect; clean
Е	Exhaust System	Inspect; adjust; correct; replace if necessary
D	Fuel System	Inspect; clean
D	Oil Lines / Oil System Inspection	Inspect; clean, adjust if necessary
	Battery	Check terminals; clean; test
D	Brake Fluid	Change every two years (DOT 4)
XU / D	Brake Pads	Inspect pad wear; replace if worn beyond service limit
D	Clutch Cable Freeplay	Inspect; adjust if necessary
D	Fasteners	Inspect; tighten if necessary

ITEM		REMARKS
D	Front Brake Lever	Inspect; adjust if necessary, lubricate with proper lubricant as directed
D	Front Forks and Front Axle	Inspect; adjust if necessary
D	Gear Shift Pedal	Inspect; adjust if necessary
D	Head Light	Inspect; adjust if necessary
D	Rear Brake Pedal	Inspect; adjust if necessary
D	Rear Shock Absorber	Inspect; adjust if necessary
D	Rear Wheel Alignment	Inspect; adjust if necessary
	Road Test	Perform Road Test
D	Sidestand	Inspect; adjust if necessary, lubricate with proper lubricant as directed
D	Steering Bearings	Inspect
D	Suspension Linkage, Rear	Inspect
D	Swing Arm and Rear Axle	Inspect
D	Tires / Wheels	Inspect tread depth, sidewall cracking, wear patterns

# 5,000 MILE (8,000 KM) SERVICE

ITE	M	REMARKS
XU	Air Filter	Inspect; clean
D	Crankcase Ventilation System	Inspect; tighten, clean, adjust
	Damper, Cushion Drive	Visual inspection for cracks or deformation is required whenever the rear wheel is removed. Replace if damage is found.
D	Drive Belt	Inspect; tighten, clean, adjust
xu	Engine Oil & Filter Change	Change oil and filter, inspect used oil for contaminants
Е	Evaporative Emission Control System	Inspect; clean
Е	Exhaust System	Inspect; adjust; correct; replace if necessary
D	Fuel System	Inspect; clean
D	Oil Lines / Oil System Inspection	Inspect; clean, adjust if necessary
	Battery	Check terminals; clean; test
D	Brake Fluid	Change every two years (DOT 4)
XU / D	Brake Pads	Inspect pad wear; replace if worn beyond service limit
D	Clutch Lever	Inspect; adjust if necessary

ITE	M	REMARKS
D	Clutch Cable Freeplay	Inspect; adjust if necessary
D	Clutch Pinion Shaft Clevis	Inspect; lubricate with proper lubricants as directed
D	Control Cable Ends	Inspect; lubricate with proper lubricant as directed
D	Fasteners	Inspect; tighten if necessary
D	Front Brake Lever	Adjust if necessary, lubricate with proper lubricant as directed
D	Front Fork Oil	Replace at specified interval or every 2 years
D	Front Forks and Front Axle	Inspect; adjust if necessary
D	Gear Shift Pedal	Inspect; adjust if necessary
D	Rear Brake Pedal	Inspect; adjust if necessary
D	Rear Shock Absorber	Inspect; adjust if necessary
D	Rear Wheel Alignment	Inspect; adjust if necessary
	Road Test	Perform Road Test
D	Sidestand	Inspect; adjust if necessary, lubricate with proper lubricant as directed
D	Steering Bearings	Inspect
D	Suspension Linkage, Rear	Inspect

ITE	M	REMARKS
D	Swing Arm and Rear Axle	Inspect
D	Tires / Wheels	Inspect tread depth, sidewall cracking, wear patterns

## 10,000 MILE (16,000 KM) SERVICE

ITE	M	REMARKS
XU	Air Filter	Replace
D	Crankcase Ventilation System	Inspect; tighten, clean, adjust
	Damper, Cushion Drive	Visual inspection for cracks or deformation is required whenever the rear wheel is removed. Replace if damage is found
D	Drive Belt	Inspect; tighten, clean, adjust
D	Engine Compression	Inspect; correct if necessary
хu	Engine Oil & Filter Change	Change oil and filter, inspect used oil for contaminants
Е	Evaporative Emission Control System	Inspect; clean
Е	Exhaust System	Inspect; adjust; correct; replace if necessary. Check and re-torque all sealed exhaust joints

ITEM		REMARKS
D	Fuel System	Inspect; clean
D	Oil Lines / Oil System Inspection	Inspect; clean, adjust if necessary
D/ E	Spark Plugs	Inspect; torque to specification
	Battery	Check terminals; clean; test
D	Brake Fluid	Replace (DOT 4)
XU / D	Brake Pads	Inspect pad wear; replace if worn beyond service limit
D	Clutch Lever	Lubricate with proper lubricant as directed
D	Clutch Cable Freeplay	Inspect; adjust if necessary
D	Clutch Pinion Shaft Clevis	Inspect; lubricate with proper lubricants as directed
D	Control Cable Ends	Lubricate with proper lubricant as directed
D	Fasteners	Inspect; tighten if necessary
D	Front Brake Lever	Adjust if necessary, lubricate with proper lubricant as directed
D	Front Fork Oil	Replace at specified interval or every 2 years
D	Front Forks and Front Axle	Inspect; adjust if necessary
D	Gear Shift Pedal	Inspect; adjust if necessary

ITE	М	REMARKS
D	Gear Position Switch	Inspect; clean
D	Head Light	Inspect; adjust if necessary
D	Rear Brake Pedal	Inspect; adjust if necessary
D	Rear Shock Absorber	Inspect; adjust if necessary
D	Rear Wheel Alignment	Inspect; adjust if necessary
	Road Test	Perform Road Test
D	Sidestand	Lubricate with proper lubricant as directed
D	Steering Bearings	Inspect
D	Suspension Linkage, Rear	Inspect
D	Swing Arm and Rear Axle	Inspect
D	Tires / Wheels	Inspect tread depth, sidewall cracking, wear patterns

# 15,000 MILE (24,000 KM) SERVICE

ITEM		REMARKS
XU	Air Filter	Inspect; Clean
D	Crankcase Ventilation System	Inspect; tighten, clean, adjust

ITEM		REMARKS
	Damper, Cushion Drive	Visual inspection for cracks or deformation is required whenever the rear wheel is removed. Replace if damage is found.
D	Drive Belt	Inspect; tighten, clean, adjust
xu	Engine Oil & Filter Change	Change oil and filter, inspect used oil for contaminants
Е	Evaporative Emission Control System	Inspect; clean
Е	Exhaust System	Inspect; adjust; correct; replace if necessary
D	Fuel System	Inspect; clean
D	Oil Lines / Oil System Inspection	Inspect; clean, adjust if necessary
	Battery	Check terminals; clean; test
D	Brake Fluid	Change every two years (DOT 4)
XU / D	Brake Pads	Inspect pad wear; replace if worn beyond service limit
D	Clutch Lever	Inspect; adjust if necessary
D	Clutch Cable Freeplay	Inspect; adjust if necessary
D	Clutch Pinion Shaft Clevis	Inspect; lubricate with proper lubricants as directed

ITEM		REMARKS
D	Control Cable Ends	Inspect; adjust if necessary
D	Fasteners	Inspect; tighten if necessary
D	Front Brake Lever	Adjust if necessary, lubricate with proper lubricant as directed
D	Front Fork Oil	Replace
D	Front Forks and Front Axle	Inspect; adjust if necessary
D	Gear Shift Pedal	Inspect; adjust if necessary
D	Rear Brake Pedal	Inspect; adjust if necessary
D	Rear Shock Absorber	Inspect; adjust if necessary
D	Rear Wheel Alignment	Inspect; adjust if necessary
	Road Test	Perform Road Test
D	Sidestand	Inspect; adjust if necessary, lubricate with proper lubricant as directed
D	Steering Bearings	Inspect
D	Suspension Linkage, Rear	Inspect
D	Swing Arm and Rear Axle	Inspect
D	Tires / Wheels	Inspect tread depth, sidewall cracking, wear patterns

# 20,000 MILE (32,000 KM) SERVICE

ITE	М	REMARKS
XU	Air Filter	Replace
D	Crankcase Ventilation System	Inspect; tighten, clean, adjust
	Damper, Cushion Drive	Visual inspection for cracks or deformation is required whenever the rear wheel is removed. Replace if damage is found.
D	Drive Belt	Inspect; tighten, clean, adjust
D	Engine Compression	Inspect; correct if necessary
xu	Engine Oil & Filter Change	Change oil and filter, inspect used oil for contaminants
Е	Evaporative Emission Control System	Inspect; clean
Е	Exhaust System	Inspect; adjust; correct; replace if necessary. Check and re-torque all sealed exhaust joints
D	Fuel System	Inspect; clean
	Key Fob Battery	Replace
D	Oil Lines / Oil System Inspection	Inspect; clean, adjust if necessary
D/ E	Spark Plugs	Inspect; torque to specification

ITE	M	REMARKS
	Battery	Check terminals; clean; test
D	Brake Fluid	Replace (DOT 4)
XU / D	Brake Pads	Inspect pad wear; replace if worn beyond service limit
D	Clutch Lever	Lubricate with proper lubricant as directed
D	Clutch Cable Freeplay	Inspect; adjust if necessary
D	Clutch Pinion Shaft Clevis	Inspect; lubricate with proper lubricants as directed
D	Control Cable Ends	Lubricate with proper lubricant as directed
D	Fasteners	Inspect; tighten if necessary
D	Front Brake Lever	Adjust if necessary, lubricate with proper lubricant as directed
D	Front Fork Oil	Inspect
D	Front Forks and Front Axle	Inspect; adjust if necessary
D	Gear Shift Pedal	Inspect; adjust if necessary
D	Gear Position Switch	Inspect; clean.
D	Head Light	Inspect; adjust if necessary
D	Rear Brake Pedal	Inspect; adjust if necessary
D	Rear Shock Absorber	Inspect; adjust if necessary

ITE	M	REMARKS
D	Rear Wheel Alignment	Inspect; adjust if necessary
	Road Test	Perform Road Test
D	Sidestand	Lubricate with proper lubricant as directed
D	Steering Bearings	Inspect
D	Suspension Linkage, Rear	Inspect
D	Swing Arm and Rear Axle	Inspect
D	Tires / Wheels	Inspect tread depth, sidewall cracking, wear patterns

# 25,000 MILE (40,000 KM) SERVICE

ITEM		REMARKS
XU	Air Filter	Inspect; clean
D	Crankcase Ventilation System	Inspect; tighten, clean, adjust
	Damper, Cushion Drive	Visual inspection for cracks or deformation is required whenever the rear wheel is removed. Replace if damage is found.
D	Drive Belt	Inspect; tighten, clean, adjust
xu	Engine Oil & Filter Change	Change oil and filter, inspect used oil for contaminants

ITE	M	REMARKS
Е	Evaporative Emission Control System	Inspect; clean
Е	Exhaust System	Inspect; adjust; correct; replace if necessary
D	Fuel System	Inspect; clean
D	Oil Lines / Oil System Inspection	Inspect; clean, adjust if necessary
	Battery	Check terminals; clean; test
D	Brake Fluid	Change every two years (DOT 4)
XU / D	Brake Pads	Inspect pad wear; replace if worn beyond service limit
D	Clutch Lever	Inspect; adjust if necessary
D	Clutch Cable Freeplay	Inspect; adjust if necessary
D	Clutch Pinion Shaft Clevis	Inspect; lubricate with proper lubricants as directed
D	Control Cable Ends	Inspect; adjust if necessary
D	Fasteners	Inspect; tighten if necessary
D	Front Brake Lever	Adjust if necessary, lubricate with proper lubricant as directed
D	Front Fork Oil	Inspect
D	Front Forks and Front Axle	Inspect; adjust if necessary

ITE	M	REMARKS
D	Gear Shift Pedal	Inspect; adjust if necessary
D	Rear Brake Pedal	Inspect; adjust if necessary
D	Rear Shock Absorber	Inspect; adjust if necessary
D	Rear Wheel Alignment	Inspect; adjust if necessary
	Road Test	Perform Road Test
D	Sidestand	Inspect; adjust if necessary, lubricate with proper lubricant as directed
D	Steering Bearings	Inspect
D	Suspension Linkage, Rear	Inspect
D	Swing Arm and Rear Axle	Inspect
D	Tires / Wheels	Inspect tread depth, sidewall cracking, wear patterns

# 30,000 MILE (48,000 KM) SERVICE

ITEM		REMARKS
XU	Air Filter	Replace
D	Crankcase Ventilation System	Inspect; tighten, clean, adjust

ITE	M	REMARKS
	Damper, Cushion Drive	Visual inspection for cracks or deformation is required whenever the rear wheel is removed. Replace if damage is found.
D	Drive Belt	Replace
D	Engine Compression	Inspect; correct if necessary
XU	Engine Oil & Filter Change	Change oil and filter, inspect used oil for contaminants
Е	Evaporative Emission Control System	Inspect; clean
Е	Exhaust System	Inspect; adjust; correct; replace if necessary. Check and re-torque all sealed exhaust joints
D	Fuel System	Inspect; clean
D	Oil Lines / Oil System Inspection	Inspect; clean, adjust if necessary
D/ E	Spark Plugs	Replace
	Battery	Check terminals; clean; test
D	Brake Fluid	Replace (DOT 4)
XU / D	Brake Pads	Inspect pad wear; replace if worn beyond service limit
D	Clutch Lever	Lubricate with proper lubricant as directed

ITEM		REMARKS
D	Clutch Cable Freeplay	Inspect; adjust if necessary
D	Clutch Pinion Shaft Clevis	Inspect; lubricate with proper lubricants as directed
D	Control Cable Ends	Lubricate with proper lubricant as directed
D	Fasteners	Inspect; tighten if necessary
D	Front Brake Lever	Lubricate with proper lubricant as directed
D	Front Fork Oil	Replace
D	Front Forks and Front Axle	Inspect; adjust if necessary
D	Gear Shift Pedal	Inspect; adjust if necessary
D	Gear Position Switch	Inspect; clean.
D	Head Light	Inspect; adjust if necessary
D	Rear Brake Pedal	Inspect; adjust if necessary
D	Rear Shock Absorber	Inspect; adjust if necessary
D	Rear Wheel Alignment	Inspect; adjust if necessary
	Road Test	Perform Road Test
D	Sidestand	Lubricate with proper lubricant as directed
D	Steering Bearings	Inspect

ITE	M	REMARKS
D	Suspension Linkage, Rear	Inspect
D	Swing Arm and Rear Axle	Inspect
D	Tires / Wheels	Inspect tread depth, sidewall cracking, wear patterns

# 35,000 MILE (52,000 KM) SERVICE

ITE	M	REMARKS
XU	Air Filter	Inspect; clean
D	Crankcase Ventilation System	Inspect; tighten, clean, adjust
	Damper, Cushion Drive	Visual inspection for cracks or deformation is required whenever the rear wheel is removed. Replace if damage is found.
D	Drive Belt	Inspect; tighten, clean, adjust
xu	Engine Oil & Filter Change	Change oil and filter, inspect used oil for contaminants
Е	Evaporative Emission Control System	Inspect; clean
Е	Exhaust System	Inspect; adjust; correct; replace if necessary
D	Fuel System	Inspect; clean

ITE	M	REMARKS
D	Oil Lines / Oil System Inspection	Inspect; clean, adjust if necessary
	Battery	Check terminals; clean; test
D	Brake Fluid	Change every two years (DOT 4)
XU / D	Brake Pads	Inspect pad wear; replace if worn beyond service limit
D	Clutch Lever	Inspect; adjust if necessary
D	Clutch Cable Freeplay	Inspect; adjust if necessary
D	Clutch Pinion Shaft Clevis	Inspect; lubricate with proper lubricants as directed
D	Control Cable Ends	Inspect; adjust if necessary
D	Fasteners	Inspect; tighten if necessary
D	Front Brake Lever	Adjust if necessary, lubricate with proper lubricant as directed
D	Front Fork Oil	Inspect
D	Front Forks and Front Axle	Inspect; adjust if necessary
D	Gear Shift Pedal	Inspect; adjust if necessary
D	Rear Brake Pedal	Inspect; adjust if necessary
D	Rear Shock Absorber	Inspect; adjust if necessary
D	Rear Wheel Alignment	Inspect; adjust if necessary

ITE	M	REMARKS
	Road Test	Perform Road Test
D	Sidestand	Lubricate with proper lubricant as directed
D	Steering Bearings	Inspect
D	Suspension Linkage, Rear	Inspect
D	Swing Arm and Rear Axle	Inspect
D	Tires / Wheels	Inspect tread depth, sidewall cracking, wear patterns

# 40,000 MILE (64,000 KM) SERVICE

ITE	M	REMARKS
XU	Air Filter	Replace
D	Crankcase Ventilation System	Inspect; tighten, clean, adjust
	Damper, Cushion Drive	Visual inspection for cracks or deformation is required whenever the rear wheel is removed. Replace if damage is found.
D	Drive Belt	Inspect; tighten, clean, adjust
D	Engine Compression	Inspect; correct if necessary
XU	Engine Oil & Filter Change	Change oil and filter, inspect used oil for contaminants

ITE	M	REMARKS
E	Evaporative Emission Control System	Inspect; clean
Е	Exhaust System	Inspect; adjust; correct; replace if necessary. Check and re-torque all sealed exhaust joints
D	Fuel System	Inspect; clean
	Key Fob Battery	Replace
D	Oil Lines / Oil System Inspection	Inspect; clean, adjust if necessary
D/ E	Spark Plugs	Inspect; torque to specification
	Battery	Check terminals; clean; test
D	Brake Fluid	Replace (DOT 4)
XU / D	Brake Pads	Inspect pad wear; replace if worn beyond service limit
D	Clutch Lever	Lubricate with proper lubricant as directed
D	Clutch Cable Freeplay	Inspect; adjust if necessary
D	Clutch Pinion Shaft Clevis	Inspect; lubricate with proper lubricants as directed
D	Control Cable Ends	Lubricate with proper lubricant as directed
D	Fasteners	Inspect; tighten if necessary

ITE	M	REMARKS
D	Front Brake Lever	Adjust if necessary, lubricate with proper lubricant as directed
D	Front Fork Oil	Inspect
D	Front Forks and Front Axle	Inspect; adjust if necessary
D	Gear Shift Pedal	Inspect; adjust if necessary
D	Gear Position Switch	Inspect; clean.
D	Head Light	Inspect; adjust if necessary
D	Rear Brake Pedal	Inspect; adjust if necessary
D	Rear Shock Absorber	Inspect; adjust if necessary
D	Rear Wheel Alignment	Inspect; adjust if necessary
	Road Test	Perform Road Test
D	Sidestand	Lubricate with proper lubricant as directed
D	Steering Bearings	Inspect
D	Suspension Linkage, Rear	Inspect
D	Swing Arm and Rear Axle	Inspect
D	Tires / Wheels	Inspect tread depth, sidewall cracking, wear patterns

# 45,000 MILE (72,000 KM) SERVICE

ITE	M	REMARKS
XU	Air Filter	Inspect; clean
D	Crankcase Ventilation System	Inspect; tighten, clean, adjust
	Damper, Cushion Drive	Visual inspection for cracks or deformation is required whenever the rear wheel is removed. Replace if damage is found.
D	Drive Belt	Inspect; tighten, clean, adjust
хu	Engine Oil & Filter Change	Change oil and filter, inspect used oil for contaminants
Е	Evaporative Emission Control System	Inspect; clean
Е	Exhaust System	Inspect; adjust; correct; replace if necessary
D	Fuel System	Inspect; clean
D	Oil Lines / Oil System Inspection	Inspect; clean, adjust if necessary
	Battery	Check terminals; clean; test
D	Brake Fluid	Change every two years (DOT 4)
XU / D	Brake Pads	Inspect pad wear; replace if worn beyond service limit
D	Clutch Lever	Lubricate with proper lubricant as directed

ITEM		REMARKS
D	Clutch Cable Freeplay	Inspect; adjust if necessary
D	Clutch Pinion Shaft Clevis	Inspect; lubricate with proper lubricants as directed
D	Control Cable Ends	Inspect; lubricate with proper lubricant as directed
D	Fasteners	Inspect; tighten if necessary
D	Front Brake Lever	Lubricate with proper lubricant as directed
D	Front Fork Oil	Replace
D	Front Forks and Front Axle	Inspect; adjust if necessary
D	Gear Shift Pedal	Inspect; adjust if necessary
D	Rear Brake Pedal	Inspect; adjust if necessary
D	Rear Shock Absorber	Inspect; adjust if necessary
D	Rear Wheel Alignment	Inspect; adjust if necessary
	Road Test	Perform Road Test
D	Sidestand	Lubricate with proper lubricant as directed
D	Steering Bearings	Inspect
D	Suspension Linkage, Rear	Inspect

ITEM		REMARKS
Ι	Swing Arm and Rear Axle	Inspect
Ι	Tires / Wheels	Inspect tread depth, sidewall cracking, wear patterns

# 50,000 MILE (80,000 KM) SERVICE

ITEM		REMARKS	
XU	Air Filter	Replace	
D	Crankcase Ventilation System	Inspect; tighten, clean, adjust	
	Damper, Cushion Drive	Visual inspection for cracks or deformation is required whenever the rear wheel is removed. Replace if damage is found.	
D	Drive Belt	Inspect; tighten, clean, adjust	
D	Engine Compression	Inspect; correct if necessary	
D	Engine Mount Fasteners	Inspect; tighten, adjust	
	Coolant	Replace Coolant	
XU	Engine Oil & Filter Change	Change oil and filter, inspect used oil for contaminants	
Е	Evaporative Emission Control System	Inspect; clean	

ITE	M	REMARKS		
Е	Exhaust System	Inspect; adjust; correct; replace if necessary. Check and re-torque all sealed exhaust joints		
D	Fuel System	Replace		
D	Oil Lines / Oil System Inspection	Inspect; clean, adjust if necessary		
D/ E	Spark Plugs	Inspect; torque to specification		
	Battery	Check terminals; clean; test		
D	Brake Fluid	Replace (DOT 4)		
XU / D	Brake Pads	Inspect pad wear; replace if worn beyond service limit		
D	Clutch Lever	Lubricate with proper lubricant as directed		
D	Clutch Cable Freeplay	Inspect; adjust if necessary		
D	Clutch Pinion Shaft Clevis	Inspect; lubricate with proper lubricants as directed		
D	Control Cable Ends	Lubricate with proper lubricant as directed		
D	Fasteners	Inspect; tighten if necessary		
D	Front Brake Lever	Adjust if necessary, lubricate with proper lubricant as directed		
D	Front Fork Oil	Inspect		
D	Front Forks and Front Axle	Inspect; adjust if necessary		

ITEM		REMARKS	
D	Gear Shift Pedal	Inspect; adjust if necessary	
D	Gear Position Switch	Inspect; clean.	
D	Head Light	Inspect; adjust if necessary	
D	Rear Brake Pedal	Inspect; adjust if necessary	
D	Rear Shock Absorber	Replace	
D	Rear Wheel Alignment	Inspect; adjust if necessary	
	Road Test	Perform Road Test	
D	Sidestand	Lubricate with proper lubricant as directed	
D	Steering Bearings	Inspect	
D	Suspension Linkage, Rear	Inspect	
D	Swing Arm and Rear Axle	Inspect	
D	Tires / Wheels	Inspect tread depth, sidewall cracking, wear patterns	

When the vehicle goes beyond 50,000 miles, return to the 500 mile chart and start the interval process over.

# **ENGINE OIL/FILTER CHANGE**

Change the engine oil at the intervals specified in the Periodic Maintenance Table. Change the oil more frequently if the motorcycle is subjected to severe use, especially operation in cold weather. See page 82.

#### NOTICE

Failure to perform frequent oil changes during cold weather operation can result in condensation forming. Freezing condensation can result in plugged oil lines and serious engine damage.

The total amount of oil required for the oil and filter change is approximately 5 qts. (4.7 l). Follow all instructions carefully. Do not overfill.

#### NOTICE

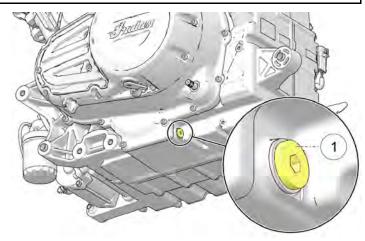
After an oil change, the low oil pressure indicator may illuminate when the engine is started. If this occurs, do not increase RPM above idle speed until the indicator turns off. Operating above idle speed could result in damage to the engine.

- 1. Change the oil and filter when the engine is warm. If the engine is cold, start the engine and allow it to run at idle for at least 5 minutes.
- 2. Park the motorcycle with the sidestand down on a firm, level surface. If using a service lift, the motorcycle should be centered.

3. Clean the area around the scavenge area drain plug ①. Place a drain pan under drain plug.

## **A**CAUTION

Hot oil can cause burns to skin. Do not allow hot oil to contact skin.



4. Remove the drain plug. Allow the oil to drain completely.

#### NOTICE

Remove sidestand bumper bracket for improved clearance to drain plug.

- 5. Install new sealing washer and o-ring on the drain plug. The sealing surfaces on drain plug and engine should be clean and free of burrs, nicks or scratches.
- 6. Reinstall the drain plug. Torque to Specification. If sidestand bumper bracket was removed, reinstall. Torque fastener to specification.

#### TORQUE

Drain Plug: 15 ft. lbs. (20 Nm)Bracket fastener: 84 in-lbs (9.5 Nm)

## **A** CAUTION

Hot oil can cause burns to skin. Do not allow hot oil to contact skin. Wear leather gloves when handling hot components.

- 7. Place oil pan beneath the oil filter. Using an oil filter wrench, turn the filter counter-clockwise to remove it.
- 8. Using a clean dry cloth, clean the filter sealing surface on the engine.
- 9. Lubricate the o-ring on the new filter with a film of fresh engine oil. Check to make sure the o-ring is in good condition.
- 10. Install the new filter and rotate it clockwise by hand until the filter gasket contacts the sealing surface, then turn it an additional 3/4 to one full turn.
- 11. Remove the dipstick. Add only 4 qts. (3.8 l) of the recommended oil at this step. *Do not overfill.*

12. Reinstall the dipstick securely.

- 13. With the motorcycle in an upright, centered position, start the engine and idle for approximately 30 seconds.
- 14. Stop the engine and add an additional 1 qts. (0.95 l) of engine oil. Do not overfill. Overfilling can result in loss of engine performance and an oil-saturated air filter. Use a suction device to remove excess oil if overfilled.
- 15. To ensure the oil level is within the safe operating range, recheck the oil level as outlined in page 61.

#### NOTICE

After an oil change, the low oil pressure indicator may illuminate when the engine is started. If this occurs, do not increase RPM above idle speed until the indicator turns off. Operating above idle speed could result in damage to the engine.

16. Dispose of used filter and oil properly.

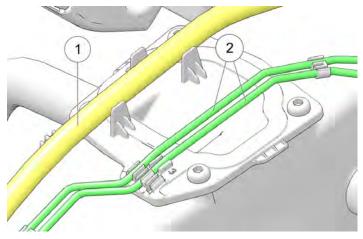
17. Reset the oil change life in the instrument gauge.

# AIR FILTER

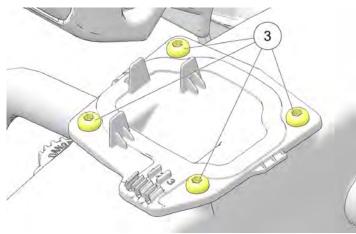
#### NOTICE

If the motorcycle is operated in wet or dusty conditions, more frequent servicing is required. The air filter element cannot be cleaned. Replace the filter when necessary.

- 1. Remove Fuel Tank.
- 2. Remove the zip-ties from harness retention as well as the the brake line retention clips. Remove the wiring harness ① and the brake lines ② from airbox filter cover retention features.



3. Remove the airbox filter cover fasteners  $(\mathfrak{Z})$  and remove from the unit.



4. Installation of new filter is performed by reversing the removal procedure.

#### TORQUE

Airbox Filter Cover Fastener: 84 in-lbs (10 N·m)

# COOLING SYSTEM

The engine coolant level is controlled by the recovery system. Recovery system components are the recovery bottle, the radiator filler neck, the radiator pressure cap and the connecting hose.

As coolant operating temperature increases, the expanding (heated) excess coolant is forced out of the engine, past the pressure cap, and into the recovery bottle. As engine coolant temperature decreases the contracting (cooled) coolant is drawn back up from the bottle, past the pressure cap, and into the radiator.

Some coolant level drop on new vehicles is normal as the system is purging itself of trapped air. Check the coolant level and maintain as recommended by adding coolant to the recovery bottle.

INDIAN MOTORCYCLE recommends the use of Antifreeze 50/50 Premix. This antifreeze is already premixed and ready to use. Do not dilute with water.

To ensure that the coolant maintains its ability to protect the engine, we recommend that the system be completely drained every five (5) years or 50,000 miles, whichever comes first. Please see your dealer for this service.

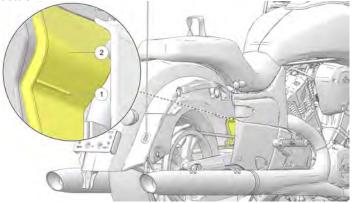
## **A** CAUTION

Allow the vehicle to cool before performing any maintenance on the cooling system. Failure to do so could result in burns to skin.

## COOLANT LEVEL INSPECTION

The Coolant Overflow bottle is located under the driver seat. The level can be viewed without the need to disassemble any components.

- 1. Remove right-hand saddlebags. See page 49.
- 2. Sight underneath the fender, above the drive belt to the coolant bottle.

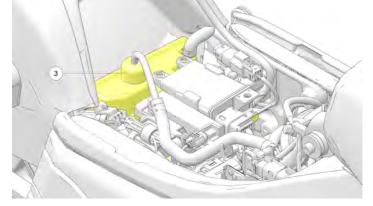


- 3. With the motorcycle vertical (not on the side stand), ensure coolant level is above the minimum line ① and below the frame strut ②.
- 4. If the coolant level is below the bottom line, coolant will need to be added to the system.

## **ADDING COOLANT**

To add coolant, do the following:

- 1. Remove the seat and rubber lid.
- 2. Remove he overflow bottle cap (3) to add coolant. Add coolant until level is within the marked values.



#### NOTICE

The rubber and formed nylon can be left connected while performing this procedure.

## **A** CAUTION

Do not fill the coolant bottle to full. 0.3 L of air must remain in the bottle to account for thermal expansion. Failure to do so can result in coolant overflow.

## **REAR DRIVE BELT CLEANING**

#### NOTICE

Do not inspect or adjust drive belt tension when the belt or drive system is wet or hot. Improper adjustment will result.

Cleaning the drive belt will maximize belt and sprocket life and minimize drive line noise. Clean the belt at every tire change. Clean the belt more often if riding in dirty, dusty or high debris environments.

- 1. Mix a few drops of mild dish soap with a cup of warm water.
- 2. Use a soft nylon brush to clean the belt and sprocket teeth with the soapy water. Clean well in corner areas where road debris and belt dust can collect.
- 3. Rinse the belt with clear water, then dry thoroughly.

# **REAR DRIVE BELT CONDITION**

Inspect the rear drive belt at the intervals specified in the Periodic Maintenance table. Replace the drive belt if it is cracked or has broken teeth. No matter its condition, the drive belt should be replaced at periodic intervals. See the *INDIAN MOTORCYCLE Service Manual* or an authorized INDIAN MOTORCYCLE dealer can assist.

DO NOT attempt to check belt tension if the belt has been exposed to rain or washing within a 24 hour period or if the vehicle has been run at operating temperature within the last four hours. Allow the vehicle to cool down to ambient temperature before measuring belt tension. Replace the drive belt and both sprockets as a set if the drive belt has over 5,000 miles (8,000 km) of service at the time of damage or failure.

## **REAR DRIVE BELT WEAR ANALYSIS**

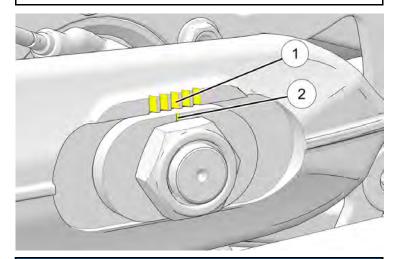
WEAR ANALYSIS	BELT CONDITION
Internal tooth cracks (hairline): OK to run, but monitor condition	
External tooth cracks: Replace belt	

WEAR ANALYSIS	BELT CONDITION		WEAR ANALYSIS	BELT CONDITION
Missing teeth: Replace belt			Stone damage: Replace belt if damage is on edge	
Chipping (not serious): OK to run, but monitor condition			Bevel wear (outboard edge only): OK to run, but monitor condition	200000000
Fuzzy edge cord: OK to run, but monitor condition			DRIVE BELT ADJUSTM	ENT
			IMPO	RTANT
			Drive belt adjustments should be performed by an authorized Indian dealer, or an equivalent technician.	
Hook wear: Boplage bolt			Indian dealer, or an e	equivalent technician.
Replace belt			IMPORTANT	
			Perform this procedure to achieve proper belt tension <i>and</i> alignment. Belt tension should be set before performing the alignment procedure.	

### **BELT TENSION**

### **WARNING**

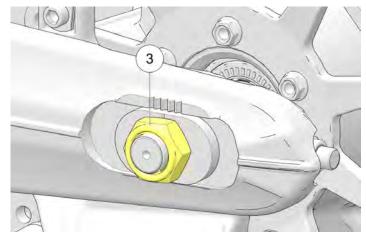
A drive belt that is not properly tensioned can cause drive line noise and damage the drive belt, causing possible belt failure and loss of control of the motorcycle.



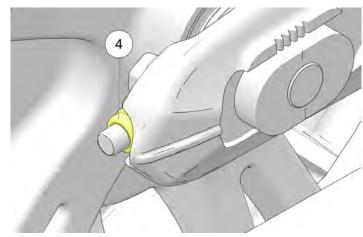
#### NOTICE

Marks (1) and (2) are used as a reference for initial wheel alignment. Marks should be in roughly the same position on both left and right sides of wheel.

- 1. Place the motorcycle in an upright position with the front wheel clamped in a wheel vise.
- 2. Remove saddlebags.
- 3. Make note of adjuster locations (1) and (2).
- 4. Raise the rear of the motorcycle so the rear tire can be freely rotated.
- 5. Loosen axle nut 3.



6. Turn the RIGHT SIDE adjuster nut ④ to achieve proper belt tension



BELT DEFLECTION			
Model	Deflection @ 10 lbs force		
Challenger	0.6" (15 mm) - New Belt 0.79" (20 mm) - Belt with 1000 + miles		

### **BELT ALIGNMENT**

#### **WARNING**

A drive belt that is not properly aligned can cause drive line noise and damage the drive belt, causing possible belt failure and loss of control of the motorcycle.

Once the belt tension is correct, check and adjust final wheel alignment as follows:

#### NOTICE

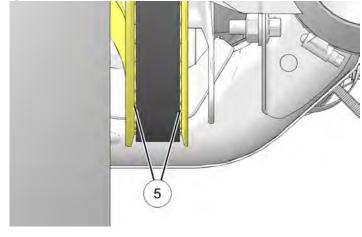
To minimize change in belt tension, use LEFT SIDE adjuster only to make final adjustments to belt alignment.

1. Rotate the wheel BACKWARD. Tighten LEFT SIDE adjuster until belt comes off inside sprocket flange during backward wheel rotation.

#### IMPORTANT

The belt should track to the center of the sprocket tooth surface when properly aligned (5). Sprocket teeth should be visible on both sides of the drive belt.

2. Rotate the wheel in the FORWARD direction and verify that sprocket teeth are still visible on both sides of the drive belt (5).



3. If necessary, loosen the axle nut and LEFT SIDE adjuster until belt just moves off the right flange and begins to track down the center of the driven sprocket flange during forward wheel rotation.

#### NOTICE

It may be necessary to loosen the axle nut and tap the left end of the axle to ensure it moves forward when the adjuster is loosened. The axle nut must be retightened to the ADJUSTMENT SPECIFICATION before proceeding.

- 4. Rear wheel alignment is satisfactory when the drive belt remains centered on driven sprocket during forward and backward wheel rotation. Sprocket teeth should be visible from both sides of the drive belt.
- 5. Verify that drive belt tension is still within specification.
- 6. Tighten rear axle nut to specification.

#### TORQUE

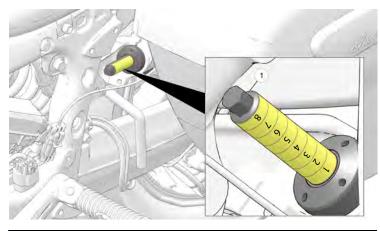
Axle Nut Torque: 65 ft-lbs 88 Nm

- 7. Pump rear brake pedal several times to reset brake pad distance.
- 8. Verify wheel rotates smoothly and freely without drag when brake pedal is released.

# SHOCK PRELOAD ADJUSTMENT

To adjust the shock preload, perform the following procedure:

- 1. Remove left-hand side cover. See page 124.
- Look up suspension setting for the specific loading according to chart (decal applied to the inside of the left-hand upper body panel).
- 3. Use the 10 mm speed wrench and extension provided in the tool kit to set adjuster to proper setting (1).



#### NOTE

The numbers are biased towards the line which they represent.

bioon: http://doi.on/jobimient.bittino			
Total Cargo + Riders (lbs)	No Trunk Settings	Painted Trunk Settings	
150	1	3	
175	1	3	
200	2	3	
225	2	4	CAUTION:
250	2	4	DO NOT USE
275	3	5	IMPACT TOOLS OR
300	3	5	EXCEED 10 FT-LBS OF
325	3	6	TORQUE
350	4	6	WHEN ADJUSTING.
375	4	7	DAMAGE TO COMPO-
400	4	7	NENTS MAY
425	4	8	OCCUR.
450	5	8	]
475	5	N/A	]
500	5	N/A	

SHOCK: HYDRAULIC ADJUSTMENT SETTING

# SWING ARM/REAR AXLE INSPECTION

- 1. Sit in the operator's seat and slowly bounce the rear suspension a few times. Make sure the suspension moves freely without binding. Listen for abnormal noises.
- 2. Elevate and support the motorcycle with the rear tire slightly off the floor. See page 138.

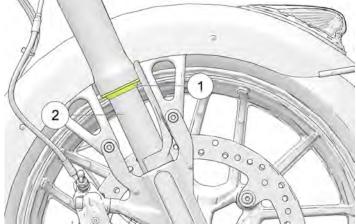
#### **A**CAUTION

Make sure the motorcycle is stable when elevated. Injury may occur if the motorcycle tips or falls.

- 3. Grasp the rear wheel and attempt to move the wheel side-toside. If there is movement at the front of the swingarm or in the axle area, see your dealer for service.
- 4. With the transmission in neutral, slowly rotate the rear wheel. If the wheel does not rotate smoothly, see your dealer for service.

# FRONT FORK/SUSPENSION INSPECTION

1. Place the motorcycle on the sidestand and inspect the front forks. If fork oil is present on the outer tube, *do not ride the motorcycle.* See your dealer for service before operating. If fork oil is present around the fork seals ① or inner tubes ②, replace the fork seals.



2. Clean the fork tubes to remove bugs, tar or buildup which may cause seal wear or leakage. Inspect the outer surfaces of the inner fork tubes for scratches or damage from foreign objects.

- 3. Straddle the motorcycle and bring it to the fully upright position. Apply the front brake and push downward (hard) on the handlebars several times. The front suspension should operate smoothly and quietly.
- 4. Fork oil condition and level affects front suspension performance and internal component wear. Replace fork oil at the recommended intervals. Special tools are required to perform this procedure. See the *INDIAN MOTORCYCLE Service Manual* or an authorized INDIAN MOTORCYCLE dealer can assist.

# STEERING HEAD INSPECTION

1. Elevate and support the motorcycle with the front tire slightly off the floor. See the Elevating the Motorcycle section for details.

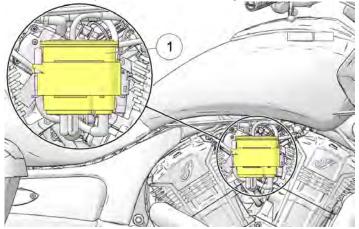


- 2. Turn the handlebars from stop to stop. The action should be smooth but not loose. Make sure wires, hoses and control cables do not interfere with smooth steering.
- 3. Position the front wheel straight ahead. Grasp the front forks near the front axle and attempt to move the wheel front-to-back. If there is front-to-back movement at the steering head, see your dealer for service.

- 4. If steering binds, feels rough or uneven, or if movement is detected at the steering stem, see your dealer for service.
- 5. Rotate the front wheel and inspect for smooth rotation of front wheel bearings. If roughness or unusual sounds are present, see your dealer for service.
- 6. Turn handle bars full right or left and hold against the fork stop. Attempt to move front wheel side-to-side. If movement is observed, see your dealer for service.

# EVAPORATIVE EMISSION CONTROL SYSTEM (CALIFORNIA AND INTERNATIONAL MODELS)

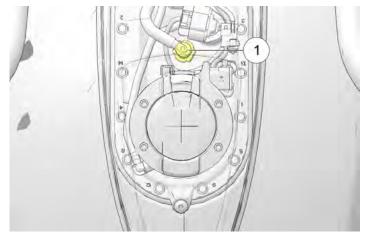
- 1. Inspect all evaporative emission control system hoses and connections. Make sure all connections are tightly connected.
- 2. The canister (1) is located under the right-hand V-cover. Make sure it is securely installed to the mounting bracket.



3. Inspect connections at the evaporative emissions canister to be sure they are secure. The vent line coming from the tank should be connected to the port marked "TANK," the purge line should be connected to the port marked "PURGE," and the Atmospheric vent line should be connected to the port marked "AIR."

# FUEL SYSTEM COMPONENTS

- 1. Inspect fuel hoses for cracks or damage.
- 2. Inspect hose connections at the fuel tank () and at the fuel rail for dampness or stains from leaks. The tank connection for the fuel line is under the tank console.
- 3. The fuel system is under pressure and caution must be used when inspecting and servicing the fuel system. See the *INDIAN MOTORCYCLE Service Manual* or an authorized INDIAN MOTORCYCLE dealer can assist.

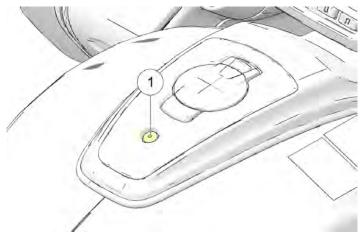


# FUEL TANK REMOVAL

### **WARNING**

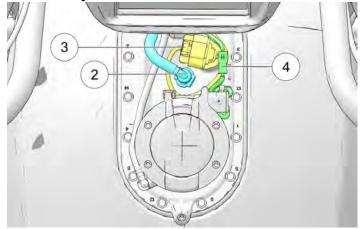
Allow engine and exhaust to cool completely before disconnecting fuel line or removing tank. Protect fuel tank finish when removing, storing, and installing tank.

1. Remove the console by unscrewing fastener at back of console 1.



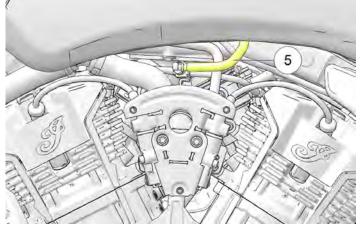
2. With fastener removed, lift the rear of console enough to clear fuel cap and push forward to release front mount from keyway.

- 3. Lift console up and out, away from the fuel tank, to complete removal.
- 4. Remove fuel quick connect<sup>(2)</sup>.



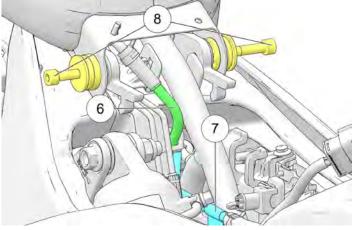
- 5. Unplug electrical connector from fuel pump  $\Im$ .
- 6. Unplug electric connector from fuel cap, and remove electric harness ③.
- 7. Remove the left-hand v-cover by removing its fasteners.

8. Disconnect fuel line feed (5).



9. Remove the seat. See page 125.

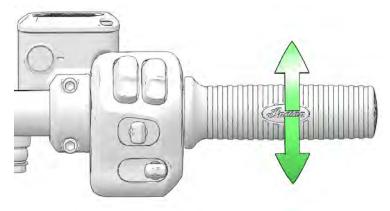
10. At rear of tank, disconnect the fuel vent line (6).



- 11. On models equipped with an EVAP system, remove the EVAP vent line located above the EVAP canister on the right hand side of the fuel tank  $(\bar{I})$ .
- 12. Remove fuel tank fastener (8).
- 13. Lift rear of tank upward and pull rearward to remove. Place the fuel tank in a secure location with a drain pan to catch any fuel than may leak or drip from disconnected hoses or fittings.

# THROTTLE CONTROL INSPECTION

- 1. With the engine OFF, rotate the throttle control grip fully open and then release it. It should rotate smoothly from the rest position to the completely open position. It should return to the rest position quickly when released.
- 2. Service the throttle system if throttle operation is not smooth or if throttle grip does not return properly. See the *INDIAN MOTORCYCLE Service Manual* or an authorized INDIAN MOTORCYCLE dealer can assist.



# MECHANICAL CLUTCH LEVER FREEPLAY

- 1. Position the handlebars in the straight-ahead position before measuring clutch lever freeplay.
- 2. The clutch cable adjuster nut is located on the bottom of the clutch cover on the engine. Loosen the lock nut.
- 3. Turn the cable adjuster inward or outward until clutch lever freeplay is 0.5-1.5 mm as measured at the clutch perch.
- 4. While holding the cable, tighten the adjuster lock nut securely.
- 5. Verify that the safety switch activates properly. The engine should not start in gear with the clutch lever released. Never test the clutch safety switch by attempting to start the motorcycle in gear unless the rear wheel is raised off the ground.

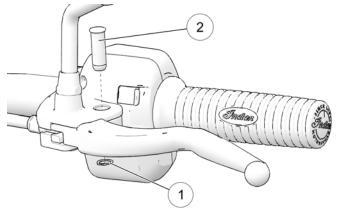
#### NOTICE

The starter interlock switch is dependent on the clutch lever freeplay being set correctly to ensure activation of the clutch safety switch.

# SIDESTAND LUBRICATION

Periodically lubricate the sidestand bushing. See page 66 for sidestand inspections.

# **MECHANICAL CLUTCH LEVER LUBRICATION**



- 1. The clutch cable adjuster nut is located on the bottom of the clutch cover on the engine. Loosen the lock nut.
- 2. Turn the cable adjuster completely inward to provide maximum lever freeplay.
- 3. Remove the clutch lever c-clip () and pin (). Disconnect the clutch cable from the clutch lever.

4. Remove any old grease and dirt from the lever and housing. Lubricate the clutch lever and pin with moly assembly grease or all-purpose grease.

#### NOTICE

During installation of the lever, be aware of the internal clutch switch. Improper assembly can cause damage to the switch.

- 5. Reconnect the clutch cable. Reinstall the lever C-clip and pin.
- 6. Adjust clutch lever freeplay. See page 113.
- 7. Tighten the adjuster nut and slide the protective cover over the adjuster.

# **MECHANICAL CLUTCH CABLE LUBRICATION**

Lubricate control cable barrel ends at the intervals recommended in the Periodic Maintenance table.

#### NOTICE

External casings are factory-lubricated. Additional lubrication could be detrimental to cable performance.

Verify proper routing and smooth movement. Inspect for damage to the external casing, and inspect exposed cable wire for fraying, kinks or corrosion. Replace any damaged, sticky or sluggish cable.

- 1. Disconnect the cable at the clutch lever and at the primary cover.
- 2. Lubricate the barrel ends with all-purpose grease.
- 3. Reconnect the cable and adjust freeplay as needed.

# **BRAKE HOSES/CONNECTIONS**

Inspect all brake hoses and connections for dampness or stains from leaking or dried fluid. Tighten any leaking connections and replace components as necessary. See the *INDIAN MOTORCYCLE Service Manual* or an authorized INDIAN MOTORCYCLE dealer can assist.

# **REAR BRAKE PEDAL**

- 1. Lubricate the pivot bushing at the intervals recommended in the Periodic Maintenance Table. Also lubricate any time binding is evident. Use all-purpose grease.
- 2. Inspect brake pads as outlined in the Brake Pads section.

# BRAKE FLUID PRECAUTIONS

#### **WARNING**

Using the wrong fluid or allowing air or contaminants into the fluid system can damage the system seals or result in a malfunction that could lead to serious injury or death. Use only DOT 4 brake fluid from a sealed container. Do not operate the front brake with the reservoir cover removed. Fluid could overflow from the reservoir and allow air to enter the system. Air in the brake system could cause the brakes to malfunction.

An over-full reservoir may cause brake drag or brake lock-up, which could result in serious injury or death. Maintain brake fluid at the recommended level. Do not overfill.

#### NOTICE

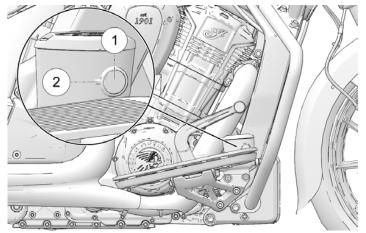
Brake fluid will damage painted surfaces and plastic parts. Always clean spilled brake fluid immediately with water and a mild detergent.

# **REAR BRAKE FLUID**

Change the brake fluid at the intervals recommended in the Periodic Maintenance Chart. Always add brake fluid from a new, unopened container. Always use the recommended fluid. See page 153.

- 1. Position the motorcycle on level ground in the fully upright position.
- 2. The rear brake fluid reservoir is located near the rear brake pedal. View the reservoir from the right side of the vehicle.
- 3. Wipe the fluid container and the area around the reservoir cover with a clean cloth.
- 4. If the fluid level is low, inspect brake pads as outlined on page 119. If pads are not worn beyond the service limit, inspect the brake system for leaks.

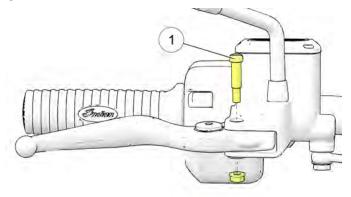
 Remove the cover and diaphragm. The fluid level should be above the minimum indicator mark (2) on the reservoir body (1). Add brake fluid as needed. Do not overfill.



- 6. Reinstall the cover and diaphragm.
- 7. Wipe away any fluid spills. Check for signs of brake fluid leaks around hoses, fittings, reservoir, and brake calipers.

# FRONT BRAKE LEVER

1. Lubricate the pivot pin ① and brake lever hinge points at the intervals recommended in the Periodic Maintenance Table. Also lubricate any time binding is evident. Use all-purpose grease.



2. Inspect brake pads as outlined on page 119.

#### TORQUE

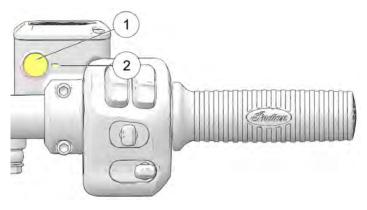
Pivot Pin: 4.9 ft lbs (6.6 Nm)

# FRONT BRAKE FLUID

Change the brake fluid at the intervals recommended in the Periodic Maintenance Table. Do not attempt to change the antilock brake system fluid. Please see your dealer for this service. Always add brake fluid from a new, unopened container. Always use the recommended fluid. See page 153.

- 1. Position the motorcycle on level ground in the fully upright position. Position the handlebars so that the fluid reservoir is level. Wipe the fluid container and the area around the reservoir cover with a clean cloth.
- 2. If the fluid level is low, inspect brake pads as outlined on page 153. If pads are not worn beyond the service limit, inspect the brake system for leaks.
- 3. To add fluid, remove the reservoir cover screws. Remove the cover and diaphragm.

4. The fluid level should be above the minimum indicator mark (1) in the sight glass (2). Add brake fluid as needed. *Do not overfill*.



5. Reinstall the diaphragm, cover and screws.

TORQUE 13 in-lbs (1.4 Nm)

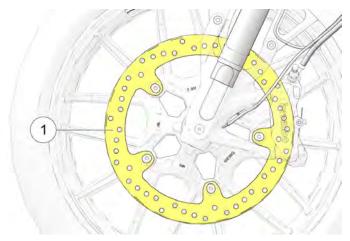
6. Wipe away any fluid spills. Check for signs of brake fluid leaks around hoses, fittings, reservoir and brake calipers. Check for deterioration of hoses.

# BRAKE DISC INSPECTION/CLEANING

### **A** CAUTION

Allow brake components to cool before inspecting or performing maintenance. Failure to do so can result in burn to skin.

 Inspect brake discs ① for nicks, scratches, cracks or other damage. Inspect the thickness of each brake disc at four or more locations around the disc. If any disc is worn to the minimum thickness at the thinnest point, or if a disc is damaged, see your dealer for replacement.



2. Clean discs if minor squeaks develop due to dirt or dust. Apply brake cleaner to a clean shop towel and wipe the discs. DO NOT allow brake cleaner to contact painted or plastic parts. Read all precautions on the label.

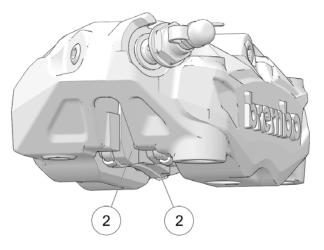
#### NOTICE

Minimum Thickness Front: 4.5mm; Rear 6.5mm

# **BRAKE PADS**

#### NOTICE

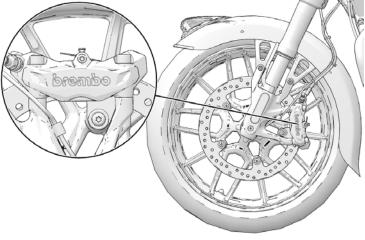
After replacing pads, allow up to 250 miles (500 km) of operation in urban driving conditions (not highway cruising) to allow pads to mate with new rotors. Brakes should be used frequently. During this time brake performance will be less effective. Avoid using brakes harshly unless in an emergency. Brake efficiency will gradually increase during this seating period.



Inspect each front brake pad on both sides of the front disc. Inspect each rear brake pad on both sides of the rear disc. Replace brake pads when the thinnest point of the friction material (2) has worn to 1.0 mm. Please see your dealer for this service.

When checking brake pad friction material thickness, check each brake caliper for dampness or stains from leaking or dried brake fluid. If inspection reveals signs of fluid leakage, do not operate the vehicle. See your dealer for service.

#### FRONT BRAKE PAD INSPECTION



- 1. Position the motorcycle on the sidestand with the handlebars turned to the left.
- 2. Use an inspection mirror, positioned at the front side of the caliper, to view the friction material.

# **REAR BRAKE PAD INSPECTION**

- 1. Position the motorcycle on the sidestand with the handlebars turned to the left.
- 2. Use an inspection mirror, positioned at the front side of the caliper, to view the friction material.

# WHEEL INSPECTION

Inspect both wheels for cracks or damage and replace damaged wheels promptly. Do not operate the motorcycle if wheels are damaged or cracked. See the *INDIAN MOTORCYCLE Service Manual* or an authorized INDIAN MOTORCYCLE dealer can assist.

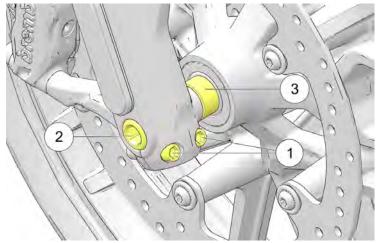
# WHEEL ALIGNMENT

Inspect rear wheel alignment at regular service intervals, whenever the rear wheel is removed and when the rear drive belt is adjusted. Please see your dealer for this service.

# FRONT WHEEL INSTALLATION

If the front wheel is removed for any reason, it must be reinstalled in the correct rotating direction.

Clean all wheel components before installation. Apply a light coat of all-purpose grease to the axle and both spacers.



① Pinch Bolt 18-19 ft-lbs. (24.4-25.7 Nm)

2 Axle Bolt 52 ft-lbs. (70 Nm)

3 Wheel Spacers 0.925 in. (23.5 mm)

# TIRES

#### **M** WARNING

Operating the motorcycle with incorrect tires, incorrect tire pressure or excessively worn tires could cause loss of control or accident. Under-inflation can cause a tire to overheat and result in a tire failure. Always use the correct size and type of tires specified by INDIAN MOTORCYCLE for your vehicle. Always maintain proper tire pressure as recommended in the rider's manual and on safety labels.

## TIRE REPLACEMENT

#### NOTICE

On models equipped with a TPMS, the sensors are located 180° from the valve stem. Use caution when servicing tires. To avoid damaging a sensor, break the bead at the valve stem, then at 90° and 270° from the valve stem as required.

Tires, rims, innertubes and air valves must be correctly matched to wheel rims. Use only the proper size tires specified with the same or higher load ratings. INDIAN MOTORCYCLE-recommended tires provide proper clearance between fenders, swingarm, drive belts and other components. See the Specifications chapter.

On models equipped with innertubes, innertubes MUST be replaced with new innertubes when tires are replaced. Use only the proper size innertubes.

### **A** WARNING

Mismatched tires, rims and air valves may result in damage to the tire bead during mounting or may allow the tire to slip off the rim, possibly resulting in tire failure.

### TIRE CONDITION

Inspect the tire sidewalls, road contact surface, and tread base for cuts, punctures, and cracking. Replace damaged tires immediately. See the *INDIAN MOTORCYCLE Service Manual* or an authorized INDIAN MOTORCYCLE dealer can assist.

### TIRE TREAD DEPTH

Replace any tire with a tread depth of less than 1/16 inch (1.6 mm).

Tread wear indicators are located in at least six places on the tread circumference and become visible at a tread depth of approximately 1/16 inch (1.6 mm). The tread wear indicators appear as a solid band across the tread.

You may also use a depth gauge or an accurate ruler to measure the depth of the center tire tread on both front and rear tires.

# TIRE PRESSURE

Always check and adjust tire pressure when tires are cold. Do not adjust tire pressure immediately after riding. Wait at least 3 hours after riding to check pressure. If pressure checked and adjusted while tires are warm, the pressure will drop as tires cool and result in under inflation. Adjust tire pressure as recommended for the total weight of your intended load (see tire pressure chart). For more information, refer to the manufacturing information label located on the front frame down tube.

### **WARNING**

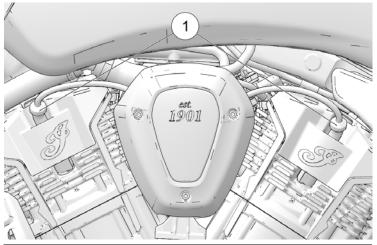
Do not exceed the maximum recommended inflation pressure to seat the bead. Tire or rim failure may result.

# TIRE PRESSURE CHART

			RECOMMENDED PRESSURE	
LOCATION	SIZE	BRAND/ TYPE	LOADS UP TO 200 LBS. (91 KG)	LOADS UP TO VEHICLE'S MAXIMUM LOAD CAPACITY
Front	130/60B19	Metzeler	36 psi (248	36 psi (248
	66H	Cruisetec	kPa)	kPa)
Rear	180/60R16	Metzeler	41 psi (283	41 psi (283
	80H (I)	Cruisetec	kPa)	kPa)

# SPARK PLUGS

Inspect spark plugs ① after the break-in period and every 15,000 miles (24,000 km) thereafter. Replace spark plugs every 30,000 miles (48,000 km). Always replace spark plugs in pairs.



SPARK PLUG SPECIFICATIONS		
Spark Plug Type	NGK LZMAR8AI-10	
Spark Plug Gap	0.039 inch (1.0 mm)	
Spark Plug Torque	7.4 ft-lbs (10 Nm)	

- 1. Make sure the engine has cooled to room temperature.
- 2. Turn the power switch off.

- 3. Pull upward on the spark plug boots (not the wires) to remove the boots.
- 4. To prevent debris from entering the spark plug holes, use compressed air to clean the area around the plugs before removing them.

Tool: 14 mm plug socket

#### **A** CAUTION

Wear eye and face protection when using pressurized air.

- 5. Reinstall the spark plugs or install new plugs.
- 6. Reinstall the spark plug boots.

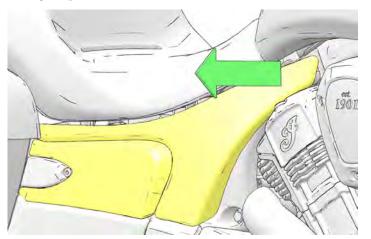
# SIDE COVERS

Remove the left side cover to access the shock fitting, fuse box, and diagnostic connector.

Remove both side cover to access the seat mounting fasteners and the electrical connections for the saddlebags.

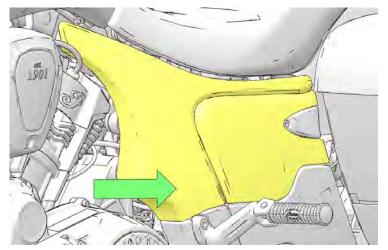
### **RIGHT SIDE COVER REMOVAL**

1. Gently grasp front edge of right side cover and pull away from vehicle to release three grommet pins. Use caution to prevent damage to painted surfaces.



### LEFT SIDE COVER REMOVAL

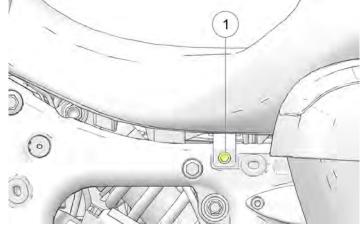
1. Gently grasp front lower corner left side cover and pull away from vehicle to release three grommet pins. Use caution to prevent damage to painted surfaces.



# SEAT REMOVAL

Remove the seat to access the battery.

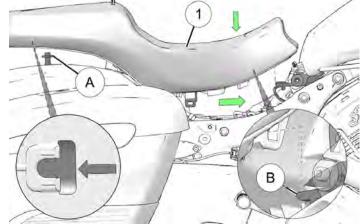
- 1. Remove the upper side panels.
- 2. Locate the seat mount brackets under the edge of the driver's seat. Remove the seat mount bolt (1) from each side of the seat.



3. Pull the seat rearward to disengage mounting tabs of the seat from the frame mount. Do not allow the seat mount brackets to contact the rear fender.

# SEAT INSTALLATION

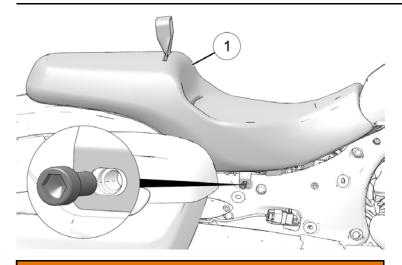
1. Install new seat ① on motorcycle, insert hat bushing (A) into slot under rear of seat and slide seat forward, ensuring that tabs (B) engage slots on new seat. Do not allow seat mount brackets to contact rear fender.



- 2. Pull straight up on front of seat to ensure a secure fitting.
- 3. Move seat ① until tabs align with hole in frame as shown and reinstall retained screws. Torque screws to specification.

#### TORQUE

Seat Mount Bracket Screws: 18 ft-lbs (24 N·m)

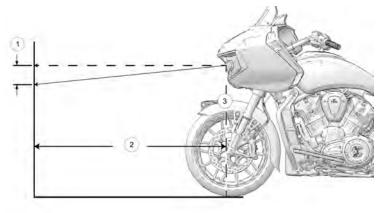


### **A** WARNING

Seat must be properly installed for safe operation of motorcycle. Failure to ensure proper installation may lead to loss of control and result in serious injury or death.

## **HEADLIGHT AIM INSPECTION**

NUMBER	DESCRIPTION
	Stock ECE and CCC compliant measure distance = 7 in. (17.8 cm)
(1)	Optional North American only measure distance = 4 in. (10.2 cm)
2	Measure distance = 32 ft. 10 in. (10.0 m)
3	Headlight Center



#### NOTICE

Adjust headlight aim when there is a change in load (rider, cargo, accessories, etc.) or after suspension adjustment.

On LOW beam, the top of the horizontal cut-off of the light beam (1) should be 4 in. (10 cm) lower than the center of the headlight bulb and centered straight ahead at 32 ft. 10 in. (10 m).

- 1. Verify that tire pressure is at specification.
- 2. Verify that rear suspension ride height (preload) is at specification.
- 3. Position the motorcycle on a level surface with the headlight 32 ft. 10 in. (10 m) from a wall.
- 4. With the operator and passenger (if applicable) on board, bring the motorcycle to the fully upright position.
- 5. Start the engine and switch the headlight to low beam. Observe the headlight aim on the wall.
- 6. Make any necessary adjustments to headlight aim.

# HEADLIGHT AIM ADJUSTMENT



The headlamp adjustment screws () are located inside the headlamp housing.

- 1. Remove the headlight bezel by prying down at the top center to release the retention detent. Then pull forward from the top to release the side retention clips.
- 2. To adjust the headlamp vertically, tighten both top adjustment screws equally to adjust the beam downward. Loosen both screws equally to adjust the beam upward.

Tool: M4 hex wrench or universal tool

3. To adjust the headlamp horizontally, loosen the left side screw to adjust the beam to the left. Loosen the right side screw to adjust the beam to the right.

# LED TAILLIGHT/BRAKE LIGHT REPLACEMENT

The LED taillight and brake lights are not serviceable. If the taillight or a brake light becomes damaged or inoperable, the entire light assembly must be replaced. See your authorized INDIAN MOTORCYCLE dealer or other authorized dealer.

# LED TURN SIGNAL REPLACEMENT

The LED turn signal lights are not serviceable. If the turn signal becomes damaged or inoperable, the entire light assembly must be replaced. See your authorized INDIAN MOTORCYCLE dealer or other authorized dealer.

# BATTERY

The motorcycle battery is a sealed, maintenance-free battery. Do not remove the battery cap strip for any reason. Keep the battery connections clean and tight at all times.

#### **WARNING**

Battery electrolyte is poisonous. It contains sulfuric acid. Serious burns can result from contact with skin, eyes or clothing.

Antidote:

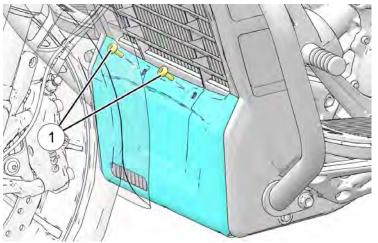
External: Flush with water.

Internal: Drink large quantities of water or milk. Follow with milk of magnesia, beaten egg, or vegetable oil. Call physician immediately.
 Eyes: Flush with water for 15 minutes and get prompt medical attention.

Batteries may produce explosive gases.

- Keep sparks, flame, cigarettes, etc. away.
- Ventilate when charging or using in an enclosed space.
- Always shield eyes when working near batteries.
- KEEP OUT OF REACH OF CHILDREN.

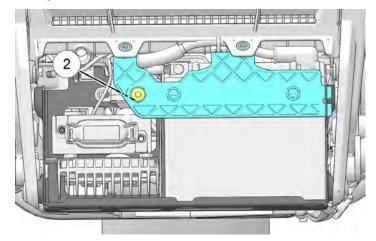
#### **BATTERY REMOVAL**



To remove the battery, do the following:

1. Remove chin fairing by removing its fasteners ①.

2. Remove battery bracket my removing its fastener (2) and sliding the bracket out of its retention feature.



3. Disconnect negative (-) battery terminal.

#### **A** CAUTION

Be careful not to cross battery terminals.

- 4. Disconnect positive (+) battery terminal.
- 5. Remove battery from battery box.

#### **BATTERY INSTALLATION**

#### NOTICE

Be sure cable ends and battery terminals are clean. Apply a light film of di-electric grease to terminal fastener threads.

- 1. Carefully install battery into battery box.
- 2. Connect the positive (+) battery terminal and torque fastener to specification.

#### TORQUE

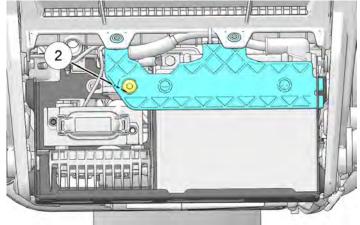
Battery Terminal: 48 in-lbs (5.4 Nm)

3. Connect the negative (-) battery terminal and torque fastener to specification.

#### TORQUE

Battery Terminal: 48 in-lbs (5.4 Nm)

4. Install battery bracket and fastener 2.

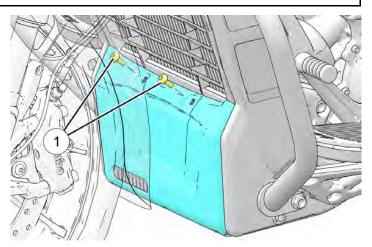


TORQUE

Battery Bracket Fastener: 84 in-lbs (10 Nm)

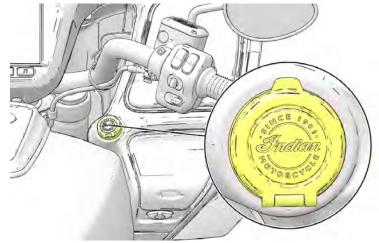
- 5. Apply dielectric grease over terminal areas for corrosion protection.
- 6. Install chin faring and fasteners ①.

#### **TORQUE** Chin Fairing Fastener: 36 in-lbs (4 Nm)



### **BATTERY CHARGING**

If your motorcycle will not be used for a period of four (4) weeks or longer, a maintenance charger should be connected to the battery using the 12V Battery Charge Port. The Battery Charge Port is located on the dash. A maintenance charger can be purchased through your authorized INDIAN MOTORCYCLE dealer.



- 1. Following the charger manufacturer's instructions, use a battery charger designed for use with 12-volt batteries. The charger should have a maximum charging rate of 1.8 amps. Charge the battery for approximately 10 hours at a rate of 1.8 amps. If you use a taper or trickle charger, it will take longer to charge the battery.
- 2. After charging the battery, allow the battery to sit 1-2 hours before checking the state of charge with a DC volt meter. The charge should be a minimum of 12.5 DC volts. Repeat the charging cycle if the charge is less than 12.5 DC volts. Replace the battery if it fails to reach 12.5 volts after the second charge.

## **A**CAUTION

Before connecting a battery charger to the Battery Charge Port, ensure the vehicle has cooled to ambient temperature. Do not allow cables to rest on hot or sharp surfaces while charging.

### **KEY FOB BATTERY LIFE**

Key fob battery life is approximately 2 years. Battery changes recommended yearly. Multi-Function (Two Button) Key Fob battery life will decrease with frequent use of the LOCK / UNLOCK buttons.

Low Battery Indicators:

- · Decreased fob authentication range
- Horn honks 5 seconds after startup
- Security light stays illuminated for up to 20 seconds
- · Both Battery Light and Security Light are illuminated

Key Fob performance can be affected by the following conditions:

- Close proximity of ferrous materials (e.g. money clip or pocket knife)
- Key Fob stuck to saddlebag speaker magnet
- Key Fob held in ferrous container (metal cup holder or glasses case)
- Cold temperatures (Key Fob should be kept above 45°F / 7°C)

To replace the kep fob battery, do the following:

- 1. Remove the courtesy key by pushing the button on the back of the fob.
- 2. Pry the back door off of the fob to access the battery.
- 3. Replace with new battery.

#### NOTE

Key Fob Replacement Battery Part Number: 4014675 or CR2032

### **FOB DISPOSAL**

For disposal, FOB's should not be mixed with general household waste. For proper treatment, recovery and recycling, please take the FOB to designated collection points where it will be accepted free of charge. Disposal of the FOB correctly will help save valuable resources and prevent any potential negative effects on human health and the environment. Please contact your local authority for further details of your nearest designated collection point. Penalties may be applicable for incorrect disposal of this waste, in accordance with your national legislation.



**BATTERY CHARGING AND MAINTENANCE** 

#### IMPORTANT

Read and follow the safety precautions listed on the battery and the proper battery charging procedures outlined in the Owner's Manual.

### AGM BATTERY CHARGER RECOMMENDATIONS

Indian Motorcycle recommends using the BatteryMINDer® 2012 AGM - 2 AMP battery charger (PN 2830438) to charge and maintain AGM batteries. The charger can be found on the Polaris PG&A website. Batteries that fall below 12.5V run the risk of sulfation, a condition whereby sulfate crystals form inside the battery and significantly reduce performance. AGM chargers are designed specifically for charging AGM type batteries and use high frequency pulses to partially reverse sulfation.

#### IMPORTANT

The use of non-AGM battery chargers may result in a misleading "battery not found" or "open cell" fault message. Please ensure you are using the recommended AGM charger when charging AGM type batteries.

### AGM BATTERY CHARGING RECOMMENDATIONS -LOW CHARGE

The nominal voltage for an Indian Motorcycle battery is 12.8 Volts when fully charged. The battery will self-discharge when disconnected from a vehicle, and will discharge at a faster rate when connected. If the battery voltage falls below 12.5V, it should be charged immediately using the recommended battery charger.

Batteries which are not connected to a vehicle should be inspected every 2-3 months. The battery must be charged if found to be below 12.5 volts.

Always use the recommended automatic battery charger, and wait for the charger to complete the charge cycle before disconnecting it.

### AGM BATTERY CHARGING RECOMMENDATIONS -DEEPLY DISCHARGED (BELOW 3 VOLTS)

AGM batteries discharged to a voltage of 3 volts or less may not be recognized by the recommended automatic battery charger. (The minimum voltage threshold recognized by other battery chargers may be as high as 10.5 volts). Often times deeply discharged batteries can be restored by attaching another, fully-charged, battery to "jump start" the low battery. Follow the steps below to restore a deeply discharged battery.

- 1. Carefully connect the two batteries' positive terminals, then the negative terminals using jumper cables.
- 2. Connect the recommended battery charger to the low battery and initiate the charging sequence.

### **WARNING**

Always check to ensure the positive cables are connected to the positive terminals before powering the charger on. Reversing polarity when charging can damage electrical components and risk serious injury. Be careful not to let battery cable clamps touch each other.

- 3. After the charging sequence has initiated, disconnect the fullycharged battery. Always disconnect the fully-charged battery positive first, followed by low battery positive, low battery negative, and finally fully-charged battery negative
- 4. Proceed with charging both batteries to full capacity. Listed in the table below are the approximate charging times for deeply discharged batteries. Always use the recommended automatic battery charger, and wait for the charger to complete the charge cycle before disconnecting it. The recommended automatic charger will indicate when the battery is fully charged on its display.

# AGM BATTERY CHARGING RECOMMENDATIONS TABLE

STATE OF CHARGE	VOLTAGE (DC)	ACTION	RECOM- MENDED CHARGE TIME*
100%	12.8-13.2 V	None	None Required
75%-100%	12.6-12.8 V	May need slight charge If no charge given, check again within 4 weeks	2-4 Hours

STATE OF CHARGE	VOLTAGE (DC)	ACTION	RECOM- MENDED CHARGE TIME*
50%-75%	12.3-12.6V	Needs Charge	4-6 Hours
25%-50%	12.0-12.3V	Needs Charge	6-8 Hours
0%-25%	12.0V or less	Needs Charge	At Least 8 Hours
*Assuming 2 Amps constant current			

### **AGM BATTERY MAINTENANCE TIPS**

- 1. If the motorcycle will not be driven for more than 2 weeks, maintaining the battery with the BatteryMINDer® 2012-AGM charger (PN 2830438) is recommended.
- 2. To help prolong battery life, it is recommended to remove the battery from vehicles stored ONE month or longer. To maximize the life of stored batteries, they should be kept in a cool/dry location. Batteries will self discharge more rapidly when stored in extreme temperatures. Batteries should be maintained using the recommended battery charger while in storage.

- 3. Batteries will self-discharge more quickly when dirty. Periodic cleaning of the battery terminals using a terminal brush will help maximize battery life. Wash terminals with a solution of one tablespoon baking soda and one cup water. Rinse well with tap water and dry off with clean shop towels. Coat the terminals with dielectric grease or petroleum jelly.
- 4. Battery connections should be tightened to the correct torque during installation. This will reduce voltage drop and ensure a reliable connection between the regulator/rectifier and battery.

# **FUSE REPLACEMENT**

#### NOTICE

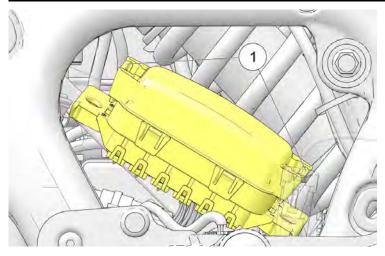
Use fuses with the recommended amperage to avoid damage to the electrical system.

### **STANDARD FUSES**

The standard fuse box is located under the left side cover. This fuse box houses all standard service fuses and the automatic circuit breakers. Fuse application and size are provided on a label on the fuse box cover.

#### NOTICE

Use the fuse puller provided in the tool kit to remove a fuse.

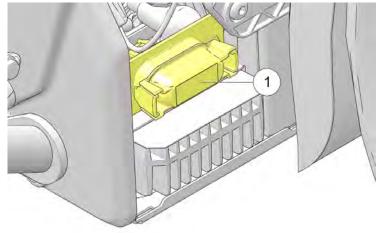


- 1. Remove the left side cover.
- 2. To release the locking tabs, squeeze the upper and lower cover clips  $(\ensuremath{)}$  and remove the fuse box cover.
- 3. After replacing a fuse, reinstall the fuse box cover and side cover.

### **HIGH-CURRENT FUSES**

The JCASE® fuse box ① contains the high-current fuses for the chassis, vehicle control module and anti-lock brake system. This fuse box is located next to the battery box.

Fuse application and size are provided on a label on the fuse box cover.



### **ELECTRICAL PRECAUTIONS**

Be aware of the following precautions regarding the electrical system to avoid disruption of electrical signals and possible system malfunction.

- DO use ONLY genuine INDIAN MOTORCYCLE parts and accessories designed for your model, and follow the instructions provided.
- DO use the accessory power jack provided (if equipped).

- If it is necessary to provide power to an item that does not use one of the previously mentioned power jacks, connect to the load side of the main circuit breaker and connect the ground wire to the engine ground at the front side of the crankcase (near the circuit breaker). The circuit breaker is located under the cover behind the oil cooler.
- · DO NOT splice or cut any wires.
- DO NOT tap in to any power or ground on the motorcycle unless specifically directed to do so by the INDIAN MOTORCYCLE instructions that come with the kit.
- DO NOT back-probe electrical connectors on the vehicle unless directed to do so by the INDIAN MOTORCYCLE Service Manual.
- DO NOT power any accessories from the diagnostic connector (under left side cover).

# UNLOCKING THE SECURITY SYSTEM

Your dealer will provide the master personal identification number (PIN) for the security system. Your dealer may also change the master PIN to a new rider PIN on your behalf.

Record both PINs on page 7.

Change the dealer-provided PIN to a PIN of your own choosing as soon as possible after receiving delivery of your new motorcycle. See page 137.

If a key fob is not available, your rider PIN can be entered using the Ride Command display to unlock the security system.

# CHANGING YOUR SECURITY SYSTEM PIN

To change your PIN, you must have either the key fob or your existing valid PIN available to gain access to the security system. If the key fob is not detected or is not available and you cannot remember your PIN, please see your INDIAN MOTORCYCLE dealer.

Please read the entire procedure before beginning.

- 1. Turn the power switch on. Do NOT start the engine. The security light and/or power switch will turn on briefly until the key fob is detected or until the valid, current PIN is entered.
- 2. Push or hold the turn signal CANCEL switch for 10 seconds until the security light and/or power switch turn on.

#### NOTICE

On models with Infotainment Display, a pop-up window will appear during this procedure stating that the key fob is out of range.

3. Enter either the master PIN (see page 7) or your current 4-digit rider PIN within 20 seconds. If the PIN is successfully entered, the security light and/or power switch will remain on and the horn will sound briefly.

#### NOTICE

If the valid PIN is not entered within 20 seconds, the security light and/or power switch will flash for 10 seconds, then the system will shut down. Return to step 1 to try again.

4. Enter a new 4-digit security PIN of your own choosing. If the PIN is successfully entered, the security light and/or power switch will remain on and the horn will sound briefly. Proceed to step 5.

#### NOTICE

If the 4-digit PIN is NOT successfully entered within 20 seconds, the security light and/or power switch will flash for 10 seconds, then the system exits the procedure. Return to step 1 to try again.

5. Re-enter the new 4-digit PIN. If this entry matches the first entry, the security light and/or power switch will turn off and the horn will sound briefly. The new rider PIN has been saved. *Record your new rider PIN on page 7.* 

#### NOTICE

If the second entry is not entered within 20 seconds or does not match the first entry, the security light and/or power switch will flash for 10 seconds, then the system exits the procedure. The new PIN was NOT saved. Continue to use your former valid PIN. Return to step 1 to try again.

# ENGINE COMPRESSION TEST

An engine compression test can be performed to monitor general engine condition. See the *INDIAN MOTORCYCLE Service Manual* or an authorized INDIAN MOTORCYCLE dealer can assist.

# EXHAUST SYSTEM INSPECTION

Check the exhaust system for stains from leaking exhaust gasses. Replace damaged or leaking exhaust gaskets. Check all exhaust system fasteners. Tighten loose clamps and fasteners. Do not overtighten. See the *INDIAN MOTORCYCLE Service Manual* or an authorized INDIAN MOTORCYCLE dealer can assist.

# **ELEVATING THE MOTORCYCLE**

### **A** WARNING

Serious injury or death can occur if the motorcycle tips or falls. Make sure the motorcycle will not tip or fall while elevated or while on the sidestand.

Some procedures require raising the motorcycle to remove weight from the component being inspected. Elevate the motorcycle by placing a stable, flat platform jack or lift mechanism on a firm, flat surface and lifting under the engine crankcase. The platform should be a minimum of 12 inches (30 cm) square. DO NOT attempt to lift the motorcycle without proper equipment. Always secure the motorcycle properly before lifting so it cannot tip or fall when elevated.

# **ROAD TEST**

Before returning the motorcycle to regular use, perform a road test in a safe area. Pay special attention to the proper fit and operation of all serviced components.

Make any corrections or additional adjustments promptly to ensure safe, reliable and enjoyable vehicle performance.

# **FASTENER INSPECTION**

- 1. Inspect the entire motorcycle chassis and engine for loose, damaged or missing fasteners. Tighten loose fasteners to the proper torque. See the *INDIAN MOTORCYCLE Service Manual* or an authorized INDIAN MOTORCYCLE dealer can assist.
- 2. Always replace stripped, damaged or broken fasteners before riding. Use genuine INDIAN MOTORCYCLE fasteners of equal size and strength.

# **FASTENER TORQUES**

Some procedures and fastener torques are not listed in this manual. See the *INDIAN MOTORCYCLE Service Manual* or an authorized INDIAN MOTORCYCLE dealer can assist.

# TROUBLESHOOTING

For your personal safety, do not attempt inspection or repairs not fully described in this rider's manual. Contact an authorized dealer for service if you cannot determine the cause of a problem or if the inspection/repair exceeds your mechanical ability or tool resources. Do not perform any inspection or repair with the engine running.

### ENGINE CRANKS BUT WILL NOT START

POSSIBLE CAUSE	POSSIBLE REMEDY/ACTION
Low Fuel	Verify fuel level.
Fuel Pump Inoperative	Turn engine STOP switch to RUN. Turn the power switch on. The fuel pump should run momentarily and then stop. Check the fuel pump/ignition circuit breaker.

POSSIBLE CAUSE	POSSIBLE REMEDY/ACTION
Battery Voltage Too Low	Fully charge the battery.
Spark Plug(s) Fouled	Inspect spark plugs.
Spark Plug Wire(s) Disconnected or Loose	Be sure spark plug wires are securely fastened.
Low Compression	Please see your dealer for an engine compression test.

# STARTER MOTOR CLICKS, DOES NOT TURN OR TURNS SLOWLY

POSSIBLE CAUSE	POSSIBLE REMEDY/ACTION
Engine Stop/Run Switch in Stop Position	Place switch in RUN position.
Battery Discharged	Fully charge the battery.
Battery Cables Loose or Corroded	Inspect battery cables.
Transmission In Gear	Shift transmission into neutral or pull the clutch lever in to disengage the clutch.
Key Fob Not Authenticated	Make sure key fob is within range and that key fob battery voltage is not low.
Sidestand is Down With Transmission in Gear	Shift to neutral or retract the sidestand fully.

### **ENGINE STARTS BUT MISSES OR RUNS POORLY**

NOTICE

Turn engine OFF before inspecting any of these items.

POSSIBLE CAUSE	POSSIBLE REMEDY/ACTION
Battery Discharged	Fully charge the battery.
Battery Cables Loose or Corroded	Inspect battery cables and connections.
Spark Plug(s) Fouled	Inspect spark plugs.
Spark Plug Wire(s) Loose or Wet	Inspect spark plug wires, ensure dry/secure.
Contaminated Fuel	Inspect fuel for water/contamination. Please see your dealer.
Engine Oil Level Incorrect Or Wrong Type	Inspect level and quality of oil.
Loose, Broken, Shorted Ignition Coil Wires	Inspect coil primary wires. Please see your dealer.
Air Intake Restricted	Inspect air filter.
Intake Leaks	Inspect air box, throttle body and intake boot joints.

# SHIFTING DIFFICULTIES OR HARD TO FIND NEUTRAL

POSSIBLE CAUSE	POSSIBLE REMEDY/ACTION
Shift Linkage Bushings Dry Or Worn	Lubricate shift linkage.
Clutch Damage	Replace clutch.
Clutch Cable Not Adjusted Properly	Please see your dealer for inspection and adjustment.
Shift Linkage Not Adjusted Properly	Please see your dealer for inspection and adjustment.

# BATTERY CHARGING RATE LOW OR BATTERY DISCHARGES

POSSIBLE CAUSE	POSSIBLE REMEDY/ACTION
Loose/Corroded Charging Circuit Connection	Check/clean battery cable connections. Check/clean charging circuit connections. Please see your dealer.
Accessory Load Exceeds Charge Rate	Limit accessory operation when the engine is off.
Improperly Wired Accessory (Current Draw)	Please see your dealer to check charging system output and current draw.

### **BRAKE NOISE/POOR BRAKE PERFORMANCE**

NOTICE

See your dealer if brake performance does not return after these inspections.

POSSIBLE CAUSE	POSSIBLE REMEDY/ACTION
Dust/Dirt On Brake Disc(s)	Clean disc.
Worn Pads Or Disc/Brake Disc Damage	Inspect pads.
Brake Fluid Level Low Or Fluid Contaminated	Inspect fluid level/fluid condition.

### ANTI-LOCK BRAKE LIGHT REMAINS ILLUMI-NATED OR ILLUMINATES INTERMITTENTLY

POSSIBLE CAUSE	POSSIBLE REMEDY/ACTION
Blown fuse	Check the fuses. See page 135.
Debris lodged in components	Inspect wheel speed sensor for debris.
Damage caused by debris	Inspect wheel speed sensor for cracked housing.
Damaged components	See service manual or authorized dealer.

# CLEANING AND STORAGE

### **CLEANING PRODUCTS**

This section provides tips on the very best way to clean, polish and preserve every surface of your beautiful new INDIAN MOTORCYCLE. We recommend the use of our new INDIAN MOTORCYCLE cleaning and polishing products and accessories, which have been specially designed to offer the best care possible for your INDIAN MOTORCYCLE.

In addition to the products recommended in this section for cleaning and polishing, INDIAN MOTORCYCLE also has specialty products for:

- enhancing black and silver engines
- · cleaning engines, tires and wheels
- removing brake dust

After cleaning the motorcycle, inspect for damage to the painted surfaces. Chips or scratches should be repaired promptly to prevent corrosion.

For Matte Clear Coat Finish Care, see the *Matte Clear Coat Finish Care* section for details.

For Gloss Clear Coat Finish Care, see the *Gloss Clear Coat Finish Care* section for details.

For more information, or for answers to your cleaning and detailing questions, please see your INDIAN MOTORCYCLE dealer.

### WASHING THE MOTORCYCLE

#### NOTICE

Do not use pressurized water to wash the motorcycle. Water may seep in and deteriorate wheel bearings, brake caliper assemblies, brake master cylinders, electrical connectors, steering head bearings, and transmission seals. Do not direct any water stream at air intakes, exhaust outlets, electrical connectors or audio system speakers. Electrical components may be damaged by water. Do not allow water to contact electrical components or connectors.

- 1. Before washing, make sure exhaust pipes are cool. Cover each pipe opening with a plastic bag secured with a strong rubber band. Check that the spark plugs, spark plug wire caps, oil fill cap and fuel caps are properly seated.
- 2. Do not use abrasive cleaners.
- 3. Rinse off as much dirt and mud as possible with water running at low pressure. Use as little water as possible when washing near the air intake or the exhaust pipe openings. Dry these components thoroughly before using the motorcycle.
- 4. Clean the front fork tubes thoroughly to reduce fork seal wear and leakage.

#### CLEANING AND STORAGE

- After washing, remove the rubber bands and plastic bags from the exhaust pipes. Start the engine and let it idle for a few minutes.
- 6. Make sure the brakes are functioning properly before riding.

### WINDSHIELD CARE

Clean the windshield with a soft cloth and plenty of warm water. Dry with a soft clean cloth. Remove minor scratches with a highquality polishing compound designed for use on polycarbonate surfaces.

#### NOTICE

Brake fluid and alcohol will permanently damage the windshield. Do not use glass cleaners, water or soil repellents, and petroleum or alcohol based cleaners on the windshield, as these products can damage the windshield.

### MATTE CLEAR COAT FINISH CARE

Matte finish products are prone to trapping dirt, oils and other contaminants. Always clean this type of finish with warm water and a mild dish-washing detergent. Use a soft sponge to gently rub the surface, then rinse with clean warm water. For stubborn stains such as grease or oil, use a citrus-based cleaner. Spray the cleaner onto the area and rub gently with a soft sponge. Allow the cleaner to sit for a couple of minutes, then rinse well with clean warm water. Repeat as needed.

#### NOTICE

Never use a polishing/buffing wax or any sponge that has an abrasive surface when cleaning a matte finish. These products will buff the matte surface of the finish and result in a glossy finish. Never clean matte finishes with a pressure washer, as this will further imbed contaminants into the clear coat and may damage labels and decals.

### **GLOSS CLEAR COAT FINISH CARE**

The clear coat finish system used on all INDIAN MOTORCYCLE provides superior protection against the elements. To maximize the benefits of this system, use the following guide to care for the gloss finish on your motorcycle.

- During the first 30 days, when the finish is still fresh, clean the motorcycle with a water rinse only.
- Do not wax the motorcycle for the first 60 days. Doing so can cause loss of the gloss. After 60 days, use only waxes designed for new clear coat finishes.
- Do not use pressurized water to wash the motorcycle. When paint is still fresh, pressurized water could damage the finish. If using a pressure washer is unavoidable, keep the spray nozzle at least 24 inches (60 cm) away from the surface of the motorcycle.
- Wash your motorcycle often, especially when exposed to salty, dusty, acidic or alkaline environments.
- Use warm or cool water and a soft cloth for cleaning.
- Use soaps that are non-abrasive and have a neutral pH (non acidic/non alkaline detergents).

- · Do not use solvent-based solutions.
- Do not use a dry cloth to remove dust.
- Do not use a stiff bristle brush, which can scratch the surface.
- · Do not wash with extremely hot water.
- Do not wash the motorcycle while the surface is hot and avoid washing the motorcycle in the hot sun. Minerals in the water may be difficult to remove once dried on the surface of the motorcycle.
- Do not allow spilled gasoline, motor oil or brake fluid to stand on the paint. Remove these substances immediately by rinsing with water. Use a soft cloth to absorb any remaining residue and dab dry.
- To remove bug remnants or road tar, use only products that are specifically designed for this purpose. Follow the product manufacturer's recommendations to prevent potential damage to the finish. Follow with a wash using the methods described in this section.
- · Always brush away any ice or snow, do not scrape off.
- Chips or scratches should be repaired promptly to prevent corrosion.

### INFOTAINMENT TOUCHSCREEN CARE

We recommend using a gentle detergent and water to clean your touchscreen. Wash and dry with a lint free cloth.

- Do not expose to brake fluid.
- Do not expose to gasoline.
- Do not expose to DEET.

# STORAGE AREA PREPARATION

If you will not operate the motorcycle for more than 60 days, store the motorcycle to prevent damage to the fuel system and the battery and to protect components from corrosion or deterioration. During storage preparation you might use products that are potentially hazardous; such as fuel stabilizer. When using any of these products, follow the instructions and warnings on the product packaging.

Choose a dry, well-ventilated storage location, inside a garage or other structure if possible. The location should have a firm, flat surface and allow enough space for the motorcycle.

#### **WARNING**

Gasoline is highly flammable and explosive under certain conditions. Do not store the motorcycle in any area (in home or garage) where it could be near open flames, pilot lights, sparks or electric motors. Do not smoke in the storage area.

To best preserve tire condition:

- The storage area should have a relatively constant and moderate temperature.
- The storage surface should be free of oil and gasoline.
- The motorcycle should not be near a radiator or other heat source, or any type of electric motor.

# CLEAN AND PROTECT THE MOTORCYCLE

To prepare the motorcycle for storage, begin by cleaning and polishing the motorcycle as outlined beginning on page 143. Polish chromed and other metal surfaces. Apply protectant to exposed rubber, vinyl and plastic parts. *Do not apply rubber protectant to the tire tread surfaces.* 

# FUEL STABILIZER

Add fresh fuel to fill the fuel tank and add fuel stabilizer. Do not overfill.

Ride the motorcycle or start and run the engine for 15 minutes in a well ventilated area to distribute the stabilizer throughout the fuel system.

# TIRE INFLATION

Inflate the tires to normal pressure. See page 122.

# ENGINE PROTECTION

Change the engine oil.

# **BATTERY CARE**

- 1. Remove the battery. See .
- 2. Clean the battery terminals first with a wire brush to remove any loose deposits.
- 3. Wash the posts and the ends of the battery cables with a solution of one part baking soda to 16 parts water. Rinse with clean water and wipe dry.

- 4. Apply a thin film of dielectric grease to the posts and cable connectors.
- 5. Clean the outside of the battery with a solution of mild detergent and warm water.
- Store the battery in a dry area with a temperature of 32° to 90° F (0° to 32° C).
- 7. While in storage, fully charge the battery once a month. See .

# MAINTENANCE DURING STORAGE

During extended storage periods, maintain tire pressure and battery voltage at the recommended levels.

### RODENTS

Mice and other rodents are often the worst enemy of a stored motorcycle. If the motorcycle will be stored in an area where mice are a concern (particularly in rural areas, barns, sheds, etc.) be sure to take extra measures to deter their infestation. This may include placing a screen mesh over any intake or exhaust openings (remember to remove them when you remove the motorcycle from storage).

### PARK AND COVER THE MOTORCYCLE

1. Park the motorcycle in its storage location. Block the frame to take some of the weight off the front and rear wheels.

#### NOTICE

Starting the motorcycle periodically during storage is NOT recommended. Water vapor is a by-product of the combustion process, and corrosion may result unless the engine is operated long enough to bring the oil and exhaust system to normal operating temperature.

- 2. Secure a plastic bag over the (cooled) exhaust outlets to prevent moisture from entering the exhaust system.
- 3. Cover the motorcycle with a cover made from a durable, breathable material designed for storage. Covering the motorcycle helps protect it from dust and other airborne materials. The cover must be of a breathable material to prevent moisture from building up on the motorcycle which can cause oxidation of metal surfaces.

# **REMOVAL FROM STORAGE**

- 1. Install a fully charged battery.
- 2. Check the oil level. If the motorcycle was stored in an area subject to wide swings in temperature and humidity (such as outdoors), change the engine oil before starting the engine.

#### NOTICE

During storage, temperature and humidity changes can cause condensation to form in the crankcase and mix with engine oil. Running the engine with oil that contains condensation can cause engine damage.

- 3. Inspect the storage area for signs of fluid leaks. Identify and perform service to any leaking components.
- 4. Remove any intake or exhaust mesh covers installed for rodent protection.
- 5. Install new spark plugs if necessary.
- 6. Perform the pre-ride inspections. See page 59.
- 7. Perform a road test. See page 138.
- 8. Wash and polish the motorcycle. Wax, polish or apply protectant to appropriate components.

### SPECIFICATIONS SPECIFICATIONS

	BASE	DARK HORSE	PREMIUM	
DIMENSIONS		•		
Overall Length	98.5 in (2500.7 mm)			
Overall Width		39 in (990.2 mm)		
Overall Height		56.2 in (1428.5 mm)		
Unladen Seat Height		26.5 in(672 mm)		
Wheelbase		65.7 in (1667.8 mm)		
Ground Clearance		5.4 in (137.3 mm)		
Rake (Frame)/Trail	25 Degrees			
WEIGHT	•			
Dry Weight (without Fuel/ Fluids)	796 lbs	(361 kg)	805 lbs (365 kg)	
Wet Weight (with Fuel/Fluids)	831 lbs	(377 kg)	840 lbs (381 kg)	
Gross Vehicle Weight Rating (GVWR)		1385 lbs (628 kg)		
CAPACITIES				
Radiator Coolant		2.4 qts (2.3 L)		

#### SPECIFICATIONS

Engine Oil	5.0 qt (4.7 l)
Fuel	6.0 gal (22.7 l)
Fuel Reserve (fuel light on)	1.0 gal (3.8 l)
Fork oil	6.4 oz (485 ml) per fork leg
WHEELS / TIRES	
Front Wheel Size / Type	19" x 3.5" Cast
Rear Wheel Size / Type	16" x 5" Cast
Front Tire Type / Size	130/60B19 66H / Metzeler CruiseTec
Rear Tire Type / Size	180/60R16 80H (I) / Metzeler CruiseTec
Tire Pressures	Front: 36 psi (248 kPa) Rear: 41 psi (283 kPa)
CHASSIS	
Front Suspension Type / Travel	Inverted Telescopic Fork / 5.1 in. (130 mm)
Front Suspension Diameter	43 mm
Rear Suspension Type / Travel	Single shock with hydraulic adjuster / 4.5" (114 mm)
Front Brakes	Dual / 320 mm Semi-floating Rotor / 4 Piston Caliper
Rear Brakes	Single / 298 mm Floating Rotor / 2 Piston Caliper

	ALL MODELS
ENGINE	
Engine Type	Powerplus
Displacement	108 cid (1768 cc)
Compression Ratio	11.0:1
Valve Train	4 Valves per cylinder, SOHC, Hydraulic lifters
Bore and Stroke	108 mm x 96.5 mm
Fuel System / Throttle Body Bore	Closed loop fuel injection / 52 mm dual bore
Exhaust System	Two O2 sensors, one each bank, single three-way catayst
Rev Limit	5500 RPM
Idle RPM	900 RPM +/- 50 RPM
Lubrication System	Semi-Dry Sump
Spark Plug / Gap	NGK LZMAR8AI-10 / 0.039 in (1.0 mm)
DRIVETRAIN	
Primary drive	Gear Drive Wet Clutch
Clutch Type	Wet, Multi-Plate, Assist
Primary Reduction Ratio	1.564:1

Transmission Type	6 Speed / Constant Mesh / Foot Shift	
lst Gear Ratio	2.733:1	
2nd Gear Ratio	1.864:1	
3rd Gear Ratio	1.385:1	
4th Gear Ratio	1.103:1	
5th Gear Ratio	0.943:1	
6th Gear Ratio	0.811:1	
Gear Shift Pattern	l Down / 5 Up	
Final Drive Type	Belt Drive , 152 Tooth	
Final Drive Ratio	2.379:1	
Overall Gear Ratio		
lst Gear	10.169:1	
2nd Gear	6.933:1	
3rd Gear	5.151:1	
4th Gear	4.105:1	
5th Gear	3.508:1	
6th Gear	3.017:1	

### FUEL RECOMMENDATION

For best performance, use only unleaded gasoline with a 91 pump octane minimum (R+M/2 Method) or 95 RON minimum. DO NOT USE E-85 GASOLINE OR GASOLINE CONTAINING METHANOL. Using E85 or gasoline/methanol blends can result in poor starting and driveability, engine damage and damage to critical fuel system components.

• Gasoline containing up to 10% Ethanol can be used.

In the event that the recommended premium unleaded gasoline is not available and low octane fuel must be used, fill the fuel tank only partially with unleaded regular gasoline, then fill the tank fully with premium unleaded gasoline as soon as possible.



# ENGINE OIL RECOMMENDATION

We recommend the use of INDIAN MOTORCYCLE Full Synthetic 15W-60 Engine Oil for your motorcycle. This oil is formulated with synthetic-based oil and premium engine additive which have physical properties that meet API SM and ILSAC GF-4 specifications.

Do not blend oil additives with engine oil.

If oil must be added in an emergency and the recommended oil is not available, choose only a high-quality 15W-60 motorcycle oil. Change back to the recommended oil at the first opportunity.

Engine oil for this vehicle needs to be JASO MA compliant.

#### NOTICE

Use of non-recommended lubricants can result in engine damage. Damage resulting from the use of non-recommended lubricants is not covered by warranty.

### FORK OIL

We recommend the use of INDIAN MOTORCYCLE Fork Oil for your motorcycle.

### **BRAKE FLUID**

We recommend the use of INDIAN MOTORCYCLE DOT 4 Brake Fluid for both brake master cylinders. *DO NOT use DOT 5 silicone fluid.* 

### WARRANTY INDIAN MOTORCYCLE WARRANTY POLICY LIMITED WARRANTY

INDIAN MOTORCYCLE, 2100 Highway 55, Medina, MN 55340 (INDIAN MOTORCYCLE) gives a TWO YEAR LIMITED WARRANTY on all components of your INDIAN MOTORCYCLE against defects in material or workmanship. This warranty covers parts and labor charges for repair or replacement of defective parts and begins on the date of purchase by the original retail purchaser. This warranty is transferable to another owner during the warranty period through an INDIAN MOTORCYCLE dealer, but any such transfer will not extend the original term of the warranty. The duration of this warranty may vary by international region based upon local laws and regulations.

#### REGISTRATION

At the time of sale, the Warranty Registration Form must be completed by your dealer and submitted to INDIAN MOTORCYCLE within ten days of purchase. Upon receipt of this registration, INDIAN MOTORCYCLE will record the registration for warranty. No verification of registration will be sent to the purchaser as the copy of the Warranty Registration Form will be your proof of warranty coverage. If you have not signed the original registration and received the customer copy, please contact your dealer immediately. NO WARRANTY COVERAGE WILL BE ALLOWED UNLESS YOUR MOTORCYCLE IS REGISTERED WITH INDIAN MOTORCYCLE. Initial dealer preparation and set-up of your motorcycle is very important in ensuring trouble-free operation. Purchasing a vehicle in the crate or without proper dealer set-up will void your warranty coverage.

#### WARRANTY DISCLAIMERS FOR RIDE COMMAND AND ASSOCIATED CONNECTED SERVICES

The Ride Command Terms & Conditions available at https://ridecommand.indianmotorcycle.com, including the Warranty Disclaimers therein, apply to Ride Command and associated connected services.

#### LIMITATIONS OF WARRANTIES AND REMEDIES

This INDIAN MOTORCYCLE limited warranty excludes any failures that are not caused by a defect in material or workmanship. THIS WARRANTY DOES NOT COVER CLAIMS OF DEFECTIVE DESIGN. This warranty also does not cover acts of God, accidental damage, normal wear and tear, abuse or improper handling. This warranty also does not cover any motorcycle, component, or part that has been altered structurally, modified, neglected, improperly maintained or used for racing, competition, or purposes other than for which it was designed.

This warranty excludes damages or failures resulting from: improper lubrication; improper engine timing; improper fuel; surface imperfections caused by external stress, heat, cold or contamination; operator error or abuse; improper component alignment, tension, adjustment or altitude compensation; snow, water, dirt or other foreign substance ingestion/contamination; improper maintenance; modified components; use of aftermarket or unapproved components, accessories, or attachments; unauthorized repairs; or repairs made after the warranty period expires or by an unauthorized repair center.

This warranty excludes damages or failures caused by abuse, accident, fire, or any other cause other than a defect in materials or workmanship and provides no coverage for consumable components, general wear items, or any parts exposed to friction surfaces, stresses, environmental conditions and/or contamination for which they were not designed or not intended, including but not limited to the following items:

- Wheels and tires
- Suspension components
- Brake components
- Seat components
- Clutches and components
- Steering components
- Batteries
- Light bulbs/Sealed beam lamps

- Filters
- Lubricants
- Bushings
- Sealants
- Coolants
- Bearings
- · Finished and unfinished surfaces

- Fuel Injectors/Throttle body components
- Engine components
- Drive belts
- Hydraulic components and fluids
- Circuit breakers/Fuses
- Electronic components
- Spark plugs

#### LUBRICANTS AND FLUIDS

- 1. Mixing oil brands or using non-recommended oil may cause engine damage. We recommend the use of INDIAN MOTORCYCLE engine oil.
- 2. Damage or failure resulting from the use of non-recommended lubricants or fluids is not covered by this warranty.

This warranty provides no coverage for personal loss or expense, including mileage, transportation costs, hotels, meals, shipping or handling fees, motorcycle pick-up or delivery, replacement rentals, loss of vehicle use, loss of profits, or loss of vacation or personal time.

The exclusive remedy for breach of this warranty shall be, at INDIAN MOTORCYCLE's option, repair or replacement of any defective materials, components, or products. THE REMEDIES SET FORTH IN THIS WARRANTY ARE THE ONLY REMEDIES AVAILABLE TO ANY PERSON FOR BREACH OF THIS WARRANTY. INDIAN MOTORCYCLE SHALL HAVE NO LIABILITY TO ANY PERSON FOR INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES OF ANY DESCRIPTION, WHETHER ARISING OUT OF EXPRESS OR IMPLIED WARRANTY OR ANY OTHER CONTRACT, NEGLIGENCE, OR OTHER TORT OR OTHERWISE. THIS EXCLUSION OF CONSEQUENTAL, INCIDENTAL, AND SPECIAL DAMAGES IS INDEPENDENT FROM AND SHALL SURVIVE ANY FINDING THAT THE EXCLUSIVE REMEDY FAILED OF ITS ESSENTIAL PURPOSE.

THE IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE IS EXCLUDED FROM THIS LIMITED WARRANTY. ALL OTHER IMPLIED WARRANTIES (INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTY OF MERCHANTABILITY) ARE LIMITED IN DURATION TO THE ABOVE TWO YEAR WARRANTY PERIOD. INDIAN MOTORCYCLE DISCLAIMS ALL EXPRESS WARRANTIES NOT STATED IN THIS WARRANTY. SOME STATES DO NOT PERMIT THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES OR ALLOW LIMITATIONS ON THE DURATION OF IMPLIED WARRANTIES, SO THE ABOVE LIMITATIONS MAY NOT APPLY TO YOU IF INCONSISTENT WITH CONTROLLING STATE LAW.

#### HOW TO OBTAIN WARRANTY SERVICE

If your motorcycle requires warranty service, you must take it to an INDIAN MOTORCYCLE Servicing Dealer. When requesting warranty service you must present your copy of the Warranty Registration Form to the dealer. (THE COST OF TRANSPORTATION TO AND FROM THE DEALER IS YOUR RESPONSIBILITY). INDIAN MOTORCYCLE suggests that you use your original selling dealer; however, you may use any INDIAN MOTORCYCLE Servicing Dealer to perform warranty service.

#### IN THE COUNTRY WHERE YOUR MOTORCYCLE WAS PURCHASED:

Warranty or Service Bulletin repairs must be done by an authorized INDIAN MOTORCYCLE dealer. If you move or are traveling within the country where your motorcycle was purchased, Warranty and Service Bulletin repairs may be requested from any authorized INDIAN MOTORCYCLE dealer.

#### OUTSIDE THE COUNTRY WHERE YOUR MOTORCYCLE WAS PURCHASED:

If you are traveling temporarily outside the country where your motorcycle was purchased, you should take your motorcycle to an authorized INDIAN MOTORCYCLE dealer. You must show the dealer photo identification from the country of the selling dealer's authorized location as proof of residence. Upon residence verification, the servicing dealer will be authorized to perform the warranty repair.

#### IF YOU MOVE:

If you move to another country, be sure to contact INDIAN MOTORCYCLE Customer Assistance and the customs department of the destination country before you move. Vehicle importation rules vary considerably from country to country. You may be required to present documentation of your move to INDIAN MOTORCYCLE in order to continue your warranty coverage. You may also be required to obtain documentation from INDIAN MOTORCYCLE in order to register your motorcycle in your new country. You should warranty register your motorcycle at a local INDIAN MOTORCYCLE dealer in your new country immediately after you move to continue your warranty coverage and to ensure that you receive information and notices regarding your motorcycle.

### IF YOU PURCHASE FROM A PRIVATE PARTY:

If you purchase an INDIAN MOTORCYCLE from a private party, to be kept and used outside of the country in which the motorcycle was originally purchased, all warranty coverage will be denied. You must nonetheless register your motorcycle under your name and address with a local INDIAN MOTORCYCLE dealer in your country to ensure that you receive safety information and notices regarding your motorcycle.

### **EXPORTED VEHICLES**

EXCEPT WHERE SPECIFICALLY REQUIRED BY LAW, THERE IS NO WARRANTY OR SERVICE BULLETIN COVERAGE ON THIS VEHICLE IF IT IS SOLD OUTSIDE THE COUNTRY OF THE SELLING DEALER'S AUTHORIZED LOCATION. This policy does not apply to vehicles that have received authorization for export from INDIAN MOTORCYCLE. Dealers may not give authorization for export. You should consult an authorized dealer to determine this vehicle's warranty or service coverage if you have any questions. This policy does not apply to vehicles registered to government officials or military personnel on assignment outside the country of the selling dealer's authorized location. This policy does not apply to Safety Bulletins.

#### NOTICE

If your vehicle is registered outside of the country where it was purchased and you have not followed the procedure set above, your vehicle will no longer be eligible for warranty or service bulletin coverage of any kind, other than safety bulletins. Vehicles registered to Government officials or military personnel on assignment outside of the country where the vehicle was purchased will continue to be covered by the Limited Warranty.

Please work with your dealer to resolve any warranty issues. Should your dealer require any additional assistance, they will contact the appropriate person at INDIAN MOTORCYCLE.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state or in different countries. If any of the above terms are void because of federal, state, local law, all other warranty terms will remain in effect.

#### For questions call INDIAN MOTORCYCLE Customer Assistance:

United States & Canada: 1-877-204-3697

French: 1-800-268-6334

#### **MOTORCYCLE NOISE REGULATION**

Tampering with noise control systems is prohibited. Federal law prohibits the following acts or causing thereof:

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

Among those acts presumed to constitute tampering are:

- Removal or puncturing of the muffler, baffles, header pipes, or any other component which conducts exhaust gasses.
- Removal or puncturing of any part of the intake system.
- Lack of proper maintenance.
- Replacing any moving part of the vehicle, or parts of the exhaust system or intake system, with parts other than those specified by the manufacturer.

This product should be checked for repair or replacement if the motorcycle noise has increased significantly through use. Otherwise, the owner may become subject to penalties under state and local ordinances.

#### **NOISE EMISSION WARRANTY**

INDIAN MOTORCYCLE warrants that this exhaust system, at the time of sale, meets all applicable U.S. EPA Federal noise standards. This warranty extends to the first person who buys this exhaust system for purposes other than resale, and to all subsequent buyers.

Warranty claims should be directed to:

- An authorized INDIAN MOTORCYCLE dealer, or
- INDIAN MOTORCYCLE, 2100 Highway 55, Medina, MN 55340

### **EMISSIONS CONTROL SYSTEM WARRANTY**

### INDIAN MOTORCYCLE COMPANY - EMISSION CONTROL SYSTEM WARRANTY STATEMENT YOUR WARRANTY RIGHTS AND OBLIGATIONS

The California Air Resources Board and INDIAN MOTORCYCLE are pleased to explain the emission control system warranty on your 2015 or later INDIAN MOTORCYCLE. In California, new motor vehicles must be designed, built and equipped to meet the state's stringent antismog standards. INDIAN MOTORCYCLE must warrant the emission control system on your motorcycle for the periods of time listed below provided there has been no abuse, neglect or improper maintenance of your motorcycle. Your emission control system may include parts such as the fuel-injection system, the ignition system, catalytic converter and engine computer. Also included may be hoses, belts, connectors and other emission related assemblies. Where a warrantable condition exists, INDIAN MOTORCYCLE will repair your motorcycle at no cost to you, including diagnosis, parts and labor.

#### MANUFACTURER'S WARRANTY COVERAGE

Class III motorcycles (280cc and larger): for a period of use of five (5) years or 30,000 kilometers (18,641 miles), whichever first occurs.

If an emission-related part on your motorcycle is defective, the part will be repaired or replaced by INDIAN MOTORCYCLE. This is your emission control system DEFECTS WARRANTY.

#### MANUFACTURER'S WARRANTY COVERAGE (KOREA)

Class III motorcycles (280cc and larger): for a period of use of two (2) years or 35,000 kilometers (21,747 miles), whichever first occurs.

If an emission-related part on your motorcycle is defective, the part will be repaired or replaced by INDIAN MOTORCYCLE. This is your emission control system DEFECTS WARRANTY.

#### **OWNER'S WARRANTY RESPONSIBILITIES**

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

If you have any questions regarding your warranty rights and responsibilities, you should contact INDIAN MOTORCYCLE, 2100 Highway 55, Medina, MN 55340, or the California Air Resources Board, P.O. Box 8001, 9528 Telstar Avenue, El Monte, CA 91734-8001.

INDIAN MOTORCYCLE warrants that each new 2015 and later INDIAN MOTORCYCLE that includes as standard equipment a headlight, taillight and stoplight, and is street legal:

- A. is designed, built and equipped so as to conform at the time of initial retail purchases with all applicable regulations of the United States Environmental Protection Agency, and the California Air Resources Board; and
- B. is free from defects in material and workmanship which cause such motorcycle to fail to conform with applicable regulations of the United States Environmental Protection Agency or the California Air Resources Board for a period of use, depending on the engine displacement, of 12,000 kilometers (7,456miles), if the motorcycle's engine displacement is less than 170 cubic centimeters; of 18,000 kilometers (11,185 miles), if the motorcycle's engine displacement is equal or greater than 170 cubic centimeters but less than 280 cubic centimeters; or of 30,000 kilometers (18,641 miles), if the motorcycle's engine displacement is 280 cubic centimeters or greater; or 5 (five) years from the date of initial retail delivery, whichever occurs first.

#### I. COVERAGE

Warranty defects shall be remedied during customary business hours at any authorized INDIAN MOTORCYCLE dealer located within the United States of America in compliance with the Clean Air Act and applicable regulations of the United States Environmental Protection Agency and the California Air Resources Board. Any part or parts replaced under this warranty shall become the property of INDIAN MOTORCYCLE.

In the State of California only, emission-related warranted parts are specifically defined by the state's Emission Warranty Parts List. These warranted parts are: carburetor and internal parts; intake manifold; fuel tank; fuel injection system; spark advance mechanism; crankcase breather; air cutoff valves; fuel tank cap for evaporative emission controlled vehicles; oil filler cap; pressure control valve; fuel/vapor separator; canister; igniters; breaker governors; ignition coils; ignition wires; ignition points; condensers, and spark plugs if failure occurs prior to the first scheduled replacement; and hoses, clamps, fittings and tubing used directly in these parts. Since emission related parts may vary from model to model, certain models may not contain all of these parts and certain models may contain functionally equivalent parts. In the State of California only, Emission Control System emergency repairs, as provided for in the California Administrative Code, may be performed by other than an authorized INDIAN MOTORCYCLE dealer. An emergency situation occurs when an authorized INDIAN MOTORCYCLE dealer is not reasonably available, a part is not available within 30 days or a repair is not complete within 30 days. Any replacement part can be used in an emergency repair. INDIAN MOTORCYCLE will reimburse the owner for expenses, including diagnosis, not to exceed INDIAN MOTORCYCLE's suggested retail price for all warranted parts replaced and labor charges based on INDIAN MOTORCYCLE'S recommended time allowance for the warranty repair and the geographically appropriate hourly labor rate. The owner may be required to keep receipts and failed parts in order to receive compensation.

#### WARRANTY

#### II. LIMITATIONS

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

- A. Repair or replacement required as a result of:
- Accident
- Misuse
- Repairs improperly performed or replacements improperly installed
- Use of replacement parts or accessories not conforming to INDIAN MOTORCYCLE specifications which adversely affect performance and/or
- Use in competitive racing or related events.
- B. Inspections, replacement of parts, and other services and adjustments necessary for required maintenance

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

#### III. LIMITED LIABILITY

- A. The liability of INDIAN MOTORCYCLE under this Emission Control System Warranty is limited solely to the remedying of defects in material or workmanship by an authorized INDIAN MOTORCYCLE dealer at its place of business during customary business hours. This warranty does not cover inconvenience or loss of use of the motorcycle or transportation of the motorcycle to or from the INDIAN MOTORCYCLE dealer. INDIAN MOTORCYCLE SHALL NOT BE LIABLE FOR ANY OTHER EXPENSES, LOSS OR DAMAGE, WHETHER DIRECT, INCIDENTAL, CONSEQUENTIAL OR EXEMPLARY ARISING IN CONNECTION WITH THE SALE OR USE OF OR INABILITY TO USE THE INDIAN MOTORCYCLE FOR ANY PURPOSE. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS MAY NOT APPLY TO YOU.
- B. NO EXPRESS EMISSION CONTROL SYSTEM WARRANTY IS GIVEN BY INDIAN MOTORCYCLE EXCEPT AS SPECIFICALLY SET FORTH HEREIN. ANY EMISSION CONTROL SYSTEM WARRANTY IMPLIED BY LAW, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, IS LIMITED TO THE EXPRESS EMISSION CONTROL SYSTEM WARRANTY TERMS STATED IN THIS WARRANTY. THE FOREGOING STATEMENTS OF WARRANTY ARE EXCLUSIVE AND IN LIEU OF ALL OTHER REMEDIES. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS SO THE ABOVE LIMITATIONS MAY NOT APPLY TO YOU.
- C. No dealer is authorized to modify this INDIAN MOTORCYCLE Limited Emission Control System Warranty.

#### **IV. LEGAL RIGHTS**

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

#### V. THIS WARRANTY IS IN ADDITION TO THE INDIAN MOTORCYCLE LIMITED MOTORCYCLE WARRANTY VI. ADDITIONAL INFORMATION

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

INDIAN MOTORCYCLE

2100 Highway 55

Medina, MN 55340

**ATTN: Warranty Department** 

#### MAINTENANCE LOG MAINTENANCE LOG

MAINTENANCE PERFORMED	MILES/KM	NOTES	PERFORMED BY

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To locate your nearest dealer, visit www.indianmotorcycle.com

#### **INDIAN MOTORCYCLE**

2100 Highway 55 Medina, MN 55340 Phone: 1-877-204-3697 French: 1-800-268-6334



