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## Haynes Manuals Jeep Patriot Compass

# Haynes Repair Manual for Jeep Patriot and Compass (2007-2017) Gasoline Models

Comprehensive step-by-step instructions for maintenance, troubleshooting, and repair.

## INTRODUCTION

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This Haynes manual is designed for the do-it-yourselfer, providing detailed, step-by-step instructions for maintaining and repairing your Jeep Patriot or Compass. The content is based on a complete disassembly and rebuild of the vehicle, ensuring accuracy and practical guidance for tasks ranging from basic maintenance to a full engine overhaul.

This manual covers Jeep Patriot and Jeep Compass models manufactured between 2007 and 2017. Please note that this manual does not include information specific to diesel engine models.

# Jeep Patriot & Compass

2007 thru 2017 □ All gasoline models



## Haynes Repair Manual

*Based on a complete teardown and rebuild*



*Includes essential information for today's more complex vehicles*

**Image Description:** The front cover of the Haynes Repair Manual for Jeep Patriot and Compass. It features a grey Jeep Patriot with its hood open, revealing the engine bay. The Haynes logo is prominently displayed, along with the title "Jeep Patriot & Compass 2007 thru 2017 All gasoline models Haynes Repair Manual."



WE'VE BEEN HELPING VEHICLE OWNERS TO **DO IT YOURSELF** FOR OVER 60 YEARS

Never used a Haynes manual? This is what we do...



**Every manual is based upon a stripdown and rebuild**

- See your vehicle as never before, and learn from 700+ pictures and diagrams
- Take on bigger jobs with confidence – we can show you exactly what to do

**We only show DIY friendly techniques**

- Instructions everybody can follow (novices welcome!)
- Using tools and equipment you have at home



**We save you time working out what is wrong!**

- Every Haynes manual includes a Fault Finder with 400+ issues covered
- Avoid “dead-ends” when you follow our step-by-step guidance

**Image Description:** An informational graphic explaining the Haynes "Do It Yourself" philosophy. It shows three panels: one with mechanics working on a car, another with a person checking under a car hood, and a third showing a person testing a car battery. Text highlights that manuals are based on teardown and rebuild, use DIY-friendly techniques, and include a fault finder.

## MANUAL OVERVIEW

This manual provides comprehensive coverage across various vehicle systems. Key areas include:

- Routine maintenance procedures
- Detailed engine repair and overhaul instructions

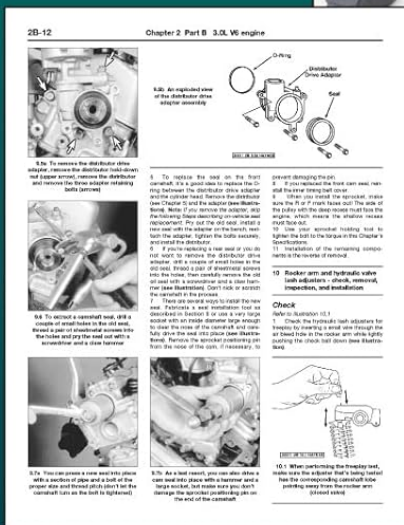
- Cooling, heating, and air conditioning system service
- Fuel and exhaust system diagnostics and repair
- Engine and chassis electrical system information
- Emissions control system guidance
- Transaxle, clutch, and drivetrain maintenance
- Brake system service
- Suspension and steering component repair
- Bodywork and interior component instructions
- Complete wiring diagrams

**Inside this manual:**

- Routine maintenance
- Tune-up procedures
- Engine repair
- Cooling and heating
- Air conditioning
- Fuel and exhaust
- Emissions control
- Ignition
- Brakes
- Suspension and steering
- Electrical systems
- Wiring diagrams



**Haynes**  
shows you how



- **Step-by-step procedures** linked to hundreds of **easy-to-follow photos** and illustrations
- **Complete troubleshooting section** helps identify specific problems
- Written from **hands-on experience** based on a vehicle teardown using **commonly available tools**
- Haynes tips give **valuable short cuts** to make the job easier and eliminate the need for special tools
- **Notes, Cautions and Warnings** for the home mechanic
- Color **spark plug diagnosis**
- Easy to use **index**

**Models covered by this manual:**

**Jeep Patriot & Compass**  
**2007 thru 2017**

*Does not include information specific to diesel models*



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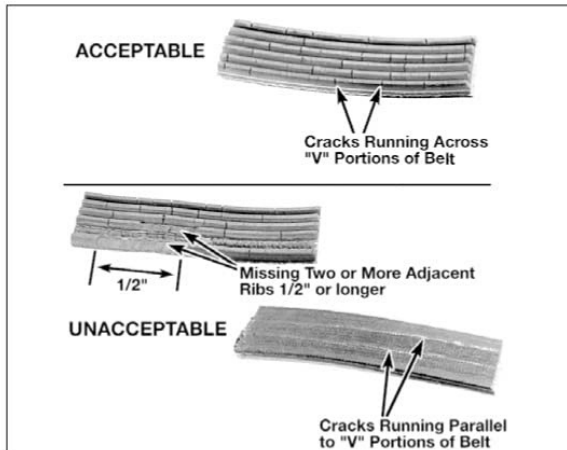
maintenance, tune-up procedures, engine repair, cooling and heating, air conditioning, fuel and exhaust, emissions control, ignition, brakes, suspension and steering, electrical systems, and wiring diagrams. It also highlights features like step-by-step procedures, troubleshooting, hands-on experience, and valuable shortcuts.

## CHAPTER 1: TUNE-UP AND ROUTINE MAINTENANCE

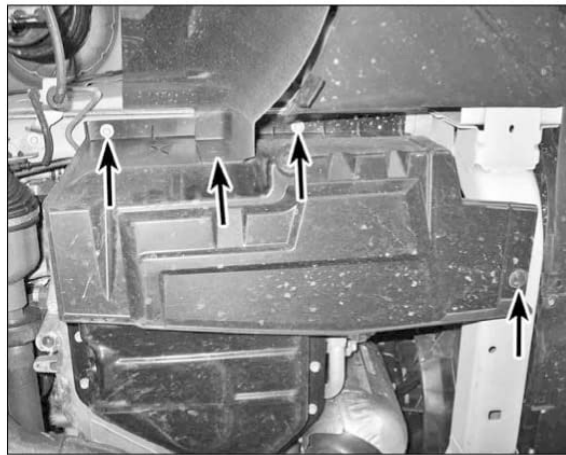
This chapter details essential tune-up procedures and routine maintenance tasks to keep your vehicle in optimal condition. Regular maintenance is crucial for vehicle longevity and performance.

### Chapter 1 Tune-up and routine maintenance

1-23



22.3 Here are some of the more common problems associated with drivebelts (check the belts very carefully to prevent an untimely breakdown)



22.5 Remove the drivebelt splash shield fasteners and shield

- 4 Install the filter, making sure the arrow on the filter is pointing toward the floor.  
**Note:** The cabin air filter is labeled with an arrow and the word "Airflow" on it. The filter should be installed with the arrow pointing toward the floor.
- 5 Installation is the reverse of removal.

#### 22 Drivebelt check and replacement/tensioner replacement (every 30,000 miles or 30 months)

- 1 The drivebelt is located at the right end of the engine and plays an important role in the operation of the vehicle and its components. Due to its function and material makeup, the belt is prone to failure after a period of time, and should be inspected and adjusted periodically to prevent major damage.
- 2 All models covered in this manual use a single serpentine belt to drive all the components.

#### Check

- 3 With the engine off, open the hood and use your fingers (and a flashlight, if necessary) to move along the belt checking for cracks and separation of the belt plies. Also check for fraying and glazing, which gives the belt a shiny appearance. Also check the ribs on the underside of the belt. They should all be the same depth, with none of the surface uneven (see illustration).
- 4 The serpentine belt tension is adjusted by an automatic tensioner.

#### Replacement

- 5 Apply the parking brake, loosen the right-front wheel lug nuts, then raise the front of the vehicle and support it securely on jackstands. Remove the wheel, then remove the drivebelt



22.6 Place a wrench on the tensioner pulley center bolt and rotate it counterclockwise - 2.4L engine shown

splash shield (see illustration).

- 6 The automatic tensioner must be released to allow drivebelt replacement. Place a wrench on the tensioner pulley center bolt and rotate it counterclockwise until the belt can be removed (see illustration). Remove the belt and slowly release the tensioner.

**Warning:** Damage to the tensioner or possible injury can occur if the tensioner snaps or springs back without the belt in place.

- 7 Installation is the reverse of removal. When installing the belt, make sure the belt is centered on the pulleys.

- 8 Install the drivebelt splash shield, wheel and lug nuts. Lower the vehicle and tighten the lug nuts to the torque listed in this Chapter's Specifications.

#### Automatic tensioner replacement

- 9 Remove the wheel, then remove the drivebelt splash shield (see illustration 22.5)
- 10 Remove the drivebelt (see Step 6).
- 11 Unscrew the tensioner mounting bolt and

remove the tensioner.

- 12 Installation is the reverse of removal. Tighten the mounting bolt to the torque listed in this Chapter's Specifications. Lower the vehicle and tighten the lug nuts to the torque listed in this Chapter's Specifications.

#### 23 Brake fluid change (every 30,000 miles or 30 months)

**Warning:** Brake fluid can harm your eyes and damage painted surfaces, so use extreme caution when handling or pouring it. Do not use brake fluid that has been standing open or is more than one year old. Brake fluid absorbs moisture from the air. Excess moisture can cause a dangerous loss of braking effectiveness.

- 1 At the specified intervals, the brake fluid should be drained and replaced. Since the brake fluid may drip or splash when pouring it, place plenty of rags around the master cylinder to protect any surrounding painted surfaces.

**Image Description:** A sample page from the Haynes Manual, titled "Chapter 1 Tune-up and routine maintenance." It shows diagrams and text instructions for checking drivebelts for cracks and wear, replacing drivebelt tensioners, and performing brake fluid changes. Specific steps and warnings are provided.

## Key Maintenance Areas:

- Fluid level checks and changes (oil, coolant, brake fluid, power steering fluid)
- Filter replacements (air, oil, fuel, cabin)
- Spark plug inspection and replacement
- Tire rotation and pressure checks
- Brake system inspection
- Drivebelt inspection and adjustment

## CHAPTER 2: ENGINE (PARTS A & B)

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This chapter provides detailed instructions for engine maintenance, repair, and general overhaul procedures. It covers components such as cylinder heads, valves, pistons, crankshaft, and camshaft.

### Part A: Engine Components

- Engine removal and installation
- Cylinder head service
- Valve train inspection and adjustment
- Timing chain/belt replacement

### Part B: General Engine Overhaul Procedures

- Disassembly and inspection of engine components
- Cylinder bore measurement and reconditioning
- Piston and connecting rod service
- Crankshaft and main bearing installation
- Engine assembly and torque specifications

## CHAPTER 3: COOLING, HEATING, AND AIR CONDITIONING SYSTEMS

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This section covers the diagnosis, repair, and maintenance of your vehicle's cooling, heating, and air conditioning systems. Proper functioning of these systems is essential for engine health and passenger comfort.

### System Components Covered:

- Radiator and cooling fan
- Water pump and thermostat
- Heater core and blower motor
- A/C compressor, condenser, and evaporator
- Refrigerant charging procedures (for qualified technicians)

## CHAPTER 4: FUEL AND EXHAUST SYSTEMS

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This chapter provides information on the fuel delivery system, including the fuel tank, pump, lines, and injectors, as well as the exhaust system components such as the manifold, catalytic converter, and muffler.

### Key System Areas:

- Fuel system pressure testing
- Fuel injector cleaning and replacement
- Exhaust manifold and gasket replacement
- Oxygen sensor inspection and replacement

## CHAPTER 5: ENGINE ELECTRICAL SYSTEMS

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This section covers the electrical components essential for engine operation, including the ignition system, charging system, and starting system.

### Components and Procedures:

- Battery testing and maintenance
- Alternator testing and replacement
- Starter motor diagnosis and service
- Ignition coil and spark plug wire inspection

## CHAPTER 6: EMISSIONS CONTROL SYSTEMS

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Information on the various emissions control components and their function, including the PCV system, EGR system, evaporative emissions system, and catalytic converter.

### System Components:

- PCV valve inspection and replacement
- EGR valve testing and cleaning
- Evaporative emissions canister and purge valve service

## CHAPTER 7 & 8: TRANSAXLE, CLUTCH, AND DRIVETRAIN

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This combined section covers the manual and automatic transaxles, transfer case, clutch assembly, and other drivetrain components such as driveaxles and universal joints.

### Part A: Manual Transaxle

- Fluid level checks and changes
- Transaxle removal and installation
- Shift linkage adjustment

### Part B: Automatic Transaxle

- Fluid and filter changes
- Automatic transaxle removal and installation
- Troubleshooting common automatic transaxle issues

### Part C: Transfer Case

- Fluid level checks and changes
- Transfer case removal and installation

### Chapter 8: Clutch and Drivetrain

- Clutch assembly removal and installation
- Clutch master and slave cylinder service
- Driveaxle removal, inspection, and installation

## CHAPTER 9: BRAKES

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This chapter covers the hydraulic brake system, including disc and drum brakes, master cylinder, brake lines, and anti-lock brake system (ABS) components.

### Brake System Service:

- Brake pad and rotor replacement
- Brake shoe and drum service
- Brake fluid flushing and bleeding
- Master cylinder and brake booster replacement

## CHAPTER 10: SUSPENSION

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Detailed instructions for inspecting, repairing, and replacing components of the front and rear suspension systems, including struts, shock absorbers, control arms, and wheel bearings.

### Suspension Components:

- Strut and coil spring replacement
- Control arm and ball joint service
- Wheel bearing replacement
- Steering linkage inspection and repair

## CHAPTER 11: BODY

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This chapter covers the removal, installation, and adjustment of various body components, including doors, hood, tailgate, exterior trim, and interior panels.

### Bodywork Procedures:

- Door panel removal and installation
- Window regulator and motor replacement
- Exterior lighting component service
- Seat removal and installation

## CHAPTER 12: CHASSIS ELECTRICAL SYSTEM

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This section provides comprehensive information on the vehicle's chassis electrical systems, including lighting, instrumentation, accessories, and wiring harnesses.

### Electrical System Areas:

- Fuse and relay box identification and testing

- Headlight and taillight bulb replacement
- Power window and lock system diagnosis
- Audio system component removal

## WIRING DIAGRAMS

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Detailed wiring diagrams are included to assist in diagnosing electrical issues and understanding the vehicle's electrical circuits. These diagrams provide visual representations of component connections and wire routing.

## SPECIFICATIONS

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This section provides key specifications for the Haynes Repair Manual itself.

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