



SERVICE ADVISORY

Release Date: November 05, 2019

IND

Communication #: ISA-19-03

Model Year(s): 2014-2019

— Confidential and Proprietary —

VERSION: R02 (November 06, 2019)

****updated shift drum pin length dimension****

IMPORTANT

If you are working with a printed copy, please verify you have the most current version of this document.

SUBJECT: 2014-2019 INDIAN MOTORCYCLE (111 C.I.) GEAR POSITION SWITCH PURPOSE

Indian Motorcycle has determined the gear position switch used on 2014-2019 (111 c.i.) motorcycles may provide an inaccurate signal, which can lead to an incorrect gear being displayed. Oxidation on the contacts of the gear position switch may cause a change in resistance values resulting in the rider display indicating an incorrect gear. Incorrect gear indication during start-up can increase the risk of a crash.

Indian Motorcycle has released this Service Advisory with instructions to inspect and clean the gear position switch contacts. If component replacement is required, you will need to start an ASK Polaris case for review and claim processing.

AFFECTED MODELS

MODEL YEAR	MODELS	VEHICLE IDENTIFICATION NUMBER RANGE
2014-2019	Chief, Chief Classic, Chief Dark Horse, Chief Vintage	Reference Unit Inquiry on the dealer website or the Service Bulletin list on the STOP site to lookup affected VINs.
	Springfield, Springfield Dark Horse	
	Chieftain, Chieftain Classic, Chieftain Dark Horse, Chieftain Limited, Chieftain Elite	
	Roadmaster, Roadmaster Classic, Roadmaster Elite	

CUSTOMER NOTIFICATION

Dealers are not required to contact consumers regarding this Service Advisory. Indian Motorcycle will notify consumers by mail no later than 12/28/2019 to inform them of the concern and repair timeline.

If you are contacted by a consumer who encountered a gear position switch inaccuracy or would like their vehicle inspected, schedule them for service to complete this inspection and repair procedure if required.

WARRANTY CLAIM PARTS INFORMATION

In most cases, this Advisory will not require parts to complete. If parts are required, they will be excluded from the standard RMA policy and cannot be returned.

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2014-2019 INDIAN MOTORCYCLE (111 C.I.)	
Advisory #	ISA-19-03
Claim Type	SA (Service Advisory)
Labor Allowance	0.8 hours (48 minutes)
Part Number / Description	0000541 (QTY 1) Bulletin Misc Labor
Parts Availability	NA
University of Polaris Training Required	Yes ¹

¹Polaris requires one person from a dealership to be certified before parts ordering may occur and two people from a dealership to be certified before warranty claims may be processed.

ACCESSORY LABOR

Polaris will cover labor for the removal and installation of accessories required to complete the bulletin work. Follow the steps below to obtain reimbursement.

For accessory removal and installation:

1. Start a new Ask Polaris Case, Service & Warranty Question > Authorization: Non-Cosmetic & Polaris ESC or Authorization: Out of Warranty.
2. Enter your contact information and VIN, along with miles and hours into the applicable fields.
3. Enter in Indian Motorcycle® ISA-19-03 the CONCERN and CAUSE fields. In the CORRECTION field, enter "ACCESSORY REMOVAL AND INSTALLATION".
4. Enter warranty fail codes 127/277/132.
5. Add part 0000541, quantity 1.
6. Attach photos of the vehicle and accessories sufficient to support the labor time requested.
7. Submit the case to Polaris.

COVERAGE PERIOD

Coverage will begin on 11/5/2019.

TOOLS REQUIRED

- Small Flat-Blade Screwdriver
- 5mm, 6mm, 8mm allen socket
- 1/4" drive, 6" socket extension
- 7mm socket
- Short (stub-nosed) 5mm allen wrench
(example shown below)
- Zip-Tie
- Scotch-Brite™ green (600 grit or finer)
- Torque Wrench
- Magnet
- Digital Mult-Meter



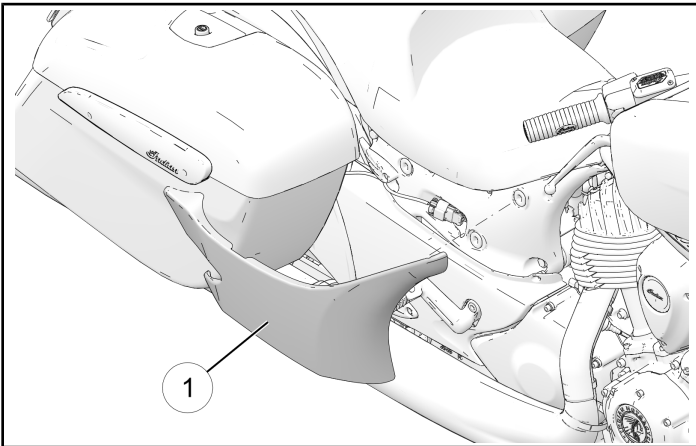
GEAR POSITION SWITCH INSPECTION / CLEANING

REMOVAL

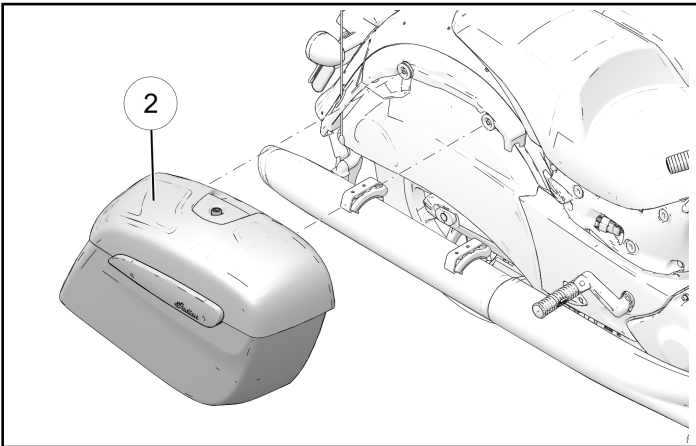
NOTICE

When moving the transmission through the gears, it may be necessary to elevate the rear wheel and rotate back and forth by hand until the gear is fully engaged.

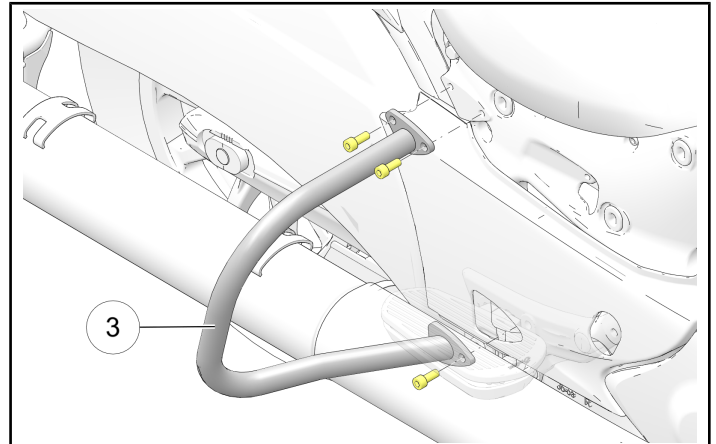
1. Park the motorcycle on a lift table with the wheel clamped in a wheel vise.
2. Turn the ignition off.
3. Remove the seat. Disconnect the Negative (-) battery terminal.
4. Remove upper right-hand sidecover ①.



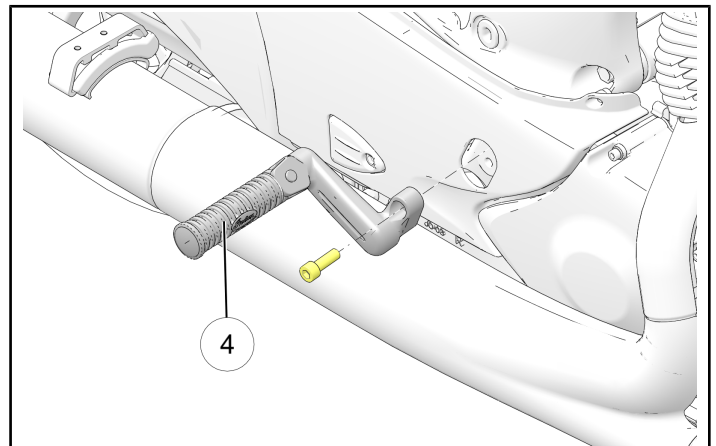
5. Remove right-hand saddlebag ② (if equipped).



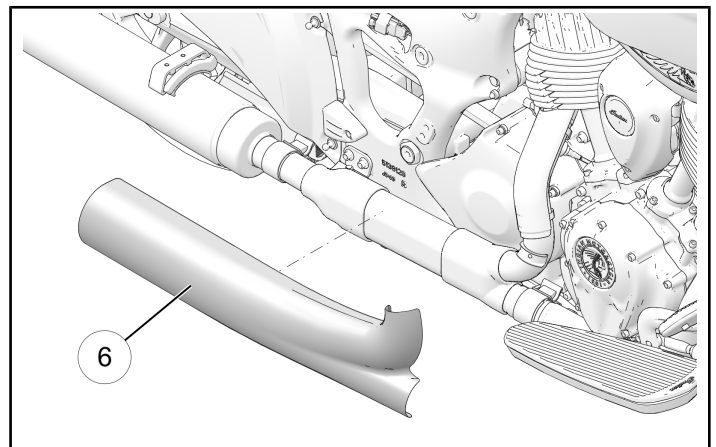
6. Using a 6mm allen socket, remove right-hand rear tip-over bar ③ (if equipped).



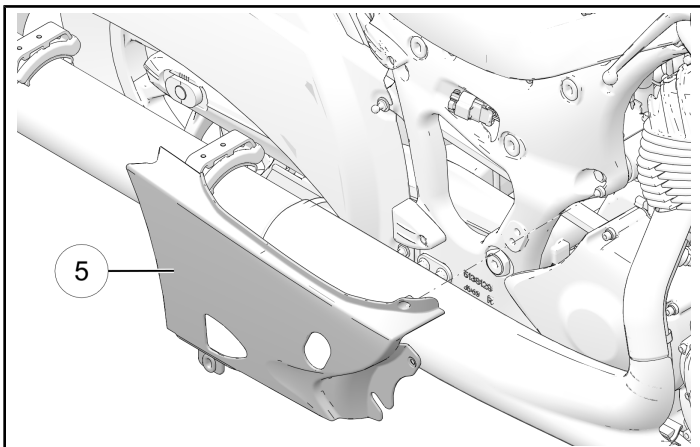
7. Using a 8mm allen socket, remove right-hand passenger footpeg ④ (if equipped).



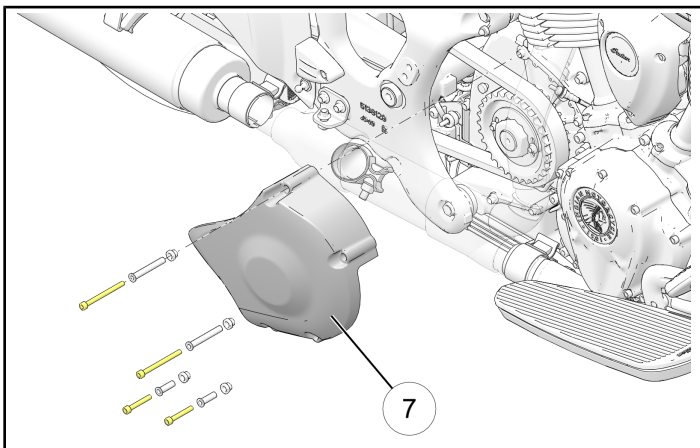
8. Using a flat-bladed screwdriver, loosen clamps and remove right-hand rear heatshield ⑥.



9. Remove right-hand lower sidecover ⑤.



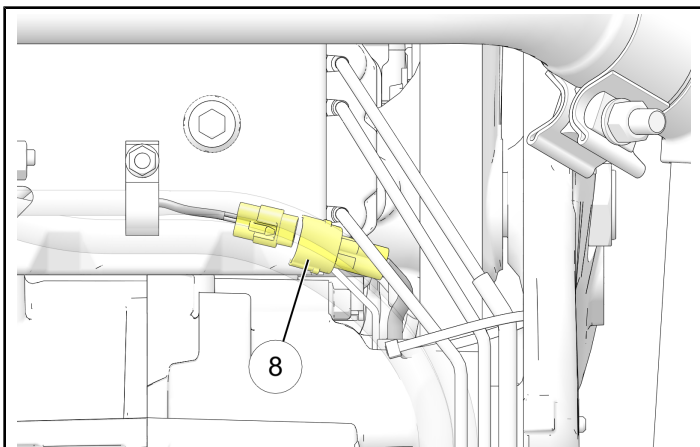
10. Remove drive sprocket cover ⑦.



IMPORTANT

Use of short (stub-nose) 5mm allen wrench is necessary for bottom two bolts and front bolt.

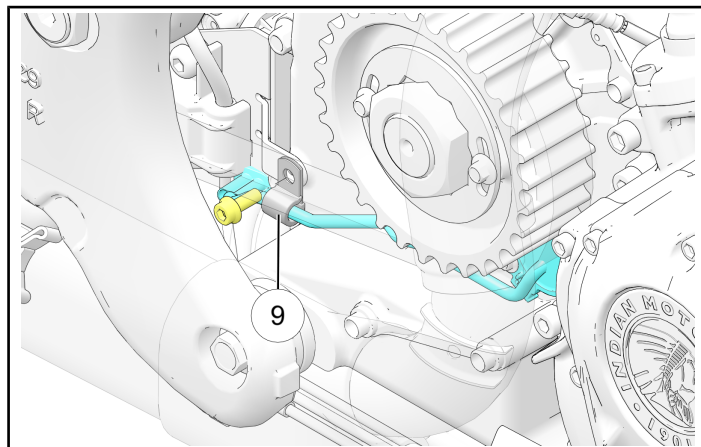
11. From under the motorcycle, unplug gear position connector ⑧.



IMPORTANT

Use a small flat-blade screwdriver to depress the retention feature and release the connector.

12. Remove P-clip ⑨ securing the gear position switch wire.



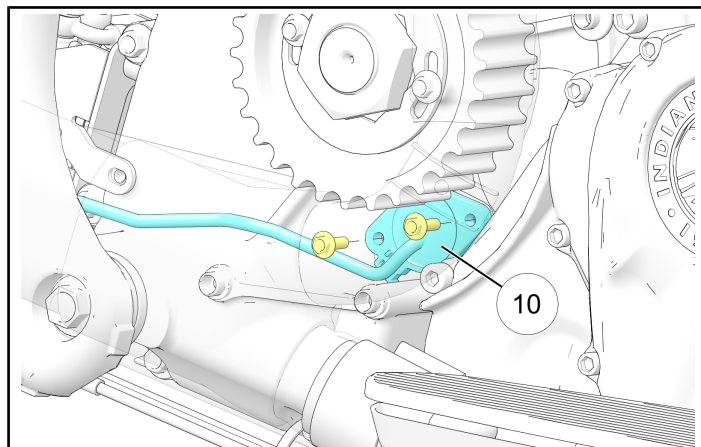
NOTICE

It can be helpful to use a zip-tie to hold the belt out of the way during this step.

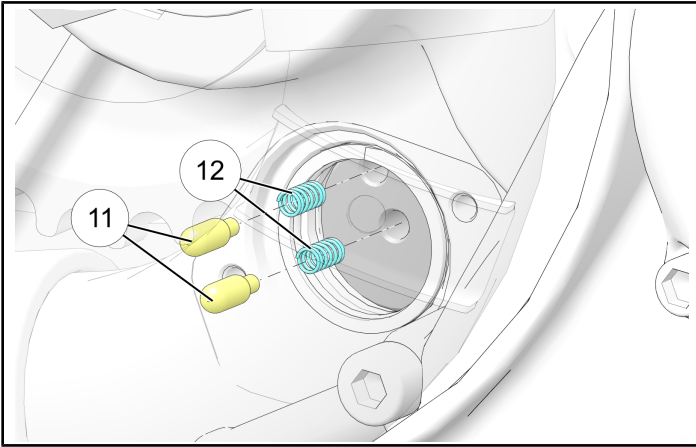
IMPORTANT

Use of 1/4" drive 6" extension, 6mm allen socket is necessary for screw removal.

13. Using a 7mm socket, remove gear position switch fasteners and switch ⑩.



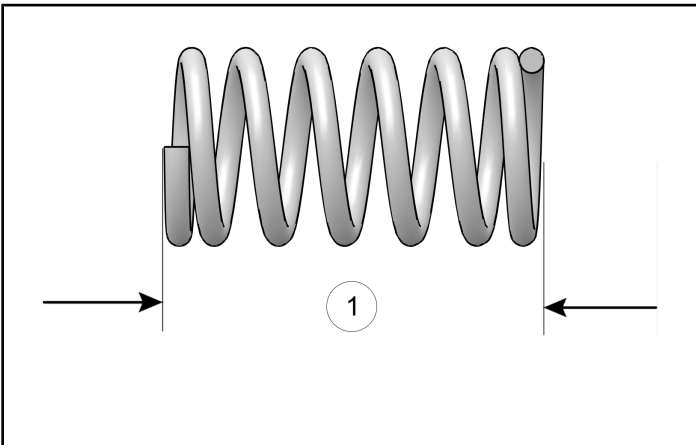
14. Remove shift drum pins ⑪ and springs ⑫.



NOTE

Use magnet to aid in removal and re-installation of pins and springs (assemble spring onto pin).

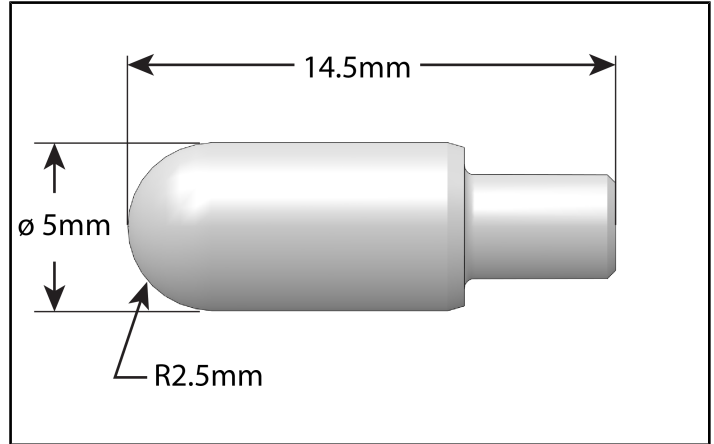
15. Measure the free length of the shift drum springs. If the measurement is out of specification, the spring must be replaced.



MEASUREMENT

①
 $12.5 \text{ mm} \pm 0.5 \text{ mm}$

16. Examine pin for excessive wear at contact point. The pin should move freely in shift drum bore and be smooth and rounded at contact point.

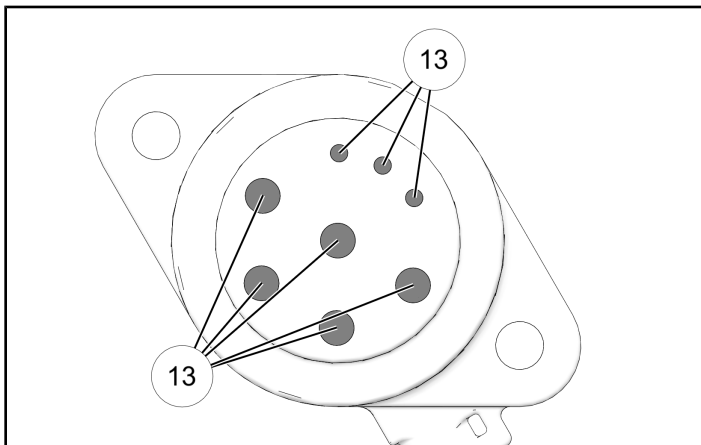


IMPORTANT

If the nose of the pin is visibly worn or does not move freely in the drum bore, the pin must be replaced.

GEAR POSITION SWITCH CLEANING

Using a Very-Fine abrasive pad, such as Scotch-Brite™ green (600 grit or finer), apply light pressure by hand in a rotary motion to the contact points ⑬ on the switch face until they are clean and uniform in color. Use only enough movement to put a light shine on the brass contacts.

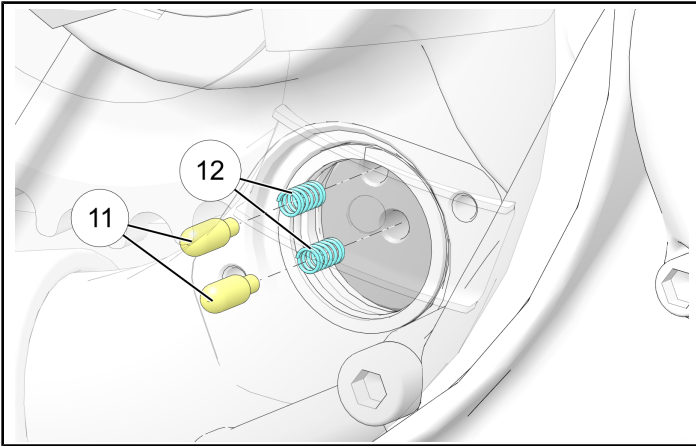


CAUTION

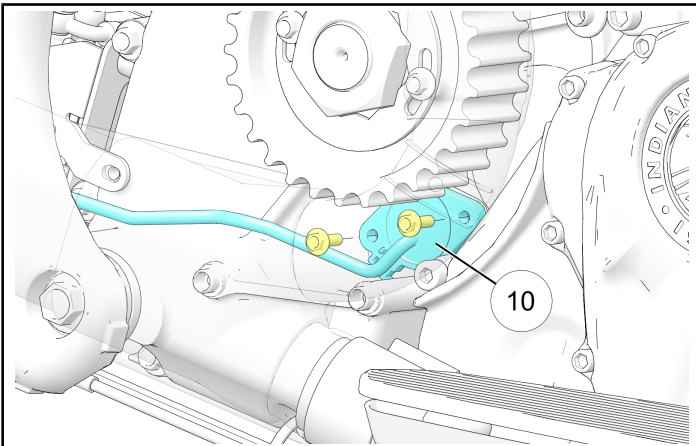
Scotch-Brite™ Green (600 grit is the coarsest abrasive that should be used). DO NOT use a power tool or rotary tool to polish.

INSTALLATION

1. Install shift drum pins ⑪ and springs ⑫.



2. Install gear position switch ⑩. Torque fasteners to specification.



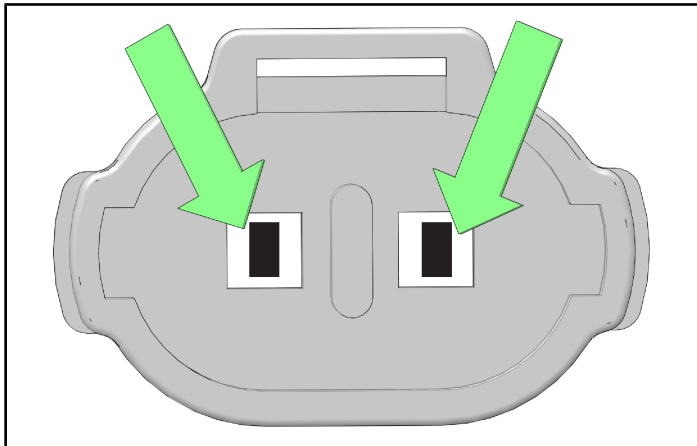
IMPORTANT

Make sure the gear position switch is properly seated before tightening fasteners.

TORQUE

Gear Position Switch Fasteners:
43 in-lbs (5 N·m)

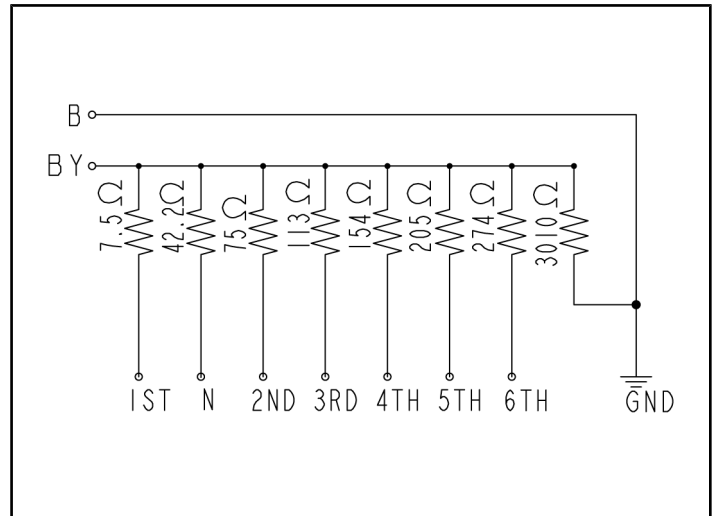
3. Set multi meter to measure resistance (“Ω” Ohms) to test the switch for proper resistance.
4. Connect one meter lead to each of the pins on the switch connector.



5. Watch the resistance readings as the transmission is shifted through each of the 6 gear positions including Neutral. The meter readings should match the resistance specifications given in the following diagram.

IMPORTANT — AUDIT STEP

A secondary dealer representative must verify that the meter readings match the resistance specifications below.



GEAR	RESISTANCE (OHMS)		
	MIN	NOMINAL	MAX
1st	7.107291	7.481359	7.855427
N	39.53571	41.61654	43.69737
2nd	69.51783	73.17666	76.83549
3rd	103.4657	108.9113	114.3569
4th	139.1792	146.5044	153.8296
5th	186.4891	196.3043	206.1196
6th	248.1241	261.1833	274.2424

STOP!

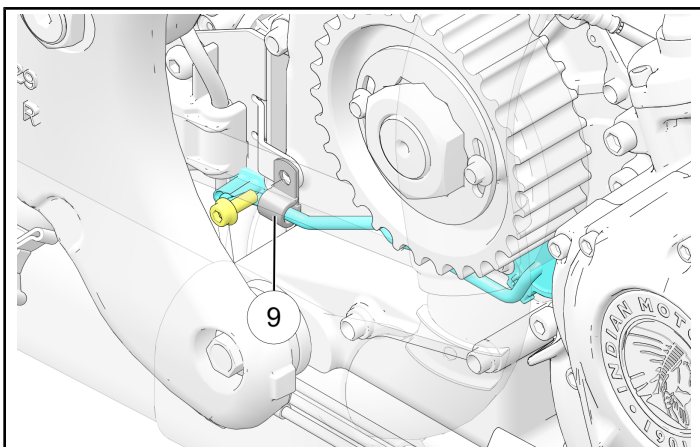
- If resistance values from any gear position **DOES NOT** show in the specified range, take pictures of the meter readings and start an ASK Polaris case.

US/CAN: Submit an Ask Polaris Service & Warranty Question> All Vehicle Diagnostic case.

INT'L: Contact your Country Service Department.

- If resistance values from all gear positions **DOES** show in the specified range, proceed to step 6 and complete Indian Motorcycle® ISA-19-03.

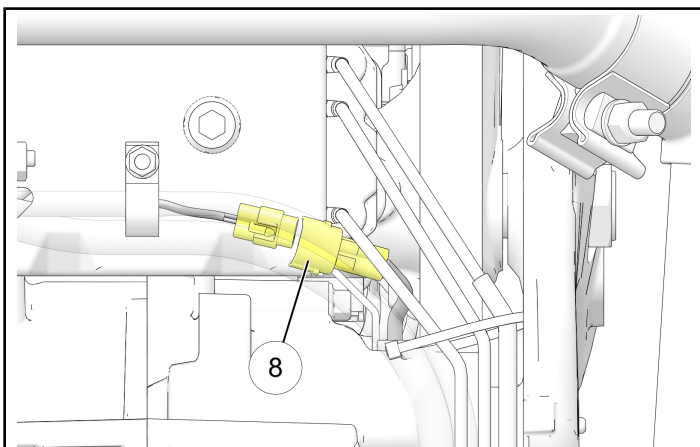
6. Install P-clip ⑨ and fastener securing the gear position switch wire. Torque fastener to specification.



TORQUE

P-clip Fastener:
84 in-lbs (9 N·m)

7. From under the motorcycle, plug in the gear position connector ⑧.



IMPORTANT

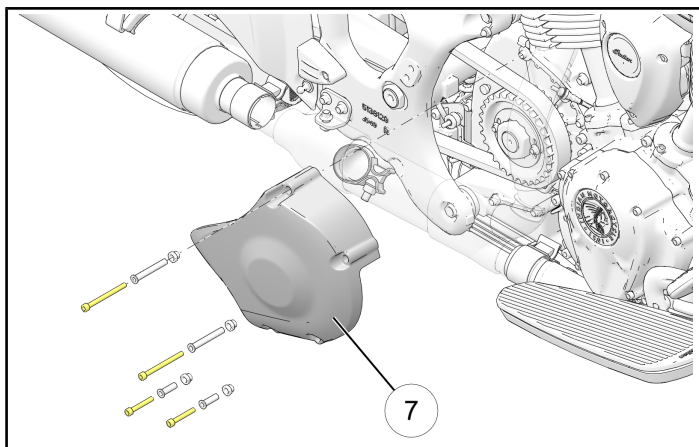
Listen for an audible click to indicate the connection is secure.

IMPORTANT — AUDIT STEP

A secondary dealer representative must verify the connection is secure.

8. If removed, install the O2 sensor p-clip to the top drive sprocket cover fastener.

9. Install drive sprocket cover ⑦. Torque fasteners to specification.



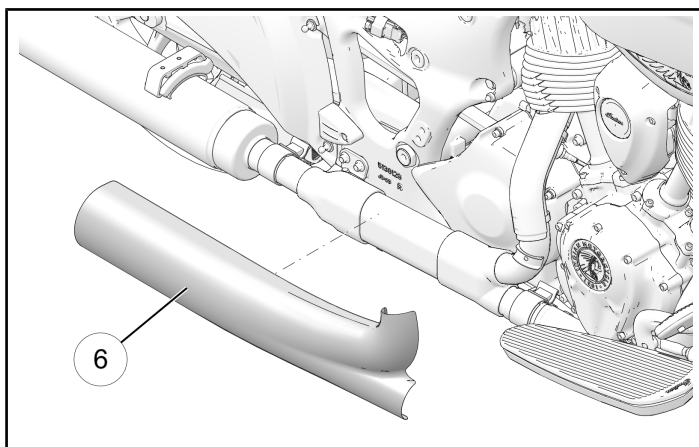
NOTICE

When re-installing, bolts must be loosely assembled into the cover before assembling onto motorcycle.

TORQUE

Drive Sprocket Cover Fasteners:
84 in-lbs (9 N·m)

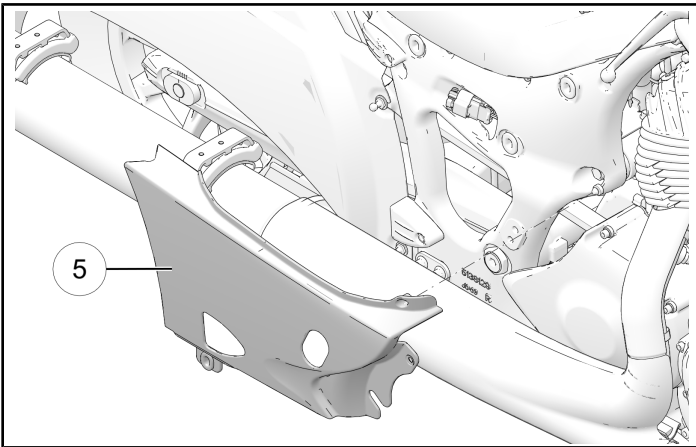
10. Install right-hand rear heatshield ⑥. Torque clamps to specification.



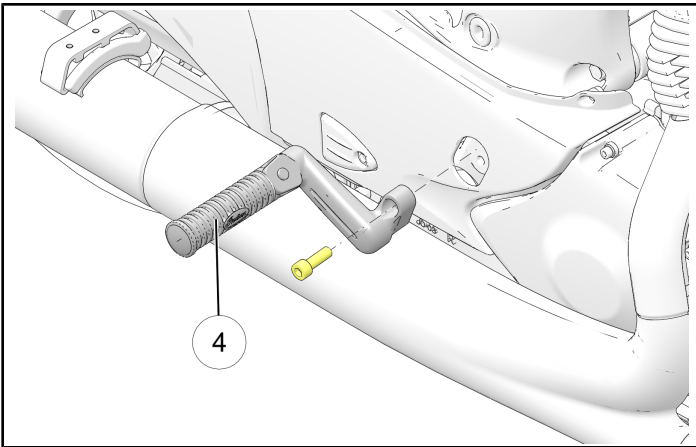
TORQUE

Heat Shield Clamps:
31 in-lbs (4 N·m)

11. Install right-hand lower sidecover ⑤.



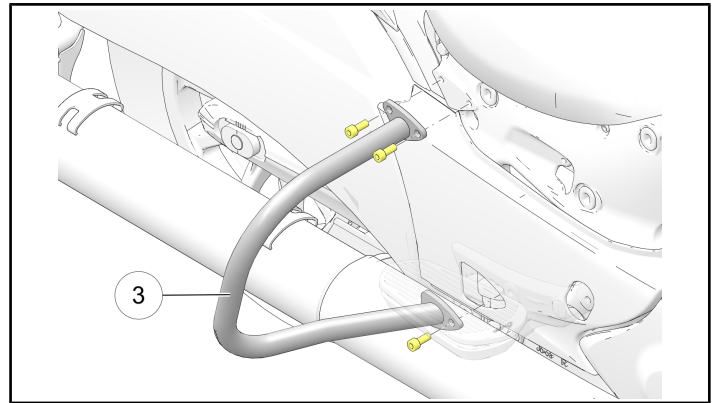
12. Install right-hand passenger footpeg ④ (if equipped).
Torque fastener to specification.



TORQUE

Footpeg Fastener:
35 ft-lbs (48 N·m)

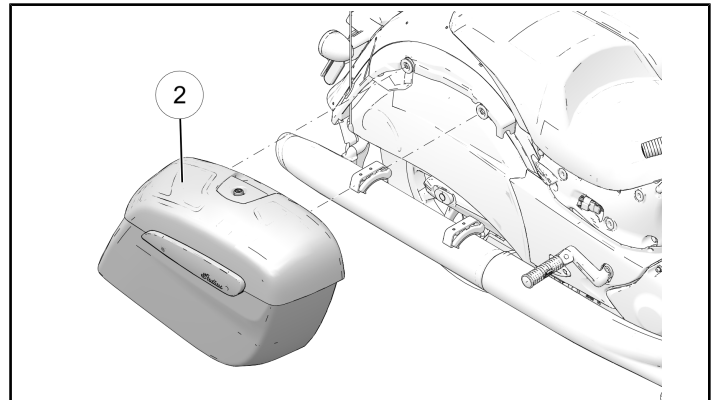
13. Install right-hand rear tip-over bar ③ (if equipped).
Torque fasteners to specification.



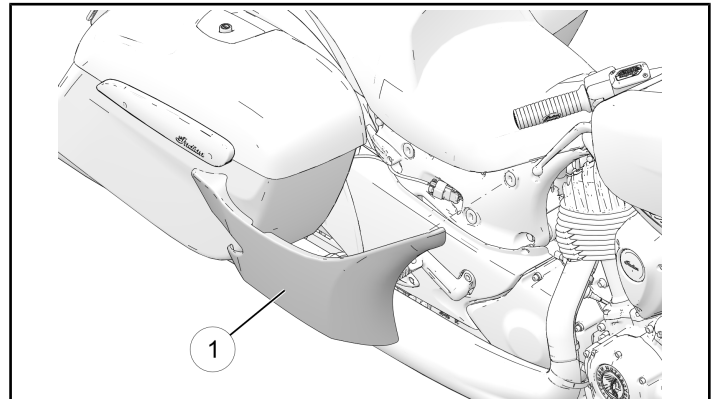
TORQUE

Tip-Over Bar Fasteners:
18 ft-lbs (24 N·m)

14. Install right-hand saddlebag ② (if equipped).



15. Install upper right-hand sidecover ①.



16. Connect the negative (-) battery terminal. Install the seat. Torque fasteners to specification.

TORQUE
Battery Terminal Fasteners: 40 in-lbs (5 N·m)

TORQUE
Seat Fasteners (All): 84 in-lbs (9 N·m)

17. Road test the motorcycle to ensure the correct gear position is indicated, in every gear, on the instrument cluster.

18. File a claim for Indian Motorcycle® ISA-19-03